

Public Comments (2025)

APPENDIX 11D — PUBLIC COMMENTS 2025

Public Comment Log and Bates-Stamped Page Index

All emails, letters, calls outside of meetings are included in this document for 2025 only; other years are included in separate documents to minimize the document size/length. PAC meeting conversations and questions, as well as emails sent specifically regarding the meetings can be found in the PAC meeting summaries. Comments during Public Open Houses can be found in the Open House summaries.

Please note: Emails and documents are listed alphabetically by last name, then date (from January to June for 2025).

2025					
Last Name	First Name	Date of Comment	Received Through	Subject Line	Stamped Page Number
Altemus	Bob	01/19/2025	Email	Revised Aurora Master Plan recommendations	A11D0008–A11D0009
Asher	Brian	01/21/2025	Email	Questions for the next meeting	A11D0010–A11D0011
Bennett	Bruce	01/18/2025	Email	Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25	A11D0013–A11D0015
Bennett	Bruce	01/22/2025	Email	Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25	A11D0012–A11D0015
Bergman	Bruce	02/17/2025	Website comment	NA	A11D0016
Bickford/Kellington	Jon/Wendy	02/03/2025	Email	Atlantic Aviation Alternative	A11D0017–A11D0018
Brenneke	Stephen	01/19/2025	Email	Master plan at KUAO	A11D0019–A11D0020
Buehrig	Karen	02/05/2025	Email	RE: Aurora Airport expansion - ODAV seeking comment	A11D0021–A11D0024
Buley	George	01/21/2025	Website comment	NA	A11D0025–A11D0028
Bush	Steve	01/20/2025	Email	Aurora Airport Plan	A11D0029–A11D0030
Buss	Jonathan	01/21/2025	Email	Aurora Airport - Suggestions for Current Refined Alternative	A11D0031–A11D0032
Cahill	Kaelyn	02/08/2025	Website comment	NA	A11D0033

Curtiss	Sarah	01/21/2025	Email; Attachment letter	Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036] Attachment: RE: Anderson Hay & Grain Co. Comments on Refined Preferred Alternative	A11D0034–A11D0039
Curtiss	Sarah	02/25/2025	Email; Letter to ODAV	Email: Fw: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036] Letter to ODAV: RE: Anderson Hay & Grain Co. Comments on ODAV's Next Steps	A11D0040–A11D0043
Davis	Ted	01/27/2025	Email	Regarding the Aurora Airport - Current Refined Preferred Alterna	A11D0044–A11D0045
DeMarco	Rubylea	01/20/2025	Email	Airport plan concerns	A11D0046–A11D0047
Dierks	John	01/19/2025	Email 1; Email 2	Emails 1 and 2: Regarding the Aurora Airport - Current Refined Preferred Alternative	A11D0048–A11D0051
Donaldson	Patrick	05/05/2025	Email	Aurora State Airport Master Plan	A11D0052–A11D0053
Faegre	Aron	01/21/2025	Email; Attachment 1; Attachment 2; Attachment 3	Email: Additional AAIA Testimony for the Aurora Airport Updated Refined Preferred Alternative Attachment 1: Re: Aurora State Airport Master Plan AAIA Master Plan Requests Attachment 2: e: Aurora State Airport Master Plan process must Acknowledge the FAA HQ Modification of Standards Process Available for all Federally Funded Airports Attachment 3: Re: Aurora State Airport Master Plan process FAA approved documents Clarify that 500-foot Runway Extension is to meet safety needs of current C-II aircraft, not for larger aircraft	A11D0263–A11D0307
Faegre	Aron	02/25/2025	Email 1; Email 2; Letter Attachment	Email 1: Aurora Airport Can Use Modification Process to Avoid Moving Hwy 551 Email 2: Aurora Airport Master Plan – Letter from Aron Faegre Letter: Re: Aurora State Airport Master Plan Proposed Preferred Alternative, HDSE Septic Drainfield Correction of the Record and Next Steps Forward	A11D0054–A11D0262

Ferretti	Darlene	02/25/2025	Email; attachment	Email: Draft Airport Layout Plan Sketch Attachment: Re: Draft Airport Layout Plan Sketch	A11D0308–A11D0312
Gage	Chris	01/29/2025	Website comment	NA	A11D0313–A11D0316
Gage	Chris	02/19/2025	Website comment	NA	A11D0317
Grano	Karin	03/04/2025	Email	Aurora Airport expansion question	A11D0318–A11D0320
Green	Norm	01/19/2025	Email	KUAO - Current Refined Preferred Alternative	A11D0321–A11D0322
Helbling	Tony	01/10/2025	Email	RE: Aurora Airport - Refined Preferred Alternative comments by 01/21/25	A11D0323–A11D0324
Helbling	Tony	01/21/2025	Email; Attachment 1; Attachment 1.2	Email: FW: Thanks for visit today- Attachment 1: EC2501 Sunset Water Systems Award Letter Attachment 1.2: EC2501 Sunset Water Systems Summary of Award	A11D0325–A11D0330
Helbling	Tony	01/21/2025	Email; Attachment 2.1	Email: RE: quick question Attachment 2.1: Commercial Access Agreement.pdf	A11D0331–A11D0349
Helbling	Tony	01/21/2025	Email; DocuSign Document, Attachment 3.1	Email: FW: Completed: Complete with Docusign: Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf DocuSign Document: Re – Comments to Refined Preferred Alternative, Aurora State Airport Master Plan, Report on HDSE Easement, Drain Field Options, and AAIA's Request for Involvement in Master Plan Process Attachment 3.1: Rutland Airport Layout Plan	A11D0350–A11D0370
Helbling	Tony	02/25/2025	Email; Attachment	Email: AAIA Comments to ALP Attachment: Re AAIA Comments to Airport Layout Plan	A11D0371–A11D0374
Hickman	Pat	01/20/2025	Email; Attachment	Email: Submittal for the record on Aurora State Airport and expansion plans and alternatives Attachment: Letter from Pat Hickman	A11D0375–A11D0378
Howley	Jamie	02/25/2025	Email; Attachment	Email: Draft Airport Layout Plan Sketch Attachment: Re: Draft Airport Layout Plan Sketch	A11D0379–A11D0383
Johnson	Betsy	01/21/2025	Email; Attachment.	Email: Aurora Attachment: RE: January 21, 2025 Comment Letter ODAV Updated Refined Proposed Preferred Alternative	A11D0386–A11D0389
Johnson	Betsy	02/06/2025	Call record	Telephone call to CWE office from Ms. Betsy Johnson	A11D0384–A11D0385

Kacalek	Brett	01/22/2025	Website comment	NA	A11D0390–A11D0395
Kanso	Michael	01/20/2025	Email	UAO airport plan	A11D0396–A11D0397
Kellington	Wendie	01/21/2025	Email; Attachment; Exhibit	Email: AAIA Testimony For Record Concerning Kuao Updated Refined Preferred Alternative Attachment: Re: January 21, 2025 Comment Letter on Behalf of Aurora Airport Improvement Association for Aurora State Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative Exhibit: Site Plan for Aurora state Airport Master Plan Alternative AAIA	A11D0398–A11D0408
Kellington	Wendie	02/11/2025	Email; Attachment 1; Attachment 2	Email: Improper actions allowing some substitutions and alternates versus denying others Attachment 1: our client ODAV - Aurora Airport Master Plan PAC Attachment 2: RE: ODAV Ad Hoc Exclusion of Designated Alternates for Aurora Airport Master Plan Public Advisory Committee Meetings	A11D0409–A11D0419
Kellington	Wendie	02/25/2025	Email 1; Email 2; Attachment; exhibit 1; exhibit 2; exhibit 3; exhibit 4	Email 1: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2 Email 2: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 2 of 2 Attachment: Re: February 25, 2025, Comment Letter on Behalf of TLM Holdings LLC for Aurora State Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative Exhibit 1: 2017 SAC Exhibit 2: HDSE Goal Exception Exhibit 3: NA Exhibit 4: Airport Layout Plan Drawing	A11D0420–A11D0480
Kellington	Wendie	04/10/2025	Email	040725-UAO-ALPFullSet.pdf	A11D0481
Mauk	Dave	01/21/2025	Email; Attachment, Website comment	Email: Comments regarding Refined Alternative Plan, Aurora State Airport Attachment: Comments Submitted In Reference to the Refined Preferred Alternative	A11D0482–A11D0484; A11D0489–A11D0491
Mauk	Dave	02/05/2025	Email; Attachment	Email: Public Comment Submission Attachment: Letter	A11D0485–A11D0488
Mauk	Dave	02/25/2025	Email; Attachment	Email: Comment re February 11 PAC Meeting Attachment: Letter	A11D0492–A11D0493
McGuire	Daniel	01/24/2025	Website comment	NA	A11D0494–A11D0495
Neamtzu	Chris	02/10/2025	Email	PAC meeting	A11D0496–A11D0504
Nickerson	Lukas	02/24/2025	Email; Attachment	Email: KUAO Mater Plan Testimony Attachment: Comments on Proposed Master Plan for the Aurora State Airport Notice under Aurora State Airport Lease and Easement	A11D0509–A11D0514

Nickerson	Lukas	02/28/2025	Letter; Response email; Attached email	Letter: Comments on Proposed Master Plan for the Aurora State Airport Notice under Aurora State Airport Lease and Easement Response Email: HDSE Letter and Holdover Status Attached Email: Existing Drain Field	A11D0505–A11D0508
Nickerson	Lukas	03/17/2025	Email	HDSE/ODAV Meeting 3/19	A11D0519–A11D0520
O'Malley	Kevin	01/21/2025	Email; Attachment	Email: Comment Letter ODAV updated Refined Proposed Preferred Alternative Attachment: Re: January 21, 2025 Comment Letter on Behalf of Wilsonville Area Chamber of Commerce for Aurora State Airport Master Plan - ODAY Updated Refined Proposed Preferred Alternative	A11D0515–A11D0518
Ottenad	Mark	01/24/2025	Email	City of Wilsonville Rep to ASA MP PAC	A11D0523–A11D0525
Ottenad	Mark	02/06/2025	Email	RE: City of Wilsonville Rep to ASA MP PAC	A11D0521–A11D0525
Poehler	Bill	01/02/2025	Email	Email: Highway 551	A11D0529–A11D0531
Poehler	Bill	01/16/2025	Email	Email: Question about	A11D0526–A11D0528
Pruzek	Josh	01/20/2025	Email	Aurora airport master plan comments	A11D0532–A11D0534
Reid	Kelly	02/03/2025	Email	Aurora Airport expansion - ODAV seeking comment	A11D0535–A11D0539
Rottinghaus	Mike	02/28/2025	FAA Email	FAA Modifications of Standards	A11D0540–A11D0542
Schu	Mary	01/18/2025	Email	Aurora Oregon Airport KUAO	A11D0543–A11D0545
Schuster	Brad	01/21/2025	Email	Email: AOPA Testimony For Record Concerning Aurora State Airport Updated Refined Preferred Alternative	A11D0546–A11D0548
Stevenson	Tom	01/21/2025	Email; Attachment	Email: 1-21-25 Comment For Aurora Airport Master Plan - Current Refined Preferred Alternative Attachment: RE: Aurora State Airport (UAO) Master Plan Alternatives – Concerns/Recommendations	A11D0549–A11D0552
Swan	Walt	01/19/2025	Email	Auora master plan	A11D0553–A11D0555
Waggoner	David	01/16/2025	Email; Attachment	Email: Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25 Attachment: Attached comments	A11D0556–A11D0561
Weimer	Michael	02/04/2025	Email	RE: Reminder - PAC Meeting 9 is next Tuesday	A11D0562–A11D0564

Williams	Ben	02/17/2025	Email; Attachment 1; Attachment 2	Email: Communications re: Aurora Airport Master Plan Adoption and Compatibility Process Attachment 1: NA Friends of French Prairie v. Dept of Aviation.pdf Attachment 2: p17027coll5_29140.pdf	A11D0565–A11D0611
Williams	Ben	02/23/2025	Email	Re: FW: Communications re: Aurora Airport Master Plan Adoption and Compatibility Process	A11D0612–A11D0734

Fw: Revised Aurora Master Plan recommendations

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:10 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:38 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Revised Aurora Master Plan recommendations

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

-----Original Message-----

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:32 AM

To: Bob Altemus <alto53@comcast.net>; brandy.steffen@jla.us.com

Subject: RE: Revised Aurora Master Plan recommendations

Hi Bob, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Answers to your questions are on the project website at: <https://publicproject.net/auroraairport>

Tony Beach
OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am – 4pm

-----Original Message-----

From: Bob Altemus <alto53@comcast.net>
Sent: Sunday, January 19, 2025 6:35 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com
Subject: Revised Aurora Master Plan recommendations

[You don't often get email from alto53@comcast.net. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Tony and Brandy,

I was pleased to see the latest UAO Master Plan adjustments and appreciate ODAV's endeavor to respect the feedback and community inputs received.

Regarding the current septic systems currently in place within the UAO boundary, I understand they're a major part of the local tenant infrastructure. Do they constitute that significant of a degradation of the RSA/TSA to justify the costs for replacement system? Just curious. And would any replacement system costs, should the current systems be removed, be ODAVs or the lease holders?

As a final thought, the comment In regards to non-standard RSA/TSA and ROFA conditions "are not acceptable" to the FAA seems rather extreme, whereas "are not preferable" would be more appropriate considering these non-standard conditions have been accommodated for quite a while.

I appreciate the challenge of managing a growing and actively dynamic airfield such as Aurora. Thank you for taking the time to consider (or not) my comments regarding Aurora's Master Plan.

Respectfully,

Bob Altemus

Sent from my iPad

Re: Questions for the next meeting

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 2:47 PM

To mayor <mayor@ci.aurora.or.us>

Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>;
Samantha Peterson <SPeterson@CenturyWest.com>

Hello Mayor Asher,

The team indicated that I should point you to the following email from Tim House, FAA about the "Potential for MOS related to runway extensions at UAO (03/26/24)."

Here is a [direct link](#) and you can also find it by visiting the "Public Records" page on the project website (<https://publicproject.net/AuroraAirport>). All FAA comments are at the top of the page.

Please let us know if you have any other questions.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: Brandy Steffen <brandy.steffen@jla.us.com>

Sent: Wednesday, January 22, 2025 9:13 AM

To: mayor <mayor@ci.aurora.or.us>

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>;
Samantha Peterson <SPeterson@CenturyWest.com>

Subject: Re: Questions for the next meeting

Hello Mayor Asher,

I'm not sure about your question, but I'm looping in the technical team and they may be able to answer it.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: mayor <mayor@ci.aurora.or.us>

Sent: Tuesday, January 21, 2025 3:51 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Questions for the next meeting

Brandy

If the master plan is passed can the runway be extended be for the highway 551 is moved ?? Thanks
Mayor Asher

Get [Outlook for iOS](#)

Fw: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:31 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:36 AM

To: Bruce Bennett <bruce@auroraaviation.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; THOMAS Alex R

<Alex.R.THOMAS@odav.oregon.gov>; Samantha Peterson <SPeterson@CenturyWest.com>

Subject: RE: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

Hi Bruce, thanks for the clarification, it will be included in the record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Bruce Bennett <bruce@auroraaviation.com>

Sent: Wednesday, January 22, 2025 4:50 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji

<Kenji.SUGAHARA@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Master plan team,

Thank you for your work coordinating this project.

Please record this clarification to my January 18 letter, that by "airport boundary" I meant all the property bordered by Arndt rd, Airport rd, Keil rd, and highway 551.

Thank you

Bruce Bennett
Aurora Aircraft Ilc
Mbl 503-709-7383

Sent from my iPhone

On Jan 18, 2025, at 1:29 PM, Bruce Bennett <bruce@auroraaviation.com> wrote:

January 18, 2014

Regarding Aurora Airport Master Plan - PAC member input, Refined Preferred Alternative comments

First, I want to thank ODAV and Century West for the very significant improvements in the current preferred alternative from prior considerations.

Still significant, I believe is for the plan to include ODAV honoring the four leases and protecting the huge investments in their infrastructure/septic systems by private aviation companies based at Aurora. This would include finding a safe and proper way to modify the systems that were installed with ODAV's approval in the overrun areas on both ends of the runway. This would also include possibly improving CAA's system for any future added users or planning for a suitable alternate septic system for CAA.

Finally, As safety is the highest priority and improved operational design is very important, i believe the ODAV purchase of the 1.1 acre on the south end of main UAO aircraft ramp and taxi-lane should be added to the "property acquisition priority" category as this would achieve most of the aircraft and vehicle separation benefits of the formerly planned parallel taxiway and VSR at only a tiny fraction of the land use and total costs.

Again, thank you for the progress and improvements on this latest alternative. Although I feel it a huge compromise that the 1000-foot runway lengthening that has been planned since 1976 (and needed per FAA guidance only for the safe operation of the aircraft using UAO currently and since 1976) has been reduced to only 500 feet, I do believe this is a worthy compromise as it is a significant improvement and can be accomplished with ZERO "airport expansion" and completely on the existing airport footprint.

I am convinced that the load capacity benefits of this lengthening will be more critical every day as UAO acts to support disaster relief as it has historically and as it is extremely capable of.

I do recommend strictly minimizing any airport boundary increases limited only to that absolutely necessary for FAA minimum required safety requirements considering any and all mitigation allowances. This will be financially much more efficient and will be much more acceptable for our neighbors.

Bruce Bennett

Aurora Airport property/business owner since 1968, Aurora based pilot since 1973

From: Brandy Steffen <brandy.steffen@jla.us.com>

Sent: Tuesday, January 14, 2025 4:00 PM

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

Hello PAC members,

Thank you to those of you who have already submitted comments on the [refined preferred alternative](#). If you haven't done so already, please email your comments to me by Tuesday, January 21 (a week from today).

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

From: Brandy Steffen

Sent: Tuesday, January 7, 2025 1:22 PM

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Aurora Airport - Refined Preferred Alternative comments by 01/21/25

Good afternoon PAC members,

Thank you for attending PAC Meeting #8 and submitting your feedback on the Preferred Alternative. ODAV and the Planning Team has reviewed all feedback received and has made the following key refinements:

- Removed the proposed parallel taxiway.
- Removed the proposed vehicle service road that would require additional property acquisition.
- Depicted the priority property acquisition as the property required to meet FAA standards, based on the existing and future runway configuration. Reserve property acquisition is depicted in the event of a future willing seller and for the purpose of FAA grant funding eligibility.

The Refined Preferred Alternative maintains the improvements needed to comply with RSA, TSA, and ROFA standards. Please review the [Refined Preferred Alternative Summary](#) including the Refined Preferred Alternative figures for additional detail on the project website: <https://publicproject.net/auroraairport#> (on the "Resources & Documents" Page).

Please submit any comments on the [Refined Preferred Alternative](#) no later than Tuesday, January 21, 2025.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Re: Aurora State Airport Master Plan Website Comments - Bruce Bergman

From Bruce Bergman <noreply@jotform.com>

Date Mon 2025-02-17 5:06 PM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Bruce Bergman

Organization Wylee Hangars Condominium Association

Comments or questions? During the last Master Plan meeting, I picked up off the layout plans that a portion of our property is slated for State acquisition. I asked a question during the meeting on why and how it affected our drain field. The quick response was for Taxiway Safety Area, but the drain field question was not answered. So, please explain the reason this property needs to be acquired and the ramifications for our vital drain field.

Assuming this is not reversible, when will we receive details on boundaries, value, timing, etc.

I would like to receive email updates.

If you would like a response, please tell us the best way to contact you:

Email

Email wyleehangars@gmail.com

Phone Number (503) 572-3831

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: Atlantic Aviation Alternate

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-04 1:49 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 4, 2025 1:49 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Atlantic Aviation Alternate

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Wendie Kellington <wk@klgpc.com>

Sent: Tuesday, February 4, 2025 6:49 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Bickford, Jon <Jon.Bickford@atlanticaviation.com>

Cc: Tony Helbling <helbling@wilsonconst.com>

Subject: RE: Atlantic Aviation Alternate

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony, please provide the source of this rule. Regards, Wendie Kellington

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 4, 2025 6:14 AM

To: Bickford, Jon <Jon.Bickford@atlanticaviation.com>

Cc: Tony Helbling <helbling@wilsonconst.com>; Wendie Kellington <wk@klgpc.com>

Subject: RE: Atlantic Aviation Alternate

Good morning Jon, we don't designate PAC members or alternates for specific meetings. Will you not be able to attend?

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Bickford, Jon <Jon.Bickford@atlanticaviation.com>

Sent: Monday, February 3, 2025 5:10 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Tony Helbling <helbling@wilsonconst.com>; Wendie Kellington <wk@klgpc.com>

Subject: Atlantic Aviation Alternate

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good Morning. I would like to take this time to designate Wendie Kellington as my alternate for the meeting on Feb 11th.

Jon Bickford

General Manager - UAO



T: [503-678-1336](tel:503-678-1336) | M: [503-899-7676](tel:503-899-7676)



jon.bickford@atlanticaviation.com



Fw: Master plan at KUAO

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:11 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

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JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:37 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Master plan at KUAO

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:27 AM

To: Stephen Brenneke <stephen@brenneke.net>; brandy.steffen@jla.us.com

Cc: Bruce Bennett <Bruce@auroraaviation.com>

Subject: RE: Master plan at KUAO

Hi Steve, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Stephen Brenneke <stephen@brenneke.net>

Sent: Sunday, January 19, 2025 9:34 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com

Cc: Bruce Bennett <Bruce@auroraaviation.com>

Subject: Master plan at KUAO

You don't often get email from stephen@brenneke.net. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Thank you again for listening and your recent improvements to the plan.

Steve Brenneke, President of Columbia Aviation Association

Fw: Aurora Airport expansion - ODAV seeking comment

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Thu 2025-02-06 4:00 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Thursday, February 6, 2025 10:59 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; PIKE Brandon <Brandon.PIKE@odav.oregon.gov>

Subject: FW: Aurora Airport expansion - ODAV seeking comment

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: PIKE Brandon <Brandon.PIKE@odav.oregon.gov>

Sent: Thursday, February 6, 2025 10:58 AM

To: KarenB@clackamas.us

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Aurora Airport expansion - ODAV seeking comment

Hi Karen,

Thanks for reaching out about this. I'd be glad to chat with you sometime if you'd like. I've also provided an explanation below:

Yes, in the proposed scenario, dubbed the *refined preferred alternative*, the runway would be extended to the north 497'. You may have already seen this version of the plan, but just in case, here's a link to the

preferred alternative I'm referencing: <https://publicproject.net/files/UAOAMP/uao-refinedpreferredalternative-010725.pdf>

As an aside, full project information and maps can be found on the project website: <https://publicproject.net/auroraairport#>

The lines you're noticing to the north of Arndt Road are likely the new boundaries of the runway protection zone (RPZ), shown in light blue in Figure 1 of the refined preliminary alternative. Because the runway's dimensions would change under the new plan, with the runway extending farther to the north, the associated RPZ would shift to the north, as well. Pursuant to the FAA's design guidelines for airports and runways (AC 150/5300-13B), the RPZ is designed to enhance the protection of people and property on the ground.

In an ideal scenario, the airport sponsor/owner would have ownership or control over the land in the RPZ in order to reduce the potential for conflicts and ensure compatible land uses. But in cases like this where it's under separate ownership, there are a number of land use types that can still be deemed compatible. Pursuant to the State of Oregon's [Airport Land Use Compatibility Guidebook](#), agricultural uses (excluding livestock), parks, utilities, and certain transportation features (roads, parking, terminals) can all be deemed compatible assuming they meet a list of criteria relating to height, creation of smoke, creation of bird attractants, etc. (per Table 3-4: Compatible Land Uses per FAR Part 77 Surfaces and FAA Safety Areas).

When coming up with this plan, our consultant reviewed Clackamas County's zoning for the area north of Arndt Road and determined that it was zoned EFU—which is generally one of the zones that's easiest to ensure compatibility when located inside an RPZ. Like any development or land use actions on property adjacent to public-use airports in Oregon, if future development or zoning changes were to occur on this land, ODAV would comment at that time, as appropriate (if, for example, a proposed structure would impact airspace).

Finally, with the proposed changes to the dimensions of the runway, Clackamas County's associated airport overlay zone would automatically expand 497' to the north, based on my understanding of how your overlay zone is written (ZDO 713). Therefore, while I don't think your code would need revisions as a result of the new airport master plan, the dimensions of your overlay zone would change. Structures north of the runway would be subject to slightly more stringent height limitations per federal (14 CFR FAR Part 77) and state (OAR 738, Division 70) aviation regulations, since the approach surface would begin 497' sooner than it currently does.

Let us know if you foresee any issues with any of this at this stage. As part of the airport master planning process, our goal is to include the local community, public officials, and other stakeholders throughout the process.

Additionally, let us know if you'd like to discuss this further or if you have follow-up questions.

Best,

BRANDON PIKE

OREGON DEPARTMENT OF AVIATION
(ODAV)

AVIATION PLANNER



PHONE 971-372-1339

EMAIL brandon.pike@odav.oregon.gov

3040 25TH STREET SE, SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

COAR Grants: Grants@ODAV.Oregon.Gov
Procurement / Contracts: Contracts@ODAV.Oregon.Gov
Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov
Land Use / Tall Structures: LandUse@ODAV.Oregon.Gov

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This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.

From: Buehrig, Karen <KarenB@clackamas.us>
Date: Wednesday, February 5, 2025 at 10:21
To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: FW: Aurora Airport expansion - ODAV seeking comment

You don't often get email from karenb@clackamas.us. [Learn why this is important](#)

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Alex-

Do you have the time to talk with me to help me understand the implications of this plan on land in unincorporated Clackamas County? It appears that there are some lines that extend north of Arndt Road, but I can't really tell what they mean.

Thank you for your assistance.

Karen

Karen Buehrig
Long Range Planning Manager, Clackamas County
Phone – (503) 742-4683
Mobile – (971) 291-8127

Clackamas County
Working Hours: Monday – Friday 8 AM – 5 PM

From: REID Kelly * DLCD <Kelly.REID@dlcd.oregon.gov>
Sent: Monday, February 3, 2025 1:38 PM
To: Hughes, Jennifer <jenniferh@clackamas.us>; Buehrig, Karen <KarenB@clackamas.us>
Subject: Aurora Airport expansion - ODAV seeking comment

Warning: External email. Be cautious opening attachments and links.
--

Hi Jennifer and Karen,

I am not sure if you all have been involved in any of the [Aurora Airport Master Plan](#) meetings, but Melissa Ahrens shared with me that the Dept. of Aviation is seeking comment on the preferred alternative and has another meeting scheduled for February 11th.

We thought it might be possible that some land under Clackamas County jurisdiction on the north side of Arndt Road could be impacted, based on the maps in this revised plan: [uao-refinedpreferredalternative-010725.pdf](#)

Just wanted to make sure you are aware.

Best,



Kelly Reid

Regional Representative for Multnomah and Clackamas Counties

Portland Metro Regional Solutions

Pronouns: She/her

Oregon Department of Land Conservation and Development

1600 SW Fourth Avenue, Suite 109 | Portland, OR 97201

Cell: 971-345-1987

kelly.reid@dlcd.oregon.gov | www.oregon.gov/LCD

RE: Aurora State Airport Master Plan Website Comments - George Buley

From BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Date Wed 2025-01-22 1:11 PM

To Brandy Steffen <brandy.steffen@jla.us.com>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc Samantha Peterson <SPeterson@CenturyWest.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

Thanks Brandy.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Brandy Steffen <brandy.steffen@jla.us.com>

Sent: Wednesday, January 22, 2025 9:35 AM

To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Samantha Peterson <SPeterson@CenturyWest.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

Subject: Fw: Aurora State Airport Master Plan Website Comments - George Buley

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

This comment didn't look like it needed a response, but I'm passing it along to you all for an FYI.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: George Buley <noreply@jotform.com>

Sent: Tuesday, January 21, 2025 9:13 PM

To: JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Re: Aurora State Airport Master Plan Website Comments - George Buley

Aurora State Airport Master Plan Website Comments

Name George Buley

Comments or questions? I, George Buley, am a private citizen and an Airport & Airway Trust Fund Taxpayer. I recommend the following proposals be considered in the Aurora State Airport Master Plan Update.

With Emphasis, ODAV's mission statement is... "to provide infrastructure, financial resources, and expertise to ensure safe and efficient air transportation..." ODAV should consider suspending the Aurora State Airport Master Plan for 3 months to submit to the FAA a Modification of Standards (MOS) for the Runway Object Free Area (ROFA) in accordance with MOS Order 5300-1G. Filing a MOS is "free" and could save the State of Oregon hundreds of millions of taxpayers dollars!

The MOS Order states..."The FAA Modification to Standards is for any deviation from or addition to standards applicable to airport design, material, and construction standards or equipment projects resulting in an acceptable level of safety, useful life, lower costs, greater efficiency, or the need to accommodate an unusual local condition on a specific project through approval on a case-by-case basis." Past FAA MOS Approvals:

A. Key West International (EYW) Airport's Modification of Standards was recently approved by the FAA for excessive cost associated with relocating a roadway, swimming pool, tennis courts and drainage ponds for a proposed runway extension. EYW is a commercial service, certificated airport and has the same Runway Object Free Area (ROFA) dimensions as Aurora

State Airport (UAO), except UAO does not have B-737's operations. The MOS was determined to provide an acceptable level of safety by constructing an Engineered Material Arresting System (EMAS) at both ends of the runway, thereby reducing the ROFA from 800' to 500' wide and the Runway Safety Area from 500' to 400' wide. The reduction in size of ROFA and the RSA did not remove all of the obstructions such as the ponds, but did provide an acceptable level of safety.

B. Friedman Memorial Airport (SUN) has 8 Modifications of Standards (MOS) approved by the FAA. One of the MOS's is for the ROFA encompassing the entire width of State Highway 75 which is located parallel to the runway. This commercial service, certificated airport has the same size ROFA as UAO. The acceptable level of safety was accomplished by not allowing aircraft with larger than 100' wingspans to operate at SUN.

From ODAV Mission website, "The Oregon Department of Aviation Visions an integrated Aviation System benefiting all Oregonians." The latest preferred development plan does not seem to be consistent with ODAV's Vision, especially, since it will be at an excessive cost to the community. The proposal will force relocation of businesses and residents (property value taking), all what appears to be an unnecessary effort to preserve the ROFA for one aircraft that may excuse 400' east or west of the runway, estimated to occur once every 200+ years. It strongly appears that only a very few will benefit from the proposed plan, but not all Oregonians. The estimated cost for this project is over \$200M. How will ODAV cover this excessive cost? Will private interests help ODAV with the AIP grant matching funds?

Has ODAV conducted a benefit cost analysis to determine how the loss of over a thousand high paying jobs is beneficial to the community to meet one safety standard that could be addressed with a simple MOS? The MOS could provide an acceptable level of safety, such as utilizing

EMAS or limiting the wingspan of aircraft operations.

Has ODAV conducted a benefit cost analysis to determine how a non-commercial service airport community will operate in the future without user fees and local tax revenues? How will emergency services respond during a major earthquake?

Can ODAV show the current Trump Administration that the proposed Airport Master Plan is NOT disruptive and costly to airport businesses when asking for federal grant funding participation for meeting ROFA standards without a MOS?

From ODAV's Mission Statement excerpt (Values):

- Customer service
- Collaboration
- Integrity
- Passion
- Healthy Relationships

When incorporating the aforementioned Values, one can openly analyze in depth community proposals, which in turn promotes teamwork and brainstorming ideas. The product of the Teamwork is to mutually find airport master planned steps forward that enhance aviation safety and preserve a unified quality of life, that benefits the Oregon community. ODAV's Mission Statement, Vision and Values are the key to this success.

Sincerely,

George Buley
Private Citizen, Aviation Trust Fund
Taxpayer
I would like to receive email updates.
georgebuley@yahoo.com

Email

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: Aurora Airport Plan

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:09 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:38 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora Airport Plan

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:33 AM

To: Steve Bush <bushaviationllc@gmail.com>

Subject: RE: Aurora Airport Plan

Hi Steve, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Steve Bush <bushaviationllc@gmail.com>
Sent: Monday, January 20, 2025 9:43 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Aurora Airport Plan

You don't often get email from bushaviationllc@gmail.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Tony,

Thank you for considering the opinions of the airport users' and property owners input and for the significant improvements in the current plan over the previous.

As a member of the Columbia Aviation Association, I request that you please also consider the importance of maintaining the septic systems and their leases. These are owned by airport tenants and located on airport property. These systems are a critical piece of the airport infrastructure and represent major investments by the tenants.

I request that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list.

This will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars, and Aurora Flight trainings ramp. This ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the significant cost.

Thank you for listening and for your recent improvements to the plan.

Steve Bush
Treasurer, CAA

Fw: Aurora Airport - Suggestions for Current Refined Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:08 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 8:49 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora Airport - Suggestions for Current Refined Alternative

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 8:49 AM

To: Jonathan Buss <jbuss@bussmold.com>

Subject: RE: Aurora Airport - Suggestions for Current Refined Alternative

Hi Jonathan, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Jonathan Buss <jbuss@bussmold.com>

Sent: Tuesday, January 21, 2025 8:30 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Aurora Airport - Suggestions for Current Refined Alternative

You don't often get email from jbuss@bussmold.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Mr. Beach,

Thank you for taking the time to consider the input from Aurora airport users and property owners, including members of the Columbia Aviation Association (CAA), and for the positive changes made in the current plan.

The improvements over the previous proposal are greatly appreciated.

One key issue we would like to highlight is the importance of maintaining the septic systems and their associated leases. These systems are owned by airport tenants and are situated on airport property. They are a vital part of the airport's infrastructure and represent substantial investments. We respectfully request that these systems be carefully considered in the final design.

Additionally, we urge you to prioritize the purchase of the 1.1-acre ODAV property, currently adjacent to the south end of the main UAO ramp (south of the tower). This acquisition would significantly enhance access to CAA, Pacific Coast Avionics, the main public ramp, mid-field hangars, and the Aurora Flight Training ramp. Incorporating this improvement would enhance safety and flow without the high costs and disruption associated with the previously considered parallel taxiway and road, which would have required hangar displacement.

Finally, we ask that you minimize any expansion of the airport boundaries. Any significant addition of real estate to UAO would be costly and is highly unpopular with our neighboring communities. We encourage the use of all FAA-approved mitigation measures to ensure the airport's operations remain safely within its current boundaries.

Once again, thank you for your consideration of these points and for your commitment to improving the plan.

Best regards,

Jonathan Buss | President

Buss Precision Mold, Inc.

13581 SE Ambler Rd | Clackamas, OR 97015

<http://www.bussmold.com>

503.652.5804 Ext. 11



Re: Aurora State Airport Master Plan Website Comments - Kaelyn Cahill

From Kaelyn Cahill <noreply@jotform.com>

Date Sat 2025-02-08 12:12 PM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Kaelyn Cahill

Organization Aurora Flight Training

Comments or questions? I am an instructor at Aurora Flight Training and was looking at the latest preferred alternate and it appears there are plans to build new apron space/hangars where our flight school is located. I'm just curious on what exactly the plan is with that is and if that can be addressed during the next meeting.

If you would like a response, please tell us the best way to contact you:

Email

Phone

Email kaelyncahill@gmail.com

Phone Number (503) 939-3519

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:30 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (187 KB)

2025.01.21 Letter to Oregon Department of Aviation.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:41 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

Here it is.

Thanks,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Samantha Peterson <SPeterson@CenturyWest.com>
Sent: Tuesday, January 21, 2025 9:37 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: RE: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony,

I'm not seeing the attached letter for this email. Can you resend?

Samantha

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Tuesday, January 21, 2025 5:21 PM
To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: FW: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony
Sent: Tuesday, January 21, 2025 5:14 PM
To: sarah.curtiss@stoel.com
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: RE: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

Hi Sarah, thank you for your input. I've forwarded it to the master plan team and it will be included in the public record.

We will address comments and questions and get back to you shortly, thank you for reaching out.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Curtiss, Sarah Stauffer <sarah.curtiss@stoel.com>
Date: Tuesday, January 21, 2025 at 09:21
To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: Jason Paolo <Jason.Paolo@anderson-hay.com>, Steve Gordon

<Steve.Gordon@anderson-hay.com>

Subject: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

You don't often get email from sarah.curtiss@stoel.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Alex,

Please find attached a letter providing comment on the Aurora State Airport Master Plan Revised Preferred Alternative. As noted in the letter, our client plans to attend the upcoming PAC meeting and would welcome a one-on-one conversation focused on impacts to properties and businesses along the Hubbard Highway.

Thank you in advance for your consideration.

Sarah Stauffer Curtiss | Partner

STOEL RIVES LLP | 760 SW Ninth Ave, Suite 3000 | Portland, OR 97205

Direct: (503) 294-9829 | Mobile: (971) 533-6215

sarah.curtiss@stoel.com | [Bio](#) | [vCard](#) | www.stoel.com



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January 21, 2025

Sarah Stauffer Curtiss
760 SW Ninth Avenue, Suite 3000
Portland, OR 97205
D. 503.294.9829
sarah.curtiss@stoel.com

VIA EMAIL (Alex.R.Thomas@odav.oregon.gov)

Alex Thomas
ODAV Planning and Programs Manager
Oregon Department of Aviation

RE: Anderson Hay & Grain Co. Comments on Refined Preferred Alternative

Dear Alex:

This office represents Anderson Hay & Grain Co. (“AHG”). Please find below AHG’s comments on the Refined Preferred Alternative that was distributed to the Aurora State Airport Master Plan (“Master Plan”) Planning Advisory Committee (“PAC”) on January 7, 2025. As outlined below, AHG is very concerned with the Oregon Department of Aviation’s (“ODAV”) lack of engagement with AHG and other neighboring properties that would be impacted by the Refined Preferred Alternative. Please include the below comments in the administrative record related to the Master Plan.

A. AHG Background

Established during the 1960’s in Washington State’s Kittitas Valley, AHG is a leading supplier of hay products to the dairy, beef and horse industries. AHG operates two production facilities, one located in Ellensburg, Washington and the other located in Aurora, Oregon. The Aurora plant is focused on providing straw products grown in Oregon’s Willamette Valley to markets in Asia, primarily Japan and South Korea. AHG sells products domestically throughout the U.S. and to over 30 countries internationally. The AHG brand is recognized worldwide for quality, consistency, and reliability.

AHG’s Oregon operation is located across the Hubbard Highway from the Aurora State Airport. AHG’s Oregon location is strategically positioned to be linear with supply locations relative to port locations to optimize operational overhead. To meet customer demands, AHG requires a substantial amount of onsite storage capacity at the Aurora location to store products produced during a 3-month harvest period but distributed over 12 months. Because onsite storage at the Aurora location is critical to AHG’s global operations, any reduction in footprint would require AHG to locate product offsite and contribute to increased operational costs.

B. Questions and Comments Related to Refined Preferred Alternative.

Has ODAV done any outreach to neighboring property owners related to the Refined Preferred Alternative?

AHG was aware that ODAV had formed the PAC to provide feedback related to a proposed update to the Master Plan but only recently learned that the alternatives under consideration would impact AHG's Aurora location. Importantly, AHG did not receive any official communications from ODAV related to the master planning process or potential impacts to its property or business. Instead, AHG learned that the PAC was reviewing proposed alternatives for the future airport layout and that certain alternatives might impact AHG's operations through informal contact with Ben Williams, the PAC representative for the Friends of French Prairie.

Although the materials on the Master Plan website indicated that ODAV included a "robust and varied membership" in the PAC, including "adjacent property and business owners," it does not appear that any of the adjacent Hubbard Highway property owners were included in the PAC. Perhaps more troubling, it does not appear that ODAV made any effort to reach out to Hubbard Highway property owners when it began to consider alternatives that would move Hubbard Highway and impact the properties adjacent to the Hubbard Highway.

AHG is concerned that the interests of the Hubbard Highway property owners were not considered in the development of the Refined Preferred Alternative. Did ODAV reach out to neighboring property owners? What information was provided? What input was considered when developing the Refined Preferred Alternative?

What is ODAV's rationale for choosing an alternative that relocates a major state highway and impacts multiple private businesses over expanding runway facilities to the east within the existing Aurora State Airport?

AHG understands that the Refined Preferred Alternative would require the relocation of Hubbard Highway. Based on review of the Refined Preferred Alternative figures, it appears that the necessary right-of-way acquisition would significantly encroach on AHG's Aurora location and reduce overall storage capacity for AHG's product. It would also impact many other property owners that operate adjacent to the Hubbard Highway.

AHG is concerned that interests of users within the existing Aurora State Airport footprint were considered but the interests of property owners adjacent to Hubbard Highway were not. Perhaps more importantly, the existing documents available on the Master Plan website do not explain why ODAV is pursuing the Refined Preferred Alternative (which requires the relocation of a state highway) over alternatives that would have expanded the runway within the existing Aurora State Airport footprint. Why were other alternatives rejected? How were competing concerns and interests evaluated as part of the master planning process?

Alex Thomas
January 21, 2025
Page 3

AHG Plant Manager Jason Paolo is planning to attend the PAC meeting scheduled for February 11, but AHG would welcome a one-on-one conversation with you or other ODAV staff related to the process and the Refined Preferred Alternative. Jason Paolo can be reached directly at Jason.Paolo@anderson-hay.com or 503-678-7332.

Thank you in advance for your careful consideration of these comments.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Sarah Stauffer Curtiss', with a long horizontal flourish extending to the right.

Sarah Stauffer Curtiss

Fw: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

From THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Date Tue 2/25/2025 2:36 PM

To Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

 1 attachment (165 KB)

2025.02.25 Letter to Oregon DAV.pdf;

Hello,

Please include within the UAO master plan record.

ALEX THOMAS

**OREGON DEPARTMENT OF AVIATION
(ODAV)**

POLICY, PLANNING, & PROGRAMS
MANAGER

CELL 971-375-2357

EMAIL Alex.R.Thomas@ODAV.Oregon.Gov

SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

 **Image**  **Image**  **Image**

From: Curtiss, Sarah Stauffer <sarah.curtiss@stoel.com>

Sent: Tuesday, February 25, 2025 11:32:32 AM

To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: Jason Paolo <Jason.Paolo@andersonhay.com>; Steve Gordon <Steve.Gordon@andersonhay.com>; Crow, Matteo G. <matteo.crow@stoel.com>

Subject: RE: Comment on Aurora State Airport Master Plan Refined Preferred Alternative from Anderson Hay & Grain Co. [SR-ACTIVE.FID6023036]

*****CONFIDENTIALITY NOTICE*****

You don't often get email from sarah.curtiss@stoel.com. [Learn why this is important](#)

Alex,

This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.
Please find attached a letter providing comment on the Aurora State Airport Master Plan Revised Preferred Alternative.

Thank you in advance for your consideration.

Sarah Stauffer Curtiss | Partner
STOEL RIVES LLP | 760 SW Ninth Ave, Suite 3000 | Portland, OR 97205
Direct: (503) 294-9829 | Mobile: (971) 533-6215
sarah.curtiss@stoel.com | [Bio](#) | [vCard](#) | www.stoel.com



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February 25, 2025

Sarah Stauffer Curtiss
760 SW Ninth Avenue, Suite 3000
Portland, OR 97205
D. 503.294.9829
sarah.curtiss@stoel.com

VIA EMAIL (Alex.R.Thomas@odav.oregon.gov)

Alex Thomas
ODAV Planning and Programs Manager
Oregon Department of Aviation

RE: Anderson Hay & Grain Co. Comments on ODAV's Next Steps

Dear Alex:

This office represents Anderson Hay & Grain Co. ("AHG"). This letter supplements our prior comment letter submitted on January 21, 2025. Please find below AHG's comments on the Oregon Department of Aviation's ("ODAV") statutory obligations to seek local land use compatibility and the State Aviation Board's (the "Board") adoption obligations thereafter. As outlined below, AHG is very concerned with ODAV's messaging regarding the agency's next steps. Our client participated in the last Planning Advisory Committee ("PAC") meeting, but ODAV staff provided no additional clarity on this timeline. Likewise, ODAV staff did not address any of our client's concerns about the proposed relocation of the Hubbard Highway.

For further background on AHG's business and relationship with the Aurora Airport Master Plan Update, please see our January 21, 2025, comment letter. Please include the below comments in the administrative record related to the Master Plan.

A. Questions and Comments Related to Refined Preferred Alternative.

When and how does ODAV intend to engage in its land use compatibility obligations?

In the powerpoint presentation for the February 11, 2025 PAC meeting, ODAV stated that the final step after Airport Layout Plan ("ALP") approval by the Federal Aviation Administration ("FAA") would be the Board's Master Plan approval process. However, that presentation noted that this step is "beyond the scope of this project." Before the Board can adopt this master plan, ODAV must engage in consultation with local governments affected by the project pursuant to OAR 738-130-0055(2)-(4). When does ODAV intend to publish its proposed timeline for this local government consultation process and any opportunities for public engagement? AHG understands that this step may be beyond the scope of the consultant's scope of work, but ODAV should be transparent about how it intends to meet its regulatory obligations.

When does ODAV intend to present findings of compatibility to the State Aviation Board?

The Master Plan update must also be adopted by the Board alongside findings that it is compatible with all applicable local land use comprehensive plans and other regulations, pursuant to OAR 738-130-0055(6). When does ODAV intend to seek Board approval? AHG understands that this final step cannot occur until the FAA approves the ALP and ODAV completes the local jurisdiction consultation process, but ODAV should be transparent about when it expects to present its findings to the Board.

Unfortunately, the limited engagement with the property owners west of the Hubbard Highway during the PAC process has necessitated AHG's engagement at this stage to ensure that AHG can fully participate in any future discretionary decision-making regarding the Aurora Airport. As we outlined in our January 21, 2025 letter, the refined preferred alternative as currently proposed would substantially disrupt AHG's business operations. Given AGH's experience with the PAC process (and ODAV's failure to engage with AHG and other neighbors that will be impacted by the refined alternative), AHG seeks to ensure that it does not learn about any future opportunities for public engagement after it is too late to engage.

As noted in our prior letter, AHG would welcome a one-on-one conversation with ODAV staff related to the master planning process and the next steps discussed above. Jason Paolo can be reached directly at jason.paolo@anderson-hay.com or 971-237-0510.

Thank you in advance for any information you can provide.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Sarah Stauffer Curtiss', with a long horizontal flourish extending to the right.

Sarah Stauffer Curtiss

Fw: Regarding the Aurora Airport - Current Refined Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-04 4:24 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Monday, January 27, 2025 11:03 AM

To: T Davis <trdavis1@comcast.net>

Cc: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: RE: Regarding the Aurora Airport - Current Refined Preferred Alternative

Hi Ted, thanks for your comments, I've forwarded them to the master plan team and will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: T Davis <trdavis1@comcast.net>

Sent: Monday, January 27, 2025 10:22 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: brandy.steffen@jla.us.com

Subject: Regarding the Aurora Airport - Current Refined Preferred Alternative

You don't often get email from trdavis1@comcast.net. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the

previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Thank you again for listening and your recent improvements to the plan.

Sincerely,

Ted Davis

T Davis

trdavis1@comcast.net

Fw: Airport plan concerns

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:09 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:39 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Airport plan concerns

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:33 AM

To: Ruby DeMarco <rubylea@yahoo.com>

Cc: brandy.steffen@jla.us.com

Subject: RE: Airport plan concerns

Hi Rubylea, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Ruby DeMarco <rubylea@yahoo.com>
Sent: Monday, January 20, 2025 5:42 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Cc: brandy.steffen@jla.us.com
Subject: Airport plan concerns

You don't often get email from rubylea@yahoo.com. [Learn why this is important](#)

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Dear Tony,

Thank you for considering all airport users, neighbors, airport businesses and airport property owners input. Thank you for the significant improvements in the current plan over the previous plan!

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Finally, please eliminate or reduce to an absolute minimum the amount of airport boundary increase, my definition of the airport boundary is all the property currently in aviation use or development and outlined by Arndt rd, Airport rd, Keil rd, & highway 551. Adding additional real estate to UAO would be extremely expensive and is very unpopular with our neighbors. Please use any and all FAA approved mitigation measures to keep the airport safely in its current boundaries.

Thank you again for listening and your recent improvements to the plan.

Sincerely,

Rubylea Demarco

[Sent from Yahoo Mail for iPhone](#)

Re: Regarding the Aurora Airport - Current Refined Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:12 PM

To John Dierks <john.dierks.pilot@gmail.com>

Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>;
Samantha Peterson <SPeterson@CenturyWest.com>

Thank you so much for your comments John. I will pass these along to the rest of the team.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: John Dierks <john.dierks.pilot@gmail.com>

Sent: Sunday, January 19, 2025 9:53 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Regarding the Aurora Airport - Current Refined Preferred Alternative

Dear Brandy,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Thank you again for listening and your recent improvements to the plan.

Sincerely,
John Dierks, pilot and Columbia Aviation Association member.

Fw: Regarding the Aurora Airport - Current Refined Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:10 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:37 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Regarding the Aurora Airport - Current Refined Preferred Alternative

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:28 AM

To: John Dierks <john.dierks.pilot@gmail.com>

Subject: RE: Regarding the Aurora Airport - Current Refined Preferred Alternative

Hi John, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: John Dierks <john.dierks.pilot@gmail.com>
Sent: Sunday, January 19, 2025 9:48 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Regarding the Aurora Airport - Current Refined Preferred Alternative

You don't often get email from john.dierks.pilot@gmail.com. [Learn why this is important](#)

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Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Finally, please eliminate or reduce to an absolute minimum the amount of airport boundary increase, adding additional real estate to UAO would be extremely expensive and is very unpopular with our neighbors. Please use any and all FAA approved mitigation measures to keep the airport safely in its current boundaries.

Thank you again for listening and your recent improvements to the plan.

Sincerely,
John Dierks, pilot and Columbia Aviation Association member.



Outlook

Fw: Aurora State Airport Master Plan

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 5/7/2025 1:36 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN**| JLA PUBLIC INVOLVEMENT**

Partner + Senior Program Manager

brandy.steffen@jla.us.com »

[Schedule](#)

[a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Monday, May 5, 2025 8:48 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora State Airport Master Plan

Good morning, please include in the public record.

Thanks,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Monday, May 5, 2025 8:48 AM

To: Patrick F. Donaldson <pfdforbes@aol.com>

Subject: RE: Aurora State Airport Master Plan

Hi Patrick,

That is correct, we do not have any PAC meetings scheduled.

As we work through our State Agency Coordination program and interagency review of the draft master plan documents, we'll share updates and keep the PAC/public informed throughout.

I hope this helps, thanks for reaching out,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Patrick F. Donaldson <pfdforbes@aol.com>
Sent: Monday, May 5, 2025 8:15 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Aurora State Airport Master Plan

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Tony;

Good morning.

I missed the PAAM meeting last week so was not able to ask about the final steps of the Master Plan process.

The calendar provided by the Master Plan team does NOT show any further zoom or in-person meetings for Committee members.

Is that correct?

What additional, if any, duties do we as committee members have or are we done with our service?

Your response will be helpful.

Thank you.

Patrick F. Donaldson

7450 S.W. Downs Post Road

Wilsonville OR 97070-8454



pfdforbes@aol.com

ONWARD! - BYDAND!

Fw: Aurora Airport Can Use Modification Process to Avoid Moving Hwy 551

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:22 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, February 26, 2025 10:37 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora Airport Can Use Modification Process to Avoid Moving Hwy 551

Good morning, please include in the record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Sent: Wednesday, February 26, 2025 4:24 AM

To: faegre@earthlink.net

Cc: Governor.Kotek@oregon.gov; kcameron@co.marion.or.us; dbethell@co.marion.or.us; cwillis@co.marion.or.us; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Re: Aurora Airport Can Use Modification Process to Avoid Moving Hwy 551

Aaron,

Good to hear from you. Thanks for the comments and checking in with HQ. We are doing the same as well for 551. We'll go ahead and add this to the record and let folks know if there is any progress.

Kenji

From: faegre@earthlink.net <faegre@earthlink.net>

Sent: Tuesday, February 25, 2025 6:25:03 PM

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: Governor.Kotek@oregon.gov <Governor.Kotek@oregon.gov>; kcameron@co.marion.or.us <kcameron@co.marion.or.us>; dbethell@co.marion.or.us <dbethell@co.marion.or.us>; cwillis@co.marion.or.us <cwillis@co.marion.or.us>

Subject: Aurora Airport Can Use Modification Process to Avoid Moving Hwy 551

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hi Kenji,

I have called FAA Headquarters in D.C. and from what they told me, it is clear that their Modification of Standards process can work for Aurora and we can avoid spending \$100 million to move Hwy 551.

Looking forward to talking further about this with you.

Aron

Aron Faegre, AIA, PE

Aron Faegre Architect – Airport Planning & Development

13200 Fielding Road

Lake Oswego, Oregon 97034

faegre@earthlink.net

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503-880-1469

Fw: Aurora Airport Master Plan - Letter from Aron Faegre

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:27 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (12 MB)

HDSE Drainfields in Runway Safety Area at Aurora Airport - History and Next Steps 2025-2-25 with Exhibits.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: faegre@earthlink.net <faegre@earthlink.net>

Sent: Tuesday, February 25, 2025 2:57 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; 'Tony Beach' <anthony.beach@aviation.state.or.us>; 'THOMAS Alex R' <Alex.R.THOMAS@odav.oregon.gov>

Subject: Aurora Airport Master Plan - Letter from Aron Faegre

Brandy, Tony, and Thomas,

Please accept this letter with critical information needed for the Master Plan process to ensure all options are understood.

Please confirm receipt.

Thanks

Aron

Aron Faegre, AIA, PE
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February 25, 2025

Alex Thomas, Planning and Programs Manager
Tony Beach, State Airports Manager
Oregon Department of Aviation
Brandy Steffen, JLA
Oregon Department of Aviation
3040 25th Ste SE
Salem, OR 97602
Alex.R.Thomas@odav.oregon.gov

**Re: Aurora State Airport Master Plan Proposed Preferred Alternative
HDSE Septic Drainfield Correction of the Record and Next Steps Forward**

Mr. Thomas, Mr. Beach, and Ms. Steffen:

This letter is to provide comment on ODAV's draft master plan for the Aurora State Airport, with particular attention to the issue of the HDSE drainfield at the south end of the airport. Please share this letter with the ODAV and FAA design team, and enter it into the record for the Oregon Department of Aviation's (ODAV) proposed "Preferred Alternative" for the Aurora State Airport Master Plan.

1. Correcting the Record: History of the HDSE Proposal to Strengthen the Drainfield— ODAV was not awaiting any answer from HDSE to ODAV questions. ODAV Advised HDSE that ODAV Preferred to study HDSE effluent being taken to the Columbia Helicopter drainfield.

There has been much discussion during the past two PAC meetings about HDSE's proposal to modify the existing drainfield in the Runway Safety Area at the south end of the runway, by using a top layer of modern geofabrics through which grass can grow up through. A very detailed geotechnical report by NV5 dated November 8, 2021 (Exhibit 6 to this letter) was provided to ODAV showing through engineering analysis of existing soils at the site that the proposed modification would result in soil strength consistent with FAA's guidance for soil in Runway Safety Areas.

During the PAC meetings, ODAV asserted that it had questions about the proposed modification to the existing drainfield that were not answered, and that it was HDSE's failure to respond that caused ODAV to decide to remove HDSE's drainfield.

For example, in the ODAV issued transcript of PAC Meeting #9 on February 11, 2025 Tony Beach states:

[Tony Beach] 17:36:59

We have... gone thoroughly over the report that you've submitted and And we had questions that as far as we're aware have not been answered.

In fact, ODAV had asked numerous questions about the NV5 report, to which the NV5 and the HDSE team had provided written answers on December 20, 2021. See attached Exhibit 1. ODAV next asked follow-up questions in an email dated February 7, 2022. See attached Exhibit 2. The follow-up questions were extremely detailed geotechnical ones, the answers for which would surely trigger further ODAV questions. At this point drainfield strengthening was not an issue, just the specific design. Therefore, the HDSE team requested that all questions be answered in a meeting with ODAV's geotechnical engineer (GRI) and HDSE's engineer (NV5), to enable a drainfield strengthening plan to move forward.

Thus, ODAV's Tony Beach on February 7, 2022 issued an invitation for a Teams meeting on February 16, 2022 at 10am (see attached Exhibit 3: Aron Faegre meeting confirmation). The meeting invitation went to Tony Beach (ODAV), Betty Stansbury (then the ODAV director), James Kirby (an engineer with Century West), Tony Helbling (then the President of HDSE), Ted Millar (HDSE Board member), and Aron Faegre. Also attending the meeting was Brett Shipton (an engineer with NV5) using Aron Faegre's link. ODAV's last round of detailed questions were discussed and resolved with ODAV.

The next communication with ODAV was an email from Tony Beach on February 16, 2022, sent after the meeting (attached as Exhibit 4). It summarized the general conditions ODAV wished that the Runway Safety Area meet, and suggested the next step would be "stamped engineering plans that we can review before we agree." There were no more questions asked, that were unanswered.

However, the Exhibit 4 email added that ODAV was forbidding NV5 from speaking with ODAV's geotechnical engineer GRI. That email also suggested that HDSE continue to search for other drainfield locations, stating: "Have you considered locating the drainfields on the new Aurora Airport Business Center (AABC) property,

or have you tried reaching out to HTS?” HDSE reported back verbally to ODAV that they had already searched for other locations, including AABC and HTS, and none were available.

The next step in trying to resolve this issue, was the ODAV Director Betty Stansbury and Aviation Board Chair Martha Meeker suggesting that perhaps the HDSE effluent could be piped to the north end of the airport, and use Columbia Helicopter’s existing septic system and drainfield, located at the north end of the runway. ODAV indicated it believed that the Columbia Helicopter septic system had capacity for HDSE’s effluent. HDSE agreed they would cooperate with this goal of looking at some wider options before settling on the geofabric option for the existing drainfield. This resulted in ODAV hiring Century West Engineering to do a study of the possibility of sending HDSE effluent (and perhaps other effluent from other airport businesses) to Columbia Helicopter’s system. Tony Helbling (then HDSE’s president) even provided volunteer assistance to this study by calling other airport companies to gather their effluent flow information to be used in ODAV’s study.

A copy of an email from ODAV director Betty Stansbury is attached as Exhibit 5 which shows ODAV’s continuing to examine piping HDSE effluent to the Columbia Helicopter drainfield. Director Stansbury’s email also flagged FAA concerns but notes that “If a drainage field Engineer” were able to provide documented evidence that the drainage field will not compromise the safety area’s load bearing capacity over the length of time the drainage fields remain under the safety area” that ODAV and FAA could “consider it acceptable.” FAA noted that the drainfield was not funded by FAA grant money and so, in its view, if it remained in place as strengthened, would simply be considered a “nonstandard” condition – it did not require an MOS. We pause to point out here that FAA’s claim that the strengthened the drainfield would be nonstandard, is technically inaccurate because strengthening the drainfield consistent with FAA’s AC guidance would make the drainfield a wholly standard, not nonstandard, condition.

Regardless, in response to her Exhibit 5 email, HDSE pointed out to Director Stansbury that HDSE’s 2021 geotechnical study provided the specific information by an engineering company – NV5 – that provides engineering expertise for airfields all over the United States, demonstrating that HDSE’s proposed geofabric strengthening

was consistent with FAA's AC guidance and the FAA representative's email that Stansbury cited in Exhibit 5.

Unfortunately, HDSE is still awaiting the outcome of that septic study by ODAV. But it is important to be clear that it is ODAV that had asked for a hold on the HDSE geofabric project. It is time for ODAV to share what their study found.

2. HDSE has submitted detailed geotechnical engineering analysis showing that the proposed reconstruction of the drainfield with geofabric will comply with FAA standards, and that the septic drainfield will continue to function per DEQ standards.

The REPORT OF GEOTECHNICAL ENGINEERING SERVICES, Aurora State Airport, Septic Drain Field Improvements for HDSE Sewer System, Aurora, Oregon November 8, 2021 was prepared by NV5 (<https://www.nv5.com/>) and is attached as Exhibit 6, for ease of reference. NV5 is an internationally recognized geotechnical firm with an office in Wilsonville, Oregon, and has provided extensive engineering work on airports all over the United States. The report was prepared by Brett Shipton, Principal Engineer, and contains his stamp as an Oregon Registered Professional Engineer. The report discusses FAA guidance in detail and shows that the use of the geofabric ensures the drainfields are fully consistent with the Runway Safety Area soil compaction guidance. When HDSE completes its work, its southend drainfield will not be a "nonstandard" condition.

The designer of the HDSE septic system, including the drainfield, is Environmental Management Systems (EMS) <https://envmgtsys.com/> located in Portland, Oregon. A letter is attached as Exhibit 7 from EMS principal Bob Sweeney, confirming that the addition of the strengthening geofabric demonstrates that the drainfield will continue to operate fully in compliance with all DEQ standards for drainfields. Bob Sweeney was integral to suggesting that the geofabric material to strengthen the drainfield consistent with FAA's guidance.

Finally, my firm Aron Faegre, AIA, PE, Airport Planning is ready, willing, and able to oversee the project as a whole for HDSE. Aron Faegre is an architect, civil engineer, physicist, and pilot who has been the lead planner and designer on over two

hundred airport planning and development projects in Oregon, Washington, California, New York, and British Columbia over the past 35 years. He has a Master of Architecture from MIT and a Bachelor of Physics from Reed College. It is noted that FAA's Airport Design AC150-5300-13B acknowledges that utility systems can be located in the Runway Safety Area as noted in Section 3.10.1.5 since it specifically discusses the requirements for "foundations, inlets, and manholes" that are located in the Runway Safety Area. Aron Faegre will coordinate additional civil engineering and survey work to ensure: a) overall longitudinal and transverse grading is fully consistent with FAA standards for Runway Safety Areas; b) all utility control boxes for valves and controls have traffic rated lids to match the soil load capacity requirements; and c) the drainfield area remains object free above ground per FAA standards.

Respectfully submitted,



Aron Faegre, AIA, PE
Aron Faegre Airport Planning and Design

Attached Exhibits:

- Exhibit 1: NV5 and Faegre response to ODAV Tony Beach by email December 20, 2021, 145 pages, which includes the Attachments 1 through 6.
- Exhibit 2: ODAV Tony Beach email February 7, 2022 at 8:06am with additional questions to HDSE, 10 pages.
- Exhibit 3: ODAV Tony Beach email February 7, 2022 invitation for an HDSE Teams Meeting February 16, 2022 at 10am, 1 page.
- Exhibit 4: ODAV Tony Beach email February 16, 2022 at 12:56pm following the HDSE meeting, 1 page.

- Exhibit 5: ODAV Betty Stansbury email May 26, 2022 discussing the Columbia Helicopters septic system option relative to HDSE, 2 pages.
- Exhibit 6: NV5 geotechnical report, REPORT OF GEOTECHNICAL ENGINEERING SERVICES, Aurora State Airport, Septic Drain Field Improvements for HDSE Sewer System, Aurora, Oregon November 8, 2021, 35 pages.
- Exhibit 7: EMS septic system letter: Suitability of Proposed Modifications to the Onsite Wastewater Treatment System Drainfield at Aurora State Airport, February 25, 2025, 6 pages.

Exhibit 1

NV5 and Aron Faegre response to ODA email from Tony Beach dated December 9, 2021 4:20 PM
concerning HDSE drainfield expansion area at UAO December 20, 2021

Aron,

Here is our response to the questions from the airport's geotechnical consultant along with all of the attachments.

Brett

=====

- Field Data Collection
 - o Date of soil sampling
We conducted 2 site visits: September 9, 2021 and October 11, 2021. The samples for proctor testing were collected on October 11, 2021.
 - o Were any logs prepared to describe the bulk sampling results?
Logs were not prepared for bulk samples. A bulk sample was collected from each area. Each bulk sample was not collected from a discrete test location. Soil collected from the testing locations were combined to form the bulk sample that was tested in the laboratory. Separate bulk samples from the existing and proposed drain field were prepared and tested in the laboratory.
 - o Was a sieve analysis and/or Atterberg Limits test performed to validate the Silt visual classification?
Sieve tests and/or Atterberg Limits tests were not conducted. The samples were visually classified in the field and in the laboratory. Other geotechnical studies at Aurora State Airport confirm our classification. Laboratory tests from these studies were used in conjunction with our visual classification to classify the soil. We have attached a copy of pertinent information from these studies (Attachment 1 - Lab Data).
 - o Was infiltration testing performed? If not, why?
Drain field design will be conducted by others and therefore we did not conduct infiltration testing as part of scope of services. A drain field feasibility study was conducted by Environmental Management Systems, Inc. A November 5, 2020 report that documents their study is attached (Attachment 2 - EMS drainfield feasibility report.pdf).
- As-builts or other construction documents pertaining to the existing drain field

To be provided by others. [Note: Attachment 6 added by Aron Faegre to this memo for providing this information to Tony Beach.]

- Report references

o Geoweb design procedure

The Geoweb design procedure is attached: "GeoWeb Load Support System, Technical Overview" (Attachment 3 - Geoweb Technical Overview.pdf)

o Provide addition discussion on how the 6-inch geoweb, with 2/3 aggregate and 1/3 topsoil, replaces 12 inches of compacted soil.

According to the FAA Airport Construction Standards (AC150/5370-10) Item P-152, the specified method of stabilizing the subgrade outside of paved areas is to compact the upper 12-inches to at least 95 percent of the maximum dry density, as determined by ASTM D698. It is further specified that the upper 4 inches must be scarified and be in a loose state. The intent of this is to provide a subgrade that can support snow removal equipment, aircraft rescue and firefighting equipment, and an occasional aircraft without causing damage to the aircraft. The intent of the geoweb is to provide a subgrade that will provide a subgrade that will support such traffic. It does so by confining the infill soil with the cells which gives the infill soil added shear strength when it is loaded from the top. It reduces the stress directly below the loaded area by transferring stress to the cell walls. Our calculation shows that the Geoweb provides a subgrade with an adequate factor of safety.

o Equivalent Single Wheel Load source

AASHTO H20: AASHTO HB-17 Standard Specifications for Highway Bridges, 17th Edition standard

Gulfstream 550: Gulfstream Flight Ops, Operations Briefing, Pavement Weight Bearing Capacity (CAN/PCN) a copy is attached (Attachment 4 - Gulfstream Flight Ops.pdf)

o Source identifying the critical aircraft type

A Gulfstream G-V aircraft was selected based on a report prepared by Geotechnical Resources, Inc., dated September 16, 2019, that documents a pavement evaluation of Runway 17-35 at Aurora State Airport. We have attached a copy of that report (Attachment 5 – GRI Report)

- Report figures

o Figure A-1: graphic does not show up in the provided pdf

o Figure A-2: graphic does not show up in the provided pdf

We have attached another copy of our report that shows Figures A-1 and A-2 when opened with Bluebeam Revu X64 Version 2016.5.1 and with Google Chrome Version 96.0.4664.110

- “Such stringent compaction is not permitted in the soil cover of drain fields”
 - o Where does this statement come from?
This statement was written by NV5 based on the requirement from drain field designer that the drain field cover material must allow evapotranspiration and oxygen exchange to function efficiently. Compacted soil will inhibit both of these processes.

In addition to the list above, we will also need specifics on the proposed Geoweb reinforced drain field construction.

- Materials/Construction Proposed
 - o What materials specification is to be used (ODOT, proprietary, etc.) for the aggregate?
Per the GeoWeb Manufacturer the infill material should consist of one third pulverized topsoil and two thirds crushed aggregate. The aggregate portion should be crushed rock that has a particle size range from 0.375 to 1.0 inches with a D50 of 0.5 inches and a 30 percent void space. The engineered fill should lightly be compacted to allow vegetation growth.
 - o What compaction specifications and test methods are proposed to achieve the proposed Geoweb strengths?
After the cells have been filled the prepared ground surface should be proofrolled with a fully loaded dump truck. Some rutting and deflection is acceptable considering that the FAA specifies the upper 4-inches of subgrade consist loose uncompacted soil over 12-inches of compacted subgrade.
 - o What compaction specifications and test methods are proposed for soil layers to be placed along with the Geoweb?
The only other soil that will be placed is the washed gravel or drain rock in the drainage trenches. We recommend only light compaction of this material until it is well keyed. Even at this level of compaction we believe its load bearing characteristics will be superior to the soil that exists in the RSA. Over compacting this material will inhibit its drainage characteristics

- o What subgrade compaction specifications and test methods are proposed for the expanded drain field areas?
See our response to the two prior questions.

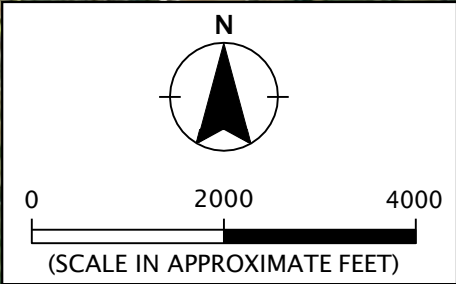
- o What materials are proposed for use in the rest of the elements of the drain field system (pipes, manifolds, perf spec., etc.)?
To be addressed by others. [[Note: Attachment 6 added by Aron Faegre to this memo for providing this information to Tony Beach.]]

Attachments:

Attachment 1 – Lab Data
Attachment 2 – EMS drainfield feasibility report
Attachment 3 – Geoweb Technical Overview
Attachment 4 – Gulfstream Flight Ops
Attachment 5 – GRI Report
Attachment 6 – Construction Documents for HDSE Drainfield



VICINITY MAP BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®



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CENTEREXCON-4-01

MARCH 2019

VICINITY MAP

AURORA AIRPORT FUEL FARM
AURORA, OR

FIGURE 1

111D0067



APPENDIX A

APPENDIX A

FIELD EXPLORATIONS

GENERAL

We explored subsurface conditions at the site by drilling one boring (B-1) to a depth of 26.5 feet BGS and completing one CPT probe (CPT-1) to a depth of approximately 58.7 feet BGS. The boring was drilled on February 22, 2019 using a trailer-mounted drill rig and solid-stem drilling techniques by Dan J. Fischer Excavating, Inc. of Forest Grove, Oregon. The exploration log is presented in this appendix. The CPT data are presented in Appendix B.

The approximate locations of the explorations are shown on Figure 2. Exploration locations were chosen based on preliminary site plan provided to our office by N.D. Eryou, PhD, P.E. The exploration locations were determined by pacing from existing site features and should be accurate implied by the methods used.

SOIL SAMPLING

Samples were collected from the boring using 1½-inch-inner diameter SPT split-barrel sampler in general accordance with ASTM D1586. The sampler was driven into the soil with a 140-pound hammer free-falling 30 inches. The sampler was driven a total distance of 18 inches. The number of blows required to drive the sampler the final 12 inches is recorded on the exploration log, unless otherwise noted. Samples were generally collected at 2.5- to 5-foot intervals throughout the depth of the boring. In addition, relatively undisturbed samples were collected by pushing thin-walled standard Shelby tubes into the base of the exploration in general accordance with ASTM D1587. Sampling methods and intervals are shown on the exploration log.

We understand that calibration of the SPT hammer used by Dan J. Fischer Excavating, Inc. has not been completed. The SPT blows completed by Dan J. Fischer Excavating, Inc. were conducted using two wraps around a cathead.

SOIL CLASSIFICATION

The soil samples were classified in accordance with the “Explorations Key” (Table A-1) and “Soil Classification System” (Table A-2), which are presented in this appendix. The exploration log indicates the depths at which the soils or their characteristics change, although the change actually could be gradual. If the change occurred between sample locations, the depth was interpreted. Classifications are shown on the exploration log.

LABORATORY TESTING

We visually examined soil samples collected from the exploration to confirm field classifications. We also performed the following laboratory testing.

MOISTURE CONTENT

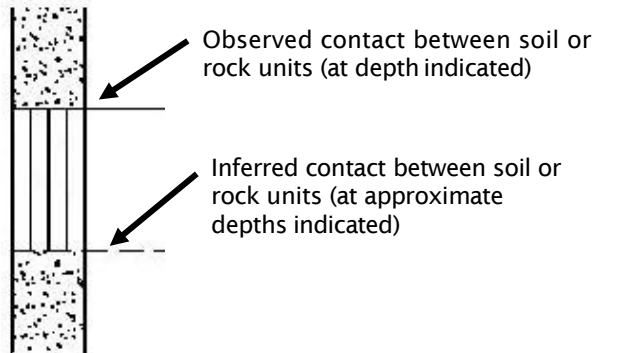
We tested the natural moisture content of select soil samples in general accordance with ASTM D2216. The natural moisture content is a ratio of the weight of the water to soil in a test sample and is expressed as a percentage. The test results are presented in this appendix.

ATTERBERG LIMITS TESTING

Atterberg limits (plastic and liquid limits) testing was performed on a select soil sample in general accordance with ASTM D4318. The plastic limit is defined as the moisture content where the soil becomes brittle. The liquid limit is defined as the moisture content where the soil begins to act similar to a liquid. The plasticity index is the difference between the liquid and plastic limits. The test results are presented in this appendix.

PARTICLE-SIZE ANALYSES

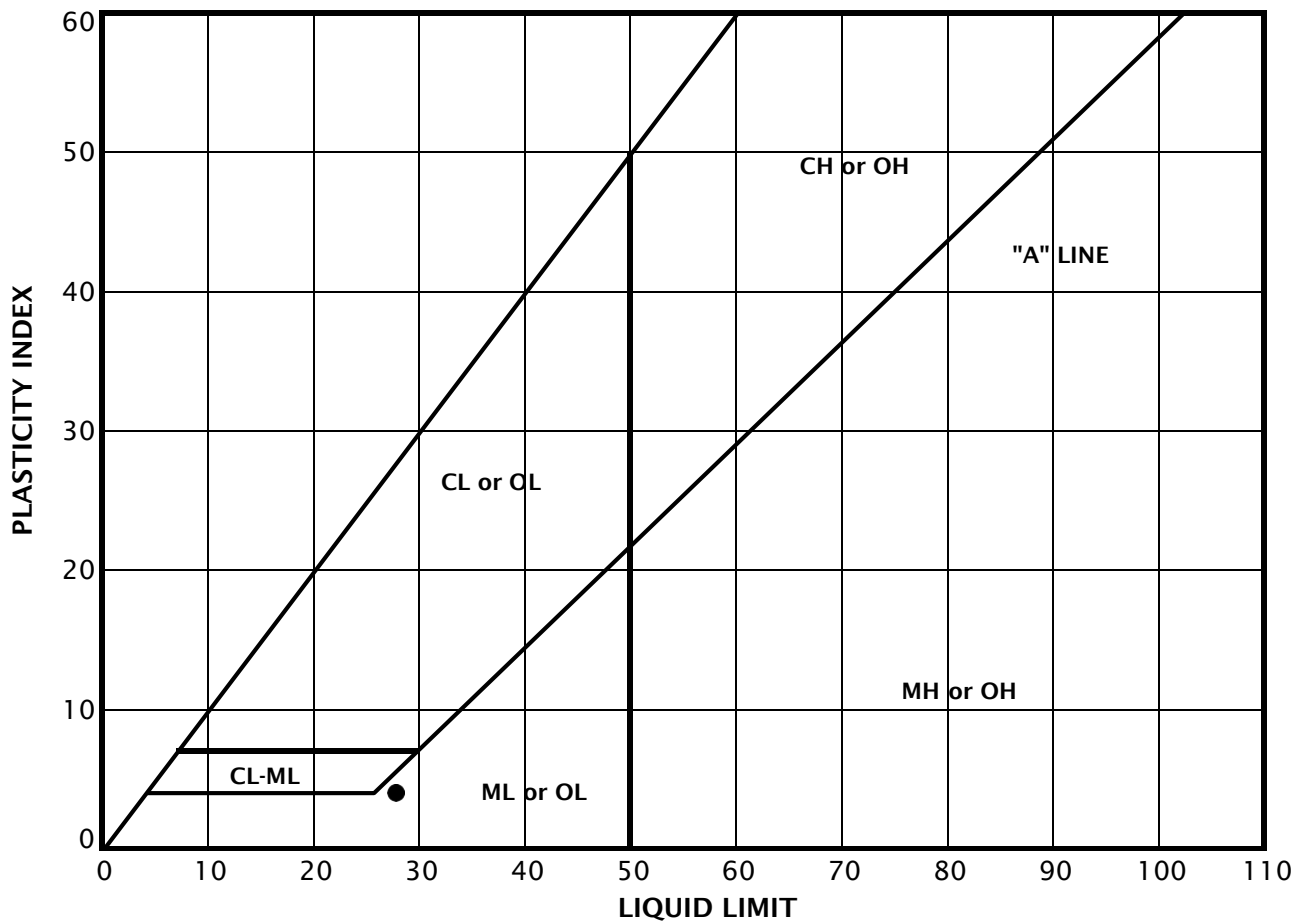
Particle-size analysis was completed on select soil samples in general accordance with ASTM D1140. The test results are presented in this appendix.

SYMBOL		SAMPLING DESCRIPTION	
	Location of sample obtained in general accordance with ASTM D 1586 Standard Penetration Test with recovery		
	Location of sample obtained using thin-wall Shelby tube or Geoprobe® sampler in general accordance with ASTM D 1587 with recovery		
	Location of sample obtained using Dames & Moore sampler and 300-pound hammer or pushed with recovery		
	Location of sample obtained using Dames & Moore sampler and 140-pound hammer or pushed with recovery		
	Location of sample obtained using 3-inch-O.D. California split-spoon sampler and 140-pound hammer		
	Location of grab sample		
	Rock coring interval		
	Water level during drilling		
	Water level taken on date shown		
Graphic Log of Soil and Rock Types 			
GEOTECHNICAL TESTING EXPLANATIONS			
ATT	Atterberg Limits	P	Pushed Sample
CBR	California Bearing Ratio	PP	Pocket Penetrometer
CON	Consolidation	P200	Percent Passing U.S. Standard No. 200 Sieve
DD	Dry Density		
DS	Direct Shear	RES	Resilient Modulus
HYD	Hydrometer Gradation	SIEV	Sieve Gradation
MC	Moisture Content	TOR	Torvane
MD	Moisture-Density Relationship	UC	Unconfined Compressive Strength
NP	Nonplastic	VS	Vane Shear
OC	Organic Content	kPa	Kilopascal
ENVIRONMENTAL TESTING EXPLANATIONS			
CA	Sample Submitted for Chemical Analysis	ND	Not Detected
P	Pushed Sample	NS	No Visible Sheen
PID	Photoionization Detector Headspace Analysis	SS	Slight Sheen
		MS	Moderate Sheen
ppm	Parts per Million	HS	Heavy Sheen
 9450 SW Commerce Circle - Suite 300 Wilsonville, OR 97070 503.968.8787 www.geodesigninc.com		EXPLORATION KEY	
APPENDIX 11D PUBLIC COMMENTS 2025		TABLE A-1 A11D0072	

RELATIVE DENSITY - COARSE-GRAINED SOIL									
Relative Density		Standard Penetration Resistance		Dames & Moore Sampler (140-pound hammer)		Dames & Moore Sampler (300-pound hammer)			
Very Loose		0 - 4		0 - 11		0 - 4			
Loose		4 - 10		11 - 26		4 - 10			
Medium Dense		10 - 30		26 - 74		10 - 30			
Dense		30 - 50		74 - 120		30 - 47			
Very Dense		More than 50		More than 120		More than 47			
CONSISTENCY - FINE-GRAINED SOIL									
Consistency		Standard Penetration Resistance		Dames & Moore Sampler (140-pound hammer)		Dames & Moore Sampler (300-pound hammer)		Unconfined Compressive Strength (tsf)	
Very Soft		Less than 2		Less than 3		Less than 2		Less than 0.25	
Soft		2 - 4		3 - 6		2 - 5		0.25 - 0.50	
Medium Stiff		4 - 8		6 - 12		5 - 9		0.50 - 1.0	
Stiff		8 - 15		12 - 25		9 - 19		1.0 - 2.0	
Very Stiff		15 - 30		25 - 65		19 - 31		2.0 - 4.0	
Hard		More than 30		More than 65		More than 31		More than 4.0	
PRIMARY SOIL DIVISIONS				GROUP SYMBOL		GROUP NAME			
COARSE-GRAINED SOIL (more than 50% retained on No. 200 sieve)		GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)		CLEAN GRAVEL (< 5% fines)		GW or GP		GRAVEL	
				GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)		GW-GM or GP-GM		GRAVEL with silt	
						GW-GC or GP-GC		GRAVEL with clay	
				GRAVEL WITH FINES (> 12% fines)		GM		silty GRAVEL	
						GC		clayey GRAVEL	
		GC-GM				silty, clayey GRAVEL			
		SAND (50% or more of coarse fraction passing No. 4 sieve)		CLEAN SAND (<5% fines)		SW or SP		SAND	
				SAND WITH FINES (≥ 5% and ≤ 12% fines)		SW-SM or SP-SM		SAND with silt	
						SW-SC or SP-SC		SAND with clay	
				SAND WITH FINES (> 12% fines)		SM		silty SAND	
SC						clayey SAND			
SC-SM						silty, clayey SAND			
FINE-GRAINED SOIL (50% or more passing No. 200 sieve)				Liquid limit less than 50		ML		SILT	
		CL				CLAY			
		CL-ML				silty CLAY			
		OL				ORGANIC SILT or ORGANIC CLAY			
		Liquid limit 50 or greater		MH		SILT			
				CH		CLAY			
				OH		ORGANIC SILT or ORGANIC CLAY			
HIGHLY ORGANIC SOIL				PT		PEAT			
MOISTURE CLASSIFICATION			ADDITIONAL CONSTITUENTS						
Term	Field Test	Secondary granular components or other materials such as organics, man-made debris, etc.							
		Percent	Silt and Clay In:		Percent	Sand and Gravel In:			
Fine-Grained Soil	Coarse-Grained Soil		Fine-Grained Soil	Coarse-Grained Soil					
dry	very low moisture, dry to touch	< 5	trace	trace	< 5	trace	trace		
moist	damp, without visible moisture	5 - 12	minor	with	5 - 15	minor	minor		
wet	visible free water, usually saturated	> 12	some	silty/clayey	15 - 30	with	with		
					> 30	sandy/gravelly	Indicate %		
 9450 SW Commerce Circle - Suite 300 Wilsonville, OR 97070 503.968.8787 www.geodesigninc.com APPENDIX 11D - PUBLIC COMMENTS 2025 SOIL CLASSIFICATION SYSTEM TABLE A-2 A11D0073									

DEPTH FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT % RQD% CORE REC%	INSTALLATION AND COMMENTS
0.0		Dense, gray-brown, silty GRAVEL with sand and cobbles (GM), trace organics (rootlets, woody debris); moist - FILL.				0 50 100	
2.5		Medium stiff, yellow-brown with brown mottled SILT (ML), minor clay, trace sand; moist, sand is fine.	3.0	PP		6 35	Perched water at 2.0 feet. PP = 1.25 tsf
5.0		with sand at 5.0 feet		P200 PP		7	P200 = 83% PP = 1.0 tsf
7.5		wet, interbeds of CLAY and silty SAND (1 to 3 inches thick) at 8.0 feet		P200 PP		7	P200 = 76% PP = 1.0 tsf
10.0				ATT PP		23	PP = 1.75 tsf LL = 28% PL = 24%
12.5							
15.0		very stiff; without interbeds, laminated (1 to 2 inches thick) at 15.0 feet					
17.5							
20.0		Medium dense, light gray-brown, silty SAND (SM); wet, sand is fine.	18.5				
22.5		Stiff, light brown SILT (ML), trace sand and clay; moist.	21.0	P200		16	P200 = 32%
25.0		Loose, light brown, silty SAND (SM); wet, sand is medium, micaceous.	23.0				Driller Comment: sand at 23.0 feet.
27.5		Exploration terminated at a depth of 26.5 feet due to heavy, wet sand.	26.5	P200		7	P200 = 12%
30.0		Hammer efficiency factor is unknown. SPT completed using two wraps with a cathead.					Surface elevation was not measured at the time of exploration.
DRILLED BY: Dan J. Fischer Excavating, Inc. LOGGED BY: J. Hook COMPLETED: 02/22/19							
BORING METHOD: solid-stem auger (see document text) BORING BIT DIAMETER: 4 inches							
		CENTREXCON-4-01	BORING B-1				
9450 SW Commerce Circle - Suite 300 Wilsonville OR 97070 503.968.2187 www.geodesigninc.com		MARCH 2019	AURORA AIRPORT FUEL FARM AURORA, OR		FIGURE A-1 A11D0074		

8.0 feet during drilling



KEY	EXPLORATION NUMBER	SAMPLE DEPTH (FEET)	MOISTURE CONTENT (PERCENT)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
●	B-1	15.0	30	28	24	4

SAMPLE INFORMATION			MOISTURE CONTENT (PERCENT)	DRY DENSITY (PCF)	SIEVE			ATTERBERG LIMITS		
EXPLORATION NUMBER	SAMPLE DEPTH (FEET)	ELEVATION (FEET)			GRAVEL (PERCENT)	SAND (PERCENT)	P200 (PERCENT)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
B-1	0.0		5							
B-1	2.5		35							
B-1	5.0		38				83			
B-1	10.0		37				76			
B-1	15.0		30					28	24	4
B-1	20.0		32				32			
B-1	20.1		32							
B-1	25.0		27				12			

--	--	--	--	--	--	--	--	--	--	--



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CENTREXCON-4-01

MARCH 2019

SUMMARY OF LABORATORY DATA

AURORA AIRPORT FUEL FARM
AURORA, OR

FIGURE A-3

A11D0076



Geotechnical Investigation

Aurora State Airport
Parallel Taxiway Relocation

Aurora, Oregon

Prepared for:

W&H Pacific
Portland, Oregon

February 9, 2007

*Professional
Geotechnical
Services*

Foundation Engineering, Inc.

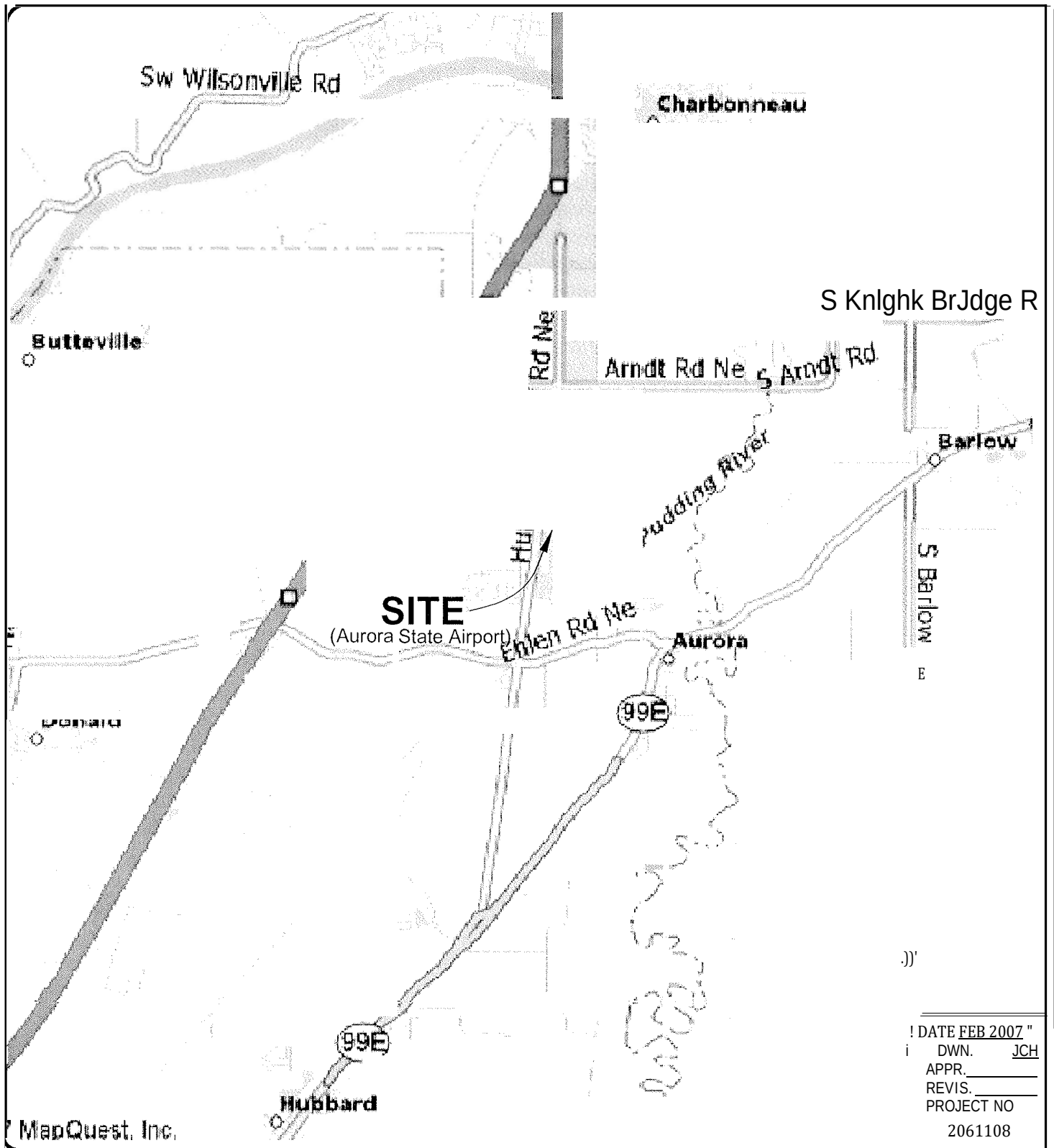


Appendix A

Figures

*Professional
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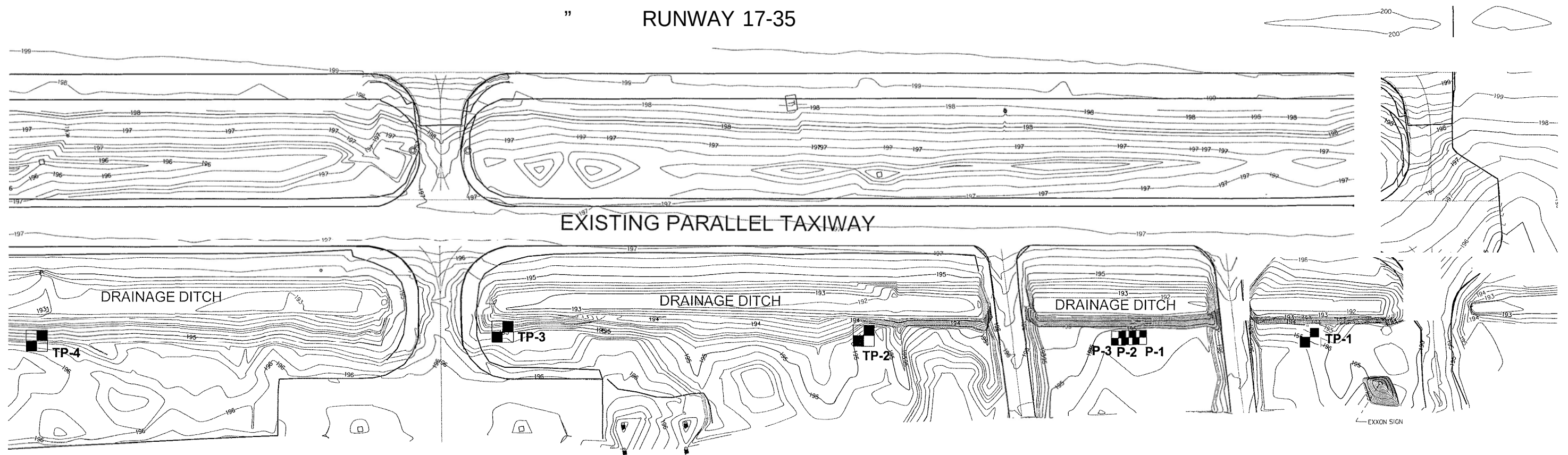
FOUNDATION ENGINEERING INC.
PROFESSIONAL GEOTECHNICAL SERVICES

820 N4 CORNELL 1VgNUE
CORVALLIS, OR 97330-4517
BUS. (541) 757-7845 r"IX (541) 757-7es0

VICINITY MAP
AURORA STATE AIRPORT
PARALLEL TAXI WAY RELOCATION
AURORA, OREGON

FIGURE NO.

1A



SCALE: 1" = 100'

0 50 100 200

NOTES:

1. TEST PIT, CORE HOLE AND PERMEABILITY TEST LOCATIONS WERE ESTABLISHED USING A MEASURING WHEEL AND ARE APPROXIMATE ONLY.
2. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.
3. BASE MAP WAS PROVIDED BY W&H PACIFIC.

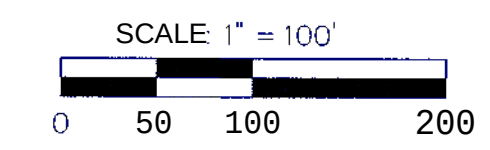
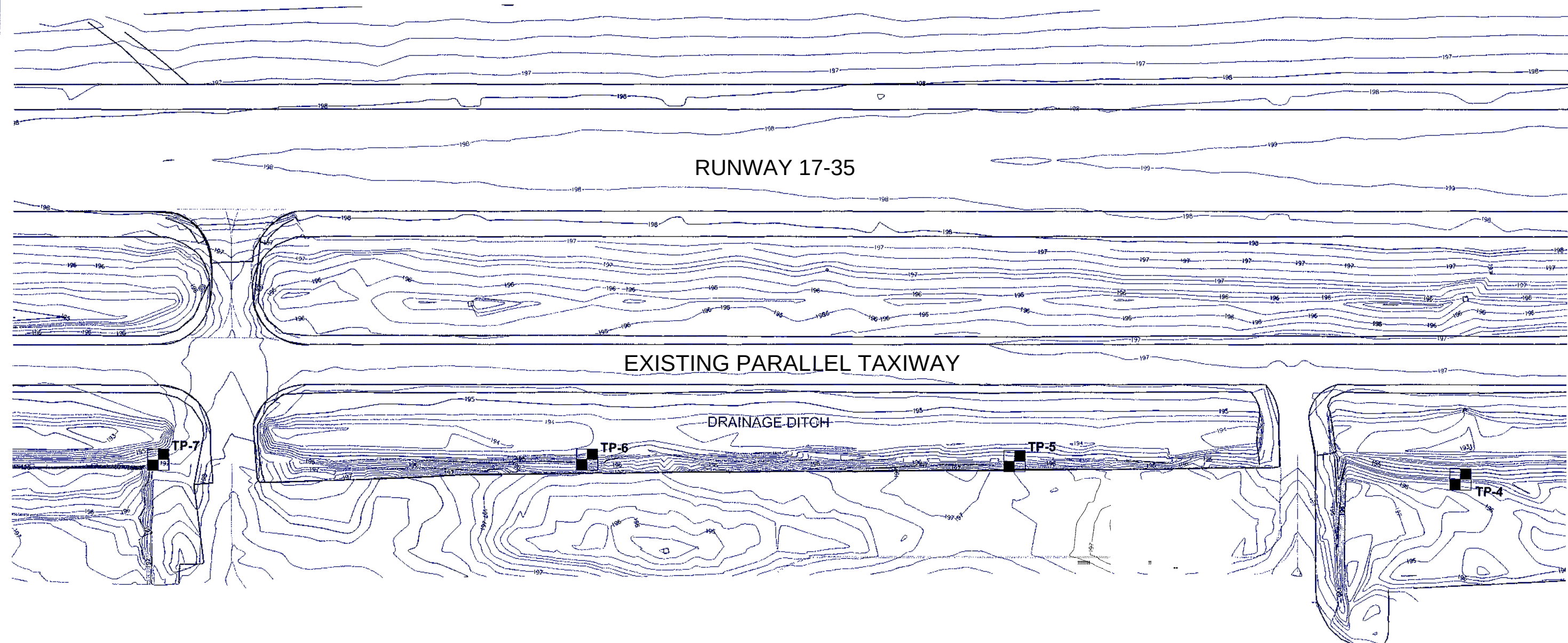


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DATE FEB 2007
DWN. JCH
APPR. _____
REVIS. _____
PROJECT NO.
2061108

SITE LAYOUT AND EXPLORATION LOCATIONS
AURORA STATE AIRPORT
PARALLEL TAXIWAY RELOCATION PROJECT
AURORA, OREGON

FIGURE NO.
2A



NOTES:
1. TEST PIT, CORE HOLE AND PERMEABILITY TEST LOCATIONS WERE ESTABLISHED USING A MEASURING WHEEL AND ARE APPROXIMATE ONLY
2. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.
3. BASE MAP WAS PROVIDED BY W&H PACIFIC.



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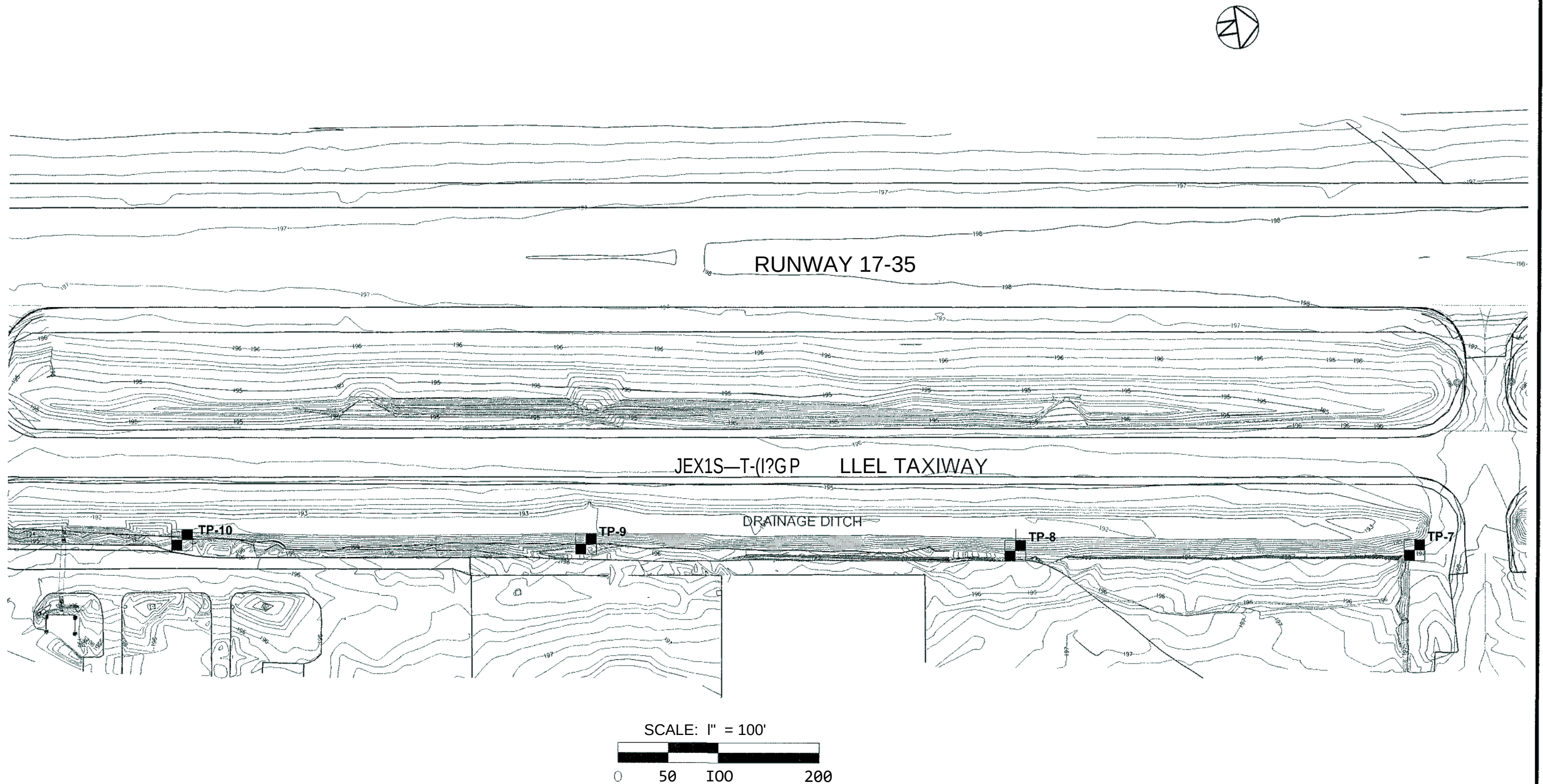
820 NW CORRIELL AVE
CORVALLIS, OR 97330-4414
BUS. (503) 757-7645 FAX (503) 757-7650

DATE FEO 2007
DWN. JCH
ppQ

REV. IS. _____
PROJECT NO. 2061108

SITE LAYOUT AND EXPLORATION LOCATIONS
AURORA STATE AIRPORT
PARALLEL TAXIWAY RELOCATION PROJECT
AURORA, OREGON

FIGURE NO.
3A



NOTES:

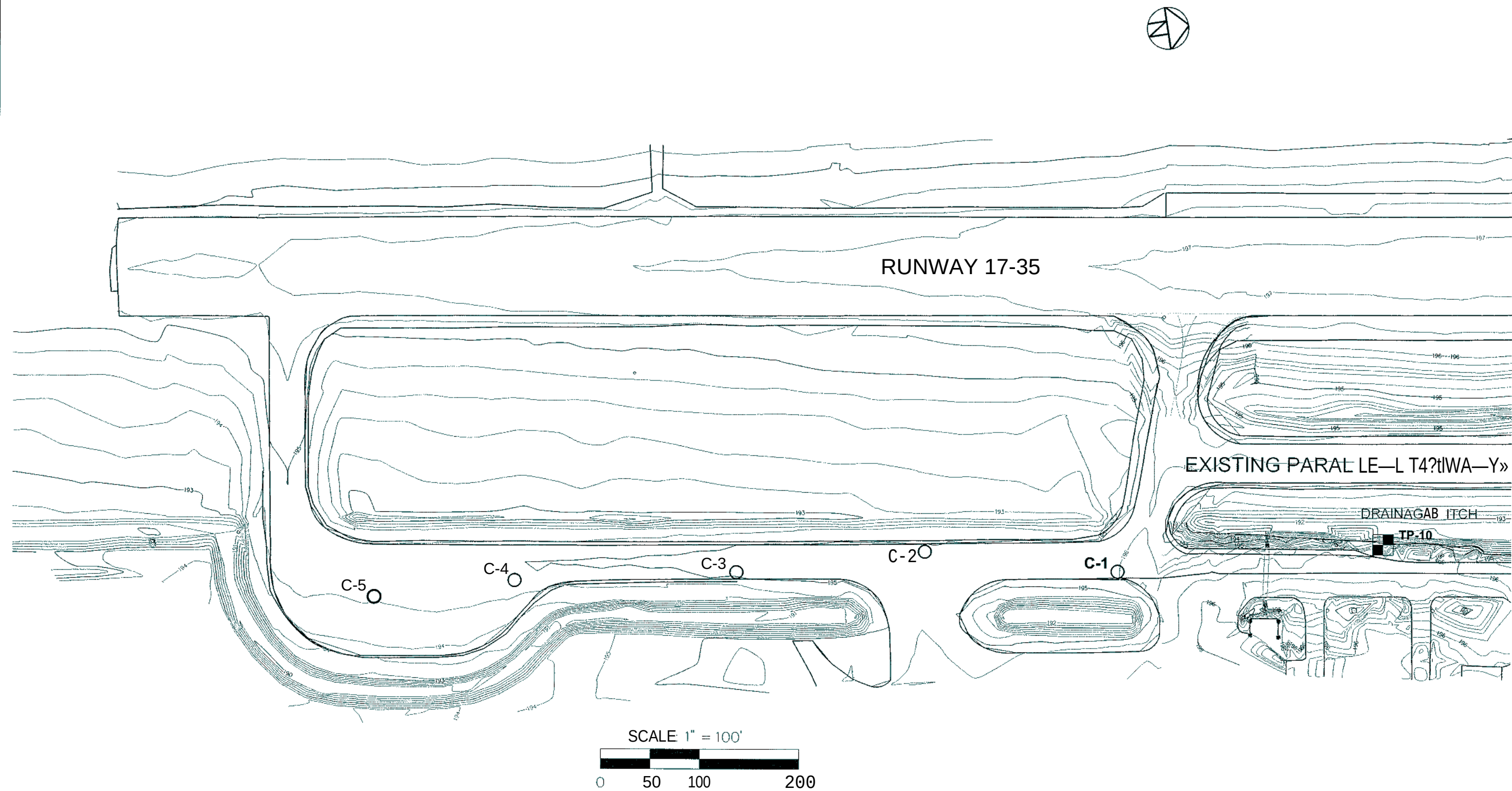
1. TEST PIT, CORE HOLE AND PERMEABILITY TEST LOCATIONS WERE ESTABLISHED USING A MEASURING WHEEL AND ARE APPROXIMATE ONLY.
2. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.
3. BASE MAP WAS PROVIDED BY W&H PACIFIC.

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PROFESSIONAL GEOTECHNICAL SERVICES
820 N. CORNELL JICX05
CORYALMS. OR 97330-4414
8u3. (54) t5t-z6x5 FxX {54i} '75t-z6s0

DATE /E02IXI/
OWN JCH
APPR. _____
REV I.S. _____
PROJECT NO
2061108

SITE LAYOUT AND EXPLORATION LOCATIONS
AURORA STATE AIRPORT
PARALLEL TAXIWAY RELOCATION PROJECT
AURORA, OREGON

FIGURE NO.
4A



NOTES:

1. TEST PIT, CORE HOLE AND PERMEABILITY TEST LOCATIONS WERE ESTABLISHED USING A MEASURING WHEEL AND ARE APPROXIMATE ONLY.
2. SEE REPORT FOR A DISCUSSION OF SUBSURFACE CONDITIONS.
3. BASE MAP WAS PROVIDED BY W&H PACIFIC.

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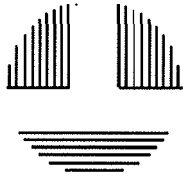
820 NW CORNELL AVENUE
CORVALLIS, OR 97330-4517
BUS. (541) 757-7645 FAX (541) 757-7650

DATE 10/27/07
DWN JCH
APPR. _____
REVIS. _____
PROJECT NO. 2061t08

SITE LAYOUT AND EXPLORATION LOCATIONS
AURORA STATE AIRPORT
PARALLEL TAXIWAY RELOCATION PROJECT
AURORA, OREGON

FIGURE NO.

5A



*Professional
Geotechnical
Services*

Appendix B

Test Pit and Core Hole Logs

Foundation Engineering, Inc.

DISTINCTION BETWEEN FIELD LOGS AND FINAL LOGS

A field log is prepared for each boring or test pit by our field representative. The log contains information concerning sampling depths and the presence of various materials such as gravel, cobbles, and fill, and observations of ground water. It also contains our interpretation of the soil conditions between samples. The final logs presented in this report represent our interpretation of the contents of the field logs *and* the results of the laboratory examinations and tests. Our recommendations are based on the contents of the final logs and the information contained therein and not on the field logs.

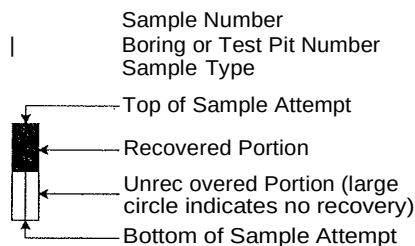
VARIATION IN SOILS BETWEEN TEST PITS AND BORINGS

The final log and related information depict subsurface conditions only at the specific location and on the date indicated. Those using the information contained herein should be aware that soil conditions at other locations or on other dates may differ. Actual foundation or subgrade conditions should be confirmed by us during construction.

TRANSITION BETWEEN SOIL OR ROCK TYPES

The lines designating the interface between soil, fill or rock on the final logs and on subsurface profiles presented in the report are determined by interpolation and are therefore approximate. The transition between the materials may be abrupt or gradual. Only at boring or test pit locations should profiles be considered as reasonably accurate and then only to the degree implied by the notes thereon.

SAMPLE OR TEST SYMBOLS



- S — Grab Samples
- SS — Standard Penetration Test Sample (split—spoon)
- SH — Thin-walled Shelby Tube Sample
- C — Core Sample
- CS — Continuous Sample

▲ Standard Penetration Test Resistance equals the number of blows a 140 lb. weight falling 30 in. is required to drive a standard split—spoon sampler 1 ft. Practical refusal is equal to 50 or more blows per 6 in. of sampler penetration.

● Water Content (@).

UNIFIED SOIL CLASSIFICATION SYMBOLS

- | | |
|------------|---------------------|
| G — Gravel | W — Well Graded |
| S — Sand | P — Poorly Graded |
| M — Silt | L — Low Plasticity |
| C — Clay | H — High Plasticity |
| Pt — Peat | O — Organic |

MELO SHEAR STRENGTH TEST

Shear strength measurements on test pit side walls, blocks of soil or Shelby tube samples are typically made with Torvane or pocket penetrometer devices.

TYPICAL SOIL/ROCK SYMBOLS

- | | |
|--------|-----------|
| Sand | Silt |
| Clay | Gravel |
| Basalt | Siltstone |

WATER TABLE

Water Table Location

(1/31/00) Date of Measurement

Piezometer Tip Location (if used)



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SYMBOL KEY BORING AND TEST PIT LOGS

Explanation of Common Terms Used in Soil Descriptions

field Identification	Cohesive Soils			Gronulor Soils " ""	
	SPT	s _u ° (tel)	Term	SPT	Term
Eosily penetrated several inches by fist.	0 — 1	0.125	Very Soft	0 — 4	Very Loose
Eosily penetrated several inches by thumb.	2 — 4	0.123 0.25	Soft	5 — 10	Loose
Can be penetrated several inches by thumb with moderate effort.	5 — 8	0.25 — 0.50	Medium Stiff (Firm)	11 — 30	Medium Dense
Readily indented by thumb but penetrated only with great effort.	9 — 1g	0.50 — 1.0	Stiff	31 — 50	Dense
Readily indented by thumb nail.	16 — 30	1.0 — 2.0	Very Stiff	> 50	Very Dense
Indented with difficulty by thumb nail.	31 — 60	> 2.0	Hard		

+ Undrained shear strength

	Soil Moisture Field Description
Dg	Absence of moisture. Dusty. Dry to the touch.
Domp	Soil has moisture. Cohesive soils ore below plastic limit and usually moldable.
Moist	Groins appear darkened, but no visible woter. Silt/clay will clump. Sand will bulk. Soils are often at or near plastic limit.
Wet	Visible water on larger grain surfaces. Sand and cohesionless silt exhibit dilotancy. Cohesive silt/clay can be readily remolded. Soil leaves wetness on the frond when squeezed. "Wet" indicotes that the soil is wetter than the optimum moisture content and above the plastic limit.

Term	PI	Plosticity Field Test
Nonplastic	0 — Z	Cannot be rolled into a thread.
Low Plasticity	3 — 15	Can be rolled into a thread with some difficulty.
Medium Plasticity	15 — 30	Easily rolled into thread.
High Plasticity	TO	Easily rolled and rerolled into thread.

Tenm	Soil Structure Criterio "
Strotitieb	Alternating foyers at least 1 inch thick — describe variation.
Laminated	Alternating layers at less th on 1 inch thick — describe variation.
Fissured	Contains shears and partings along planss of weakness.
Slickensides	Partings appear glossy or striated.
Blocky	Breaks into lumps — crumbly.
Lensed	Contains pockets of different soils — describe variation.

Term	Soil Cementotion Criterio "
Weak	Breaks under light finger pressure.
Moderate	Breaks under hard finger pressure.
Strong	Will not break with finger pressure.

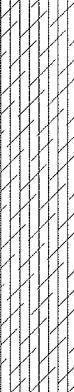
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COMMON TERMS SOIL DESCRIPTIONS

Comments	Depth, Feet	Sample #	Soil Classification	Soil and Rock Description
Surface: short grass.				Medium stiff, clayey SILT, (ML); brown, moist, low plasticity, blocky structure, (topsoil).
Fine roots extend to +12 inches.	1		020	Soft to medium stiff, clayey SILT, (ML); brown-grey, trace iron-staining, moist to wet, low plasticity, micaceous, (alluvium).
	2	S-1-1		
	3			
Moderate seepage noted at +3 feet.	4			Medium stiff SILT, some sand, (ML) brown-grey, wet, non-plastic to low plasticity, fine sand, (alluvium).
	8			
	9			
	10			BOTTOM OF TEST PIT
	11			
Project No.: 2061108	Test Pit Log: TP- 1			
Surface Elevation: N/A	Aurora State Airport Parallel Taxiway Relocation			
Date of Test Pit: January 9, 2007	Aurora, Oregon			

Comments	Depth, Feet	Sample #	Soil Classification	Soil and Rock Description
	1	S-2-1		alk bro d , uo st)P ayeySd.QT tpaa ticity, becky n turM," (topsoi).
Fine roots extend to +18 inches.	2	5-2-2		Medium stiff to stiff, SILT, some clay, trace sand, (CL-ML); brown-grey, trace iron-staining, moist, medium plasticity, semi-blocky structure, micaceous, (alluvium).
	3			
Slow seepage noted at +4 feet.	4	52		Stiff SILT, some clay, trace sand, (CL-ML); brown-grey, moist to wet, low to medium plasticity, fine sand, micaceous, (alluvium).
	5			
	6			
	8			
	9			
	10			BOTTOM OF TEST PT
Project No.: 2061108	Test Pit Log: TP- 2"			
Surface Elevation: N/A	Aurora State Airport Parallel Taxiway Relocation			
Date of Test Pit: January 9, 2007	Aurora, Oregon			

Comments	Depth, Feet	Sample #	Location	Class Sy	Water Ta	C, TSF	Symbol	Soil and Rock Description
Surface: short grass.	1	S-3-1						Soft to stiff, SILT, some clay, trace sand, (ML); brown-grey, trace iron-staining, moist, low to medium plasticity, fine sand, micaceous, (alluvium).
	2							
	3-							
Slow seepage noted at ±3.5 feet.	4-	S-3-2						Stiff, clayey SILT, trace sand, (CL-ML); brown-grey; moist to wet, low to medium plasticity, fine sand, micaceous, (alluvium).
	5-							
Rapid seepage noted at ±6.5 feet.	6							BOTTOM OF TEST PIT
	7							
	8							
	9							
	10-							
	11							
Project No.:	2061108						Test Pit Log: TP- 3	
Surface Elevation:	N/A						Aurora State Airport Parallel Taxiway Relocation	
Date of Test Pit:	January 9, 2007						Aurora, Oregon	

Comments	Depth, Feet	Sample #	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
Surface: short grass.	1-	S-4-1						Stiff, SILT, some clay, trace sand, (ML); brown-grey, trace iron-staining, moist to wet, low plasticity, micaceous, (alluvium).
Fine roots extend to ±2 feet.	2-							Blocky structure noted in upper±5 feet.
Moderate seepage noted at ±3 feet.	3-							
	4-							
	5-							
	6-							
	7-							
	8-							
	9-							
	10-							
	11-							
BOTTOM OF TEST PIT								

Project No.: 2061108

Surface Elevation: N/A

Date of Test Pit: January 9, 2007

Test Pit Log: TP- 4

Aurora State Airport Parallel Taxiway Relocation

Aurora, Oregon

Comments	Depth, Feet	amp le e	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
Surface: short grass and trace gravel fill.	1							Medium stiff, gravelly SILT, some clay, (CL-ML); dark brown, moist to wet, medium plasticity, fine to coarse, subrounded to rounded gravel, blocky structure, (fill).
Fine roots extend to +2 feet.	2	S-5-1				0.80		Medium stiff to stiff, clayey SILT, (CL-ML); brown-grey, trace iron-staining, moist to wet, medium plasticity, micaceous, (alluvium).
Slow to moderate seepage noted at +3 feet.	3							
	4							
	5							Stiff SILT, trace clay and sand (ML) brown-greys moist to wet, low plasticity, fine sand, micaceous, (alluvium).
	6							
	7							
	8							
	10							BOTTOM OF TEST PIT
	11							
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007 Test Pit Log: TP- 5 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon								

Comments	m	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
Surface: short grass and trace gravel.							Medium stiff, clayey SILT, trace gravel, (CL-ML); dark brown, moist, medium plasticity, blocky structure, (topsoil/fill).
Fine roots extend to +2 feet.	2	S-6-1					Medium stiff, clayey SILT, (CL-ML); brown-grey, trace iron-staining, moist to wet, low to medium plasticity, blocky structure, micaceous, (alluvium).
Slow to moderate seepage noted at +3 feet.	4	S-6-2					Stiff SILT, some clay, trace sand, (ML); brown-grey, moist to wet, low plasticity, fine sand, micaceous, (alluvium).
	5						
	7						
	9						
	10						BOTTOM OF TEST PIT
	11						
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007 Test Pit Log: TP- 6 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon							

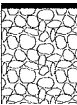
Comments	Depth, Feet	m	Location	Class Symbol	Water Table	C, TSF	m	Soil and Rock Description
Fine roots extend to +2 feet.	2-	S-7-1						Medium stiff, gravelly SILT, some clay, (ML)/ brown, moist, medium plasticity, fine to coarse, subrounded gravel, (fill).
Slow seepage noted at +4 feet.	4							Stiff clayey SILT, (ML), brown-grey, trace ironstaining, moist to wet, low plasticity, micaceous, (alluvium).
Rapid seepage noted at +5.5 feet.	5- g							
	7-							
	40-							
	11-							
BOTTOM OF TEST PIT								
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007								Test Pit Log: TP- 7 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon

Comments	Depth, Feet	Sample #	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
Surface: tall grass.	1-							Medium stiff to stiff SILT, trace clay and sand, (ML); brown-grey, moist to wet, low plasticity, fine sand, micaceous, (alluvium).
Fine roots extend to ±12 inches.	2-	S-8-1						
Slow seepage noted at ±3 feet.	3-							
	4-							
	5-							
	6-							
	7-							
	8-							
Rapid seepage noted at ±8.5 feet.	9-							
	10-							
	11-							
BOTTOM OF TEST PIT								
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007								Test Pit Log: TP- 8 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon

Comments	Depth, Feet	Sample #	Location	Class Symb	Water Table	C, TSF	m	Soil and Rock Description
Surface: tall grass.	1-	S-9-1						Soft to medium stiff, clayey SILT, (ML) dark brown, moist, low to medium plasticity (topsoils)
	2	g ₂						Medium stiff, clayey SILT, (CL-ML); grey-brown, trace iron-staining, moist to wet, medium plasticity, blocky structure, micaceous, (alluvium).
Slow seepage noted at +2.5 feet.	3-							Stiff SILT, some clay, (ML); brown-grey, moist to wet, low to medium plasticity, micaceous, (alluvium).
	4-							
	5-							
	6-							
	7-							
	9							
	10-							
	11							BOTTOM OF TEST PIT
Project No.: 2061108	Test Pit Log: TP- 9							
Surface Elevation: N/A	Aurora State Airport Parallel Taxiway Relocation							
Date of Test Pit: January 9, 2007	Aurora, Oregon							

Comments	pth,	mpl	Ratio	Class S	Water T	C, TSF	Symbol	Soil and Rock Description
Surface: short grass.		5-10-1						Medium stiff to stiff, clayey SILT, (ML); dark brown, moist, low plasticity, (possible topsoil).
	2							
	3	S-10-2						
	4					045		Stiff, SILT, some clay, trace sand, (CL-ML); brown-grey, moist, medium plasticity, fine sand, micaceous, (alluvium).
	5-							
	6							
No ground water encountered to the limit of excavation.	9							
	10-							BOTTOM OF TEST PIT
	11-							
Project No.: 2061108	Test Pit Log: TP-10							
Surface Elevation: N/A	Aurora State Airport Parallel Taxiway Relocation							
Date of Test Pit: January 9, 2007	Aurora, Oregon							

Comments	Depth, feet	Sample #	Location	Class Sym	Water Tabl	C, TSF	Sym	Soil and Rock Description
No ground water encountered to the limit of excavation.	1	C-1-1						ASPHALTIC CONCRET E (+4 inches). Dense CRUSHED ROCK (+14inches), (GW); grey, moist, +2-inch minus, (base rock).
								+3?•-inch, rounded cobble encountered at +18 inches.
	2	SHC-1-2						Stiff, clayey SILT, (CL-ML), grey, moist, medium plasticity, (alluvium).
								BOTTOM OF CORE HOLE
	3-							
	4-							
	5							
Project No.:	2061108		Core Hole Log: C-1					
Surface Elevation:	N/A		Aurora State Airport Parallel Taxiway Relocation					
Date of Test Pit:	January 10, 2007		Aurora, Oregon					

Comments	Depth,	Sampl	Locati	Class	Water T	C, TSF	Symbol	Soil and Rock Description
No ground water encountered to the limit of excavation.		C-2-1						ASPHALTIC CONCRETE (14"é inches). Dense CRUSHED ROCK (/+14a inches); (GW); grey to brown, damp, 1-inch minus, (base rock).
		SHC-2-2						Stiff, clayey SILT, (CL-ML); brown-grey, moist, medium plasticity, (alluvium).
								BOTTOM OF CORE HOLE
	3-							
	4							
	5-							
Project No.:	2061408		Core Hole Log: C-2					
Surface Elevation:	N/A		Aurora State Airport Parallel Taxiway Relocation					
Date of Test Pit:	January 10, 2007		Aurora, Oregon					

Comments	Depth, Feet	Sample #	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
No ground water encountered to the limit of excavation.								ASPHALTIC CONCRETE (±4 inches).
	1-	C-3-1						Dense CRUSHED ROCK (±13 inches), (GW); grey, moist, 2-inch minus, (base rock).
	2-	C-3-2						Stiff, clayey SILT, (CL-ML); grey-brown, trace iron-staining, moist, medium plasticity, micaceous, (alluvium).
	3-							BOTTOM OF CORE HOLE
	4-							
	5-							
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 10, 2007 Core Hole Log: C-3 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon								

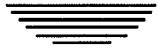
Comments	Depth, Feet	Sample #	Location	Class Symbol	Water Table	C, TSF	Symbol	Soil and Rock Description
Slow seepage noted at +1.5 feet								ASPHALTIC CONCRETE (±5½ inches).
	1-	C-4-1						Dense CRUSHED ROCK (±13½ inches), (GW); grey, moist ±2-inch minus, (base rock).
	2-	SHC-4-2						Stiff, clayey SILT, (CL-ML); grey, moist, medium plasticity, (alluvium).
	3-							BOTTOM OF CORE HOLE
	4-							
	5-							
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 10, 2007 Core Hole Log: C-4 Aurora State Airport Parallel Taxiway Relocation Aurora, Ore9on								

Comments	Depth, feet	Sample #	Location	Class	Water	Temperature	Soil and Rock Description
							ASPHALTIC CONCRETE (+5 inches).
	1	C-5-1					Dense CRUSHED ROCK (+27 inches), (GW); grey, moist, +2-inch minus, (base rock).
	2-						
No groundwater encountered to the limit of excavation.	3						BOTTOM OF CORE HOLE
	4'						
	5						
Project No.: 2061408							Core Hole Log: C-5
Surface Elevation: N/A							Aurora State Airport Parallel Taxiway Relocation
Date of Test Pit: January 10, 2007							Aurora, Oregon

Comments	Depth, Feet	Sample#	θ	Class Symbol	Water Table	C, TSF	E	Soil and Rock Description
Moderate seepage noted at ±1.5 feet.	1-							Medium stiff, clayey SILT, (ML); dark brown, moist, low to medium plasticity, blocky structure, (topsoil).
	2-							Soft to medium stiff, clayey SILT, (CL-ML); light brown-grey, trace iron-staining, wet, medium plasticity, blocky structure, (alluvium).
	3							
	4-							BOTTOM OF PERMEABILITY TEST
	6							
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007 Test Pit Log: P-1 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon								

Comments	Depth, Feet	Sample #	Location	Class Symb	Water Table	C, TSF	m	Soil and Rock Description
Moderate seepage noted at +1.5 feet.	1							Medium stiff, clayey SILT, (ML); dark brown, moist, low to medium plasticity, blocky structure, (topsoil).
	2							Soft to medium stiff, clayey SILT, (CL-ML); brown-grey, trace iron-staining, wet, medium plasticity, blocky structure, (alluvium).
	3	P-2-1						
	4	Z,						Stiff, clayey SILT, trace sand, (CL-ML); brown-grey, wet, medium plasticity, (alluvium).
	5							BOTTOM OF PERMEABILITY TEST
	7							
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007 Test Pit Log: P-2 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon								

Comments	Depth, Feet	Soil Profile	Soil Class	Soil Symbol	Water Table	C, TSF	Soil and Rock Description
Moderate seepage noted at +1.5 feet.	1						Medium stiff, clayey SILT, (ML): dark brown, moist, low to medium plasticity, blocky structure, (topsoil).
	2						Soft to medium stiff, clayey SILT, (CL-ML); brown-grey, trace iron-staining, wet, medium plasticity, blocky structure, (alluvium).
	3						
	4						Stiff, clayey SILT, trace sand, (CL-ML); wet, brown-grey, medium plasticity, (alluvium).
	5						
	6						
	7						
	8						BOTTOM OF PERMEABILITY TEST
Project No.: 2061108 Surface Elevation: N/A Date of Test Pit: January 9, 2007 Test Pit Log: P-3 Aurora State Airport Parallel Taxiway Relocation Aurora, Oregon							



Appendix C

Field and Laboratory Test Results

*Professional
Geotechnical
Services*

Foundation Engineering, Inc.

Table 1C. Summary of Field Permeability Testing

Test Location	Test Depth (feet)	Soil Description at Test Depth	Average k_v at test depth (cm/sec)
P-1	2.9	Medium stiff, brown-grey, medium plasticity, Clayey SILT (CL—ML)	1.3×10^{-7}
P-2	5	Stiff, brown—grey, medium plasticity, Clayey SILT; trace sand (CL—ML)	$+ 3 \times 10^{-7}$
P-3	7	Stiff, brown-grey, medium plasticity, Clayey SILT; trace sand (CL ML)	$+ 5 \times 10^{-7}$

Note: Tests were conducted on January 10 and 12, 2007.

Table 2C. Natural Water Content and Atterberg Limits

Sample Number	Sample Depth (feet)	Natural Water Content (percent)	LL	PL	PI	FAA/USCS Classification
S-1 -1	2.0 — 3.0	33.0				
S-2-1	1.0 — 1.5	33.7				
S-2-2	2.0 — 3.0	30.3	44	26	17	CL—ML
S-2-3	3.5 — 4.0	47.8				
S-3-1	1.0 — 1.5	38.6				
S-3-2	3.5 — 4.0	38.8				
S-4-1	2.0 — 3.0	37.6				
S-5-1	2.0 — 2.5	42.7				
S-6-1	1.0 — 1.5	42.4				
S-6-2	2.0 — 4.0	33.8	42	29	13	ML
S-7-1	2.0 — 2.5	30.5				
S-8-1	2.0 — 3.0	38.1				
S-9-1	1.0 — 1.5	34.1				
S-9-2	2.5 — 3.5	36.4				
S-10-1	1.0 — 1.5	31.0				
S-10-2	3.0 — 3.5	39.7				
SEC-1-2	1.8 — 2.1	25.4				
SHC-2-2	1.7 — 2.2	27.7				
SHC-4-2	1.9 — 2.7	25.2	42	24	18	CL
C-3-2	1.5 — 1.8	29.6				

Table 3C. Summary of Previous and Recent Moisture-Density and CBR Test Results

Test Date	Location	Soil Description	FAA/USCS Classification	Maximum Dry Density (pcf)	Optimum Moisture Content (%)	CBR at 95% Relative Compaction
1999	Apron	Brown, silty CLAY	CL	100.0	21.0	5.8
2005	Runway	Grey, Clayey SILT; trace sand	ML—OL	100.5	20.0	6.1
2005	Runway	Brown—Grey SILT; some clay, trace sand	ML	103.5	19.0	5.5
2005	Runway	Brown-Grey SILT; some clay, trace sand	ML	98.0	23.0	5.5
2007	Taxiway	Brown—Grey SILT; some clay, trace sand	CL—ML	97.4	19.9	5.7
2007	Taxiway	Brown-Grey SILT; some clay, trace sand	ML	95.9	20.5	7.2
Average =				99.2	20.6	6.0

Note: Maximum dry densities and Optimum moisture contents are based on ASTM D698 moisture-density test results.

Table 4C. Bulk Densities

Sample Number	Sample Depth (feet)	Soil Description	Water Content (%)	Moist Bulk Density (pcf)	Dry Density (pcf)	Relative Compaction
SEC-1-2	1.8 - 2.1	Grey, clayey SILT	25.4	124.8	99.4	100
SHC-2-2	4.7 - 2.2	Light brown, clayey SILT	27.7	117.0	91.6	94
SHC-4-2	1.9 - 2.7	Grey, clayey SILT	25.2	121.4	97.0	98

Note: Relative compaction is based on a maximum dry density of 99.2 pcf, which is based on the average results of six moisture-density tests (ASTM D698) on subgrade from Aurora Airport.

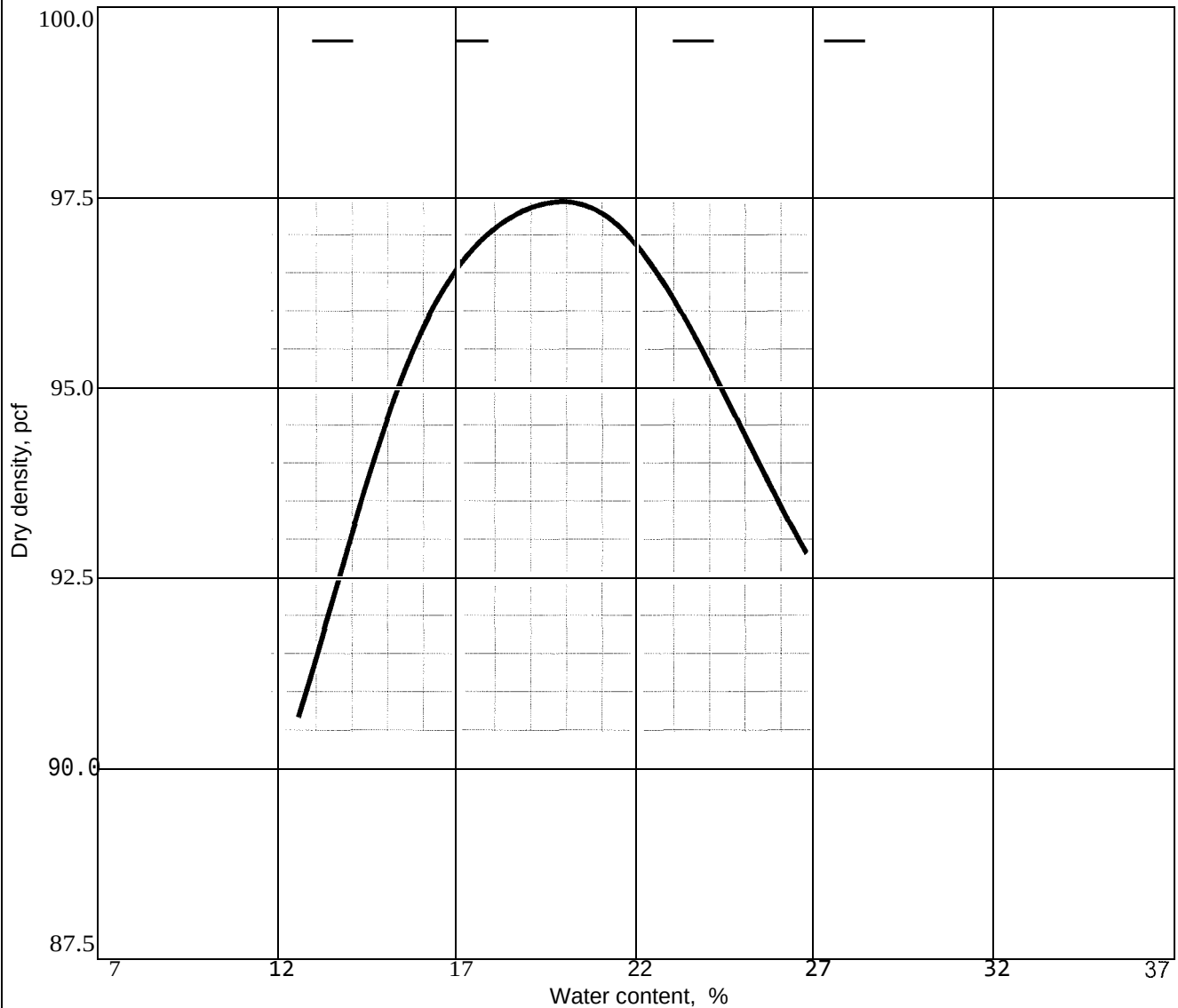
Figure 1 is a grain size distribution plot showing Percent Finer (Y-axis, 0 to 100) versus Grain Size in mm (X-axis, logarithmic scale from 200 to 0.001). The plot includes two curves: a solid line with open circles representing the material as received, and a dashed line with open circles representing the material after 100°C treatment. The curves are nearly identical, indicating that the grain size distribution remains stable after treatment. Key sieve sizes are marked at the top: 3/4 in, 1/2 in, #20, #100, #140, and #200.

[illegible]

Project No. 20G1108	Client: FoutJdatiotJ Engk eei kJg, lJc.	Remarks:
Project: Art otaState Aitpoi-t Taxlway; Arltota, Olcgo		
Source: 3423	Sample No.: S-2-2 Elev./Depth: 2.0-3.0	
Source: 3423	Sample No.: S-8-1 Elev./Depth: 2.0-3.0	

A11D00102

MOISTURE - DENSITY RELATIONSHIP TEST

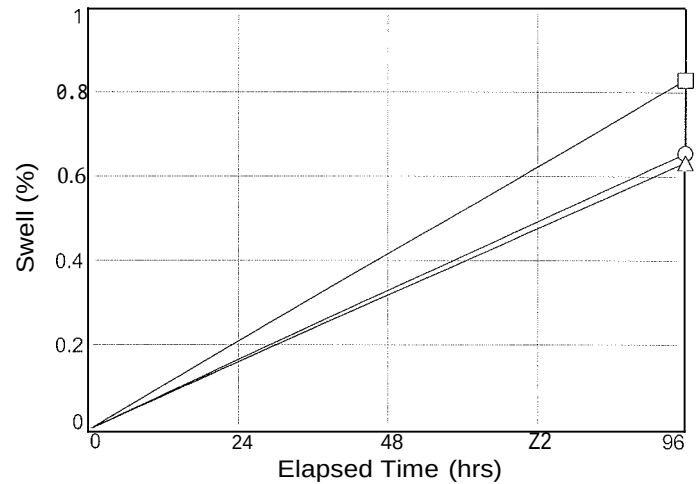
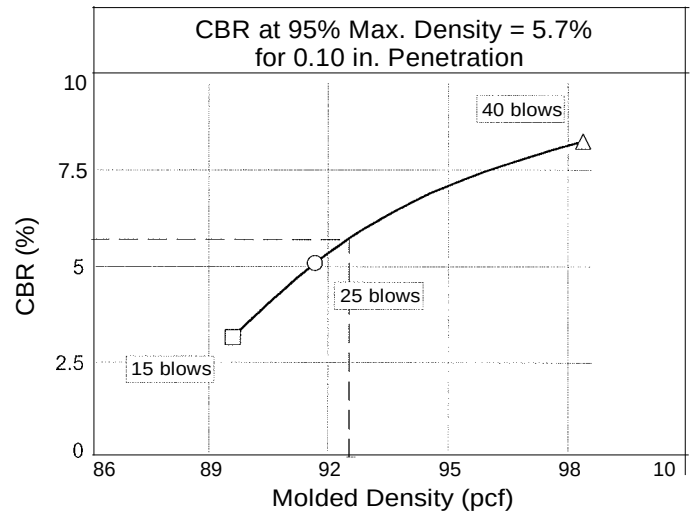
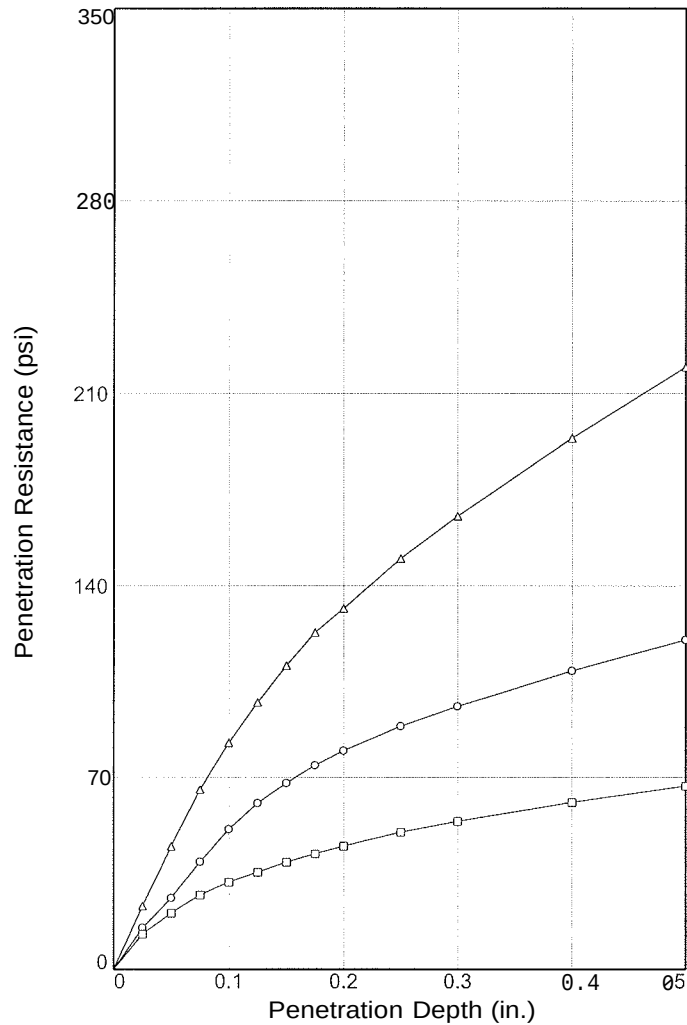


Test specification: ASTM D G98-00a Met) oJ A StatJda\ d

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
2.0-3.0	CL—ML		303		44	18	0.0	24.2
TEST RESULTS					MATERIAL DESCRIPTION			
Maximum dry density = 97.4 pcf					Drown-grey SILT; some clay, ti'ace sand			
Optimum moisture — 19.9 %								
Project N o. 2061 108 Client: Foundation Engineering, Inc. Project: Aurora State Airport Taxiway; Au1'ora, Oregon					Remarks: Dadc: ! -! 8-07			
u Source: 3425 Sample No.: S-1-1/S-2-2Elev./Depth: 2.0-3.0								
MOISTURE - DENSITY RELATIONSHIP TEST FEI Testing & Inspection, Inc. Corvallis, OR								
					Fig. No: 2C			

BEARING RATIO TEST REPORT

ASTM D 1883-99



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	91.7	94.1	19.6	91.1	93.5	30.2	5.1	5.3	0.000	32	0.7
2 △	98.4	101	18.7	97.8	100.4	28.2	8.3	8.8	0.000	32	0.6
3 □	89.6	92	19.0	88.9	91.2	30.8	3.2	3.0	0.000	32	0.8

Material Description							USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown—grey SILT; some clay, trace sand							CL—ML	97.4	19.9	44	18

Project No: 2061108

Project: Auiola State Aiipol Taxiway; Auiola, Oiegon

Source of Sample: 3425 Depth: 2.0-3.0

Sample Number: S-1-1/S-2-2

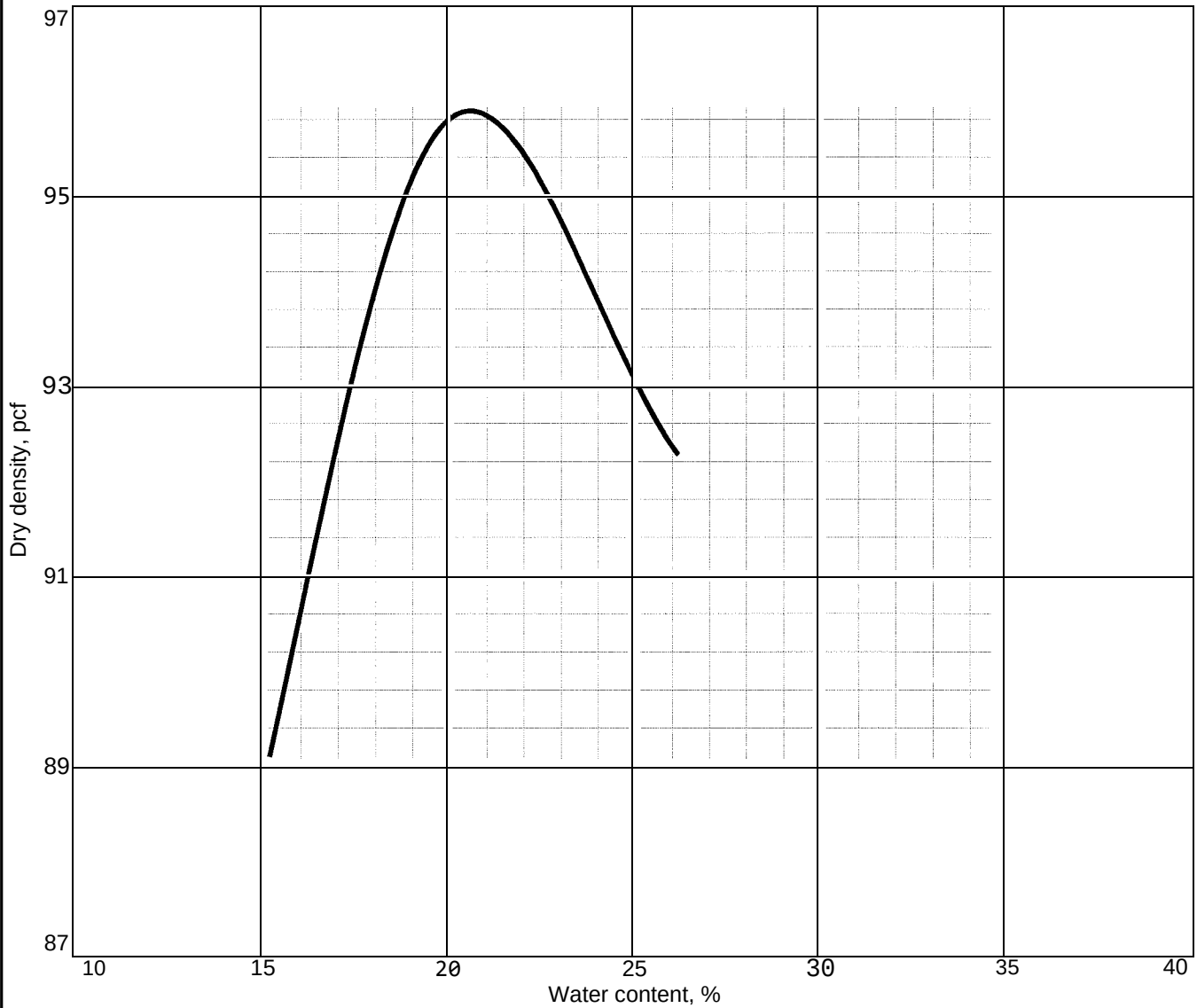
Date: 1-29-07

BEARING RATIO TEST REPORT
FEI Testing & Inspection, Inc.
Corvallis, OR

Test Description/Remarks:

Fig. No: 3C

MOISTURE - DENSITY RELATIONSHIP TEST



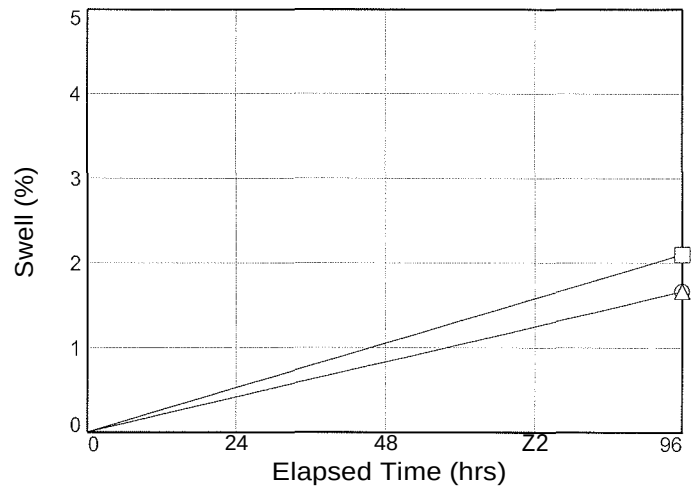
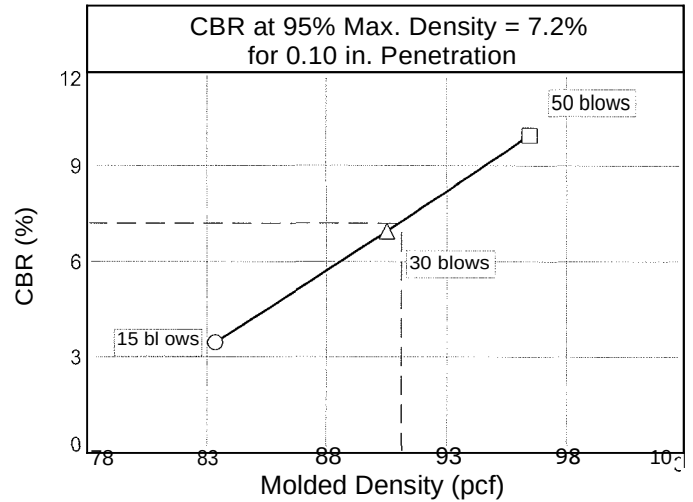
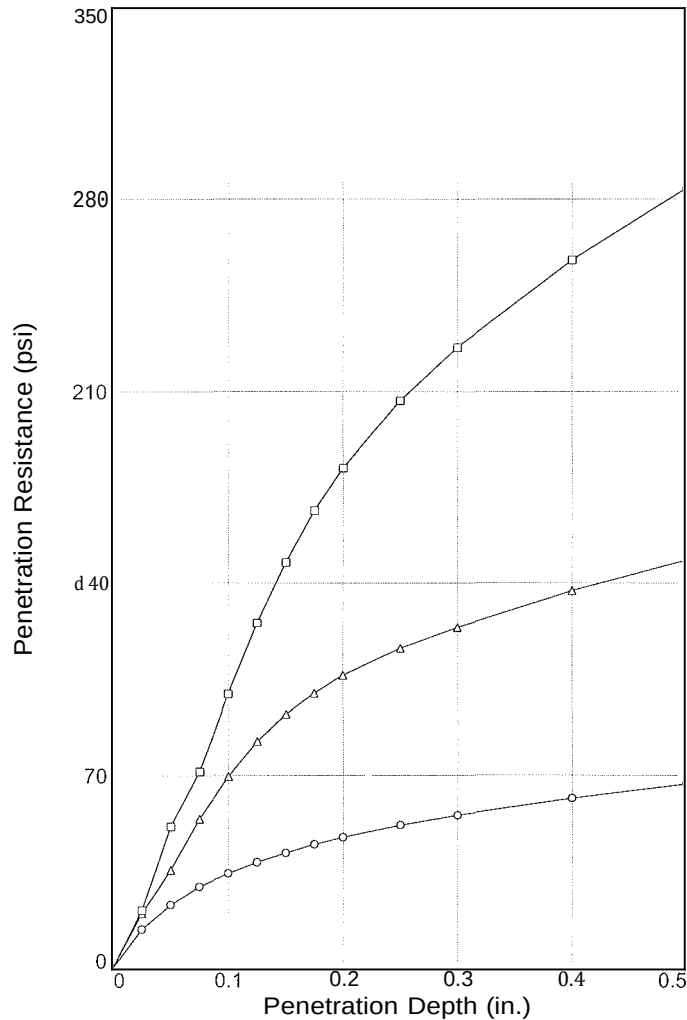
Test specification: ASTM D 698-00a Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% ≥ No.4	% ≤ No.200
	USCS	AASHTO						
2.0-4.0	ML		33.8		42	13		

TEST RESULTS			MATERIAL DESCRIPTION	
Maximum dry density = 95.9 pcf			Brown-grey SILT; some clay, fine sand	
Optimum moisture = 20.5 %				
Project No, 2061108 Client: Foundation Engineering, Inc. Project: Astoria State Airport Taxiway; Astoria, Oregon			Remarks:	
Location: 3425 Sample No.: S-5-2 Elev./Depth: 2.0-4.0				
MOISTURE - DENSITY RELATIONSHIP TEST FEI Testing & Inspection, Inc. Corvallis, OR				
			Fig. No: 4C	

BEARING RATIO TEST REPORT

ASTM D 1883-99



		Molded			Soaked			CBR (%)		Linearity	Surcharge	Max.
		Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.	Correction (in.)	(lbs.)	Swell (%)
1	O	83.4	87	20.2	82.0	85.5	35.0	3.4	3.2	0.000	32	1.7
2	A	90.5	94.4	19.1	89.0	92.8	32.2	6.9	7.1	0.000	32	1.7
3	D	96.5	100.6	19.4	94.5	98.5	29.7	10.0	12.1	0.000	32	2.1
Material Description								USES	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown-grey SILT; some clay, trace sand								ML	95.9	20.5	42	13

Project No: 2061108
 Project: Autoia State Aiipoi1 Taxiway; Autoia, Oiegon
 Source of Sample: 3425 Depth: 2.0-4.0
 Sample Number: S-6-2
 Date: 1-29-07

Test Description/Remarks:

BEARING RATIO TEST REPORT
 FEL Testing & Inspection, Inc.
 Corvallis, OR

Fig. No: DC



ENVIRONMENTAL
MANAGEMENT
SYSTEMS, INC.

OR: 503-353-9691

FAX: 503-353-9695

WA: 360-735-1109

www.envmgtsys.com

4080 SE International Way
Suite B-112
Milwaukie, OR 97222

5 November 2020
Report # 19-0054-02

Mr. Ted Millar
c/o: Aron Faegre & Associates
520 SW Yamhill St., Roofgarden 1
Portland, OR 97204

REGARDING: Winter Evaluation for feasibility of onsite wastewater treatment, HDSE Sewer System Association, Aurora State Airport, adjacent to Keil Rd. NE and Hubbard Cutoff Rd. NE, Aurora, OR 97002. T: 4S, R: 1W, Sec: 11, T.L: 800, 17.79 Acres

Dear Mr. Millar & Mr. Faegre,

As requested, Environmental Management Systems, Inc. (EMS) has performed the following services and provides this report for your use.

PROJECT DESCRIPTION:

The goal of this project is to expand the approved drainfield area for onsite wastewater treatment to serve future expansion of your existing HDSE Sewer System Association facilities located at the Aurora State Airport. The subject property is leased from the Oregon Department of Aviation by the HDSE Sewer System Association. The lease was recently renewed to accommodate expansion to include enough drainfield area to double the existing system's capacity in support of future development. The existing drainfields in this area were approved by DEQ in 2005 and have been functioning with no problems in the intervening 15 years since installation. There have been no documented drainfield problems in these soils. On September 25th, 2019, twelve test pits adjacent to the existing drainfields were evaluated by Marion County for feasibility for onsite wastewater treatment. EMS's analysis was that the soils are similar to the adjacent existing soils and will function acceptably. However, Marion County staff initially denied the application on October 8th, 2019 because they felt there was potential for seasonally high groundwater which could be a problem, and because they believed there was a presence of fill in this area. They recommended that for re-evaluation a tile dewatering system be installed to drain the area, and that a winter evaluation be conducted to determine the actual depth to seasonal water table. EMS designed a tile dewatering system which was installed in January of 2020. A winter evaluation was conducted through the winter of 2020. This report details our methods, findings, and recommendations for next steps and continues to recommend approval of the soils for the expansion use.

SUMMARY:

The average water depth across all twelve wells was 28 inches from the surface, after the tile dewatering system (TDS) was installed on January 23rd, 2020. The longest consecutive number of days that the water table rose above 12" below ground surface anywhere in the drainfield was about 3.8 days. On average, the water table rose above 12" for less than 1 day, with five out of the twelve wells having no shallow water table readings after the TDS was completed. Each well was dry when they were re-inspected in June following excessive rainfall during the previous six weeks. Based on success of the existing system and this study, we recommend approval of the drainfield areas for installation of a shallow pressure distribution drainfield, following Treatment Standard 1 or 2 similar to that currently in use. Permits require review and approval by DEQ.

METHODS: The following methods were used:

Observation x Measurement x Staking x Soil Evaluation x
Sampling x Inspection x Laser Elevations x Total Station x
Gov Records x Interview x Aerial Photo x Soil Survey x
Geologic Maps x Wetland Inventories x other (specify) Weather tracking x

LIMITATIONS: This investigation is limited by the precipitation frequency and duration.

LANDSCAPE SETTING:

The study area consists of Tax Lot 800 in Township 4S, Range 1W, Section 11, in Marion County Oregon, totaling 17.79 acres. The site is outside of the urban growth boundary for Aurora and is zoned P (public) by Marion County. The site is part of a complex of many lots all making up the Aurora State Airport. The onsite wastewater treatment system is owned and operated under a common entity known as the HDSE Sewer System Association. Lot 800 is owned by Oregon Department of Aviation, with part of the site leased by the Association as a private septic system easement. The proposed drainfield area is within the easement, south of the airport runway and on either side (east and west) of the runway flight path and instrument landing system (FAA localizer). An existing drainfield is located at the southeast corner of the easement, south and southeast of the new proposed drainfields. An approved reserve area is in the southwest corner of the easement. No signs of failure, such as surfacing or odors, have been observed in the existing system since its installation in 2005. Also, this state-owned property is fenced and monitored to protect it from unauthorized public access and or contact with sewage.

The site is situated in the lowlands of the Willamette Valley, northwest of the town of Aurora. The average elevation of the site is approximately 193 feet above sea level. The site is fairly flat, sloping 1-2% east and west, with a crown along the runway flight path. The soils in this area were established in 1993 when the runway was extended over existing farmland. There has been no disturbance of those soils in the intervening 27 years. Two drainage swales are located along the east and west property lines, draining surface runoff to the south. Concrete culverts at the southwest and southeast corners of the site convey drainage off site. The property is open and vegetated with grasses and other low-lying forbs. No wetlands are mapped on the property by the National Wetlands Inventory (US Fish & Wildlife), and none were observed during the site visit. According to Oregon Department of Geology and Mineral Industries (DOGAMI) geology of the site is mapped as Quaternary surficial deposits (fine grained sediments) of the Missoula Flood Deposits formation.

The soil on site is mapped by the Natural Resource Conservation Service (NRCS) as Amity silt loam. Amity is described as somewhat poorly drained with a depth to water table of 6 to 16 inches, and depth to restrictive layer over 80 inches. Conditions associated with saturation (redoximorphic features) were observed at 6-16 inches from the soil surface, indicating potential for a seasonally high-water table. Runway construction resulted in the deposition of fill soil along the sides. This soil has remained essentially undisturbed for 23 years.

The new drainfield lease area was surveyed prior to conducting the study. Enough area was included for two new drainfields and reserve areas to support a design flow of approximately 10,000 gpd, thereby doubling the existing system's capacity. Twelve test pits were dug across the site in the summer of 2019, with six on the eastern proposed drainfield area, and six in the western proposed drainfield area. Various depths of the (at least) 27 year old fill were observed over the native silt loam in the 6 eastern test pits dug on the site (TP's 5-10).

TILE DEWATERING SYSTEMS

Tile dewatering systems (TDS) were installed on the site in mid-January 2020, with completion on January 23rd, 2020. In both the east and west drainfield areas, two adjacent 70' by 350' rectangular dewatering trenches were installed. The field collection tile was installed with a slope of 0.2-0.4 percent at the bottom of the trenches; trench depths vary between 15 and 52 inches from ground surface. The trenches are 1 foot wide and are filled with EZFlow synthetic drain media. Each drainage system is connected to a 4" tight line installed on a 1% slope, which discharges to either the east or west drainage swale. Sediment basins were installed at the inlet end of each outfall pipe.

WATER TABLE MONITORING

While DEQ does not provide guidance on how to evaluate data, research has demonstrated that 21 days per season of actual saturation is needed to create the Redoximorphic Features which form the basis for Oregon DEQ to judge depth to water table. Published guidance from several sources, primarily the Recommended Procedures and Standards for Conducting a Water Table Study from Virginia Tech University¹ (2008) was used for conducting the water table study. On December 4th, 2019, thirteen (13) monitoring wells (piezometers) were installed on the site by registered geologist and licensed well constructor, Roger N. Smith (RG, License #10225).

Within each 70' x 350' tile dewatering area, 3 piezometers wells were installed (12 total). One additional well was installed approximately 20 feet north of the eastern tile system to collect barometric pressure. Each monitoring well consists of a 5-foot long, 1-inch diameter plastic PVC pipe capped with a plastic lid. The wells were installed approximately 3 feet below the surface, with 22-29 inches of pipe above ground surface. Special Standards were requested from and approved by the Oregon Water Resources Department. Silica filter sand was placed in the hole around the piezometer at the lowest 26 inches, followed by a 12-inch bentonite seal to the soil surface. A slit was sawed in the top of each pipe to allow the lid to be easily removed, and to release air pressure inside the well from the rising and lowering water table. Each well was assigned a number (Pz1 – Pz13) which was noted on metal start card tags and written in permanent marker on the pipe itself. Start cards for the wells were registered with the Oregon Water Resources Department.

Table 1. Measured and calculated Barodiver cord lengths relative to grade

Piezometer	Cord length (in.)	Cord length above grade (in.)	Cord length below grade (in.)
Pz1	57	27	30
Pz2	56	25	31
Pz3	57	29	28
Pz4	57	27	30
Pz5	57	28	29
Pz6	58	29	29
Pz7	57.5	27	30.5
Pz8	58	27	31
Pz9	56	27	29
Pz10	57.5	25.5	32
Pz11	57.5	25	32.5
Pz12	57	22	35

¹ Cobb, PR, Conta, JF, Steverson, ED, and Stull RL. Recommended Procedures and Standards for Conducting a Water Table Study, Version 1.0. Crop and Soil Environmental Sciences Department, Virginia Tech, Blacksburg, VA

DATA COLLECTION.

Barodiver data loggers were placed inside Pz's 1-12, between 28 and 35 inches below grade to collect water column pressure. One additional Barodiver was placed in Pz13 above the soil surface to collect atmospheric pressure for the study area. Technical specifications for the Barodiver data loggers are enclosed at the end of this report. The total cord length (CL) and cord length above grade (COG) for each Barodiver was measured manually and recorded (see Table 1). Data was collected automatically every four hours (6 times per day) from January 9th, 2020 until approximately 9:00 am on May 1st, 2020. Data for the date of the installation (January 8th) was omitted to avoid false readings caused by system testing, and an artificially high-water table immediately after the wells were dug. Each piezometer was surrounded by wooden stakes and caution tape for protection (see Figure 1 below).

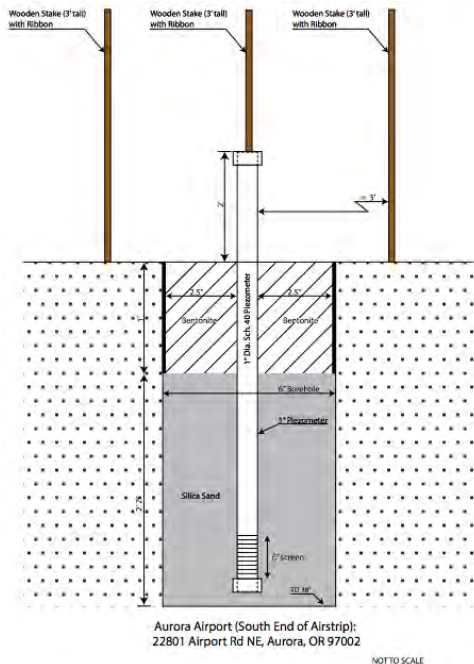


Figure 1. Piezometers were installed approximately 3 feet below grade and pressure sensors were hung from the top of the pipe. The well was sealed with bentonite clay.

The site was visited once each month during the study; a total of 5 times after setup. Each site visit consisted of the following:

1. Inspect each well to ensure they are still fully functioning and had not been tampered with
2. Download data from Barodiver data loggers onto laptop using USB data port
3. Visually inspect the tile dewatering system and assess flow

After all data was collected, the water level (WL) for each well was then determined using the following equation, where ρ is the density of water (1000 kg/m³) and g is the acceleration due to gravity (9.80665 m/s²s). :

$$WL = COG - CL + 9806.65 \frac{P_{diver} - P_{baro}}{\rho * g}$$

RAINFALL MONITORING

Precipitation data for January 2020 through April 2020 was collected from the Aurora State Airport weather station in Aurora, Oregon (45.2485, -122.7686). Normal precipitation levels were determined using the US Normal Data (1981-2010) from the National Oceanic and Atmospheric Administration (NOAA), obtained from the NRCS National Water and Climate

Center (https://www.wcc.nrcs.usda.gov/climate/navigate_wets.html). However, because the NOAA uses data from 1981-2010 to determine Climate Normals, this year's precipitation was also compared to the previous two years (2018 and 2019). Precipitation was found to be only 5% drier than last year (2019). Daily precipitation levels were monitored and compared to water table levels.

FINDINGS:

Precipitation

The precipitation for the past three years in the Aurora area has been less than what previously has been considered "normal" based on long term records. Table 2 below shows the monthly precipitation for 2020, 2019, and 2018 from data from the airport weather station. It is unknown whether there is going to be a new normal, however we can say this study was performed under precipitation conditions that were only 5% different than the previous year.

Table 2 – Monthly precipitation totals in inches for 2018, 2019, 2020.

Month	2020	2019	2018
January	7.06	3.49	5.57
February	1.64	3.97	2.06
March	2.53	1.54	2.97
April	1.32	4.24	5.04
Total	12.55	13.24	15.64

Table 3 shows total precipitation for the months of January through April 2020. Although the month of January was above normal, February, March, and April were drier than normal. The expected normal and the measured precipitation for the months of the study were totaled, and overall, the precipitation was found to be 70% of historic normal. Daily precipitation levels are graphed in Figure 2, below.

Table 3 – Percent of NOAA Normal precipitation for January 2020 – April 2020

Month	Normal (inches)	Measured (inches)	Percent of Normal
January	5.87	7.06	120
February	4.75	1.64	35
March	4.23	2.53	60
April	3.13	1.32	42
Total	17.98	12.55	70

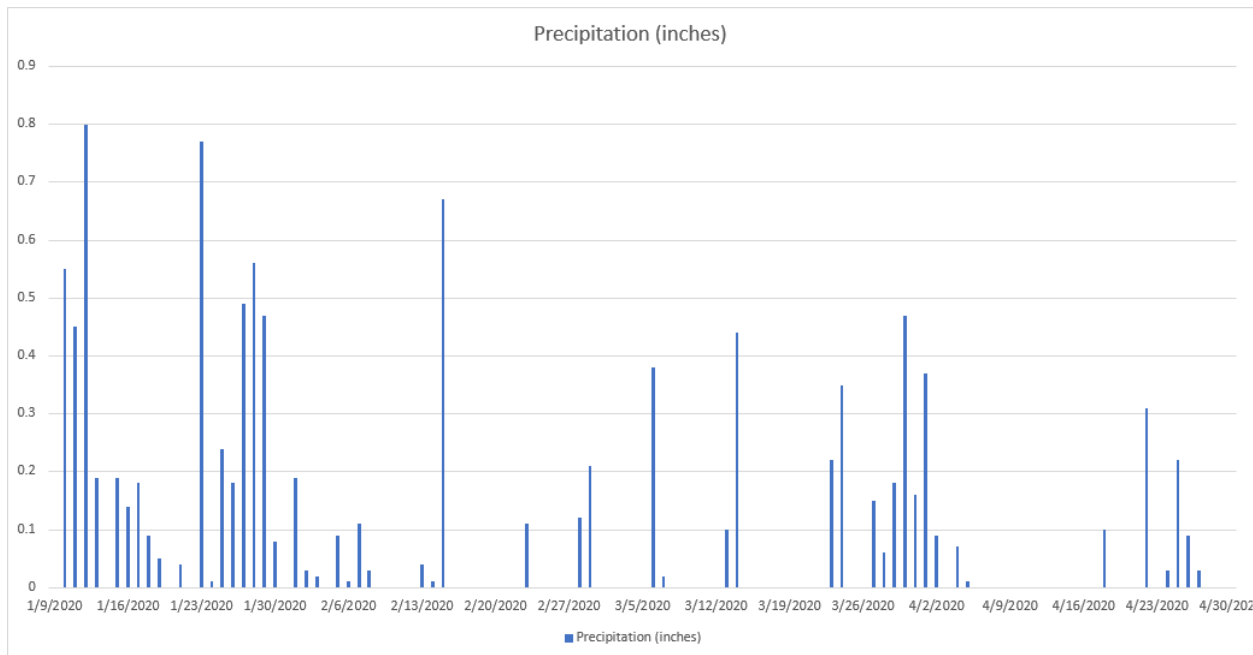


Figure 2 –Daily precipitation (inches) from the Aurora State Airport weather station (June 9th – May 1st).

Precipitation for May and June of 2020 was greater than normal, with 2.82 inches of rain in May (119% of normal), and 2.96 inches of rain in the first half of June (147% of monthly normal as of June 16th). EMS returned to the site on June 16th to manually measure the water table in each well. Each of the 12 piezometers was dry (no standing water in the well). 0.24 inches of rain fell on the day the measurements were taken. The ten days prior to the measurements each had precipitation, with the biggest rain event being on June 15th when 0.84 inches of rain fell. Daily climate data for each month is enclosed at the end of this report.

Well data and water table levels

A total of 681 readings were automatically collected every 4 hours from each piezometer during the study. The results were variable across all wells. Some of the wells exhibited periods of time where the water table was less than 12" from the ground surface (up to 37 readings a row in Pz9) whereas others had none at all. The average water table depth across all wells was 21" and 28" from ground surface, before and after the installation of the TDS respectively. Pz4 and Pz11 were always deeper than 12" throughout the study. The shallowest water table depth was in Pz12, at 3" on the dates of 01/16/2020 and 1/29/2020. Most shallow water table readings occurred in January, which had 120% of normal rainfall, and prior to the tile dewatering system being installed. Average and minimum water table depths before the tile dewater system was installed are summarized in Table 4, below. Piezometers are located on either the east or west side of the runway approach and departure areas.

Table 4. Average and highest water table levels, in inches, before the TDS installation (01/09/2020 – 01/22/2020).

Piezometer	Average water level	Highest water level	Location
Pz1	20	8	West
Pz2	19	6	West
Pz3	22	7	West
Pz4	26	13	West
Pz5	28	22	East
Pz6	20	9	East
Pz7	21	9	East
Pz8	17	6	East
Pz9	14	4	East
Pz10	23	12	East
Pz11	29	23	West
Pz12	17	3	West
Average	21	12	

After the tile dewatering system was completed, only seven of the twelve wells had occurrences of the water table being less than 12” from the surface (Table 5). These shallow water table events were brief periods that to correlate with significant rain events of 0.5 inches of rain or more over a 24-hour period. The average water table depth across all wells was 28” inches from the surface between 01/23/2020 and 05/01/2020.

Table 5. Average and highest water table levels, in inches, after TDS installation (01/23/2020 – 05/2020)

Piezometer	Average water level	Highest water level	Location
Pz1	24	5	West
Pz2	26	7	West
Pz3	27	5	West
Pz4	29	17	West
Pz5	28	10	East
Pz6	28	10	East
Pz7	31	30	East
Pz8	31	28	East
Pz9	28	17	East
Pz10	30	6	East
Pz11	30	17	West
Pz12	25	3	West
Average	28	13	

Daily precipitation is graphed along with water table levels in the enclosed hydrographs. All shallow water table readings occurred in January, which had 120% of normal rainfall, except for Pz1, which had one reading on 2/16/2020, and Pz12, which had three readings on 2/16/2020. 0.67 inches of rainfall occurred on the previous day (2/15/2020). The longest duration that any well had a shallow water table of 12” or less was 23 consecutive readings (about 3.8 days). See Table 6 below. In Pz1, Pz2, Pz5, Pz6, Pz10, and Pz12, the longest duration of shallow water table conditions occurred around the dates of 01/27/2020 - 01/29/2020, when approximately 1.5 inches of rain fell. On average, the water table was only above 12 inches for about 0.9 days after significant rain events. According to the standards recommended by Virginia Tech, less than 21 consecutive days of high-water table conditions is considered acceptable.

Table 6. Consecutive time of shallow water table conditions for each piezometer, after installation of TDS (01/23/2020 – 05/01/2020).

Piezometer	# of readings	Consecutive hrs.	Consecutive days	Dates
Pz1	13	5	2.2	1/28 - 1/30
Pz2	12	48	2.0	1/27 - 1/29
Pz3	0	0	0	--
Pz4	0	0	0	--
Pz5	4	16	0.7	1/28
Pz6	4	16	0.7	1/23, 1/28
Pz7	0	0	0	--
Pz8	0	0	0	--
Pz9	0	0	0	--
Pz10	10	40	1.7	1/27 - 1/29
Pz11	0	0	0	--
Pz12	23	92	3.8	01/27 - 01/31
Average	6	22	0.9	

Since May and June were wetter than normal, EMS returned to the site on June 16th to manually measure the water table in each well. Each well was dry, with no standing water at the bottom of the well.

Tile Dewatering System

The tile dewatering system was completed on January 23rd, 2020. During each site visit, water was observed flowing from the field collection tile into the outfall pipes. Water was also observed draining from the outlet of the pipe and discharging to the swales near the east and west property lines. Prior to the installation of the TDS, ten out of twelve wells had a high-water table of 12" or less from the surface. After the installation of the TDS, only seven out of twelve wells had a high-water table, and only for relatively short periods during significant rain events. The TDS is functioning as designed and has contributed to lowering the water table.



Figure 3 –Tile dewatering trenches were installed 15-52 inches below grade and filled with 12" EzFlow bundles. 4" pipes at the bottom of the trench sloped are at 0.2-0.4%.



Figure 4 –24" silt traps were installed at the inlet end of each tight line outfall, which discharged toward existing drainage swales on the site. Photo taken facing west toward the west property line (fence) with Hubbard Cutoff Rd. NE in the background.

CONCLUSIONS:

1. Precipitation for the months of January through April 2020 was only 5% drier than 2019. When compared to the NOAA 1981-2010 Climate Normals, precipitation during the study was 70% of "normal".
2. May and June were wetter than normal. May had 119% of normal precipitation. In June, 147% of the monthly normal precipitation had accumulated in the first half of the month. EMS returned to the site in mid-June to manually measure the water table levels.
3. Between January 9th and January 22nd, the average water table depth for each piezometer ranged between 14" (Pz9) and 29" (Pz10) from the ground surface and averaged 21" across all wells.
4. After installation of the tile dewatering system on January 23rd, the average water table depth across all wells increased to 28". In half of the wells, the water table never rose above 12" from the surface after the TDS was installed.
5. Most shallow water table readings (less than 12" from the ground surface) occurred in January, which had 120% of normal precipitation. Spikes in the water table levels appear to correlate with significant rain events of 0.5 inches or more over 24 hours.
6. The most consecutive number of days that the water table was rose above 12" from the soil surface was about 3.8 days in Pz12. On average, the water table lingered above 12" for about 0.9 days, although five out of twelve wells had no shallow water table readings after the TDS was installed. Less than 21 consecutive days of shallow water table is considered acceptable for onsite wastewater treatment.

7. No water was observed in the bottom of the wells when manual measurements were taken on June 16th, 2020. This was following an unusually wet June, which had already accumulated 2.96 inches of the total normal 2.02 inches of monthly precipitation in the first half of the month. 0.84 inches of rain fell the previous day (June 15th). The first half of June's 2.96 inches amounts to 146% of the whole months normal or 293% of the first half's expected 1.01 inches.
8. Onsite wastewater treatment appears feasible. Effluent will be highly treated to Treatment Standard 2 and disinfected, using the existing Advantex AX100 textile filters, or similar technology with Ultra Violet Disinfection when these future repair drainfields are needed. High water table levels only occur after significant rain events and for relatively short durations (less than 21 consecutive days).
9. This site is protected from public access by fencing and constant observation, thereby further limiting the risk of human contact with sewage.
10. Further, the existing drainfield has been in use for fifteen years in similar soils and treatment with no signs of failure.

RECOMMENDATIONS: The following additional steps or services appear to be needed:

1. Feasibility review. The result of this study will need to be presented to and assessed by Marion County and/or Oregon Department of Environmental Quality (DEQ) to reevaluate feasibility of the site for on-site wastewater treatment.
2. On-site Wastewater Treatment System Design. A final design will need to be prepared that meets DEQ specifications for a Water Pollution Control Facility Permit.

DISCLOSURE: The information and statements in this report are true and accurate to the best of our knowledge. Neither Environmental Management Systems, Inc., nor the undersigned have any economic interests in the project.

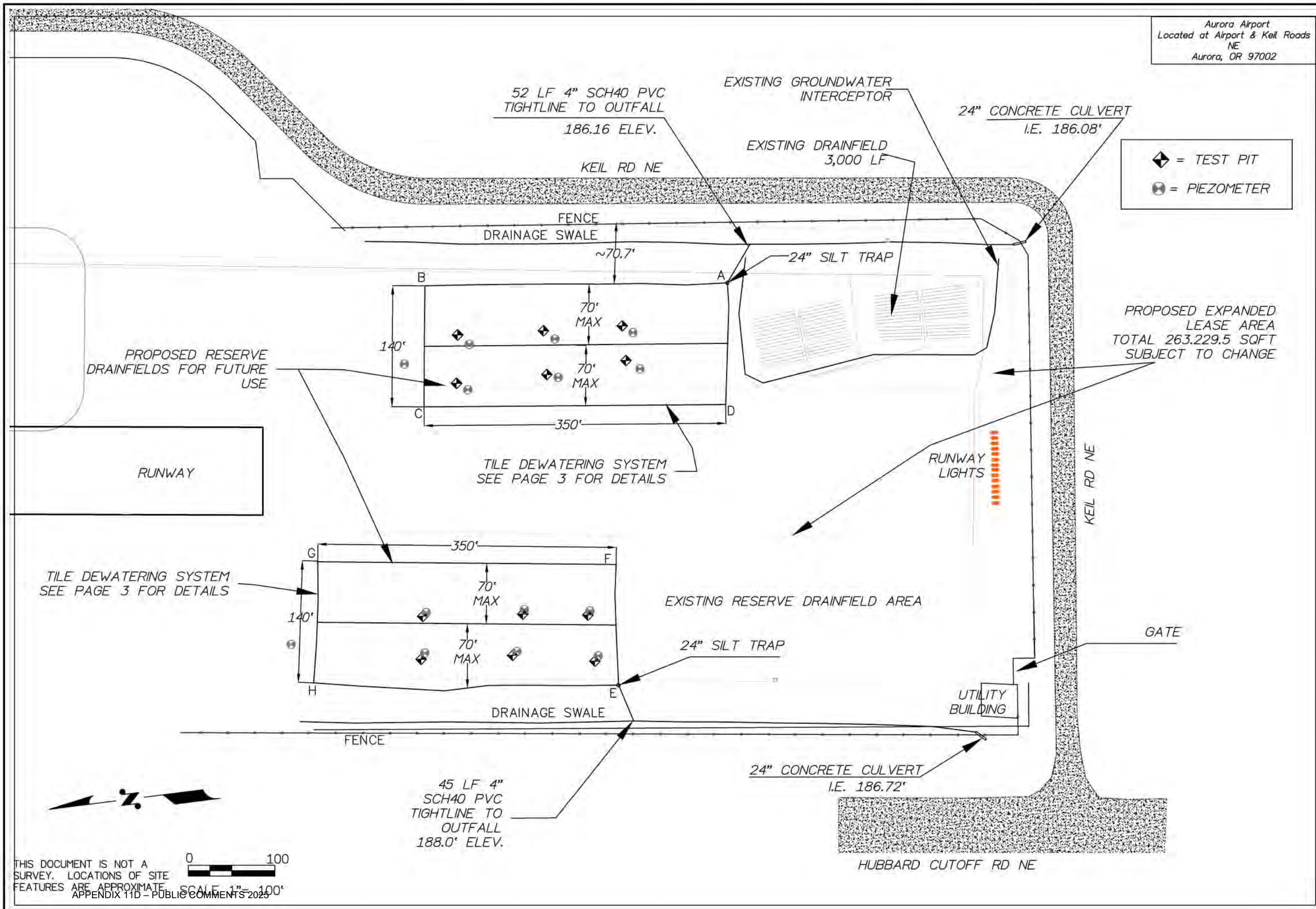
Thank you for your business. We look forward to assisting you to achieve your development goals. If you have any questions, please contact Emma Eichhorn, REHS, or me at 503-353-9691.

Sincerely

Robert F. Sweeney, MS, REHS
President
ENVIRONMENTAL MANAGEMENT SYSTEMS, INC.

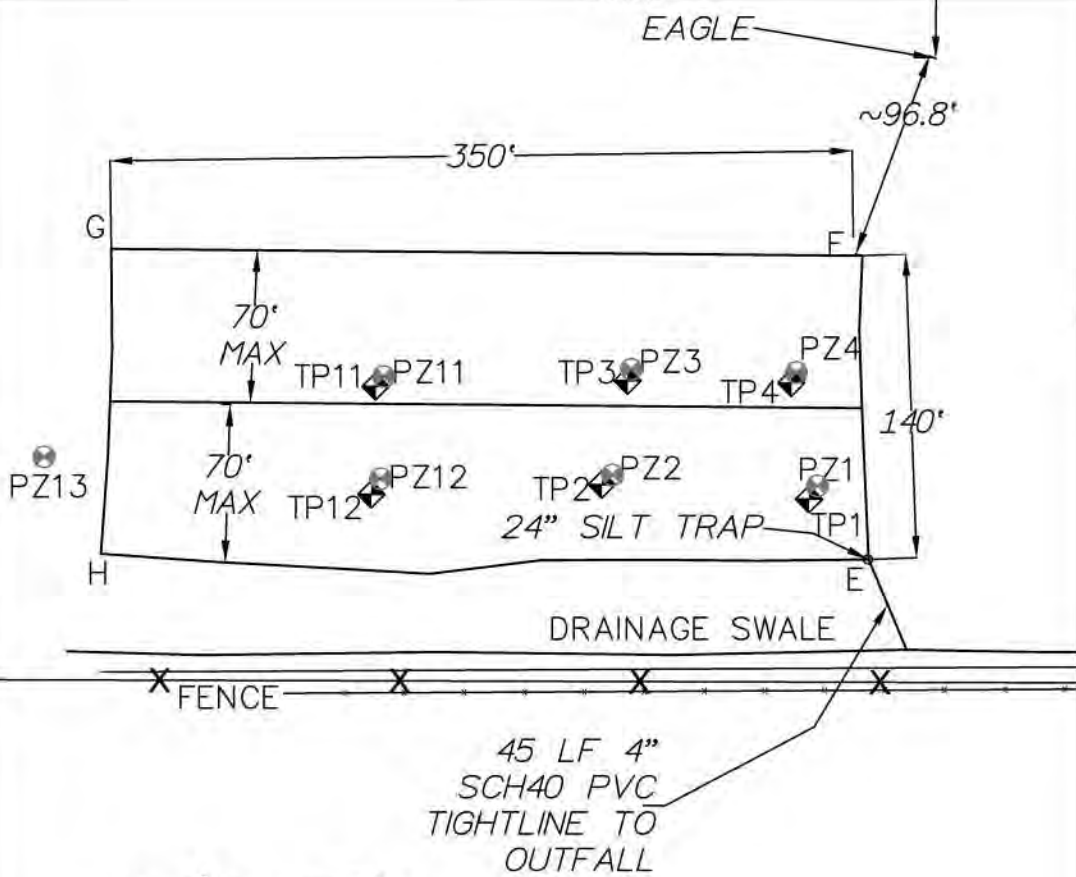
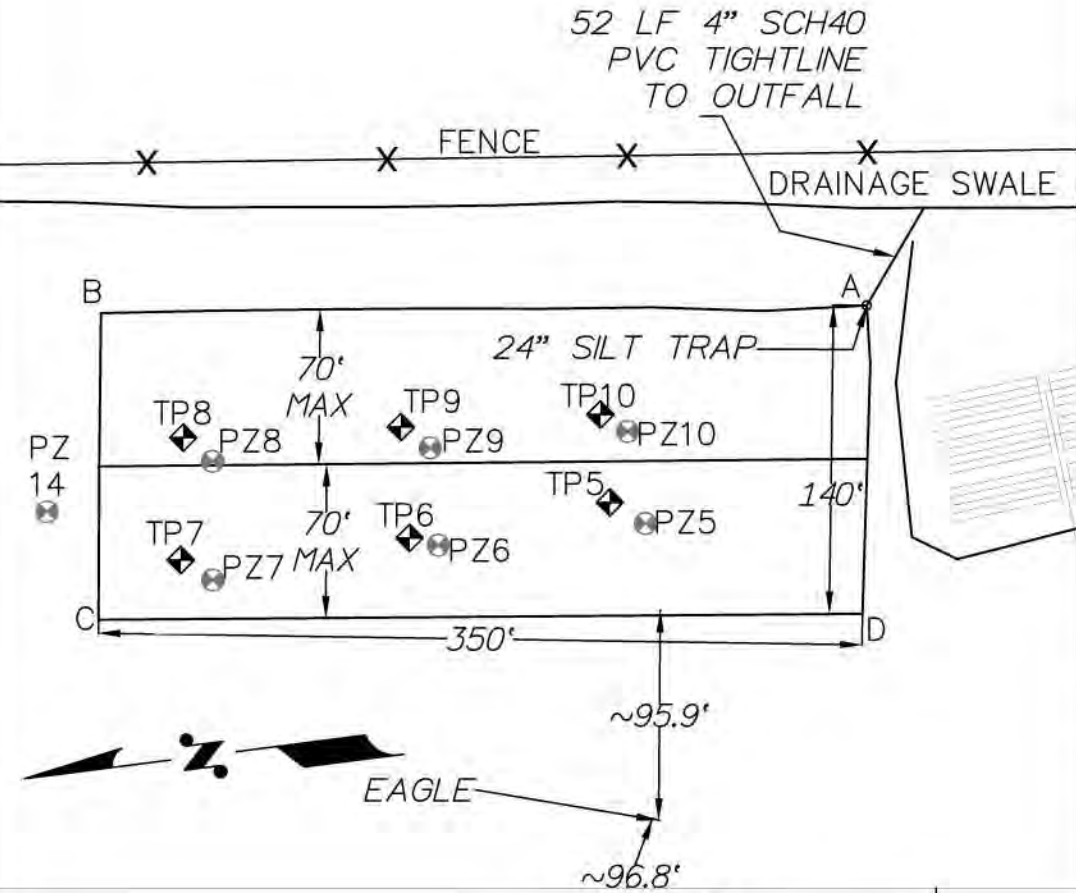
Enclosures:

1. Site Plan
2. Tile Dewatering System Details
3. Tax Lot Map
4. Hydrographs for piezometers Pz1 – Pz12
5. Barodiver data logger spec sheet
6. Precipitation data for the Aurora State Airport weather station



THIS DOCUMENT IS NOT A SURVEY. LOCATIONS OF SITE FEATURES ARE APPROXIMATE.
 APPENDIX 11D - PUBLIC COMMENTS 2025

19-0054	AABC-HD AVIATION	CHECKED:
12/10/2019	T: 4S, R: 1W, Sec 2 & 11, TL: 200, 203, 400, 401, 800, 900 & 1600	DRAWN:
2 OF 3	SITE PLAN	EMS 4080 SE International Way Suite B112 Milwaukie, OR 97222 503-353-9691 360-735-1109 www.envmgisys.com ENVIRONMENTAL MANAGEMENT SYSTEMS, INC.

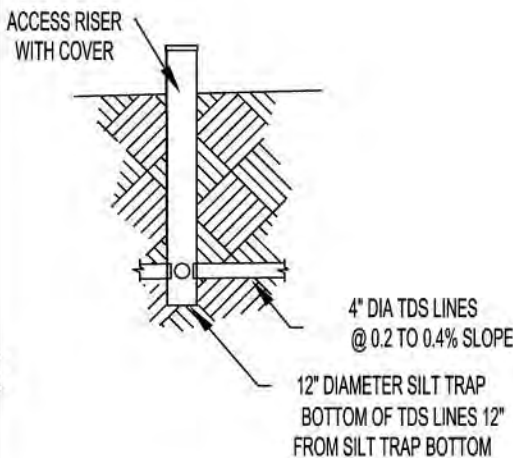


East TDS

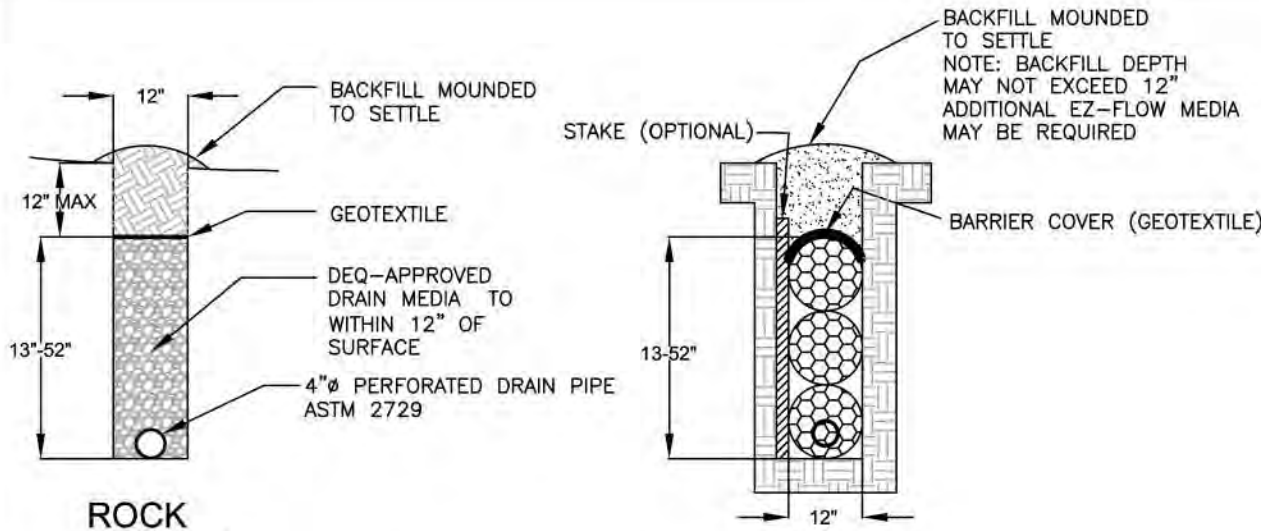
POINT	Trench Elevation (feet)	Surface Elevation (feet)	Trench Depth (feet)	Trench Depth (inches)
A	186.72	189.28	2.57	30.79
B	187.59	189.71	2.11	25.36
C	187.94	191.44	3.50	41.94
D	187.07	191.42	4.35	52.24

West TDS

POINT	Trench Elevation (feet)	Surface Elevation (feet)	Trench Depth (feet)	Trench Depth (inches)
E	188.45	189.73	1.29	15.42
F	188.73	192.07	3.35	40.17
G	189.43	192.42	3.00	35.94
H	189.15	190.28	1.13	13.59



SECTION - SILT TRAP
NO SCALE



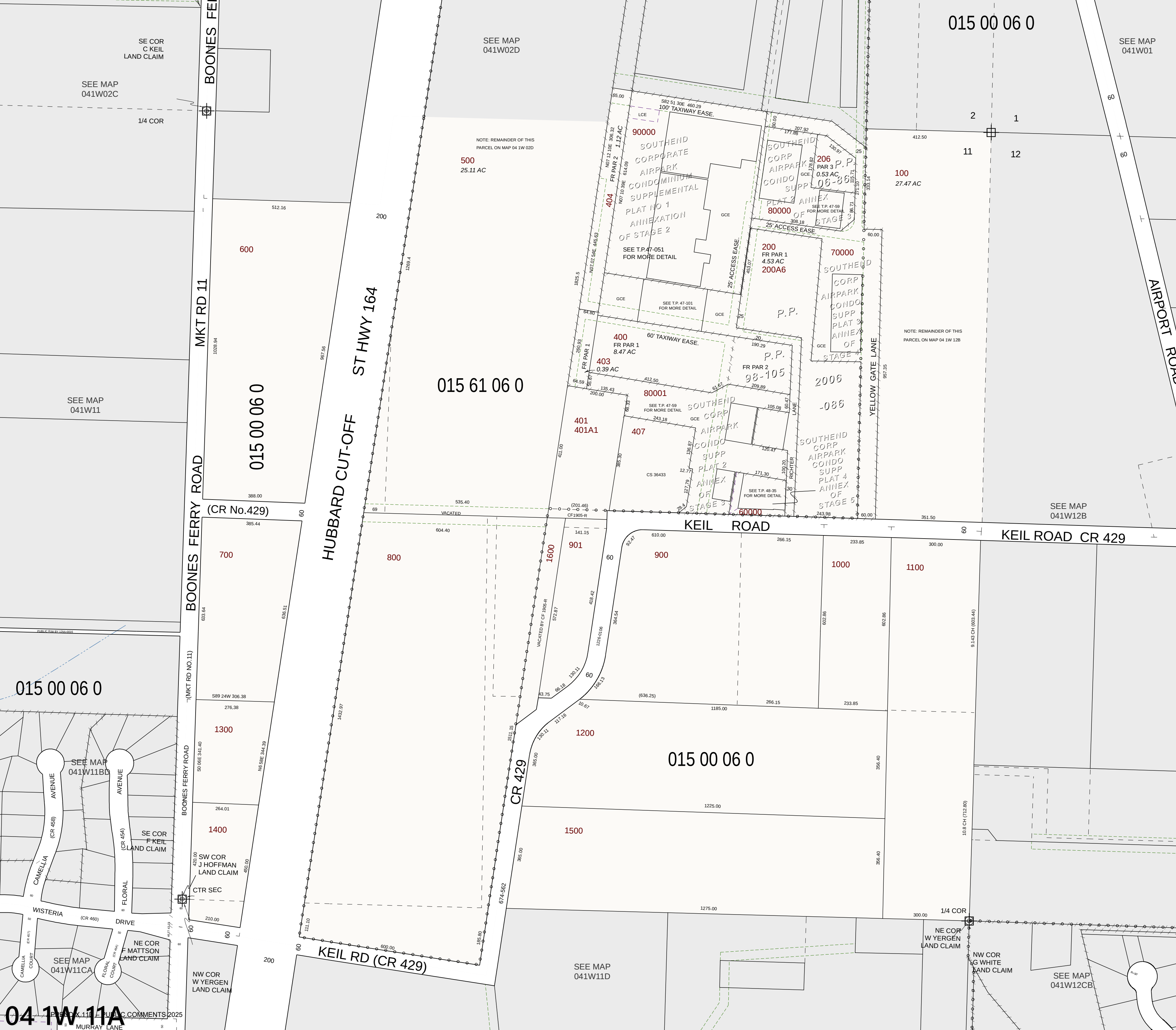
ROCK
AND PIPE

DEWATERING TRENCH DETAIL

SCALE : NTS
REFER TO TABLE FOR TRENCH DEPTHS. SLOPE MUST
BE 0.2-0.4% IN FIELD COLLECTION DRAINAGE TILE.

EZFlow
EZ1203V

04 1W 11A



04 1W 11A

04 1W 11A



MARION COUNTY, OREGON
NE1/4 SEC11 T4S R1W W.M.
SCALE 1" = 200'

LEGEND

- LINE TYPES**
- Taxlot Boundary
 - Road Right-of-Way
 - Railroad Right-of-Way
 - Private Road ROW
 - Subdivision/Plat Bndry
 - Waterline - Taxlot Bndry
 - Historical Boundary
 - Easement
 - Railroad Centerline
 - Taxcode Line
 - Map Boundary
 - Waterline - Non Bndry

- CORNER TYPES**
- + 1/16TH Section Cor.
 - ⊙ DLC Corner
 - ⊕ 1/4 Section Cor.
 - ⊕ Section Corner

NUMBERS

Tax Code Number
000 00 00 0

Acreage
0.25 AC

All acres listed are Net Acres, excluding any portions of the taxlot within public ROWs

NOTES

Tick Marks: A tick mark in the road indicates that the labeled dimension extends into the public ROW

Scale: 1" = 200'

CANCELLED NUMBERS			
101			
200A1			
200A2			
200A5			
201			
202			
203			
204			
207			
300			
401			
402			
405			
406			

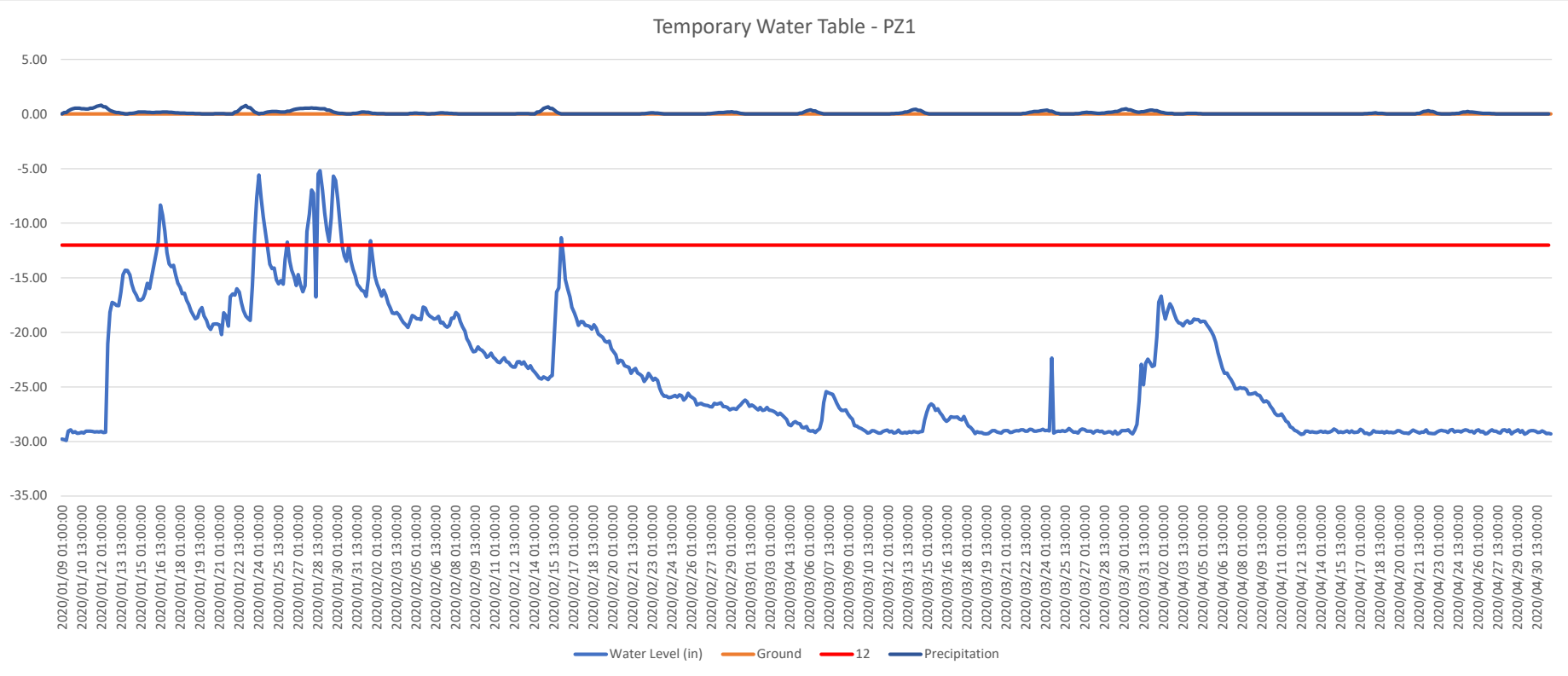
DISCLAIMER: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY

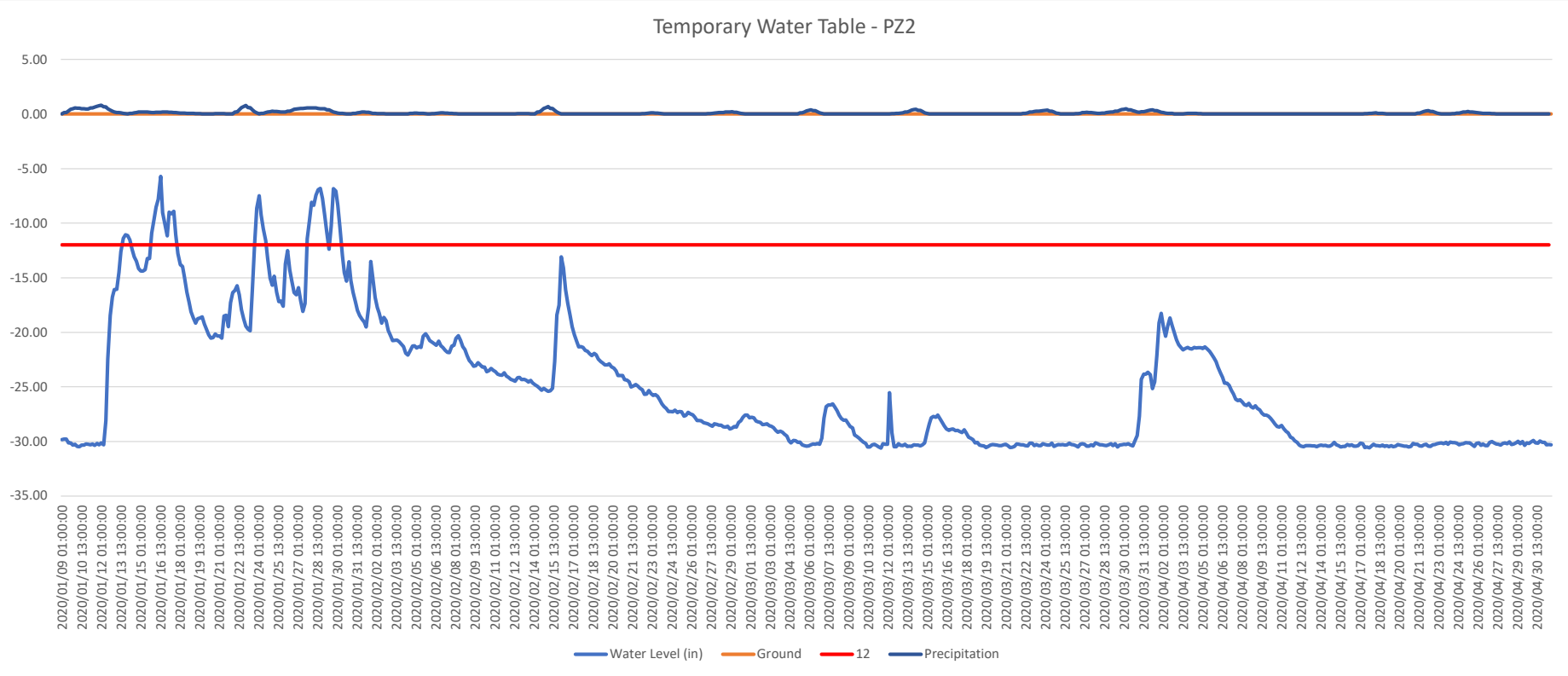


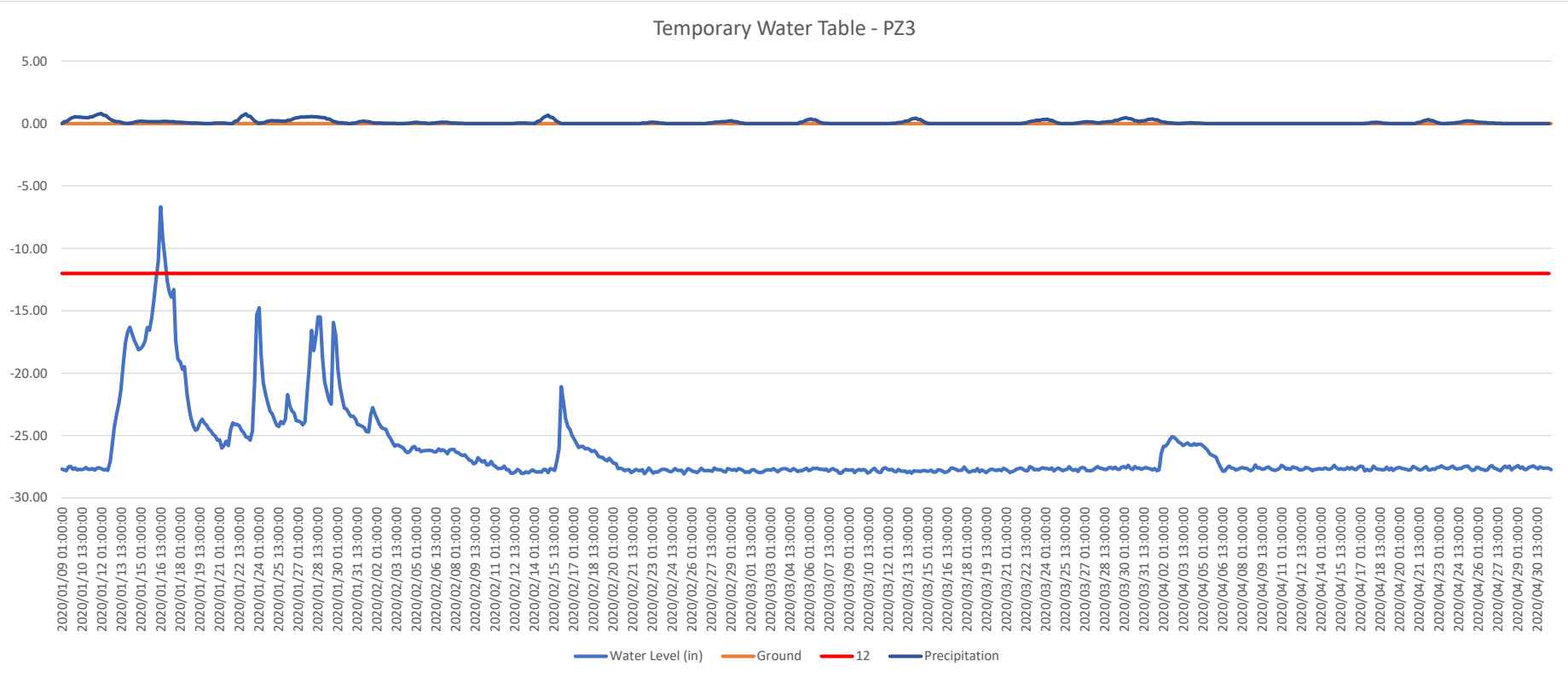
FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT www.co.marion.or.us

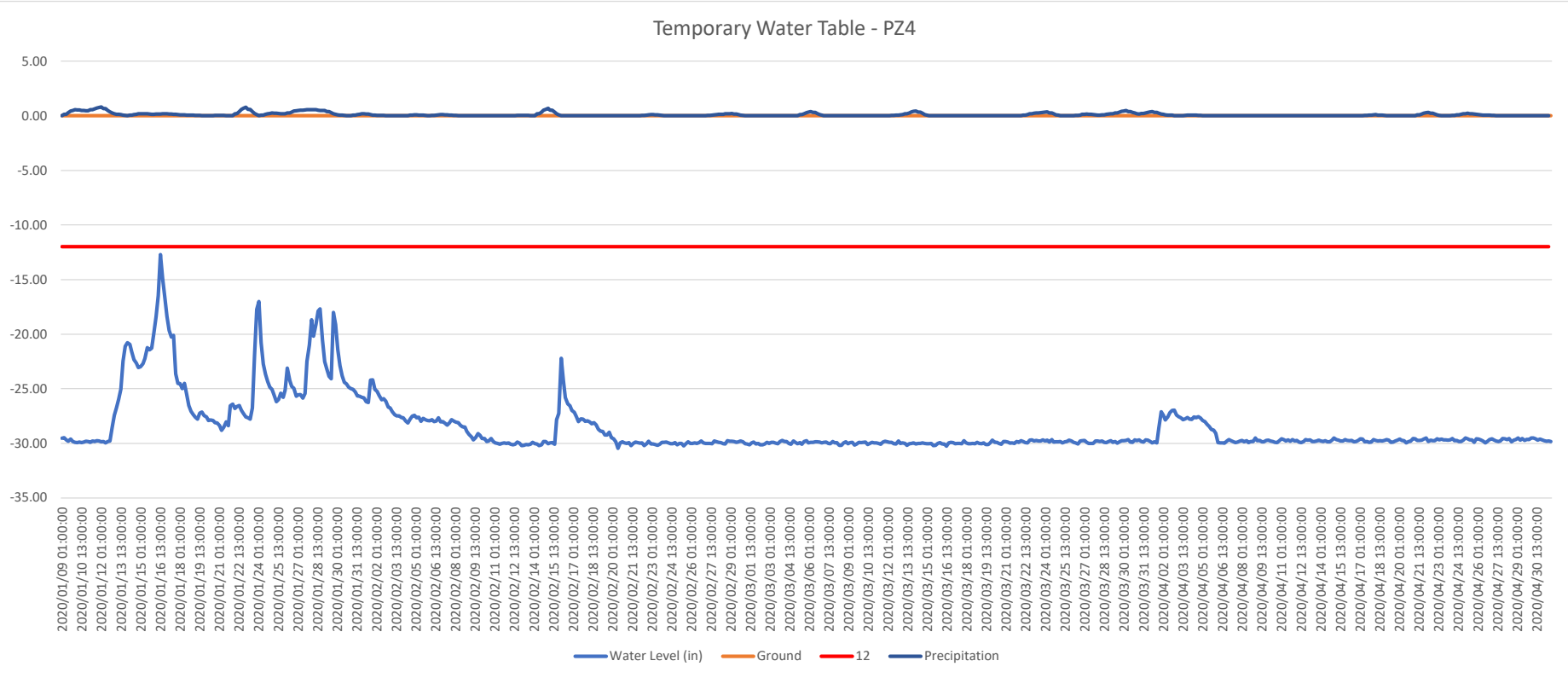
PLOT DATE: 2/13/2020

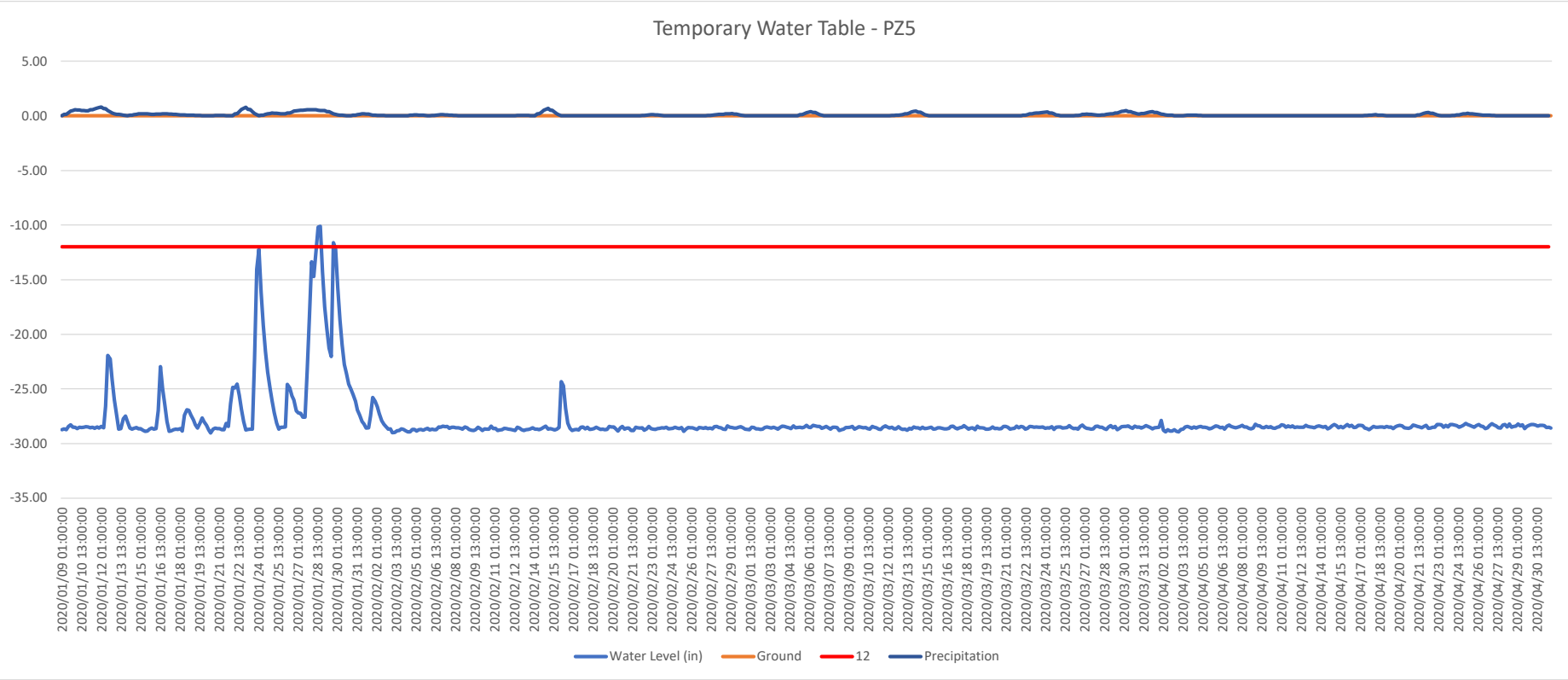
04 1W 11A

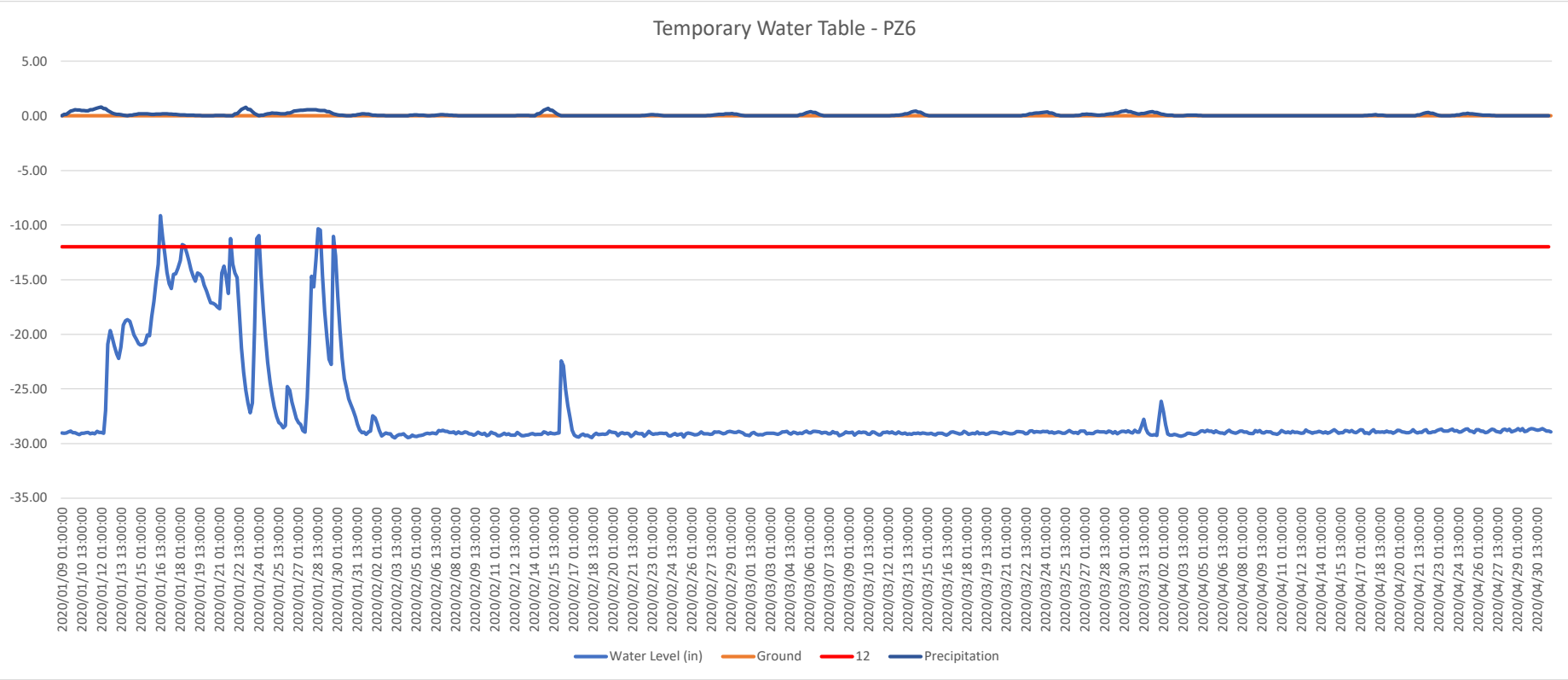


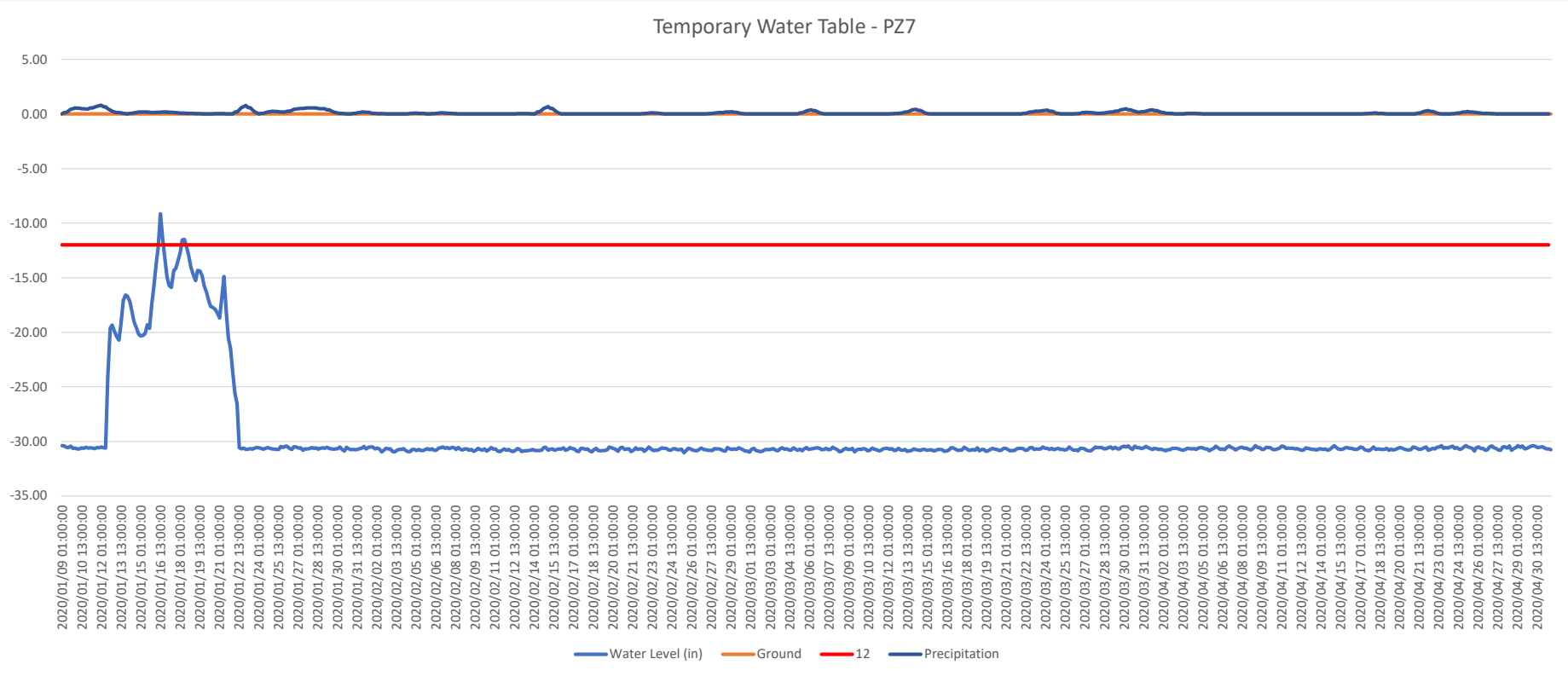


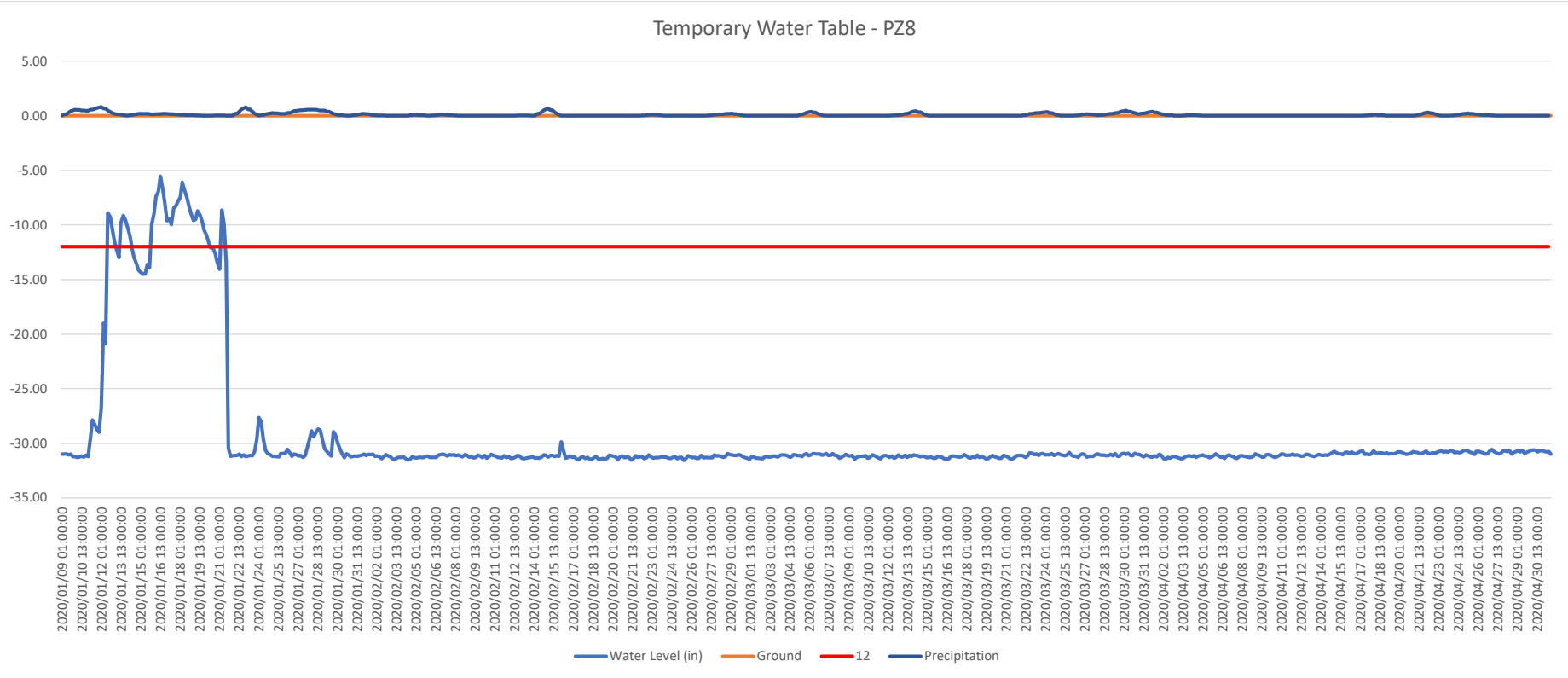


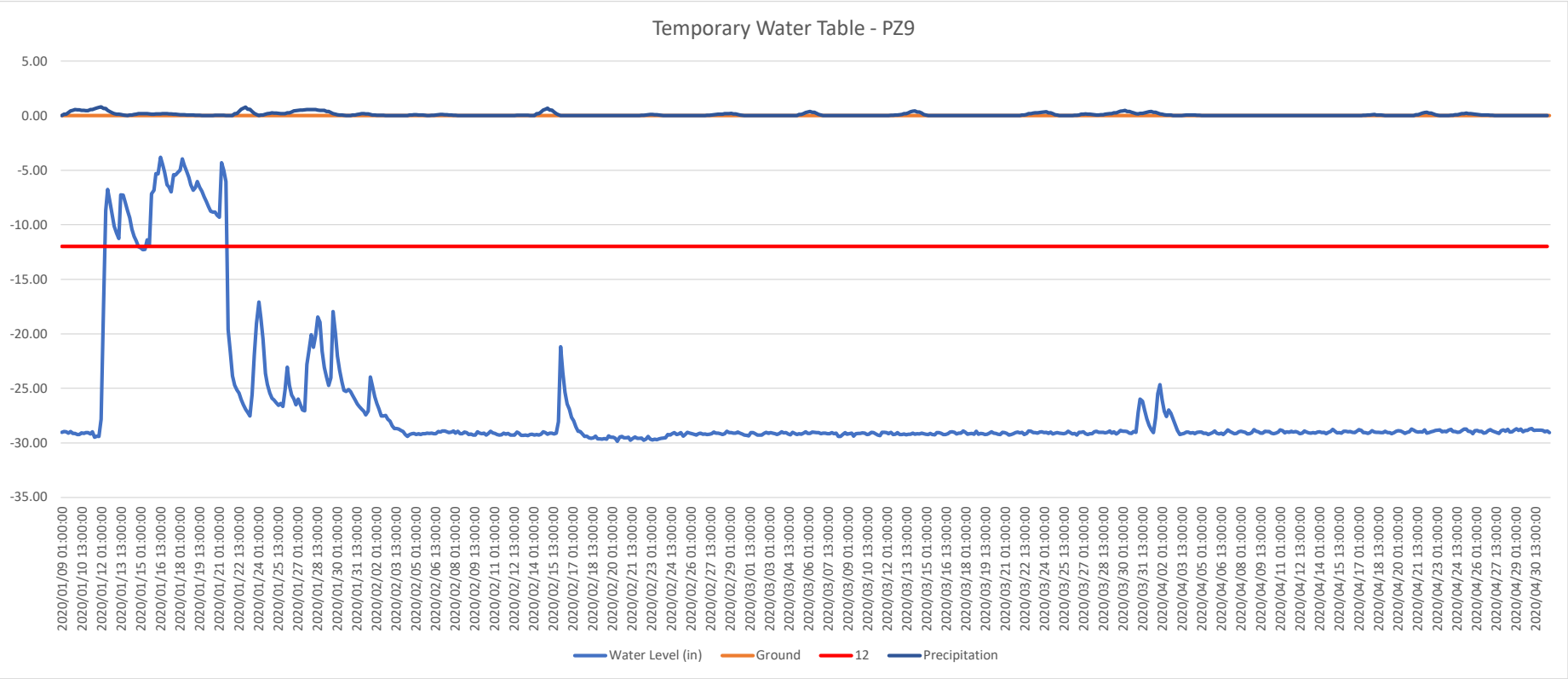


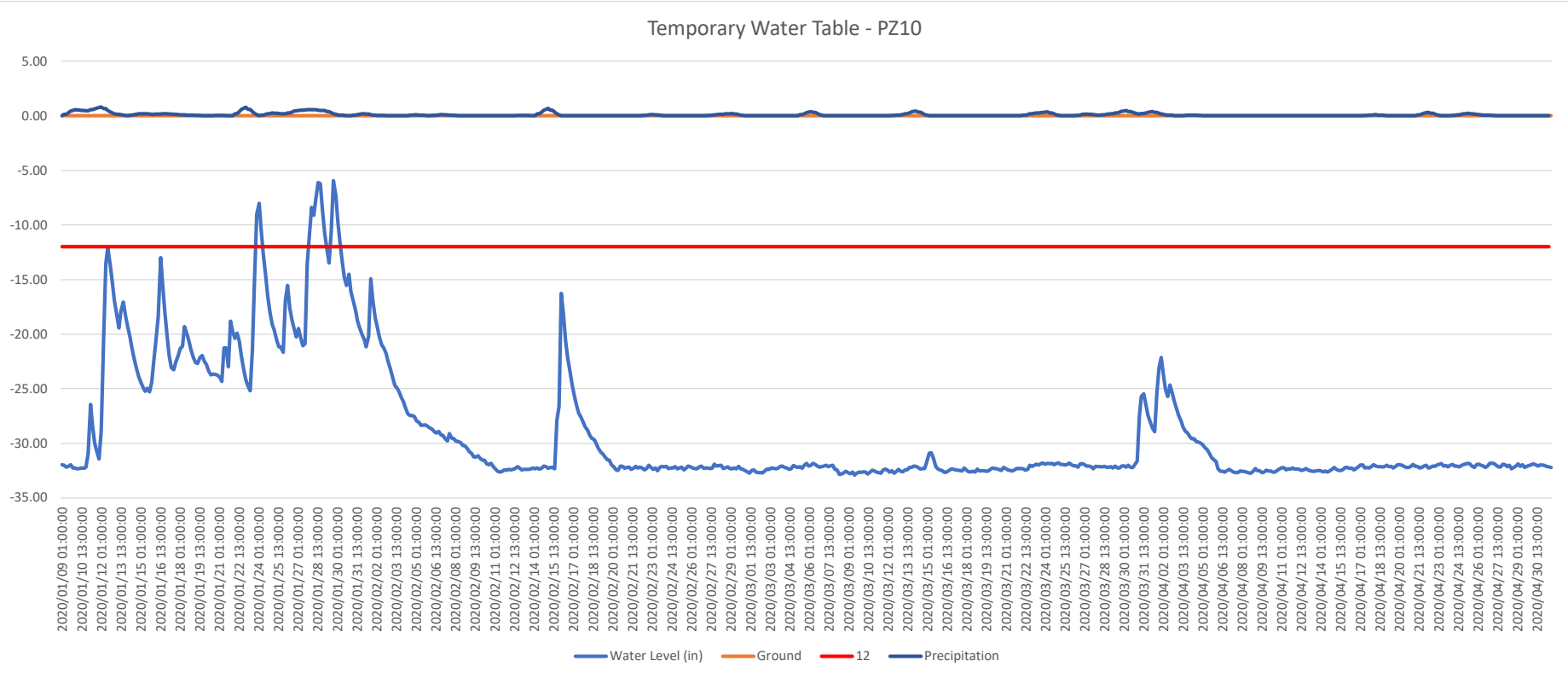


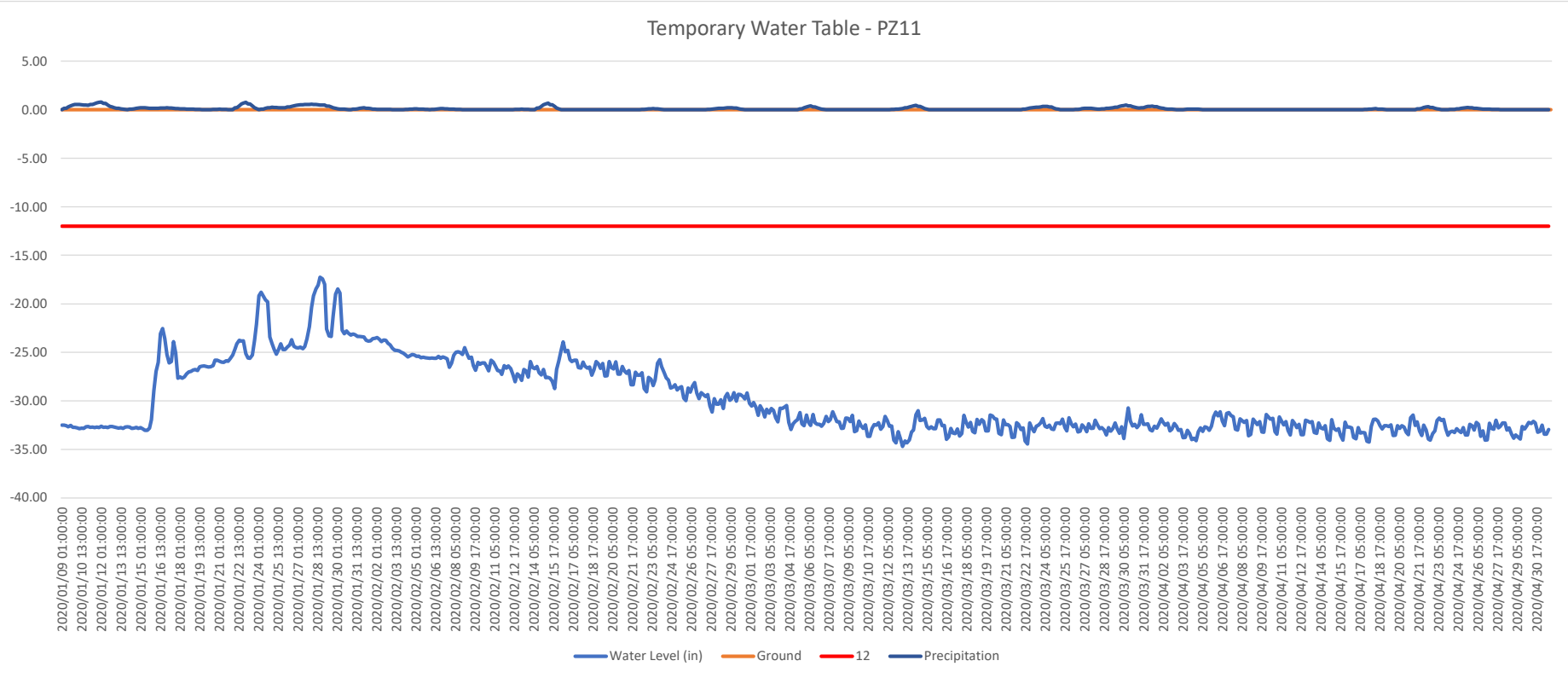


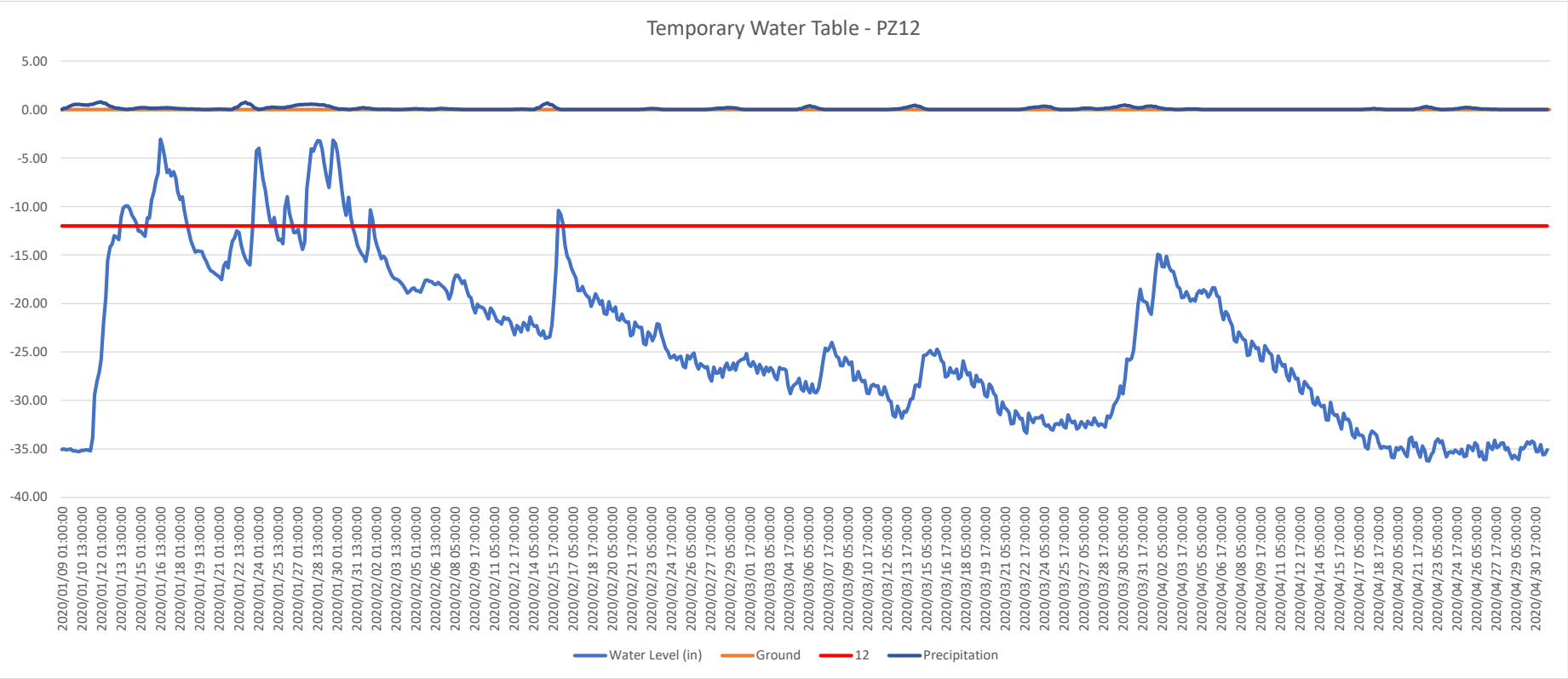














Technology Sheet

Baro-Diver – DI800

Technical Specifications

Length	4.33 in
Diameter	0.87 in
Weight	3.67 oz
Memory	72,000 measurements with backup; continuous and fixed length memory
Wetted parts	
housing	stainless steel (316L)
o-rings	Viton ®
pressure sensor	piezo resistive ceramic (Al ₂ O ₃) with thermal compensation
cap	Nylon PA6 30% glass fiber
nose cone	ABS
Battery life	up to 10 years (dependent on usage)
Sample interval	½ second to 99 hours
Sample method	fixed interval
Communication	RS232

Pressure

Part number	DI 800	
Range	4.9	ftH ₂ O
Accuracy*	± 0.2	inH ₂ O
Resolution	0.01	inH ₂ O

Temperature

Range	-4 to 176 °F
Calibrated	14 to 122 °F
Accuracy*	± 0.18 °F
Resolution	0.018 °F

* typical



Actual size



M = membrane
Dimensions in mm

Climatological Data for AURORA STATE AP, OR - January 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-01-01	55	47	51.0	11	1	0.09	M	M
2020-01-02	51	43	47.0	7	0	0.00	M	M
2020-01-03	62	45	53.5	14	4	0.16	M	M
2020-01-04	50	40	45.0	5	0	0.29	M	M
2020-01-05	50	42	46.0	6	0	0.21	M	M
2020-01-06	52	45	48.5	9	0	0.44	M	M
2020-01-07	56	46	51.0	11	1	0.24	M	M
2020-01-08	47	38	42.5	3	0	0.15	M	M
2020-01-09	42	33	37.5	0	0	T	M	M
2020-01-10	47	37	42.0	2	0	0.55	M	M
2020-01-11	46	42	44.0	4	0	0.45	M	M
2020-01-12	46	38	42.0	2	0	0.80	M	M
2020-01-13	40	37	38.5	0	0	0.19	M	M
2020-01-14	42	32	37.0	0	0	T	M	M
2020-01-15	49	27	38.0	0	0	0.19	M	M
2020-01-16	43	29	36.0	0	0	0.14	M	M
2020-01-17	43	30	36.5	0	0	0.18	M	M
2020-01-18	51	40	45.5	6	0	0.09	M	M
2020-01-19	55	42	48.5	9	0	0.05	M	M
2020-01-20	48	39	43.5	4	0	0.00	M	M
2020-01-21	51	41	46.0	6	0	0.04	M	M
2020-01-22	M	M	M	M	M	M	M	M
2020-01-23	56	51	53.5	14	4	0.77	M	M
2020-01-24	57	48	52.5	13	3	0.01	M	M
2020-01-25	58	47	52.5	13	3	0.24	M	M
2020-01-26	55	46	50.5	11	1	0.18	M	M
2020-01-27	53	41	47.0	7	0	0.49	M	M
2020-01-28	53	46	49.5	10	0	0.56	M	M
2020-01-29	49	46	47.5	8	0	0.47	M	M
2020-01-30	55	41	48.0	8	0	0.08	M	M
2020-01-31	62	54	58.0	18	8	0.00	M	M
Average Sum	50.8	41.1	46.0	201	25	7.06	M	M

Climatological Data for AURORA STATE AP, OR - February 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-02-01	58	41	49.5	10	0	0.19	M	M
2020-02-02	46	31	38.5	0	0	0.03	M	M
2020-02-03	47	30	38.5	0	0	0.02	M	M
2020-02-04	42	27	34.5	0	0	0.00	M	M
2020-02-05	52	42	47.0	7	0	0.09	M	M
2020-02-06	57	49	53.0	13	3	0.01	M	M
2020-02-07	54	44	49.0	9	0	0.11	M	M
2020-02-08	51	38	44.5	5	0	0.03	M	M
2020-02-09	47	34	40.5	1	0	0.00	M	M
2020-02-10	51	34	42.5	3	0	0.00	M	M
2020-02-11	44	31	37.5	0	0	0.00	M	M
2020-02-12	53	33	43.0	3	0	0.00	M	M
2020-02-13	44	33	38.5	0	0	0.04	M	M
2020-02-14	50	39	44.5	5	0	0.01	M	M
2020-02-15	47	42	44.5	5	0	0.67	M	M
2020-02-16	51	37	44.0	4	0	T	M	M
2020-02-17	51	33	42.0	2	0	0.00	M	M
2020-02-18	54	33	43.5	4	0	0.00	M	M
2020-02-19	61	32	46.5	7	0	0.00	M	M
2020-02-20	56	28	42.0	2	0	0.00	M	M
2020-02-21	57	29	43.0	3	0	0.00	M	M
2020-02-22	58	31	44.5	5	0	0.00	M	M
2020-02-23	51	42	46.5	7	0	0.11	M	M
2020-02-24	49	34	41.5	2	0	0.00	M	M
2020-02-25	55	32	43.5	4	0	0.00	M	M
2020-02-26	58	40	49.0	9	0	0.00	M	M
2020-02-27	64	33	48.5	9	0	0.00	M	M
2020-02-28	56	32	44.0	4	0	0.12	M	M
2020-02-29	47	31	39.0	0	0	0.21	M	M
Average Sum	52.1	35.0	43.6	123	3	1.64	M	M

Climatological Data for AURORA STATE AP, OR - March 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-03-01	49	32	40.5	1	0	T	M	M
2020-03-02	50	39	44.5	5	0	T	M	M
2020-03-03	60	47	53.5	14	4	T	M	M
2020-03-04	57	40	48.5	9	0	0.00	M	M
2020-03-05	59	34	46.5	7	0	0.00	M	M
2020-03-06	48	41	44.5	5	0	0.38	M	M
2020-03-07	49	36	42.5	3	0	0.02	M	M
2020-03-08	52	32	42.0	2	0	0.00	M	M
2020-03-09	57	29	43.0	3	0	0.00	M	M
2020-03-10	61	29	45.0	5	0	0.00	M	M
2020-03-11	57	36	46.5	7	0	0.00	M	M
2020-03-12	56	31	43.5	4	0	0.00	M	M
2020-03-13	41	34	37.5	0	0	0.10	M	M
2020-03-14	44	33	38.5	0	0	0.44	M	M
2020-03-15	48	33	40.5	1	0	0.00	M	M
2020-03-16	61	34	47.5	8	0	0.00	M	M
2020-03-17	59	36	47.5	8	0	0.00	M	M
2020-03-18	59	36	47.5	8	0	0.00	M	M
2020-03-19	63	34	48.5	9	0	0.00	M	M
2020-03-20	68	37	52.5	13	3	0.00	M	M
2020-03-21	60	37	48.5	9	0	0.00	M	M
2020-03-22	63	32	47.5	8	0	0.00	M	M
2020-03-23	51	43	47.0	7	0	0.22	M	M
2020-03-24	50	38	44.0	4	0	0.35	M	M
2020-03-25	53	37	45.0	5	0	T	M	M
2020-03-26	51	35	43.0	3	0	0.00	M	M
2020-03-27	51	38	44.5	5	0	0.15	M	M
2020-03-28	53	46	49.5	10	0	0.06	M	M
2020-03-29	59	48	53.5	14	4	0.18	M	M
2020-03-30	51	43	47.0	7	0	0.47	M	M
2020-03-31	52	40	46.0	6	0	0.16	M	M
Average Sum	54.6	36.8	45.7	190	11	2.53	M	M

Climatological Data for AURORA STATE AP, OR - April 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-04-01	48	39	43.5	4	0	0.37	M	M
2020-04-02	52	36	44.0	4	0	0.09	M	M
2020-04-03	50	34	42.0	2	0	T	M	M
2020-04-04	52	37	44.5	5	0	0.07	M	M
2020-04-05	64	42	53.0	13	3	0.01	M	M
2020-04-06	62	41	51.5	12	2	0.00	M	M
2020-04-07	62	40	51.0	11	1	0.00	M	M
2020-04-08	74	36	55.0	15	5	0.00	M	M
2020-04-09	79	48	63.5	24	14	0.00	M	M
2020-04-10	71	41	56.0	16	6	0.00	M	M
2020-04-11	64	43	53.5	14	4	0.00	M	M
2020-04-12	66	36	51.0	11	1	0.00	M	M
2020-04-13	68	36	52.0	12	2	0.00	M	M
2020-04-14	69	37	53.0	13	3	0.00	M	M
2020-04-15	64	43	53.5	14	4	0.00	M	M
2020-04-16	71	43	57.0	17	7	0.00	M	M
2020-04-17	76	43	59.5	20	10	0.00	M	M
2020-04-18	53	45	49.0	9	0	0.10	M	M
2020-04-19	63	42	52.5	13	3	0.00	M	M
2020-04-20	72	40	56.0	16	6	0.00	M	M
2020-04-21	62	45	53.5	14	4	0.00	M	M
2020-04-22	60	47	53.5	14	4	0.31	M	M
2020-04-23	62	49	55.5	16	6	0.00	M	M
2020-04-24	63	50	56.5	17	7	0.03	M	M
2020-04-25	67	44	55.5	16	6	0.22	M	M
2020-04-26	68	39	53.5	14	4	0.09	M	M
2020-04-27	68	49	58.5	19	9	0.03	M	M
2020-04-28	72	50	61.0	21	11	0.00	M	M
2020-04-29	71	52	61.5	22	12	T	M	M
2020-04-30	65	46	55.5	16	6	0.00	M	M
Average Sum	64.6	42.4	53.5	414	140	1.32	M	M

Climatological Data for AURORA STATE AP, OR - May 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-05-01	62	41	51.5	12	2	0.07	M	M
2020-05-02	57	43	50.0	10	0	0.49	M	M
2020-05-03	60	43	51.5	12	2	0.06	M	M
2020-05-04	70	39	54.5	15	5	0.01	M	M
2020-05-05	73	49	61.0	21	11	0.01	M	M
2020-05-06	64	46	55.0	15	5	0.13	M	M
2020-05-07	75	41	58.0	18	8	0.00	M	M
2020-05-08	85	57	71.0	31	21	0.00	M	M
2020-05-09	87	62	74.5	35	25	0.00	M	M
2020-05-10	88	54	71.0	31	21	0.00	M	M
2020-05-11	70	50	60.0	20	10	0.13	M	M
2020-05-12	63	49	56.0	16	6	0.25	M	M
2020-05-13	63	49	56.0	16	6	0.04	M	M
2020-05-14	57	50	53.5	14	4	0.68	M	M
2020-05-15	69	51	60.0	20	10	0.01	M	M
2020-05-16	69	54	61.5	22	12	0.16	M	M
2020-05-17	69	50	59.5	20	10	T	M	M
2020-05-18	60	52	56.0	16	6	0.39	M	M
2020-05-19	63	49	56.0	16	6	T	M	M
2020-05-20	61	51	56.0	16	6	0.02	M	M
2020-05-21	60	48	54.0	14	4	0.02	M	M
2020-05-22	62	45	53.5	14	4	0.03	M	M
2020-05-23	64	47	55.5	16	6	0.00	M	M
2020-05-24	74	48	61.0	21	11	0.00	M	M
2020-05-25	69	53	61.0	21	11	0.02	M	M
2020-05-26	75	56	65.5	26	16	0.00	M	M
2020-05-27	85	49	67.0	27	17	0.00	M	M
2020-05-28	92	55	73.5	34	24	0.00	M	M
2020-05-29	86	55	70.5	31	21	0.00	M	M
2020-05-30	62	53	57.5	18	8	0.30	M	M
2020-05-31	66	51	58.5	19	9	0.00	M	M
Average Sum	69.7	49.7	59.7	617	307	2.82	M	M

Climatological Data for AURORA STATE AP, OR - June 2020

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2020-06-01	73	44	58.5	19	9	0.00	M	M
2020-06-02	79	49	64.0	24	14	0.00	M	M
2020-06-03	76	51	63.5	24	14	0.00	M	M
2020-06-04	74	50	62.0	22	12	0.00	M	M
2020-06-05	70	52	61.0	21	11	0.00	M	M
2020-06-06	61	49	55.0	15	5	0.26	M	M
2020-06-07	62	48	55.0	15	5	0.21	M	M
2020-06-08	65	52	58.5	19	9	0.20	M	M
2020-06-09	66	51	58.5	19	9	0.42	M	M
2020-06-10	78	59	68.5	29	19	T	M	M
2020-06-11	76	58	67.0	27	17	0.04	M	M
2020-06-12	59	54	56.5	17	7	0.13	M	M
2020-06-13	60	51	55.5	16	6	0.58	M	M
2020-06-14	68	49	58.5	19	9	0.04	M	M
2020-06-15	64	52	58.0	18	8	0.84	M	M
2020-06-16	64	52	58.0	18	8	0.24	M	M
2020-06-17	M	M	M	M	M	M	M	M
2020-06-18	M	M	M	M	M	M	M	M
2020-06-19	M	M	M	M	M	M	M	M
2020-06-20	M	M	M	M	M	M	M	M
2020-06-21	M	M	M	M	M	M	M	M
2020-06-22	M	M	M	M	M	M	M	M
2020-06-23	M	M	M	M	M	M	M	M
2020-06-24	M	M	M	M	M	M	M	M
2020-06-25	M	M	M	M	M	M	M	M
2020-06-26	M	M	M	M	M	M	M	M
2020-06-27	M	M	M	M	M	M	M	M
2020-06-28	M	M	M	M	M	M	M	M
2020-06-29	M	M	M	M	M	M	M	M
2020-06-30	M	M	M	M	M	M	M	M
Average Sum	68.4	51.3	59.9	322	162	2.96	M	M

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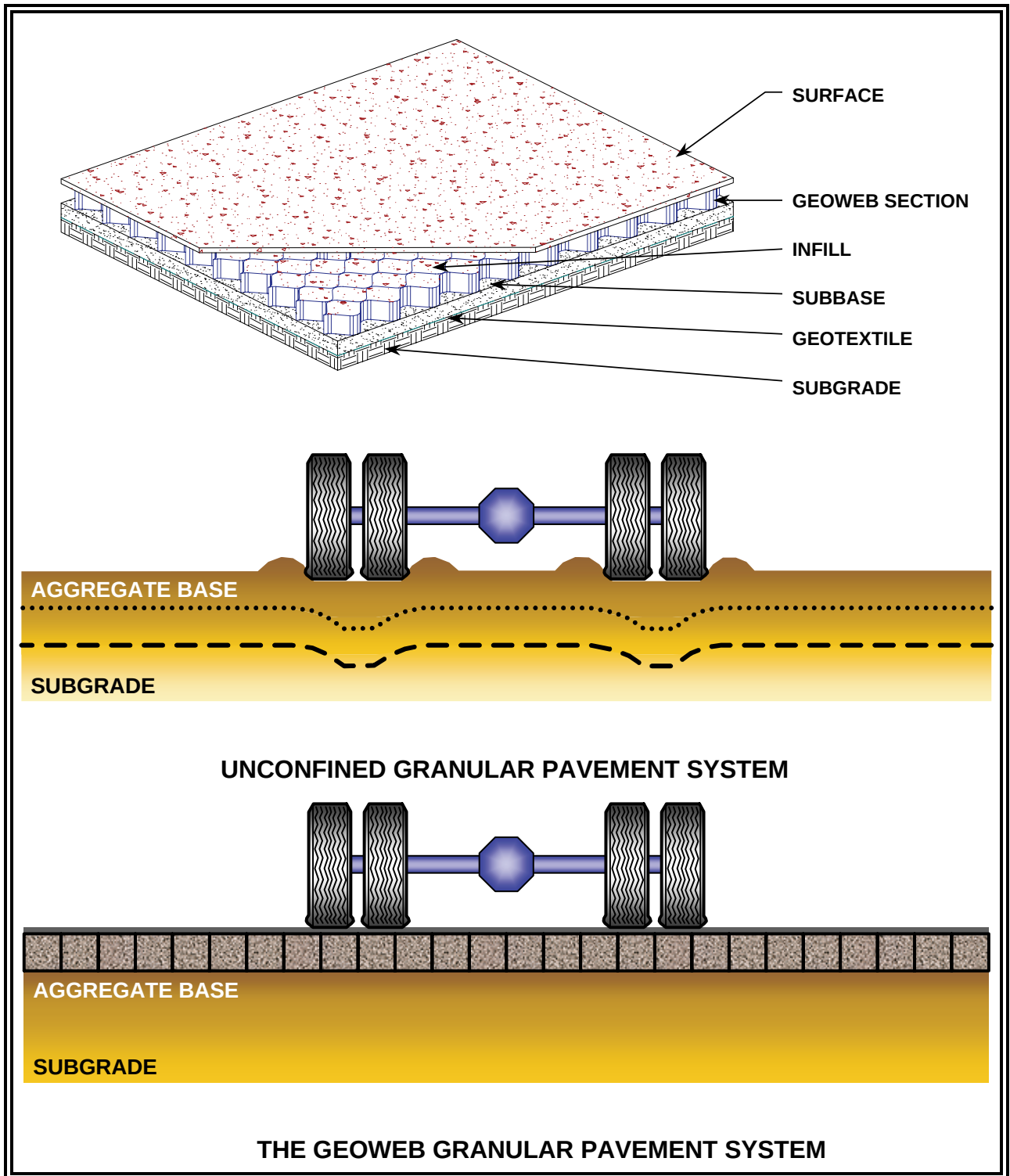
Month	Total Precipitation Normal (inches)
January	5.87
February	4.75
March	4.23
April	3.13
May	2.36
June	2.02
July	0.68
August	0.66
September	1.73
October	3.23
November	6.63
December	6.58
Annual	41.87

Station Information

Station name:	AURORA STATE AP
State:	OR
County:	(FIPS 41047)
Station ids:	94281 (WBAN)UAO (FAA)3S2 (FAA)KUAO (ICAO)USW00094281 (GHCN)
Latitude:	45.2486 degrees
Longitude:	-122.7686 degrees
Elevation:	196 feet
Available date ranges:	Max Temperature 1997-06-01 - 2020-05-12 Min Temperature 1997-06-01 - 2020-05-12 Precipitation 1998-04-01 - 2020-05-12 Snowfall 2009-08-01 - 2018-12-12 Snow Depth 1998-07-16 - 2018-10-10



GEOWEB® LOAD SUPPORT SYSTEM TECHNICAL OVERVIEW



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Introduction

Natural aggregate / soil construction materials for road base and other load support applications are inherently unstable compared to other construction materials such as steel and reinforced concrete. This is because they are comprised of discrete particles of varying sizes that can roll, or slide, over one another. They have relatively low shear resistance and will eventually fail as a result of single or multiple load applications. However, this *weak link* property also makes these natural construction materials easily workable relative to stockpiling, transporting and placing over large areas or long roadways.

Asphalt cement and Portland cement are commonly used to improve the stability of aggregate materials to make them suitable for the wearing course of load support structures. In addition, most load support structures also require a good base and/or subbase layer to distribute surface loads over the subgrade. Unbound aggregate materials are ideal for this purpose because they are easy to place, are flexible and improve the ride quality of the structure. However, because of their inherent weakness, road builders have long sought new ways to increase the long-term stability of unbound aggregate materials. Many products have been developed and tested to bind together or reinforce aggregate materials but often with limited success.

Fine and uniformly graded sands best exemplify the inherent weakness of granular materials. Desert sands and dry beach sands cannot support channelized traffic loading without significant rutting occurring due to localized shear failure of the near surface material. For this reason, the U.S. Army Corps of Engineers, Waterways Experiment Station, began a research project in the mid 1970's to investigate methods for rapid construction of sand roads for beach landings and desert operations. In order to achieve surface stability without the requirement for chemical additives, mixing and curing time, three-dimensional cellular confinement of loose sands was determined to be the most practical alternative. Through field trials and experimentation, the optimum cell depth to diameter ratio was determined to be approximately 1.0 for heavy military and civilian wheel loads. In the late 1970's Presto Products Company developed the Geoweb cellular confinement system, based on the Corps of Engineers research, as a commercial product to stabilize unbound aggregate materials. The Geoweb system consists of an assembly of polyethylene sheet strips connected in a series of off-set, full-depth ultrasonic welded seams, aligned perpendicular to the longitudinal axis of the strips. When expanded, the interconnected strips form the walls of the cellular confinement structure into which granular fill materials can be placed. Various cell depths have been developed to satisfy load and subgrade strength design criteria based on optimum cell to diameter ratios. Recent improvements to the Geoweb system include surface texturization and cell wall perforations for improved frictional resistance and lateral drainage.

Examples of Geoweb Load-Support System Applications

Granular Access Roads	Parking Lots	Retaining Wall Spread Footings
Grass Access Roads	Storage Yards	Foundation Mattresses
Porous Pavements	Intermodal and Port Facilities	Trench Invert Stabilization
Pavement Subbases	Boat Ramps / Low Level Crossings	Stabilized Drainage Layer

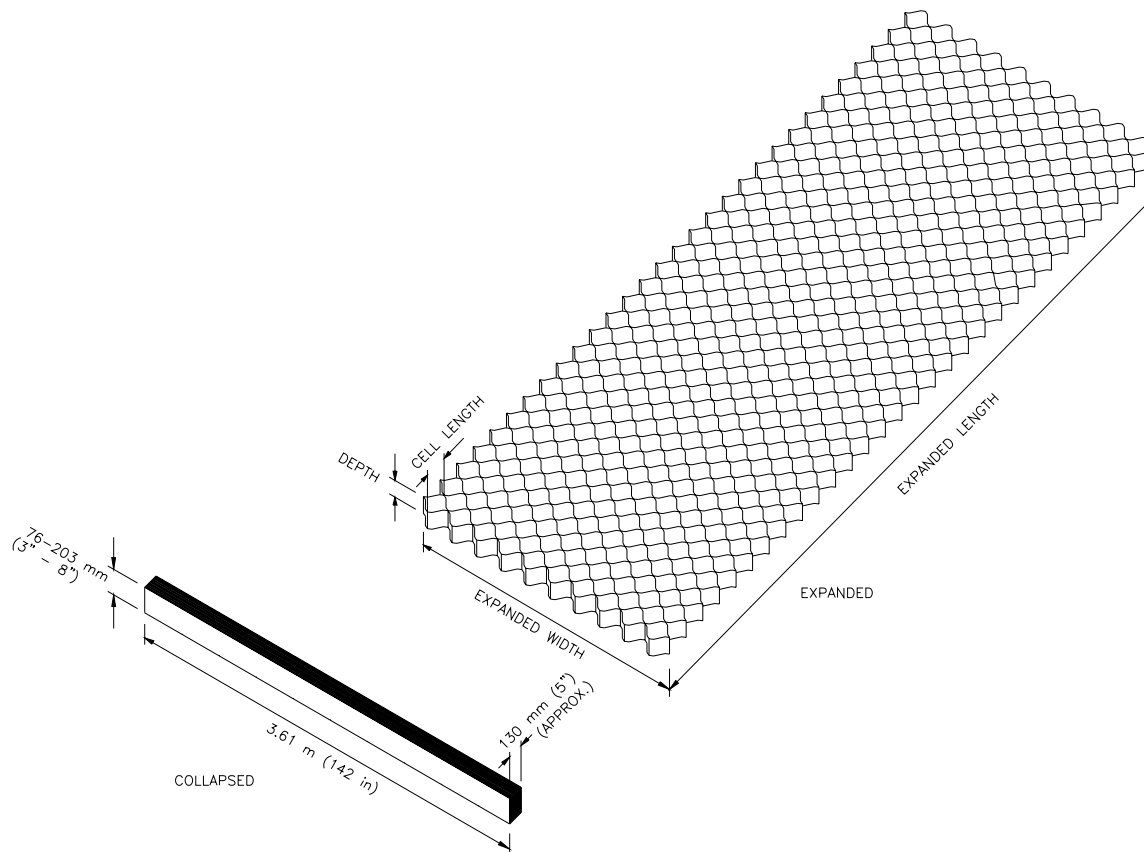


Figure 1 Typical Geoweb Sections

Features and Benefits of the Geoweb Cellular Confinement System

The Geoweb cellular confinement system improves the load-deformation performance of granular infill materials due to the hoop strength of individual cells, the passive resistance of infill material in adjacent cells and vertical stress transfer to adjoining cells. When compared to 2-dimensional sheet reinforcement materials, the stiffness of the 3-dimensional Geoweb system is significantly greater and does not require initial deformation to support the design load.

The Geoweb cellular confinement system dramatically increases the shear resistance of granular infill materials allowing the use of lower quality aggregates (e.g. sand, gravel) to carry concentrated loads that would otherwise require crushed stone or bituminous mixes to prevent localized, near-surface, shear failure. The cellular structure also distributes concentrated loads to surrounding cells thus reducing the stress on the subgrade directly beneath the load and the required total thickness of the structure.

The Geoweb load support system can offer several advantages over conventional solutions and alternative systems. When very soft soils and/or heavy loads are a factor, the system can reduce costs by reducing the required section thickness. Where aggregate materials are expensive or unavailable, the system can reduce costs by incorporating locally available materials. Since Geoweb sections are very compact for shipping and reduce total thickness requirements, a small quantity can be used to replace truckloads of imported aggregate that may have to be hauled over long distances. Finally, when extended pavement life and/or low maintenance requirements are desired, the Geoweb system can ensure that the integrity of granular infill materials will be maintained indefinitely.

Identifying Load Support Problems and Geoweb Solutions

Load support design problems most commonly arise when:

- soft subgrade soils are encountered,
- surface soils are unstable, (i.e. good quality aggregates are locally unavailable or uneconomical) or,
- there are aesthetic and/or environmental consideration.

To identify load support problems where Geoweb cellular confinement should be considered, the following questions should be asked.

Soft Subgrades Problems

Are there any constraints on undercutting or designing a thick structure? If yes, consider the Geoweb cellular confinement system to reduce the section thickness.

Is it impossible to build a stable foundation mattress below the load structure because of a very soft, unstable subgrade condition? If yes, consider the Geoweb cellular confinement system, with a geotextile underlayer, to bridge over the soft soil and support construction equipment while using a minimum thickness of cover material.

Conventional, non-Geoweb solutions to soft subgrades problems, may include:

- excavation of the soft soil and replacement with imported fill (usually granular),
- chemical stabilization of the subgrade soil, or
- design of a thick, multi-layered structure which may include high quality aggregate materials, asphaltic concrete and/or Portland cement concrete.

Thick pavement structures and/or deep excavation may not always be possible due to existing curbs and buried utilities in existing roads.

Surface Stability Problems

Do the locally available soils (e.g. sands and gravels) have adequate shear strength to be used as a wearing surface for a temporary or low-volume access road? If not, confinement of the local materials in the Geoweb system should be weighed against the cost of importing higher quality aggregate materials.

Will aggregate degradation and lateral spreading of the pavement base course result in rutting and premature failure of the pavement structure? If the subgrade is relatively competent, deformation and rutting of the base course is likely to be the cause of maintenance problems and reduce the potential life of the pavement structure. Using the Geoweb system to confine the base course will totally restrict lateral movement that causes rutting and will minimize abrasion and wear on the aggregate infill material.

Few, if any, conventional solutions exist for this problem.

Aesthetic / Environmental Problems

Would a grass surfaced, low volume access road for maintenance vehicles be more aesthetically pleasing than a gravel or asphalt concrete surfaced pavement? If yes, the Geoweb cellular confinement system infilled with an aggregate/topsoil mix and vegetated is an attractive solution.

Is a porous pavement required for groundwater regeneration? If yes, the Geoweb cellular confinement system infilled with porous stone should definitely be considered. However, without confinement, porous aggregates are inherently unstable as surface materials.

Geoweb Load Support Systems - The Key Components

Textured Geoweb system

Engineered surface-textured polyethylene strips used in manufacturing Geoweb sections improve the frictional interaction between the Geoweb cell walls and granular infill materials. The increase in cell-wall / infill-interface friction provides structural benefits in certain Geoweb applications.

In load support applications, the higher cell wall/infill interface friction increases the resistance to vertical deformation of the infill soil relative to the cellular structure. Therefore, a more efficient transfer of vertical stress is provided to the surrounding cells. The result is a further reduction in vertical stress on the subgrade compared to a smooth walled geocell. For certain combinations of wheel loads and infill material properties, the surface texture makes it possible to further reduce the total required thickness of granular pavement over smooth-walled geocells.

Results of small and large scale shear box tests on sand and stone materials with textured Geoweb materials have demonstrated that Peak Coefficient Ratios (i.e. peak interface friction coefficient of textured Geoweb sections divided by the peak interface friction coefficient of granular infill soil in-isolation) varied from 0.63 (crushed stone materials) to 0.81 (coarse sand materials) compared to 0.64 (crushed stone materials) and 0.61 (coarse sand materials) with smooth Geoweb materials. Note that texturization does not increase the interface friction with some crushed stone infills. The Peak Coefficient Ratio should not be confused with the Peak Friction Angle Ratio defined in the section titled Geoweb Cell Wall/Infill Friction Angle Ratio

Perforated Geoweb system

Similar tests using sand and stone materials with the perforated Geoweb material demonstrated that the interface frictional characteristics are similar, or in some cases better, than those with surface textured Geoweb cells. Specifically, the Peak Coefficient Ratios of perforated Geoweb materials with crushed stone and coarse sand infills were found to be 0.75 and 0.89 respectively.

The latter test results indicate that perforated cell walls can be as effective as textured cell walls in increasing the interface friction. Therefore, the structural capacity of the perforated Geoweb load support system with certain sand/gravel infills is more effective than the textured Geoweb system. Since perforations also offer the advantage of lateral drainage, which is particularly useful over impermeable subgrades, the perforated Geoweb system is the recommended choice for many pavement applications. Refer to Table 1 for an illustration of the significance of the performance advantage using textured and perforated cell wall type.

Infill materials

Infill materials for Geoweb load support applications should always be predominately granular with a maximum particle size of 50 mm (2 in). For best performance, the fines fraction (i.e. material passing the #200 sieve - 75 μ m) should not be greater than 10%. Soils with greater than 10% fines have low permeability and lose strength dramatically when they become wet. Pure granular materials are not affected by moisture fluctuations but are not as stable as granular materials with 5% - 10% fines. A small fraction of fines will increase stability by reducing the voids ratio and binding the soil.

The Geoweb cellular confinement system is effective in increasing the stability of lower quality granular infill materials such as poorly graded sands and gravels. With cellular confinement, poor quality granular infills can be used as the surface or near-surface material of access roads where driving speeds are relatively slow and ride quality is not a major concern. Higher quality aggregates are recommended for granular surfaced pavements where traffic speeds are higher and a smoother riding surface is required. Good quality aggregates typically include well graded crushed stones or gravels with a maximum particle size of 40 mm (1.5 in) and less than 8%, by weight, passing the #200 sieve. For long-term durability, the coarse fraction of the aggregate should have a Los Angeles Abrasion test wear less than 50%. The fines fraction (i.e. passing the #200 sieve) should not be greater than two-thirds of the fraction passing the #40 sieve and the fraction passing the #40 sieve should have a liquid limit no greater than 25%. The plasticity index should be less than 6%.

Table 1 Total Thickness of Coarse Sand / Gravel Base Including Geoweb Section

Subgrade CBR %	Wheel Load		Smooth Cell	Textured Cell	Perforated Cell	Unconfined Gravel
	kN	(lbf)	Relative Total Thickness of Road Base			
0.2	27	(6,000)	32%	28%	27%	100%
	53	(12,000)	59%	25%	25%	100%
	111	(25,000)	72%	23%	23%	100%
	222	(50,000)	80%	22%	22%	100%
0.5	27	(6,000)	46%	40%	40%	100%
	53	(12,000)	43%	38%	37%	100%
	111	(25,000)	40%	35%	34%	100%
	222	(50,000)	38%	33%	32%	100%
1.0	27	(6,000)	58%	54%	54%	100%
	53	(12,000)	55%	49%	48%	100%
	111	(25,000)	52%	45%	44%	100%
	222	(50,000)	49%	43%	42%	100%
2.0	27	(6,000)	81%	81%	81%	100%
	53	(12,000)	65%	58%	58%	100%
	111	(25,000)	59%	52%	51%	100%
	222	(50,000)	60%	52%	51%	100%

NOTE: This table is based on theoretical methodologies outlined herein. Values are for comparative purposes only and are not a substitute for project specific design.

Geotextile underlayer

When the Geoweb section is to be placed directly above a fine-grained or cohesive soil subgrade, a nonwoven geotextile is typically recommended for separation of the native soil and the granular infill. Separation is important to prevent contamination and loss of shear strength of the granular infill and to prevent punching or migration of the infill material into the subgrade. With a geotextile underlayer, the infill material is totally confined on all sides and at the bottom of individual cells.

When specific designs require a granular subbase below the Geoweb section, a woven or nonwoven geotextile may be recommended for separation as well as temporary load support during placement of the subbase layer. If the subbase is a well-compacted granular material, a geotextile separator is not typically required between the subbase and Geoweb infill.

Surface materials

In order to prevent trafficking directly on top of the Geoweb cell walls, it is generally recommended to place a minimum 50 mm (2 in) of granular cover (i.e. overtopping) above the Geoweb cell walls. The surface material should be dense-graded crushed stone that is resistant to surface rutting. If traffic volumes are high, a bituminous surface treatment can increase the stability of the riding surface.

If an asphalt concrete base or surface layer is to be placed over the infilled Geoweb base, the depth of granular cover above the cell walls should be at least 25 mm (1 in) to allow for minor consolidation of the infill material and to insulate the polyethylene from direct contact with the hot mix asphalt concrete.

Design Considerations and Methods

There is no single design method that encompasses the full range of Geoweb load support applications. A theoretical design method, based on empirically derived design methods for unpaved roads over soft soils, has been developed for the Geoweb granular pavement system. Design methods for flexible pavements, spread footings, and granular pavements with unstable infill soils have yet to be developed. However, it was this latter function for which Geoweb was originally invented and developed and has proven effective, particularly with sand infill materials.

Recent results of large scale triaxial compression testing of the Geoweb cell infilled with granular materials demonstrate that the Geoweb system imparts an apparent cohesion of approximately 150 kPa (3000 psf) to the confined material. This effective cohesion is in addition to the natural frictional shear strength of the granular material. Presto Geosystems is currently using this information to develop bearing-capacity design procedures for Geoweb load support structures that takes into account the additional shear strength provided by the apparent cohesion. These design procedures will apply to large spread footing and granular pavement applications with poor-quality infill materials.

A discussion of currently available design procedures follows for Geoweb granular pavement systems and the design approaches used for other Geoweb load support applications.

Flexible Pavements

Conventional flexible pavement design methods (e.g. AASHTO, Asphalt Institute, Caltrans, etc.) are all based on empirical data collected from either full-scale road tests or ongoing testing and monitoring of pavement performance within various geographical areas. Structural values of conventional road construction materials (e.g. crushed stone, gravel, asphalt concrete, etc.) have been determined by federal and local agencies based on years of in-service performance history. While many new materials (e.g. stabilizers, geosynthetics, etc.) have been introduced in recent years to enhance the structural value of conventional construction materials, it is difficult and can take several years to obtain structural values for these components to use with existing design methods. For this reason, there are no agency-accepted structural values or equivalencies that can be used with current pavement design methods for the Geoweb system.

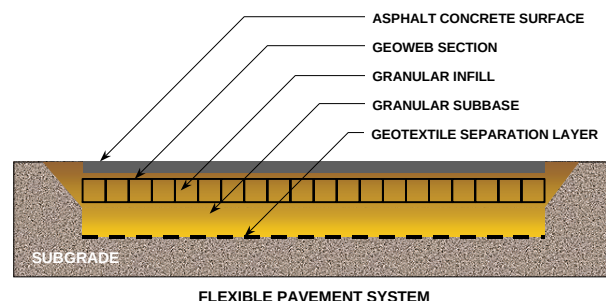


Figure 2 Flexible Pavement Detail

By combining conventional pavement design methods with a theoretical method for determining the structural equivalency of a confined pavement layer, it is possible to design pavement structures that incorporate the Geoweb system.

Granular Pavements

Design of Geoweb confined granular pavements (e.g. access roads) over soft soils is relatively straight forward and has been well documented for general design purposes. Refer to the Design Parameters – Granular Pavements and Design Calculations Granular Pavements sections of this document for specific details about the required design input data and the design calculations.

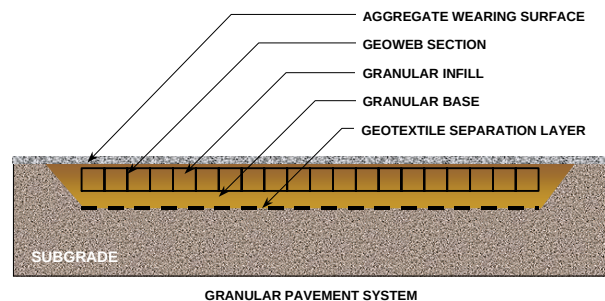


Figure 3 Granular Pavement Detail

Spread Footings

Geoweb spread footings may be considered for a wide range of load support applications such as building footings, buried pipes and segmental retaining walls. They may also be considered for a variety of soil problems such as low bearing capacity, settlement and inadequate shear resistance of near surface foundation soils. Footing loads may be relatively large or small with respect to individual cell or section size of Geoweb spread footings. Due to the versatility of the Geoweb cellular confinement system, the function and design method may change with varying combinations of application, problem and footing loads. In some cases the governing design factor may be:

- the overall shear resistance of the Geoweb spread footing,
- the redistribution of stresses within individual Geoweb cells or
- the increase in bearing area provided by a Geoweb spread footing.

The design approach used for granular pavement structures can also be used for design of Geoweb spread footings with relatively small rigid footing loads by modifying the design criteria for bearing capacity from local shear failure mode to general shear failure mode. For conventional bearing capacity and settlement calculations of larger footing loads, the recommended effective bearing area of a Geoweb mattress should extend no more than 500 mm (18 in) beyond the edges of the rigid footing. In most cases, this will provide a significant decrease in the calculated bearing pressure without compromising the basic assumption that the Geoweb mattress will be effectively rigid.

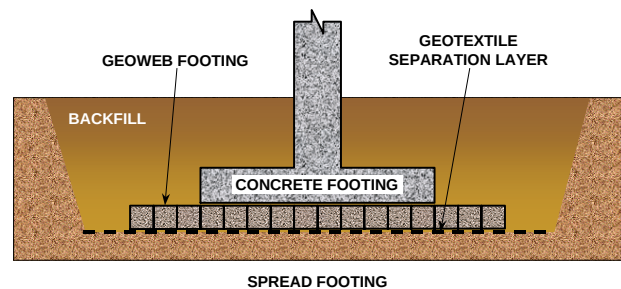


Figure 4 Spread Footing Detail

As stated above, development of a design method for Geoweb spread footings, which will take into account the effective cohesion of the cellular structure, is currently underway.

Design Parameters - Granular Pavements

The following information and input parameters are required for design of the Geoweb load support system for granular pavements.

Wheel Load

The design wheel load is the heaviest single or dual wheel load that the granular pavement will be required to support over the proposed life of the structure.

Tire Pressure

The tire pressure is the tire inflation pressure of the design wheel load and is approximately equal to the ground contact pressure. An input value is required for determination of the effective contact radius of the design wheel load.

Bearing Capacity Coefficient

Bearing capacity coefficients are mathematically or empirically derived coefficients used within standard equations for determination of the bearing capacity of a soil. For unpaved roads over soft cohesive soils, the US Forest Service and others have developed bearing capacity coefficients for determination of the bearing capacity of soils subjected to dynamic loading wherein punching (local) shear failure is more prevalent than general shear failure. The US Forest Service developed the following bearing coefficients for unpaved haul roads for two broad ranges of traffic loading.

$N_c = 2.8$	High traffic with little rutting (i.e. > 1000 , < 10000)
$N_c = 3.3$	Low traffic with significant rutting (i.e. < 1000)

Depth to Top of Geoweb section

The depth of placement of the Geoweb layer influences the distribution of stresses through the system and has a significant effect on the design. Since vertical stresses are higher near the surface, optimum performance and maximum thickness reduction are obtained by placing the Geoweb as close to the surface as possible. However, in order to protect the top of the Geoweb cell walls, a 25 mm - 50 mm (1 in - 2 in) aggregate wearing surface is typically recommended.

Subgrade Strength

There are several laboratory and field test methods available to determine the strength of subgrade soils for design purposes. The calculations require soil strength to be expressed in terms of shear strength or cohesion. Shear strength can be determined in the field by the vane shear test or in the laboratory by the shear box or triaxial compression tests. Soil strength is also commonly determined by the Standard Penetration Test and the California Bearing Ratio (CBR) test. For cohesive soils, shear strength of a soil can be estimated from the standard penetration resistance (N) or the California Bearing Ratio (CBR). In the absence of field or laboratory test data, the strength of the subgrade soil can be estimated by its consistency (see the Field Identification section of Table 4). When estimating a soil's strength by its consistency, the soil sample should be taken from a test pit which is deep enough to ensure its properties have not been affected by changing surface conditions (e.g. rain water, hot dry weather, etc.).

Brief descriptions of the most common test methods for determining the strength of subgrade soils are given below.

California Bearing Ratio (CBR) Test

The California Bearing Ratio test is an index test used to determine the relative strength of a soil compared to a standard high-quality crushed stone material. The test specimen is prepared by compacting a sample of the soil, in multiple lifts, into a 6 inch diameter cylinder, applying a surcharge in the form of circular plates to approximate the confining stress of the final pavement on the soil and soaking the entire sample for a period of 4 days. The test consists of loading the soil sample with a 3 square inch (1935 square mm) circular piston, through holes in the surcharge plates, at a rate of 0.10 inch (2.54 mm)/minute up to a maximum of 0.5 inches (13 mm). The CBR value is the ratio of the unit load at 0.10 inch (2.54 mm) or 0.20 inch (5.04 mm) to that of the standard crushed stone material at the same depth of penetration (whichever is higher). The unit loads are given in Table 2.

Table 2 Unit Loads for Standard Crushed Stone Material

0.1 inch penetration	1000 psi
0.2 inch penetration	1500 psi
0.3 inch penetration	1900 psi
0.4 inch penetration	2300 psi
0.5 inch penetration	2600 psi

Standard Penetration Test

The standard penetration test provides an indication of the density, and the angle of internal friction of cohesionless soils and the shear strength of cohesive soils. The tests consists of driving a split spoon sampler, equipped with a cutting shoe and attached to the end of a drill rod, into a soil by dropping a 140 lb (63.6 kg) hammer a distance of 30 inches (0.76 m). A split spoon sampler is a thick-walled steel tube, split lengthwise, used to obtain undisturbed samples of soil from drill holes. The number of blows required for each 6 inches (150 mm) of penetration of the split spoon sampler is recorded. The standard penetration resistance is the sum of the blows for the second and third increments of 6 inches (150 mm) and is termed N in blows/ft (blows/300 mm).

Shear Strength Tests

The shear strength of a soil is the stress at which the soil fails in shear. It can be calculated by dividing the shear force at which a soil fails by the cross-sectional area of shear or, if the cohesion and angle of internal friction are known, by the general Coulomb equation.

$$s = c + \sigma \tan \phi$$

where c is the soil's cohesion (i.e. interparticle attraction) expressed in terms of force per unit area

σ is the overburden or surcharge pressure in terms of force per unit area

ϕ is the soil's angle of internal friction (i.e. resistance to interparticle slip) in degrees

Granular soils do not have cohesion and therefore shear strength is governed by overburden pressure that explains why granular pavement surface materials are inherently unstable. Undrained cohesive soils (e.g. soft and saturated clays) do not have internal friction and therefore shear strength is governed by cohesion that can vary with moisture content. Drained cohesive soils can have both cohesion and internal friction.

The shear strength of granular soils can be measured in a laboratory by the shear box test. Cohesion and the angle of internal friction of cohesive soils can be measured in a laboratory for drained and undrained conditions by triaxial compression tests. In the field, shear strength can be measured by the field vane shear test. Refer to a textbook on soil mechanics or geotechnical engineering for more information about the shear strength of soils and test methods.

Angle of Internal Friction - Geoweb Infill Material

The angle of internal friction of a cohesionless granular soil can be determined by measuring the maximum shear stress at failure over a range of normal stresses (i.e. confining pressures) and plotting the results on a graph. The angle formed by the best-fit straight line through the origin and the horizontal axis is a close approximation of the angle of internal friction. See Figure 5. For compacted granular materials, the angle of internal friction is typically within a range of 30° to 40°. The higher the quality of the granular material (e.g. angularity, gradation, hardness, etc.) the higher the angle of internal friction.

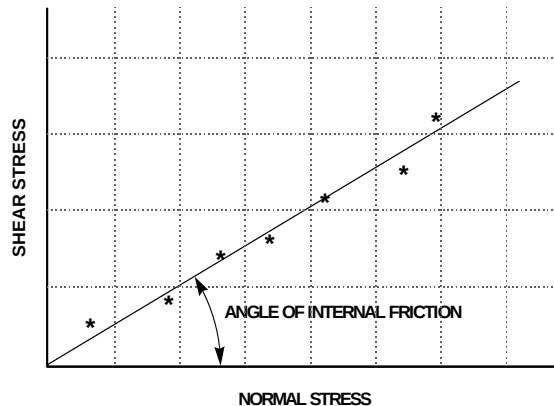


Figure 5 Angle of Internal Friction

Geoweb Cell Wall/Infill Friction Angle Ratio

The Geoweb cell wall/infill material friction angle ratio is the ratio of angle of shearing resistance between the infill material and the Geoweb cell wall over the peak friction angle of the infill soil in-isolation. It will vary depending upon the gradation and particle angularity of the infill material and the roughness of the cell wall or the size and spacing of perforations in the cell wall.

Shear box tests have been carried out to determine angles of shearing resistance between standard Geoweb cell wall treatments and typical granular materials. The results were expressed in terms of peak friction angle ratios (or Geoweb Cell Wall/Infill Friction Angle Ratio), where Peak Friction Angle Ratio is defined as the angle of shearing resistance between the granular infill and the Geoweb cell wall divided by the peak friction angle of the infill material in-isolation. Geoweb Cell Wall/Infill Friction Ratios for standard cell wall treatments and typical compacted granular materials are given in Table 3. The values presented in Table 3 are used to develop the relationships in Table 1 and base thickness in Table 5.

Table 3 Recommended Peak Friction Angle Ratio

Granular Infill Material	Cell Wall Type	$r = \delta/\phi$
Coarse Sand / Gravel	Smooth	0.71
	Textured	0.88
	Textured - Perforated	0.90
#40 Silica Sand	Smooth	0.78
	Textured	0.90
	Textured - Perforated	0.90
Crushed Stone	Smooth	0.72
	Textured	0.72
	Textured - Perforated	0.83

Design Calculations Granular Pavements

Illustrated here are the design procedures and calculations for determining aggregate thickness requirements for granular-surfaced pavements (e.g. access, utility and haul roads) both with and without the Geoweb cellular confinement system. Empirically derived bearing capacity coefficients are first used to determine the maximum allowable stress on a subgrade with either known or estimated shear strength. The maximum allowable stress is that stress which would cause local punching / shear failure of the subgrade under sustained loading conditions. Since granular pavement loads are transient, the effective strength of the soil is typically higher than it would be under static loading. Therefore, the maximum allowable stress is the limiting stress for design purposes. Boussinesq theory is then used to determine the required depth of granular cover beneath the design wheel load to ensure that the maximum allowable stress is not exceeded. The calculations outlined herein are intended for low volume roads where minor deformations are tolerable or for design of pavement subbase layers over soft soils. They are not intended for design of flexible pavement structures with paved surfaces. The calculations are only valid for granular pavement design over cohesive subgrade soils with CBR values less than 5.

Variable Names

c_u	Subgrade shear strength
N_c	Bearing capacity coefficient - based on design traffic - see below
P	Design wheel load
p	Contact pressure
r	Geoweb cell wall/Infill peak friction angle ratio
δ	Angle of shear resistance between the granular infill and Geoweb cell wall
ϕ	Angle of internal friction of the Geoweb infill material
z_t	Depth from surface to top of Geoweb cell walls
z_b	Depth from surface to bottom of Geoweb cell walls

Calculations

Determine the subgrade shear strength. Refer to Table 4 if the subgrade strength is reported in terms of Standard Penetration Resistance, CBR or by Field Identification.

Determine the maximum allowable stress on the subgrade, q_a $q_a = N_c c_u$

where $N_c = 2.8$ (High Traffic, Low Rutting - from U.S. Forest Service guidelines)

$N_c = 3.3$ Low Traffic, High Rutting - from U.S. Forest Service guidelines)

Determine the required thickness of granular pavement, z_u , without the Geoweb cellular confinement system using the following equation (Boussinesq equation for estimating vertical stress at a given depth below a circular load re-written to calculate the depth of cover above a given vertical stress, q_a).

$$z_u = \frac{R}{\sqrt{\left(1 - \frac{q_a}{p}\right)^{2/3} - 1}}$$

where R = Radius of loaded area (i.e. effective radius of single or dual tires)

$$R = \sqrt{\frac{P}{p\pi}}$$

Determine the required thickness of granular pavement, z_g , with the Geoweb cellular confinement system.

Table 4 Correlation of Subgrade Soil Strength Parameters for Cohesive (Fine-Grained) Soils

California Bearing Ratio	Undrained Shear Strength	Standard Penetration Resistance	Field Identification
CBR (%)	c_u kPa (psi)	SPT (blows/ft)	
< 0.4	< 11.7 (1.7)	< 2	Very soft (extruded between fingers when squeezed)
0.4 - 0.8	11.7 - 24.1 (1.7) - (3.5)	2 - 4	Soft (molded by light finger pressure)
0.8 - 1.6	24.1 - 47.6 (3.5) - (6.9)	4 - 8	Medium (molded by strong finger pressure)
1.6 - 3.2	47.6 - 95.8 (6.9) - (13.9)	8 - 15	Stiff (readily indented by thumb but penetrated with great effort)
3.2 - 6.4	95.8 - 191 (13.9) - (27.7)	15 - 30	Very stiff (readily indented by thumbnail)
> 6.4	> 191 (27.7)	> 30	Hard (indented with difficulty by thumbnail)

The total required thickness of granular pavement with the Geoweb cellular confinement system is a function of the Geoweb cell depth, the depth of placement below the applied load, the wheel load and tire pressure and the infill material properties. Surface stress (i.e. wheel load contact pressure) is distributed both vertically and horizontally through the Geoweb cellular structure. Horizontal stresses, in turn, are converted into vertical resisting stresses along the cell walls thus reducing the total vertical stress directly beneath the center of the loaded area. The total resisting stress provided by the Geoweb cell structure is calculated and added to the maximum allowable stress on the subgrade for determination of the total required thickness of granular pavement with the Geoweb cellular confinement system.

The first step is to select the Geoweb section placement depth, z_t within the granular pavement structure. Since vertical stresses are higher near the surface, optimum performance and maximum thickness reduction are obtained by placing the Geoweb as close to the surface as possible. However, to protect the top of the Geoweb cell walls, a 25 mm to 50 mm (1 in to 2 in) aggregate wearing surface is typically recommended.

After selecting a trial depth of placement, calculate the vertical stress, σ_{vt} , at the top of the Geoweb section using the following equation.

$$\sigma_{vt} = p \left[1 - \frac{1}{1 + \left(\frac{R}{z_t} \right)^2} \right]^{\frac{3}{2}}$$

Next, calculate the vertical stress, σ_{vb} , at the bottom of the Geoweb section. The bottom depth, z_b , is the top depth, z_t , plus the thickness (or depth) of the Geoweb section.

$$\sigma_{vb} = p \left[1 - \frac{1}{1 + \left(\frac{R}{z_b} \right)^2} \right]^{\frac{3}{2}}$$

Calculate the horizontal stress at the top, σ_{ht} , and bottom, σ_{hb} , of the Geoweb section using the following equations.

$$\sigma_h = K_a \sigma_v$$

where K_a is the coefficient of active earth pressure.

$$K_a = \tan^2 \left(45 - \frac{\phi}{2} \right)$$

Horizontal stress at the top of the Geoweb section, σ_{ht}

$$\sigma_{ht} = K_a \sigma_{vt}$$

Horizontal stress at the bottom of the Geoweb section, σ_{hb} .

$$\sigma_{hb} = K_a \sigma_{vb}$$

The average horizontal stress on the Geoweb cell walls is then determined as follows.

$$\sigma_{avge} = \frac{(\sigma_{ht} + \sigma_{hb})}{2}$$

Next, calculate the reduction in stress, σ_r , directly beneath the center of the loaded area due to stress transfer to the Geoweb cell walls using the following equation.

$$\sigma_r = 2 \left(\frac{H}{D} \right) \sigma_{avge} \tan \delta$$

where H = Geoweb cell depth in mm (in)

D = Effective Geoweb cell diameter = 190 mm (7.5 in)

δ = Angle of shearing resistance between granular infill material and Geoweb cell walls.

$\delta = r\phi$ (obtain test data or estimate r from Table 3)

Determine the design allowable stress, q_G , on the subgrade with the Geoweb cellular confinement system using the following equation.

$$q_G = q_a + \sigma_r$$

Determine the total required thickness of granular pavement, z_G , with the Geoweb cellular confinement system.

$$z_G = \frac{R}{\sqrt{\frac{1}{\left(1 - \frac{q_G}{p}\right)^{2/3}} - 1}}$$

If the total required thickness is greater than the surface thickness (i.e. depth to the top of the Geoweb section); in addition, the depth of the Geoweb section, a subbase layer is required. The thickness of the subbase layer must be equal to the total required thickness minus the surface thickness and the Geoweb section depth.

Using the equations presented herein, Table 5 gives base/subbase thickness requirements vs. cell wall type for the Geoweb load support system, under the following load condition:

- 203 mm (8 in) depth of Geoweb section,
- crushed stone infill,
- 38 degree friction angle,
- 690 kPa (100 psi) tire pressure,
- 25 mm (1 in) depth of cover over the Geoweb section,
- 2.8 bearing capacity coefficient.

Table 5 Total Thickness of Coarse Sand / Gravel Base Including Geoweb Section

Subgrade CBR	Wheel Load		Smooth r = 0.71		Textured r = 0.88		Textured - Perforated r = 0.90		Unconfined Stone	
	%	kN (lbf)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)		
0.2	27	(6,000)	277	(10.9)	241	(9.5)	236	(9.3)	876	(34.5)
	53	(12,000)	366	(14.4)	315	(12.4)	310	(12.2)	1240	(48.8)
	111	(25,000)	490	(19.3)	419	(16.5)	411	(16.2)	1788	(70.4)
	222	(50,000)	655	(25.8)	556	(21.9)	546	(21.5)	2527	(99.5)
0.5	27	(6,000)	251	(9.9)	221	(8.7)	218	(8.6)	546	(21.5)
	53	(12,000)	335	(13.2)	292	(11.5)	287	(11.3)	772	(30.4)
	111	(25,000)	450	(17.7)	389	(15.3)	384	(15.1)	1113	(43.8)
	222	(50,000)	605	(23.8)	518	(20.4)	511	(20.1)	1575	(62.0)
1.0	27	(6,000)	218	(8.6)	203	(8.0)	203	(8.0)	376	(14.8)
	53	(12,000)	292	(11.5)	257	(10.1)	254	(10.0)	531	(20.9)
	111	(25,000)	396	(15.6)	345	(13.6)	340	(13.4)	767	(30.2)
	222	(50,000)	536	(21.1)	465	(18.3)	457	(18.0)	1085	(42.7)
2.0	27	(6,000)	203	(8.0)	203	(8.0)	203	(8.0)	251	(9.9)
	53	(12,000)	231	(9.1)	206	(8.1)	203	(8.0)	353	(13.9)
	111	(25,000)	315	(12.4)	279	(11.0)	274	(10.8)	536	(21.1)
	222	(50,000)	429	(16.9)	376	(14.8)	368	(14.5)	721	(28.4)

NOTE: The above wheel load values are from either single or dual wheels. For axle loads multiply by 2. **This table is based on theoretical methodologies outlined herein. Values are for comparative purposes only and are not a substitute for project specific design.**

Available Tools & Services

Presto and Presto's authorized distributors and representatives offer assistance to anyone interested in evaluating, designing, building or purchasing a **Geoweb Load Support System**. You may access these services by calling 800-548-3424 or 920-738-1707. In addition to working directly with you, the following design and construction resources are available for your use with the **Geoweb Load Support System**.

Design	Material and CSI-format Specifications, System Components Guideline, Request for Project Evaluation, AutoCAD® Drawings, SPECMaker® Specification Development Tool, Technical Resources Library CD, videos
Construction	Installation Guidelines, SPECMaker® Specification Development Tool, Technical Resources Library CD, videos

Disclaimer

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Gulfstream FLIGHT OPS

Operations Briefing

Pavement Weight Bearing Capacity (ACN/PCN)

05202020
Scope: All Aircraft
Briefing Owner: Flight Operations

All Aircraft | Pavement Weight Bearing Capacity

Executive Summary

If you have a question regarding Airport Classification Number (ACN) and Pavement Classification Number (PCN), reference the following sources:

- **Mid Cabin Aircraft:** QRH: Supplemental Data
- **GIV & GV:** QRH : Performance -> Landing Planning
- **G450/G550/G650:** Performance Handbook -> Landing Planning
- **GVII-G500/G600 :** Operating Manual >Supplemental Data

Once you have established your aircraft classification number, Gulfstream recommends you contact your flight plan provider as well as the appropriate airport authority/manager for an updated accurate advertised Pavement Classification Number as well as the latest assessment of permissible movement areas.

The PCN is calculated using the verbiage "unrestricted operations." While it has obviously a calculation of pavement strength, it also is derived to extend the life of the runway environment. While PCNs are published for repeated use, a one-time event (one takeoff/one landing) should be acceptable with the appropriate authorizations. *Caution must be given as PCN does not usually apply to taxiways or ramps and only within 50 feet of runway centerline.* When ACN/PCN is close, make sure to inquire from the airport manager about all movement areas, paying particular attention to the taxiways and ramp areas due to the runway PCN not always guaranteeing the taxiways.

All Aircraft | Pavement Weight Bearing Capacity

Executive Summary (continued)

Keep in mind that even when obtaining the airport manager's approval for an exemption for operation, stay alert to the fact that the real concern is the weight bearing capability of the ramp and taxiways, as it is undoubtedly lower than the runway surface itself. Even with an exemption, tight turns and prolonged duration on the ramp would not help the situation.

If the airport you are operating into has a small number PCN, it may be prudent to acquire a copy of the engineering runway analysis, as well as an explanation as to why the PCN is valued so low. While the average PCN may be acceptable in many cases, some airport movement areas may contain weaker pavement, and as such a smaller PCN is published.

Your flight plan provider and the airport authority will also be able to help you establish confirmed prior aircraft type operated into and out of that particular airfield and whether operators are using surrounding airports for tech stop purposes to add additional fuel for the departure enabling lighter weights at the lower PCN airfield. Heavier weight aircraft historical value and confirming known design value for the runway from the airport manager will assist in making the decision. If there is any doubt, conservatism should always trump and operation should be avoided.

If you still require assistance, please forward your question via the submit your question in the appropriate aircraft section and our team of pilot advocates will be happy to provide further guidance to your situation.

All Aircraft | Pavement Weight Bearing Capacity

Background Briefing

This briefing addresses the two most common forms of pavement weight bearing capacity metrics. A brief, top-level overview of weight bearing capacity is discussed. Where to find such data and how to conduct a pavement analysis follows. Additional factors are discussed at the conclusion.

What are the two most common ways to determine pavement weight bearing capacity?

- **Wheel Weight Bearing Limits (commonly used in the United States).**
- **ACN/PCN (ICAO Standard)**

All Aircraft | Pavement Weight Bearing Capacity

WISE

LONESOME PINE (LNP)(KLPN) 3 NE UTC-5(-4DT) N36°59.25' W82°31.80'

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RWY 06-24: H5280X100 (ASPH-GRVD) S-42, D-55, 2D-100 MIRL
0.3% up NE

RWY 06: REIL. PAPI(P2L)—GA 3.0° TCH 34'. Trees.

RWY 24: ODALS (NSTD) REIL. PAPI(P2R)—GA 3.0° TCH 36'. Trees.

AIRPORT REMARKS: Attended Mon-Sat 1400-2300Z†, unattended Sun. \$50 after hrs fee for fuel 276-328-9089. Wildlife on invof arpt. Rwy 06-24—three inch gradual dip starting 2000 ft from thld Rwy 24 continuing for 300 ft. Rwy 24 NSTD ODALS, 5 lgt configuration. ACTIVATE MIRL Rwy 06-24, ODALS Rwy 24 and REIL Rwy 06 and Rwy 24—CTAF.

AIRPORT MANAGER: 276-328-5300

WEATHER DATA SOURCES: AWOS-3 118.6 (276) 328-3727.

COMMUNICATIONS: CTAF/UNICOM 123.0

® INDIANAPOLIS CENTER APP/DEP CON 126.57

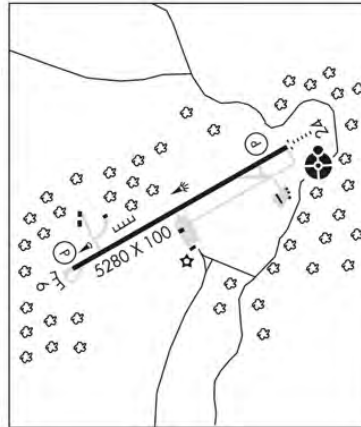
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W82°04.74' 296° 23.8 NM to fld. 4200/2W. HIWAS.

VOR portion unusable:

351°-004° byd 15 NM blo 8,000'

ILS/DME 110.7 I-OWN Chan 44 Rwy 24. LOC/DME unmonitored when arpt unatndd.



CINCINNATI

H-9B, 12H, L-26H
IAP

Wheel Weight Bearing Limits

- FAA Wheel Weight Bearing Limits specify a maximum aircraft weight based on the number of wheels that the aircraft rests upon.
- This data is available in the Airport/Facility Directory.
- Add “000” to the numerical figure.
- It is imperative to emphasize that, per the FAA, this is based on total aircraft weight, **not weight per wheel**.

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340-600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

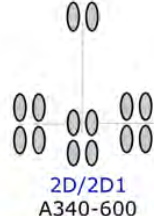
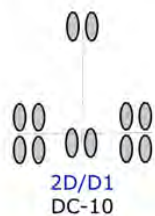
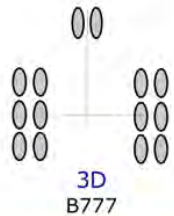
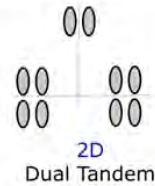
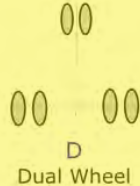
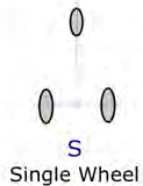
FAA Airport/Facility Directory Front Matter

APPENDIX 11D - PUBLIC COMMENTS 2025

All Aircraft | Pavement Weight Bearing Capacity

Graphical Wheel Description (Examples)

Chapter 3 - Pavement Design -- Examples

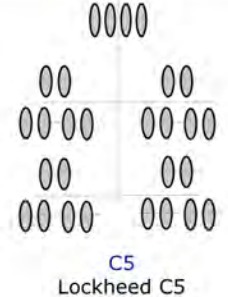
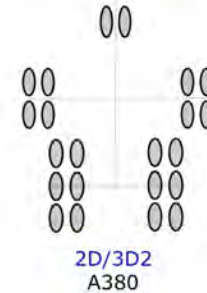
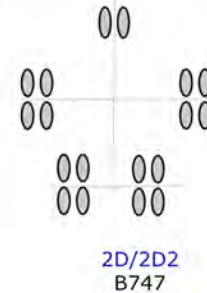


AC 150/5320-6E and FAARFIELD
March 2008



Federal Aviation
Administration

Chapter 3 - Pavement Design -- Examples



AC 150/5320-6E and FAARFIELD
March 2008



Federal Aviation
Administration

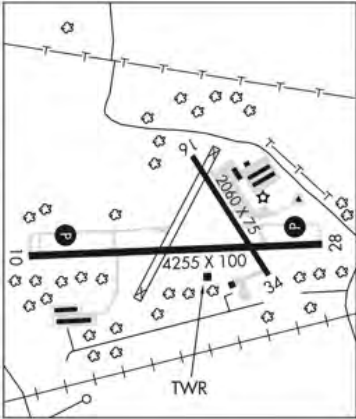
All Aircraft | Pavement Weight Bearing Capacity

EAST HAMPTON (HTO)(KHTO) 3 W UTC-5(-4DT) N40°57.57' W72°15.10'
55 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE HTO
RWY 10-28: H4255X100 (ASPH-GRVD) S-60 MRL 0.6% up W
RWY 10: REIL PAPI(P2L)—GA 3.3° TCH 49'. Trees.
RWY 28: REIL PAPI(P2R)—GA 3.0° TCH 54'. Pole.
RWY 16-34: H2060X75 (ASPH) S-8 0.6% up NW
RWY 16: Road.
RWY 34: Trees.

AIRPORT REMARKS: Attended continuously. Deer on and invof arpt. Rwy 16-34 cracked with vegetation growing through, standing water. NS ABTMT procedures in effect ctc arpt management for details at 631-537-1130. TPA—1000, jets—1500. Rwy 10 VGSI and RNAV glidepath not coincident. Ctl twr opr at arpt from May 23 thru Sept 14 (other times by NOTAM.) ACTIVATE MRL Rwy 10-28, PAPI Rwy 10, PAPI Rwy 28, REIL Rwy 10, REIL Rwy 28—CTAF (PAPI and REIL 7 clicks CTAF). Ldg fee for all tran acct to include touch and go ops.

AIRPORT MANAGER: 631-537-1130
COMMUNICATIONS: CTAF 125.225
HAMPTON RCO 122.1R 113.6T 122.6 (NEW YORK RADIO)
® NEW YORK APP/DEP CON 125.975 CLNC DEL 118.95
TOWER 125.225 (1200-0100Z) GND CON 121.9
AIRSPACE: CLASS D svc 1200-0100Z; other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE HTO.
HAMPTON (H) VORTAC 113.6 HTO Chan 83 N40°55.14' W72°19.00' 064° 3.8 NM to fld. 22/13W. HIWAS.
HIWAS OTS indef
DME portion unusable:
280°-325° byd 35 NM blo 1,700'
325°-355° byd 30 NM blo 2,000'
TACAN AZIMUTH unusable:
280°-325° byd 35 NM blo 1,700'
325°-355° byd 30 NM blo 2,000'
VOR unusable:
055°-100° byd 22 NM
221°-231° blo 6,000'

NEW YORK COPTER
L-33C, 34I
IAP



What if the A/FD only includes information pertaining to a single-wheel gear configuration?

- Call the airport authority. They may have additional information.
- Most Gulfstream aircraft have a “Equivalent Single Wheel Loading (ESWL)” table. The G280 may have this information in the near future.

Performance Handbook	Gulfstream G450
G450 Equivalent Single Wheel Loading (ESWL)	
OM 06-05-90	

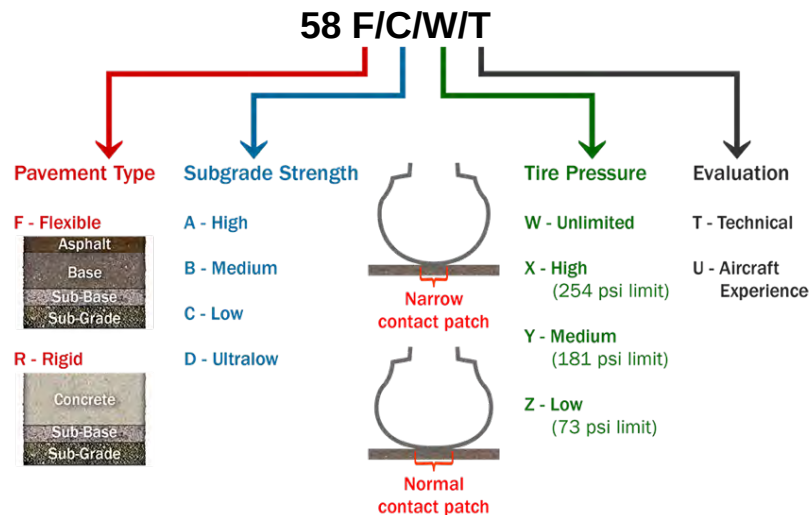
All Aircraft | Pavement Weight Bearing Capacity

ITHACA TOMPKINS RGNL (ITH)(KITH) 3 NE UTC-5(-4DT) N42°29.48' W76°27.52'				
1099	B	S4	FUEL 100LL, JET A	Class I, ARFF Index B NOTAM FILE ITH
RWY 14-32: H6977X150 (ASPH-GRVD) S-100, D-192, 2S-114, 2D-574, 2D/2D2-1044 PCN 58 F/C/W/T HIRL 0.3% up SE				
RWY 14: PAPI(P4L)—GA 3.0° TCH 50'.				
RWY 32: MALSR. PAPI(P4L)—GA 3.2° TCH 53'. Trees.				

FAA Airport/Facility Directory

What is PCN?

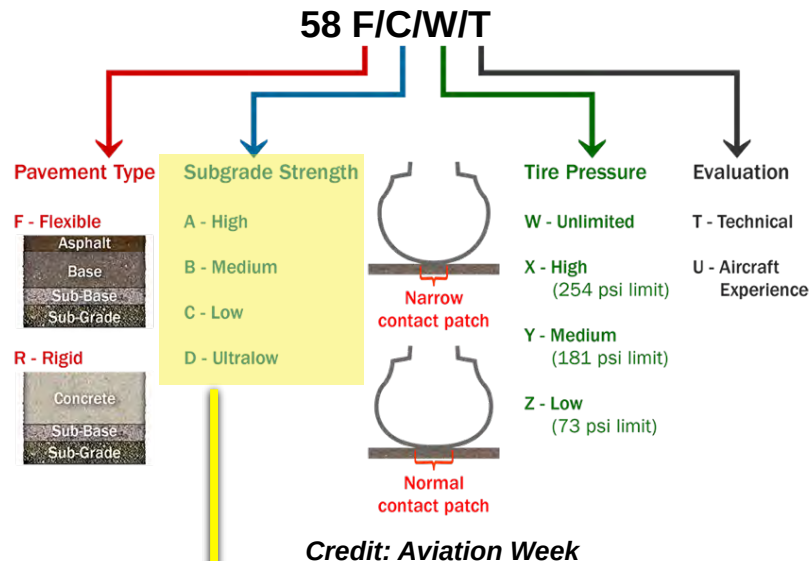
- **Pavement Classification Number (PCN):** Single unique number to express the load-carrying capacity of a pavement, without specifying a particular airplane or pavement structure.



Credit: Aviation Week

- As shown in the graphic, tire pressure also affects the amount of force applied to a given portion of the pavement. This will be addressed later.

All Aircraft | Pavement Weight Bearing Capacity



What is PCN (continued)?

- Subgrade strength can be translated into **California Bearing Ratio (CBR)**, which is the ICAO-preferred unit.
- It can also be translated into a K-value.
- Many of these terms are present in Gulfstream performance guidance.

Subgrade Strength	CBR Value	K-Value
A	15	150
B	10	80
C	6	40
D	3	20

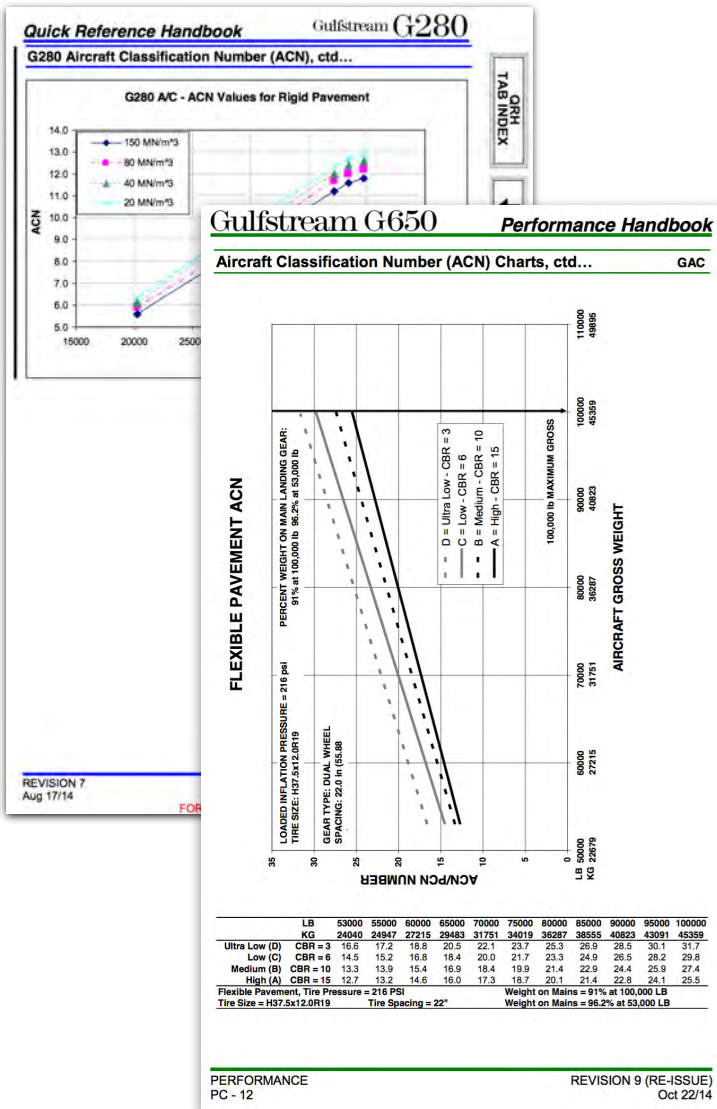
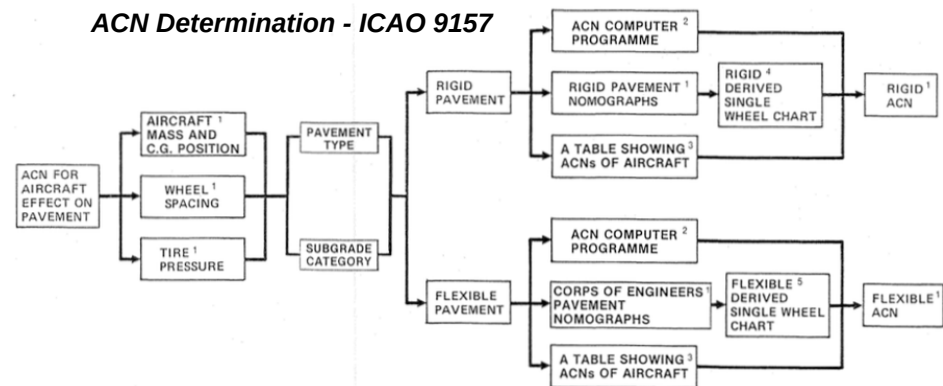
All Aircraft | Pavement Weight Bearing Capacity

What is ACN?

- Aircraft Classification Number (ACN): Single unique number to express effect of an individual airplane on *different pavements*.

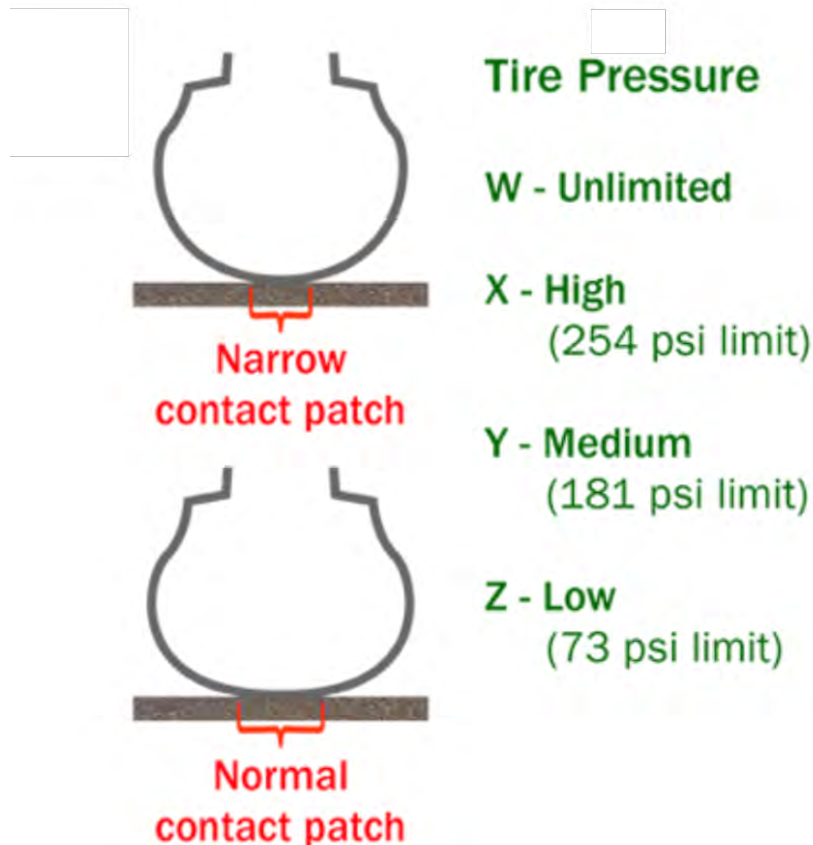
Generally, ACN must be less than or equal to PCN. Exceptions are discussed in the executive summary.

ACN Determination - ICAO 9157



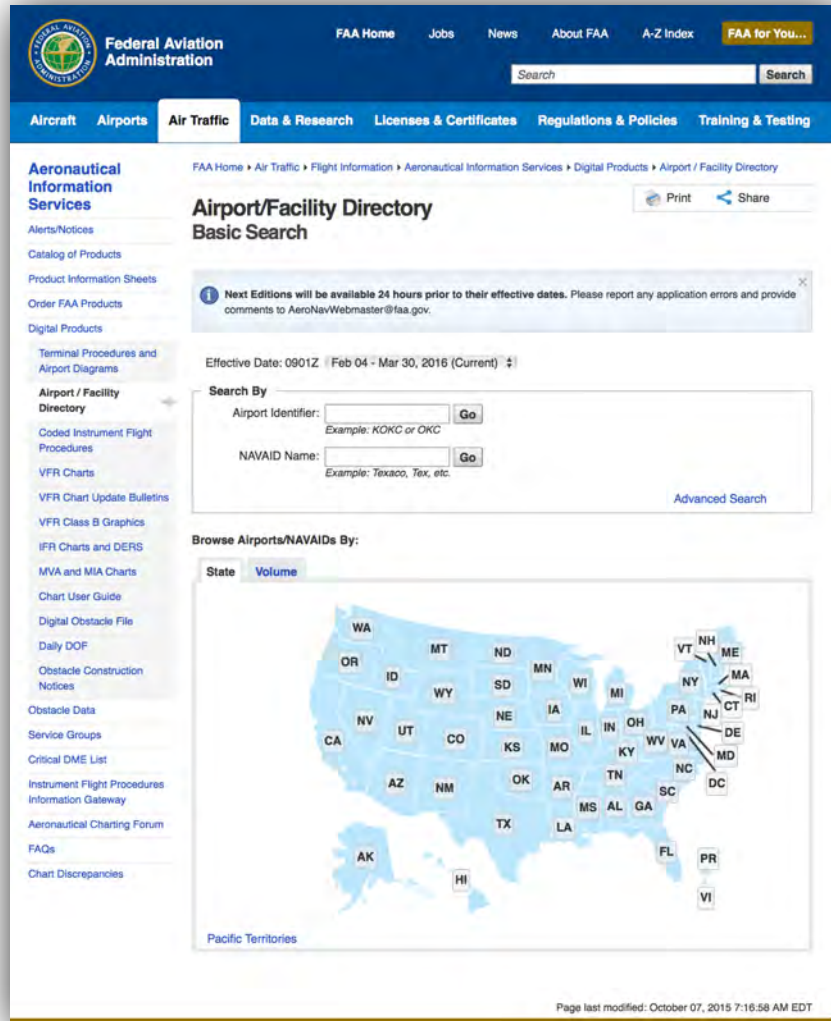
All Aircraft | Pavement Weight Bearing Capacity

Tire Pressure



- Tire pressure effects effects the amount of contact a wheel has with a surface, thereby affecting how much weight a given amount of pavement is exposed to. Maximum pressure limits are assigned to pavement to ensure that a minimum amount of contact is provided.
- The codes and numbers in the graphic to the left are updated to reflect new ICAO standards, whereas the codes/numbers in Gulfstream publications reflect older standards (including a “very low” rating).
- *Due to further aircraft weight restrictions when lowering tire pressures, lowering tire pressure is not a recommended method for normal operations to meet a desired PCN and will not be addressed in this briefing.*

All Aircraft | Pavement Weight Bearing Capacity



Click image to access website

Where can I access PCN/Runway Weight Bearing information for US Airports?

- The Airport/Facility Directory (A/FD) is a good source for this information.

All Aircraft | Pavement Weight Bearing Capacity

Where can I find PCN/Runway Weight Bearing information for International Airports?

Examples include:

- The Jeppesen Airport Directory, much like the FAA A/FD, contains PCN information.
- AC-U-KWIK also contains this data.
- NOTE: if wheel weight bearing capacity is listed in lieu of PCN for international airports, weights may be *per wheel*, not total aircraft weight (opposite of FAA numbers).



All Aircraft | Pavement Weight Bearing Capacity

MID CABIN (G280) EXAMPLE

Quick Reference Handbook

Gulfstream G280

G280 Aircraft Classification Number (ACN)

Aircraft Classification Number (ACN) is a number expressing the relative effect of an aircraft on a pavement for a specified subgrade category. ACN values are calculated for both flexible and rigid pavement. If the aircraft gross weight and runway subgrade strength are known, the ACN value can be determined from the charts on the following pages.

General Data:

Main Tire Size: 26 x 6.6R14

Main Tire Pressure: 203 psi (loaded), 195 psi (unloaded)

Main Gear Wheels Configuration: Dual Wheel

Main Wheel spacing: 375 mm

Percent Load on Gear Legs: See the attached tables. This input varies with the A/C weight, as the Aft C.G. is not constant. This is why the curves showing the ACN versus A/C weight are not linear.

Flexible Pavement - ACN

Aircraft Weight (lb) C.G. Location (%mac) % Reaction on MLG		Subgrade			
		High (CBR 15)	Medium (CBR 10)	Low (CBR 6)	Ultra Low (CBR 3)
Max Ramp Weight	39750 36.7%mac 90.0%	9.6	10.3	11.4	12.3
	38400 40.4%mac 92.0%	9.5	10.1	11.2	12.1
	37200 41.4%mac 92.4%	9.2	9.8	10.8	11.7
	28000 45.6%mac 94.0%	6.7	7.0	7.8	8.7
Min Operating Weight	20300 45.6%mac 94.2%	4.6	4.8	5.2	6.0

REVISION 7
Aug 17/14

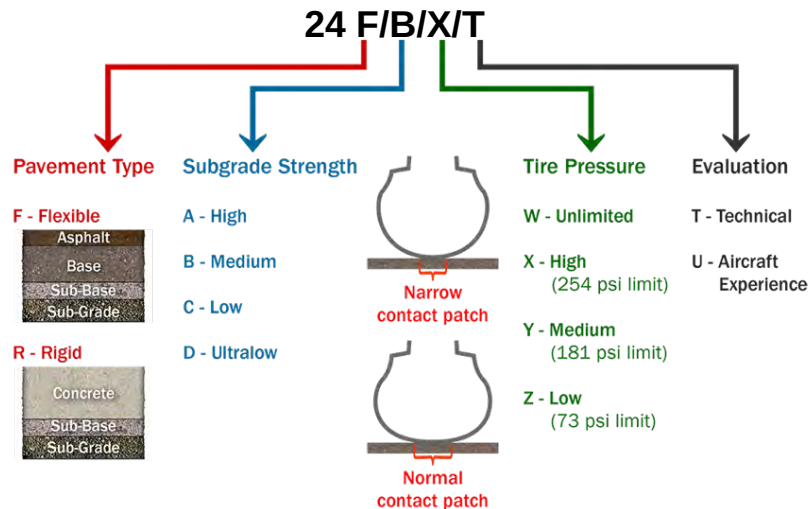
SUPPLEMENTAL DATA
Page S-21

FOR TRAINING PURPOSES ONLY

APPENDIX 11D - PUBLIC COMMENTS 2025

Example: Lake Placid, NY

• PCN: 24 F/B/X/T



Credit: Aviation Week

Note that the %MAC is at its rearward extreme, thereby placing the most weight possible on the main gear (92.4%). This is the most limiting condition. All Gulfstream ACNs are determined using this conservative methodology.



Entire weight band acceptable for PCN

Gulfstream

All Aircraft | Pavement Weight Bearing Capacity

LARGE CABIN (G650) EXAMPLE - PCN

96
CALIFORNIA

CARLSBAD

MC CLELLAN-PALOMAR (CRQ)(KCRQ) 3 SE UTC-8(-7DT) N33°07.70' W117°16.81' LOS ANGELES
 331 B S4 FUEL 100LL, JET A OX 3, 4 TPA—See Remarks Class I, ARFF Index A L-4H
 NOTAM FILE CRQ IAP, AD

RWY 06-24: H4897X150 (ASPH-GRVD) S-60, D-80, 2S-102, 2D-110
PCN 33 F/D/X/T HIRL

RWY 06: PAPI(P4L)—GA 3.0° TCH 35'. Thld dspld 297'.
RWY 24: MALSR. REIL. PAPI(P4L)—GA 3.2° TCH 54'. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 06: TORA-4897 TODA-4897 ASDA-4897 LDA-4600
RWY 24: TORA-4897 TODA-4897 ASDA-4897 LDA-4897

AIRPORT REMARKS: Attended 1500-0600Z+. Rwy 24 hard to see two hrs prior to SS. Do not mistake S twy as rwy. Extensive bird activity in vicinity especially in spring. P-lines 2 miles W & SW. CLOSED to air carrier ops with more than 9 passenger seats from 0630Z+ to 1400Z+ except by PPR call arpt manager 760-431-4646. PPR for all military acft call arpt manager 760-431-4646. TPA—1003(672) helicopters, 1503(1172) small acft, 2003(1672) large acft. Rwy 06-24 south VFR tfc pattern clsd 0600-1500Z+. No jet acft training due to noise abatement and traffic congestion. Multiple apchs by large acft (including large helicopters) not authorized. All acft multiple practice apch and ldgs discourage 0600-1500Z+. Voluntary curfew, jets 0600-1500Z+, props 0800-1400Z+, emerg, lifeguard and law enforcement excepted. RVR touchdown Rwy 24 avbl. Rwy 24 is calm wind rwy. Arpt has noise abatement procedures ctc arpt manager 760-431-4646. Request jets fly the ILS apch. North side ramp limited to 12,500 lbs. Limited transient tie down space on public ramp. When twr clsd ACTIVATE HIRL Rwy 06-24, PAPI Rwy 06 and Rwy 24, REIL Rwy 24, MALSR Rwy 24—CTAF. U.S. Customs User Fee Arpt, ctc 877-848-7766.

AIRPORT MANAGER: 760-966-3272

WEATHER DATA SOURCES: ASOS (760) 930-0864 LAWRs.

COMMUNICATIONS: CTAF 118.6 ATIS 120.15 (760-438-2117)
OCEANSIDE RCO 115.3 T 122.1R (SAN DIEGO RADIO)

® SOCL APP/DEP CON 127.3

TOWER 118.6 (1500-0600Z+) **GND CON** 121.8
CLNC DEL 134.85 For clnc del when ATCT clsd call SOCL APP (800) 448-3724.

AIRSPACE: CLASS D svc 1500-0600Z+ other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE CRQ.

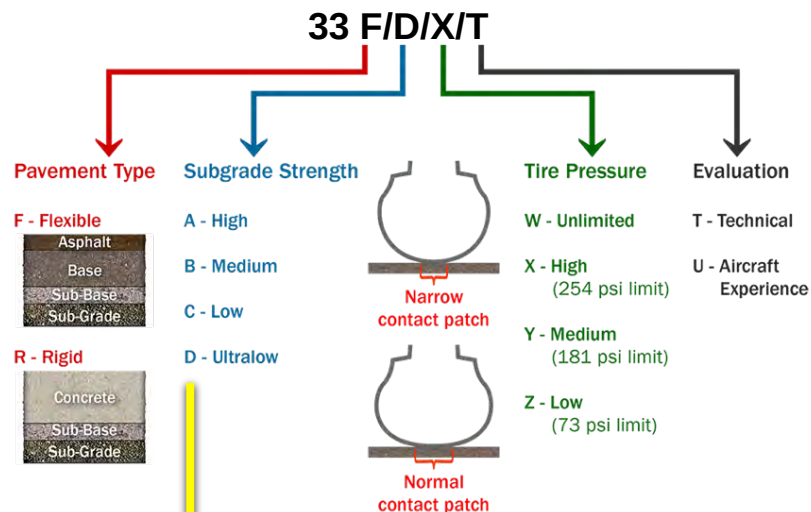
OCEANSIDE (H) VORTAC 115.3 OCN Chan 100 N33°14.44' W117°25.06' 119° 9.7 NM to fld. 52/15E.
 VOR portion unusable:
 227°-265° byd 20 NM

ILS/DME 108.7 I-CRQ Chan 24 Rwy 24. Unmonitored when ATCT clsd. Autopilot coupled approaches na below 960' MSL.



Example: Carlsbad, CA

• PCN: 33 F/D/X/T



Credit: Aviation Week

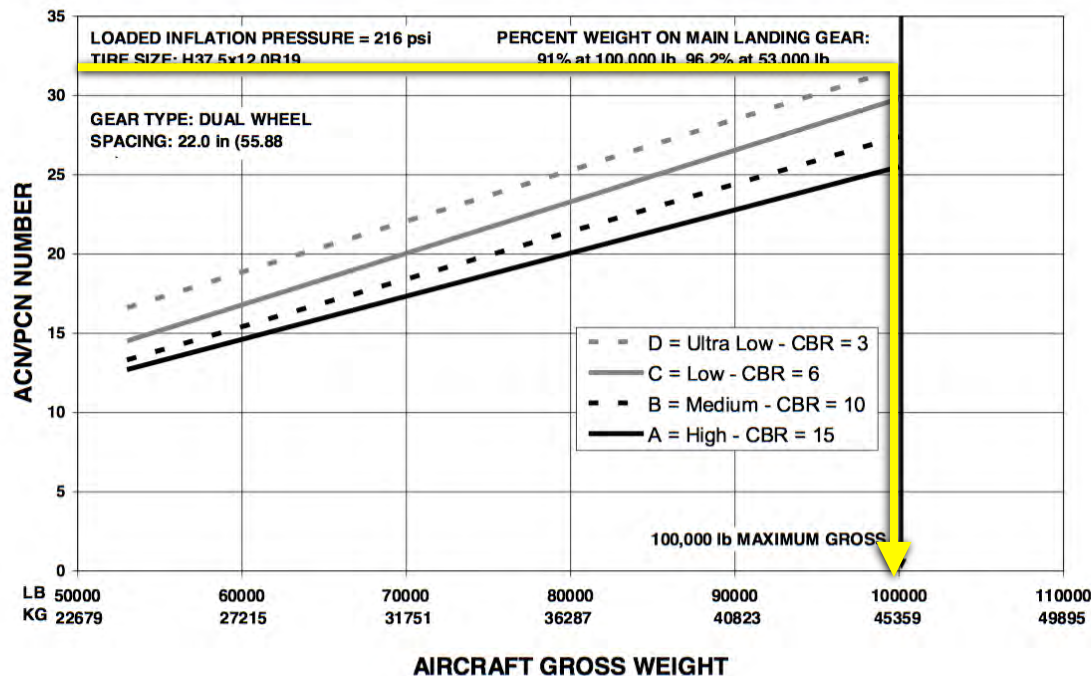
Subgrade Strength	CBR Value	K-Value
D	3	20

All Aircraft | Pavement Weight Bearing Capacity

LARGE CABIN (G650) EXAMPLE - PCN

Gulfstream G650 Performance Handbook
Aircraft Classification Number (ACN) Charts, ctd... GAC

FLEXIBLE PAVEMENT ACN



Entire weight band acceptable for PCN

	LB	53000	55000	60000	65000	70000	75000	80000	85000	90000	95000	100000
Ultra Low (D)	CBR = 3	16.6	17.2	18.8	20.5	22.1	23.7	25.3	26.9	28.5	30.1	31.7
Low (C)	CBR = 6	14.5	15.2	16.8	18.4	20.0	21.7	23.3	24.9	26.5	28.2	29.8
Medium (B)	CBR = 10	13.3	13.9	15.4	16.9	18.4	19.9	21.4	22.9	24.4	25.9	27.4
High (A)	CBR = 15	12.7	13.2	14.6	16.0	17.3	18.7	20.1	21.4	22.8	24.1	25.5

Flexible Pavement, Tire Pressure = 216 PSI
Tire Spacing = 22"

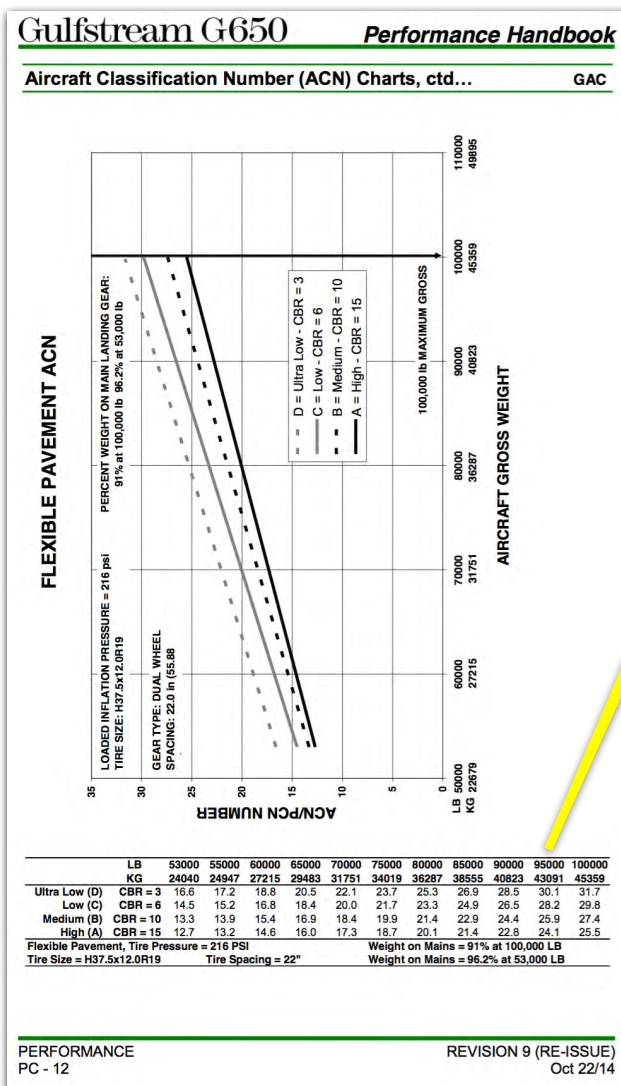
Weight on Mains = 91% at 100,000 LB
Weight on Mains = 96.2% at 53,000 LB

PERFORMANCE
PC - 12

REVISION 9 (RE-ISSUE)
Oct 22/14

All Aircraft | Pavement Weight Bearing Capacity

LARGE CABIN (G650) EXAMPLE - PCN



	LB	53000	55000	60000	65000	70000	75000	80000	85000	90000	95000	100000
	KG	24040	24947	27215	29483	31751	34019	36287	38555	40823	43091	45359
Ultra Low (D) CBR = 3	16.6	17.2	18.8	20.5	22.1	23.7	25.3	26.9	28.5	30.1	31.7	
Low (C) CBR = 6	14.5	15.2	16.8	18.4	20.0	21.7	23.3	24.9	26.5	28.2	29.8	
Medium (B) CBR = 10	13.3	13.9	15.4	16.9	18.4	19.9	21.4	22.9	24.4	25.9	27.4	
High (A) CBR = 15	12.7	13.2	14.6	16.0	17.3	18.7	20.1	21.4	22.8	24.1	25.5	

Flexible Pavement, Tire Pressure = 216 PSI
Tire Size = H37.5x12.0R19 Tire Spacing = 22"

Weight on Mains = 91% at 100,000 LB
Weight on Mains = 96.2% at 53,000 LB

PERFORMANCE
PC - 12

REVISION 9 (RE-ISSUE)
Oct 22/14

- As an alternative to consulting the line graph, the tables provided at the bottom of the page can be used to interpolate and find more accurate values.

All Aircraft | Pavement Weight Bearing Capacity

LARGE CABIN (G550) EXAMPLE - ESWL

VIRGINIA
345

MARION/WYTHEVILLE

MOUNTAIN EMPIRE (MKJ)(KMKJ) 9 NE UTC-5(-4DT) N36°53.69' W81°21.00'

2558 B S4 FUEL 100LL, JET A NOTAM FILE MKJ

RWY 08-26: H5252X75 (ASPH) S-20 MIRL 1.1% up W

RWY 08: REIL, PAPI(P2L)—GA 3.0° TCH 40'. Trees.

RWY 26: REIL, PAPI(P2L)—GA 3.75° TCH 47'. Road.

AIRPORT REMARKS: Attended Apr-Oct Sun 1800-2300Z†, Nov-May Mon-Sat 1300-2200Z†, Nov-May Sun 1800-2300Z†, April-Oct Mon-Sat 1300-2300Z†. After hrs ctc 276-685-1122. Rwy 26 previous markings showing through. Located 9 NM northeast Marion.

MIRL Rwy 08-26 preset low ints, ACTIVATE higher ints—CTAF.

AIRPORT MANAGER: 276-783-8805

WEATHER DATA SOURCES: AWOS-3 123.875 (276) 686-6420. AWOS dp unrel.

COMMUNICATIONS: CTAF/UNICOM 122.7

® ATLANTA CENTER APP/DEP CON 127.85

RADIO AIDS TO NAVIGATION: NOTAM FILE PSK.

PULASKI (H) VORTAC 116.8 PSK Chan 115 N37°05.26' W80°42.77' 256° 32.7 NM to fld. 2120/6W. HIWAS.

TACAN AZIMUTH & DME unusable:

034°-038° byd 25 NM

135°-175° byd 25 NM blo 10,000'

200°-225° byd 10 NM

284°-286° byd 10 NM blo 10,000'

287°-316° byd 25 NM blo 10,000'

315°-335° byd 10 NM blo 10,000'

334°-039° byd 25 NM blo 10,000'

DME unusable:

250°-350° byd 25 NM blo 10,000'

TACAN AZIMUTH unusable:

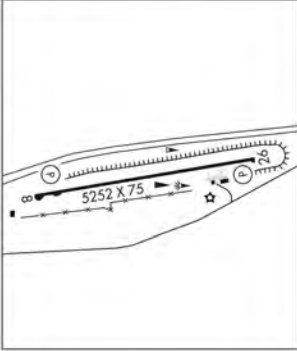
052°-100°

234°-283°

SUZZE NDB (MHW/LOM) 335 MK N36°55.21' W81°14.60' 260° 5.4 NM to fld. NOTAM FILE MKJ. NDB unmonitored when arpt unatndd.

LOC 110.5 I-MKJ Rwy 26. LOM SUZZE NDB. LOC unmonitored when arpt unatndd. LOC unusable byd 15° left of course.

COMM/NAV/WEATHER REMARKS: AWOS dewpoint unreliable.



$$(55,000\text{lbs}) \times (0.9) \times (0.5) / (1.25) =$$

19,800lbs Equivalent Single Wheel Loading



Example: Mountain Empire, VA

- FAA Wheel Weight Bearing Limit: S-20
- Landing weight: 55,000lbs.

Performance Handbook
Gulfstream G550

Equivalent Single Wheel Loading (ESWL) GV-GER-1212

- Introduction:**

One consideration in operating Gulfstream aircraft is the strength of runway and taxiway pavements in relation to aircraft operating weight. This can limit operational weights in some airports. One common method of evaluating an aircraft for a given runway is the Equivalent Single Wheel Loading (ESWL). ESWL accounts for the extra tire flotation for multi-wheel landing gear struts such as the dual wheel struts used on the Gulfstream aircraft. This section provides information on how to compute ESWL for the G550 and G500 airplanes.
- G550 and G500 Main Landing Gear Parameters:**

Max Ramp Weight (pounds)	MLG Tire Size (Inches)	Tire Spacing (Inches)	Max Tire Pressure (psi)	Reduction Factor -	Maximum ESWL (pounds)
91,400	35 X 11.0	18.5	198	1.25	32,904

The reduction factor in the table above assumes a rigid pavement with a radius of equivalent stiffness of 40 inches, roughly equivalent to a 13.5 inch thick concrete slab. Thinner pavements would give higher reduction factors, so the factors presented are conservative.
- ESWL Computation for Lower Operating Weights:**

ESWL can be computed for lower operating weights as follows:
 $ESWL = (\text{Gross Weight}) \times (0.9) \times (0.5) / (\text{Reduction Factor})$

Gulfstream
A11D0478

Gulfstream FLIGHT OPS

Operations Briefing



9750 SW Nimbus Avenue
Beaverton, OR 97008-7172
p | 503-641-3478 f | 503-644-8034

September 16, 2019

6289 AURORA STATE AIRPORT RUNWAY 17-35 PCN EVALUATION
(ISSUED 11/12/2019)

Century West Engineering Corporation
5331 SW Macadam Avenue, Suite 287
Portland, OR 97239

Attention: James Kirby, PE
Senior Project Manager

**SUBJECT: Pavement Classification Number (PCN) Evaluation of Runway 17-35
Aurora State Airport (UAO)
Aurora, Oregon**

As requested, GRI conducted a pavement evaluation at Aurora State Airport (UAO) in support of the Oregon Department of Aviation (ODA) to develop a pavement classification number (PCN) for Runway 17-35.

PROJECT DESCRIPTION

Our work included review of relevant ODA records for Runway 17-35, falling weight deflectometer (FWD) testing, core explorations, and engineering analyses in accordance with Federal Aviation Administration (FAA) Advisory Circular 150/5335-5C, *Standardized Method of Reporting Airport Pavement Strength – PCN*. According to the FAA, the PCN is a number that expresses the load-carrying capacity of a pavement for unrestricted operations. We determined the PCN using the Technical Evaluation Method specified in Advisory Circular 150/5335-5C.

BACKGROUND

Based on information provided in the ODA pavement evaluation/maintenance management program report prepared by Pavement Consultant Inc. in 2018, a 4,100-ft-long segment on the north end of the runway was first constructed in 1943 and in 1993, a 900-ft-long extension was built to the south. The last major rehabilitation on the runway was conducted in 2005 and generally consisted of a 2- to 3-in. overlay.

The current Airport Master Record, FAA Form 5010, lists the gross weight limit for a single-wheel, main-gear aircraft and a dual-wheel, main-gear aircraft at 30,000 and 45,000 lbs, respectively. UAO currently does not have an established PCN.

FIELD WORK

Site Reconnaissance

A visual pavement reconnaissance was performed by GRI engineers on August 12, 2019, to assess the general surface condition of the pavements within the project and to identify core exploration locations.

Falling Weight Deflectometer Tests

GRI conducted FWD testing on August 20, 2019, along the full length of the runway. The testing was conducted in accordance with FAA Advisory Circular 150/5370-11b, *Use of Nondestructive Testing in the Evaluation of Airport Pavements*, using our KUAB 2m Model 150 FWD device.

FWD testing was completed along test lines located at 7 ft west and 12 ft east of the runway centerline. The tests were spaced at approximately 200-ft intervals within the runway keel section. The approximate locations of the test lines are shown on Figure 1.

The FWD test procedures are described in Appendix A. The data were normalized to a 30,000-lb load basis and the FWD deflection data are shown in Table 1A.

We also reviewed the load-response data measured by the FWD to provide a preliminary understanding of the overall stiffness of the pavement structure. Although this information does not provide information about the stiffness of individual soil and pavement layers, it does provide a quick assessment of the overall stiffness of the pavement system to gauge the variability of pavement stiffness within a particular pavement facility. Impact stiffness modulus (ISM) is inversely proportional to deflection and is therefore a direct measurement of the combined stiffness, or resistance to deflection induced by FWD loading, of the pavement and subgrade soils. As such, it is usually a relative measure of the pavement's ability to support loads, i.e., high ISM modulus values usually correspond to high pavement strength and vice versa. The profile of relative pavement strength along the two FWD test lines, as measured by resistance to deflection under FWD loading, is plotted for each FWD test location on Figure 4A. Additional discussion regarding ISM is provided in Appendix A.

Coring Explorations

General. On August 20, 2019, GRI conducted three core explorations, all of which were located over cracks. The approximate locations of the explorations are shown on the Site Plan, Figure 1. Details of our field investigations are further discussed in Appendix A of this report and the core explorations are summarized in Table 1.

Table 1: SUMMARY OF CORING EXPLORATION RESULTS

Core No.	FWD Test No.	Test Line	Station	Asphalt Concrete Thickness, in.	Aggregate Base Thickness, in.	Drilled Over a Crack?	Depth of Crack, in.
B-1	26	7 ft west	56+81	8.75	15.00	Yes	2.50
B-2	16	7 ft west	39+51	9.00	15.00	Yes	3.25
B-3	32	12 ft east	19+41	9.00	15.00	Yes	2.50

Existing Pavement Conditions

Overall, the pavement surface of Runway 17-35 appears to be in good condition. The primary distresses observed on the runway are low- to medium-severity longitudinal cracking, primarily at paving-panel joints or along the centerline; low-severity weathering; and isolated low-severity alligator cracking within the gear paths.

Since the alligator cracking within the gear paths (noted above) is a load-associated distress, in our opinion, it warranted further investigation and we therefore conducted the three core explorations in areas of alligator cracking on the runway. As shown in Table 1 and the photo logs on Figures 1A through 3A in Appendix A, the cracking is top down and extends to a depth of 2.5 in. in cores B-1 and B-3 and to a depth of 3.25 in. in B-2. These types of cracks may be induced by excessive shear stresses imposed by aircraft wheel loads at the runway surface and can typically be repaired by milling to the depth of cracking and overlaying. In our opinion, pavement exhibiting this type of distress should be rehabilitated when the cracking progresses to the point that spalling begins to occur and therefore represents a significant Foreign Object Damage (FOD) potential. The core samples also exhibit delamination (separation of asphalt concrete [AC] layers) at a depth of 2.5 and 3.25 in. in cores B-2 and B-3, respectively. The depth of delamination generally agrees with the thickness of the 2005 overlay.

DESIGN PROCEDURES AND ANALYSIS

Traffic Loading

Century West Engineering Corporation (CWE) provided an estimate of the aircraft traffic-volume data consisting of the number of operations (i.e., either an arrival or departure) for Runway 17-35 in 2018 from the FAA Traffic Flow Management System Counts (TFMSC). Our traffic-loading estimate is based on an annual growth rate of 1.58% per year, which is based on the aviation forecasts provided in the current master plan for UAO (WHPacific, 2012).

The COMFAA 3.0 software used to compute the PCN has inputs for each aircraft type (in the mix), which include the type of aircraft, gross weight, and number of annual departures over a 20-year period. The program does not take into account the annual growth rate, so we calculated the total departures from 2020 to 2040 to determine the equivalent annual number of departures for the analysis. The aircraft mix and annual number of departures we input into COMFAA are provided in Table 2.

Table 2: RUNWAY 17-35: AIRCRAFT TYPES AND DEPARTURE VOLUMES

Aircraft Type	Maximum Takeoff Weight, lbs	Design Aircraft for COMFAA	2018 Annual Operations	2040 Annual Operations	Values Entered into COMFAA	
					Equivalent Airplane	Annual # of Departures
Bombardier Global Express	92,500	Gulfstream G-V	50	61	Gulfstream G-V	64
Gulfstream G600	91,600	Gulfstream G-V	2	3		
Gulfstream V	76,850	Gulfstream G-IV	2	3	Gulfstream G-IV	7
Gulfstream IV	73,200	Gulfstream G-IV	2	3		
Dassault Falcon 900	45,503	Falcon-900	68	83	Falcon-900	83
Bombardier Challenger 600	45,100	Challenger CL-604	58	70	Challenger CL-604	176
Bombardier Challenger 300	38,850	Challenger CL-604	88	106		
Dassault Falcon 2000	41,000	Falcon-2000	34	42	Falcon-2000	42
Dassault Falcon 50	37,480	Falcon-50	276	332	Falcon-50	424
Dassault Falcon 20	28,650	Falcon-50	76	92		
Cessna Citation 750	36,600	Citation X	104	126	Citation X	292

Aircraft Type	Maximum Takeoff Weight, lbs	Design Aircraft for COMFAA	2018 Annual Operations	2040 Annual Operations	Values Entered into COMFAA	
					Equivalent Airplane	Annual # of Departures
Cessna Citation 680	30,775	Citation X	138	167		
Hawker 800	28,000	Hawker-800	34	42	Hawker-800	42
Gulfstream G150	26,100	D-35	80	97	D-35	97
Astra 1125	24,650	D-30	96	117	D-30	117
Cessna Citation 650	22,000	Citation VI/VII	98	119	Citation VI/VII	119
Learjet 60	23,500	Learjet-55	30	36		
Learjet 55	21,500	Learjet-55	4	6	Learjet-55	57
Learjet 75	21,500	Learjet-55	12	15		
Learjet 45	20,500	Learjet-35A/65A	110	133		
Learjet 35	18,000	Learjet-35A/65A	8	10	Learjet-35A/65A	254
Learjet 31	15,500	Learjet-35A/65A	92	111		
Cessna Citation 560	20,000	Citation 550B	704	847		
Cessna Citation 550	13,300	Citation 550B	212	255	Citation 550B	1,102
Phenom 300/ Embraer 300	17,968	D-25	56	68	D-25	68
Total Operations:			2,434			2,944

Backcalculation Analysis of FWD Test Data

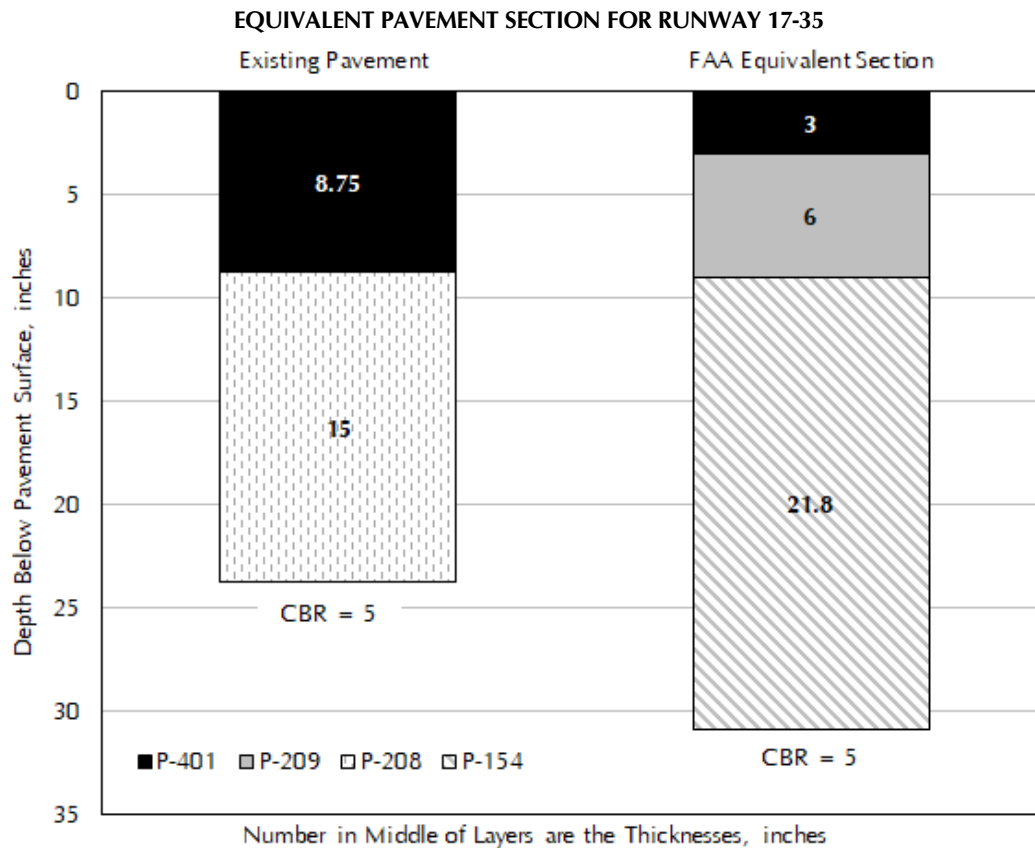
The elastic moduli of the subgrade soil at the boring locations were backcalculated from the FWD test data. The average minus-one standard deviation subgrade moduli for each analysis unit (design modulus) are shown at the bottom of the backcalculation analysis results in Table 2A in Appendix A.

PAVEMENT CLASSIFICATION NUMBER (PCN) CALCULATIONS

As requested by the ODA, we calculated the PCN for Runway 17-35 for each aircraft in the fleet mix based on the critical pavement-layer thickness and subgrade-support characteristics developed herein. The California bearing ratio (CBR) used in the PCN analysis is based on the backcalculated design modulus from Analysis Unit 2 in Table 2A in Appendix A and was calculated using the typical correlation between CBR and Resilient Modulus (M_r) and the correlation adopted by the FAA in Advisory Circular 150/5320-6F, *Airport Pavement Design and Evaluation*, which is represented by the following:

$$CBR = M_r / 1,500$$

The analysis was conducted using the FAA's Support Spreadsheet, COMFAA 3.0. The pavement-layer thicknesses were converted into an equivalent pavement section using the appropriate subgrade-support code and the default values for the conversion factors given in Advisory Circular 150/5335-5C. Based on our analysis, the equivalent pavement section is also shown on the following figure.



Results of the PCN computations summarized in Table 3 are based on the departure traffic provided by CWE. For Runway 17-35, we recommend publishing the PCN value shown in Table 3. The corresponding PCN elements of the runway are summarized in Form 5010 (Table 1B) in Appendix B.

Table 3: RECOMMENDED UPDATES TO FAA FORM 5010 FOR UAO RUNWAY 17-35

Runway	PCN	Aircraft Gross Weight, thousands lbs	
		Single Wheel Main Gear	Dual Wheel Main Gear
17-35	40/F/C/X/T	102	145

Our recommended single-wheel, main-gear and dual-wheel, main-gear aircraft gross weights are 102,000 and 143,000 lbs, respectively. The increase in wheel-load capacity (as compared to the current Airport Master Record, FAA Form 5010) is likely due to the increased structural capacity related to the 2005 overlay. Additional discussion regarding the PCN methodology and reporting is provided in Appendix B.

LIMITATIONS

This pavement report has been prepared for use by the Oregon Department of Aviation and Century West Engineering Corporation and should not be relied upon by any other entity without the written permission of an authorized representative. The scope is limited to the specific project and location described herein, and our description of the project represents our understanding of the significant aspects of the project relevant to the analysis of the pavements at the time of publication.

PCN system is only intended as a method that airport operators can use to evaluate acceptable operations of aircraft. It is not intended as a pavement design or pavement evaluation procedure, nor does it restrict or replace the methodology used to design or evaluate a pavement structure.

Our work has been performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locale. The results and conclusions submitted in this report are based on the data obtained from our sources of information discussed in this report. No other warranty, expressed or implied, is made.

Please contact the undersigned if you have any questions regarding this report or any other pavement considerations associated with this project.

Submitted for GRI,



Renews 12/2020

Michael J. Maloney, PE
Principal

A handwritten signature in cursive script that reads "Lindsa A. Hammond".

Lindsa A. Hammond, PE
Associate

This document has been submitted electronically.

References

WHPacific, Inc., 2012, Aurora State Airport, Airport Master Plan Update.

Pavement Consultants Inc., 2018, 2018 Pavement Evaluation / Maintenance Management Program: Aurora State Airport.




 PAVEMENT CORE COMPLETED BY GRI
 (AUGUST 20, 2019)


 FWD TESTING COMPLETED BY GRI
 (AUGUST 20, 2019)

SITE PLAN FROM GOOGLE EARTH (IMAGE DATE JULY 2018)



CENTURY WEST ENGINEERING CORPORATION
 AURORA STATE AIRPORT – RUNWAY 17-35 PCN EVALUATION

SITE PLAN

APPENDIX A

Field Explorations and FWD Data

APPENDIX A

FIELD EXPLORATIONS AND FWD DATA

FIELD EXPLORATIONS

Existing pavement and subsurface conditions on Runway 17-35 were investigated by GRI on August 20, 2019, with three core explorations, designated B-1 through B-3. The approximate locations of the explorations are shown on the Site Plan, Figure 1. The field exploration and laboratory programs completed for this project are described below.

Pavement Core Explorations

The pavement was cored at each exploration location to assist in evaluation of the type of cracking and/or the thickness and condition of the asphalt concrete (AC). The pavement was cored using an electric drill owned and operated by GRI. Photographs of the core locations and core samples are shown on Figures 1A through 3A. Below the AC, we excavated to a maximum total depth of 24 in. below ground surface to observe the condition of the aggregate base (AB) and subgrade, if encountered. The subgrade was not encountered during our explorations and the AB was classified as silty sandy gravel ranging from angular to rounded and up to 1 to 1.5 in. in diameter.

FWD DATA

Falling weight deflectometer (FWD) tests were conducted by GRI on August 20, 2019, using our KUAB Model 150 FWD. The annual reference calibration for the FWD was accomplished in October 2019 at the KUAB manufacturing facility in Savoy, Illinois.

The FWD testing on Runway 17-35 was accomplished along test lines located at 7 ft west and 12 ft east of the runway centerline. The tests were completed at approximately 200-ft intervals within the keel section of the runway.

General

Geodetic coordinates of all test locations were measured from GPS signal using a submeter-capable Trimble™ GPS receiver with the antenna mounted on the FWD above the load plate.

The FWD load is generated by a two-mass/two-buffer, falling-weight system that produces a nearly haversine-shaped load-pulse waveform. The buffer and weight combination used for these tests produces a load rise time of approximately 14 milliseconds with an equivalent haversine frequency of approximately 32 Hz. The load pulse was applied to the pavement surface through a 450-mm-diameter (8.86-in.-radius), four-part, segmented plate designed to apply uniform surface pressure distribution despite irregularities in the pavement surface. Air temperature and pavement surface temperature (the latter measured by infrared thermometer) were recorded for each test.

Test Data

The average deflections from the two nominal 32,000-lb impact loads were linearly normalized to a 30-kip (30,000-lb) load basis and are tabulated in Table 1A of this appendix. The measurement units for the test

data are distance in feet, deflections in mil units (1 mil = 0.001 in.), load in pounds, sensor distance in inches, load plate radius in inches, and temperature in degrees Fahrenheit.

Impact Stiffness Modulus (ISM)

The Impact Stiffness Modulus (ISM) shown in units of kips per square inch (ksi) is the composite stiffness, or dynamic plate bearing modulus, of all the materials beneath the pavement/roadway surface. It is computed using the Boussinesq formula for surface deflection beneath the center of a uniformly loaded circular area on a linear-elastic half space, with a Poisson's ratio of 0.50. The surface deflection measured at the center of the FWD load plate (D0) was used to compute the surface modulus. The magnitude of the ISM is inversely proportional to deflection and comparable to the elastic modulus. The difference between the pavement ISM and elastic modulus is that the elastic modulus represents the elastic load-deformation response of an individual pavement layer or the subgrade soil, whereas the pavement ISM represents the composite elastic load-deformation response of all materials (pavement layers and subgrade soil) below the pavement surface. Therefore, the ISM (as computed from the deflection measured beneath the FWD load plate) cannot be taken as representative of the elastic modulus of any single pavement layer or the subgrade soil. However, since it is a measurement of the combined stiffness of the pavement structure and subgrade soil, it is often useful for evaluation of variation in pavement stiffness and for assessment of relative pavement strength. Plots of the ISMs are shown on Figure 4A.

**Table 1A - FWD NORMALIZED DEFLECTION TEST DATA
RUNWAY 17-35: AURORA STATE AIRPORT (UAO)**

Test Section: RW 17-35
 Start Point: North edge of runway, 10+00
 Test Date: 8/20/2019
 Test File: 6289-Aurora Airport.fwd
 Load Plate Radius, in: 8.86
 Sensor Distance, in: 0 12 18 24 36 48 60 72

Deflections Normalized to 30000 lbf Basis

Test No.	Test Station	Test Line	Core	D 1, mils	D 2, mils	D 3, mils	D 4, mils	D 5, mils	D 6, mils	D 7, mils	D 8, mils	Surface Temp., °F	Time	Surface Modulus, Ksi	ISM, kips/in	Comments
1	10+50	7' w		28.54	24.85	21.17	18.56	13.73	10.05	7.37	5.54	68	1:24:59	57	1,051	7' west
2	12+50	7' w		25.28	20.28	16.82	14.62	10.56	7.81	5.80	4.50	71	1:26:36	64	1,187	
3	14+49	7' w		30.42	25.52	21.55	18.73	13.50	9.84	7.24	5.55	71	1:27:52	53	986	
4	16+51	7' w		29.35	24.82	20.94	18.25	13.29	9.74	7.15	5.47	71	1:29:09	55	1,022	
5	18+50	7' w		24.65	20.46	17.12	14.81	10.62	7.71	5.71	4.47	71	1:30:14	66	1,217	
6	20+56	7' w		27.93	22.60	18.54	15.81	11.05	7.98	5.87	4.66	71	1:31:20	58	1,074	
7	22+50	7' w		25.72	21.22	17.71	15.34	11.10	8.13	6.06	4.70	71	1:32:26	63	1,166	
8	24+51	7' w		26.54	21.58	17.98	15.18	10.67	7.71	5.71	4.47	71	1:33:33	61	1,130	
9	26+53	7' w		26.28	20.74	17.15	14.64	10.47	7.67	5.83	4.64	70	1:34:39	62	1,142	
10	28+55	7' w		26.82	22.10	18.49	15.98	11.58	8.49	6.34	4.95	71	1:35:42	60	1,119	
11	30+54	7' w		26.27	21.60	18.22	15.84	11.70	8.66	6.45	4.96	71	1:37:01	62	1,142	
12	32+54	7' w		30.95	25.88	21.81	19.07	13.97	10.26	7.67	5.78	71	1:38:07	52	969	
13	34+52	7' w		36.96	27.64	22.18	18.81	13.26	9.67	7.12	5.56	71	1:39:22	44	812	
14	36+57	7' w		32.41	26.67	22.42	19.26	13.87	10.02	7.26	5.44	70	1:40:28	50	926	
15	38+52	7' w		28.76	23.55	19.60	16.84	12.06	8.67	6.34	4.88	70	1:41:38	56	1,043	
16	39+51	7' w	B-2	34.09	27.13	22.55	19.48	14.13	10.46	7.65	5.72	70	1:43:21	47	880	B-2
17	40+51	7' w		27.27	22.43	18.67	16.13	11.60	8.44	6.11	4.75	70	1:44:29	59	1,100	
18	42+51	7' w		31.58	25.74	21.56	18.44	13.11	9.35	6.80	5.10	70	1:45:38	51	950	
19	44+51	7' w		29.21	23.02	18.77	15.98	11.24	7.90	5.76	4.52	70	1:46:46	55	1,027	
20	46+50	7' w		29.41	23.54	19.35	16.44	11.40	7.92	5.78	4.50	70	1:47:53	55	1,020	
21	48+52	7' w		28.25	23.01	19.08	16.26	11.38	8.17	6.06	4.66	70	1:49:02	57	1,062	
22	50+52	7' w		39.77	29.04	22.94	19.04	12.53	8.69	6.21	4.86	70	1:50:10	41	754	
23	52+50	7' w		34.37	27.28	22.48	18.86	12.83	8.94	6.47	5.08	70	1:51:20	47	873	
24	54+51	7' w		44.23	34.59	27.53	22.75	14.74	9.70	6.77	5.20	69	1:52:33	37	678	
25	56+40	7' w		37.32	28.83	22.75	18.62	11.88	7.81	5.61	4.42	67	1:53:49	43	804	
26	56+81	7' w	B-1	35.88	28.79	23.20	19.31	12.57	8.38	5.79	4.55	70	1:55:03	45	836	B-1
27	58+50	7' w		35.45	27.78	22.05	18.05	11.74	7.82	5.60	4.34	65	1:56:22	46	846	5875 = s end end 7' west
28	11+50	12' e		25.22	21.35	18.22	15.93	11.88	8.90	6.66	5.09	68	2:05:27	64	1,190	12' east
29	13+50	12' e		30.01	25.29	21.29	18.67	13.66	10.11	7.43	5.70	70	2:07:03	54	1,000	
30	15+51	12' e		30.03	25.22	21.26	18.42	13.46	9.89	7.28	5.64	70	2:08:15	54	999	
31	17+53	12' e		28.42	22.94	19.00	16.27	11.53	8.38	6.20	4.83	70	2:09:28	57	1,056	
32	19+41	12' e	B-3	34.02	25.85	20.87	17.26	11.79	8.33	6.13	4.74	70	2:13:56	48	882	B-3
33	21+50	12' e		21.06	17.31	14.42	12.49	9.07	6.79	5.19	4.17	70	2:16:05	77	1,425	
34	23+52	12' e		25.55	21.01	17.53	15.14	11.13	8.27	6.23	4.95	70	2:17:18	63	1,174	
35	25+52	12' e		21.98	17.91	15.02	13.04	9.69	7.31	5.60	4.43	69	2:18:26	74	1,365	
36	27+51	12' e		26.27	20.79	16.87	14.33	10.21	7.48	5.62	4.44	69	2:19:33	62	1,142	
37	29+50	12' e		34.66	28.16	23.24	19.76	13.95	10.10	7.48	5.79	69	2:20:42	47	866	

**Table 1A - FWD NORMALIZED DEFLECTION TEST DATA
RUNWAY 17-35: AURORA STATE AIRPORT (UAO)**

Deflections Normalized to 30000 lbf Basis

Test No.	Test Station	Test Line	Core	D 1, mils	D 2, mils	D 3, mils	D 4, mils	D 5, mils	D 6, mils	D 7, mils	D 8, mils	Surface Temp., °F	Time	Surface Modulus, Ksi	ISM, kips/in	Comments
38	31+52	12' e		27.24	22.35	18.84	16.39	12.19	9.20	6.99	5.47	69	2:21:52	59	1,101	
39	33+49	12' e		26.34	21.87	18.38	15.90	11.64	8.78	6.71	5.25	69	2:23:00	61	1,139	
40	35+53	12' e		24.64	20.22	16.91	14.67	10.73	8.01	6.08	4.83	69	2:24:09	66	1,218	
41	37+51	12' e		29.65	24.86	20.96	18.32	13.45	9.99	7.38	5.60	69	2:25:16	55	1,012	
42	39+50	12' e		25.27	21.38	17.99	15.86	11.68	8.77	6.56	5.13	69	2:26:26	64	1,187	
43	41+51	12' e		25.80	21.67	18.35	15.90	11.67	8.62	6.43	4.94	69	2:27:34	63	1,163	
44	43+50	12' e		27.58	23.19	19.57	17.18	12.51	9.22	6.76	5.14	69	2:28:38	59	1,088	
45	45+51	12' e		26.22	21.41	17.71	15.13	10.72	7.77	5.72	4.51	69	2:29:48	62	1,144	
46	47+54	12' e		28.02	22.49	18.48	15.60	10.83	7.75	5.68	4.46	69	2:30:56	58	1,071	
47	49+51	12' e		27.34	22.44	18.36	15.67	11.04	7.94	5.90	4.62	69	2:32:04	59	1,097	
48	51+53	12' e		30.35	24.69	20.12	17.00	11.60	8.11	5.96	4.66	69	2:33:11	53	988	
49	53+55	12' e		31.95	26.02	21.17	17.69	11.99	8.46	6.17	4.85	69	2:34:18	51	939	
50	55+50	12' e		36.26	28.03	22.28	18.48	12.16	8.34	6.04	4.75	69	2:35:31	45	827	
51	57+51	12' e		32.67	26.40	21.38	17.62	11.50	7.75	5.50	4.31	67	2:36:47	49	918	5878 = s end end 12' east

**Table 2A - BACKCALCULATION ANALYSIS SUMMARY
RUNWAY 17-35: AURORA STATE AIRPORT (UAO)**

Runway 17-35: Aurora State Airport (UAO)

Based on FWD Testing Conducted: 8/20/2019

Start Station: North edge of runway, 10+00

FWD Test #	Test Station	Test Line	Core Exploration	Analysis Unit	D0, mils	AC Thickness, inches	AB Thickness, inches	Subgrade Modulus, psi
1	10+50	7' w		1	28.54	9.00	15.00	10,402
2	12+50	7' w		1	25.28	9.00	15.00	15,441
3	14+49	7' w		1	30.42	9.00	15.00	11,553
4	16+51	7' w		1	29.35	9.00	15.00	11,570
5	18+50	7' w		1	24.65	9.00	15.00	12,902
6	20+56	7' w		1	27.93	9.00	15.00	11,768
7	22+50	7' w		1	25.72	9.00	15.00	14,630
8	24+51	7' w		1	26.54	9.00	15.00	12,567
9	26+53	7' w		1	26.28	9.00	15.00	15,004
10	28+55	7' w		1	26.82	9.00	15.00	14,486
11	30+54	7' w		1	26.27	9.00	15.00	13,228
12	32+54	7' w		1	30.95	9.00	15.00	10,155
13	34+52	7' w		1	36.96	9.00	15.00	9,847
14	36+57	7' w		1	32.41	9.00	15.00	10,365
15	38+52	7' w		1	28.76	9.00	15.00	10,556
16	39+51	7' w	B-2	1	34.09	9.00	15.00	9,726
17	40+51	7' w		1	27.27	9.00	15.00	10,489
18	42+51	7' w		1	31.58	9.00	15.00	11,108
19	44+51	7' w		1	29.21	9.00	15.00	11,314
20	46+50	7' w		1	29.41	9.00	15.00	11,087
21	48+52	7' w		1	28.25	9.00	15.00	14,129
22	50+52	7' w		2	39.77	8.75	15.00	8,814
23	52+50	7' w		2	34.37	8.75	15.00	9,367
24	54+51	7' w		2	44.23	8.75	15.00	6,713
25	56+40	7' w		2	37.32	8.75	15.00	9,796
26	56+81	7' w	B-1	2	35.88	8.75	15.00	7,615
27	58+50	7' w		2	35.45	8.75	15.00	9,512
28	11+50	12' e		1	25.22	9.00	15.00	12,541
29	13+50	12' e		1	30.01	9.00	15.00	11,399
30	15+51	12' e		1	30.03	9.00	15.00	9,781
31	17+53	12' e		1	28.42	9.00	15.00	11,645
32	19+41	12' e	B-3	1	34.02	9.00	15.00	10,977
33	21+50	12' e		1	21.06	9.00	15.00	17,720
34	23+52	12' e		1	25.55	9.00	15.00	13,364
35	25+52	12' e		1	21.98	9.00	15.00	14,811
36	27+51	12' e		1	26.27	9.00	15.00	14,236
37	29+50	12' e		1	34.66	9.00	15.00	11,837
38	31+52	12' e		1	27.24	9.00	15.00	10,942
39	33+49	12' e		1	26.34	9.00	15.00	11,421
40	35+53	12' e		1	24.64	9.00	15.00	14,477
41	37+51	12' e		1	29.65	9.00	15.00	10,835
42	39+50	12' e		1	25.27	9.00	15.00	11,501
43	41+51	12' e		1	25.80	9.00	15.00	13,236
44	43+50	12' e		1	27.58	9.00	15.00	11,913

**Table 2A - BACKCALCULATION ANALYSIS SUMMARY
RUNWAY 17-35: AURORA STATE AIRPORT (UAO)**

FWD Test #	Test Station	Test Line	Core Exploration	Analysis Unit	D0, mils	AC Thickness, inches	AB Thickness, inches	Subgrade Modulus, psi
45	45+51	12' e		1	26.22	9.00	15.00	12,250
46	47+54	12' e		1	28.02	9.00	15.00	11,825
47	49+51	12' e		1	27.34	9.00	15.00	12,606
48	51+53	12' e		2	30.35	8.75	15.00	11,238
49	53+55	12' e		2	31.95	8.75	15.00	10,326
50	55+50	12' e		2	36.26	8.75	15.00	9,761
51	57+51	12' e		2	32.67	8.75	15.00	9,341

Statistical Summary

Structural Unit #	From Sta	To Sta	PAVER PMP Unit	Average D0, mils	Average AC Thickness, in.	Average AB Thickness, in.	Average Subgrade Modulus, psi
1	0+00	49+51	R17AU-01	28.10	9.00	15.00	12,235
2	0+00	58+50	R17AU-02	35.83	8.75	15.00	9,248

Design Subgrade Resilient Modulus

Structural Unit #	From	To	PAVER PMP Unit	Average Subgrade Modulus, psi	Standard Deviation, psi	Average Subgrade – Standard Deviation, psi	CBR, Mr (psi)/1500
1	10+50	49+51	R17AU-01	12,235	1,800	10,435	7
2	50+52	58+50	R17AU-02	9,248	1,294	7,955	5



Core B-1 (RW 17-35 8' West of Centerline, Station 56+81, FWD 26)



B-1 (Pavement Core Sample, 8.75 in.)



PAVEMENT CORE PHOTOGRAPHS



Core B-2 (RW 17-35 8' West of Centerline, Station 39 + 51, FWD 16)



B-2 (Pavement Core Sample, 9.0 in.)



PAVEMENT CORE PHOTOGRAPHS



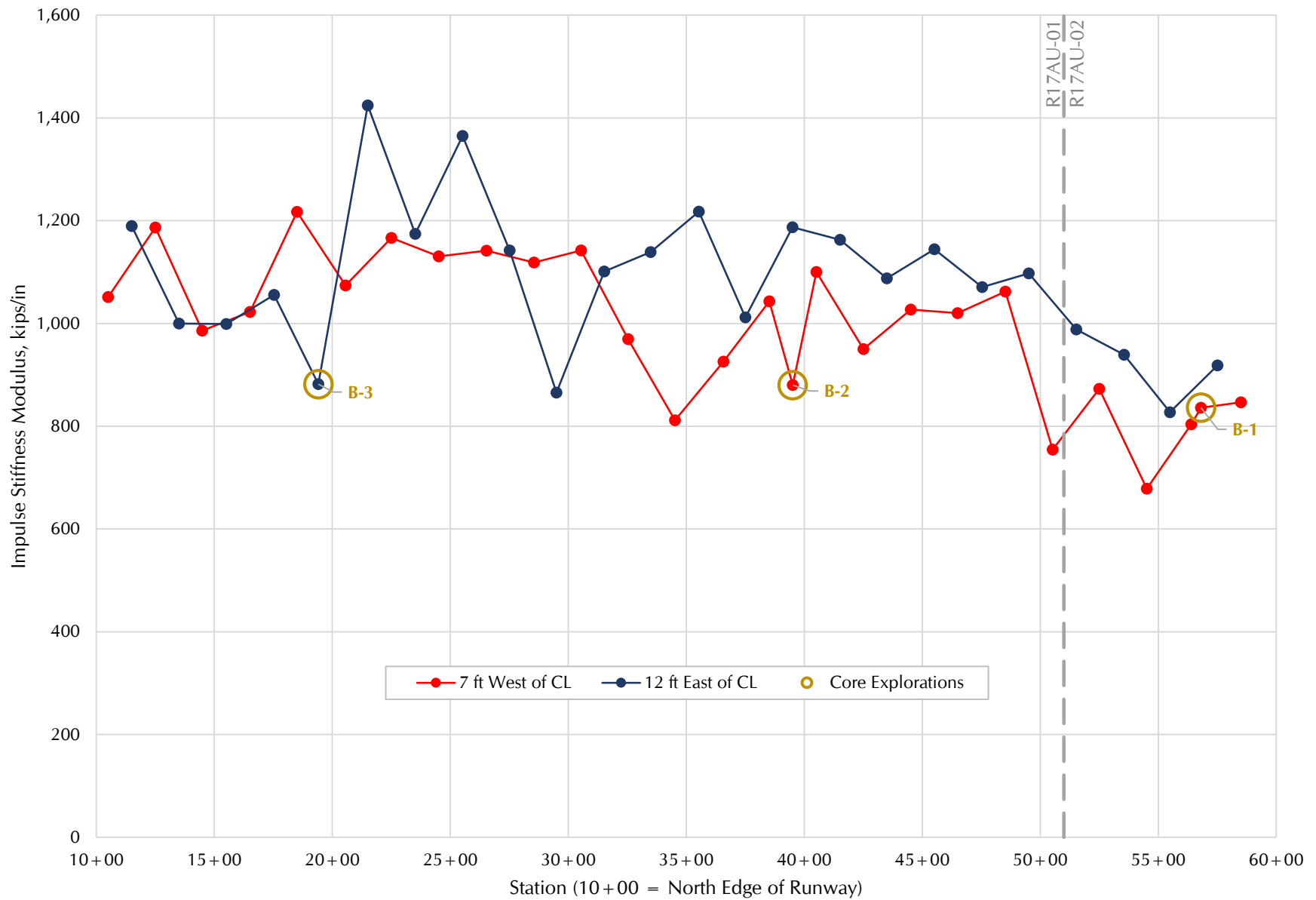
Core B-3 (RW 17-35 12' East of Centerline, Station 19+41, FWD 32)



B-3 (Pavement Core Sample, 9.0 in.)



PAVEMENT CORE PHOTOGRAPHS



IMPULSE STIFFNESS MODULUS

APPENDIX B

Pavement Classification Number Analysis

APPENDIX B

PAVEMENT CLASSIFICATION NUMBER ANALYSIS

BACKGROUND

In 2014, the FAA instituted a requirement that Part 139-certified airports be assigned pavement classification number (PCN) data. The PCN is required because the United States is a member state of the International Civil Aviation Organization (ICAO), the international regulatory body for air traffic. ICAO adopted the Aircraft Classification Number (ACN)-Pavement Classification Number (ACN-PCN) method to allow any airport a standardized method for reporting the effect of aircraft that use the facility, as well as the load-carrying capacity of the pavement (ICAO, 1999).

The ACN is a number that expresses the relative effect of an aircraft at a given configuration on a pavement structure for a specified standard subgrade strength. Conversely, the PCN is defined as a number that expresses the load-carrying capacity of a pavement for unrestricted operations. Therefore, the ACN-PCN system is structured so that a pavement with a particular PCN value can support unlimited repetitions of an aircraft that has an ACN equal to or less than the pavement's PCN value.

In the ACN/PCN method, the PCN, pavement type, subgrade strength category, tire pressure category, and evaluation method are all reported together. A code system has been implemented to allow an abbreviated presentation of the necessary information. The pavement type is abbreviated "R" for rigid (portland cement concrete [PCC]) and "F" for flexible (AC) pavements. Four subgrade categories, A, B, C, and D, indicate high, medium, low, and ultra-low subgrade strengths, respectively. The four tire-pressure categories, W, X, Y, and Z, indicate high, medium, low, and very low tire pressures, respectively. The evaluation methods are T for a technical evaluation and U for an evaluation based on the type and weight of the aircraft that commonly use the airfield. For example, the PCN code 90/F/C/W/T indicates that the PCN number is 90, that the pavement is flexible, that there is a low-strength subgrade, that high-pressure tires are allowed, and that a technical evaluation was performed to determine the PCN rating.

METHODOLOGY

As noted above, the pavement strength evaluation was accomplished in accordance with the Technical Method described in Advisory Circular 150/5335-5C. To complete the analysis, the following information was used for Runway 17-35:

Aircraft Traffic Volume: The traffic volume estimate was provided by Century West Engineering Corporation in terms of operations for Runway 17-35. The COMFAA 3.0 program includes a library of standard aircraft types, and we used the default gear weight for each aircraft in the aircraft fleet mix.

Pavement Structure: As noted earlier herein, the pavement thickness and subgrade support characteristics were estimated based on the FWD backcalculation results and core explorations.

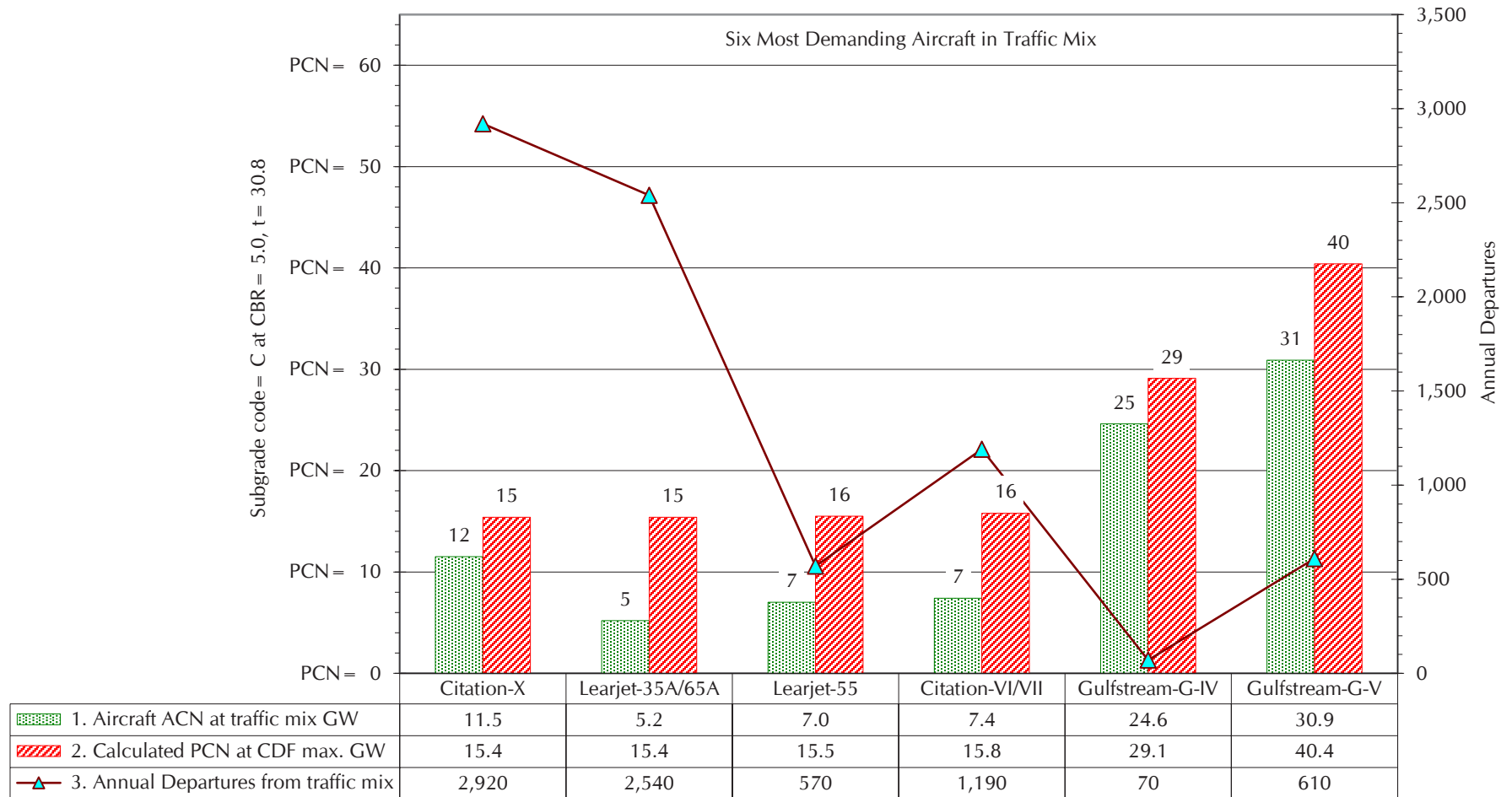
The results of our PCN analysis are summarized in Form 5010 – Airport Master Record (Table 1B) and presented on Figure 1B of this appendix.

Reference

ICAO, 1999, Aerodrome standards – aerodrome design and operations, Annex 14, Third Edition.



Table 1B - FORM 5010 AIRPORT MASTER RECORD[illegible]



PAVEMENT CLASSIFICATION CHART

HD AVIATION & SOUTHEND AIRPARK

T.4S, R.1W, SEC. 2D & 11A, T.L. 200, 203, 400, 401, 1600

14401 KEIL ROAD N.E.

AURORA, OREGON 97002

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Page 3	Design Data Table	Page 19	Tank Details – S12, S13, S14
Page 4	Soil Evaluations	Page 20	Tank Anti-Buoyancy Details
Page 5	System Schematic	Page 21	Recirculating Textile Filter
Page 6	Site Plan – Overall	Page 22	Recirculating Textile Filter Details
Page 7	Site Plan- Collect & Treatment Sys	Page 23	Drainfield Details – 1
Page 8	Site Plan – Treatment System Area	Page 24	Drainfield Details – 2
Page 9	Tank Details – S4, S9, S11	Page 25	Pump Curves – S1, S2, S3
Page 10	Tank Details – S5 & D2	Page 26	Pump Curves –S4, S7, S9, S11
Page 11	Tank Details – S6 & D3	Page 27	Pump Curves – D1, D2, D3, D4
Page 12	Tank Details – S10 & D4	Page 28	Pump Curve – D5, D6, D7
Page 13	Tank Details – S12 & D5	Page 29	Preliminary Parts List
Page 14	Tank Details – S13 & D6	Page 30	Maintenance Matrix – 1
Page 15	Tank Details – S1, S2, S3	Page 31	Maintenance Matrix – 2
Page 16	Tank Details – C1 & D1		

Project Description

Proposed expansion of existing wastewater treatment facility for a regional airport.
System design = 10,000 GPD.
Residential strength waste flows to eight new Septic Tanks and three new 2-compartment Septic/Dosing Tanks. Effluent flows by gravity from the Septic Tanks to five new Dosing Tanks. Three existing Dosing Septic Tanks will be converted to Sewage Lift Stations, pumping to a new 3000-gallon Co-mingle Tank with effluent filter and then to a 3000-gallon Dosing Tank. Accumulated sludges to be removed by a licensed Sewage Disposal Service.

Effluent is pumped from the Dosing Tanks and Septic/Dosing Tanks to a new 3000-gallon Co-mingle Tank and new 3000-gallon Recirculation Tank that is to be intertied to existing 2x3000-gallon Recirculation Tanks. The Recirculation Tanks will dose two AX-100 Recirculating Textile Filters.

Final disposal via an existing Dosing Tank will be retrofitted with new pumping systems. The existing drainfield size to be doubled to 3000 lft by using the previously identified reserve area. Existing drainfield laterals to be removed and replaced. New Distribution System is detailed in this design. New reserve area will be located west of present drainfield.

Existing Recirculating Gravel Filter to be disassembled and removed. Used gravel media will be deposited in empty NW corner of Tax Lot 400.
Site is served by a private water well.

Site and Soils (Profile Details, Pg. 4)

Amity Silt Loam
Slope 0 – 2%
Reference: Existing File / Permit No.: DEQ110707
APPENDIX 11D – PUBLIC COMMENTS 2025

PLAN APPROVED

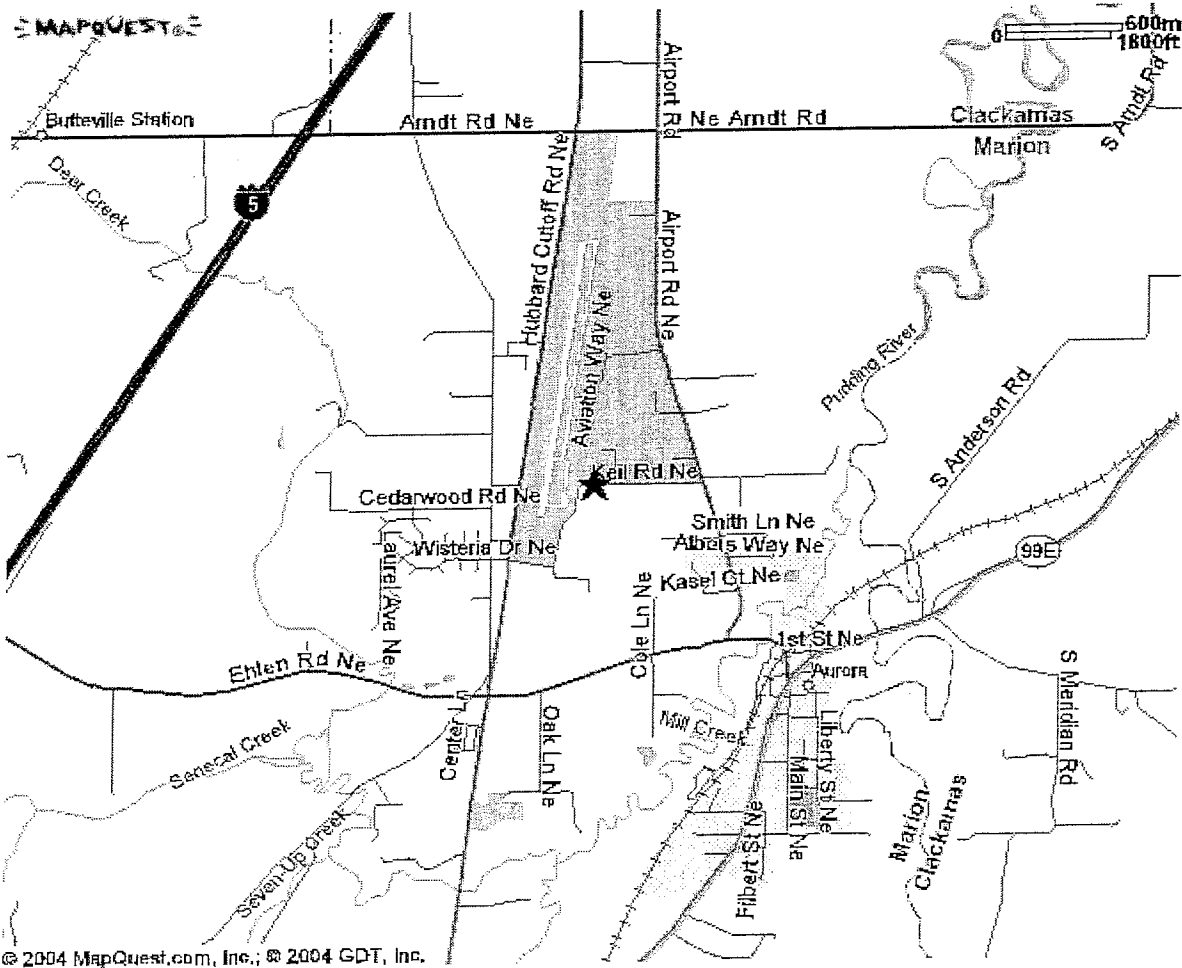
Date 6/22/05 Signed [Signature]
* With Changes Noted here in

INSTALLER: TBA

LICENSE #: TBA



VICINITY MAP



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Environmental Management Systems Inc. 4080 SE International Way, Ste. B112 Milwaukie, OREGON 97222 OR (503)353-9691 WA (360)735-1109 FAX (503)353-9695	H.D. AVIATION & SOUTHEND AIRPARK	PAGE 1	11 JAN 2005	SCALE: NONE
		COVER SHEET		
		T.4S, R.1W, SEC. 2D & 11A, T.L. 200, 203, 400, 401, 1600		

CHECK OFF	
	GENERAL STANDARDS
	All work and material shall conform with OAR 340 Div. 71 & 73 approved design permit, and appropriate laws. Permits relating (but not limited) to plumbing, electrical, and grading must be coordinated with the on-site system installer and designer.
	Minor modifications to accommodate stumps, boulders or other unforeseen obstacles may be needed. Major modification cannot be performed without re-design and regulatory approval.
	If the installation contractor (installer) notes any conflicts with applicable State and/or local laws, rules or requirements, he shall request a clarification before ordering or installing affected materials or work. This may include and is not limited to such factors as: land-use regulations, grading ordinances, erosion control districts, hauling limits, typographical errors, etc.
	Installer is to obtain copies of all necessary permits, authorizations, licenses etc. prior to initiating construction, including that specialty work designated to a subcontractor which is directly or indirectly related to the system construction.
	Installer shall request and obtain utility locates by a qualified service for all potential underground utilities before excavation work commences.
	Installer shall maintain any and all survey monuments, which are affected by work and activities, related to the projects. Monuments, if damaged by the installer, shall be reset by a licensed surveyor at the installer's expense.
	All materials and equipment shall be of the type, model and brand listed for the manufacturers specified, unless otherwise authorized by the system designer. Substitution of materials and equipment shall receive pre-authorization and the contractor/installer will be responsible for providing performance and operating data.
	Installer shall prepare, maintain and provide, at completion of the project, drawings detailing the construction "as-built" and shall provide the owner & designer with the manufacturer's current specification and operating data on all equipment installed prior to final payment to the installer.
	TANK (S)
	Grout: Grout watertight using hydraulic-adhesive type cement or grout material. Grout interior and exterior.
	Seal all joints and seams with manufacturer-approved sealants.
	Odor proof: Seal riser lid to contact with closed cell plastic foam sheet, or single-side adhesive neoprene foam tape.
	All tanks must be Traffic Rated.
	Tanks must be fitted with manhole covers in steel rings set in pavement minimum 2" above the tank risers.
	Riser: Tank must be equipped with a watertight riser, with minimum 18" inside diameter, with tank access brought to or above finish grade. Riser seams must be grouted interior and exterior.
	Knockouts: Perforations and unused knockouts must be grouted.
	Watertight: Tank must be subject to overnight test for watertightness prior to calling for inspection. Fill to a maximum 2" into riser. Mark water level, initials, time and date.
	PUMP (S)
	Air-lock hole: Install a 5/32" diameter hole in discharge pipe below off level and below check level.
	Disconnect: Provide a quick disconnect of non-corrosive material within 12" of riser top. Position to allow for removal of pump and pump screen for annual maintenance.
	Isolate valve: Provide a gate or ball valve within 12" of riser top, on discharge side of disconnect. Position to allow for removal of pump and pump screen for annual maintenance.

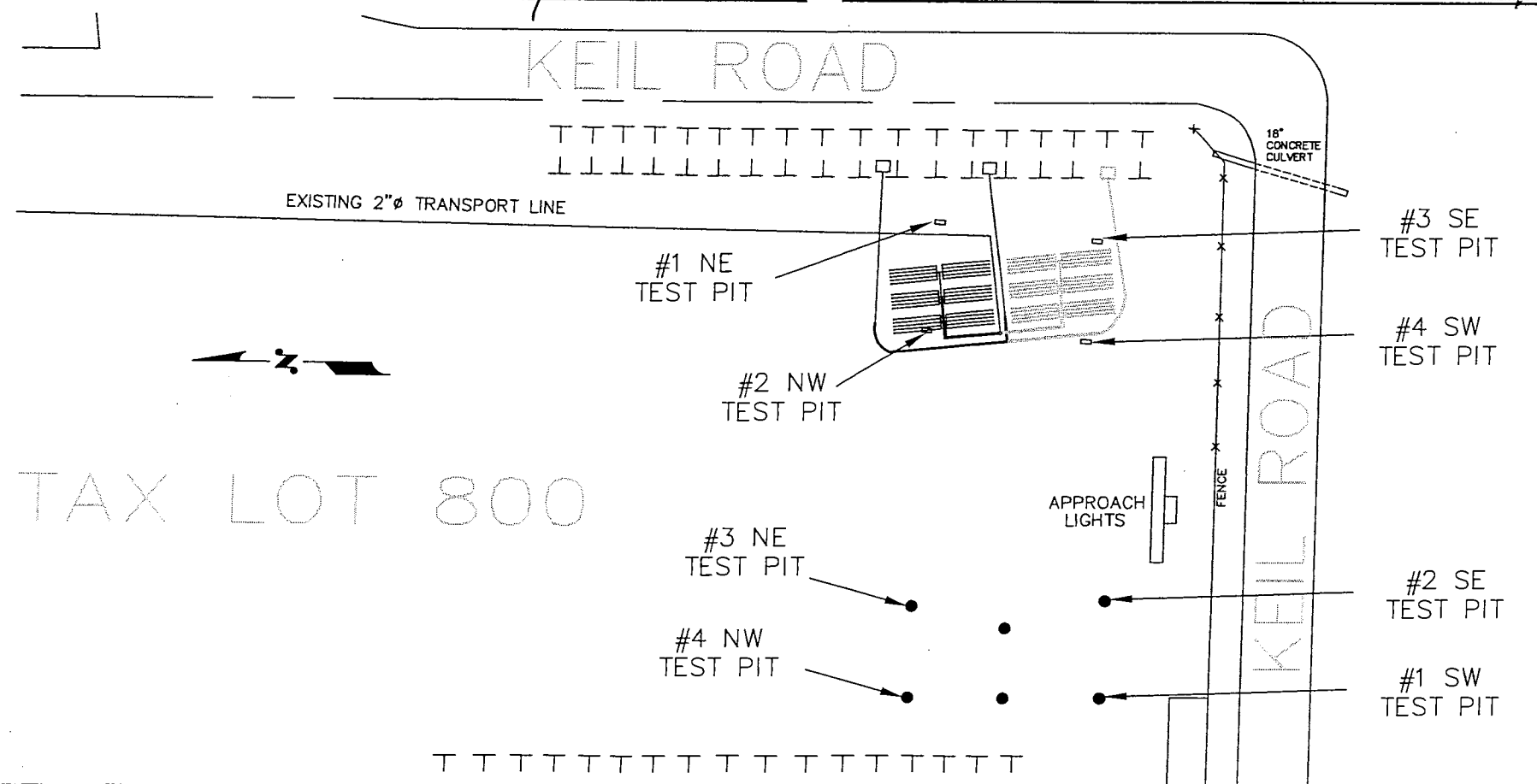
	Flush transport pipe and check for equal distribution from splitters, valves, and/or distribution box.
	Float control assembly: Float controls must be connected to a separate stand pipe, not discharge line, which is serviceable and accessible.
	Pump screen: Provide a corrosion-resistant screen with minimum twelve sq. ft. surface area, with maximum 1/8" openings, surrounding pump extending above maximum effluent level.
	Trace wire: Provide an electrically continuous 18 gauge, green-jacketed copper wire in trench for the full length of all transport lines, accessible at the source end.
	ELECTRICAL COMPONENTS
	Wiring of pumps and controls shall be performed by a licensed electrician under the auspices of a permit secured from the local jurisdiction. For details of electrical system, pump controls, floats, and the level of the float settings see the manufacturer's instructions and approved design.
	Splicing of wires at the splice box inside the tank risers shall be done using the heat shrink connectors provided by the manufacturer or with an approved watertight electrical connector nut.
	Wiring from the splice box to the source or the control panel shall be protected in UL approved PVC conduit, constructed watertight. Pump line voltage shall have water proof insulation such as THW, THWN, or HHW. Wire for all connections shall be 14 gauge wire or larger.
	"Seal offs" shall be installed between the splice box and the power source or control panel, either in the horizontal just outside the riser or in the vertical just below the control panel or per connection. "Seal offs" shall be installed to manufacturer's specifications and shall be equal to or better than the following: Appleton EYF seal off box, PVC terminal adapters (threaded), Killark sealing compound, Killark packing fiber.
	Wiring shall be color coded or numbered and the schedule written inside the control panel or on the wiring diagram.
	Upon completion, the apparatus shall be tested for operation and correctness. Available voltage, pump run voltage and pump run amperage shall be measured and recorded inside the control panel.
	The wiring diagram shall be retained on site (preferably in control panel enclosure) and any as-built notes or comments entered, initialed, and dated.
	CONTROL PANEL (S)
	The electrician shall label the control panel or electrical panel with his business name and the permit number and date of installation.
	Control panel shall be installed per manufacturer's instructions; alarm shall be audible from the living/working space. Pump and alarm must be on separate circuits. Location of panels to be based on electrical access.
	The control panel for all pumps must have the capability to record the number of alarms, pump events and override events, if applicable.
	Use a padlock or other locking device to prevent unauthorized access to the control panel. Panel to be installed on 4" X 4" post, NOT on wall.
	Panel shall be in accordance with NEMA 4X rating. Panel enclosure shall meet NEMA 4X requirements.
	OTHER
	Setbacks: Maintain required setbacks.
	COLLECTION SYSTEM
	Plumbing permit required
	DISTRIBUTION AND TRANSPORT LINES
	Pressure piping: Must meet or exceed Class 200 PVC, (ASTM 2241), or class 160 for pipes greater than an inch in diameter.
	Road crossing: Sleeve transport pipe in Sch. 40 PVC, installed a minimum of 18" below grade, and bedded in ¾ minus to the surface.
	All work and materials shall conform with Chapter 246-272 WAC, approved design permit, and appropriate laws. Permits relating (but not limited) to plumbing, electrical, and grading must be coordinated with the on-site system installer and designer.



Environmental Management Systems Inc. 4080 SE International Way, Ste. B112 Milwaukie, OREGON 97222 OR (503) 353-9691 WA (360) 735-1109 FAX (503) 353-9695	DESIGNED BY: <i>RS</i> DRAWN BY: <i>JS</i>	H.D. AVIATION & SOUTHBEND AIRPARK	PAGE 2
		T.4S, R.1W, SEC. 2D & 11A, T.L. 200, 203, 400, 401, 1600	11 JAN 2005
		CONSTRUCTION SPECIFICATIONS	SCALE: NONE

ENVIRONMENTAL MANAGEMENT SYSTEMS Inc. - ON-SITE SEWAGE TREATMENT SITE EVALUATION DATA
4080 SE International Way, Suite #B-112, Milwaukie, OR 97222-8867 (503) 353-9691 fax: (503) 353-9695 (Vancouver, WA 360-735-1109)
APPLICANT: HD AVIATION PREVIOUS EVALUATIONS: Y / N / ID#
ADDRESS OF SITE: 1400 KEIL RD, AURORA, OR 97002 Sub Division:
LEGAL DESCRIPTION: TOWNSHIP: 2S RANGE: 1W SECTION: 2, 11 PARCEL/TAX LOT: 800 other:
SOIL PROFILES: DRAINFIELD AREA - EAST SET OF HOLES
TEST HOLE DEPTH (IN) TEXTURE MATRIX COLOR Oxidized COLOR Reduced Color Coarse Fragments ROOTS STRUCTURE & Other Comments: APPL. RATE w/ Pretreatment
#1 NE 0" - 8" gSiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#2 NW 0" - 13" gSiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#3 SE 0" - 10" gSiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#4 SW 0" - 14" gSiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
WEATHER CONDITIONS: (X) CLEAR () CLOUDY () PRECIPITATION () EXTREME DRYNESS () OTHER:
LANDFORMS: () FLOODPLAIN (X) TERRACE (X) UPLAND () SIDESLOPE () OPEN () OTHER:
VEGETATION: (X) PASTURED () FORESTED (X) CLEARED () WETLAND () OTHER:
MAJOR LIMITING FACTOR(S): (X) WATER TABLE / (X) SOIL SUITABILITY / () SET BACKS / () LOT SIZE
SOIL TYPE: SiL / SiCL PROPOSED SYSTEM: RGF to Pressure Drainfield
ADDITIONAL COMMENTS: Soil Pits Observed with Randy Trox, RS of DEQ-Western Region.
EVALUATOR'S NAME: ROBERT F. SWEENEY, RS EVALUATOR'S SIGNATURE: DATE: 14 July 1999

ENVIRONMENTAL MANAGEMENT SYSTEMS Inc. - ON-SITE SEWAGE TREATMENT SITE EVALUATION DATA
4080 SE International Way, Suite #B-112, Milwaukie, OR 97222-8867 (503) 353-9691 fax: (503) 353-9695 (Vancouver, WA 360-735-1109)
APPLICANT: HD AVIATION PREVIOUS EVALUATIONS: Y / N / ID#
ADDRESS OF SITE: 1400 KEIL RD, AURORA, OR 97002 Sub Division:
LEGAL DESCRIPTION: TOWNSHIP: 2S RANGE: 1W SECTION: 2, 11 PARCEL/TAX LOT: 800 other:
SOIL PROFILES: DRAINFIELD AREA - WEST SET OF HOLES
TEST HOLE DEPTH (IN) TEXTURE MATRIX COLOR Oxidized COLOR Reduced Color Coarse Fragments ROOTS STRUCTURE & Other Comments: APPL. RATE w/ Pretreatment
#1 SW 0" - 10" SiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#2 SE 0" - 15" SiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#3 NE 0" - 15" SiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
#4 NW 0" - 16" SiL 7.5YR 3/3 -- -- -- mf sbk 45 LFV/150g
WEATHER CONDITIONS: (X) CLEAR () CLOUDY () PRECIPITATION () EXTREME DRYNESS () OTHER:
LANDFORMS: () FLOODPLAIN (X) TERRACE (X) UPLAND () SIDESLOPE () OPEN () OTHER:
VEGETATION: (X) PASTURED () FORESTED (X) CLEARED () WETLAND () OTHER:
MAJOR LIMITING FACTOR(S): (X) WATER TABLE / (X) SOIL SUITABILITY / () SET BACKS / () LOT SIZE
SOIL TYPE: SiL / SiCL PROPOSED SYSTEM: RGF to Pressure Drainfield
ADDITIONAL COMMENTS: Soil Pits Observed with Randy Trox, RS of DEQ-Western Region.
EVALUATOR'S NAME: ROBERT F. SWEENEY, RS EVALUATOR'S SIGNATURE: DATE: 14 July 1999

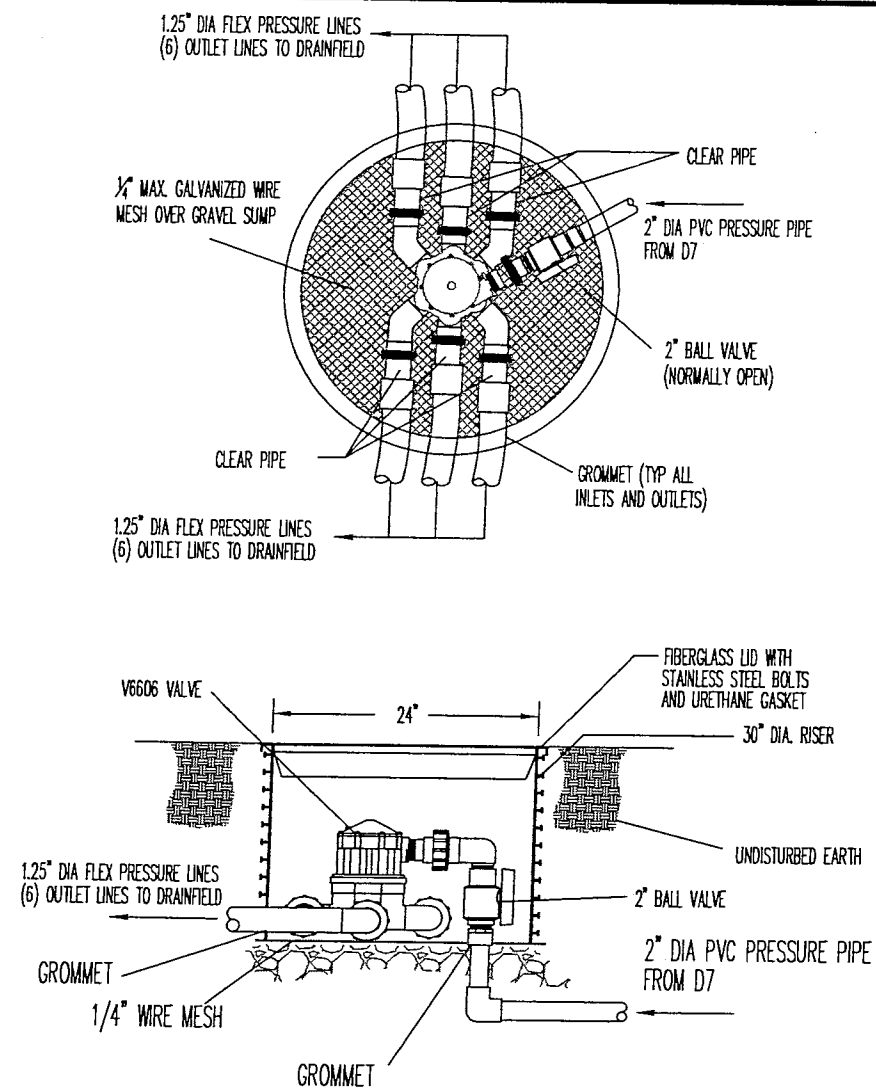
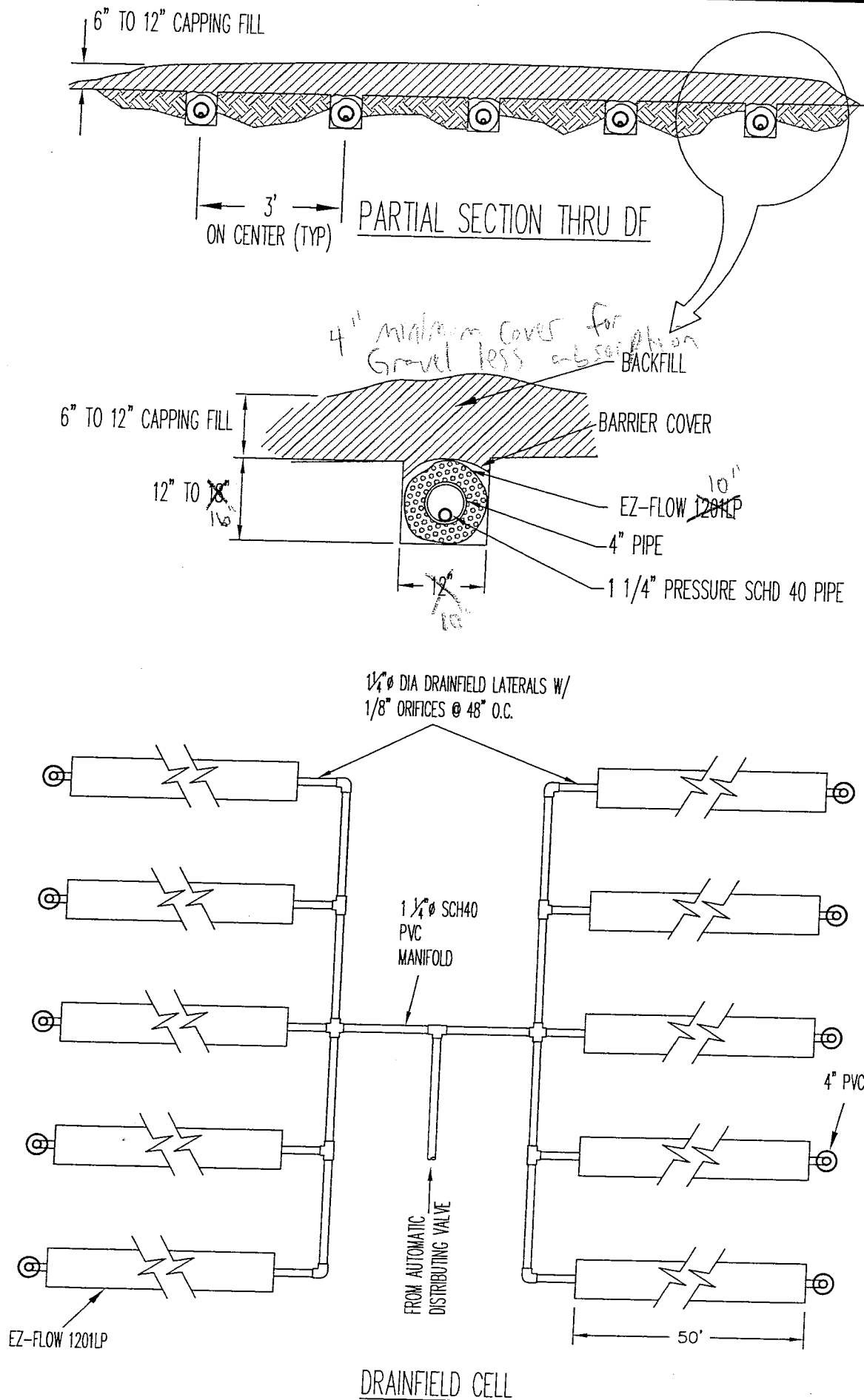


EAST TEST PITS

WEST TEST PITS



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SOIL EVALUATIONS
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SCALE: NONE



H.D. AVIATION & SOUTHEAST AIRPARK

PAGE 23

T.4S, R.1W, SEC. 2D & 11A, T.L. 200, 203, 400, 401, 1600

11 JAN 2005

DRAINFIELD DETAILS-1

SCALE: NONE

CHECKED BY:

AS

DRAWN BY:

AS

Environmental Management Systems Inc.

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Milwaukie, OREGON 97222
OR (503)353-9691 WA (360)735-1109
FAX (503)353-9695

A11D02

KEIL ROAD

EXISTING
RIP RAP

EXISTING GWI
OUTFALL TO BE
DISCONNECTED

18"
CONCRETE
CULVERT

NEW
RIP RAP

#3 SE
TEST PIT

#4 SW
TEST PIT

EXISTING 2"ØPVC
TRANSPORT LINE

EXISTING
1'x3' GWI

#1 NE
TEST PIT

#2 NW
TEST PIT

NEW
V6606

CONNECT NEW 1'x3' GWI
TO EXISTING GWI.
DISCONNECT CURRENT
SOUTH OUTFALL AND
REROUTE SOUTH OF
NEW DRAINFIELD CELLS

APPROACH
LIGHTS

FENCE

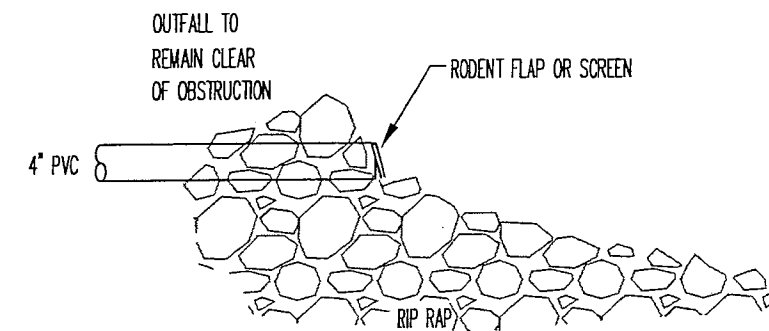
RESERVE DRAINFIELD AREA

#3 NE
TEST PIT

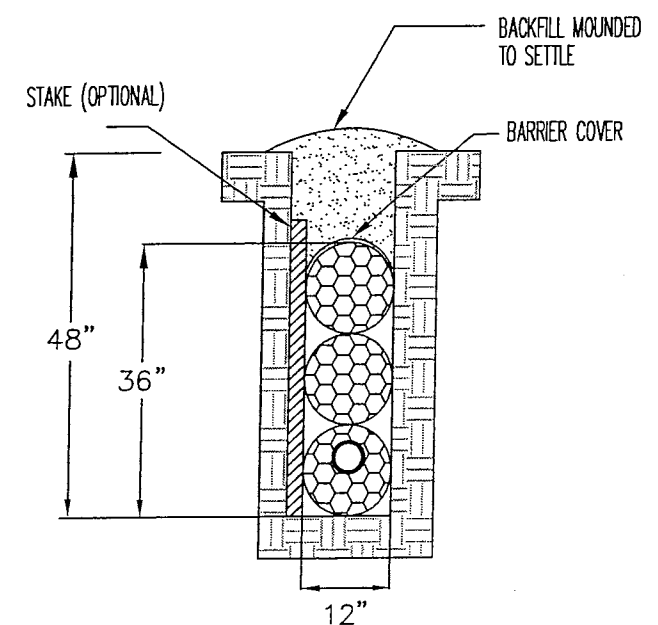
#4 NW
TEST PIT

#2 SE
TEST PIT

#1 SW
TEST PIT



RIP RAP DETAIL



EZ1203V

GWI DETAIL

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H.D. AVIATION & SOUTHBEND AIRPARK

11 JAN 2005

T.4S, R.1W, SEC. 2D & 11A, T.L. 200, 203, 400, 401, 1600

SCALE: NONE

CHECKED BY:

bl

DRAWN BY:

gr

Environmental
Management
Systems Inc.

4080 SE International Way, Ste. B112
Milwaukie, OREGON 97222
OR (503)353-9691 WA (360)735-1109
FAX (503)353-9696

A11D0207

faegre@earthlink.net

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Monday, February 7, 2022 8:06 AM
To: 'Helbling, Tony'; 'Aron Faegre'; 'Michelle DaRosa'
Cc: STANSBURY Betty; 'Ted Millar'; 'Martha Meeker'
Subject: RE: HDSE drainfield expansion area at UAO

Hi all, I've pasted the questions and request for additional information from our consultants below.

Thanks for getting the response back from NV5 and Aron. We have looked through what was sent over and still have questions and information needed. We also still need a copy of the report that opens & displays all the figures (this was stated as included but it was not one of the attachments). Since other questions are focused on details of the proposed improvements we have not received, we have responded to NV5's answers in that area in orange below:

- Materials/Construction Proposed

o What materials specification is to be used (ODOT, proprietary, etc.) for the aggregate?

Per the GeoWeb Manufacturer the infill material should consist of one third pulverized topsoil and two thirds crushed aggregate. The aggregate portion should be crushed rock that has a particle size range from 0.375 to 1.0 inches with a D50 of 0.5 inches and a 30 percent void space. The engineered fill should lightly be compacted to allow vegetation growth.

What are the assumed properties of these materials if there are not more specifics as to what might be used? What is "light compaction"? Is there a minimum void space requirement that should be met? Performance spec for infiltration?

o What compaction specifications and test methods are proposed to achieve the proposed Geoweb strengths?

After the cells have been filled the prepared ground surface should be proofrolled with a fully loaded dump truck. Some rutting and deflection is acceptable considering that the FAA specifies the upper 4-inches of subgrade consist loose uncompacted soil over 12-inches of compacted subgrade.

Again, what is the density intended for these layers? We are not analyzing the rest of the RSA and we need to know how much rutting or deflection is being assumed to be "acceptable". We are concerned with what is being proposed and whether it can support aircraft and vehicle loading.

o What compaction specifications and test methods are proposed for soil layers to be placed along with the Geoweb?

The only other soil that will be placed is the washed gravel or drain rock in the drainage trenches. We recommend only light compaction of this material until it is well keyed. Even at this level of compaction we believe its load bearing characteristics will be superior to the soil that exists in the RSA. Over compacting this material will inhibit its drainage characteristics

What are the assumed properties of these materials if there are not more specifics as to what might be used? What is "light compaction"? Is there a minimum void space requirement that should be met? Performance spec for infiltration? What load bearing characteristics will these yield? Will these layers retain their characteristics when the grass is mowed or a vehicle passes over the top of them?

o What subgrade compaction specifications and test methods are proposed for the expanded drain field areas?

See our response to the two prior questions.

Same.

o What materials are proposed for use in the rest of the elements of the drain field system (pipes, manifolds, perf spec., etc.)?

To be addressed by others. [[Note: Attachment 6 added by Aron Faegre to this memo for providing this information to Tony Beach.]]

Attachment Six does not provide enough detail about the weight rating for proposed elements (structures/pipes/manifolds/etc) or even the proposed cross section in any of the different areas with the geoweb installed. The 2005 design also does not address grading in the proposed drainfield area, but shows a "capping fill" which would not meet RSA grading standards. Please provide a detailed design that includes structure weight ratings and grading plans that meet FAA RSA grading standards. Also, please provide proposed typical sections showing the pipes/structures/geoweb/etc.. Include layer depths, typical surface grades, and detail where the proposed sections will intersect proposed drain field structures/drainage elements.

Please let me know if you have any questions about the above, and we look forward to your response,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 1, 2022 4:36 PM

To: Helbling, Tony <helbling@wilsonconst.com>; Aron Faegre <faegre@earthlink.net>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>

Cc: STANSBURY Betty <Betty.STANSBURY@odav.oregon.gov>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

Hi Tony, I did check in with our consultants and they said they need some additional information. I pressed them earlier today, they are putting together their clarifying questions and I will forward them as soon as I receive them.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>

Sent: Tuesday, February 1, 2022 3:56 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Aron Faegre <faegre@earthlink.net>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>

Cc: STANSBURY Betty <Betty.STANSBURY@odav.oregon.gov>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony,

We're two weeks out since last update – could you please poke the consultants and get info to us?

Tony Helbling
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helbling@wilsonconst.com
www.wilsonconst.com

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 18, 2022 2:05 PM

To: Aron Faegre <faegre@earthlink.net>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>; Helbling, Tony <helbling@wilsonconst.com>

Cc: STANSBURY Betty <Betty.STANSBURY@odav.oregon.gov>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

Hi Aron, Happy New Year.

Our consultants are still reviewing the information you provided. I will get an update and see if your geotech consultants can provide any assistance.

I'll keep you updated as soon as I get more information, thanks for your patience!

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Aron Faegre <faegre@earthlink.net>

Sent: Monday, January 17, 2022 12:23 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>; 'Tony Helbling' <helbling@wilsonconst.com>

Cc: STANSBURY Betty <Betty.STANSBURY@odav.oregon.gov>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

Hi Tony,

Hope your holidays went well.

Would it help to have our geotech consultant meet with your geotech consultant to get this resolved? We have provided detailed information for each of your questions, showing that the runway safety area complies with FAA standards. The standards acknowledge that utility systems can be in runway safety areas, and this is an important utility system for the airport.

Aron

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Aron Faegre Architect
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www.faegre.org

From: Aron Faegre <faegre@earthlink.net>
Sent: Tuesday, December 21, 2021 4:14 PM
To: 'BEACH Anthony' <Anthony.BEACH@aviation.state.or.us>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>; 'Tony Helbling' <helbling@wilsonconst.com>
Cc: 'STANSBURY Betty' <Betty.STANSBURY@aviation.state.or.us>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' (MeekerMA92@msn.com)' <meekerma92@msn.com>
Subject: RE: HDSE drainfield expansion area at UAO

Hi Tony

One last thing. I should have added a note to your question about whether infiltration testing was done. The testing for a drainfield is quite different than for normal stormwater infiltration testing. In fact, too rapid of an infiltration requires a more complicated septic drainfield piping design. Our septic processing system and drainfield designs are approved directly through State of Oregon DEQ.

Aron

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From: Aron Faegre <faegre@earthlink.net>
Sent: Tuesday, December 21, 2021 3:07 PM
To: 'BEACH Anthony' <Anthony.BEACH@aviation.state.or.us>; 'Michelle DaRosa' <mdarosa@landandcondolaw.com>;

'Tony Helbling' <helbling@wilsonconst.com>

Cc: 'STANSBURY Betty' <Betty.STANSBURY@aviation.state.or.us>; 'Ted Millar' <tmillar@tlmholdingsllc.com>; 'Martha Meeker' (MeekerMA92@msn.com)' <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

Hi Tony,

Attached are the answers to your detailed questions. Does this provide the information you need to approve our proposal?

Aron

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From: BEACH Anthony <Anthony.BEACH@aviation.state.or.us>

Sent: Thursday, December 9, 2021 4:20 PM

To: Michelle DaRosa <mdarosa@landandcondolaw.com>; Tony Helbling <helbling@wilsonconst.com>

Cc: STANSBURY Betty <Betty.STANSBURY@aviation.state.or.us>; Ted Millar <tmillar@tlmholdingsllc.com>; Aron Faegre - Aron Faegre & Associates (faegre@earthlink.net) <faegre@earthlink.net>; Martha Meeker (MeekerMA92@msn.com) <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

Hi Michelle, thank you for your patience as we look into the information you have provided.

Our consultants have taken a first pass through the report along with their Geotech GRI, and they came up with the following list of questions/clarifications/additional information needed:

GRI requests the additional data listed below based on reviewing the November 8, 2021 report "Report of Geotechnical Engineering Services: Aurora State Airport Septic Drain Field Improvements for HDSE Sewer System." [*HDSE drainfield expansion Geotech Study AronFA-2-01-110821-geor.pdf*]

- Field Data Collection
 - o Date of soil sampling
 - o Were any logs prepared to describe the bulk sampling results?
 - o Was a sieve analysis and/or Atterberg Limits test performed to validate the Silt visual classification?
 - o Was infiltration testing performed? If not, why?
- As-builts or other construction documents pertaining to the existing drain field
- Report references
 - o Geoweb design procedure
 - o Provide addition discussion on how the 6-inch geoweb, with 2/3 aggregate and 1/3 topsoil, replaces 12 inches of compacted soil.
 - o Equivalent Single Wheel Load source
 - o Source identifying the critical aircraft type

- Report figures
 - o Figure A-1: graphic does not show up in the provided pdf
 - o Figure A-2: graphic does not show up in the provided pdf
- “Such stringent compaction is not permitted in the soil cover of drain fields”
 - o Where does this statement come from?

In addition to the list above, we will also need specifics on the proposed Geoweb reinforced drain field construction.

- Materials/Construction Proposed
 - o What materials specification is to be used (ODOT, proprietary, etc.) for the aggregate?
 - o What compaction specifications and test methods are proposed to achieve the proposed Geoweb strengths?
 - o What compaction specifications and test methods are proposed for soil layers to be placed along with the Geoweb?
 - o What subgrade compaction specifications and test methods are proposed for the expanded drain field areas?
 - o What materials are proposed for use in the rest of the elements of the drain field system (pipes, manifolds, perf spec., etc.)?

Could you please provide this information so I may forward it to our consultants for review?

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am – 4pm

From: Michelle DaRosa <mdarosa@landandcondolaw.com>

Sent: Monday, November 15, 2021 3:51 PM

To: BEACH Anthony <Anthony.BEACH@aviation.state.or.us>; Tony Helbling <helbling@wilsonconst.com>

Cc: STANSBURY Betty <Betty.STANSBURY@aviation.state.or.us>; Ted Millar <tmillar@tlmholdingsllc.com>; Aron Faegre - Aron Faegre & Associates (faegre@earthlink.net) <faegre@earthlink.net>; Martha Meeker (MeekerMA92@msn.com) <meekerma92@msn.com>

Subject: RE: HDSE drainfield expansion area at UAO

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Re-sending to include Ms. Martha Meeker.

Michelle D. Da Rosa

Attorney at Law

205 SE Spokane Street, Suite 300

Portland, OR 97202

Office: (503) 220-2891

Direct: (971) 600-6307

www.landandcondolaw.com



From: Michelle DaRosa

Sent: Monday, November 15, 2021 3:25 PM

To: Tony Beach (anthony.beach@aviation.state.or.us) <Anthony.BEACH@aviation.state.or.us>; Tony Helbling <helbling@wilsonconst.com>

Cc: Betty Stansbury (betty.stansbury@aviation.state.or.us) <Betty.STANSBURY@aviation.state.or.us>; Ted Millar <tmillar@tlmholdingsllc.com>; Aron Faegre - Aron Faegre & Associates (faegre@earthlink.net) <faegre@earthlink.net>

Subject: FW: HDSE drainfield expansion area at UAO

Dear Betty and Anthony,

This missive from me, in my capacity as the attorney for TLM Holdings LLC and from Tony Helbling, as a director of HDSE Sewer System Owners Association and Chairperson of the Southend Corporate Airpark Condominium Owners Association, requests that you (i) rescind your denial of HDSE's plans to expand the HDSE drainfield on UAO property, (ii) retract ODA's stated intention to not renew HDSE's drainfield lease in 2024, and (iii) issue an approval of the expansion plans as previously submitted earlier this year. The attached study and our explanations below respond to the concerns ODA cited as the reason for its decisions.

The denial of the proposed expansion was sent to me in the email from Anthony dated July 30, 2021 in the email string below. ODA's expansion denial and threat to terminate the drainfield located on the Aurora State Airport that serves HDSE users (all buildings at Southend) sent concerned shock-waves through the Southend Airpark community because of the vital importance of the drainfield to the HDSE Sewer System, and the HDSE Sewer System to the continued operation of all of the property at Southend. The threat to "not renew" was made notwithstanding that the Non-Commercial Site Lease provides HDSE with two 5-year options and that the Utility Easement recorded as Instrument No. 2020-00001957 on January 13, 2020 is perpetual.

The attached geotechnical study by NV5 (formerly known as GeoDesign), dated November 8, 2021 demonstrates through detailed soil analysis that the drainfield areas already are likely capable "under dry conditions, of supporting snow removal equipment, aircraft rescue and fire-fighting equipment, and the occasional passage of aircraft without causing damage to the aircraft" [AC 150/5300-13A, p. 61]. The area is also free of objects, is drained by grading and a perimeter drain system to avoid accumulation of water, and has no ruts, humps, depressions or other surface variations, as required by the FAA's design standards for RSA's.

We propose resolution of this issue by:

- a. Making no changes to the existing drainfields as they have been in the RSA for around 20 years now, with no problems occurring, and the gravel filled drainfield trenches already demonstrating regular supporting of tractors for mowing and thus physically demonstrating meeting the RSA vehicle support requirements.
- b. For the new expansion drainfields use the addition of the 6 inch geo-fabric in the top layer, which then results in gaining of 95% compaction (in fact with a 1.5 safety factor bearing capacity over that).

In addition, we note as mitigating factors that:

- To promote the functionality of Aurora Airport as a resiliency resource following a major earthquake, the septic system will allow the airport to seamlessly continue operation following an earthquake, whereas those airports relying on urban sanitary systems will generally require from one month to a year to become functional after the earthquake – thus the HDSE’s septic system is an advantage to promote at Aurora Airport.
- The existing and proposed drainfields are approximately 150 feet or more to the side of the runway centerline, and thus they are areas that are least likely to be needed for emergency use.
- Many existing areas of the RSA do not currently meet the 95% compaction requirement (as shown in the geotech study).

Sincerely yours,

Tony Helbling

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From: BEACH Anthony <Anthony.BEACH@aviation.state.or.us>
Sent: Friday, July 30, 2021 10:20 AM
To: Michelle DaRosa <mdarosa@landandcondolaw.com>
Subject: RE: HDSE drainfield expansion area at UAO

Good morning Ms. DaRosa,

I am writing to follow up on your request for 103,104 square feet of additional drain field and reserve area lease space at the Aurora State Airport. We understand your client, HDSE Sewer System Owners Association, already has 61,375 square feet of premises leased for a drain field, reserve area, and piping. We are also aware that the existing lease was entered into with a general understanding that additional space would be needed, and that additional space would be made available by the Oregon Department of Aviation. Though both drain field use and leasing within Runway Safety Areas are unusual in my experience, I have been working to honor that arrangement with the intent of accommodating the expansion.

In initiating the Pen and Ink change to our Airport Layout Plan for this expansion, some concerns were raised by the FAA regarding compatibility of drain fields and Runway Safety Areas (RSA). The RSA enhances the safety of aircraft which undershoot, overrun, or veer off the runway, and it provides greater accessibility for firefighting and rescue equipment during such incidents. There are four requirements that our RSAs must meet, those include being:

1. cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations;
2. drained by grading or storm sewers to prevent water accumulation;
3. capable, under dry conditions, of supporting snow removal equipment, Aircraft Rescue and Fire Fighting (ARFF) equipment, and the occasional passage of aircraft without causing damage to the aircraft; and
4. free of objects, except for objects that need to be located in the RSA because of their function...

To address these concerns we closely evaluated the information you provided, and we analyzed what impacts, if any, a drain field would have on meeting the RSA's design standards. What we have found is that generally leach field soils are not compacted to the densities needed to support vehicle loads. The effluent from the waste stream has to be able to move into the pores of the soil around the drain tiles for the leach field to function. This increases the moisture content of the soils and further reduces their ability to support loads. At best, we are concerned that vehicle loading (including mowers) will reduce the porosity of the leach field soil (resulting in slower infiltration over time) or, at worst, cause damage to the shallow drain tiles and manifolds resulting in surface failures. It is our conclusion that drain fields in the RSA present a potential hazard to aircraft forced to roll out in the RSA. They are especially hazardous for heavier aircraft or those with higher tire pressures.

Due to the decreased soil strength and increased water accumulation caused by a drain field's function, we are unable to expand your client's drain field and reserve areas. Further, because the existing drain field and reserve area are not compatible within the RSA, we will not be able to renew the lease once the current term expires August 30th, 2024. At that time, all pipes and associated equipment will need to be removed by the Lessee, and the site will need to be returned to its original condition.

I am sorry I don't have a better answer for you, please let me know if you have any questions,

Anthony Beach, C.M., ACE
OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
M-F 7:30am – 4pm



OFFICE 503-378-2523 CELL 503-302-5455

EMAIL Anthony.Beach@aviation.state.or.us

3040 25TH STREET SE, SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

faegre@earthlink.net

Subject: UAO HDSE Drainfield Discussion
Location: Microsoft Teams Meeting

Start: Wed 2/16/2022 10:00 AM
End: Wed 2/16/2022 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: BEACH Anthony

Hi all, let's get together and talk about the HDSE Drainfield at UAO. This is the only time that works for us, CWE, and GRI. We could push this meeting to start at 11am same day, otherwise we'd need to find sometime the following week. Let me know if this doesn't work for all of you.

Link is below.

Tony Beach

OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am – 4pm

Microsoft Teams meeting

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faegre@earthlink.net

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Wednesday, February 16, 2022 12:56 PM
To: STANSBURY Betty; 'James Kirby'; Helbling, Tony; Ted Millar (tmillar@southendairpark.com); Aron Faegre
Cc: PECK Heather; Ted Millar; Lindsy Hammond; Wes Spang; Wes Spang
Subject: UAO HDSE Drainfield Discussion

Hi everyone,

Thanks again for meeting today and going over the details we'll need to see for us to agree to keeping the existing drainfield, and leasing additional land for a new drainfield in our Runway Safety Area (RSA). Here's a quick recap.

Conditions we need the RSA to meet

1. Advisory Circular Standards
 - a. cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations;
 - b. drained by grading or storm sewers to prevent water accumulation;
 - c. capable, under dry conditions, of supporting snow removal equipment, Aircraft Rescue and Fire Fighting (ARFF) equipment, and the occasional passage of aircraft without causing damage to the aircraft; and
 - d. free of objects, except for objects that need to be located in the RSA because of their function
2. We further discussed the practical requirements for drainfields in the RSA:
 - a. Supporting weight of Critical Design Aircraft, emergency response vehicles, and maintenance vehicles with regular mowing without compromising the drainfield's function
 - b. Remaining clear of objects (signs, vents, posts), and wildlife attractants
 - c. Minimal/no impacts to aircraft operations for serviceability (no equipment or potentially hazardous ruts, humps, depressions, or other surface variations in the RSA to service/repair the drainfield)
 - d. Runway extension – no potential to reduce the lifespan of airport infrastructure (runway/taxiway pavement, subbase erosion, etc.)

We need the above demonstrated in detail in stamped engineering plans that we can review before we can agree.

We also discussed HDSE's communication and coordination with ODA's consultants and subs, please continue to communicate directly with me. We will be happy to answer any questions you have while you work through design for these improvements, and to review your plans.

After the meeting we discussed a couple potential alternatives internally. Have you considered locating the drainfields on the new Aurora Airport Business Center (AABC) property, or have you tried reaching out to HTS?

Thanks again, let me know if you have any questions,

Tony Beach
OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am – 4pm

faegre@earthlink.net

From: STANSBURY Betty <Betty.STANSBURY@odav.oregon.gov>
Sent: Thursday, May 26, 2022 2:56 PM
To: Helbling, Tony; Ted Millar; Aron Faegre
Cc: Martha Meeker; BEACH Anthony; PECK Heather
Subject: Aurora drain field update

I haven't forgotten about my IOU on the drain field paper, but there has been a couple of developments I wanted to share with you.

- 1) Wastewater Treatment plant – I toured the Columbia Helicopters facility on Monday, and looked at their wastewater treatment plant. It is a state of the art, 15,000 gallon per day capacity “Membrane Bio-reactor” facility, currently running about 3-5,000 gallons per day. They are willing to discuss the possibility of allowing other airport buildings onto their system, so I have asked our engineers to do a preliminary feasibility review about the potential of having the CHI treatment plant handle all of the wastewater being served by the seven on-airport drain fields. This is conceptual at this point, and I do not have any further details. There are several hurdles to get over, but it is a potential solution worth evaluating. When I asked CHI's staff if they thought it could handle 1500 people (the number you gave me for airport employment), they thought it could. (And that is before subtracting HTS, which would stay on its own system, or adding visitors, which would probably bring it back up to around 1500 total, ballpark.)
- 2) FAA position on drain fields in runway safety areas – I asked the FAA's Seattle Airports District Office for guidance on whether a “modification to standards” (which requires their approval) would be needed for an expansion of the drain field in the runway safety area. Their response is below. Given the limited likelihood of success, I would prefer to focus our efforts (and our engineers time) to the possibility of tying into CHI's system. However, if you still wish to pursue attempting to design a system that would meet the RSA requirements (and with the understanding that you would be responsible for the cost of permitting, construction and installation), I am still willing to review it for consideration, and will commit up to eight hours of our engineers time to review your proposal. (And the proposal to move the location to the sides of the runway (email dated May 10th) shows they are still within the runway and taxiway safety areas, so that doesn't help.) And I agree to your proposed decision date of no later than the end of September (four months from now) so I'd like to know your intentions by mid-June if possible.

FAA response to question about a mod to standards

Hi Betty:

Thank you for your question. I hope that my response is clear and concise and that it helps you as you move forward at UAO with regards to the septic fields in the RSA (and other airports in OR that might have septic (drainage) fields in RSAs).

Please reject future proposed septic (drainage) fields under Aurora State Airport's safety areas and take action to remove existing septic drainage fields under the airport's safety areas at your earliest opportunity.

The safety area must remain, “capable, under dry conditions, of supporting snow removal equipment, ARFF equipment, and the occasional passage of aircraft without causing major damage to the aircraft.” Septic (drainage) fields risk compromising this requirement by:

- Including elements structurally incapable of supporting these loads either initially or over the length of time the drainage fields remain under the safety area;

→ Supersaturating the subsurface, undermining the surrounding soil's load bearing capacity.

We allow a temporary reduction in load bearing capacity due to natural precipitation. We will not allow artificial saturation of the subsoil to compromise the safety area's load bearing capacity.

If a drainage field Engineer is somehow able to provide documented evidence that the drainage field will not compromise the safety area's load bearing capacity over the length of time the drainage fields remain under the safety area, we may consider it acceptable, but this would be considered a nonstandard condition and not a Modification of Standards (MOS) in this case because the drainage fields were not federally funded. In addition, we will not approve MOS requests in any case that will diminish the safety area's ability to perform its function or located within the RSA. Please keep in mind that this would be a long process that would require HQ involvement and potentially might not result in the allowance of the septic fields to remain even if the drainage field Engineer is able to shown that the drainage field would not compromise the safety area.

Luckily this issue is being brought up now as I think that finding a solution can be one of the items in the ongoing master planning effort.

Exhibit 6

REPORT OF GEOTECHNICAL ENGINEERING SERVICES

Aurora State Airport
Septic Drain Field Improvements for HDSE Sewer System
Aurora, Oregon
Project: AronFA-2-01

For
Aron Faegre and Associates
November 8, 2021

Project: AronFA-2-01



November 8, 2021

Aron Faegre and Associates
520 SW Yamhill Street, PH1
Portland, OR 97204

Attention: Aron Faegre

Report of Geotechnical Engineering Services

Aurora State Airport
Septic Drain Field Improvements for HDSE Sewer System
Aurora, Oregon
Project: AronFA-2-01

NV5 is pleased to present this report of geotechnical engineering services for subgrade improvements atop a proposed septic drain field for the HDSE sewer system in the runway safety area at the southern end of the Aurora State Airport located in Aurora, Oregon. Our services were conducted in accordance with our proposal dated August 26, 2021.

We appreciate the opportunity to be of continued service to you. Please call if you have questions regarding this report.

Sincerely,

NV5



Brett A. Shipton, P.E., G.E.
Principal Engineer

BAS:sn

Attachments

One copy submitted (via email only)

Document ID: AronFA-2-01-110821-geor.docx

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ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
CBR	California bearing ratio
DCP	dynamic cone penetrometer
ESWL	equivalent single wheel load
FAA	Federal Aviation Administration
pcf	pounds per cubic foot
psi	pounds per square inch

1.0 INTRODUCTION

NV5 is pleased to submit this report of geotechnical engineering services for improving the subgrade atop a future drain field located at the southern end of the runway at the Aurora State Airport located in Aurora, Oregon. The same solution could be used for the existing drain fields if needed. Figure 1 shows the site relative to existing physical features.

The proposed drain fields are located in the runway safety area (RSA). The FAA Advisory Circular AC No. 150/5300-13A states that RSA be should be capable, “under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting . . . equipment, and the occasional passage of aircraft without causing damage to the aircraft.” It also states, “Compaction of RSAs must comply with Specification P-152, Excavation, Subgrade and Embankment, found in AC 150/5370-10.”

According to the FAA Airport Construction Standards (AC150/5370-10) Item P-152, the subgrade outside of paved areas must be compacted to at least 95 percent of the maximum dry density, as determined by ASTM D698. No compaction is required in the top 4 inches of the subgrade, and any soil that has become compacted from construction or other traffic in the upper 4 inches must be scarified to a loose state.

From Item P152-2.1:

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches (100 mm), to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches (100 mm) in their greatest dimension will not be permitted in the top 6 inches (150 mm) of the subgrade.

From Item P152-2.6:

“On all areas outside of the pavement areas, no compaction will be required on the top 4 inches (100 mm), which shall be prepared for a seedbed in accordance with Item T-901, T-906.”

From Item P152-2.10:

The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches (300 mm) and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

Such stringent compaction is not permitted in the soil cover of drain fields, and this study provides recommendations for preparing a subgrade in the RSA over the drain fields that is capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting equipment, and the occasional passage of aircraft without causing damage to the aircraft.

2.0 PURPOSE AND SCOPE

The purpose of our scope was to provide recommendations for improving the soil cover over the drain fields such that it is capable, under dry conditions and without rigorous compaction, of

supporting snow removal equipment, aircraft rescue and fire fighting equipment, and the occasional passage of aircraft without causing damage to the aircraft. Specifically, we have conducted the following tasks:

- Reviewed information provided to us by Aron Faegre and Associates and other available information in our files.
- Visited the site to observe the subgrade and conduct the following:
 - Collected bulk soil samples in order to establish moisture density relationships in accordance with ASTM D698
 - Measured the in situ density at the location of the proposed drain fields in general accordance with ASTM D6938, Procedure A, using a Troxler 3430 nuclear density gauge
 - Conducted DCP testing in general accordance with ASTM D6951 at the locations shown on Figure 2
- Conducted a laboratory testing program including proctor analyses in accordance with ASTM D698.
- Provided recommendations for subgrade stabilization that do not require significant compaction of the subgrade soil.
- Provided calculations showing that the subgrade atop the proposed drain fields can support emergency vehicles and occasional aircraft.
- Documented our findings, conclusions, and recommendations in this report.

3.0 SITE RECONNAISSANCE

Our site reconnaissance included collecting bulk samples to determine the moisture density relationship of the subgrade soil, conducting DCPs in order to estimate the resilient modulus of the subgrade, and measuring the in situ density of the subgrade soil. Figure 2 shows the locations of sampling and tests.

3.1 SOIL SAMPLING

Bulk soil samples were collected from the near-surface soil in the areas of the future drain fields. A moisture density relationship was determined on a combined bulk sample collected from the surface soil in the area of the proposed drain field. Groundcover at the sampling locations consisted of short grass. The vegetation was removed before sampling, and soil below a depth of 4 inches was placed in a sample bucket and transported to NV5's geotechnical laboratory in Wilsonville, Oregon, for testing. The soil was visually classified as silt in accordance with the soil classification system presented in Figure 3. A moisture density test was performed on the bulk sample in general accordance with ASTM D698. The test results are presented in Appendix A.

3.2 DCP TESTING

We performed DCP testing in general accordance with ASTM D6951 to estimate subgrade resilient modulus (M_r) at the locations shown on Figure 2. The DCP test results are presented on Appendix B. Since it is required that the upper 4 inches of the subgrade be loose, the upper 4 inches of soil was removed before testing was performed. We plotted the depth of penetration versus blow count and used the slope of the data to estimate the resilient modulus of the

subgrade. We correlated the DCP test results to resilient modulus using the methods presented in *The Structural Design of Bituminous Roads*. The computed resilient modulus was converted to CBR using the following relationship:

$$\text{CBR} = M_r/1500$$

Table 1 summarizes the estimated resilient moduli and corresponding CBR for the subgrade.

Table 1. DCP Test Results and Corresponding CBR

Location	Resilient Modulus (psi)	CBR (percent)
DCP-1	24,300	16.2
DCP-2	18,700	12.5
DCP-3	21,200	14.1
DCP-4	14,000	9.3
DCP-5	12,400	8.3
DCP-6	18,000	12.0
DCP-7	10,400	6.9
DCP-8	8,800	5.9

Some of the DCP tests were performed at a depth of 12 inches in order to avoid damaging the drain pipe in the existing drain field.

3.3 IN SITU DENSITY

The in situ density was measured at the locations shown on Figure 2. The density measurements were conducted in accordance with ASTM D6938, Procedure A. Since it is required that the upper 4 inches of the subgrade be loose, the tests were performed deeper than 4 inches below ground surface. The tests were compared to the maximum dry density determined in the laboratory. Table 2 presents a summary of the in situ density measurements.

Table 2. Measured In Situ Density

Location	Measured Dry Density (pcf)	Measured Moisture Content (percent)	Relative Density ASTM D698 (percent)
D-1	97.0	8.0	92 ¹
D-2	89.1	8.3	85 ¹
D-3	80.0	6.9	80 ²
D-4	83.4	8.5	84 ²
D-5	109.4	19.7	103 ¹
D-6	101.1	21.3	95 ¹
D-7	91.1	19.5	92 ²
D-8	87.1	22.4	88 ²

1. Based on a maximum dry density of 105.4 pcf and an optimum moisture content of 18.4 percent
2. Based on maximum dry density of 99.5 pcf and an optimum moisture content of 20.5 percent

We tested the compaction at the existing drain field at locations D-4 and D-8. The other locations were taken randomly throughout the site. The varying degrees of compaction found to exist in the RSA are summarized in Table 1.

Because the FAA's intent is that fire trucks and other vehicles may operate in the RSA, it brings up the question of whether relative compaction definitively relates to the depth of a vehicle rut in the RSA. Although the compaction does not meet the FAA requirement at some locations, the estimated resilient modulus indicates that the subgrade in these areas is capable of supporting similar wheel loads as the areas in which the compaction requirement is met.

4.0 PROPOSED DRAIN FIELD

The proposed drain field consists of a series of subsurface drainage trenches that are approximately 24 inches wide and approximately 3.5 to 4 feet on center. The base of each trench is to have a minimum depth of 18 inches below the capping fill. Twelve inches of ¾- to 2½-inch washed gravel will be placed in the trench. A perforated pipe will be placed in the washed gravel through which the effluent will be drained. A maximum of 10 inches of capping fill will be placed over the trench.

5.0 SUBGRADE IMPROVEMENT

The drain fields are located in the RSA of Aurora State Airport. The FAA Advisory Circular AC No. 150/5300-13A states that the RSA should be capable, “. . . under dry conditions, of supporting snow removal equipment, aircraft rescue and fire fighting . . . equipment, and the occasional passage of aircraft without causing damage to the aircraft.” It also states, “Compaction of RSAs must comply with Specification P-152, Excavation, Subgrade and Embankment, found in AC 150/5370-10, which requires that upper 4 inches of the subgrade be uncompacted and scarified to be in a loose state.” The underlying 12 inches of subgrade soil should be compacted to at least 95 percent of the maximum dry density, as determined by

ASTM D698. Because a drain field will be beneath the subgrade in the RSA, it cannot be compacted to the standard required by AC 150/5370-10. It must also be capable of growing vegetation.

We have considered the following design vehicles to model emergency equipment and aircraft that may traffic the RSA:

- Emergency Vehicle: AASHTO H20 or a 16,000-pound wheel load
- Aircraft: GulfStream G550 with a gross weight of 91,000 pounds or a 30,300-pound ESWL

To accommodate design traffic, the subgrade located over the drainage trenches should be stabilized using a product such as the Presto GeoSystems Geoweb. We have determined that the GW30V Geocells will create a subgrade that can support both the AASHTO H20 and Gulfstream 550 ESWL with an adequate margin of safety. Our supporting calculations are presented in Appendix C. Table 3 summarizes the input parameters and results of our analysis.

Table 3. Subgrade Stabilization

Design Vehicle	ESWL (pounds)	Tire Pressure (psi)	CBR Beneath Geoweb (percent)	Product Specification	Bearing Capacity Safety Factor
AASHTO H20	16,000	110	5	GW30V 6-inch depth	1.5
Gulfstream 550	30,300	200	5	GW30V 8-inch depth	1.3

A 6-inch-deep cell may be sufficient if the RSA is only subject to ESWLs of 16,000 pounds, such as those of the AASHTO H20 axle load. The geoweb cells should be filled with a blend of two-thirds crushed aggregate and one-third topsoil mix. The crushed aggregate should be 3/8 to 1 inch in nominal diameter and have a D50 of 0.5 inch and a void space of 30 percent. The geoweb should extend beyond each drainage trench by a distance of at least 18 inches. The geoweb should be overfilled by at least 1 inch with the selected fill. In addition, the geoweb should be installed in accordance with the manufacturer's recommendations. A 4-inch layer of loose, uncompacted material can be placed on the improved subgrade to meet the requirement of Item P152-2.6

6.0 LIMITATIONS

We have prepared this report for use by Aron Faegre and Associates and members of the design team for the proposed project. The data and report can be used for bidding or estimating purposes, but our report, conclusions, and interpretations should not be construed as warranty of the subsurface conditions and are not applicable to other sites.

Exploration observations indicate soil conditions only at specific locations and only to the depths penetrated. They do not necessarily reflect soil strata or water level variations that may exist

between exploration locations. If subsurface conditions differing from those described are noted during the course of excavation and construction, re-evaluation will be necessary.

The scope of our services does not include services related to construction safety precautions, and our recommendations are not intended to direct the contractor's methods, techniques, sequences, or procedures, except as specifically described in our report for consideration in design.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time our report was prepared. No warranty, express or implied, should be understood.

◆ ◆ ◆

We appreciate the opportunity to be of continued service to you. Please call if you have questions concerning this report or if we can provide additional services.

Sincerely,

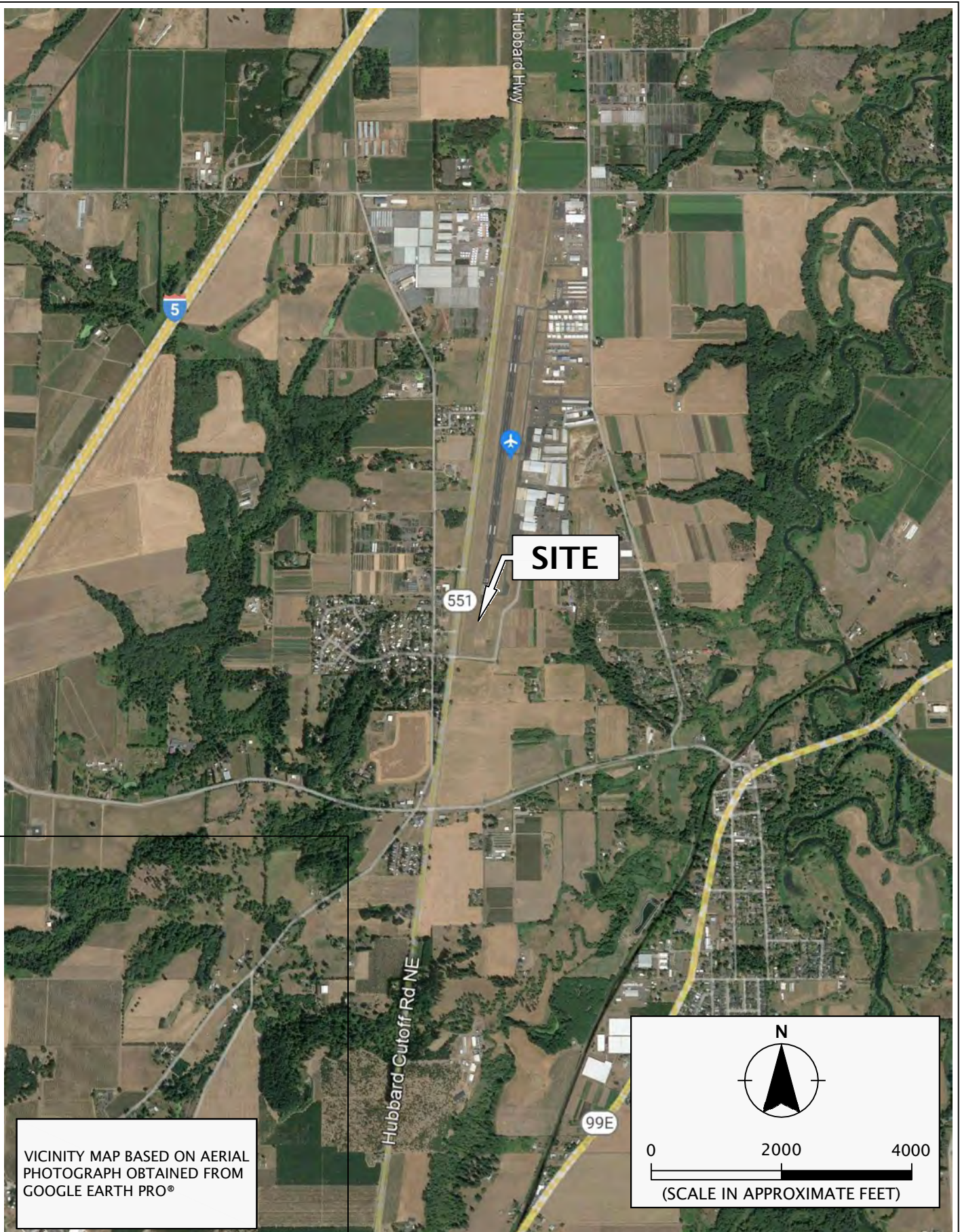
NV5



Brett A. Shipton, P.E., G.E.
Principal Engineer



FIGURES



VICINITY MAP BASED ON AERIAL
PHOTOGRAPH OBTAINED FROM
GOOGLE EARTH PRO®

NIVIS

ARONFA-2-01

NOVEMBER 2021

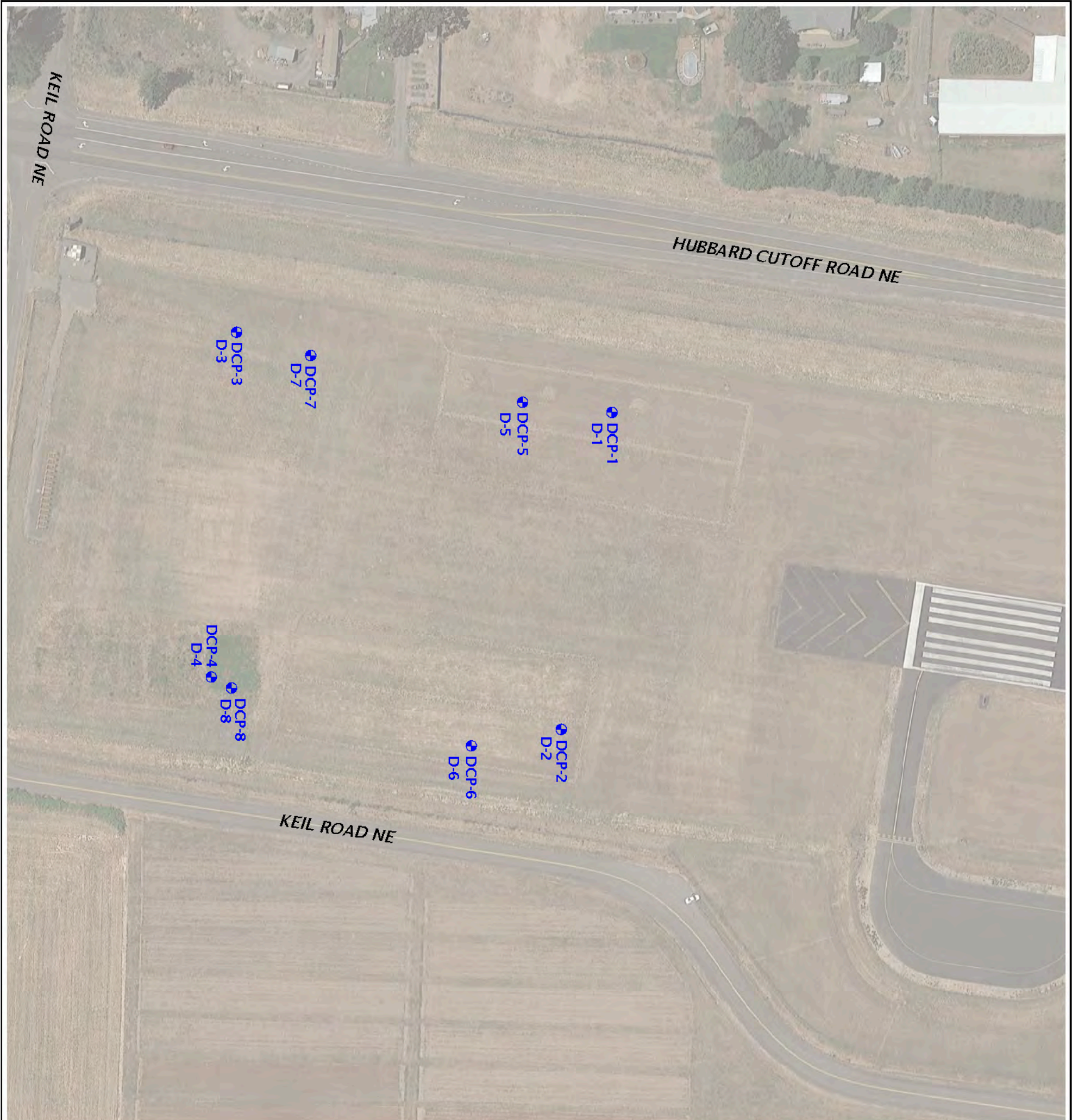
APPENDIX 11D – PUBLIC COMMENTS 2025

VICINITY MAP

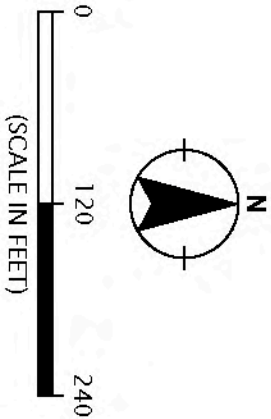
SEPTIC DRAIN FIELD IMPROVEMENTS
AURORA, OR

FIGURE 1

11D0233



LEGEND:
DCP-1 D-1 DCP TEST AND DENSITY MEASUREMENT



SITE PLAN BASED ON AERIAL PHOTOGRAPH
OBTAINED FROM GOOGLE EARTH PRO®
SEPTEMBER 14, 2021

 APPENDIX 11D – PUBLIC COMMENTS 2025	ARONFA-2-01	SITE PLAN	
	NOVEMBER 2021	SEPTIC DRAIN FIELD IMPROVEMENTS AURORA, OR	FIGURE 2 A11D0234

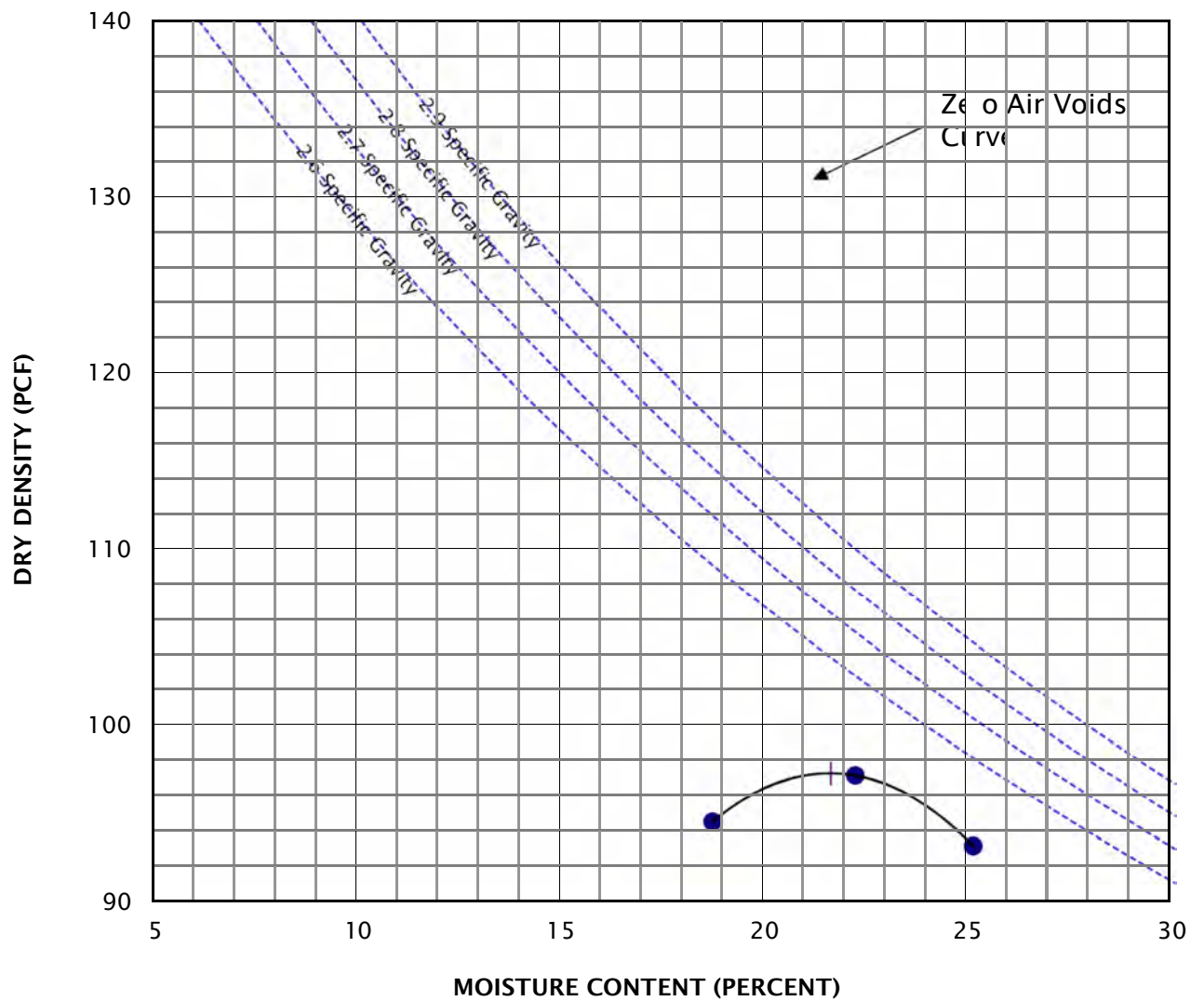
RELATIVE DENSITY - COARSE-GRAINED SOIL							
Relative Density	Standard Penetration Test (SPT) Resistance		Dames & Moore Sampler (140-pound hammer)		Dames & Moore Sampler (300-pound hammer)		
Very loose	0 – 4		0 – 11		0 – 4		
Loose	4 – 10		11 – 26		4 – 10		
Medium dense	10 – 30		26 – 74		10 – 30		
Dense	30 – 50		74 – 120		30 – 47		
Very dense	More than 50		More than 120		More than 47		
CONSISTENCY - FINE-GRAINED SOIL							
Consistency	Standard Penetration Test (SPT) Resistance	Dames & Moore Sampler (140-pound hammer)	Dames & Moore Sampler (300-pound hammer)		Unconfined Compressive Strength (tsf)		
Very soft	Less than 2	Less than 3	Less than 2		Less than 0.25		
Soft	2 – 4	3 – 6	2 – 5		0.25 – 0.50		
Medium stiff	4 – 8	6 – 12	5 – 9		0.50 – 1.0		
Stiff	8 – 15	12 – 25	9 – 19		1.0 – 2.0		
Very stiff	15 – 30	25 – 65	19 – 31		2.0 – 4.0		
Hard	More than 30	More than 65	More than 31		More than 4.0		
PRIMARY SOIL DIVISIONS			GROUP SYMBOL		GROUP NAME		
COARSE-GRAINED SOIL (more than 50% retained on No. 200 sieve)	GRAVEL (more than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (< 5% fines)	GW or GP		GRAVEL		
		GRAVEL WITH FINES (≥ 5% and ≤ 12% fines)	GW-GM or GP-GM		GRAVEL with silt		
			GW-GC or GP-GC		GRAVEL with clay		
		GRAVEL WITH FINES (> 12% fines)	GM		silty GRAVEL		
			GC		clayey GRAVEL		
			GC-GM		silty, clayey GRAVEL		
	SAND (50% or more of coarse fraction passing No. 4 sieve)	CLEAN SAND (<5% fines)	SW or SP		SAND		
		SAND WITH FINES (≥ 5% and ≤ 12% fines)	SW-SM or SP-SM		SAND with silt		
			SW-SC or SP-SC		SAND with clay		
		SAND WITH FINES (> 12% fines)	SM		silty SAND		
			SC		clayey SAND		
			SC-SM		silty, clayey SAND		
FINE-GRAINED SOIL (50% or more passing No. 200 sieve)		SILT AND CLAY	Liquid limit less than 50	ML		SILT	
	CL			CLAY			
	CL-ML			silty CLAY			
	OL			ORGANIC SILT or ORGANIC CLAY			
	Liquid limit 50 or greater		MH		SILT		
			CH		CLAY		
	OH		ORGANIC SILT or ORGANIC CLAY				
HIGHLY ORGANIC SOIL			PT		PEAT		
MOISTURE CLASSIFICATION		ADDITIONAL CONSTITUENTS					
Term	Field Test	Secondary granular components or other materials such as organics, man-made debris, etc.					
		Percent	Silt and Clay In:		Percent	Sand and Gravel In:	
Fine-Grained Soil	Coarse-Grained Soil		Fine-Grained Soil	Coarse-Grained Soil			
dry	very low moisture, dry to touch	< 5	trace	trace	< 5	trace	trace
moist	damp, without visible moisture	5 – 12	minor	with	5 – 15	minor	minor
wet	visible free water, usually saturated	> 12	some	silty/clayey	15 – 30	with	with
					> 30	sandy/gravelly	Indicate %
		SOIL CLASSIFICATION SYSTEM					FIGURE 3
APPENDIX 11D – PUBLIC COMMENTS 2025							A11D0235

APPENDIX A

APPENDIX A

MOISTURE DENSITY RELATIONSHIP

We determined the moisture density relationship of samples collected from the near-surface soil at the location of the proposed drain field in general accordance with ASTM D698. The compaction curves for each sample are presented in this appendix.



EXPLORATION/ LOCATION	DEPTH (FEET)	SOURCE	MATERIAL DESCRIPTION
NA	NA	Onsite	Silt (ML) Existing Drain Fields

TEST RESULTS

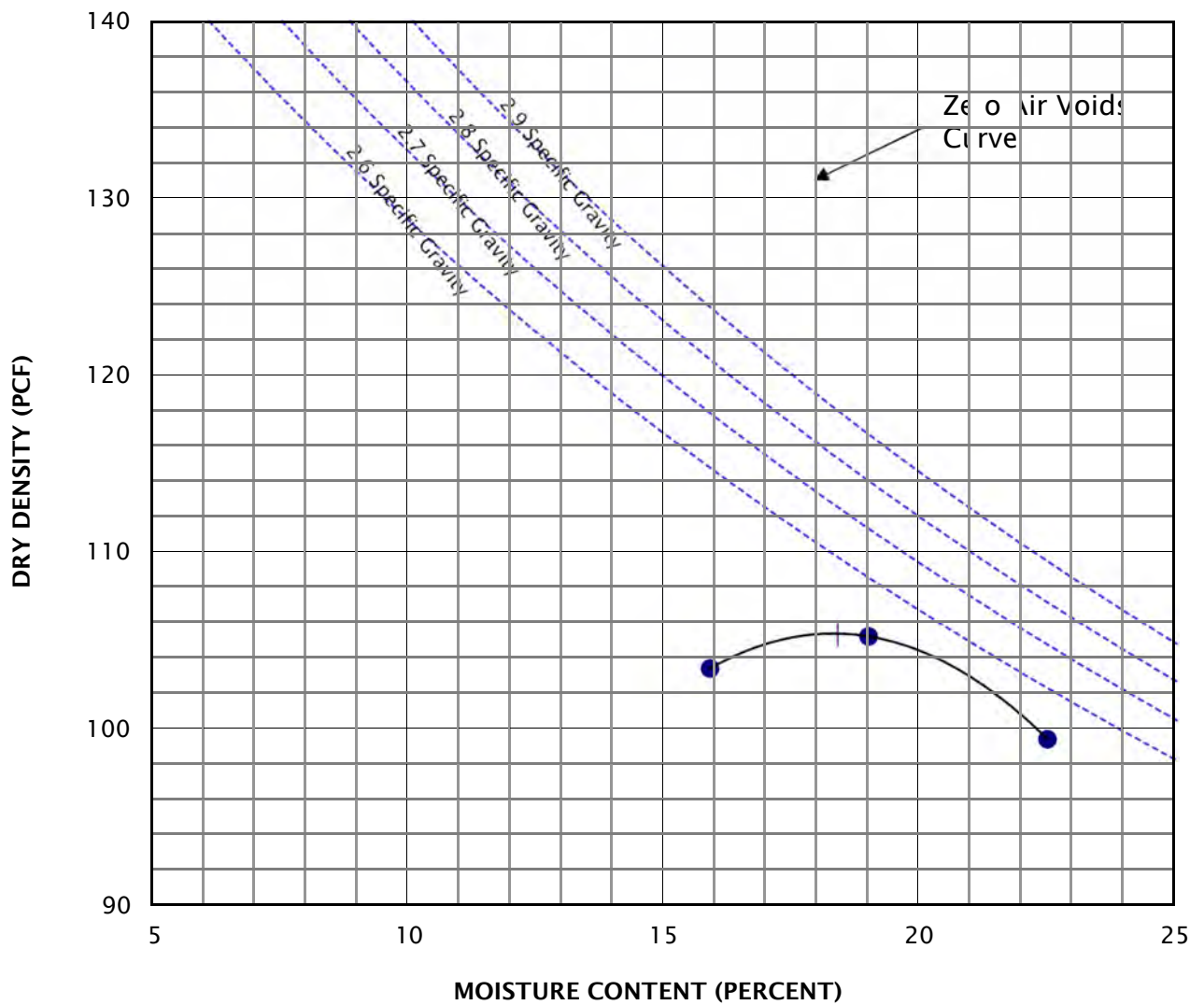
TEST METHOD	AS RECEIVED MOISTURE CONTENT (PERCENT)	OVERSIZE (PERCENT)
Standard Proctor-ASTM D698 Method A	22.3	5.6

UNCORRECTED

MAXIMUM DRY DENSITY, lb/ft ³	97.3
OPTIMUM WATER CONTENT, %	21.6

OVERSIZE CORRECTION

MAXIMUM DRY DENSITY, lb/ft ³	99.5
OPTIMUM WATER CONTENT, %	20.5



EXPLORATION/ LOCATION	DEPTH (FEET)	SOURCE	MATERIAL DESCRIPTION
NA	NA	Onsite	Silt (ML) Proposed Drain Fields

TEST RESULTS

TEST METHOD	AS RECEIVED MOISTURE CONTENT (PERCENT)	OVERSIZE (PERCENT)
Standard Proctor-ASTM D698 Method A	19.0	0.1

UNCORRECTED

MAXIMUM DRY DENSITY, lb/ft ³	105.4
OPTIMUM WATER CONTENT, %	18.4

OVERSIZE CORRECTION

MAXIMUM DRY DENSITY, lb/ft ³	NA
OPTIMUM WATER CONTENT, %	NA

APPENDIX B

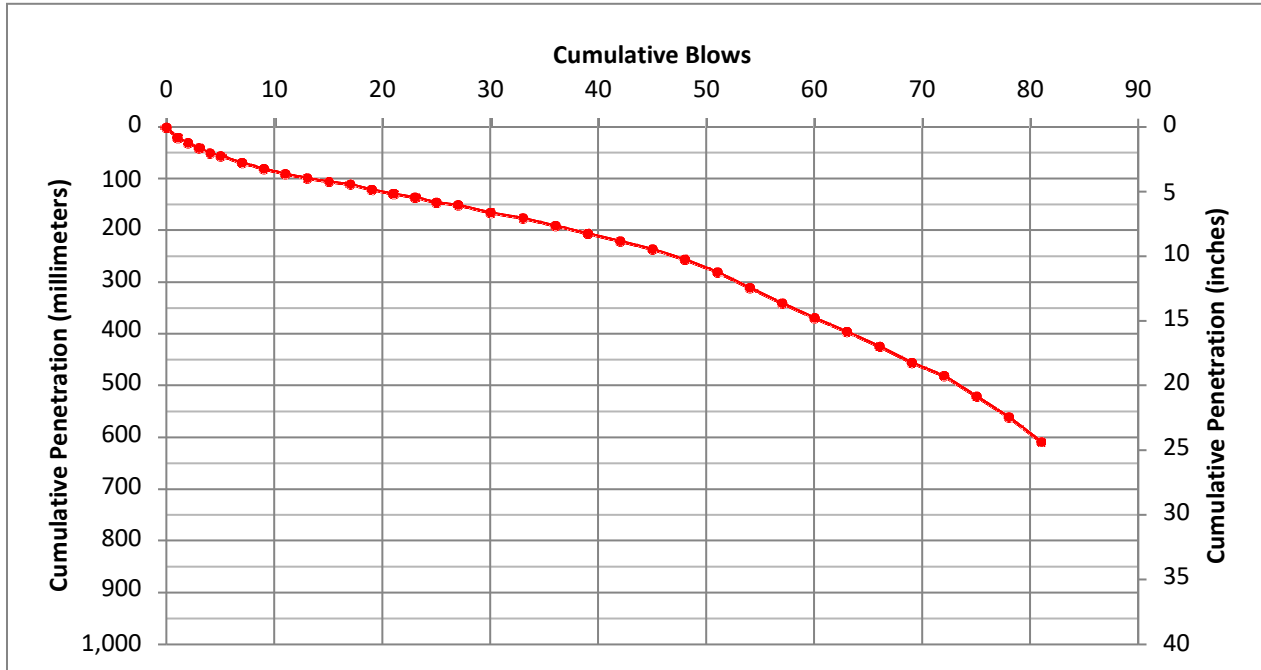
APPENDIX B

DCP TESTING

We performed DCP testing at the locations shown in Figure 2. The tests were performed in general accordance with ASTM D6951. We correlated the DCP test results to resilient modulus using the methods presented in *The Structural Design of Bituminous Roads*. The results of each test are presented in this appendix.

DYNAMIC CONE PENETROMETER RESULTS - DCP 1

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	6.9	24,300
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

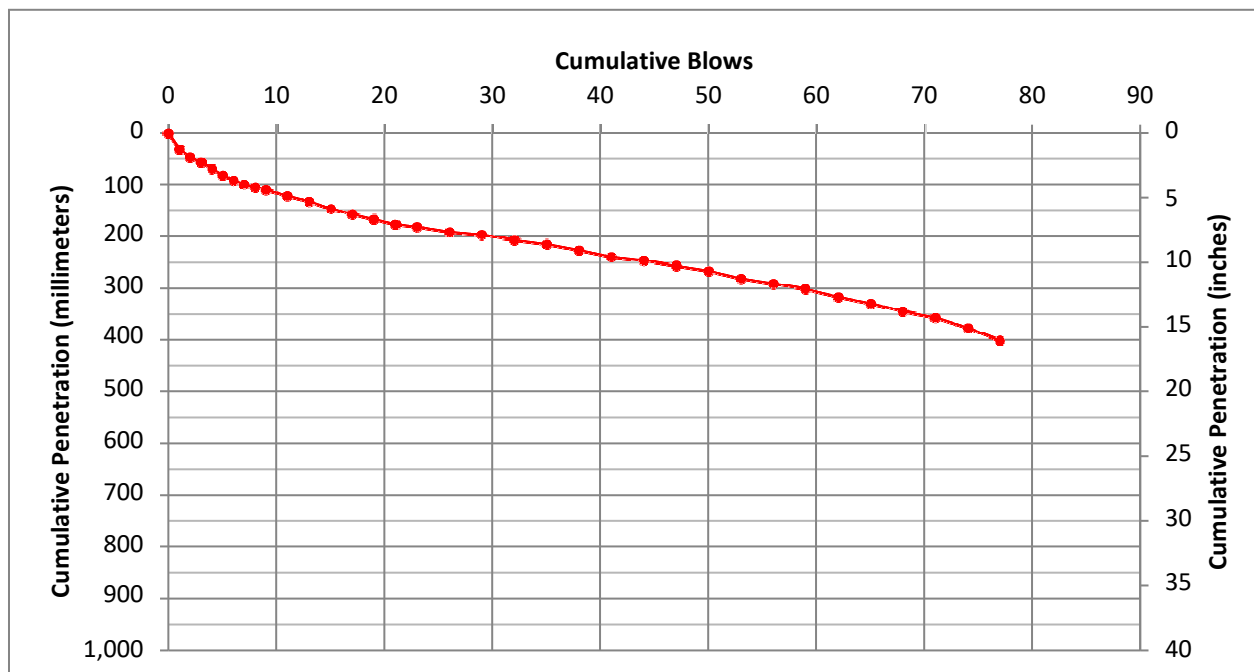
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 2

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	9.9	18,700
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

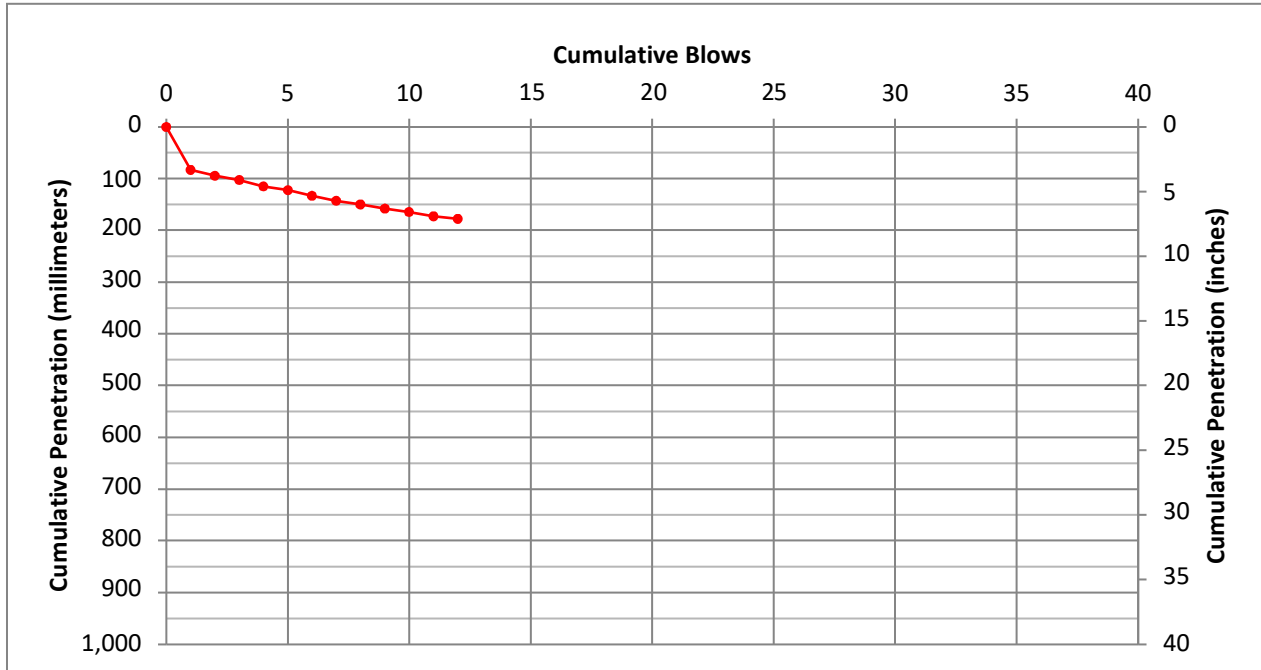
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 3

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	8.3	21,200
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

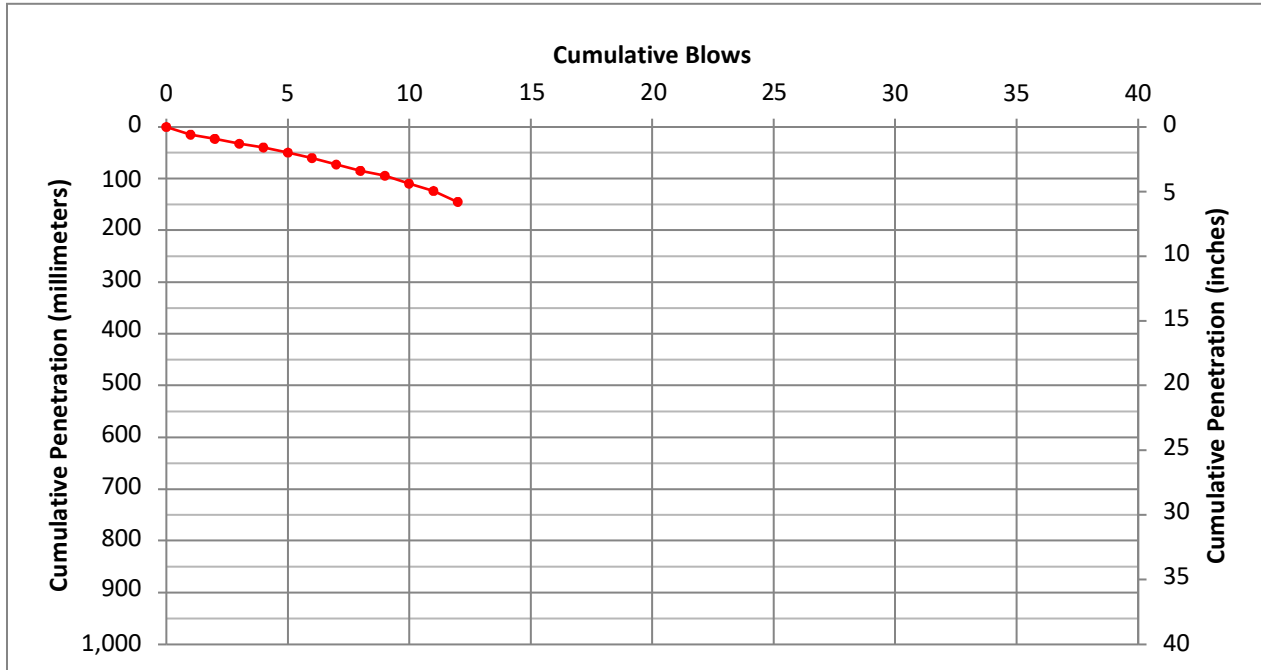
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 4

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	14.8	14,000
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 5

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	17.6	12,400
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

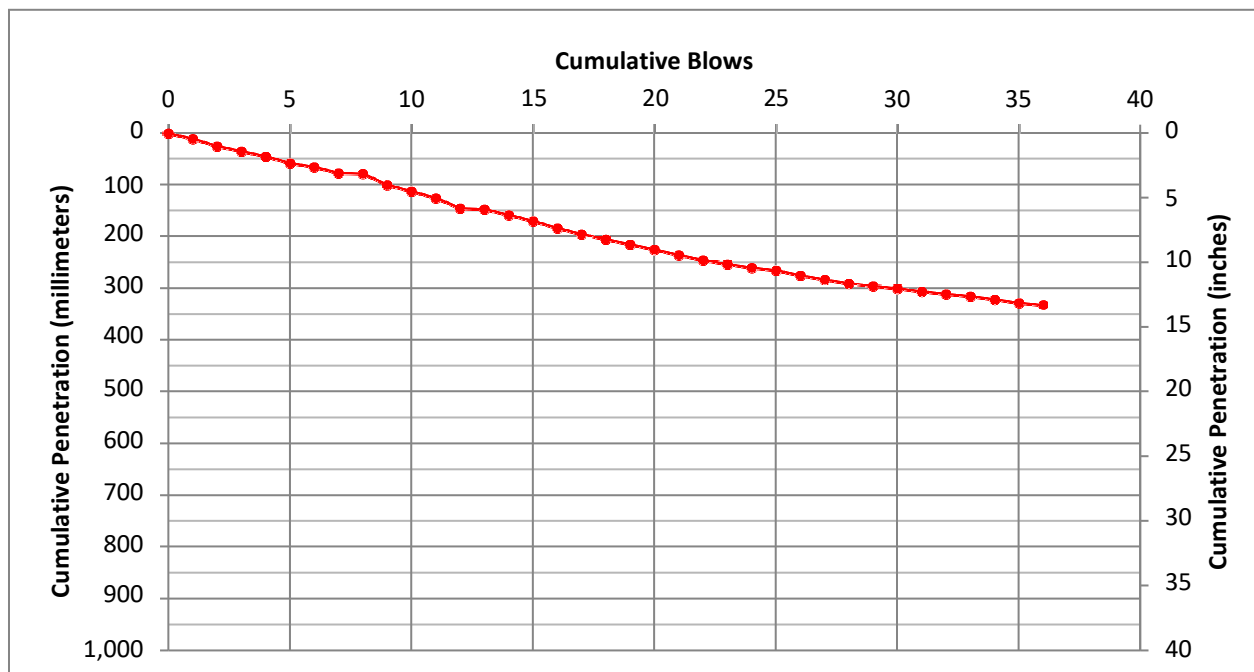
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 6

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	10.4	18,000
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

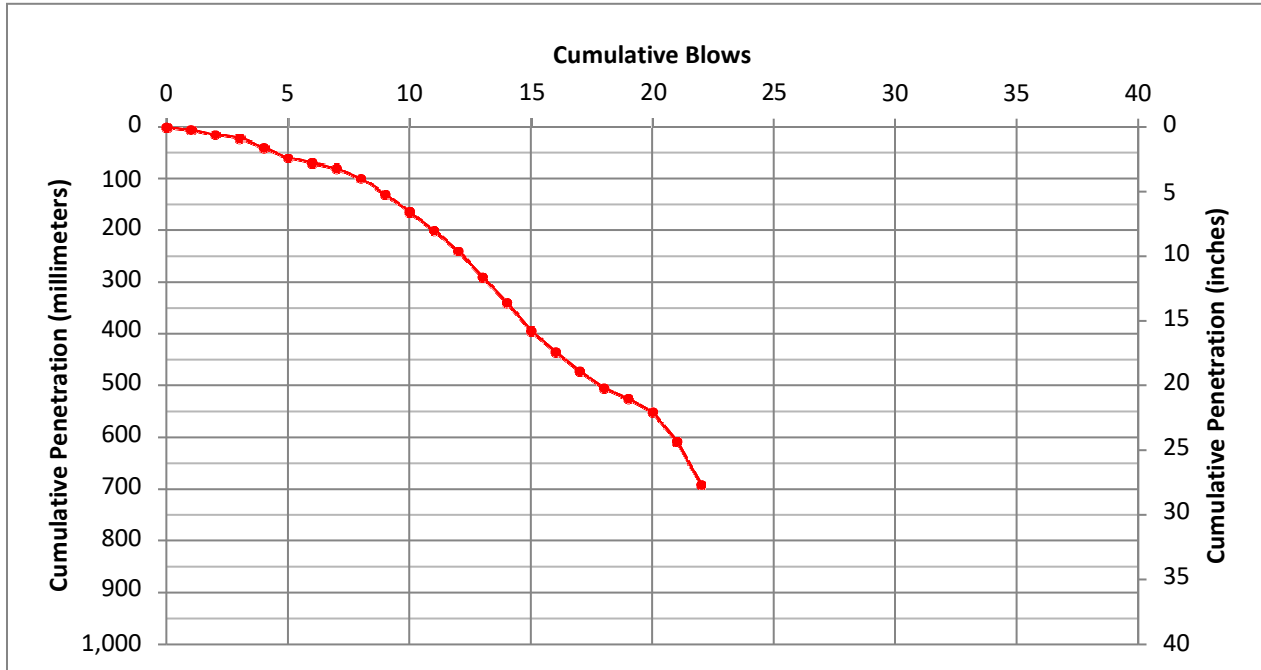
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 7

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	22.5	10,400
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

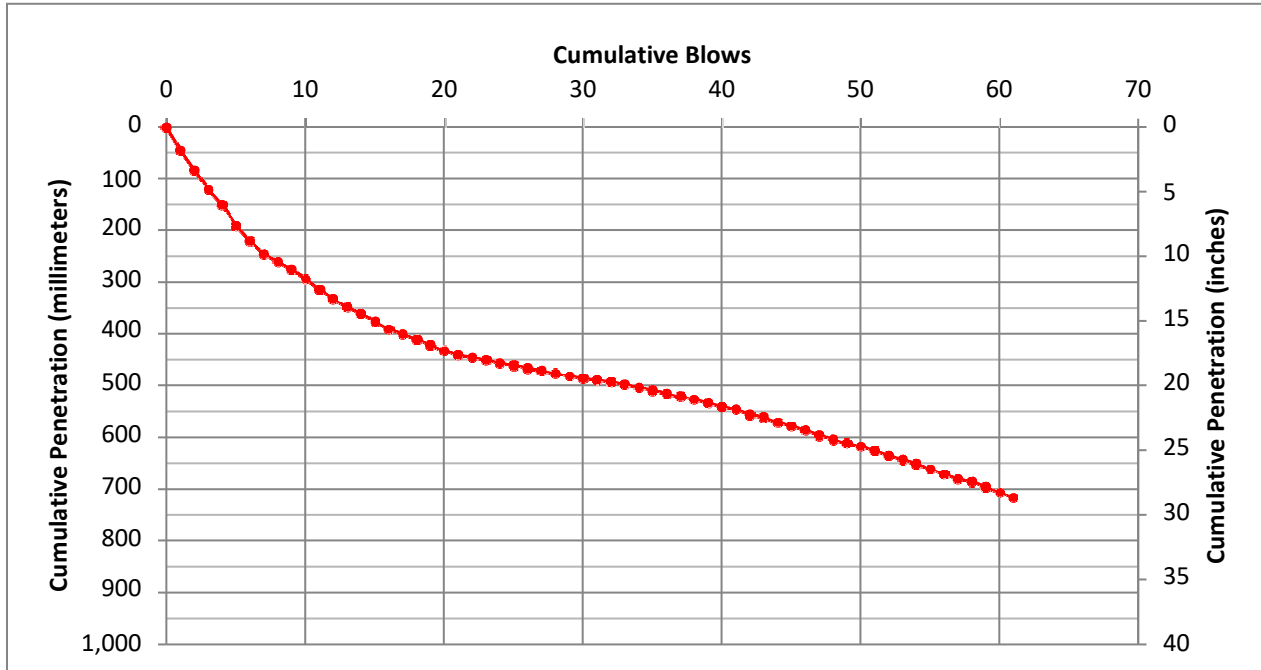
References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

DYNAMIC CONE PENETROMETER RESULTS - DCP 8

Layer	Soil Type	Hammer weight =	17.6 pounds
		Slope (mm/blow)	M _R (psi)
1	Soil not CL, CBR < 10 or not CH	28.1	8,800
2	---	---	---
3	---	---	---



$M_R = 96658 \times S^{-0.7168}$; soil not CL, CBR < 10 or not CH

$M_R = 469673 \times S^{-1.28}$; CL soil, CBR < 10

$M_R = 108206 \times S^{-0.64}$; CH soil

M_R = resilient modulus (pounds per square inch)

S = slope (millimeters per blow); multiplied by two (2) if 10-pound hammer is used

References:

ASTM D 6951, Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications.

W.D. Powell, J.F. Foster, H.C. Mayhew, and M.E. Nunn, "The Structural Design of Bituminous Roads," TRRL Laboratory Report 1132, Transport and Road Research Laboratory, Department of Transport, United Kingdom, 1984.

APPENDIX C

APPENDIX C

DESIGN CALCULATIONS

This appendix presents our design calculations for the use of Presto GeoSystems Geoweb for subgrade improvement.

AASHTO H20

CBR (%)	5
Cu (psi) from table 4.	21.7
Nc (low traffic, high rutting)	3.3
P (lb)	16000
p (psi)	100
r - see GW30V spec sheet	0.95
δ (deg)	26.6
ϕ	28
Zt	1
Zb	7
H (in.) geoweb depth	6
D (in.) effective cell diam.	9.5

Variable Names

c_u	Subgrade shear strength
N_c	Bearing capacity coefficient - based on design traffic - see below
P	Design wheel load
p	Contact pressure
r	Geoweb cell wall/infill peak friction angle ratio
δ	Angle of shear resistance between the granular infill and Geoweb cell wall
ϕ	Angle of internal friction of the Geoweb infill material
Z_t	Depth from surface to top of Geoweb cell walls
Z_b	Depth from surface to bottom of Geoweb cell walls

Table 4 Correlation of Subgrade Soil Strength Parameters for Cohesive (Fine-Grained) Soils

California Bearing Ratio	Undrained Shear Strength	Standard Penetration Resistance	Field Identification
CBR (%)	c_u kPa (psi)	SPT (blows/ft)	
< 0.4	< 11.7 (1.7)	< 2	Very soft (extruded between fingers when squeezed)
0.4 - 0.8	11.7 - 24.1 (1.7) - (3.5)	2 - 4	Soft (molded by light finger pressure)
0.8 - 1.6	24.1 - 47.6 (3.5) - (6.9)	4 - 8	Medium (molded by strong finger pressure)
1.6 - 3.2	47.6 - 95.8 (6.9) - (13.9)	8 - 15	Stiff (readily indented by thumb but penetrated with great effort)
3.2 - 6.4	95.8 - 191 (13.9) - (27.7)	15 - 30	Very stiff (readily indented by thumbnail)
> 6.4	> 191 (27.7)	> 30	Hard (indented with difficulty by thumbnail)

$N_c = 2.8$ (High Traffic, Low Rutting - from U.S. Forest Service guidelines)

$N_c = 3.3$ Low Traffic, High Rutting - from U.S. Forest Service guidelines)

max allowable stress	qa (psi)	71.61	$q_a = N_c c_u$
radius of loaded area	R	7.1	where R = Radius of loaded area (i.e. effective radius of single or dual tires)
vertical stress top of geoweb	σ_{vt}	99.7	
vertical stress bottom of geoweb	σ_{vb}	65.7	
Active earth pressure coefficient	Ka	0.4	
horizontal stress top of geoweb	σ_{ht}	36.0	
horizontal stress bottom of geoweb	σ_{hb}	23.7	
average horizontal stress	σ_{ave}	29.9	
stress reduction beneath loaded area	σ_r	18.9	
Allowable Stress on Subgrade		71.61	
Stress on Subgrade		46.8	
Factor of Safety		1.5 acceptable	

$$R = \sqrt{\frac{P}{p\pi}}$$

$$\sigma_{vt} = p \left[1 - \left(\frac{1}{1 + \left(\frac{R}{Z_t} \right)^2} \right)^{\frac{3}{2}} \right] \quad \sigma_{vb} = p \left[1 - \left(\frac{1}{1 + \left(\frac{R}{Z_b} \right)^2} \right)^{\frac{3}{2}} \right]$$

$$\sigma_{ht} = K_a \sigma_{vt} \quad \sigma_{hb} = K_a \sigma_{vb} \quad \sigma_{avge} = \frac{(\sigma_{ht} + \sigma_{hb})}{2}$$

$$\sigma_r = 2 \left(\frac{H}{D} \right) \sigma_{avge} \tan \delta$$

Gulfstream 550

CBR (%)	5
Cu (psi) from table 4.	21.7
Nc (low traffic, high rutting)	3.3
P (lb)	30333
p (psi)	200
r - see GW30V spec sheet	0.95
δ (deg)	26.6
ϕ	28
Zt	1
Zb	9
H (in.) geoweb depth	8
D (in.) effective cell diam.	9.5

Variable Names

c_u	Subgrade shear strength
N_c	Bearing capacity coefficient - based on design traffic - see below
P	Design wheel load
p	Contact pressure
r	Geoweb cell wall/Infill peak friction angle ratio
δ	Angle of shear resistance between the granular infill and Geoweb cell wall
ϕ	Angle of internal friction of the Geoweb infill material
z_t	Depth from surface to top of Geoweb cell walls
z_b	Depth from surface to bottom of Geoweb cell walls

Table 4 Correlation of Subgrade Soil Strength Parameters for Cohesive (Fine-Grained) Soils

California Bearing Ratio	Undrained Shear Strength	Standard Penetration Resistance	Field Identification
CBR (%)	c_u kPa (psi)	SPT (blows/ft)	
< 0.4	< 11.7 (1.7)	< 2	Very soft (extruded between fingers when squeezed)
0.4 - 0.8	11.7 - 24.1 (1.7) - (3.5)	2 - 4	Soft (molded by light finger pressure)
0.8 - 1.6	24.1 - 47.6 (3.5) - (6.9)	4 - 8	Medium (molded by strong finger pressure)
1.6 - 3.2	47.6 - 95.8 (6.9) - (13.9)	8 - 15	Stiff (readily indented by thumb but penetrated with great effort)
3.2 - 6.4	95.8 - 191 (13.9) - (27.7)	15 - 30	Very stiff (readily indented by thumbnail)
> 6.4	> 191 (27.7)	> 30	Hard (indented with difficulty by thumbnail)

$N_c = 2.8$ (High Traffic, Low Rutting - from U.S. Forest Service guidelines)

$N_c = 3.3$ Low Traffic, High Rutting - from U.S. Forest Service guidelines)

max allowable stress	qa (psi)	71.61	$q_a = N_c c_u$
radius of loaded area	R	6.9	where R = Radius of loaded area (i.e. effective radius of single or dual tires)
vertical stress top of geoweb	σ_{vt}	199.4	
vertical stress bottom of geoweb	σ_{vb}	100.8	
Active earth pressure coefficient	Ka	0.4	
horizontal stress top of geoweb	σ_{ht}	72.0	
horizontal stress bottom of geoweb	σ_{hb}	36.4	
average horizontal stress	σ_{ave}	54.2	
stress reduction beneath loaded area	σ_r	45.7	
Allowable Stress on Subgrade		71.61	
Stress on Subgrade		55.1	
Factor of Safety		1.30 acceptable	

$$R = \sqrt{\frac{P}{p\pi}}$$

$$\sigma_{vt} = p \left[1 - \left(\frac{1}{1 + \left(\frac{R}{z_t} \right)^2} \right)^{\frac{3}{2}} \right] \quad \sigma_{vb} = p \left[1 - \left(\frac{1}{1 + \left(\frac{R}{z_b} \right)^2} \right)^{\frac{3}{2}} \right]$$

$$\sigma_{ht} = K_a \sigma_{vt} \quad \sigma_{hb} = K_a \sigma_{vb} \quad \sigma_{avge} = \frac{(\sigma_{ht} + \sigma_{hb})}{2}$$

$$\sigma_r = 2 \left(\frac{H}{D} \right) \sigma_{avge} \tan \delta$$

Equivalent Single Wheel Loading (ESWL)

GV-GER-1212

1. Introduction:

One consideration in operating Gulfstream aircraft is the strength of runway and taxiway pavements in relation to aircraft operating weight. This can limit operational weights in some airports. One common method of evaluating an aircraft for a given runway is the Equivalent Single Wheel Loading (ESWL). ESWL accounts for the extra tire flotation for multi-wheel landing gear struts such as the dual wheel struts used on the Gulfstream aircraft. This section provides information on how to compute ESWL for the G550 and G500 airplanes.

2. G550 and G500 Main Landing Gear Parameters:

Max Ramp Weight (pounds)	MLG Tire Size (inches)	Tire Spacing (inches)	Max Tire Pressure (psi)	Reduction Factor -	Maximum ESWL (pounds)
91,400	35 X 11.0	18.5	198	1.25	32,904

The reduction factor in the table above assumes a rigid pavement with a radius of equivalent stiffness of 40 inches, roughly equivalent to a 13.5 inch thick concrete slab. Thinner pavements would give higher reduction factors, so the factors presented are conservative.

3. ESWL Computation for Lower Operating Weights:

ESWL can be computed for lower operating weights as follows:

$$\text{ESWL} = (\text{Gross Weight}) \times (0.9) \times (0.5) / (\text{Reduction Factor})$$

Aircraft	Gulfstream G550
Gross Weight (lb)	91000
Reduction Factor	1.35 assume 1.35, since rutting is allowed
ESWL (lb)	30333.33
tire pressure (psi)	200

Product Specification - GEOWEB® GW30V Geocells

GENERAL

GEOWEB® product is manufactured from textured, perforated strips of high density polyethylene that are bonded together to create a network of interconnected cells. The GEOWEB® cells can be filled with soil, aggregate, concrete, pulverized debris, recycled asphalt pavement, or other infill material for geotechnical applications such as: 1) load support for unpaved and paved roads, railways, ports, heavy-duty pavements, container yard, and basal embankments stabilization; 2) retaining structures, free-standing structures, and fascia walls; and, 3) slope, channel, and geomembrane protection.

DIMENSIONS

Parameter	Units	Value
Cell Depth (Available in 5 Depths) ¹	inches (mm)	3 (75), 4 (100), 6 (150), 8 (200), 12 (300)
Cell Size (Length x Width +/- 10%)	inches (mm)	11.3 x 12.6 (287 x 320)
Expanded Section Width	No. Cells	8
	Feet (m)	Varies: 7.7 to 9.2 (2.3 to 2.8)
Expanded Section Length	No. Cells	18, 21, 25, 29, or 34
	Feet (m)	Varies: 15.4 to 35.1 (4.7 to 10.7)

STRUCTURAL INTEGRITY AND SYSTEM PERFORMANCE

Parameter	Units	Value
Minimum Short Term Seam Peel Strength	lb/in (N/cm)	≥80 (142)
Long-Term Seam Peel Strength (standard 4-inch sample width) ²	lb (N)	160 (710)
Internal Junction Efficiency ³	%	≥100
Mechanical Junction Efficiency (Connection Type: ATRA Key) ³	%	≥100
Peak Friction Angle Ratio (δ/δ) ⁴	Unitless	0.95

MATERIAL PROPERTIES

Parameter	Test Method	Units	Value
Polymer Density	ASTM D1505 or D792	g/cm ³	0.935 - 0.965
Carbon Black Content ⁵	ASTM D1603	%	1.5 - 2.0
Sheet Thickness Prior to Texture	ASTM D5199	mm (mil)	1.27 (50), -5% +10%
Sheet Thickness After Texture	ASTM D5199	mm (mil)	1.52 (60), -5% +10%
Texture Type/Shape	—	—	Rhomboidal
Texture Density	—	indentations/cm ²	22 - 31

DURABILITY

Parameter	Test Method	Units	Value
Environmental Stress Crack Resistance	ASTM D1693	hrs	>5,000
Resistance to Oxidation ⁶	EN ISO 13438	yrs	≥50
Resistance to Weathering ⁷	EN 12224	%	100

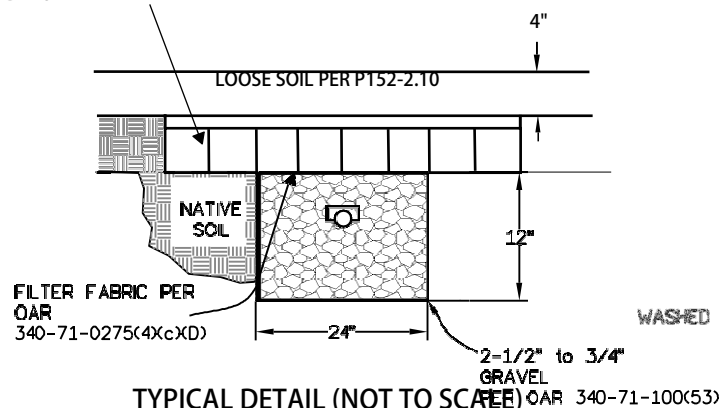
Notes:

- 1) 12-inch cell depth available in 21-cell panel length only.
- 2) A 100-mm (4.0 in.) wide seam sample shall support a 72.5 kg (160 lb) load for a period of 7 days minimum in a temperature-controlled environment undergoing a temperature change on a 10 hour cycle from ambient room to 54°C (130°F). Ambient room temperature is per ASTM E 41.
- 3) Junction efficiency determined as a percentage of junction performance (EN ISO 13426-1) to perforated strip performance (EN ISO 10319).
- 4) Typical design value for clean granular infill material (i.e., coarse sand or crushed aggregate). Consult with manufacturer to confirm value for other types of infill materials.
- 5) Standard black HDPE strips. For tan/green GEOWEB, hindered amine light stabilizer (HALS) content will be 2.0% by weight of carrier.
- 6) Predicted to be durable for a minimum of 50 years in natural soil with a pH between 4 and 9 and at a soil temperature ≤ 25°C.
- 7) 100% of original tensile strength retained following exposure to intense UV radiation and accelerated weathering in accordance with EN 12224.



© 2021 Reynolds Presto Products, Inc. This specification is copyrighted and based on the use of Genuine GEOWEB® manufactured by Reynolds Presto Products, Inc. (Presto Geosystems). Any use of this specification for any product other than that manufactured by Reynolds Presto Products, Inc. is strictly prohibited.

GW30V GEOCELLS
FILLED WITH 2/3 CRUSHED AGGREGATE
AND 1/3 TOPSOIL MIX OVERFILL BY 1"
EXTEND BEYOND TRENCH BY 2 CELL
WIDTHS







TEL 503-353-9691

FAX 503-353-9695

WA 360-735-1109

www.envmgtsys.com

4080 SE International Way

Suite B-112

Milwaukie, OR 97222

25 February 2025

Aron Faegre, AIA, PE

13200 Fielding Road

Lake Oswego, Oregon 97034

**RE: Suitability of Proposed Modifications to the Onsite Wastewater Treatment System
Drainfield at Aurora State Airport**

Dear Mr. Faegre,

I am writing in response to your request regarding the proposed modifications to the onsite wastewater treatment (septic) system drainfield serving HDSE at the Aurora State Airport. Specifically, the inquiry concerns whether the addition of geotextile grid reinforcement over the existing drainfield—intended to enhance support for emergency vehicle access while maintaining compliance with wastewater treatment regulations—meets the requirements set forth by the Oregon Department of Environmental Quality (DEQ).

As a professional with over 47 years of direct experience in onsite wastewater treatment system design and regulatory compliance, I have been continuously involved in the design, installation, and oversight of this specific wastewater system since the initial feasibility evaluation in 1999. I personally conducted the original soil assessment in coordination with DEQ and have overseen all subsequent system modifications, each of which received DEQ approval.

At no time during my 25 years of direct involvement with this site has the drainfield posed any risk to safety, wastewater performance, or compliance. In response to concerns regarding the placement of a drainfield near an active airfield, I have recommended the installation of Presto GeoSystems' Geoweb system. This geotextile cellular confinement system is designed to improve load distribution while protecting the drainfield's function, making it well-suited for incidental vehicle travel, including emergency response access.

Regulatory Compliance and Engineering Considerations

Under **Oregon Administrative Rule 340-071-0520**, large onsite wastewater treatment systems must comply with specific design and impact assessment requirements, including:

- **Impact Analysis:** Any system modifications must be accompanied by a written assessment of potential impacts on public health and water quality, prepared by a qualified professional as specified in ORS 672.535. The NV5 geotechnical report satisfies this requirement by demonstrating compliance with DEQ design standards.
- **Structural Integrity:** DEQ regulations require a minimum of six inches of soil cover over drainfield trenches, with additional cover allowed where engineering supports such design. There is no regulatory limit on maximum cover depth, provided system function is maintained.
- **Load-Bearing Design:** The proposed geotextile grid reinforcement includes a blend of 3/8-inch to 1-inch nominal crushed aggregate to distribute loads in accordance with **AASHTO H20 and Gulfstream ESWL standards**, ensuring adequate safety margins for incidental vehicular travel.
- **Permeability & Drainage Protection:** The selected geoweb design includes a **D50 grain size of 0.5 inches** with an approximate **30% void space**, preventing compaction while facilitating proper aeration and infiltration within the drainfield. The system would extend laterally beyond each drainage trench to mitigate concentrated loading effects.
- **Surface Preparation:** Following manufacturer specifications, the geoweb would be covered with at least **one inch of selected fill** to support vegetative cover, and a **4-inch layer of loose, uncompacted soil** will be applied to satisfy **FAA Item P-152-2.6** seedbed requirements.

Conclusion

Based on my expertise and long-term familiarity with this system, the proposed modifications meet DEQ requirements for drainfields while aligning with FAA safety guidelines for runway safety areas. The use of geotextile grid reinforcement offers a sound engineering solution that enhances load distribution without compromising wastewater treatment performance.

I am a **Registered Environmental Health Specialist** in Oregon and Nevada and a **Professional Onsite Wastewater Treatment System Designer** in Washington. My experience includes serving as **President of the Washington On-Site Sewage**

Association, a Board Member of the Oregon Onsite Wastewater Association, and a Technical Practices Committee Member for the National Onsite Wastewater Recycling Association (NOWRA). My resume and aviation specific addendum is attached for reference.

If you require further clarification or supporting documentation, please do not hesitate to contact me at 503-313-3942.

Sincerely,



Robert F. Sweeney, MS, REHS

President

Environmental Management Systems, Inc.



☎ 503-353-9691
FAX 503-353-9695
☎ 360-735-1109

www.envmgtsys.com
4080 SE International Way
Suite B-112
Milwaukie, OR 97222

Robert F. Sweeney, MS, REHS

February 2025

SUMMARY

47 years, providing expertise in Public Health & Environmental Protection programs, ranging in scope from Disaster Preparedness, Epidemiology, Food Protection, Water Quality, Solid Waste Management, Public Health Education, Erosion and Sediment Control, Wastewater Treatment System Design, Wetlands Delineation, Water System Evaluations, Environmental Assessments, Biological Assessments, Treatment System Maintenance and Performance Monitoring.

CERTIFICATIONS

Registered Environmental Health Specialist (Sanitarian), Nevada & Oregon.

OR REHS #EH-S-202513 since June 1977, Nevada REHS #807 since Feb 2024

Professional Onsite Wastewater Treatment System Designer, Washington. Department of Licensing #5100154 since July 2001.

Wetlands Delineation & Management Training, RCET, Inc./ USACE 2001

Wetlands Rating System, Washington Department of Ecology, 2008

Streamflow Duration Assessment Method, USEPA / USACE / ODSL 2009

Certified Erosion & Sediment Control Lead, WA#23320 Feb2007

EXPERIENCE

Consulting Firm Principal – 1997-Present. President of Environmental Management Systems, Inc. EMS specializes in assisting property owners to achieve their development due diligence, environmental design and regulatory compliance goals. Areas of performance include: On-Site Waste-Water Treatment, Site & Soils Evaluation, Wetland Delineation & Mitigation, Drainage and a wide range of environmental consulting services. Focus is on: Site Evaluation, Soil Profiling, Design of Treatment Systems, Inspection, Certification and Performance Monitoring. Over the past 26+ years the firm has completed over 3,000 projects, ranging from Environmental Site Assessments, Geologic Hazard Studies, Wastewater Treatment Systems treating from 250 to over 75,000 gallons/day. System designs include innovative technology such as subsurface drip-fields, textile filters, aerobic treatment units, sequence batch reactors and telemetry. Conducted Evaluation of status of Local Health Department Disaster / Bio-Terrorism Preparedness and Capabilities. Environmental Health Specialists, Professional Soil Scientists, Engineers, Geologists, Surveyors, Biologists, Wetland Professionals and Engineering Technicians are on staff & through partner firms.

Disaster Management Program Coordinator – 1990 – June 2002 Disaster Management Program Coordinator for a Civil Affairs Brigade, US Army Reserve. (Lieutenant Colonel) Coordinated the

Disaster Preparedness Program, with teams assisting nations throughout the Pacific Rim and beyond. Developed the inter-disciplinary, civilian-military program and personally conducted training and exercises for Disaster Preparedness activities in the Marshall Islands, Palau, Bosnia, Samoa and Niue. Developed a Geographic Information System and database driven disaster management program in conjunction with US and international Civilian and Military components.

Chief Environmental Engineer - Stabilization Force, Bosnia-Herzegovina. 1997. Served as the Chief Environmental Engineer for the Civil Military Task Force. Assisted civil authorities to evaluate, plan and repair war-torn environmental infrastructure for water, sewage and solid waste facilities. Supervised teams of engineers in restoring water, sewage, housing, utilities, transportation and communication systems. Conducted Emergency Response Training for Civilian and Multi-National Military Personnel. Awarded Defense Meritorious Service Medal.

Environmental Health Program Manager 1989 to 1997 - Served 8 years as Manager of the Liquid Waste and Land-Use Department for Southwest Washington Health District, a 3-County / 12- Municipality, Regional Health District in Washington State. Developed programs for On-Site Liquid waste regulation involving Water Quality studies, Professional Development, Septic System maintenance and Low Interest Loans for repairs of failed on-site sewage disposal systems. Developed the first comprehensive On-Site Sewage System Maintenance Program for the Southwest Washington Health District, one of the first in Washington.

Environmental Health Specialist (Sanitarian) 1977 – 1989. Deschutes County Health Dept (5 yrs), Multnomah County Health Department (7 yrs): Food, Wastewater, Water, Swimming Pools, Tourist Facilities, Housing Sanitation, Solid Waste, Epidemiologic Investigations of Food-borne outbreaks. Primary author of Multnomah County's first Food Handler Test.

EDUCATION

Master Business Administration, Veteran Entrepreneurial Training & Resource Network Apr23
Command & General Staff College, US Army, 1993
Civil Affairs Officers Advanced Course, US Army, 1992
Master of Science in Management, Marylhurst University 1987
Medical Service Officers Advanced Course, US Army, 1985
Tactical Intelligence Officers Course, US Army, 1983
Certificate in Public Health, Portland State University, 1977
Bachelor of Science in General Science, Portland State University, 1977

CURRENT MEMBERSHIP AND COMMITTEES

National Onsite Wastewater Recycling Association – Board Member / Tech Practices
Oregon On-site Wastewater Association (Former Board Member)
Washington On-Site Sewage Association (President 2003-04)

PREVIOUS MEMBERSHIP AND COMMITTEES (partial)

WA Department of Health Sewage Tank Rule Revision Committee (2010)
WA Department of Health Large Onsite Sewage System Rule Committee (2010)
Clackamas County Citizens Involvement Committee (2004-2005)
METRO Technical Advisory Committee (2004-2005)
Oregon Governor's Task Force on Wastewater Re-Use Committee (May – Dec 2004)
WA Department of Licensing Working Groups on: Sewage Tank Rules & Licensing Onsite Wastewater Treatment System Designers (1996-2000)

Robert F. Sweeney, MS, REHS

February 2025

AVIATION RELATED ADDENDUM

Mr. Sweeney has been continuously involved with Safety from 1967 to present as a Water Safety Instructor, Aviation Technician & Environmental Professional in programs, including Training and Experience in Disaster Preparedness with Aviation Related Emergency Scenarios:

Consulting Firm Principal – 1997-Present. President of Environmental Management Systems, Inc. EMS specializes in assisting property owners to achieve development and wastewater treatment goals, including Airports & Aviation Related Projects as follows:

Aurora State Airport, Aurora, OR (1999 – Present)

Van's Aircraft HD Aviation – Wastewater Treatment System New Construction

HDSE Aviation – Wastewater Treatment System Expansion

Columbia Aviation Association – Wastewater Treatment System -

Helicopter Transport Systems– Wastewater Treatment System

AABC – Wastewater Treatment System

Wylee Condo Association – Wastewater Treatment System

Scappoose Airport, OR Hangar Addition - – Wastewater Treatment System

Private Airports - Wastewater Treatment System in Clackamas & Washington Counties

US Army Disaster Management Program Coordinator – 1990 – June 2002 Disaster Management Program Coordinator for a Civil Affairs Brigade. Lieutenant Colonel Sweeney Coordinated the Disaster Preparedness Program, with teams assisting nations throughout the Pacific Rim and beyond. Developed and personally conducted training and exercises including Emergency Preparation for Assessing: Threats, Vulnerability, Resources & Organization for Action including Aviation Crash Scenarios in the Marshall Islands, Palau, Bosnia, Samoa and Niue.

Chief Environmental Engineer - Stabilization Force, Bosnia-Herzegovina. (1997). Served as the Chief Environmental Engineer for the Civil Military Task Force. Conducted Emergency Response Training for Civilian and Multi-National Military Personnel. Awarded Defense Meritorious Service Medal.

US Navy: 1969 – 73 Petty Officer Sweeney served as an Aviation Fire Control / Electronics & Computer Technician with Training and Experience in Aviation Fuel Fire Response:

Whidbey Island Naval Air Station, WA: Annual Training in Aviation Fuel Fire Fighting (70-71).

USS Kitty Hawk Aircraft Carrier (CVA 63) – Safety Petty Officer and Team Leader for 2 Bomb Cooling Crews in Yankee Station - Gulf of Tonkin Viet Nam. (Dec 1971-Dec 72)

Fw: ADDITIONAL AAIA TESTIMONY FOR THE AURORA AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:13 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 4:41 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: ADDITIONAL AAIA TESTIMONY FOR THE AURORA AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 4:36 PM

To: faegre@earthlink.net; brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: 'Tony Helbling - Wilson Construction Company' <helbling@wilsonconst.com>; 'Ted Millar'

<tmillar@wwpmi.com>; 'Wendie Kellington' <wk@klgpc.com>; 'Bruce Bennett - Aurora Aviation '

APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0263

<bruce@auroraaviation.com>; 'Schuster, Brad' <brad.schuster@aopa.org>

Subject: RE: ADDITIONAL AAIA TESTIMONY FOR THE AURORA AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Hi Aron, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: faegre@earthlink.net <faegre@earthlink.net>

Sent: Tuesday, January 21, 2025 3:34 PM

To: brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: 'Tony Helbling - Wilson Construction Company' <helbling@wilsonconst.com>; 'Ted Millar' <tmillar@wwpmi.com>; 'Wendie Kellington' <wk@klgpc.com>; 'Bruce Bennett - Aurora Aviation' <bruce@auroraaviation.com>; 'Schuster, Brad' <brad.schuster@aopa.org>

Subject: ADDITIONAL AAIA TESTIMONY FOR THE AURORA AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hello Brandy, Thomas, and Tony,

Attached are the following documents to provide input on the most recent master plan alternative for Aurora Airport:

- Aurora Airport – AAIA Master Plan Requests 2025-1-21 with attachments;
- Mod Standards Aurora Airport 2025-1-21 with attachments; and
- Size of Aircraft at Aurora Airport 2025-1-21.

Please confirm receipt of these documents and that they will reach the design team and FAA.

Thanks

Aron

Aron Faegre, AIA, PE
Aron Faegre Architect
13200 Fielding Road
Lake Oswego, Oregon 97034
faegre@earthlink.net
www.faegre.org
503-880-1469

January 21, 2025

Alex Thomas, Planning and Programs Manager
Tony Beach, State Airports Manager
Oregon Department of Aviation
Brandy Steffen, JLA
Oregon Department of Aviation
3040 25th Ste SE
Salem, OR 97602
Alex.R.Thomas@odav.oregon.gov

**Re: Aurora State Airport Master Plan
AAIA Master Plan Requests**

Mr. Thomas, Mr. Beach, and Ms. Steffen:

Attached is pdf drawing “AAIA Masterplan Alternative 2025-1-21” with recommendations for changes to the Aurora Airport Updated Refined Preferred Alternative from the Aurora Airport Improvement Association.

It is a drawing intended to be printed on a 22”x34” sheet, so is not readily readable on letter size print sheets. As a pdf it should be zoomed in to read the various boxes of text that explain elements.

Key things to look for on this drawing are:

- Proposed standard FAA approved EMAS on each end of the runway which would allow the drainfields to remain with no changes, and provides benefits of additional takeoff distance and reduced noise impact to neighbors;
- Proposed addition of an “Airport Boundary as required by ORS 836.616(2) and OAR 660-013-0040” which is needed per Oregon law and is best put onto the ALP so when adopted by jurisdictions it can also comply with the

land use requirements of Oregon. Note that it should show existing airport use lands as well as any lands planned for potential future inclusion in the airport, as inside this boundary line per recent court decisions.

- A sequence of three phases that can be shown on the ALP for resolution of the ROFA, so that it can be resolved in an iterative process and can be used as a reference for a MOS application;
- An internal circulation road, that is already partly constructed per what was adopted in the 2012 Master Plan; individual private property owners are noted and looking forward to teaming with ODAV to accomplish this; this also would result in ODAV taking ownership of the main entrance road leading to the control tower, in lieu of it just being an ODAV easement as exists today;
- Proposing adding private land to the main entrance road, so that when the gate is closed, cars and trucks could get turned around and not have to back out of the road; it also could provide for some parking just outside the vehicle gate and the addition of a man-gate; this additional land will allow creation of a more identifiable and symbolic main entrance to the airport and control tower, as currently visitors tend to be puzzled as to “where is the main entrance.”
- A parcel of land that Bruce Bennett is prepared to sell to ODAV that helps with taxiway improvements; and
- A proposed relocation of the taxiway connector near the Atlantic FBO; this new connector would provide the easiest resolution to avoiding direct access to the runway from the taxilane, because other areas are already fixed, i.e. a) Hangar Golf-West is currently in construction and fixes that side of the access point, b) the FBO apron area is fixed in its circulation, and c) the existing taxilane coming to the juncture serves over 236,000 square feet of hangars. Potentially this project could be accomplished as a public-private partnership since it helps maintain the efficiency of the existing layout on the private side.

We look forward to discussing these potential revisions with you further, and considering how the private sector side can partner with ODAV to establish an outstanding airport layout plan for the future.

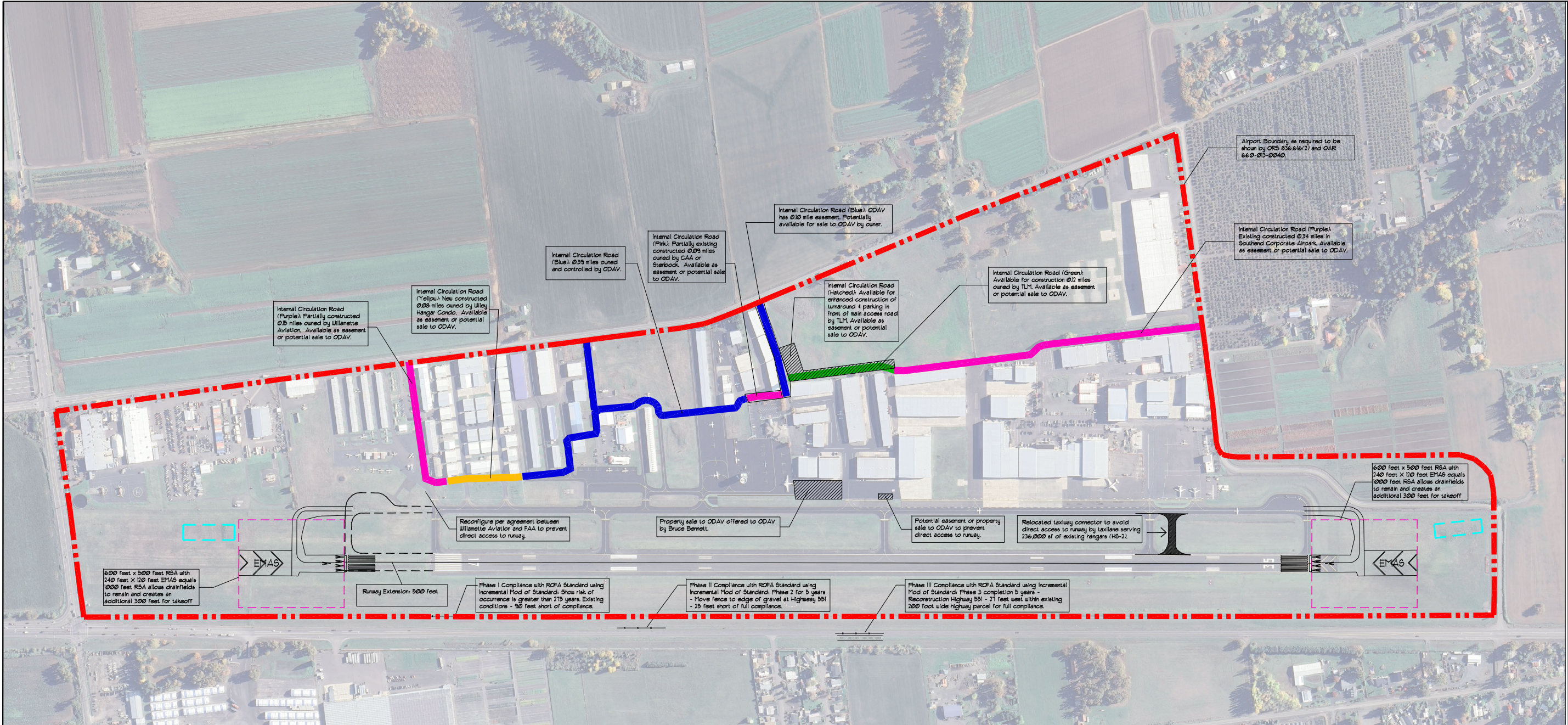
Respectfully submitted,

A handwritten signature in blue ink that reads "Aron Faegre". The signature is fluid and cursive, with the first name "Aron" and last name "Faegre" clearly distinguishable.

Aron Faegre, AIA, PE
Aron Faegre Airport Planning and Design

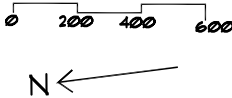
Attachments:

- AAIA proposed Master Plan revisions, January 21, 2025



1.

SITE PLAN



KEY

- AIRPORT BOUNDARY AS REQUIRED TO BE SHOWN PER ORS 836.616(2) AND OAR 660-013-0040
- 500 FT RUNWAY EXTENSION
- 600 FT X 500 FT RSA WITH EMAS EQUALS 1000 FT RSA
- DRAINFIELDS CAN REMAIN AS CONSTRUCTED IN SMALLER RSA USING EMAS

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	NO.	DATE	BY	APPR.	REVISIONS	AURORA AIRPORT IMPROVEMENT ASSOC. PROPOSED ALTERNATIVE				AURORA STATE AIRPORT (UAO)		DRAWING MP-AAIA
						DESIGNED BY: AF	DRAWN BY: AF/TH	CHECKED BY: AF	SCALE: 300' = 1"	AURORA STATE AIRPORT – MASTER PLAN ALTERNATIVE AAIA		
						DATE: JANUARY 21, 2025	PROJECT: MP – MASTERPLAN ALT AAIA					

January 21, 2025

Alex Thomas, Planning and Programs Manager

Tony Beach, State Airports Manager

Oregon Department of Aviation

Brandy Steffen, JLA

Oregon Department of Aviation

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**Re: Aurora State Airport Master Plan process must
ACKNOWLEDGE THE FAA HQ MODIFICATION OF STANDARDS PROCESS
AVAILABLE FOR ALL FEDERALLY FUNDED AIRPORTS**

Mr. Thomas, Mr. Beach, and Ms. Steffen:

It is urgent that the Oregon Department of Aviation's (ODAV) proposed "Updated Refined Preferred Alternative" for the Aurora State Airport Master Plan acknowledge and use the modification of standards (MOS) process available to all federally funded airports in the United States.

The current master plan documents ignore that the MOS option is available as part of FAA's standards. It is alleged by ODAV that someone in the FAA who is local has made this directive, but no FAA staff have been willing to sign a letter saying this, so it remains hearsay. ODAV should not accept this inconsistency with national policy that should be available to all federally funded airports. It makes our own state's airports more expensive, less likely to get the safety improvements they need, less able to serve the economic development capabilities of the airports, and ultimately this hurts the state and its citizens.

It must be considered unacceptable to permit Oregon and Aurora Airport to be delegated more restrictive standards – in this case complete denial of the FAA Modification of Standards process - than is in use at many airports in other states of the United States.

Please review our previous letter to ODAV and the Seattle ADO (attached to this letter) concerning using the FAA's well established, and well used (by other United

States federally funded airports) modification of standards process for the resolution of the ROFA issue on the west side of the airport involving Highway 551. We have shown that the Modifications of Standards process has been used for exactly similar highway-airport conditions at other airports. We have provided ODAV with a risk analysis to be used to submit for a modification of standard, to create an iterative Modification of Standards solution to the Highway 551 issue. The attached drawing shows that the fence and highway can be dealt with in a reasonable sequence, just as modifications of standards are intended, as follows:

- Phase I is existing condition of 88 feet out of compliance, but given the risk analysis other airport projects can proceed while specific ROFA planning improvements proceed, given the exceptionally low risk of 277 years per predicted occurrence, which is much less risk than the FAA standard of 100 years as acceptable;
- Phase II is to move the existing fence west so that it is 12 feet from the edge of existing pavement on Highway 551 which reduces the ROFA amount out of compliance from 88 feet to only 27 feet (accomplished through a joint memo agreement between ODAV and ODOT since both are State of Oregon properties; note that this would reduce the risk of an occurrence to be 426 years);
- Phase III reconstruct Highway 551 west approximately 27 feet off center within the existing 200-foot wide Oregon Highway Trust Land¹ that the highway is currently centered in, and relocate the airport fence to beside a highway 12 foot wide shoulder, to create full compliance with the 400-foot separation to the airport fence (note that the same risk analysis shows this still carries a risk of occurrence at 521 years).

To provide emphasis that the Modification of Standards process is alive and well, we point out that the FAA Headquarters in March of 2023 has even made the modification of standards process easier for airports, by no longer limiting the duration of the approval to five years, and instead has recognized that this time

¹ By proposing the relocated highway stay within the 200-foot wide Oregon Highway Trust Land, ODOT can then provide a study to develop preliminary engineering study with a cost estimate for the move. There is no reason to propose moving the highway further distances, or for acquiring additional properties for the road, because there is no plan for Highway 551 to expand lanes or otherwise use more of the 200-wide existing Trust Land.

limit created an unnecessary burden for airport management. See the attached FAA Engineering Policy Memo 23-01.

The final Master Plan ALP drawing and narrative must acknowledge that all of the relevant and appropriate FAA Advisory Circulars giving direction for FAA funded airport master plans, as well as recent FAA Headquarters Engineering Policy Memo 23-01, present the option of using a Modification of Standard for the ROFA at Aurora Airport to resolve the ROFA issue in a practical, economical, and iterative process, while fully ensuring safety. The risk of occurrence in this corrective sequence goes from a predicted 277 years with existing fence location, to 426 years when the fence is moved closer to existing Highway 551, to an ultimate 521 years using the full 400-foot distance with a moved Highway 551.

Showing this risk analysis and using a Modification of Standards is essential for presenting a plan that is of reasonable cost and practical implementation for the existing Aurora Airport site.

Respectfully submitted,



Aron Faegre, AIA, PE
Aron Faegre Airport Planning and Design

Attachments:

- FAA Engineering Policy Memo 23-01, March 2023 which clarifies modification of standards process.
- AAIA proposed Master Plan revisions, January 21, 2025
- Prior letter to ODAV and FAA Seattle ADO proposing use of MOS for resolution of ROFA issue on west side of airport involving Highway 551.

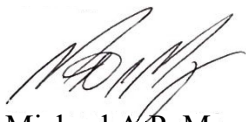


Federal Aviation Administration

Policy Guidance

Date: March 10, 2023

To: Airports Regional Directors
610 Branch Managers
620 Branch Managers
Airports District Office Managers

From: 
Michael A.P. Meyers, P.E.
Manager, Airports Engineering Division, AAS-100

Prepared by: Mike Rottinghaus, P.E.
Design and Construction Branch, AAS-110

Subject: Engineering Policy Memo 23-01: Sponsor Status Updates for an Existing
Approved Modification of Standards

Purpose

This Engineering Policy Memo (EPM) revises the policy for duration of a Modification of Standards (MOS) approval as currently established in paragraph 8.f of FAA Order 5300.1G, *Modifications to Agency Airport Design, Construction, and Equipment Standards*, dated September 29, 2017.

Effective Period of EPM

EPM #23-01 becomes effective upon signature and remains in effect until the Office of Airport Safety and Standards (AAS) revises Order 5300.1G, *Modifications to Agency Airport Design, Construction, and Equipment Standards*.

Background

Misunderstandings related to Federal Aviation Administration (FAA) MOS approvals has resulted in confusion about the purpose and duration of approval actions. In some instances, Airport Sponsors (Sponsors) with a previously approved MOS incorrectly assumed the action represented a permanent approval. The FAA bases the approval of an MOS on factors

present at the time of the project implementation. However, such factors, which include risks to safety and opportunities to mitigate, can change over time.

Misunderstanding the purpose and applicability of an MOS may lead a Sponsor to reduce emphasis on planning and funding future projects to correct a nonstandard condition. Additionally, Sponsor personnel turnover at an airport often results in the new staff not being fully aware of previously approved MOSs or the existence of nonstandard conditions at the airport.

To counter such misunderstandings, Order 5300.1G implemented an approval duration condition: it requires resubmittal and re-approval of previously approved design MOSs every five (5) years. The intent of the MOS approval duration provision was to:

1. Maintain Sponsor awareness of the existence of previously approved MOSs.
2. Focus Sponsor attention on developing a path toward correcting nonstandard conditions through a re-evaluation process.
3. Serve as a point to re-assess whether mitigation conditions imposed by the MOS approval remain effective in maintaining an acceptable level of safety and efficiency.

Need for Policy Revision

Feedback received by AAS indicates that MOS resubmittals on a five-year frequency create an undue resource burden on Sponsors and Regional/Airport District Office (ADO) staff, with little resulting benefit. This feedback reflects a common opinion that an MOS resubmittal will not lead to immediate corrective action beyond what the normal planning process already provides.

AAS revisited the MOS policy to assess a different method of tracking and monitoring FAA-approved design MOS. As a result, AAS is revising the current MOS policy by replacing the five-year MOS re-submittal provision with a five-year status update reporting provision.

The Sponsor MOS status update will:

1. Enhance awareness of existing MOSs and associated nonstandard conditions.
2. Allow monitoring of the residual risk resulting from application of the MOS conditions to determine if additional measures are necessary.
3. Focus Sponsor attention on identifying potential opportunities to correct nonstandard conditions through appropriate capital improvement planning.

Policy Revision

This EPM revises the current MOS policy as follows:

- Replaces paragraph 8.f., Duration of an MOS Approval, (shown below) in its entirety with a new paragraph 8.f., Sponsor Actions Post MOS Approval.

- Adds a new paragraph 8.k addressing Region/ADO responsibilities after MOS approval.
- Replaces the third bullet in paragraph 9, Approval Letters, with a new bullet requiring the Sponsor to submit a status update on each approved MOS every five years.
- Revised policy language is reflected in italics in the table below.

Current Text	New Text
8. Policy f. Duration of an MOS Approval: (1) MOS that are applicable to material and/or construction standards are approved for the life of the project. (2) All MOS associated with design standards expire no later than 5 years from the approved date. The airport must re-submit the MOS for review and approval if an extension is requested. (3) All MOS associated with design standards must be reviewed whenever there is an opportunity to meet standards, when situations change, or if a MOS is no longer required.	8. Policy <i>f. Sponsor Actions Post MOS Approval</i> <i>MOS approvals will include the following provisions, as applicable, addressing actions required of Sponsors post MOS approval.</i> <i>(1) <u>All Design MOSs</u>: The Sponsor will provide a status update on the nonstandard condition every five years through the MOS tool in the web-based Airport Data and Information Portal (ADIP). The ADIP system will generate a notification email to the Sponsor and applicable FAA office 90 days before the reporting deadline and a second reminder email 30 days before the reporting deadline.</i> <i>(2) <u>Construction Method and Material MOS that Require Monitoring (Optional Condition)</u>: The Sponsor will provide a status update of the nonstandard condition every five years through the MOS tool in ADIP.</i> <i>(3) <u>All Design MOSs</u>: In conformance with Grant Assurance No. 29, Airport Layout Plan, the Sponsor will indicate the approved design standard MOS within the nonstandards table on its current airport layout plan.</i> <i>(4) To the extent practical, the Sponsor will give high priority within its capital improvement plan to funding projects that mitigate the associated nonstandard condition whenever the opportunity to meet standards becomes feasible. As applicable, the Sponsor will provide the FAA with its rationale for not identifying projects within its capital improvement plan that correct a nonstandard condition.</i>

Current Text	New Text
8 Policy k. (New sub-paragraph)	8. Policy k. Region/ADO Actions Post MOS Approval <i>The ADO office will:</i> (1) <i>Verify the Sponsor identifies approved design-MOSs as part of its airport layout plan on file. If the current ALP does not reflect an MOS, notify the Sponsor of the nonconformance with Grant Assurance No. 29.</i> (2) <i>Assess opportunities within the Sponsor's Airport Capital Improvement Plan (ACIP) to mitigate nonstandard conditions in whole or incrementally over time. Where there is a reasonable opportunity to correct a nonstandard condition, advise the airport to identify the project within its ACIP.</i> (3) <i>Review the Sponsor's MOS status updates to determine if current local conditions necessitate a new aeronautical study (e.g. SF 7460-1) to evaluate current risks associated with the nonstandard condition. This may include:</i> a) <i>Documented incidents associated with the nonstandard condition.</i> b) <i>Pilot reports of issues and concerns related to the nonstandard condition.</i> c) <i>Substantive increase in operations of aircraft larger than the critical aircraft.</i> <i>The Regional Office will:</i> (1) <i>Review the ADO's recommendation for a new aeronautical study.</i> (2) <i>Confirm or dismiss the need for an aeronautical study.</i> <i>The ADO/Region may terminate the need for future status updates only:</i>

Current Text	New Text
	(1) <i>After receiving a current status report deemed satisfactory to the FAA, and</i> (2) <i>Subject to one of the following reasons:</i> a) <i>The ADO/Region establishes the nonstandard condition no longer exists.</i> b) <i>The ADO/Region determines the residual risk associated with use of nonstandard pavement design or construction methods and materials will remain at an acceptable level.</i>
8. 1. <i>(New subparagraph)</i>	8 Policy 1. New Development <i>FAA approval of an MOS for a future project remains valid for up to five years from the date of issuance. A Sponsor will need to resubmit its request if it does not initiate the associated project within the five-year timeframe.</i>
9. Approval Letters. MOS approval letters must contain the following for each modification: • A reference to the standard being modified • Conditions associated with the MOS approval, when necessary • The effective period of the modification • A statement that the modification is subject to review at any time if conditions originally justifying the modification changes, or if the FAA deems re-evaluation as being in the public's best interest.	9. Approval Letters. MOS approval letters must contain the following <i>elements</i> for each modification: • A reference to the standard <i>the Sponsor is requesting FAA to modify.</i> • Conditions associated with the MOS approval, <i>as applicable.</i> • <i>Design MOS: A provision requiring the Sponsor to provide the FAA with a status update on the approved MOS every five years through the ADIP MOS tool.</i> • <i>Select Construction Method and Materials MOS: A provision requiring the Sponsor to provide the FAA with a status update on the approved MOS every five years through the ADIP MOS tool. (The Region has the discretion to add this provision when durability and service life are a concern.)</i>

Current Text	New Text
	• A statement that the <i>nonstandard condition associated with the MOS</i> is subject to review at any time <i>there are changes to the conditions justifying the MOS</i> or if the FAA deems re-evaluation as being in the public's best interest.

Questions

Please contact Mike Rottinghaus, AAS-110, at (202) 267-3622 or by email at mike.rottinghaus@faa.gov if you have questions about this policy revision.

Attachment A

Status update form questions available online in ADIP and accessed via email link.
Information collection covered by ADIP PRA information collection

Status Update Form Modification of Standards - Design

Does the nonstandard condition associated with the MOS still exist? ☐ Yes ☐ No

Provide brief explanation if response is no.

Date Stamp	Name	Response

Have you implemented applicable conditions associated with the MOS approval? ☐ Yes ☐ No.

Please provide detail on actions taken.

Date Stamp	Name	Response

Does the table for nonstandard design elements on the latest FAA approved Airport Layout Plan (ALP) reflect the approved MOS? ☐ Yes ☐ No

If no, explain planned action to correct ALP.

Date Stamp	Name	Response

Have there been any operational incidents, pilot complaints or other feedback associated with the non-standard condition? ☐ Yes ☐ No

If yes, please provide details.

Date Stamp	Name	Response

Describe actions you have taken to develop a plan to correct the non-standard condition. As applicable, identify future project opportunities and anticipated date for corrective action.

Date Stamp	Response

Certification

I declare under penalty of perjury that the foregoing is true and correct. I understand that knowingly and willfully providing false information to the federal government is a violation of 18 USC § 1001 (False Statements) and could subject me to fines, imprisonment, or both.

Status Update Form
Modification of Standards – Construction Methods and Materials

Does the pavement section addressed by the MOS remain in a serviceable condition for the safe operation of aircraft? ☐ Yes ☐ No

Describe current condition of pavement

Date Stamp	Response.

Are there any signs of significant pavement distress (e.g. Cracking, spalling, joint damage, rutting, etc.)?

☐ Yes ☐ No

If yes, please provide details.

Date Stamp	Response.

Does your pavement maintenance plan include conducting periodic pavement inspections? ☐ Yes ☐ No.

Indicate frequency of inspections and describe system for archiving inspection reports.

Date Stamp	Response.

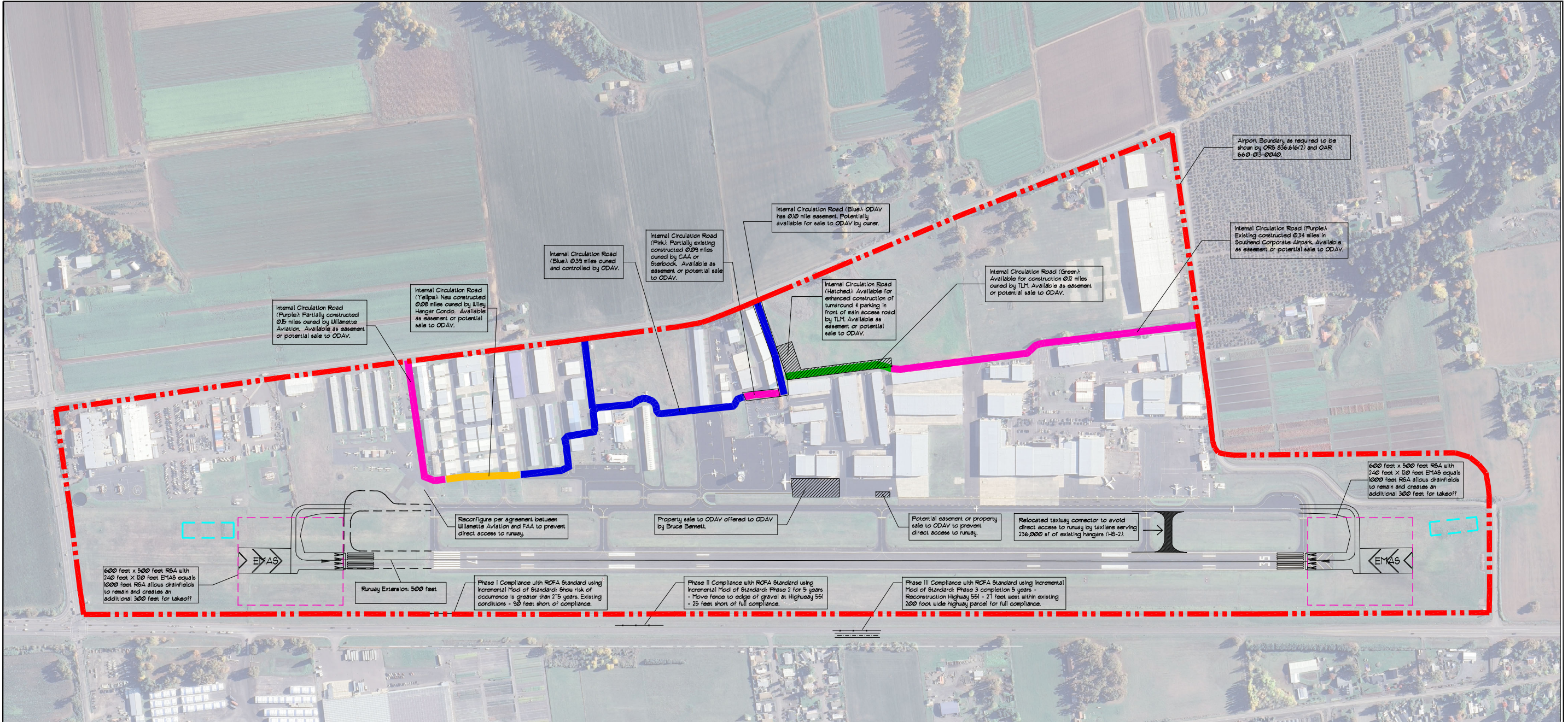
Does your current capital improvement plan include any pavement rehabilitation or reconstruction activity associated with the pavement addressed by the MOS? ☐ Yes ☐ No

If yes, please provide details.

Date Stamp	Response.

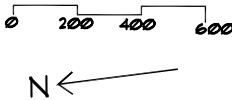
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SITE PLAN



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December 23, 2024

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Re: Aurora State Airport Master Plan Proposed Preferred Alternative Use of Modifications of Standards

Mr. Thomas, Mr. Beach, and Ms. Steffen:

Please share this letter with the ODAV and FAA design team, and enter it letter into the record for the Oregon Department of Aviation's (ODAV) proposed "Preferred Alternative" for the Aurora State Airport Master Plan.

We support Director Sugahara's statement that ODAV is willing to modify its Preferred Alternative for the Aurora Airport Master Plan to show a phased compliance with various standards, especially the Runway Object Free Area (ROFA). This letter is to especially remind all parties that a phased approach, iteratively working toward compliance, is completely consistent with, and part of the process for using the FAA's modification of standards process.

The FAA's directions for master planning and airport design clearly describe and allow the use of the modification of standards process, and it is appropriate that it be used for the Aurora Airport Master Planning effort. In fact, it is imminently reasonable because otherwise if the master plan describes a phased process to resolve issues of standards, for the process to be successful, it will need a modification of standards, so why wait to find out the answer? The master plan process is precisely when it should be applied for and resolved.

In service of the ODAV and FAA process to accomplish this, we have prepared a risk analysis based on FAA funded methodology, that shows a modification of

standards for the ROFA provides a completely acceptable level of safety. It shows that the risk of occurrence is that an occurrence would not occur within 275 years, which is more than twice as long as the FAA standard of acceptable risk is a 100-year period.

We should keep in mind that the actual history of mankind's successful creation of flying machines – dating to the first flight on December 17, 1903 in Kitty Hawk, North Carolina – represents a period of only 121 years. The risk analysis shows that the predicted risk to an incident at the edge of the Aurora Airport existing runway fence exceeds even this by 156 years. In the world of aviation that is many lifetimes – the FAA standards for ROFA's will have changed many times by that date.

Given that the new, incoming United States President is creating a Department of Government Efficiency that is intended to root out unreasonable use of federal funds, it will be appropriate to ensure that the final approved Aurora Airport Master Plan presents an efficient, reasonable, practical, and attainable plan of action. It cannot propose the expenditure of hundreds of millions of dollars to solve aviation issues that have an unlikely risk of happening, if at all, more than two hundred years from today. By then, it can reasonably be expected that the ROFA will be clear or some other design standard will have been imposed due to unimaginable changes in aircraft technology.

We request that the Aurora Airport Master Plan effort use the established standards that actually apply to all FAA funded master plans. It is important that the Aurora Airport planning effort be allowed the same opportunities that other airports around the United States are allowed, and not discriminated against.

Concerning when Modifications of Standards are allowed to be used, we note that the AC describing Airport Master Planning work, AC 150/5070-6B with Change 2, identifies below (yellow highlight added) that:

- The ALP should show all planned modification to the airport (they do not need to yet be approved); and
- The ALP narrative should discuss modifications to FAA Airport Design Standards (there is no prohibition to applying for the mod during the master planning work) and discuss the stages of development with sketches, which would include planned mods of design standards.

202. TYPES OF MASTER PLANNING STUDIES

c. **Airport Layout Plan Updates** – An update of the airport layout plan (ALP) drawing set **should be an element of any master plan study.** In fact, keeping the ALP current is a legal requirement for airports that receive Federal assistance. An update of the ALP drawing set will reflect **actual or planned modifications to the airport** and significant off-airport development. An accompanying ALP Narrative Report should explain and document those changes and contain at least the following elements:

- 1) Basic aeronautical forecasts.
- 2) Basis for the proposed items of development.
- 3) Rationale for unusual design features and/or **modifications to FAA Airport Design Standards.**
- 4) **Summary of the various stages of airport development and layout sketches of the major items of development in each stage.** An ALP drawing set update is an appropriate alternative to a full master plan whenever the fundamental assumptions of the previous master plan have not changed. If there have not been any major changes in airport activity or improvements that have had unanticipated consequences, a master plan update is not necessary. Another situation where only an ALP update would be appropriate is the examination of a single development item, such as runway safety area improvements. As indicated above, an ALP update will typically involve fewer elements than a full master plan study, including only the aviation demand forecasts, an assessment of facility requirements, a facility implementation and financing plan, and an airport layout plan drawing set. If additional steps are required to complete the ALP update, a full master plan study is probably a better choice.

205. MASTER PLAN REVIEW BY THE FAA

a. The recommendations contained in an airport master plan represent the views, policies and development plans of the airport sponsor and do not necessarily represent the views of the FAA. Acceptance of the master plan by the FAA does not constitute a commitment on the part of the United States to participate in any development depicted in the plan, nor does it indicate that the

proposed development is environmentally acceptable in accordance with appropriate public law. The FAA reviews all elements of the master plan to ensure that sound planning techniques have been applied. However, the FAA only approves the following elements of airport master plans:

- 1) ***Forecasts of Demand*** – The master plan forecast should be reviewed to ensure that the underlying assumptions and forecast methodologies are appropriate. Paragraph 704.h of this guidance should be used to determine consistency of the master plan forecast levels and the Terminal Area Forecast (TAF). Inconsistencies between the master plan forecast and TAF must be resolved, and the forecast approved, before proceeding with subsequent planning work.
- 2) ***Airport Layout Plan*** – All airport development at Federally-obligated airports must be done in accordance with an FAA- and sponsor-approved ALP. Furthermore, proposed development must be shown on an approved ALP to be eligible for Airport Improvement Program (AIP) funding. FAA approval of the ALP indicates that the existing facilities and proposed development depicted on the ALP conforms to the FAA airport design standards in effect at the time of the approval or that an approved modification to standard has been issued. Such approval also indicates that the FAA finds the proposed development to be safe and efficient.

801. FACILITY REQUIREMENTS - GENERAL

c. The requirements for new or expanded facilities reflect the unique circumstances of each airport, such as, but not limited to, the following:

- 1) Capacity shortfalls, which are commonly driven by growing demand.
- 2) Enhanced security requirements mandated by the Transportation Security Administration, including the flexibility to respond to changes in threat levels.
- 3) Updated standards developed and adopted by the FAA or other regulatory agencies, to correct existing non-standard conditions and eliminate existing modifications to standards. If there are approved modifications to standards, planners should review the reasoning that led to those adjustments. The facility requirements chapter should indicate if those deviations will continue or will be eliminated in the new master plan.
- 4) The airport sponsor's strategic vision for the airport. Such needs are typically associated with a sponsor's strategic business plan, mission statement, or similar plans that will require modification of the airport.
- 5) The outdated condition, arrangement, or functionality of existing facilities.

1008. DOCUMENTATION GUIDELINES

- a. The requirements for documentation of the ALP drawing set must be determined with the airport sponsor and the reviewing agency or State agency. Documentation will typically

Aurora State Airport Master Plan Proposed Preferred Alternative Use of Modifications of Standards

December 23, 2024

Page 5

include a complete reduced-size set of the ALP drawing set and the accompanying text. The master plan will provide the narrative if the ALP is prepared as part of a master plan. If the ALP is prepared separately as an ALP Update, an ALP narrative is required. Then narrative will typically describe ALP development criteria and the rationale for the development shown on the ALP. Examples of these include airport reference code-related design criteria unique to specific areas of the airfield, or known or proposed modifications to FAA design standards. (See Section 202.c of this AC for further guidance on the ALP Narrative Report.)

Order 5300.1G Modifications to Agency Airport Design, Construction, and Equipment Standards

1.Purpose of this Order. This order establishes the process for the initiation, revision, coordination, and management of Modifications of Standards (MOS) applicable to airport design, construction material, and equipment projects. This order is the foundation of a web-based automated application of MOS. The automated application for submitting MOS is a step-by-step process facilitated within Airports Geographic Information System (AGIS).

2.Applicability. This order is applicable to all projects funded under the Airport Improvement Program (AIP) and Passenger Facility Charge (PFC) programs at all obligated airports, or as required to support any public approach procedure. Eligibility determinations under AIP or PFC are independent of any approval action for an MOS. New MOS requests initiated after March 31, 2018, must use the automated MOS process. Manual MOS processing must follow applicable sections of this order as it applies to current regional procedures until the automated tool is accessible.

5. Definitions

e.Modification of Standards (MOS). Any deviation from, or addition to standards, applicable to airport design, material, and construction standards, or equipment projects resulting in an acceptable level of safety, useful life, lower costs, greater efficiency, or the need to accommodate an unusual local condition on a specific project through approval on a case-by-case basis.

7.Background. Laws, regulations and Airport Sponsor Grant Assurances require compliance with current FAA standards. The following provisions require an airport to meet FAA standards:

c.Obligated Airport. Title 49 U.S.C. § 47107(a)(16) and Grant Assurance No. 29, *Airport Layout Plan*, require the airport to maintain an up-to-date Airport Layout Plan (ALP) depicting existing and future airport facilities as referenced in paragraph 12.b. AC 150/5070-6, *Airport Master Plans*, establishes standards for ALPs, which includes the requirement to identify unusual design features and/or modifications to FAA Airports design standards. FAA approval of an ALP indicates the existing or proposed development depicted on the ALP conforms to FAA airport design standards or that an approved modification to standards has been issued.

12.Documentation.

a.All records pertaining to the MOS, including documents, pictures, and/or approval letters,will be maintained within the Airports GIS MOS Tool.

b.The airport must update the ALP to reflect approved modifications of airport design standards. The airport must include in the ALP a table listing the approved MOS. The table must include the approval letter dates and identify associated airspace review case numbers.

In addition, we note that AC 150/5300-13B Airport Design, Change 1, identifies below (yellow highlight added) that:

- Mods are intended for cases where an unusual local condition for a specific project maintains an acceptable level of safety, and we have prepared a draft mod (attached to this letter) for use of the project, which shows that occurrences are predicted to only occur in 275 or more years, which satisfies the FAA’s standard for acceptable safety; and
- There is no established FAA prohibition from requesting the mod now, during the planning process.

1.5 Definitions.

60. *Modification of Standards.* Any approved deviation from published FAA standards applicable to an airport design, construction, or equipment project that is necessary to accommodate an unusual local condition for a specific project while maintaining an acceptable level of safety and performance. FAA Order 5300.1 establishes FAA policy for administering requests for modification of standards.

Chapter 2. DESIGN PRINCIPLES

2.8 Modification of Standards.

Site-specific conditions may make it impractical to meet all FAA design standards at an airport. The FAA considers, on a case-by-case basis, modifications to design standards that result in an acceptable level of safety and efficiency. Specific operational controls may be necessary to establish an acceptable level of safety for operation of aircraft at the airport. FAA Order 5300.1 establishes FAA policy for administering airport requests for modification of standards. See paragraphs 2.4 and 2.5.

2.8.1 The FAA views an approved modification of standards as an interim measure intended to mitigate unique site-specific conditions. Unless the FAA explicitly states otherwise in the approval action, the FAA expects airports with approved modifications to pursue ways to meet design

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standards. This may occur incrementally over time or at such time it becomes practical to correct the non-standard condition.

2.8.2 The FAA will not consider any request to modify design standards associated with the following:

1. RSA dimensions
2. OFZ dimensions
3. Approach or departure surface dimensions
4. Standards established within a regulation (e.g., stopway, clearway).

2.8.3 An airport seeking FAA approval of modification to a design standard submits a request using the Modification of Standards application tool within the Airport Data and Information Portal (ADIP) at <https://adip.faa.gov>. The FAA relies on the following information, in part, to determine the acceptability of a modification to FAA design standards:

1. Information on the standard proposed for modification.
2. Description of proposed modification and why the airport cannot meet standards.
3. Statement addressing how modification will provide an acceptable level of safety, economy, durability, and workmanship.
4. Listing of any special operational measures necessary to accommodate the modification.

2.4 Addressing Non-standard Airport Conditions.

The FAA expects airport owners to address non-standard conditions through the airport planning process. The FAA acknowledges that conformance to current standards is not always practical. However, the FAA expects airports to continue to investigate mitigation measures, whether in one or multiple phases, and correct the non-standard conditions over time.

1. The FAA expects implementation of new or revised standards to occur through the planning process.
2. If there is an explicit or immediate safety deficiency for a non-standard condition, the FAA expects airport owners to prioritize the mitigation of the safety deficiency using the current standard.
3. Inconvenience does not represent an acceptable justification for non-conformance to standards.
4. Justifications based on impractical conditions do not represent a permanent justification for non-conformance to standards.

In conclusion, we request that ODAV and FAA allow Aurora Airport to use the established process of modification of standards to resolve certain issues at the airport, where they are expressly permitted, and not expressly denied as options.

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The FAA's modification of standards process is wisely set up precisely for such a condition as what we find at Aurora Airport – LET'S USE IT.

Respectfully submitted,

A handwritten signature in blue ink that reads "Aron Faegre". The signature is fluid and cursive, with the first name "Aron" and last name "Faegre" clearly distinguishable.

Aron Faegre, AIA, PE
Aron Faegre Airport Planning and Design

Attachment: Proposed modification of standards risk analysis document for use at
Aurora Airport
dated October 5, 2024.

**Aurora State Airport (UAO)
Proposed Modification of
Runway Object Free Area (ROFA) Design Standards**

Prepared by: Aron Faegre, AIA, PE
Aron Faegre Airport Planning & Design

October 5, 2024

This memorandum provides an analysis and methodology by which a Modifications of FAA Airport Design Standards (MOS) at the Aurora State Airport (UAO), for the Runway Object Free Area (ROFA) can be justified as:

“... resulting in an acceptable level of safety, useful life, lower costs, greater efficiency, or the need to accommodate an unusual local condition on a specific project through approval on a case-by-case basis.” - FAA Order 5300.1G, page 1.

as defined and permitted under FAA Order 5300.1G Modifications to Agency Airport Design, Construction, and Equipment Standards¹.

1. BACKGROUND

The Aurora State Airport is surrounded by farm lands, near Aurora, Oregon, at the northern end of Marion County. It primarily serves aviation businesses involved with:

- emergency medical transport²,
- aviation heavy-lift helicopter fire-fighting and power line construction companies, and for military (for which fixed wing aircraft are essential for support),³
- business jets for numerous major national corporations based within 10 miles,

¹ FAA Order 5300.1G Appendix A specifically gives FAA Office of Airport (ARP) and Region the authority to issue a MOS for Runway Object Free Areas. The Order can be downloaded at:

<https://www.faa.gov/documentLibrary/media/Order/order-5300-1G-modifications-to-standards.pdf>.

² Regional headquarters for Life Flight Network, with bases all over Oregon, Washington, Idaho, Montana, and Nevada.

³ Columbia Helicopters, Helicopter Transport Services, Wilson Construction, companies that work internationally with headquarters at Aurora Airport. Many of the companies have annual contracts with state and federal agencies to provide major support for fighting fires, as well as for humanitarian relief work world-wide. Some of these companies have U.S. military contracts for repair and rebuilding of military aircraft at the Aurora site. The use of the Aurora Airport runway is essential to all of these companies for rapid providing of crews, equipment, and repairs to helicopters in active service of fighting fires, moving power lines, or doing rescue, relief, or humanitarian work.

- aircraft manufacturing for the S-LSA (Special Light-Sport Aircraft) and kit-build industry⁴, and
- other general aviation aircraft using the airfield for business, pilot training, and recreational flying.

There is no scheduled air service using the airport. The State of Oregon Department of Aviation (ODAV) owns, governs, and manages the public lands of the airport. Most of the business aircraft based at the airport access the runway via through-the-fence permits with ODAV.

Flights by based business jets, such as a Challenger 300, dictate that the Airport Reference Code is C-II. Due to the geometry of the existing site, the airport does not meet current FAA design standards for the ROFA, due primarily to adjacent Highway 551 to the west of the runway.

Most recently ODAV's planned solution⁵ to meeting these standards ("Refined Preliminary Alternatives Summary", by Century West Engineering, dated July 31, 2024) is one of only two options:

- relocate the highway further west, (which involves acquiring both private residential and commercial properties further west), or
- relocate the runway, taxiway, and control tower east (which involves acquiring many acres of existing private property already developed with hangars, taxilanes, and aprons for aviation uses) and demolishing numerous large 40,000 square foot aviation hangars along the taxiway.

Both options have very high financial and environmental costs (probably in the greater than \$100 million range), which would make them difficult to ever be implemented. If this master plan is approved as currently planned, and one of these options were not implemented, then ODAV and FAA have reported that the airport would only receive maintenance funding and no additional safety improvement funds. This would result in the airport not keeping pace with the aviation industry standards of safety. The second option (moving the runway, control tower, and demolishing hangars), If implemented, would in addition force closure of many of the major medical transport and fire-fighting facilities on the airport, and would put many of the airport's 1,500 employees out of jobs.

It is noted that in the 2012 Airport Layout Plan (ALP), approved (signed) by both ODAV

⁴ Van's Aircraft www.vansaircraft.com the international leader in S-LSA produced aircraft.

⁵ Refined Preliminary Alternatives Summary document dated July 31, 2024 by Century West Engineer can be downloaded at: <https://publicproject.net/files/UAOAMP/uao-refined-preliminary-alternatives-summary-1-.pdf?d952c4adef>.

and FAA, the airport also had the same Runway Design Code (RDC) status of C-II and listed a MOS as the solution to the non-standard ROFA limitation on the west property line. At that time there was consensus between ODAV and FAA that a MOS was a reasonable solution.

This memorandum provides the evidence to show that the 2012 ALP was a good approach to resolution of the ROFA, and that it can reasonably be continued. This report demonstrates that there is an acceptable level of safety through modifying the ROFA standard for the specific deviation to standards located on the west side of the runway.

FAA standards for different airports ROFA's vary from 250 foot width, to an 800 foot width, depending on aircraft type using the airport. As will be shown below, the primary reason justifying the modification is that the going from B-II to C-II category is just where the 500-foot required ROFA width changes to an 800-foot wide required ROFA - yet this is the same width required for all RDC category aircraft all the way to E-VI -Portland International Airport, San Francisco Airport, and every other international airport in the country. UAO will never have the larger size of aircraft those airports accommodate – Boeing 737's to Boeing 777's – so a slight reduction in width on the west side provides a level of safety appropriate for UAO, which will always serve only much smaller aircraft.

Modifications of standards for ROFA's are common at even large national airports. For example, recently several MOS were adopted at San Jose International Airport for deficiencies in the ROFA, as well as for runway-taxiway separations, and for runway object free areas⁶. It even appears that Portland International Airport (PDX) may have their airport perimeter fence, the shoulder of NE Marine Drive, and improper grading within the 400-foot area from runway centerline, at the northeast corner of the ROFA for Runway 10L.

This memorandum provides the detailed technical background and mathematically calculated justification, needed for the FAA and ODAV to again approve a MOS for the ROFA at Aurora State Airport.

2. MOS PROCESS

The process for gaining a modification of standards is provided in FAA AC 150/5300-13B Airport Design⁷ in Section 2.8. It states, and we provide commentary after each paragraph as

⁶ Norman Y. Mineta San Jose International Airport Runway Incursion Mitigation/Airfield Design Standards Analysis, November 27, 2017. Justification for ROFA modifications in this document were often simply the practical and cost issues of modifying major adjacent highways, similar to what is at issue in a much smaller Aurora Airport.

⁷ FAA AC 150/5300-13B Airport Design Available free on line at:

https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC-150-5300-13B-Airport-Design-Chg1.pdf

to acceptability:

2.8 Modification of Standards.

Site-specific conditions may make it impractical to meet all FAA design standards at an airport. The FAA considers, on a case-by-case basis, modifications to design standards that result in an acceptable level of safety and efficiency. Specific operational controls may be necessary to establish an acceptable level of safety for operation of aircraft at the airport. FAA Order 5300.1 establishes FAA policy for administering airport requests for modification of standards. See paragraphs 2.4 and 2.5.

This memorandum provides this information and finds that no specific operational controls are necessary, see comments on paragraph 2.4 below.

2.8.1 The FAA views an approved modification of standards as an interim measure intended to mitigate unique site-specific conditions. Unless the FAA explicitly states otherwise in the approval action, the FAA expects airports with approved modifications to pursue ways to meet design standards. This may occur incrementally over time or at such time it becomes practical to correct the non-standard condition.

The FAA and ODAV can work with Oregon Department of Transportation on master planning future revisions to State Highway 551 so that it can be corrected “at such time it becomes practical.” Also, there are potential options where ODAV and ODOT could jointly agree to relocate the airport perimeter fence closer to Highway 551, which could be an “incrementally” established improvement.

2.8.2 The FAA will not consider any request to modify design standards associated with the following:

- RSA dimensions*
- OFZ dimensions*
- Approach or departure surface dimensions*
- Standards established within a regulation (e.g., stopway, clearway).*

The ROFA is not one of these.

2.8.3 An airport seeking FAA approval of modification to a design standard submits a request using the Modification of Standards application tool within the Airport Data and Information Portal (ADIP) at <https://adip.faa.gov>. The FAA relies on the following information, in part, to determine the acceptability of a modification to FAA design standards:

- Information on the standard proposed for modification.*
- Description of proposed modification and why the airport cannot meet standards.*
- Statement addressing how modification will provide an acceptable level of safety, economy, durability, and workmanship.*
- Listing of any special operational measures necessary to accommodate the modification.*

This document was prepared to provide the analysis needed for ODAV to submittal for the MOS per Section 2.4.

2.4 *Addressing Non-standard Airport Conditions.*

The FAA expects airport owners to address non-standard conditions through the airport planning process. The FAA acknowledges that conformance to current standards is not always practical. However, the FAA expects airports to continue to investigate mitigation measures, whether in one or multiple phases, and correct the non-standard conditions over time.

It is important to re-emphasize the above statement, that the FAA here “acknowledges that conformance to current standards is not always practical.” Further, per this paragraph, the current master planning activity is the appropriate place for this analysis and the formal establishment of a MOS for the ROFA. This report and analysis identifies intermediate steps that can be taken, such as relocating the airport perimeter fence, that will iteratively move the airport closer to compliance.

This analysis utilizes an FAA established safety analysis methodology to show that the MOS provides an acceptable level of safety. The study found no special measures needed to accommodate the modification.

3. METHODOLOGY

In 2011, the Transportation Research Board (TRB) released Airport Cooperative Research Program (ACRP) Report #51 – Risk Assessment Method to Support Modifications of Airfield Separation Standards. The ACRP is funded by the Federal Aviation Administration (FAA). Report #51 is used to support the ROFA MOS requested at Aurora State Airport.

The proposed ROFA MOS is modeled in this report in accordance with Appendix A – Risk Assessment Methodology of ACRP Report #51⁸.

This report uses risk plots, along with the annual number of operations, to analyze the cumulative risks associated with Runway to Object Separations. The operations numbers at UAO are taken from the current draft Master Plan, and are numbers already approved by the FAA in a letter⁹ to ODAV dated November 15, 2023 (corrected January 23, 2024). For sake of a conservative analysis, we are using the most distant forecast projects for the year 2041, which are:

- 90,231 total operations all RDC categories, of which
- 862 operations are of RDC C-II and D aircraft

⁸ ACRP Report #51 – Risk Assessment Method to Support Modifications of Airfield Separation Standards is available free on line at: <https://nap.nationalacademies.org/catalog/14501/risk-assessment-method-to-support-modification-of-airfield-separation-standards>

⁹ Federal Aviation Administration (FAA) Aurora (UAO Aviation Activity Forecast Approval Airport Improvement Program Grant Number 3-41-0004-022-2021 available at: <https://publicproject.net/files/2024-01/Aurora-Airport/uaoforecast-approval-20231115-corrected-20240123.pdf?57af6c19b7>

For operations involving the runway, per the methods of Report #51, the risk is analyzed based on three distinct phases of flight:

- a. Landing - Airborne Phase
- b. Landing - Ground Phase
- c. Takeoff

The separation distance from the runway centerline to an object is used with the associated risk plot to calculate the risk of collision per operation.

The risk of collisions per operation is then analyzed along with the number of annual airport operations for the appropriate phase of flight to determine the predicted frequency of occurrence. The frequency of occurrence is used to determine the FAA likelihood level using Table A-3 from ACRP Report #51 which is shown below:

Table A-3. FAA likelihood levels (FAA, 2010).

	General	Airport Specific	ATC Operational	
			Per Facility	NAS-wide
Frequent A	Probability of occurrence per operation is equal to or greater than 1×10^{-3}	Expected to occur more than once per week or every 2,500 departures (4×10^{-4}), whichever occurs sooner	Expected to occur more than once per week	Expected to occur every 1–2 days
Probable B	Probability of occurrence per operation is less than 1×10^{-3} , but equal to or greater than 1×10^{-5}	Expected to occur about once every month or 250,000 departures (4×10^{-6}), whichever occurs sooner	Expected to occur about once every month	Expected to occur several times per month
Remote C	Probability of occurrence per operation is less than 1×10^{-5} but equal to or greater than 1×10^{-7}	Expected to occur about once every year or 2.5 million departures (4×10^{-7}), whichever occurs sooner	Expected to occur about once every 1–10 years	Expected to occur about once every few months
Extremely Remote D	Probability of occurrence per operation is less than 1×10^{-7} but equal to or greater than 1×10^{-9}	Expected to occur once every 10–100 years or 25 million departures (4×10^{-8}), whichever occurs sooner	Expected to occur about once every 10–100 years	Expected to occur about once every 3 years
Extremely Improbable E	Probability of occurrence per operation is less than 1×10^{-9}	Expected to occur less than once every 100 years	Expected to occur less than once every 100 years	Expected to occur less than once every 30 years

Note: Occurrence is defined per movement.

Source: ACRP Report #51

The key takeaway from Table A-3 is that for a specific airport, if the likelihood of incidence is less than once every 100 years it is considered a “Extremely Improbable” Class E occurrence.

A Hazard Severity Classification is then assigned based on the worst credible outcome of an incident. Since the ACRP method is based on wingtip separation, the report states that: “From the point of view of risk and based on the records of incidents and accidents,

the worst credible consequence expected for wingtip collisions of two taxiing aircraft is aircraft damage” (ACRP Report #51 page 19). A similar aircraft damage expectation would be a wingtip collision with the airport perimeter fence, which is the ROFA limitation examined in this report.

The Hazard Severity Classifications were determined in accordance with Table A-4 FAA Severity Definitions from ACRP Report #51 and are shown below:

Table A-4. FAA severity definitions (FAA, 2010).

Hazard Severity Classification				
Minimal 5	Minor 4	Major 3	Hazardous 2	Catastrophic 1
No damage to aircraft but minimal injury or discomfort of little consequence to passenger(s) or workers	- Minimal damage to aircraft; - Minor injury to passengers; - Minimal unplanned airport operations limitations (i.e. taxiway closure); - Minor incident involving the use of airport emergency procedures	- Major damage to aircraft and/or minor injury to passenger(s)/worker(s); - Major unplanned disruption to airport operations; - Serious incident; - Deduction on the airport's ability to deal with adverse conditions	- Severe damage to aircraft and/or serious injury to passenger(s)/worker(s); - Complete unplanned airport closure; - Major unplanned operations limitations (i.e. runway closure); - Major airport damage to equipment and facilities	- Complete loss of aircraft and/or facilities or fatal injury in passenger(s)/worker(s); - Complete unplanned airport closure and destruction of critical facilities; - Airport facilities and equipment destroyed

Source: ACRP Report #51

Then, using both the FAA likelihood level and the Hazard Severity Classification the risk is then analyzed using Figure A-1 FAA Risk Matrix from ACRP Report #51, shown below:

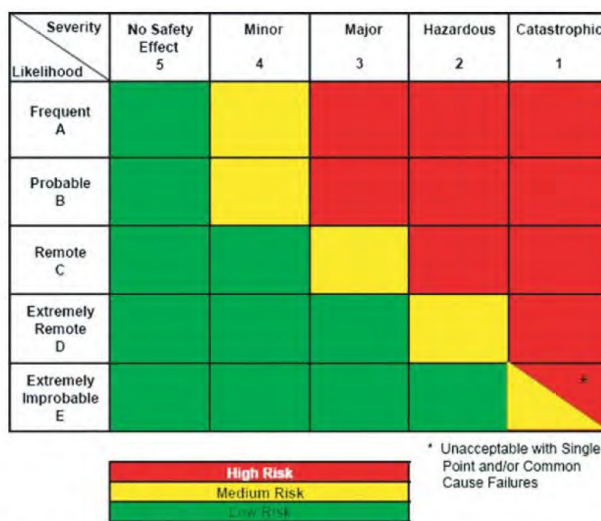


Figure A-1. FAA risk matrix (FAA, 2010).

Source: ACRP Report #51

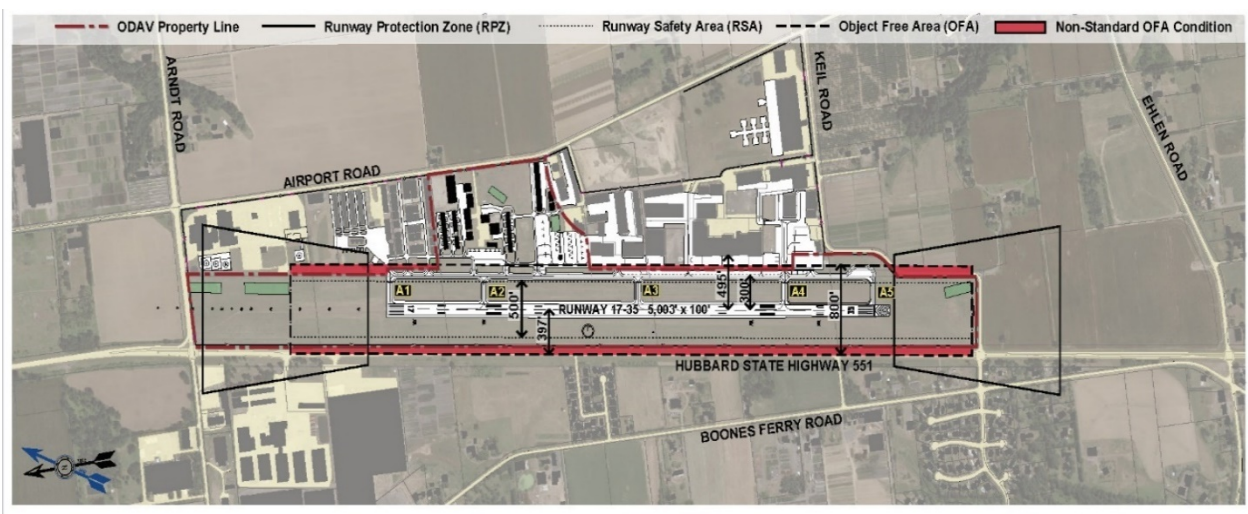
Based on Figure A-1 if the incident is Extremely Improbably (i.e. more than 100 years probability) the risk is considered “Low,” except for an incident considered catastrophic. We will use these graphs to evaluate the results from the detailed risk analysis of UAO below.

4. UAO ANALYSIS

In 2012 Master Plan and ALP established the UAO runway RDC, given existing based aircraft, as C-II, up from a B-II. The required ROFA width of a B-II runway is 500 feet centered on the runway. As it turns out, any runway of higher RDC than a B-II requires 800 feet in width. Thus, the UAO required C-II ROFA width is 800 feet centered on the runway. This 800-foot width is the standard used for aircraft ranging from a Challenger 300 business jet to the largest Boeing 777 or even the largest military aircraft. The 2012 approved ALP lists the ROFA deviation as a modification to standards, since the airport perimeter fence and Highway 551 were within the ROFA.

The UAO forecast of operations predicts that by the year 2041 there will be 90,230 annual operations at the airport, of which 862 would be an RDC above the B-II category. Thus, the 89,368 operations by B-II or lesser category clearly are operating well within ROFA safety standards, as the existing runway to road separations provide more than the 500-foot required width. It is just the 862 operations that need to be analyzed for ROFA safety relative to the required 800-foot width.

The deficiencies in the existing Runway OFA at UAO are shown in the Figure below:



UAO Figure A: Highway 551 Shown as ROFA Deviation Object

Source: Century West Engineers, Aurora State Airport Draft Airport Master Plan, Working Paper No. 1, Figure 2-15, November 2023 (Updated)

The current ROFA object deficiencies are:

- d. Hubbard State Highway 551 for which the OFA penetrates 3 feet beyond the highway centerline. (368' to 377' clear width available from outer edge of highway gravel shoulder to Runway CL)
- e. Perimeter Fence Inside OFA (312' clear width from Runway CL)

Potentially the airport fence could be relocated to the east edge of the 12-foot-wide gravel shoulder, since both the highway and the airport are owned by the State of Oregon. There can be an agreement between ODOT and ODAV to allow this. Relocating the fence in this way would result in a minimum width of the ROFA on the west side of the runway, to a 368-foot clearance - which would be only 32 feet out of conformance.

However, we will evaluate the ROFA for the existing conditions, and thus use the location of the airport perimeter fence as the maximum ROFA available at this time.

When analyzing the risk associated with a reduction in Runway OFA it is important to consider the purpose of the design standard. Paragraph 3.12 of Advisory Circular 150/5300-13B defines the ROFA but does not give detailed design rationale behind the standard:

“ROFA is a clear area limited to equipment necessary for air and ground navigation, and provides wingtip protection in the event of an aircraft excursion from the runway”

Appendix I, Paragraph I.8 of Advisory Circular 150/5300-13B provides the only available reference to the design rationale behind the Runway OFA width:

“The ROFA serves two principal purposes: 1. Development buffer in proximity to a runway, and 2. Wing clearance for a runway excursion event to the outer limit of the RSA.”

Appendix I, in Section I.8.2, also clarifies that part of the “development buffer” intent is:

“Protection of the ROFA also reserves space for future development of a parallel taxiway that permits proper alignment of aircraft at a holding position on an entrance taxiway.”

However, for the given physical layout of UAO there can be no plan for a parallel taxiway on the west side of the runway, because of the location of Highway 551 and that there never can be hangars or other aviation uses on that side of the runway. Therefore, that leaves the only ROFA purpose for UAO as only “wingtip clearance for a runway excursion” which is precisely what this analysis provides.

Below we will analyze resolving the ROFA utilizing the risk analysis method of ACRP Report #51, for the case:

- No Change to existing ROFA conditions on West Side of Runway (Hwy 551 and Airport Perimeter Fence remain as existing) resulting in a 312-foot clearance to runway CL.

Per the methodology of ACRP Report 51, we analyze the risks for each of the takeoff and landing scenarios. For landing operations, the analysis is further divided into two parts: airborne (approach) phase and ground (landing rollout) phase. However, because the risk of veering off the runway during takeoff is so much less than for during landing, the methodology indicates that usually it is not necessary to evaluate takeoff option except if there are runways that only are used for takeoffs and not for landings. We will do that takeoff evaluation in any case, just to clearly determine what it is in the UAO context.

Since the existing runway to taxiway separation meets the current criteria for a C-II airport, for this study that analysis would seem unnecessary. However, we will include that option in this report because it provides a baseline of safety that the AC 150-5300-13B Airport Design Standards have determined is an acceptable and appropriate level of safety for a C-II airport.

Thus, for this UAO ROFA analysis separate risks are developed for each of:

1. Airborne Phase (Landing) is for instrument approaches which terminate the approach as a missed approach, and the risk is hitting another object such as hitting the airport perimeter fence or a vehicle on Highway 551 (using ACRP Report 51 Fig. 31); “the airborne risk is computed only for missed approaches” (ACRP Report 51, page 21).
2. Ground Phase (Landing Rollout) where risk is veering off the runway into the reduced width ROFA and hitting the fence or a car on Highway 551 (using ACRP Report 51 Fig 42). Figure 42 is based on the assumption that the risk is between the two wingtips of two aircraft, one aircraft on the edge of the runway and the other at the centerline of a taxiway. The ACRP makes clear that the x-axis distance on the Risk Figures are centerline of runway to centerline of taxiway because the risk is assumed aircraft to aircraft. However, the predicted risk is based on the wingtip-to-wingtip distance. When using the Risk Figures for objects (not aircraft) like a fence or road (which has no wings), half of the wingspan should be added to the distance to compensate for the wingtip-to-wingtip assumption. Thus, per Group II standards, the clearance distance used for Figure 42 should add half of 79 feet (equals 39.5 feet) of additional clearance, which would create a total of 351 feet to use in Fig. 42. The risk shown with the 312 feet and the 351 feet are each shown in figures.

3. Ground Phase (Takeoff) where risk is veering off the runway into the reduced width ROFA and hitting the fence or a car on Highway 551 (using ACRP Report 51 Fig 49).

Finally, to have more relevant data, we will also perform the risk analysis of the standard required 300-foot separation between runway centerline and taxiway centerline for a landing, which is the level of safety the AC 150/5300-13B sets for in a C-II airport:

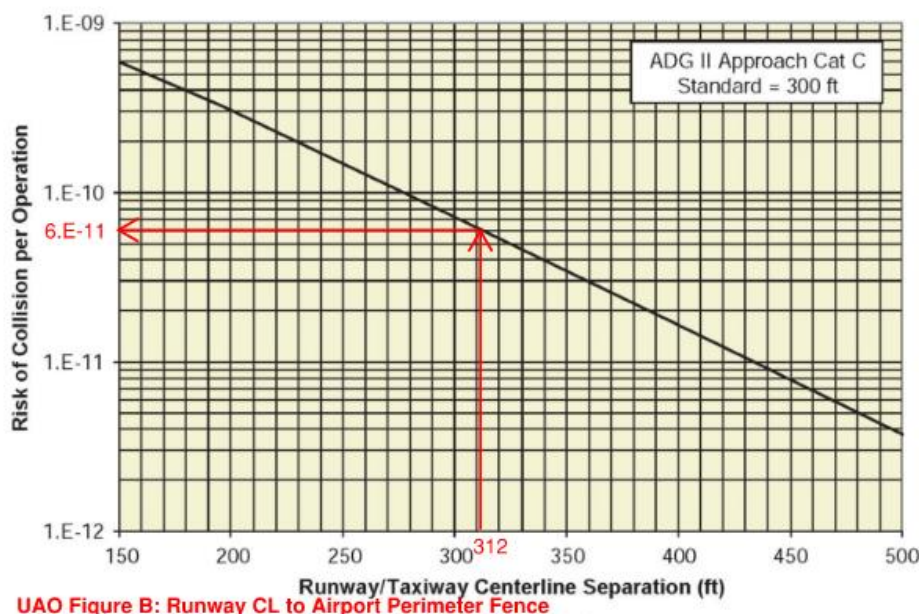
4. Ground Phase (Landing Rollout) where risk is veering off the runway into the taxiway (using ACRP Report 51 Fig 42).

This data will give us an example of an acceptable level of safety utilized in AC 150/5300-13B for a C-II airport.

5. Specific Analysis: Proposed MOS Option - No Change to Existing ROFA Conditions (312' Separation from Runway Centerline to Airport Fence)

The Perimeter Fence at the west side is located 312 feet from the runway centerline. The risks associated with leaving it there as a modification of standards, for each of the phases of flight are analyzed below:

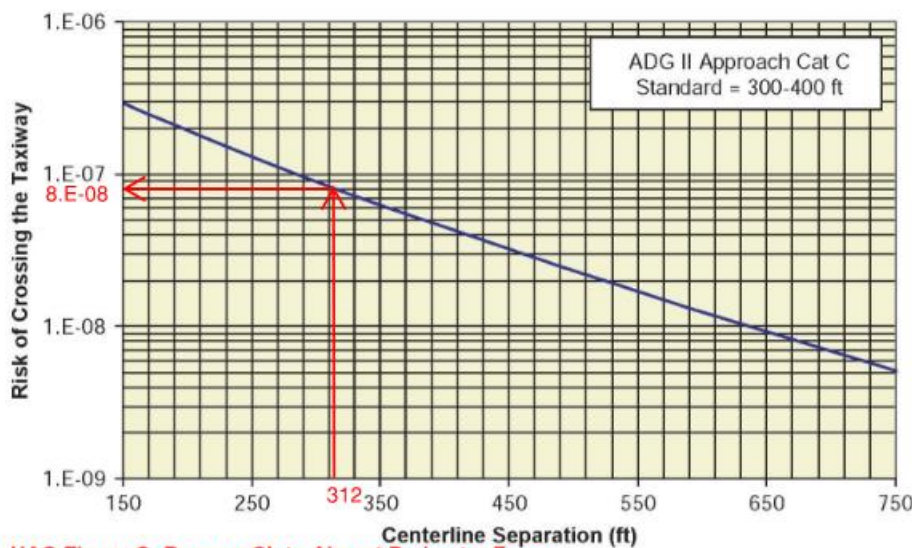
1. Airborne Landing Phase Risk from Reduced ROFA – For a very conservative analysis we will assume that this includes all approach to landings, not just missed approaches. Using the separation of 312' and Figure AA-33 in Appendix A of ACRP Report #51, the following provides a risk level 6.0E-11 of occurrence per landing (which as an inverse, is one chance in a 16.7 trillion landings) that an aircraft gets 312' from the runway centerline. This can be seen in the figure below:



UAO Figure B: Runway CL to Airport Perimeter Fence
Figure AA-31. Missed approach collision risk for ADG II Cat I.

The current annual number of landing operations at UAO is approximately 45,115 or half of the 90,230 annual operations. As the risk is one incident in every 16.7 trillion landings, the time between occurrences is calculated as 16 trillion landings divided by 45,115 landing operations per year which equates to one incident every 369,000 years. Thus, this risk is of no significance.

2. Landing Roll Phase Risk for Reduced ROFA - Using the separation of 312' and Figure AA-43 in Appendix A of ACRP Report #51, provides a risk level $8.0\text{E-}08$ or in the inverse: one chance in 12.5 million landings. This can be seen in the figure below:



UAO Figure C: Runway CL to Airport Perimeter Fence
Figure AA-42. Landing veer-off collision risk for ADG II.

As the risk is one incident in every 12.5 million landings, the rate of occurrence is calculated as 12.5 million landings divided by 45,115 landings per year which equates to one incident every 277 years.

Using the ACRP described adjustment when the object is not another aircraft and half the C-II wingspan can be added to the clearance distance, results in a separation of 351' and Figure AA-43 in Appendix A of ACRP Report #51, provides a risk level $6.0\text{E-}08$ or one chance in 16.7 million landings. This can be seen in the figure below:

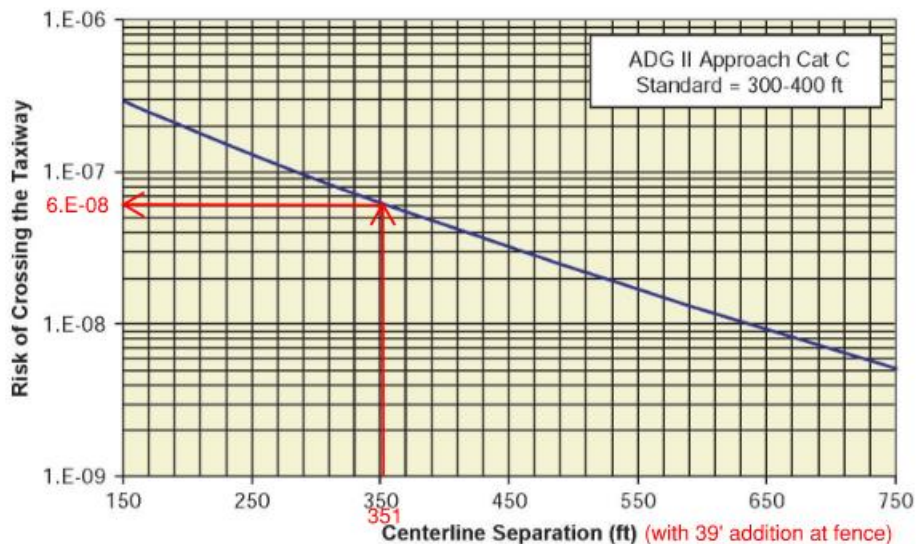
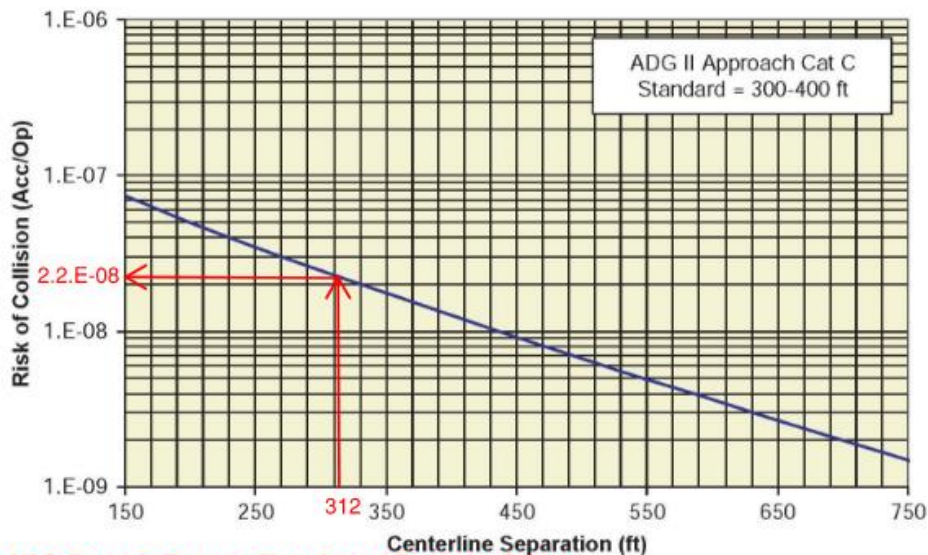


Figure AA-42. Landing veer-off collision risk for ADG II.

UAO Figure D: Runway CL to Airport Perimeter Fence Including Wingspan adjustment

As the risk is one incident in every 16.7 million landings, the rate of occurrence is calculated as 16.7 million landings divided by 45,115 landings per year which equates to one incident every 369 years.

3. Takeoff Roll Phase Risk for Reduced ROFA - Using the separation of 312' and Figure AA-49 in Appendix A of ACRP Report #51, provides a risk level 2.2E-08) or one chance in 45.5 million takeoffs. This can be seen in the figure below:

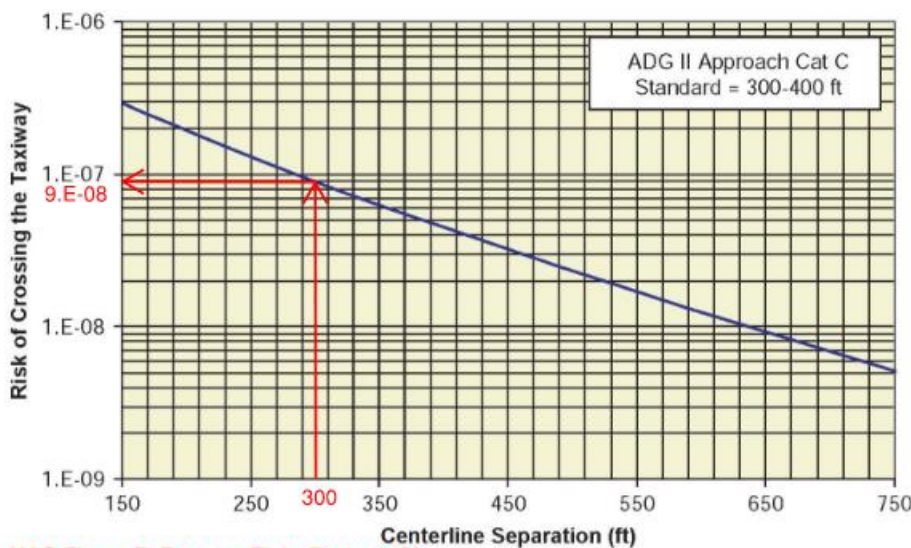


UAO Figure E: Runway CL to Airport Perimeter Fence
Figure AA-49. Takeoff veer-off collision risk for ADG II.

As the risk is one incident in every 45.5 million takeoffs, the rate of occurrence is calculated as 45.5 million takeoffs divided by 45,115 takeoffs per year which equates to one incident every 1,008) years.

Finally, as a test of the level of safety that AC 150/5300-13B considers acceptable we check what the predicted risk level is of the existing runway-taxiway separation considered appropriate¹⁰ by FAA.

4. Landing Roll Phase Risk to Taxiway Consistent with Safety Standards of AC 150/5300-13B - Using the separation of 300' and Figure AA-43 in Appendix A of ACRP Report #51, provides a risk level 9.0E-08 or one chance in 11.1 million landings. This can be seen in the figure below:



UAO Figure F: Runway CL to Taxiway CL
Figure AA-42. Landing veer-off collision risk for ADG II.

As the risk is one incident in every 11.1 million landings, the rate of occurrence is calculated as 11.1 million landings divided by 45,115 landings per year which equates to one incident every 246 years.

¹⁰ Note that Section 3-24 of Order 5100.38D Change 1 states that the FAA will not fund airport safety greater than that in the Airport Design standards, so the standard set by the runway-taxiway separation is a significant number. Order 5100.38D Change 1 can be downloaded for free at: <https://www.faa.gov/documentLibrary/media/Order/AIP-Handbook-Order-5100-38D-Chg1.pdf>

6. Conclusions

Considering the risk of each phase of flight, the risk of collision during the landing roll is the controlling factor. The Hazard Severity Classification for this type of operation would be major and the acceptable probability of occurrence is remote ($1E-05$) or less than once every 1-10 years. The following table summarizes the risk associated with each phase of flight:

Phase of Flight	Rate of Occurrence	Acceptable Level
Airborne Phase	Once every 369,000 years	Yes
Landing Roll Phase	Once every 277 years (or 369 years with calculation adjustment for fence object in lieu of wing object)	Yes
Takeoff Roll Phase	Once every 1,000 years	Yes

A runway to object separation of 312' provides an acceptable level of safety as the controlling occurrence is once every 277 years (or 369 years with the adjustment for wingspan at the fence as allowed in the ACRP method). This is much less risk than the once per 100 years FAA standard shown in Table A-3 and results in a Category E "Extremely Improbable" occurrence. Further, per ACRP's method, a wingtip to fence occurrence is considered by ACRP's method to be a Table A-4 Minimal Severity occurrence. This combination via Figure A-1 concludes that the outcome as Low Risk.

Figure UAO F shows that the existing risk of occurrence between the existing runway and existing taxiway, which fully meets FAA standards, is one in every 246 years. This means that the risk to an occurrence at the taxiway, is much less (i.e. longer duration between events) than the FAA's 100-year standard. The risk of collision with the perimeter fence is then even much less than that of a taxiway collision.

Finally, there is an incremental improvement option of ODAV and ODOT coming to an agreement to move the perimeter fence further west, to the east edge of the 12' wide gravel shoulder, which would result in a 368-foot separation. If the 39.5-foot wing span correction is added at the new fence location, this results in an equivalent distance of 407 feet for use on Figure AA-42. That in turn would result in an ACRP predicted probability occurrence being once every 515 years, almost half the risk of a taxiway collision.

Given that the commercial use of aviation is itself only around 100 years old, these numbers of one predicted occurrence at the existing airport fence every 277 or 369 years, demonstrates the high level of safety that will be maintained at Aurora Airport with this MOS.

Given the regional and national importance of Aurora Airport for emergency medical, firefighting, and emergency power line moving, along with the use by local national corporations, using the MOS ensures the airport can continue to upgrade with safety improvements, and can continue to support the approximately 1,500 employees that rely on the airport for their livelihood.

This study shows definitively that the 2012 signing off on the Aurora Airport master plan and ALP with a modification of standards for the ROFA, by FAA and ODAV, was a reasonable and appropriate action to take. The same action should be taken for the current 2024 master plan work.

Author: Aron Faegre is an architect, civil engineer, physicist, and pilot who has been the lead planner and designer on over two hundred airport planning and development projects in Oregon, Washington, California, New York, and British Columbia over the past 35 years. He has a Master of Architecture from MIT and a Bachelor of Physics from Reed College.

January 21, 2025

Alex Thomas, Planning and Programs Manager

Tony Beach, State Airports Manager

Oregon Department of Aviation

Brandy Steffen, JLA

Oregon Department of Aviation

3040 25th Ste SE

Salem, OR 97602

Alex.R.Thomas@odav.oregon.gov

**Re: Aurora State Airport Master Plan process FAA approved documents
Clarify that 500-foot Runway Extension is to meet safety needs of
current C-II aircraft, not for larger aircraft**

Mr. Thomas, Mr. Beach, and Ms. Steffen:

During the December 10, 2024 meeting during my attendance as the HTS representative, FAA staff Tim House stated that the proposed 500-foot runway extension was to allow larger aircraft to operate at the airport on a more regular basis, per the transcript below:

[Tim House - FAA] 18:21:11
So what you're asking us to do, you've already exceeded
the standards of C-II.
[Tim House - FAA] 18:21:16
you are operating at C-II.
[Tim House - FAA] 18:21:19
and you're asking for a further extension.
[Tim House - FAA] 18:21:22
to allow larger aircraft
[Tim House - FAA] 18:21:24
to operate on a more regular basis.
[Aron Faegre representing HTS] 18:21:27
No, I don't think they are.
[Tim House - FAA] 18:21:27
So that's why we have, what's the extra 500 foot doing?
[Aron Faegre representing HTS] 18:21:32
It's safety.

It is important to refer back to the prior Master Plan chapters that discussed the need for the 500-foot runway. Nowhere in the FAA approved text is there

consideration of the runway extension as “allowing larger aircraft to operate on a more regular basis.”

The reason for the runway extension is simply to comply with the FAA’s runway safety standards for a C-II airport – which Aurora Airport has been so designated by FAA for 12 years. The FAA approved Chapter 4 Airport Facility Requirements, and the conclusion of the discussion about required runway length, on page 4-16, states:

Based on local conditions, the standard methodology outlined above and in *AC 150-5325-4B*, and in coordination with FAA-SEA ADO, a runway length of 5,500 feet is identified to accommodate 100% of large airplanes (60,000 pounds or less maximum gross takeoff weight) at 60% useful load for the current 20-year planning period.

FACILITY REQUIREMENT. Consistent with FAA planning methodologies a runway length of 5,500 feet at the Aurora State Airport defines the justified runway length for the planning and analyses to be performed in Chapter 5 – Development Alternatives.

It is important recognize that the length established is not extravagant or excessive. It does not even allow the design aircraft to take off with a full load, as the assumption used in FAA Table 3-2 in AC 150-5325-4B is that on even moderately hot days (83 degrees¹) the aircraft can take off with only 60% of its full load. If the goal was to really allow all aircraft to take off at 83 degrees with closer to a full load, the analysis would have used the other half of FAA’s Table 3-2 in AC 150-5325-4B where 90% of load is assumed needed. That would have prescribed a proposed runway length at Aurora Airport of approximately 7,700 feet length. The 5,500 foot length is modest by comparison.

Also, Table 3-2 does not consider the need for “balanced field” takeoff requirements of FAR Part 135 operations which must also comply with Part 25, of which there are many of the same C-II aircraft that use Aurora Airport. These requirements are regulated and required by the FAA Flight Standards District Offices which is in charge of flight operations, as opposed to the FAA Airports District and Division Offices (ADO) which is in charge of airport design. Applying the FAA’s requirements for balanced field safety standards would at these same

¹ Recent summer average high temperatures of 88°F with peak highs of 104°F, may indicate that the 83°F used in Table 3-2 is low given climate change.

temperatures, in conjunction with differing environmental conditions, generally prescribe an even longer runway length.

The additional 500 feet of runway length proposed in the master plan is modest, is designed to generally cover only 60% of C-II aircraft load capacity, and clearly is an FAA safety standard, and not an attempt to encourage or even allow the operation of larger aircraft to use Aurora Airport. Both FAA Headquarters and the Seattle ADO have already acknowledged this distinction in their approval of the Chapter 4 language quoted above.

Respectfully submitted,

A handwritten signature in blue ink that reads "Aron Faegre". The signature is written in a cursive, flowing style.

Aron Faegre, AIA, PE

Aron Faegre Airport Planning and Design

Fw: Draft Airport Layout Plan Sketch

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-25 10:26 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (231 KB)

LT ODAV-Draft Airport Layout Plan Sketch.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 25, 2025 9:32 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; STEPHENS Cathryn E <CStephens@eugene-or.gov>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Draft Airport Layout Plan Sketch

Good morning,

I am including Ms. Stephens in case she did not receive the original email and attachment.

Brandy and Samantha, please include this in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 25, 2025 9:30 AM

To: Darlene Ferretti <Darlene.Ferretti@jordanramis.com>

Cc: oneil@wilsonvilleoregon.gov; mayor@ci.aurora.or.us; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; AHRENS Melissa * DLCD <Melissa.AHRENS@dlcd.oregon.gov>; dlcd.director@dlcd.oregon.gov; HOWARD Gordon * DLCD <Gordon.HOWARD@dlcd.oregon.gov>; AttorneyGeneral@doj.oregon.gov; WARNER Chris * GOV

<Chris.WARNER@oregon.gov>; James D. Howsley <jamie.howsley@jordanramis.com>

Subject: RE: Draft Airport Layout Plan Sketch

Hi Ms. Ferretti,

Thank you for these comments. I see that they are addressed to our Board Chair Cathryn Stephens, but I don't see her as a recipient of this email. I will forward it to her to make sure she receives it, and I will forward it to the rest of the planning team and it will be included in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Darlene Ferretti <Darlene.Ferretti@jordanramis.com>

Sent: Tuesday, February 25, 2025 9:19 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Oregon Department of Aviation <mail.aviation@ODAV.oregon.gov>

Cc: oneil@wilsonvilleoregon.gov; mayor@ci.aurora.or.us; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>; dlcd.director@dlcd.oregon.gov; HOWARD Gordon * DLCD <Gordon.HOWARD@dlcd.oregon.gov>; AttorneyGeneral@doj.oregon.gov; WARNER Chris * GOV <Chris.WARNER@oregon.gov>; James D. Howsley <jamie.howsley@jordanramis.com>

Subject: Draft Airport Layout Plan Sketch

You don't often get email from darlene.ferretti@jordanramis.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good morning,

Please find attached a letter of today's date from Mr. Howsley.

Thank you,

Darlene

Darlene Ferretti | Legal Assistant

Direct: (503) 598-5551

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February 25, 2025

VIA EMAIL ONLY

Tony Beach
State Airports Manager
Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97302
Email: Anthony.beach@odav.oregon.gov

Cathryn Stephens
Oregon Aviation Board
Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97302
Email: mail.aviation@odav.oregon.gov

Re: Draft Airport Layout Plan Sketch

Dear Mr. Beach and Ms. Stephens:

Thank you for hosting the Public Advisory Committee meetings for the new Aurora State Airport Master Plan. We represent Smith Aurora, LLC which owns tax lots 1400 and 1500 on the west side of Highway 551, which are zoned Exclusive Farm Use. On these and adjacent tax lots, large greenhouses and open fields grow food crops and flowering plants for distribution throughout the Pacific Northwest. Smith is a family business which has made significant capital investments in the farm and employs 180 workers. The Master Plan would diminish Smith's ability to adequately supply its customers. Therefore, Smith does not support the current draft Airport Layout Plan in the proposed Master Plan.

The draft Airport Layout Plan sketch illustrates that a broad strip of property will be taken from Smith's property for the relocation of the highway. It is important for ODAV to understand the adverse impacts to Smith's farm operations which would result from that taking to the property, which means there is no room left for essential truck operations and the septic drain fields. Specifically, the taking will eliminate much of the truck maneuvering area and hamstring the shipping operations, and thereby increase operational costs and reduce farm income after the project is complete. It also would eliminate half of the parking for full size tractor trailers. The taking will displace the large septic field which abuts the current right-of-way. Relocation of those two uses onto other areas of the property is problematic due to the location of the existing greenhouses. Finally, the taking will displace existing fields along the southern highway frontage where crops currently grow. Those relocations will reduce the areas available for growing crops with a corresponding reduction in farm income.

ODAV should anticipate a considerable cost to cure these problems, and thus substantial severance damages for the taking. In an earlier meeting, ODAV's consultant David Miller stated that the cost estimates for acquiring property were derived using the assessor's market value. But the assessor does not measure severance damages. Thus far we have not seen any indication that severance damages for any impacted property are included in the Capital Improvement Plan cost estimate for the highway relocation (or in the costs of other property acquisitions shown on the draft plans). That financial omission must be corrected before the plan is submitted to the FAA or the Oregon Aviation Board if those decision makers are to have a realistic cost estimate. And legally speaking, adoption of

February 25, 2025

Page 2

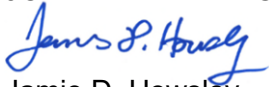
the plan by the Oregon Aviation Board must address the statewide planning goals and thus, under Goal 2, be supported by an adequate factual base. See OAR 660-015-0000(2). If ODAV simply disregards this testimony and the testimony of others regarding the severance damages to their properties, then any decision adopting the plan will lack substantial evidence to support it. *Columbia Pacific v. City of Portland*, 289 Or App 739, 757, 412 P3d 258, rev den, 363 Or 390 (2018).

Many participants in the PAC meetings have noted the very large public cost for moving the highway, especially in relation to the comparatively short runway extension and the small number of benefitted airport users. The alternative airports including Salem, McMinnville, and Hillsboro are located in cities and already have longer runways and ample areas for additional hangars, without adversely impacting Smith's farm operations. ODAV and OAB should recognize that the region has nearby alternatives for the planes that need longer runways. Under Oregon land use law, ODAV cannot expand its urban airport onto land zoned for Exclusive Farm Use when nearby airports have ample aviation facilities for the private jets that the runway extension and highway relocation are intended to serve. See OAR 660-004-0020(2)(b) ("Areas that do not require a new exception cannot reasonably accommodate the use.").

Thank you for your attention to this matter.

Sincerely,

JORDAN RAMIS PC



Jamie D. Howsley

Admitted in Oregon and Washington

cc: Peter Rempp, Smith Gardens, Inc.
Mayor Sean O'Neil, oneil@wilsonvilleoregon.gov
Mayor Brian Asher, mayor@ci.aurora.or.us
Kenji Sugahara, ODAV, kenji.sugahara@odav.oregon.gov
Melissa Ahrens, DLCD, melissa.ahrens@dlcd.oregon.gov
Brenda Bateman, DLCD, dlcd.director@dlcd.oregon.gov
Gordon Howard, DLCD, gordon.howard@dlcd.oregon.gov
Dan Rayfield, Attorney General, AttorneyGeneral@doj.oregon.gov
Chris Warner, Governor's Office, Chris.Warner@oregon.gov

Re: Aurora State Airport Master Plan Website Comments - Chris Gage

From Chris Gage <noreply@jotform.com>

Date Wed 2025-01-29 10:08 AM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Chris Gage

Comments or questions? Legal Opposition to Aurora State Airport Master Plan Expansion

Submitted to: Oregon Department of Aviation
Date: 1/29/2025

Subject: Formal Objection to the Proposed Westward Expansion of Aurora State Airport Master Plan

I. Introduction We the resident of the community submit this formal opposition to the proposed westward expansion of the Aurora State Airport as outlined in the Master Plan. This proposal raises significant concerns regarding adverse impacts on the local community, environmental sustainability, economic viability, and legal compliance. We urge the responsible authorities to reconsider this expansion and explore alternative solutions that do not compromise the well-being of our residents.

II. Community Disruption and Quality of Life
The proposed expansion threatens to disrupt the surrounding residential neighborhoods, small businesses, and agricultural lands in the following ways:

Increased Noise Pollution: Expanding the airport will result in significantly increased aircraft traffic, generating noise pollution that

will negatively affect residents' quality of life, particularly for families, the elderly, and individuals with health conditions sensitive to noise exposure.

Traffic Congestion and Safety Risks:

Expansion-related construction and increased airport operations will exacerbate existing traffic congestion on surrounding roads, creating additional safety hazards for motorists, cyclists, and pedestrians.

Property Devaluation: The expansion may reduce property values in the affected areas due to heightened noise levels, increased traffic, and decreased residential desirability.

III. Environmental Concerns The expansion poses serious environmental risks that conflict with Oregon's land use and environmental protection policies, including:

Impact on Farmland and Natural Habitats:

The proposed expansion encroaches on agricultural lands and environmentally sensitive areas, threatening local ecosystems and wildlife habitats.

Air and Water Pollution: Increased aviation activity will lead to higher emissions of greenhouse gases and other pollutants, negatively impacting air quality. Additionally, fuel runoff and chemical contaminants pose risks to local water supplies.

Violation of Statewide Land Use Goals:

Oregon's land use planning system prioritizes the preservation of agricultural land and open spaces. The proposed expansion directly contradicts these principles by repurposing rural land for aviation-related development.

IV. Economic and Financial Concerns

Unjustified Cost to Taxpayers: The expansion requires substantial public investment, yet the projected economic benefits remain uncertain. There is no clear evidence that the

expansion will generate sufficient revenue to justify the expenditure.

V. Legal and Procedural Issues

Lack of Comprehensive Community

Consultation: The planning process has not adequately engaged local residents and stakeholders in meaningful discussions about the expansion's consequences.

Potential Violations of Zoning and Land Use

Regulations: Expanding the airport into residential and agricultural zones may violate existing land use laws and local zoning ordinances.

Noncompliance with Federal and State

Environmental Regulations: The project must undergo rigorous environmental impact assessments under the National Environmental Policy Act (NEPA) and Oregon's environmental protection laws before approval.

VI. Conclusion and Request for Action

Given these significant concerns, we strongly urge the appropriate authorities to:

Halt the approval process for the westward expansion of the Aurora State Airport.

Conduct a comprehensive environmental and economic impact study with full public transparency.

Explore alternative solutions that minimize disruption to the community while addressing aviation needs and also involve the community.

Facilitate open public hearings and community engagement to ensure all voices are heard before any further planning decisions are made.

The Aurora community stands firm in its opposition to this expansion and requests that decision-makers prioritize the health,

safety, and well-being of local residents over corporate or commercial interests.

Respectfully submitted,

Chris Gage representing the Aurora Community

I would like to receive email updates.

If you would like a response, please tell us the best way to contact you:

Email
Phone

Email

heliaction@mac.com

Phone Number

(503) 899-9342

You can [edit this submission](#) and [view all your submissions](#) easily.

Re: Aurora State Airport Master Plan Website Comments - Chris Gage

From Chris Gage <noreply@jotform.com>

Date Wed 2025-02-19 3:47 PM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Chris Gage

Comments or questions? I attended the Feb 11, 2025 meeting. I have to say I was embarrassed for the ODAV team that could not answer simple questions that were asked over and over. The ODAV representatives on the call were defensive and lacked information that was being asked. It is apparent that this being attempted to be pushed through. I am strongly opposed to this "preferred alternate plan" The cost is extremely outrageous, taking EFU land and converting it "airport reserve" is against current county law. The impacts this will have to the congestion of Wilsonville and Boone Bridge will be detrimental to the current congested issue. Be prepared to add many dollars to the budget for litigation expense from many parties.

I would like to receive email updates.

If you would like a response, please tell us the best way to contact you:

Email
Phone

Email heliaction@mac.com

Phone Number (503) 899-9342

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: Aurora Airport expansion question

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-03-05 3:42 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, March 5, 2025 3:36 PM

To: Karin Grano <kgrano@msn.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Subject: RE: Aurora Airport expansion question

Hi Karin, thanks for your feedback. This correspondence will be included in the public record for the master plan, and will be available on the project website at <https://publicproject.net/auroraairport>

Tony Beach
OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am – 4pm

-----Original Message-----

From: Karin Grano <kgrano@msn.com>

Sent: Wednesday, March 5, 2025 3:29 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Re: Aurora Airport expansion question

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hi Tony!

Thank you for your quick response. Is it okay with you if I share this information on social media if this subject raises its ugly head again? Even City of Wilsonville officials misrepresented the truth on a city flier for an upcoming open house about the airport expansion back in June 2024, claiming the runway extension would, "allow larger and heavier aircraft to land and take off with more fuel," also saying that your main source of revenue is tax on aviation fuel, which may or may not be true, but that's besides the point.

I just want the truth, and that doesn't seem to be the narrative out there.

Thanks again!

Karin

> On Mar 4, 2025, at 3:57 PM, BEACH Anthony <Anthony.BEACH@odav.oregon.gov> wrote:

>

> Hi Karin, thank you for reaching out with your question.

>

> The Design Aircraft is explained in Draft Chapter 3: Aviation Activity

> Forecasts:

> <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubl>

> icproject.net%2Ffiles%2FUAOAMP%2Faurora-state-airport-wp-1-updated-nov

> ember-2023-opt.pdf%3F37af5f0589&data=05%7C02%7CAnthony.BEACH%40odav.or

> egon.gov%7C2ea05359472446f0827e08dd5c3d823c%7C28b0d01346bc4a648d861c8a

> 31cf590d%7C0%7C0%7C638768141592543641%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0

> eU1hcGkiOnRydWUsIlYiOilwLjAuMDAwMCIlIAiOiJXaW4zMilslkFOLjoiTWfPbClsl

> dUljoyfQ%3D%3D%7C0%7C%7C%7C&sdata=A4OB%2Bo1F2A%2B2C2u%2BSOkOk5hvNop8k2

> lbw0e9YgLtuVs%3D&reserved=0

>

> The runway length analysis is explained in the Draft Chapter 4:

> Facility Requirements for the Aurora State Airport Master Plan:

> <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubl>

> icproject.net%2Ffiles%2F2024-01%2FAurora-Airport%2F4-uaoairportfacilit

> yrequirements-041524.pdf%3Fa75844ce51&data=05%7C02%7CAnthony.BEACH%40o

> dav.oregon.gov%7C2ea05359472446f0827e08dd5c3d823c%7C28b0d01346bc4a648d

> 861c8a31cf590d%7C0%7C0%7C638768141592563382%7CUnknown%7CTWFpbGZsb3d8ey

> JFbXB0eU1hcGkiOnRydWUsIlYiOilwLjAuMDAwMCIlIAiOiJXaW4zMilslkFOLjoiTWfP

> bClslldUljoyfQ%3D%3D%7C0%7C%7C%7C&sdata=ap7IBTaNWbMoCnYWu3RYndixnpl%2B

> WJwPTUe1WXpTP5I%3D&reserved=0

>

> Because the future Design Aircraft for the 20 year planning period is the same as the airports current Design Aircraft, and because the proposed 497 foot extension is needed to accommodate 100% of the forecasted fleet mix at 60% useful load as determined by FAA methodologies, the runway extension is not intended to allow bigger or heavier class of airplanes to use the airport. The runway extension is intended to accommodate the aircraft currently using the airport.

>

> Thank you

>
> Tony Beach
> OREGON DEPARTMENT OF AVIATION
> STATE AIRPORTS MANAGER
> OFFICE 503-378-2523 CELL 503-302-5455 M-F 7:30am - 4pm
>
>
>
>
> -----Original Message-----
> From: Karin Grano <kgrano@msn.com>
> Sent: Tuesday, March 4, 2025 10:34 AM
> To: Oregon Department of Aviation <mail.aviation@ODAV.oregon.gov>
> Subject: Aurora Airport expansion question
>
> [You don't often get email from kgrano@msn.com. Learn why this is important at
> <https://aka.ms/LearnAboutSenderIdentification>]
>
> This message was sent from outside the organization. Treat attachments, links and requests with
> caution. Be conscious of the information you share if you respond.
>
> To whom it concerns,
>
> I hear a lot of talk that the 500 foot extension to the runway at the Aurora airport will allow a bigger,
> heavier class of plans to utilize the airport. Lots of folks believe this, but I haven't been able to get
> anyone to answer that question for me.
>
> It is my understanding that the runway extension is for safety purposes and will allow for more payload
> (fuel). I'd really like to know the truth.
>
> Thanks for your time to respond.
>
> Best,
>
> Karin Grano
> Aurora, Oregon

Fw: KUAO - Current Refined Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:10 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:38 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: KUAO - Current Refined Preferred Alternative

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:29 AM

To: Norm Green <nrgiii66@gmail.com>; brandy.steffen@jla.us.com

Subject: RE: KUAO - Current Refined Preferred Alternative

Hi Norm, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Norm Green <nrgiii66@gmail.com>

Sent: Sunday, January 19, 2025 10:39 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com

Subject: KUAO - Current Refined Preferred Alternative

You don't often get email from nrgiii66@gmail.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

I ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Thank you again for listening and your recent improvements to the plan.

Norman R. Green
Columbia Aviation Association Member

Re: Aurora Airport - Refined Preferred Alternative comments by 01/21/25

From Brandy Steffen <brandy.steffen@jla.us.com>
Date Fri 2025-01-10 5:00 PM
To Helbling, Tony <helbling@wilsonconst.com>
Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Hi Tony,

We posted the February meeting date to the website on Wednesday afternoon. I just sent an email today to the PAC about the meeting date and our other notice will go out next week.

I hope that helps answer your question.

Take care,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: Helbling, Tony <helbling@wilsonconst.com>
Sent: Friday, January 10, 2025 3:58 PM
To: Brandy Steffen <brandy.steffen@jla.us.com>
Subject: RE: Aurora Airport - Refined Preferred Alternative comments by 01/21/25

Good afternoon – can you tell me when PAC Meeting #9 was put up on the web site – was that today?

Tony Helbling
Logistics Manager
Wilson Construction Company
1190 NW 3rd Ave
Canby, OR 97013
Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

From: Brandy Steffen <brandy.steffen@jla.us.com>
Sent: Tuesday, January 07, 2025 1:22 PM
Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Aurora Airport - Refined Preferred Alternative comments by 01/21/25

Good afternoon PAC members,

Thank you for attending PAC Meeting #8 and submitting your feedback on the Preferred Alternative. ODAV and the Planning Team has reviewed all feedback received and has made the following key refinements:

- Removed the proposed parallel taxiway.
- Removed the proposed vehicle service road that would require additional property acquisition.
- Depicted the priority property acquisition as the property required to meet FAA standards, based on the existing and future runway configuration. Reserve property acquisition is depicted in the event of a future willing seller and for the purpose of FAA grant funding eligibility.

The Refined Preferred Alternative maintains the improvements needed to comply with RSA, TSA, and ROFA standards. Please review the [Refined Preferred Alternative Summary](#) including the Refined Preferred Alternative figures for additional detail on the project website:

<https://publicproject.net/auroraairport#> (on the "Resources & Documents" Page).

Please submit any comments on the [Refined Preferred Alternative](#) no later than Tuesday, January 21, 2025.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Fw: Thanks for visit today-

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:08 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 2 attachments (155 KB)

EC2501 Sunset Water Systems Award Letter.pdf; EC2501 Sunset Water Systems Summary of Award.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 10:47 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Thanks for visit today-

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 10:47 AM
APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0325

To: Helbling, Tony <helbling@wilsonconst.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: wk@klgpc.com; tmillar@wwpmi.com; Bruce Bennett <bruce@auroraaviation.com>; Lukas Nickerson <Luke@flyaerometal.com>
Subject: RE: Thanks for visit today-

Hi Tony, thanks for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>
Sent: Tuesday, January 21, 2025 10:15 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: wk@klgpc.com; tmillar@wwpmi.com; Bruce Bennett <bruce@auroraaviation.com>; Lukas Nickerson <Luke@flyaerometal.com>
Subject: FW: Thanks for visit today-

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony, Kenji and Brandy –

This needs to get into the record.

I met with Art Chaput over at Business Oregon and Kip Morris from SEDCOR yesterday. Among other things – we discussed feedback submittals for today on the refined preferred alternative.

They shared something surprising about some of the homes on the west side of HWY 551... other agencies in the state are working to spend money to protect those homes.

My sense is our Master Plan process is going to come into conflict with other state agencies and create some traps/issues with citizens caught in the middle. This whole thing is moving too fast without enough people at the table to discuss ramifications.

We are going to end up hurting people.

Tony Helbling
Logistics Manager
Wilson Construction Company
1190 NW 3rd Ave
Canby, OR 97013
Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

From: CHAPUT Arthur * BIZ <Arthur.CHAPUT@biz.oregon.gov>
Sent: Tuesday, January 21, 2025 6:45 AM
To: Helbling, Tony <helbling@wilsonconst.com>
Cc: kmorris@sedcor.com
Subject: RE: Thanks for visit today-

Tony, here is a little more information about that water system project you asked about. They have detected manganese in their water. Goal of the current project (\$61,000 forgivable loan) is to do a feasibility study to see what solutions might be possible. We expect the park to come back to us for construction funding once the feasibility study is complete. The current award is federal funding from the big 2021 infrastructure bill.

Arthur Chaput
Regional Development Officer – Marion, Polk, Yamhill
Business Oregon | **NEW** <https://www.oregon.gov/biz/>
503-798-5076 mobile



From: CHAPUT Arthur * BIZ
Sent: Monday, January 20, 2025 3:44 PM
To: helbling@wilsonconst.com
Cc: kmorris@sedcor.com
Subject: Thanks for visit today-

Tony,

Thanks for having Kip and I out for a visit today. It was educational. I've cc'd Kip here so that you have his email address.

Look forward to taking you up on that offer to visit the airport.

-Arthur
503-798-5076



July 23, 2024

Donald Crouch, President
Sunset Water Systems, Inc.
14102 Piper Street NE
Aurora, OR 97002

RE: Award for Bipartisan Infrastructure Law-Emerging Contaminants Fund, Manganese Remediation Feasibility Study, Project Number EC2501, 07/22/2024

Dear Donald Crouch:

Congratulations on your successful application for the above-referenced project. Enclosed please find a summary showing the funding amount and special terms and conditions of the award. The financing contract will contain the full terms and conditions of your award and will be sent to you for proper signatures. Please note that the legal obligations for funding and for reimbursement of project expenses are subject to execution of the contract.

The project must comply with all applicable state laws, regulations and procurement requirements. As a reminder, you must provide copies of all solicitations at least 10 days before advertising, and all draft contracts at least 10 days before signing.

We encourage you to offer appropriate media opportunities to help build public awareness of your project's purposes and benefits. Please notify us of any event celebrating your project. As always, we are available to answer questions that may arise during the implementation of your project. If you need assistance, please contact me at 503-551-0957, or via email to tawni.bean@biz.oregon.gov.

Sincerely,

Tawni Bean

Tawni Bean, Regional Project Manager
Business Oregon

c: Janet Griffin, Secretary
Arthur Chaput, Regional Development Officer
Adam DeSemples, OHA
Gregg Baird, Emerging Contaminants Specialist, OHA
Representative Rick Lewis
Senator Fred Girod

SUMMARY OF AWARD

Project Number: EC2501 Date of Award: 07/22/2024

Recipient: Sunset Water Systems

Project Name: Manganese Remediation Feasibility Study

Source of Funding (Grant/Loan/Forgivable Loan)	Award Amount
OBDD – BIL-EC – Forgivable Loan, Taxable	\$61,250
Total	\$61,250

General Description of Loan	
Interest Rate	1.00%
Maximum Term	10 Years

Approved Project Description
The Recipient will procure an Oregon Licensed Engineer to prepare a feasibility study to evaluate the feasibility of alternatives to address manganese located in the water system. The feasibility study must include the following elements: • Analysis of project feasibility (e.g. engineering, regulatory, legal, et cetera). • Analysis of alternatives for drinking water projects to address the emerging contaminant within the water system and recommended options, which will include but is not limited to, connecting to a nearby water system, developing a new water source and installing treatment. • Estimate of up-to-date project costs for each alternative including material, labor, contingency budget, and other expenses. • Design and/or construction timeline. • Operational feasibility analysis including identification of expected changes in costs for ongoing operation, maintenance, and long-term replacement of the improvements. The draft feasibility study must be submitted to Business Oregon for review.

Note: The full terms and conditions will be contained in the contract.

Fw: quick question

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:08 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 3:28 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: quick question

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 3:28 PM

To: Helbling, Tony <helbling@wilsonconst.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: Luke Nickerson <nickersonlukas@gmail.com>

Subject: RE: quick question

Thanks Tony, we'll include your comment in the public record.

A11D0331

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>

Sent: Tuesday, January 21, 2025 2:25 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: Luke Nickerson <nickersonlukas@gmail.com>

Subject: RE: quick question

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thanks – I think that will work for us. Stacking hangars is not an all day or overnight process... just takes a few hours at most and we'd happily work with the tower if they knew a 777 was going to taxi by! Life-Flight may have to adjust operations as their western pad would be affected.

Appreciate the quick turn on the info.

Tony Helbling
Logistics Manager
Wilson Construction Company
1190 NW 3rd Ave
Canby, OR 97013
Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 2:07 PM

To: Helbling, Tony <helbling@wilsonconst.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: Luke Nickerson <nickersonlukas@gmail.com>

Subject: RE: quick question

Hi Tony,

7a and 7b are correct. When the property acquisition is completed, it would require an amendment to the Access Agreement to reflect the changed Access Point. At that point, I think we would add a distinction to allow relocation of aircraft (but no parking) and related equipment (tugs) and personnel within state property but outside of the Movement Area. For access of the non-movement area for aircraft and tugs, I don't see why case by case permission or ATC clearance would be necessary. Allowable uses within the Movement Area would remain as 7a is written.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>
Sent: Tuesday, January 21, 2025 12:50 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: Luke Nickerson <nickersonlukas@gmail.com>
Subject: RE: quick question

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Tony – thanks,

Clarification question... see attached – Item 7 b (I think) is where the answer sits...

If ODAV is going to keep that area as “public-use” then I think we are okay to stack/unstack using that space. Just want to make sure we would not run afoul of 7a, 7b or 7c. My assumption is our tugs and aircraft would not need time of movement permission to go off SECAP ramp into the ROFA (the area of priority acquisition).

I hate to be nit-picky but the distinction is important as we’re all gun shy over the VPD issue and now an aircraft that might taxi onto the putting green... we just want to follow the rules, and giving up property is very important!

Please clarify

Tony Helbling
Logistics Manager
Wilson Construction Company
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Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Tuesday, January 21, 2025 11:58 AM
To: Helbling, Tony <helbling@wilsonconst.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: Luke Nickerson <nickersonlukas@gmail.com>
Subject: RE: quick question

Hi Tony,

The priority property acquisition along the eastern side of Taxiway A is for the ROFA, the current Non-Movement Area Boundary Marking is in its ultimate location and would not change. Aircraft movement is allowable in the ROFA, allowable uses of state property from private property are provided and explained in our Access Agreements. Since portions of the ROFA are outside of the Movement Area, a person stepping in the ROFA but not entering the Movement Area does not constitute a Surface Incident or V/PD.

I hope this answers your questions, let me know if you need more clarification.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>

Sent: Tuesday, January 21, 2025 9:35 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: Luke Nickerson <nickersonlukas@gmail.com>

Subject: quick question

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony and Kenji,

Quick question – we’re hustling to get our responses together for the deadline today...

Along the front of SECAP – the plan shows priority acquisition of approx. 20’ +/- of the ramp. We think that is to protect the ROFA. In that case, does ODAV plan to move the “movement” line back toward the hangars? Will we still be able to work out there freely without contacting the tower?

The ROFA rules say no tie-down of aircraft or parking vehicles (we interpret it to mean a person needs to be actively involved in whatever aircraft or vehicle is in the ROFA but outside the movement line)... but – will that area once owned by ODAV be off limits to airport users without permission from ODAV/the tower? Will we get in trouble for stepping on it?

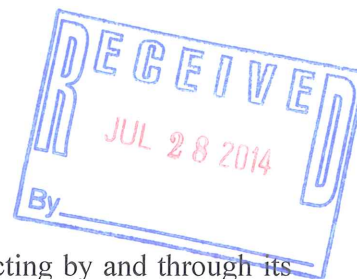
This is important as we need to “stack/unstack” hangars periodically and usable ramp space is vital to operations.

This is important as to how we respond today.

Please advise,

Tony Helbling
Logistics Manager
Wilson Construction Company
1190 NW 3rd Ave
Canby, OR 97013
Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

AURORA STATE AIRPORT
COMMERCIAL ACCESS AGREEMENT



This Commercial Access Agreement is between the State of Oregon, acting by and through its Department of Aviation (AVIATION), and SOUTHEND CORPORATE AIRPARK CONDOMINIUM OWNERS ASSOCIATION (PERMITTEE). AVIATION and PERMITTEE agree as follows:

DEFINITIONS

- "Airport" – The AURORA State Airport, in MARION County, Oregon.
- "Air Operations Area" - Any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
- "Access" – The ingress and egress between the Property and public-use area of the Airport
- "Access Agreement" - The Written document that defines the terms of access and fair market value of entry for entry of aircraft, personnel, and/or vehicles onto a public use airport and the location of access described on the Airport Layout Plan (ALP) and in the agreement exhibits.
- "Access Point" - The location at which the Property abuts the public-use area of the Airport, at which PERMITTEE shall be granted a right of ingress and egress under the terms of this agreement, as depicted on the attached Exhibit "B".
- "Based Aircraft" – Lawfully registered aircraft listing Aurora State Airport on the aircraft registration and required to be registered.
- "Public-Use Area" - That portion of the Airport that is available for public use as permitted by AVIATION, as such may change from time to time.
- "Property" - That parcel of real property owned by PERMITTEE, depicted on the attached Exhibit "A".
- "Through-the-Fence Operations" - Through-the-fence operations are those activities permitted by an airport sponsor through an agreement that permits access to the public landing area to independent entities or operators offering an aeronautical activity or to owners of aircraft based on land adjacent to, but not a part of the airport property. The obligation to make an airport available for the use and benefit of the public does not impose any requirement for the airport sponsor to permit access by aircraft from adjacent property.
- "Taxilane" – The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.

RECITALS

- I. AVIATION owns and operates the Airport for the benefit of the public.
- II. Safe, efficient, and controlled access to the publicly-owned taxiways, aprons, and runways of the Airport for commercial entities promotes economic growth, employment, and aviation-related innovation and commerce at the Airport and in surrounding communities. As the Airport sponsor, AVIATION seeks to allow such access in a manner that complies with federal funding agreements, and federal and state law.
- III. PERMITTEE is a commercial enterprise that desires to obtain a right of ingress and egress from the Property through the Access Point to and from the Airport's public-use area for itself, its tenants, employees, agents, contractors, unit owners, and invitees for the purpose of conducting its aviation-related business.

TERMS

1. RIGHT OF ACCESS:

- a. AVIATION hereby grants to PERMITTEE a non-exclusive right of access between the Property and the public-use area of the Airport at the Access Point for the uses described in this Agreement as depicted in Exhibit "B". In making this grant, AVIATION reserves the authority to (i) revoke access if, in its reasonable sole discretion, AVIATION determines that the access poses a risk to the safe and efficient operation of the Airport, and (ii) relocate the Access Point upon sixty (60) days' written notice to PERMITTEE, for the purpose of accommodating airport development, third parties or others to whom AVIATION grants access. This grant is contingent on the continued ownership and operation of the Airport by AVIATION, and upon the continued compliance by PERMITTEE with all of the conditions of this agreement.

2. TERM:

- a. The term of this agreement is twenty (20) years, beginning 07/01/2014 (the "Effective Date") and ending 06/30/2034, with one five (5) year renewal option from the date the agreement is executed by both parties hereto.

3. NO REAL PROPERTY INTEREST:

- a. The Parties agree that the right of access granted by this agreement does not create an interest in real property and shall neither burden the Airport nor benefit the Property.

4. CONSIDERATION:

- a. In consideration for the right of access granted herein, PERMITTEE shall pay to AVIATION the greater of the following amounts per OAR 738-010-0025:
 - 1) A fee for each aircraft based on the adjacent property which is the subject of this permit. The per aircraft fee is based on aircraft maximum gross landing weight at the rate published in OAR 738-010-0025 and listed for convenience in Exhibit A; or
 - 2) \$275.00 Category II Airport
- b. Payment is due on the 1st day of each month for the previous month. At time of payment, **PERMITTEE shall also submit to AVIATION a detailed report listing each based aircraft showing aircraft class per OAR 738-010-0025, N-number, aircraft type, weight and the hangar or tie-down number where the aircraft is stored.**
- c. AVIATION will annually review the consideration payable to AVIATION. Based on its review, AVIATION may adjust the monthly fee to ensure fair, reasonable, and nondiscriminatory rates. Adjustment shall be based on the Consumer Price Index-Urban of the state of Oregon, provided that no adjustment shall exceed three percent (3%) of the access payment for the previous CPI increase.

5. OPTION TO RENEW:

- a. PERMITTEE may renew this agreement for one additional term of five (5) years, provided PERMITTEE is in compliance with federal grant assurances and state regulations.

6. LATE PAYMENTS AND RETURNED CHECKS:

- a. If any payment due under this agreement is not paid within ten days after its due date, PERMITTEE shall owe and shall pay to AVIATION an administrative charge of ten percent of the amount due per month. Failure to make full payment including the administrative charge within 30 days after the date the payment is due is a default. Imposition of an administrative charge on delinquent payments does not constitute a waiver of any of AVIATION's rights to pursue its legal remedies under the law or as provided in this Agreement.
- b. If any check to AVIATION for payment under this Agreement is returned to AVIATION by PERMITTEE's bank unpaid for any cause, PERMITTEE shall owe to AVIATION a \$50 fee in addition to the amount of the check and any administrative charge owed under the above paragraph. Amounts due AVIATION are considered unpaid until AVIATION receives payment from the bank.

7. USES AND PROHIBITIONS:

- a. PERMITTEE shall use the Airport and Access Point exclusively for movement of aircraft and personnel authorized by AVIATION. No other use of the Airport and Access Point is permitted.
- b. PERMITTEE's use of the Airport and that of its employees, agents, tenants, contractors, and other authorized persons should be limited to the public-use area and the Access Point and is limited to use by aircraft meeting the Airport's FAA design criteria. Aircraft that do not meet airport design criteria will operate at their own risk and be liable for damage caused to airport property. Permittee is responsible for all guests, employees, agents and contractors under their cognizance.
- c. Unless otherwise permitted by AVIATION, automobiles, bicycles, trucks, fuel trucks, motorcycles, and other vehicles, pedestrians, or animals, shall not be allowed on the Air Operations Area.
- d. PERMITTEE shall not use or permit to be used any portion of the Airport or other state-owned property for storage of personal property except in areas designated by AVIATION. AVIATION may compel removal of such personal property at PERMITTEE's sole expense. If such personal property is not removed upon reasonable request, AVIATION may remove the same and charge the cost of the removal to PERMITTEE. Reasonable is defined as immediately when safety is affected and within 48 hours for other requests.
- e. The transport of dangerous articles or magnetized materials by or under the control of PERMITTEE, its agents, employees, contractors, tenants, customers or other designees over AVIATION'S property shall be done in strict accordance with 49 CFR part 175 and policies of the Federal Aviation Administration.

8. ORGANIZED PUBLIC ACTIVITIES:

- a. PERMITTEE shall obtain AVIATION's approval to conduct, host, promote or hold any organized public aviation activity, airshow, fly-in, rally, competition, exhibition or display that makes use of the Access Point or Airport. PERMITTEE shall request such approval in writing on an application form supplied by AVIATION not less 30 days prior to the activity, setting forth facts pertinent to the planned activity.
- b. Based on the information supplied by PERMITTEE and at AVIATION's sole reasonable discretion with due regard to airport operational benefit, AVIATION may approve or deny the application. AVIATION may request that PERMITTEE modify the nature of the planned activity if the safety or the efficiency of Airport operations or interests of other Airport users so require.

- c. If the application is granted, with or without modifications, PERMITTEE and all participants in the planned activity shall indemnify, save and hold the State of Oregon and AVIATION harmless under the terms of Section 13 of this Agreement for all injuries to persons or property of any nature whatsoever arising out of the conduct of the planned airshow, fly-in, rally, competition, exhibition or display.
- d. At any activity approved and conducted under this section, PERMITTEE shall make available a Unicom radio, or its equivalent, and a fully qualified operator thereof, advising aircraft traffic that the scheduled activity is in progress; and
- e. At PERMITTEE's sole expense, PERMITTEE shall dispose of all debris, litter, and other personal property remaining on the Airport, public-use area or Access Point within 24 hours of the activity's conclusion. All areas of the Airport and Access Point shall be returned to the same condition or better at the end of the scheduled activity.

9. HAZARDOUS SUBSTANCES:

- a. PERMITTEE shall not store, dispose of, or release or allow any hazardous substances as defined in OAR 738-005-0010(67) or petroleum products to be released on any portion of the Access Point, Property or Airport. PERMITTEE shall recycle petroleum products and dispose of hazardous substances in accordance with the Oregon Department of Environmental Quality's rules, regulations and 1200Z permit, which are available by contacting the Oregon Department of Environmental Quality. All costs associated with the use of Hazardous Substances or petroleum products, including but not limited to costs of cleanup, removal, remediation, and compliance with federal, state and local environmental requirements, are the sole responsibility of PERMITTEE. PERMITTEE shall indemnify and hold AVIATION harmless from any and all claims, losses, damage, costs, attorney fees and other expenses incurred by AVIATION in connection with the remediation of hazardous substances in, on, upon or under the Access Point or any portion of the Property or the Airport. All hazardous substances and petroleum products shall be used, handled, cleaned up, removed and remediated in accordance with federal, state and local requirements.

10. MAINTENANCE OF ACCESS SITE AND AIRPORT:

- a. PERMITTEE shall maintain the Access Point in a safe condition at all times.
- b. PERMITTEE shall post the Property and Access Point against trespassing and exercise control over the Access Point to prevent unauthorized use of the Access Point. Signage shall not interfere with or obstruct taxiing aircraft. AVIATION may require PERMITTEE to replace, relocate or remove signs that AVIATION determines to be inadequate, improper or a safety hazard. PERMITTEE may be required to add signage for safety as directed by aviation.

- c. PERMITTEE shall maintain the Access Point, the public-use area of the Airport, (immediately around the access point) and Property in a reasonably clean and neat fashion, and shall not permit the accumulation of rubbish, junk, aircraft or automobile parts or any other material.
- d. AVIATION shall maintain the runways, public taxiways, and aircraft parking area at the Airport. AVIATION retains sole authority to determine the methods and schedules by which any maintenance or necessary construction is to be performed. AVIATION may close the Airport whenever it deems it necessary for reasons of public safety or convenience. AVIATION shall make a good faith effort to provide advance notice of Airport closures when possible, but no advance notice is required when closure of the Airport is due to weather, acts of God, or other unforeseen circumstances.

11. FIRE PREVENTION:

- a. PERMITTEE shall exercise due and reasonable care and caution to prevent and control fires on the Premises. PERMITTEE shall comply with all relevant state, county, and local fire laws, codes and rules. Local and state fire marshals may enter the Premises to determine compliance with fire prevention laws, codes and rules.

12. INDEMNIFICATION:

PERMITTEE SHALL CONDUCT ITS ACTIVITIES UNDER THIS AGREEMENT AT PERMITTEE'S OWN RISK, AND SHALL INDEMNIFY, HOLD HARMLESS, AND DEFEND THE STATE OF OREGON AND AVIATION AND THEIR OFFICERS, EMPLOYEES AND AGENTS FROM AND AGAINST ALL CLAIMS, SUITS, ACTIONS, LOSSES, DAMAGES, LIABILITIES, COSTS AND EXPENSES OF ANY NATURE WHATSOEVER ARISING OUT OF, OR RELATING TO THE INTENTIONAL MISCONDUCT, OR RECKLESS OR NEGLIGENT ACTS OR OMISSIONS OF PERMITTEE OR ITS OFFICERS, EMPLOYEES, SUBCONTRACTORS, OR AGENTS UNDER THIS AGREEMENT.

13. INSURANCE:

- a. Airport Liability Insurance: PERMITTEE shall maintain in force during the term of this Agreement airport liability insurance covering the Access Point, the Property, the Airport, and operations of PERMITTEE, including operation of aircraft. Combined single limit for bodily injury and property damage must not be less than \$1,000,000 per occurrence.
- b. Additional Insured: The above described insurance shall be provided by an insurance company authorized to do business in the State of Oregon and shall be primary and exclusive of any carried by the State of Oregon and shall be exhausted first. The liability insurance coverages required in this Agreement must include the State of Oregon, the Oregon Department of Aviation, and their

respective officers and employees as additional insureds. Coverage must be severable for all insured or covered under cross-liability of all insured.

- c. Notice of Cancellation: There must be no cancellation of any insurance required under this section, or potential exhaustion of aggregate limits, without 30 days written notice from PERMITTEE or its insurer(s) to AVIATION.
- d. Certificates of Insurance: As evidence of the insurance coverage required under this agreement, PERMITTEE shall furnish certificate(s) of insurance to AVIATION no later than the effective date of this Agreement. The certificate(s) must clearly reflect compliance with the relevant terms of this section and be obtained from insurers with a Best's rating of not less than "A" or with approved Oregon surplus lines insurers.
- e. Adjustments: The parties agree that in the event the insurance limitations required herein are determined by legislation, court action or otherwise to be inadequate, the insurance requirements shall be adjusted within thirty days to comply with the new requirements.
- f. Failure to maintain insurance: Failure to keep required insurance in effect or failure to provide proof, upon request by AVIATION, of continuance of such insurance is grounds for default and termination pursuant to ODA regulation and this agreement.

14. ASSIGNMENT:

- a. PERMITTEE shall not assign, delegate or otherwise transfer any of its rights or obligations under this agreement without first obtaining the written consent of AVIATION, which AVIATION will not unreasonably withhold. This agreement is binding upon and inures to the benefit of each of the parties, and, except as otherwise provided, their permitted legal successors and assigns.

15. RECORDS:

- a. PERMITTEE shall keep proper books of account and other records pertaining to its airport access payment records. The books and records shall be available at all times during normal business hours to AVIATION and its authorized representatives, including but not limited to the Oregon Secretary of State and the Federal Government, which may inspect all such books and records to ascertain compliance with the terms and conditions of this agreement.

16. AIRPORT REGULATIONS:

- a. PERMITTEE's use of the Access Point and Airport under this agreement is subject to all existing and future regulations adopted by the FAA and State Aviation Board relative to the operation of the Aurora State Airport, and PERMITTEE agrees to comply with all of the provisions of such regulations. The

operations conducted at this airport must be in compliance with all applicable Federal Aviation Regulations, grant assurances, Oregon AVIATION Laws, and traffic patterns as established at the Airport.

17. COMPLIANCE WITH THE LAW:

- a. PERMITTEE shall comply with all laws, ordinances, rules and regulations promulgated by any lawful authority of the United States, the State of Oregon, or any municipal subdivision having authority over or jurisdiction of the premises, including, but not limited to safety, health, sanitary, fire, electrical and building codes, zoning and state and local comprehensive plans and criminal laws, relating to its use of the Access Point, Airport and the Property under this Agreement.
- b. PERMITTEE shall register annually with AVIATION any aircraft owned by PERMITTEE and based at the Airport, in compliance with ORS 837.015 , "Registration of aircraft" and 837.040 "Persons required to register aircraft"
- c. PERMITTEE and any pilot operating any of PERMITTEE's aircraft, other than out-of-state pilots not conducting commercial operations, shall register with AVIATION as required by ORS 837.020, "Registration of Pilots."

18. PROTECTION OF THE AIRPORT'S IMAGINARY SURFACES:

- a. AVIATION may take any action it considers necessary to protect the Airport's imaginary surfaces, as defined in Federal Aviation Regulations (FAR), Part 77, and Oregon Administrative Rules against obstructions, and may prevent PERMITTEE from constructing, altering, erecting, or placing any structure, building or object on the Property, Access Point, or the Airport which, in the opinion of AVIATION, would limit the usefulness of the Airport or constitute a hazard to aircraft.
- b. PERMITTEE shall submit notice to the Federal Aviation Administration (FAA) of any and all proposed construction or alteration on or adjacent to the Property to AVIATION on FAA Form 7460-1 "Notice of Proposed Construction or Alteration" as prescribed in FAR § 77.17. PERMITTEE shall obtain AVIATION's written approval prior to commencing any construction activities on Aviation Property.

19. AVIATION'S RIGHT OF ENTRY:

- a. AVIATION may enter through the Access Point at any reasonable time to ascertain compliance with the terms of this Agreement.

20. DEFAULT:

- a. The following are events of default:
 - i. Default in access fee: Failure of PERMITTEE to pay any fee or other charge within 60days after it is due.

- ii. Default in Other Covenants: Failure of PERMITTEE to comply with any term of this Agreement, other than payment of fees or other charges, within 30 days after written notice by AVIATION specifying the nature of the default with reasonable particularity. If the default is of such a nature that it cannot be completely remedied within the 30-day period, PERMITTEE will not be in default if PERMITTEE begins correction of the default within the 30-day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable.
- iii. Abandonment: Failure of PERMITTEE to pay for or use the Access Point, unless such failure is excused under other provisions of this Agreement.
- iv. Bankruptcy: PERMITTEE enters bankruptcy proceedings and the trustee in such proceedings fails to assume this Agreement.

21. REMEDIES:

- a. Upon the occurrence of any one or more events of Default, and after giving PERMITTEE notice as provided in Oregon Administrative Rule 738-015-0090, AVIATION may exercise any one or more of the following remedies, or any other remedy available in law or equity:
 - i. Remove or occupy any property of either PERMITTEE or PERMITTEE'S unit owners located on any portion of the Airport;
 - ii. Deny PERMITTEE or PERMITTEE'S unit owners any of their rights under the terms of this agreement, including the rights of ingress and egress to and from the Point of Ingress/Egress.
 - iii. Recover all unpaid fees due under this agreement, and damages caused by the default including attorney fees, including an administrative fee equal to ten percent of such past due fees or amounts; or
 - iv. Terminate this agreement, by written notice mailed to PERMITTEE at the addresses set forth in the signatures section of this agreement, and pursue all additional remedies available at law or in equity.

22. TERMINATION:

This Agreement shall terminate upon:

- a. Mutual written agreement of the parties.

- b. Conveyance, sale or transfer of PERMITTEE's interest in the Property.
- c. Termination upon Default.
 - i. Upon the occurrence of any one or more events of Default and notice required under this Agreement, AVIATION may, in addition to any other remedy available in law or equity, terminate this Agreement by giving written notice to PERMITTEE, as provided in Oregon Administrative Rule 738-015-0090.
 - ii. Upon termination of this agreement, PERMITTEE and its agents, contractors, employees, tenants or other designees shall immediately cease use of the Access Point, and AVIATION may reenter, block and/or take possession of the Access Point and remove any persons or property therefrom by legal action or by self-help without liability for damages and without having accepted surrender of access. AVIATION may take possession of and remove any personal property belonging to PERMITTEE, its agents, contractors, employees, tenants or other designees located or affixed to the Airport property.
 - iii. Damages. In the event of termination or retaking of possession of the Access Point following default, AVIATION may recover immediately, without waiting until the due date of any future fees or until the date fixed for expiration of the term of this Agreement, the following amounts as damages:
 - 1. All fees and charges prepaid by PERMITTEE;
 - 2. The loss of income from date of default until a new access agreement is, or with the exercise of reasonable efforts could have been, secured and paying access fees and charges; and
 - 3. The reasonable costs of reentry and repossession of the Access Point and any persons or property from the Access Point or Airport, as described in subsection b. above, including the cost of any cleanup, refurbishing, removal, and storage of said property, or any other expense occasioned by PERMITTEE's default, including any repair costs, attorney fees, and court costs.
- d. Termination for Airport Development: Relocation of Access Point. If AVIATION determines that relocation or termination of the Access Point is required for Airport development in accordance with the Airport Master Plan and FAA-approved Airport Layout Plan, AVIATION may offer an alternative Access Point to PERMITTEE, if available, or if no suitable alternative Access Point is available, or PERMITTEE chooses not to relocate within 10 days, this Agreement may be terminated by either party. Upon termination, PERMITTEE shall vacate and cease all use of the Access Point. No compensation is due for loss of renewal

terms. AVIATION shall prorate and return to PERMITTEE any prepaid fees upon satisfactory vacation and closure of the Access Point.

- e. Termination Upon Necessary Closure or Sale of the Airport: If the State Aviation Board determines that it is necessary or advisable to abandon, close or convey the Airport due to the development or uncontrollable hazards to flight operations, lack of public use, prohibitive maintenance costs, legislative actions or other cause, AVIATION may terminate this Agreement upon 60 days written notice to PERMITTEE.
- f. Survival: Unless otherwise specified in this Agreement, all fees, charges or liabilities owing or arising under this agreement shall survive termination of this agreement.

23. NO WARRANTY OF NON-INTERFERENCE BY ENTITIES OUTSIDE AVIATION'S CONTROL:

- a. PERMITTEE acknowledges that actions of local government units, of parties holding land or living adjacent to the Airport, and of government entities not subject to AVIATION's influence and control, may have adverse impacts upon the number and character of flights and other operations at the Airport. However, if, through no fault of PERMITTEE, such actions by others make PERMITTEE's use of the Access Point, Airport or Property economically unfeasible, PERMITTEE may terminate this Agreement by giving written notice to AVIATION.

24. NOTICES:

- a. Any notices required under this agreement shall be in writing and given by personal delivery, facsimile or deposit in the regular United States Mail, postage prepaid. Any notice delivered by mail is deemed given three days after mailing as provided above. Any notice delivered by facsimile is deemed given when a confirmation of successful transmission is generated by the transmitting machine. To be effective against AVIATION, facsimile transmission must be confirmed by telephone notice to an employee at the Department of Aviation, at (503) 378-4880. Any communication or notice by personal delivery is deemed given when actually delivered. A party may designate a change of address by written notice to the other party.
- b. Notices to AVIATION must be directed to the following address and facsimile number:

Oregon Department of Aviation
3040 25th Street SE
Salem, Oregon 97302
Phone: (503) 378-4880
Fax: (503) 373-1688

- c. Notices to PERMITTEE must be directed to the address and facsimile number provided on the signature page of this Agreement.

25. COVENANTS:

- a. The covenants of this Agreement are continuing covenants, and waiver, whether express or implied by AVIATION or LESSEE, of any breach of these covenants may not be deemed a waiver of subsequent breaches.

26. ENTIRE AGREEMENT:

- a. This Agreement, together with the exhibits attached hereto, constitutes the entire agreement between the Parties and merges all prior and contemporaneous communications with respect to the rights and obligations hereunder. Any future agreements between the parties relative to this Agreement is ineffective to modify or discharge this Agreement, in whole or in part, unless it is in writing and executed with the same formalities as this instrument. PERMITTEE, by signing below, hereby acknowledges reading this Agreement, understanding it, and agreeing to be bound by its terms.

27. SUBORDINATION TO FEDERAL-STATE AGREEMENTS:

- a. The provisions of this Agreement shall be subordinate to any existing or future agreement between AVIATION and the United States relative to the operation or maintenance of the Airport, the execution of which has been or may be required as a condition precedent to the receipt of federal funds for the development of the airport. Failure of PERMITTEE to comply with any of the requirements of any existing or future agreement between AVIATION and the United States shall be cause for immediate termination of PERMITTEE's rights hereunder.
- b. During a time of war or national emergency, AVIATION may lease the landing area or any part of it to the United States for military or other federal government purposes, and, if this occurs, any term of this Agreement that is inconsistent with the any term in such a lease to the federal government is deemed to be suspended while such a lease is in effect. This Agreement shall be reinstated at such time as the lease with the federal government is terminated. Suspended time shall be considered as part of the term of this lease and will not extend the expiration date of this agreement. The fee to be paid by PERMITTEE to AVIATION provided for in Oregon Administrative Rule 738-010-0025 shall be waived during such time as any lease with the federal government is in effect.

28. AVIATION'S RIGHT TO DEVELOP THE AIRPORT:

- a. AVIATION reserves its right to further develop or improve the Airport in accordance with its duty to develop aviation within the State of Oregon as dictated by the demands of air traffic and aviation safety.

29. NO EXCLUSIVE RIGHT:

- a. Nothing herein contained shall be construed to grant or authorize the granting of an exclusive right prohibited by Section 308 of the Federal Aviation Act of 1958.

30. TIME:

- a. Time is of the essence of every term of this Agreement.

31. AUTHORITY:

- a. All powers and authority conferred upon PERMITTEE by this Agreement are to be strictly construed, and no other power may be lawfully exercised by PERMITTEE without AVIATION's prior written consent. PERMITTEE has no authority to act on behalf of AVIATION, or to bind AVIATION to any third party, contractually or otherwise.
- b. The terms of this Agreement may not be construed to make PERMITTEE an officer, employee or agency of the State of Oregon or its Department of Aviation, as those terms are used in ORS 30.265.
- c. The person executing this Agreement on behalf of PERMITTEE represents that he or she has the legal power, right, and actual authority to bind PERMITTEE to the terms and conditions of this Agreement.
- d. The State Aviation Board, by duly-adopted Delegation Order No. 1, dated October 12, 2000, has authorized the Director of the Department of Aviation to act in its behalf in approving and executing this agreement.

[Remainder of page intentionally left blank; signature page to follow.]

EXECUTED by the parties as of the last date written below.

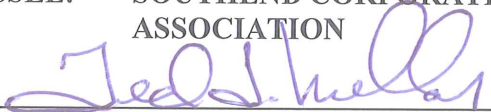
STATE OF OREGON, by and through its Department of AVIATION:

By: 

Date 7/31/14

As: STATE AIRPORTS MANAGER

LESSEE: SOUTHEND CORPORATE AIRPARK CONDOMINIUM OWNERS ASSOCIATION

By: 

Date: 7-25-14

As: President

Address: 14355 Keil Rd NE, Suite 11

Aurora, OR 97002

Telephone (Daytime) (503) 709-7711 (Other) _____

email: tmillar@southendairpark.com

1 ACCESS TO PROPERTY FROM AURORA TAXIWAY

SCALE: 1" = 300'-0"

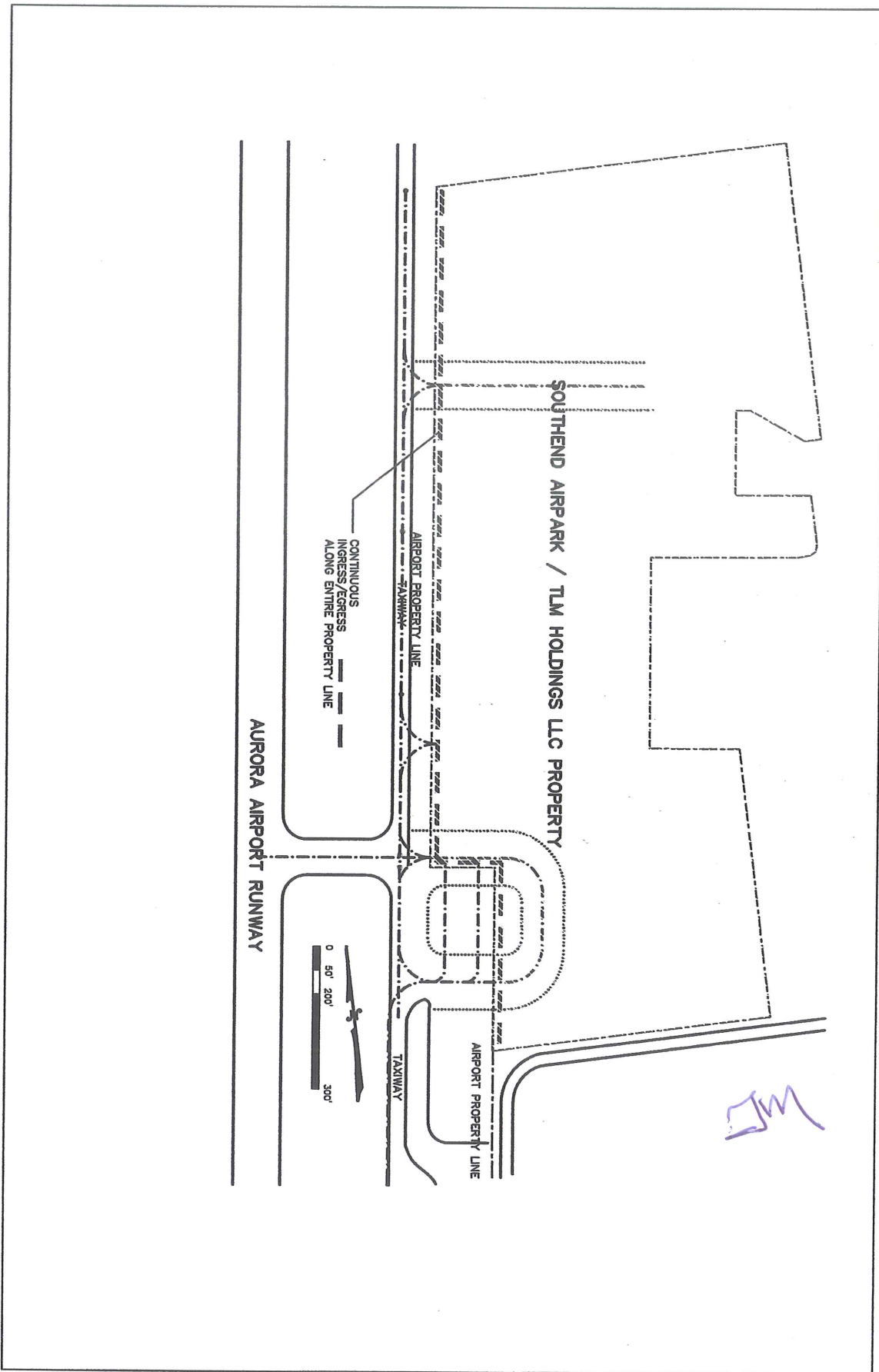


EXHIBIT B	PAGE:	DATE: 7/10/2014 DESIGNED BY: SOUTHEND AIRPARK LLC APPROVED BY: SOUTHEND AIRPARK LLC APPROVED BY: SOUTHEND AIRPARK LLC	SOUTHEND AIRPARK LLC ACCESS FROM AURORA TAXIWAY AURORA AIRPORT, AURORA, OREGON	ARON FAEGRE AND ASSOCIATES PORTLAND, OREGON 97204 503-222-2546																		
		REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION																		
NO.	DESCRIPTION																					

Fw: Completed: Complete with Docusign: Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-04 4:26 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 2 attachments (19 MB)

Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf; Rutland Airport Layout Plan (DRAFT Sept 2021) 20210913 reduced.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Helbling, Tony <helbling@wilsonconst.com>

Sent: Tuesday, January 21, 2025 3:34 PM

To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: wk@klgpc.com <wk@klgpc.com>; tmillar@wwpmi.com <tmillar@wwpmi.com>; Lukas Nickerson <Luke@flyaerometal.com>; Aron Faegre <faegre@earthlink.net>; Bruce Bennett <bruce@auroraaviation.com>

Subject: FW: Completed: Complete with Docusign: Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf

Please enter into Master Plan record...

Tony Helbling
Logistics Manager
Wilson Construction Company
1190 NW 3rd Ave
Canby, OR 97013
Cell: 503-519-6059
Office: 503-263-6882
helbling@wilsonconst.com
www.wilsonconst.com

From: DocuSign NA4 System <dse_NA4@docusign.net>

Sent: Tuesday, January 21, 2025 3:28 PM

To: Helbling, Tony <helbling@wilsonconst.com>

Subject: Completed: Complete with Docusign: Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf



Your document has been completed

[VIEW COMPLETED DOCUMENT](#)

Lukas Nickerson

nickersonlukas@gmail.com

All parties have completed Complete with DocuSign: Final HDSE -AAIA Feedback to RPA to KUAO MP.pdf.

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January 21, 2025

Alex Thomas, Planning and Programs Manager
Tony Beach, State Airports Manager
Brandy Steffen, JLA
Oregon Department of Aviation
3040 25th St SE
Salem, OR 97602
Alex.R.Thomas@odav.oregon.gov

Re – Comments to Refined Preferred Alternative, Aurora State Airport Master Plan, Report on HDSE Easement, Drain Field Options, and AAIA's Request for Involvement in Master Plan Process

Dear Mr. Thomas,

Please include documents in the record.

1. HDSE Easement and Drain Field Lease

HDSE enjoys an easement in perpetuity for its drain field, which is located at the south end of Aurora Airport, inside the Runway Safety Area (RSA). In addition to the easement, HDSE holds a lease for the drain field. HDSE properly executed the first of two five-year extensions for the lease, with the first extension period ending in August 2029.

Should the Oregon Department of Aviation (ODAV) determine, for any reason, that the drain field needs to be relocated, it will be ODAV's responsibility to financially compensate HDSE for its investment in the drain field, which was made in good faith. The following are proposed options for addressing the current situation with the drain field:

Proposed Options for the Drain Field:

- **Option 1a: Retain the Current Drain Field and Install Geo-Tech Fabric System**

One option is to leave the drain field in its current location and install a geo-tech fabric system. This system, as per the previously submitted study, would support the operation of a CII (Civil International) aircraft and rescue

equipment, in compliance with the FAA guidelines set forth in AC150/5300-13b, sections 3.10.1.4 and 3.3.a. This would allow the drain field to remain in place as a previously constructed, man-made improvement, like examples such as “a railroad at the end” outlined in FAA Order 5200.8, Appendix 1, 2.d. If necessary, this option could be combined with the following option, 1b.

- **Option 1b: Retain the Current Drain Field and Install Engineered Material Arresting System (EMAS)**

Another option is to keep the drain field in its current position and, in accordance with AC150/5300-13b, section 3.10.2.3, install an Engineered Material Arresting System (EMAS) to provide protection for CII aircraft within the RSA. The attached document in Tab A outlines this approach. The benefits of implementing EMAS at KUAO are numerous:

- The overrun area at the end of the runway provides an additional 300 feet of space for aircraft to begin their takeoff roll, allowing for an earlier rotation compared to the Refined Preferred Alternative.
- An earlier rotation translates to higher altitudes and reduced noise levels over congested areas in the event of an overflight directed by Air Traffic Control (ATC).
- This solution would enhance the safety of operations for both based and transient CII aircraft.
- The system would improve operational efficiency for based and transient aircraft, contributing to the overall performance of the airport.

- **Option 1c: Relocate the Drain Field**

The third option is to move the drain field to a designated acquisition property located directly east of its current position, outside the RSA but within the new airport boundary. This relocation would provide several key advantages:

- The property could be utilized to its best and highest potential, supporting and protecting investments at KUAO, in accordance with Oregon Revised Statute (ORS) 836-642.
- The relocation would minimize the airport's impact on surrounding valuable farmland by negating the need to establish a drain field outside the airport's boundaries.

- A larger area for the drain field could be developed, potentially serving the entire airport's needs.

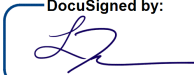
2. AAIA's Request for Involvement in the Master Plan Process

The AAIA (Aviation Airport Industry Association) strongly requests that ODAV involve Through the Fence (TTF) parties as collaborative partners in the airport Master Plan process moving forward. This request applies across all state airports. The AAIA highlights the following reasons for their involvement:

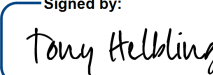
- **Direct Impact and Proximity:** Through the Fence parties are located within the confines of the airport property, meaning they are directly affected by any developments or changes proposed in the Master Plan. As such, their interests and operations are more closely impacted than those of any other participants in the planning process.
- **Private Investments Based on ORS 836-642:** Through the Fence parties have made private investments based on the efficacy and stipulations of Oregon Revised Statute 836-642. These investments contribute to the airport's development and its operational success.
- **Source of Airport Improvement Needs:** The investments made by TTF parties contribute directly to the need for airport improvements. These improvements, in turn, are necessary for ensuring safety, efficiency, and respectful business operations, which must be coordinated with the surrounding communities.

In conclusion, HDSE and AAIA advocate for greater collaboration between ODAV and Through the Fence parties to ensure the future growth and operational success of state airports. Their inclusion in the planning process would allow for better alignment of goals, enhance safety, and support the continued development of the state's aviation infrastructure.

Sincerely,

DocuSigned by:

 B1DF5D2DC4E84A4...

Lukas Nickerson
 Chair
 HDSE

Signed by:

 7130B3F86BAC419...

Tony Helbling
 Chair
 AAIA

Tab A

We consulted with Runway Safe Inc. in Logan Township, NJ with primary staff and Mike Barnes as their lead contact person, knowing that they provide an FAA approved Engineered Materials Arrestor System (EMAS) regularly used to reduce the length of Runway Safety Areas (RSA) per AC150-5300-13B Section 3.10.2.3:

Engineered Materials Arresting Systems (EMAS).

Installing EMAS is an acceptable alternative where it is not practicable to obtain the standard RSA dimensions. A properly designed EMAS decelerates an aircraft during an excursion incident without damaging the landing gears, thus providing an equivalent level of safety to a standard RSA. The presence of an EMAS does not diminish the standard RSA width. Refer to AC 150/5220-22, Engineered Materials Arresting Systems (EMAS) for Aircraft Overruns, for guidance on planning, design, installation, and maintenance of EMAS. Refer to FAA Order 5200.9, Financial Feasibility and Equivalency of Runway Safety Area Improvements and Engineered Material Arresting Systems, to determine the best practical and financially feasible alternative. Key design considerations for EMAS performance include:

- 1. Aircraft weight, landing gear configuration, tire pressure, and entry speed.*
- 2. Stopping the “EMAS critical aircraft” upon exiting the runway at 70 knots is a primary design condition.*
- 3. Application of a standard EMAS may maximize the available runway length.*

We discussed the specifics of the Aurora Airport master plan considerations for preserving the drain fields that are necessary for supporting the 1,500 jobs on the airport. In learning more about their EMAS system, we learned that the EMAS material itself is set back approximately 350 feet from the end of the runway, allowing those 300 feet to also function as more runway for takeoffs (but not for landings).

Runway Safe Inc. suggested Aurora might use a design similar to their design that was installed with FAA funds at Rutland – Southern Vermont Regional Airport, which is a C-II airport. It is an example of what could serve Aurora very well. Attached is the Rutland ALP showing how it is placed at the approach end of Runway 1 which then the FAA approves at a 600 foot RSA in lieu of the standard 1000 foot long RSA.

The Rutland 2022 MP describes the use of EMAS for Runway 1 as follows:

3.2.3.2 Runway Safety Area (RSA)

According to AC 150/5300-13A, standard RDC C-II runway dimensions include a length beyond the runway end of 1,000 feet, a length prior to the runway end of 600 feet, and may have a width as narrow as 400 feet. Runway 1 is equipped with a 300-foot Engineered Materials Arresting System (EMAS), effectively reducing the required RSA length beyond the departure end to 600 feet. Approximately 600 feet beyond the Runway 19 end, the terrain decreases substantially to Vermont State Route 103 and does not provide the standard 1,000' length. However, this non-standard length was found acceptable as part of a 2007 RSA Determination by the FAA. As activity levels and the design aircraft are not forecast to substantially change during the planning period, the RSA determination will likely remain valid. If the FAA determination is changed and a full 1,000-foot RSA is necessary, it would then be recommended that the north end of the runway be equipped with an EMAS bed similar to the south end.

As can be seen on the ALP, the FAA in this case allowed the 19 end of the Runway to even have a completely deficient RSA that has a road through it. The resolution was that in the future EMAS could be added there to solve that deficiency.

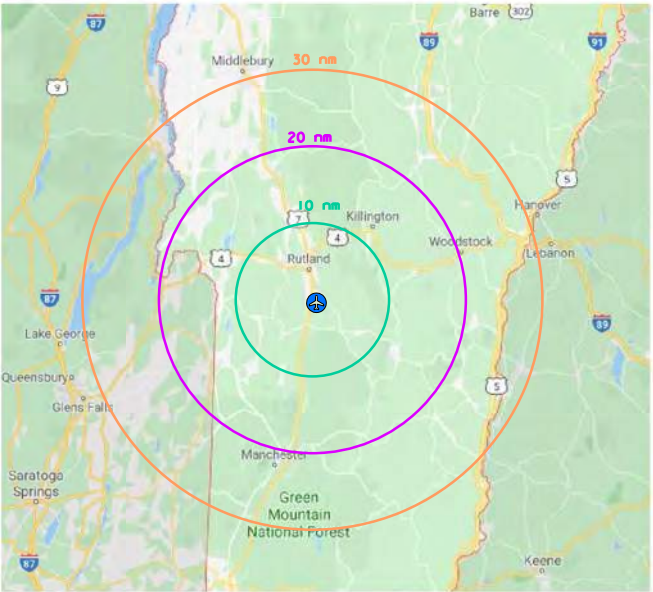
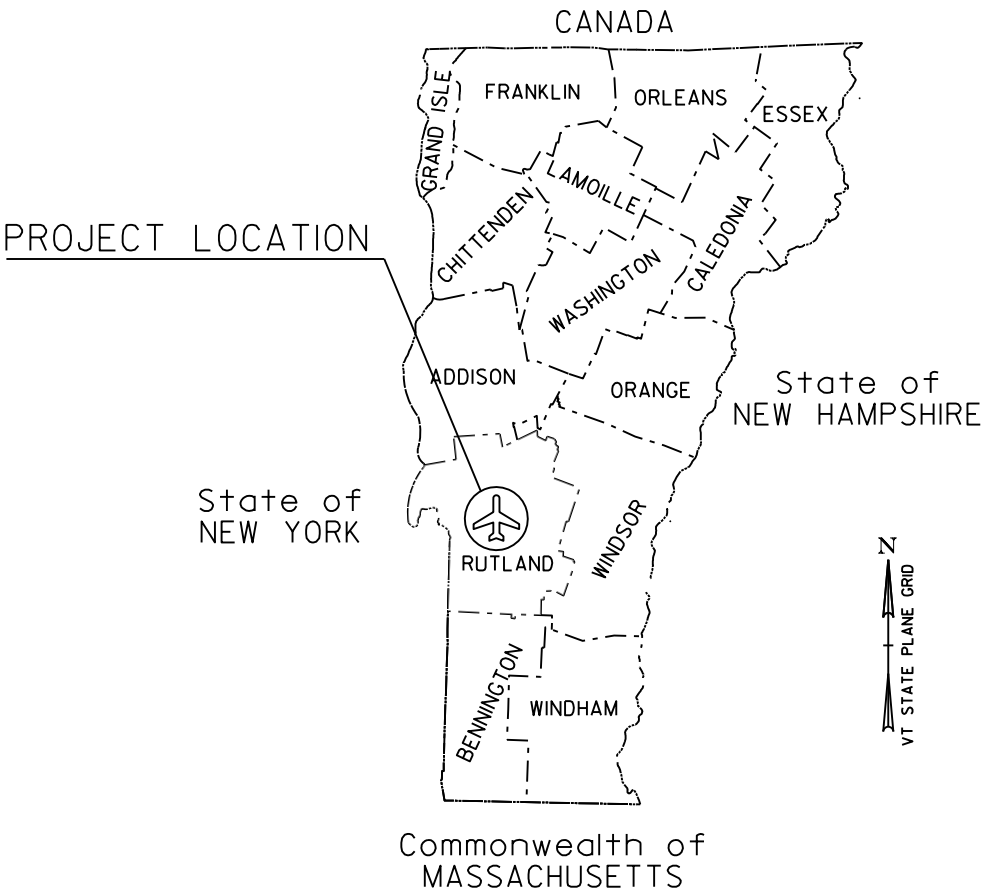
The Runway Safe Inc. staff coordinated with the State of Vermont's aviation department, which manages Rutland Airport. They would very much look forward to working with the ODAV in examining the potential use of EMAS at Aurora. They offered that ODAV staff could call:

Mike Barnes can be reached directly at mike.barnes@runwaysafe.com or cellphone: 856-491-6315

(ENTIRE Rutland ALP sent in separate file)

VERMONT AGENCY OF TRANSPORTATION
RUTLAND - SOUTHERN VERMONT
REGIONAL AIRPORT
AIRPORT LAYOUT PLAN
SEPTEMBER 2021

SPACE RESERVED FOR
FAA APPROVAL



VICINITY MAP

SHEET INDEX		
SHEET NO.	DESCRIPTION	REVISION DATE
1	TITLE SHEET	
2	AIRPORT DATA SHEET	
3	EXISTING AIRPORT LAYOUT PLAN	
4	FUTURE AIRPORT LAYOUT PLAN	
5	AIRPORT AIRSPACE PLAN	
6	RUNWAY 1 INNER PORTION OF APPROACH	
7	RUNWAY 19 INNER PORTION OF APPROACH	
8	RUNWAY 13 INNER PORTION OF APPROACH	
9	RUNWAY 31 INNER PORTION OF APPROACH	
10	RUNWAY OBSTRUCTION DATA OBSTRUCTION	
11	TERMINAL AREA PLAN	
12	LAND USE PLAN	
13	AIRPORT PROPERTY MAP	

REVISIONS			
NO.	Description	Date	By

VERMONT AGENCY OF TRANSPORTATION

APPROVED _____ DATE _____
Daniel Delabriere
RAIL AND AVIATION BUREAU DIRECTOR

PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16h171.cov.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
TITLE SHEET

PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: RLT
SHEET 1 OF 13



FILE NAME = N:\p-projects\ANY\K5_36086\CAID\MSTIN\6h171\Consultants\Aviation\z\6h171_data_sheet.dgn
DATE / TIME = 9/10/2021
USER = 4066

AIRPORT DATA		
RUTLAND - SOUTHERN VERMONT REGIONAL AIRPORT 1002 Airport Road North Clarendon, VT 05759		
ITEM	Existing	Future
AIRPORT OWNER	Vermont Agency of Transportation	
STATE SERVICE LEVEL	National Service ¹	
NPIAS SERVICE LEVEL	Regional	
AIRPORT REFERENCE CODE / CRITICAL AIRCRAFT	C-II / Challenger 300	C-II / Challenger 300
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH	80.2° F (July)	
AIRPORT ELEVATION (MSL) NAVD 88	787.3 FT	
MAGNETIC DECLINATION	13° 48' W ± 0° 23' changing by 0° 4' E per year ²	
AIRPORT REFERENCE POINT (NAD 83)	LAT: 43° 31' 47.03"N Long: 72° 56' 58.65"W	LAT: 43° 31' 47.03"N Long: 72° 56' 58.65"W
AIRPORT NAVIGATIONAL AIDS AND MISCELLANEOUS FACILITIES	ILS, GPS, MALSR, PAPI-4, AWOS-3, Rotating Beacon	

Note 1: 2007 Vermont Airport System and Policy Plan

Note 2: NOAA National Centers for Environmental Information, August 2021

RUNWAY SAFETY AREA DATA					
DESCRIPTION		RUNWAY 1-19		RUNWAY 13-31	
		EXISTING/FUTURE		EXISTING/FUTURE	
		1	19	13	31
RUNWAY SAFETY AREA (RSA)	(R) LENGTH BEYOND RUNWAY END	600 FT	1,000 FT	300 FT	300 FT
	(P) LENGTH PRIOR TO RUNWAY END	600 FT	600 FT	300 FT	300 FT
	(C) WIDTH	400 FT	400 FT	150 FT	150 FT
RUNWAY OBJECT FREE AREA (ROFA)	(R) LENGTH BEYOND RUNWAY END	1,000 FT	1,000 FT	300 FT	300 FT
	(P) LENGTH PRIOR TO RUNWAY END	600 FT	600 FT	300 FT	300 FT
	(Q) WIDTH	800 FT	800 FT	500 FT	500 FT
APPROACH RUNWAY PROTECTION ZONE (RPZ)	(L) LENGTH	1,700 FT	2,500 FT	1,000 FT	1,000 FT
	(U) INNER WIDTH	500 FT	1,000 FT	500 FT	500 FT
	(V) OUTER WIDTH	1,010 FT	1,750 FT	700 FT	700 FT
DEPARTURE RUNWAY PROTECTION ZONE (RPZ)	(L) LENGTH	1,700 FT	1,700 FT	1,000 FT	1,000 FT
	(U) INNER WIDTH	500 FT	500 FT	500 FT	500 FT
	(V) OUTER WIDTH	1,010 FT	1,010 FT	700 FT	700 FT
RUNWAY OBSTACLE FREE ZONE (ROFZ)	LENGTH BEYOND RUNWAY END	400 FT.	400 FT.	200 FT.	200 FT.
	WIDTH	400 FT	400 FT	250 FT	250 FT
PRECISION OBSTACLE FREE ZONE (POFZ)	LENGTH	N/A	200 FT	N/A	N/A
	WIDTH	N/A	800 FT	N/A	N/A

ALL WEATHER WIND COVERAGE			
RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS
1-19	92.90%	96.53%	99.06%
13-31	97.89%	99.16%	N/A
COMBINED	99.18%	99.80%	N/A

VFR WEATHER WIND COVERAGE			
RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS
1-19	92.60%	96.40%	99.06%
13-31	97.80%	99.12%	N/A
COMBINED	99.13%	99.79%	N/A

IFR WEATHER WIND COVERAGE			
RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS
1-19	96.41%	97.90%	99.04%
13-31	97.80%	97.90%	N/A
COMBINED	99.71%	99.88%	N/A

Data Source:
NOAA National Climatic Center Asheville, NC
Rutland - Southern Vermont Regional Airport
North Clarendon, VT 05759
Station 725165
20011- 2020

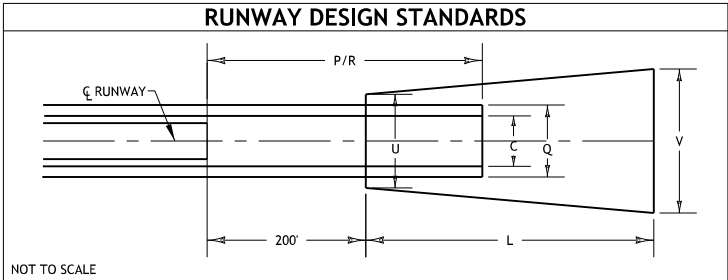
APPENDIX 11D – PUBLIC COMMENTS 2025

RUNWAY DATA									
DESCRIPTION		RUNWAY 1-19			RUNWAY 13-31				
		EXISTING		FUTURE	EXISTING		FUTURE		
		1	19	1	19	13	31	13	31
RUNWAY LENGTH		5,304 FT			SAME AS EXISTING			3,169 FT	
RUNWAY WIDTH		100 FT						75 FT	
PAVEMENT TYPE / SURFACE TYPE		ASPHALT / GROOVED						ASPHALT	
PAVEMENT CONDITION		GOOD						GOOD	
PAVEMENT CONDITION NUMBER		73 (CY 2012)						87 (CY 2012)	
PAVEMENT STRENGTH (SINGLE)		40,000 LBS						30,000 LBS	
PAVEMENT STRENGTH (DUAL)		68,000 LBS						-	
EFFECTIVE RUNWAY GRADIENT		0.14%						0.00%	
MAXIMUM RUNWAY GRADIENT		< 0.5%						< 0.5%	
RUNWAY MEETS LINE OF SIGHT REQUIREMENTS? (YES/NO)		NO (TERRAIN)						NO (TERRAIN)	
APPROACH TYPE		NON-PRECISION	PRECISION	VISUAL				VISUAL	
APPROACH VISIBILITY MINIMUM		1 ¼ MILE	½ MILE ¹	VISUAL				VISUAL	
RUNWAY CATEGORY (14 CFR PART 77) / SLOPE		NON-PRECISION / 34:1	PRECISION / 50:1	VISUAL / 20:1				VISUAL / 20:1	
DESIGN AIRCRAFT		CHALLENGER 300						BEECH KING AIR 200	
RUNWAY DESIGN CODE (RDC)		C-II-2400						B-II-VIS	
APPROACH RUNWAY REFERENCE CODE (APRC)		B / III / 4000 D / II / 4000 B / II / 2400	B / III / 5000 D / II / 5000	B / II / VIS				B / II / VIS	
DEPARTURE RUNWAY SURFACE		YES	YES	NO				NO	
OBSTACLE CLEARANCE SURFACE (TABLE 3-2)		SEE OCS TABLE						SEE OCS TABLE	
TOUCHDOWN ZONE ELEVATION		787.3 FT	787.3 FT	784.5 FT				784.5 FT	
HORIZONTAL / VERTICAL DATUM		NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88				NAD 83 / NAVD 88	
AERONAUTICAL SURVEY		VGS	VGS	NVGS		NVGS			
RUNWAY MARKINGS		NON-PRECISION	PRECISION	VISUAL		VISUAL			
RUNWAY LIGHTING		MIRL			MIRL				
APPROACH LIGHTING		NONE	MALSR	NONE		NONE			
INSTRUMENT & NAVIGATIONAL AIDS		GPS	ILS, GPS, PAPI-4	REIL		NONE			
DISPLACED THRESHOLD COORDINATES & ELEVATIONS	LATITUDE	43° 31' 29.61"N	N/A	N/A		N/A			
	LONGITUDE	72° 56' 58.21"W	N/A	N/A		N/A			
	DISTANCE	300 FT	N/A	N/A		N/A			
	ELEVATION	782.6 FT	N/A	N/A		N/A			
RUNWAY END COORDINATES & ELEVATIONS	LATITUDE	43° 31' 26.65"N	43° 32' 19.01"N	43° 31' 44.82"N		43° 31' 29.82"N			
	LONGITUDE	72° 56' 58.11"W	72° 56' 59.96"W	72° 57' 16.90"W		72° 56' 39.14"W			
	ELEVATION	781.3 FT	774.0 FT	782.3 FT		782.2 FT			
DECLARED DISTANCES	TORA	5,303 FT	5,303 FT	N/A		N/A			
	TODA	5,303 FT	5,303 FT	N/A		N/A			
	ASDA	4,900 FT	5,303 FT	N/A		N/A			
	LDA	4,600 FT	5,303 FT	N/A		N/A			
	CLEARWAY	N/A	N/A	N/A		N/A			
	STOPWAY	N/A	N/A	N/A		N/A			

Note 1: Visibility Minimum for Runway 19 S-LOC Approach

TAXIWAY DATA						
TAXIWAY NAME	TAXIWAY LIGHTING	TAXIWAY DESIGN GROUP	TAXIWAY WIDTH	TAXIWAY SAFETY AREA	TAXIWAY OBJECT FREE AREA	TW to RW CENTERLINE SEPERATION
EXISTING/FUTURE	EXISTING/FUTURE	EXISTING/FUTURE	EXISTING/FUTURE	EXISTING/FUTURE	EXISTING/FUTURE	EXISTING/FUTURE
A	MITL	2	50 FT	118 FT	186 FT	238 FT
B	MITL	2	35 FT	79 FT	131 FT	239 FT
C	MITL	2	50 FT	118 FT	186 FT	238 FT
D	NONE	2	35 FT	79 FT	131 FT	240 FT
F	NONE	2	30 FT	79 FT	131 FT	N/A
G	MITL	2	35 FT	79 FT	131 FT	N/A
H	MITL	2	50 FT	118 FT	118 FT	N/A
J	MITL	2	50 FT	118 FT	118 FT	N/A

MODIFICATIONS TO FAA DESIGN STANDARDS			
APPROVAL DATE	AIRSPACE CASE NO.	MODIFIED STANDARD	DESCRIPTION
NONE	NONE	NONE	NONE

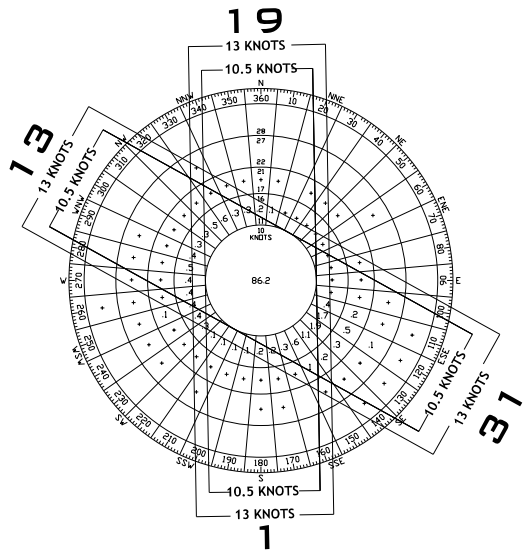


OBSTACLE CLEARANCE SURFACES (OCS)						
RUNWAY	ROW/TYPE	SLOPE	A	B	C	D
1	4	20:1	200 FT	400 FT	3,400 FT	10,000 FT
19	5	34:1	200 FT	800 FT	3,400 FT	10,000 FT
	6	30:1	0 FT	300 FT	1,520 FT	10,000 FT
13	2	20:1	0 FT	250 FT	700 FT	2,250 FT
31	2	20:1	0 FT	250 FT	700 FT	2,250 FT

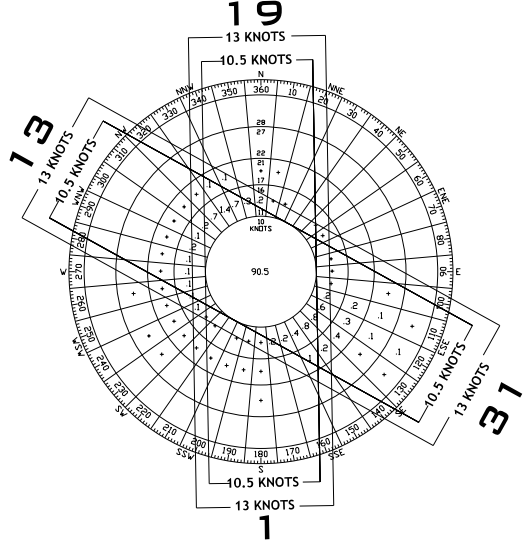
Source: FAA Engineering Brief 99A

REVISIONS				13 KNOTS 1	
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				PROJECT NUMBER: CLARENDON-AV-FY17-007	
				FILE NAME: z\6h171_data_sheet.dgn	
				PLOT DATE: 9/10/2021	
				PROJECT LEADER: POM	
				DRAWN BY: MED	
				DESIGNED BY: CJK/AJF	
				CHECKED BY: JCK/DB	
				AIRPORT DATA SHEET	
				SHEET 2 OF 13	

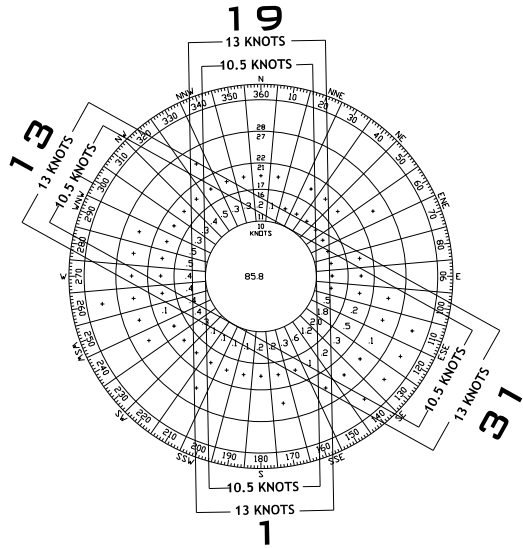
ALL-WEATHER WIND COVERAGE



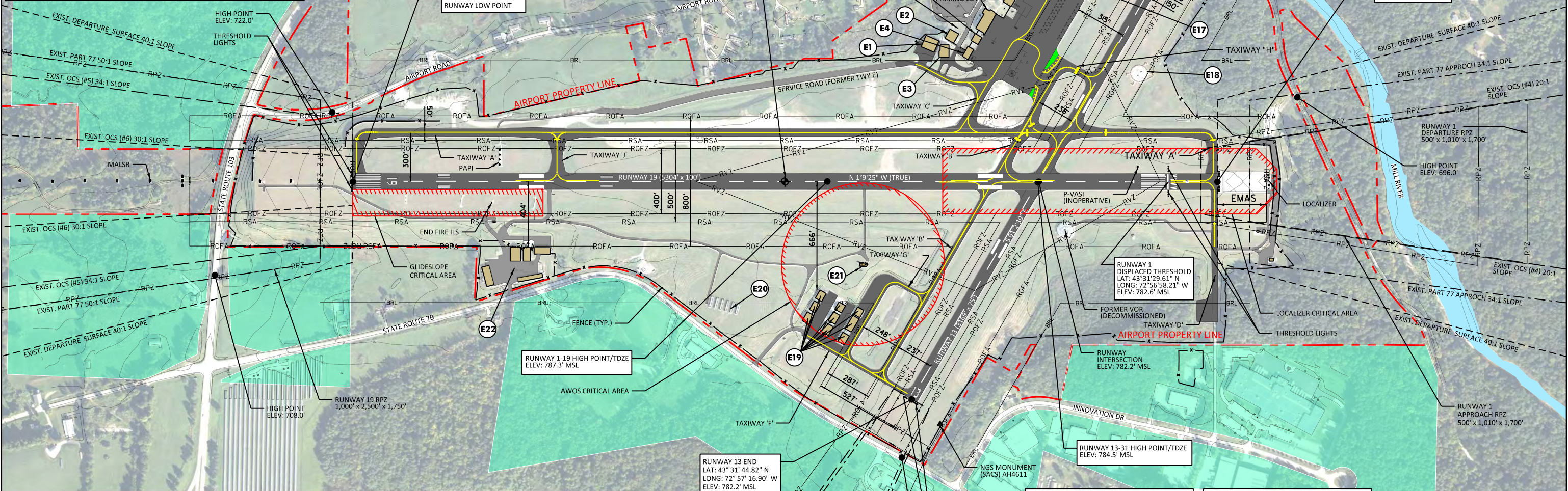
IFR CONDITION WIND COVERAGE



VFR CONDITION WIND COVERAGE



AIRPORT FACILITIES		
IDENTIFIER	FACILITY	TOP ELEVATION (MSL)
E1	CORPORATE HANGAR (OMYA)	816.6'
E2	CIVIL AIR PATROL	801.4'
E3	CORPORATE HANGAR (S.D. AIRCRAFT)	806.6'
E4	ARFF STATION	796.4'
E5	CIVIL AIR PATROL	804.2'
E6	VTRANS HANGAR/SRE STORAGE	813.6'
E7	TERMINAL BUILDING	811.8'
E8	CORPORATE HANGAR (PRIVATE)	802.8'
E9	CORPORATE HANGAR (PRIVATE)	808.8'
E10	CORPORATE HANGAR (COLUMBIA AIR)	812.2'
E11	CORPORATE HANGAR (PRIVATE)	806.4'
E12	CORPORATE HANGAR (COLUMBIA AIR)	814.6'
E13	FBO BUILDING (COLUMBIA AIR)	801' (EST.)
E14	CORPORATE HANGAR (COLUMBIA AIR)	815'
E15	T-HANGAR (5-STALLS)	805.1'
E16	T-HANGAR (7-STALLS)	805.1'
E17	FUEL FARM (LIGHT POLE)	10'
E18	SEGMENTED CIRCLE	785'
E19	CORPORATE HANGARS (PRIVATE)	801.6' - 806.7'
E20	SOLAR ARRAY	791' (EST.)
E21	AWOS-III	825.2'
E22	VTRANS STORAGE FACILITIES	775.2' - 780.3'



LEGEND

- EX. BUILDING
- AIRFIELD PAVEMENT
- EX. AVIGATION EASEMENTS
- CREEK / WATERWAY
- 800 ELEVATION CONTOURS
- RPZ RUNWAY PROTECTION ZONE (RPZ)
- RSA RUNWAY SAFETY AREA (RSA)
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- ROFZ RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RVZ RUNWAY VISIBILITY ZONE (RVZ)
- TSA TAXIWAY SAFETY AREA (TSA)
- TOFA TAXIWAY OBJECT FREE AREA (TOFA)
- BRL BUILDING RESTRICTION LINE (BRL)

DECLINATION: 13° 48' W ± 0° 23'
CHANGING BY 0° 4' E/YEAR
ON AUGUST 2021

NAVAID CRITICAL AREA

PART 77 APPROACH SURFACE

OBSTACLE CLEARANCE SURFACE (OCS)

EX. AIRPORT PROPERTY LINE

EX. FENCE LINE

SURVEY MARKER

AIRPORT REFERENCE POINT (ARP)

EX. WINDCONE

0 300 600
SCALE IN FEET

VERMONT AGENCY OF TRANSPORTATION

APPROVED: Daniel Delabriere
RAIL AND AVIATION BUREAU DIRECTOR

DATE

SPACE RESERVED FOR FAA APPROVAL

REVISIONS

NO.	Description	Date	By

PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007

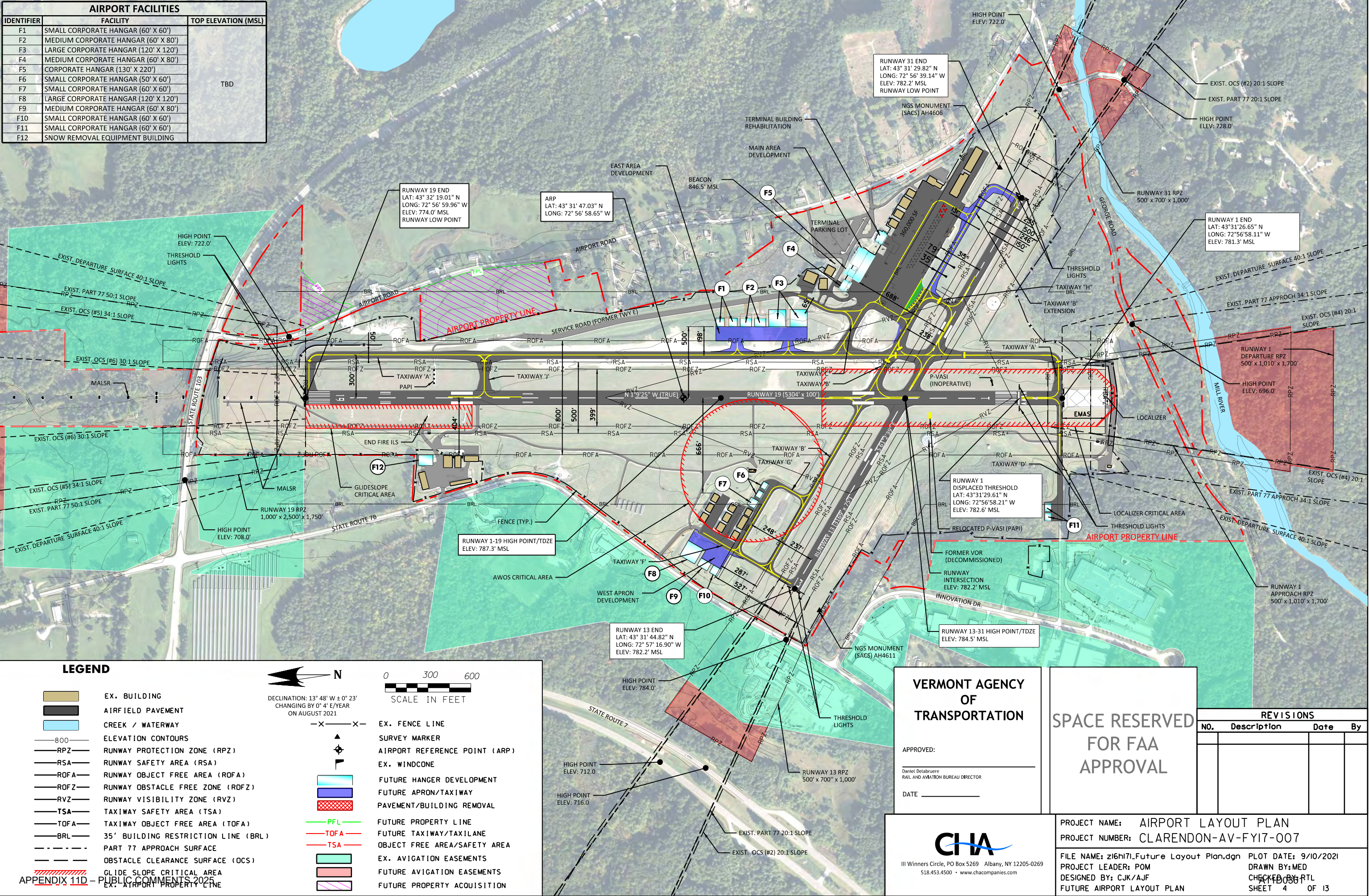
FILE NAME: z16h171.Exist Layout Plan.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
EXISTING AIRPORT LAYOUT PLAN

CHAC
111 Winners Circle, PO Box 5269 Albany, NY 12205-0269
518.453.4500 • www.chacompanies.com

PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: RTL
SHEET 3 OF 13

FILE NAME = V:\Projects\ANY\K5_36086\CADD\MSTIN16h171\Consultants\Aviation\z16h171.Exist Layout Plan.dgn
DATE/TIME = 9/10/2021 10:00:00
USER = 4066

AIRPORT FACILITIES		
IDENTIFIER	FACILITY	TOP ELEVATION (MSL)
F1	SMALL CORPORATE HANGAR (60' X 60')	TBD
F2	MEDIUM CORPORATE HANGAR (60' X 80')	
F3	LARGE CORPORATE HANGAR (120' X 120')	
F4	MEDIUM CORPORATE HANGAR (60' X 80')	
F5	CORPORATE HANGAR (130' X 220')	
F6	SMALL CORPORATE HANGAR (50' X 60')	
F7	SMALL CORPORATE HANGAR (60' X 60')	
F8	LARGE CORPORATE HANGAR (120' X 120')	
F9	MEDIUM CORPORATE HANGAR (60' X 80')	
F10	SMALL CORPORATE HANGAR (60' X 60')	
F11	SMALL CORPORATE HANGAR (60' X 60')	
F12	SNOW REMOVAL EQUIPMENT BUILDING	



LEGEND

EX. BUILDING

AIRFIELD PAVEMENT

CREEK / WATERWAY

800

RPZ

RSA

ROFA

ROFZ

RVZ

TSA

TOFA

BRL

GLIDE SLOPE CRITICAL AREA

EX. FENCE LINE

SURVEY MARKER

AIRPORT REFERENCE POINT (ARP)

EX. WINDCONE

FUTURE HANGER DEVELOPMENT

FUTURE APRON/TAXIWAY PAVEMENT/BUILDING REMOVAL

FUTURE PROPERTY LINE

FUTURE TAXIWAY/TAXILANE

OBJECT FREE AREA/SAFETY AREA

EX. AVIGATION EASEMENTS

FUTURE AVIGATION EASEMENTS

FUTURE PROPERTY ACQUISITION

DECLINATION: 13° 48' W ± 0° 23'

CHANGING BY 0° 4' E/YEAR

ON AUGUST 2021

0

300

600

SCALE IN FEET

APPENDIX 11D - PUBLIC COMMENTS 2025

EX. AIRPORT PROPERTY LINE

VERMONT AGENCY OF TRANSPORTATION

APPROVED:

Daniel Delabriere

RAIL AND AVIATION BUREAU DIRECTOR

DATE

CHIA

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SPACE RESERVED FOR FAA APPROVAL

PROJECT NAME: AIRPORT LAYOUT PLAN

PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16h171.Future Layout Plan.dgn

PROJECT LEADER: POM

DESIGNED BY: CJK/AJF

FUTURE AIRPORT LAYOUT PLAN

REVISIONS

NO.	Description	Date	By

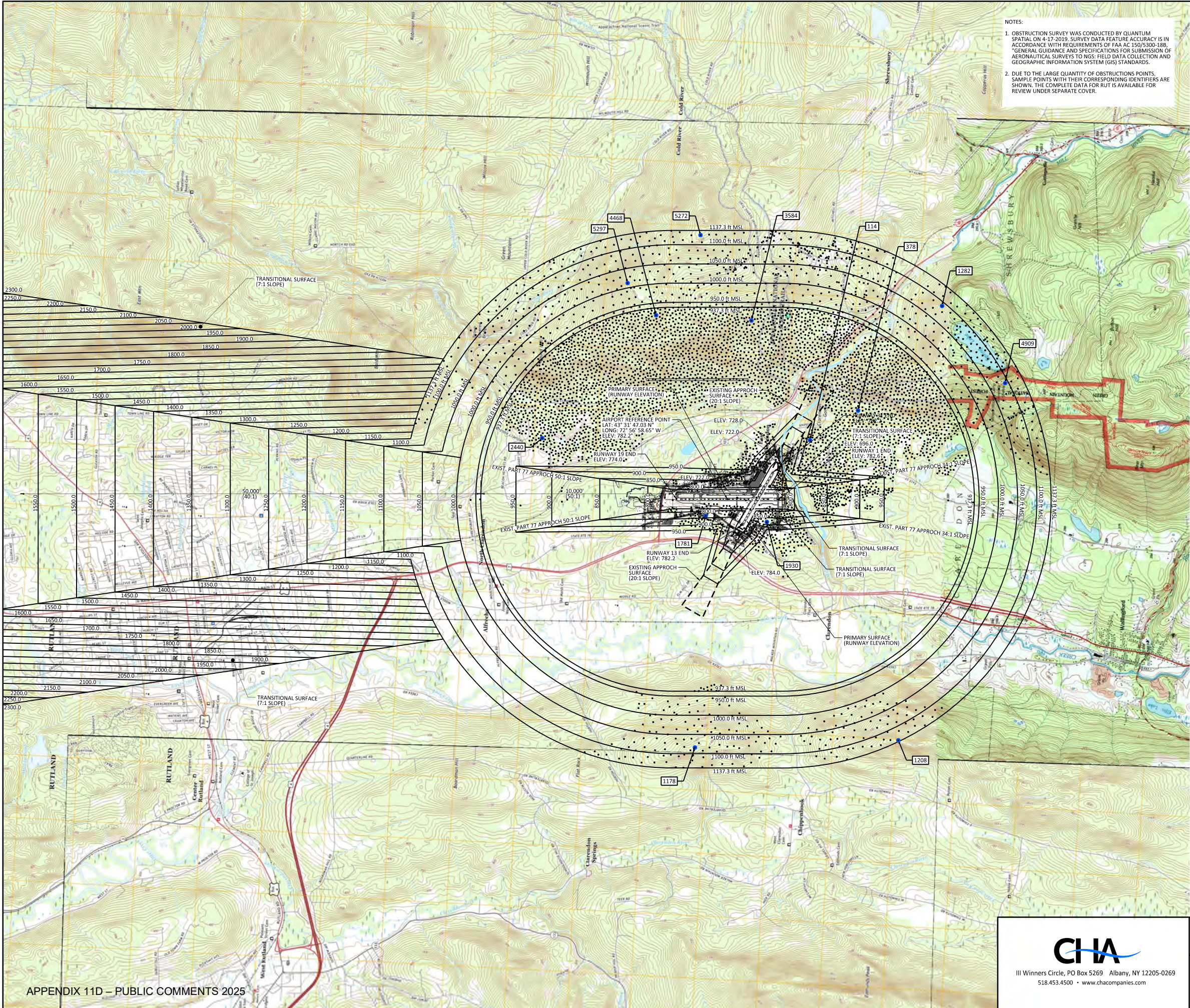
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DRAWN BY: MED

CHECKED BY: RTL

SHEET 4 OF 13

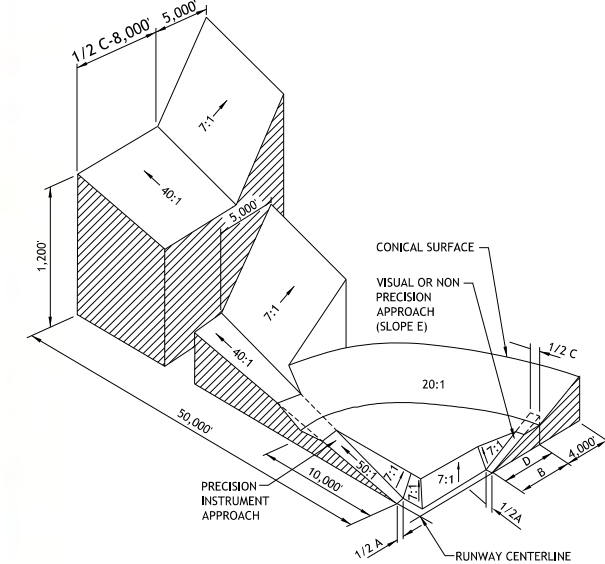
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DATE/TIME = 9/10/2021 10:00:00
USER = 4066



NOTES:
1. OBSTRUCTION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, "GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS."
2. DUE TO THE LARGE QUANTITY OF OBSTRUCTIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR RUT IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER.

DIM	ITEM	VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY		PRECISION INSTRUMENT RUNWAY
		A	B	A	B	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	50,000*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	50:1 / 40:1*

A - UTILITY RUNWAYS
B - RUNWAYS LARGER THAN UTILITY
C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILES
D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FT. AND 40:1 FOR AN ADDITIONAL 40,000 FT.



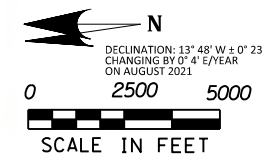
ISOMETRIC VIEW OF SECTION 77.25 CIVIL AIRPORT IMAGINARY SURFACES

PART 77 SAMPLE OBSTRUCTION POINTS

PT#	OBJECT	OBJECT ELEV. (MSL)	P77 SURFACE	P77 SURFACE ELEV. (MSL)	P77 PENETRATION (FT)
114	TREE	996.6	HORIZONTAL	937.3	59.3
378	TREE	1132.4	HORIZONTAL	937.3	195.1
1178	ANTENNA	1542.5	CONICAL	1084.1	458.5
1208	TREE	1713.2	CONICAL	1134.1	579.1
1282	TREE	1537.7	CONICAL	1090.3	447.5
1781	TREE	865.9	TRANSITIONAL	833.6	32.2
1930	TREE	893.7	TRANSITIONAL	880.7	13
2440	TREE	1033.7	HORIZONTAL	937.3	96.4
3584	TREE	1665.8	HORIZONTAL	937.3	728.5
4468	TREE	2135.5	HORIZONTAL	937.3	1198.2
4909	TREE	1872.3	CONICAL	1091.6	780.7
5272	TREE	2400.2	CONICAL	1125.1	1275.1
5297	TREE	2152.2	CONICAL	1012.3	1139.9

LEGEND

- PART 77 SAMPLE OBSTRUCTION POINT
- * OBSTRUCTION POINT



REVISIONS			
NO.	Description	Date	By

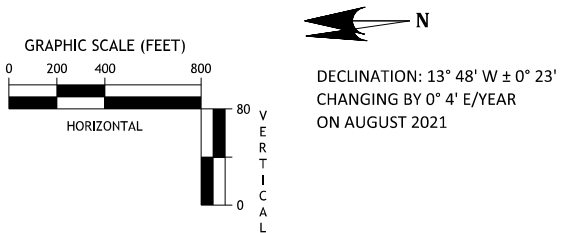
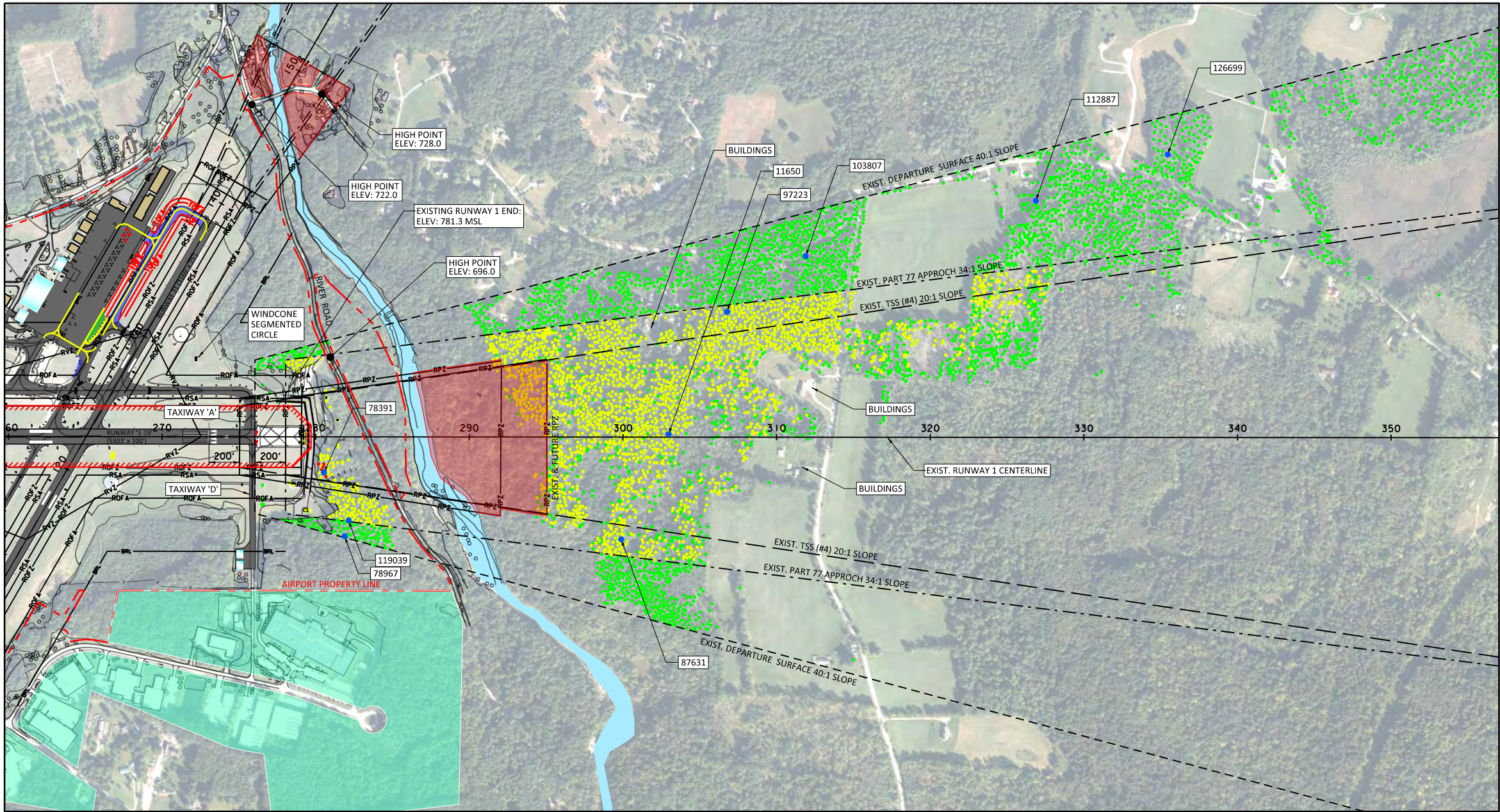


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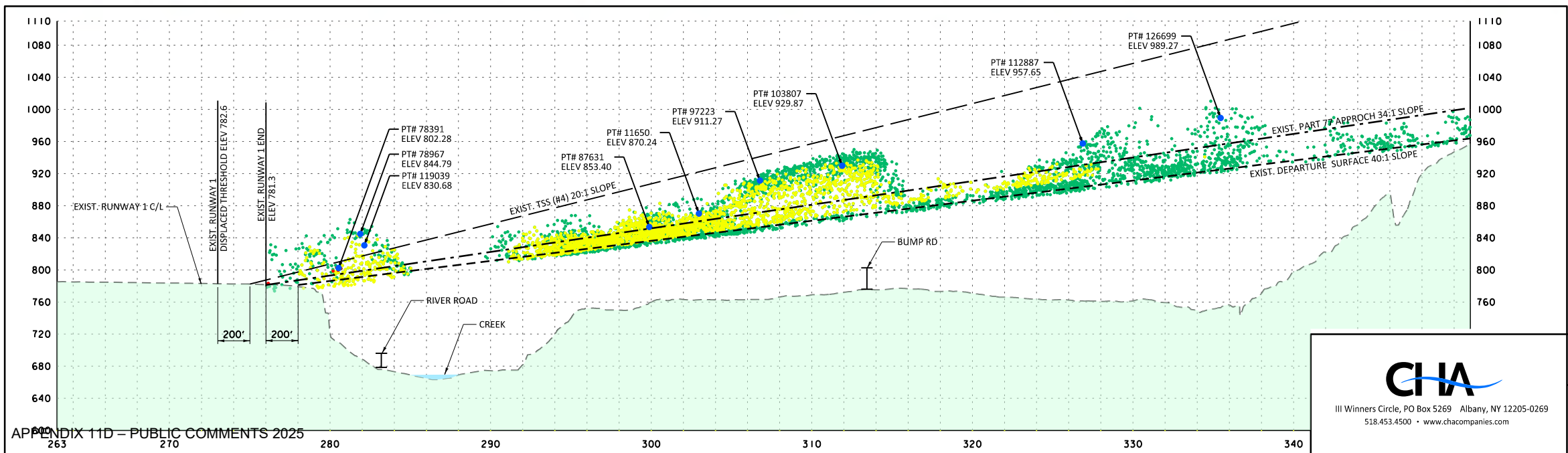
PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16\171_Airspace_Layout.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
AIRPORT AIRSPACE LAYOUT PLAN
PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: JTL
SHEET 5 OF 13

FILE NAME = \\p:\projects\any\k5_36086\CADD\MSTN16h171\Consultants\Aviation\z16h171_RUNWAY 1 INNER.dgn
DATE/TIME = 9/10/2021 11:00:00
USER = 4066



- LEGEND**
- EX. BUILDING
 - EX. AIRFIELD PAVEMENT
 - BUILDING IMPROVEMENTS
 - BUILDING REMOVAL
 - FUTURE AVIGATION EASEMENTS
 - AIRFIELD PAVEMENT
 - AIRFIELD PAVEMENT REMOVAL
 - ELEVATION CONTOURS
 - TREELINES
 - CREEK / WATERWAY
 - RVZ RUNWAY VISIBILITY ZONE (RVZ)
 - ROFZ RUNWAY OBSTACLE FREE ZONE (ROFZ)
 - RPZ RUNWAY PROTECTION ZONE (RPZ)
 - RSA RUNWAY SAFETY AREA (RSA)
 - ROFA RUNWAY OBJECT FREE AREA (ROFA)
 - BRL 35' BUILDING RESTRICTION LINE (BRL)
 - TOFA TAXIWAY OBJECT FREE AREA (TOFA)
 - PART 77 APPROACH SURFACE
 - THRESHOLD SITING SURFACE (TSS)
 - EX. AIRPORT PROPERTY LINE
 - EX. FENCE LINE
 - SURVEY MARKER
 - TREE PENETRATION
 - APPROACH, THRESHOLD SITING SURFACE (TSS), OBSTRUCTIONS
 - APPROACH, PART 77, OBSTRUCTIONS
 - DEPARTURE SURFACE OBSTRUCTIONS
 - SAMPLE OBSTRUCTION POINT
 - GROUND PENETRATION
 - ROAD + VEHICLE HEIGH (10' PRIVATE /15' PUBLIC)



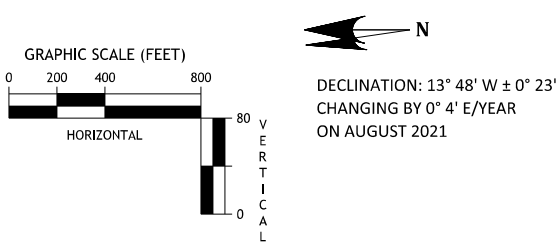
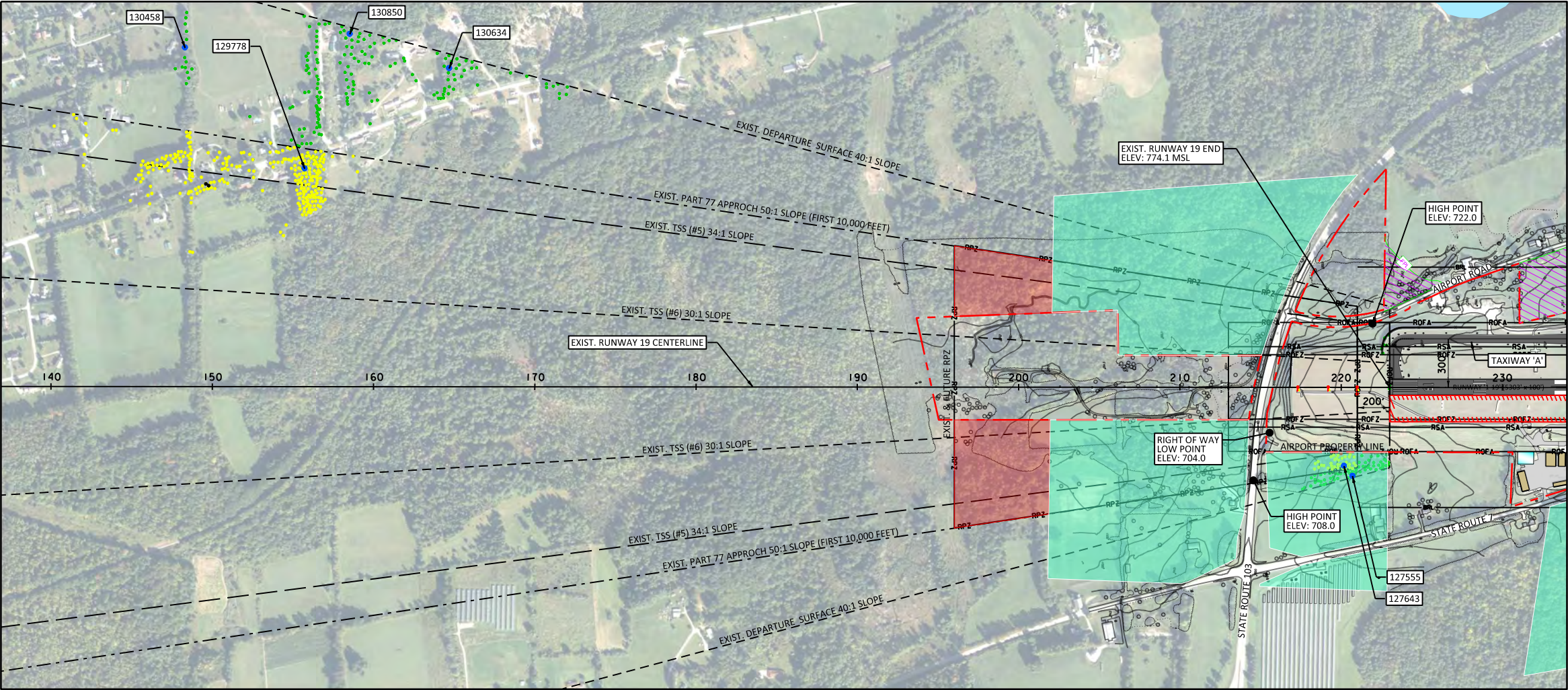
- NOTES:**
1. OBSTRUCTION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, 'GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS.
 2. DUE TO THE LARGE QUANTITY OF OBSTRUCTIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR THIS RUNWAY IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER. THE PENETRATING OBSTRUCTIONS ARE IDENTIFIED IN THE DATA OBSTRUCTION TABLES ON SHEET 10.
 3. ROADWAY ELEVATIONS INCLUDE THE FAR PART 77 TRAVERSE WAY ADJUSTMENT.

REVISIONS			
NO.	Description	Date	By

CHA
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PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007
FILE NAME: z16h171_RUNWAY 1 INNER.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
RUNWAY INNER PORTION OF APPROACH SURFACE
PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: JTL
SHEET 6 OF 13

FILE NAME: V:\Projects\ANY\K5_36086\CADD\MSTN16h171\Consultants\Aviation\z16h171\RUNWAY 19 INNER.dgn
DATE/TIME: 9/10/2021 10:00:00
USER: 4066



LEGEND

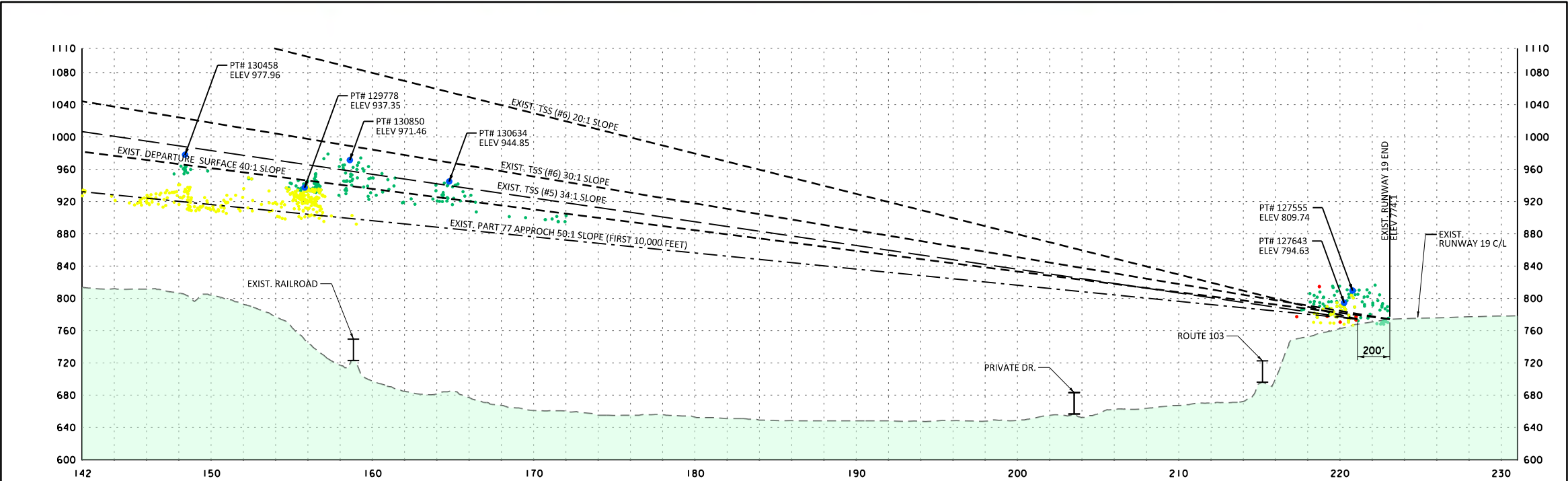
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- EX. AIRFIELD PAVEMENT
- BUILDING IMPROVEMENTS
- BUILDING REMOVAL
- AIRFIELD PAVEMENT
- AIRFIELD PAVEMENT REMOVAL
- FUTURE AVIGATION EASEMENTS
- 800 ELEVATION CONTOURS
- TREELINES
- CREEK / WATERWAY
- RVZ RUNWAY VISIBILITY ZONE (RVZ)
- ROFZ RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RPZ RUNWAY PROTECTION ZONE (RPZ)
- RSA RUNWAY SAFETY AREA (RSA)
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- BRL 35' BUILDING RESTRICTION LINE (BRL)
- TOFA TAXIWAY OBJECT FREE AREA (TOFA)
- FPL FUTURE PROPERTY LINE
- PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE (TSS)
- EX. AIRPORT PROPERTY LINE
- EX. FENCE LINE
- SURVEY MARKER
- TREE PENETRATION
- APPROACH, THRESHOLD SITING SURFACE (TSS), OBSTRUCTIONS
- APPROACH, PART 77, OBSTRUCTIONS
- DEPARTURE SURFACE OBSTRUCTIONS
- SAMPLE OBSTRUCTION POINT
- GROUND PENETRATION
- ROAD + VEHICLE HEIGH (10' PRIVATE /15' PUBLIC)

NOTES:

1. OBSTRUCTION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, "GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS."
2. DUE TO THE LARGE QUANTITY OF OBSTRUCTIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR THIS RUNWAY IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER. THE PENETRATING OBSTRUCTIONS ARE IDENTIFIED IN THE DATA OBSTRUCTION TABLES ON SHEET 10.
3. ROADWAY ELEVATIONS INCLUDE THE FAR PART 77 TRAVERSE WAY ADJUSTMENT.

REVISIONS

NO.	Description	Date	By



APPENDIX 11D – PUBLIC COMMENTS 2025

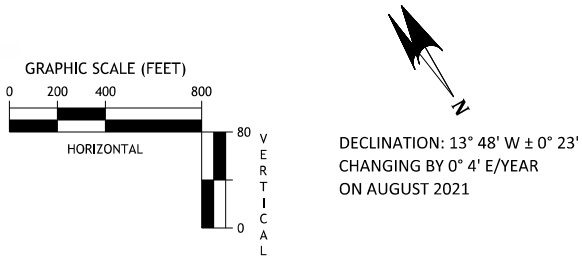
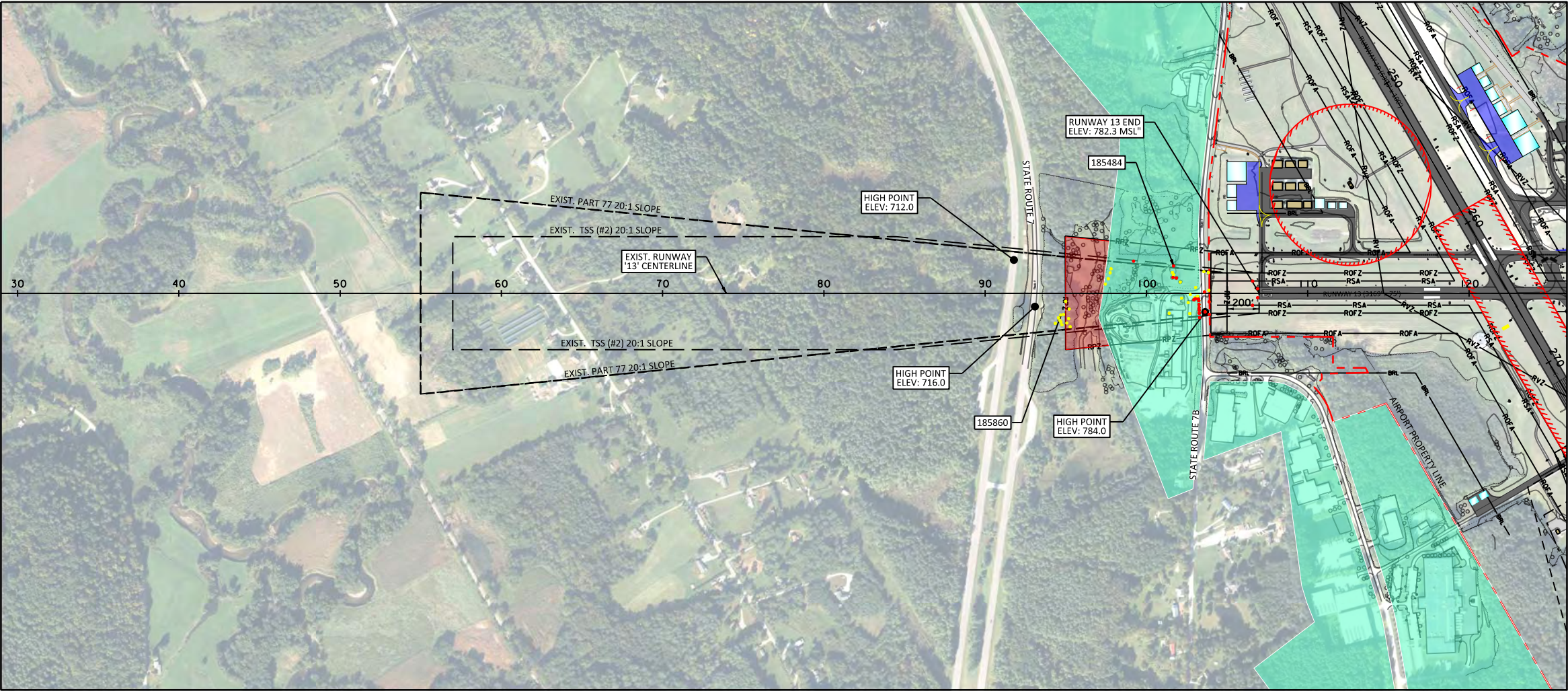


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PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16h171.RUNWAY 19 INNER.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
RUNWAY 19 INNER PORTION OF APPROACH SURFACE
PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: RLT
SHEET 7 OF 13

FILE NAME = N:\Projects\ANY\K5_36086\CADD\MSTN16h171\Consultants\Aviation\z16h171_RUNWAY 13 INNER.dgn
DATE/TIME = 9/10/2021 10:00:00 AM
USER = 4066



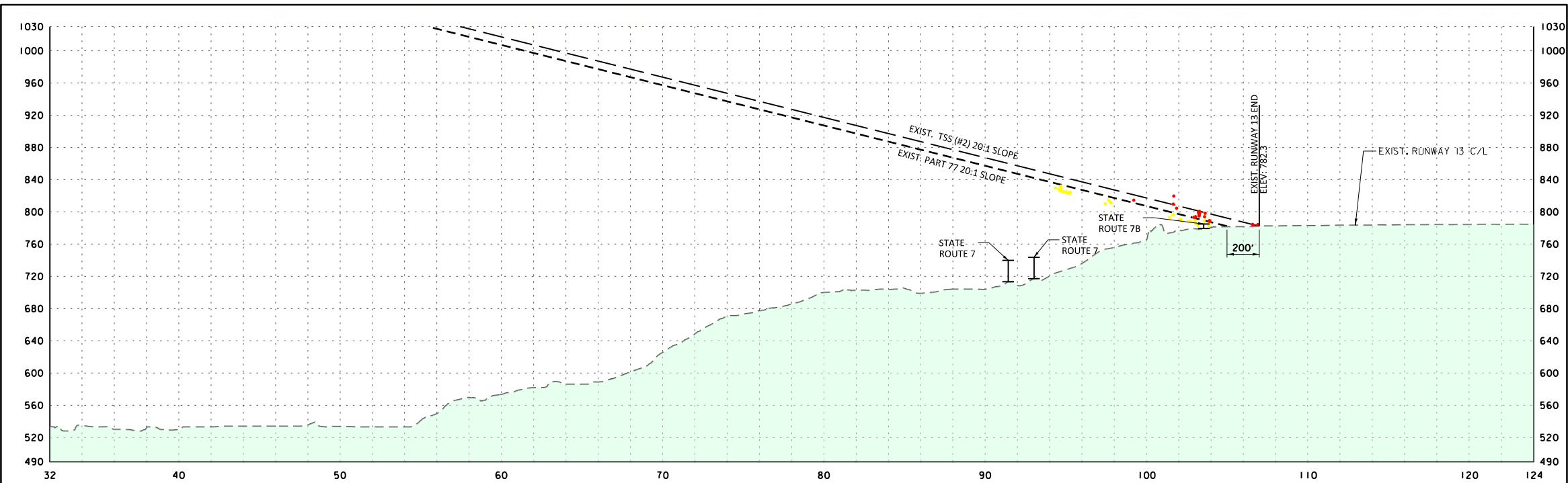
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- EX. BUILDING
- EX. AIRFIELD PAVEMENT
- BUILDING IMPROVEMENTS
- BUILDING REMOVAL
- AIRFIELD PAVEMENT
- AIRFIELD PAVEMENT REMOVAL
- FUTURE AVIGATION EASEMENTS
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- DEPARTURE SURFACE OBSTRUCTIONS
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- GROUND PENETRATION
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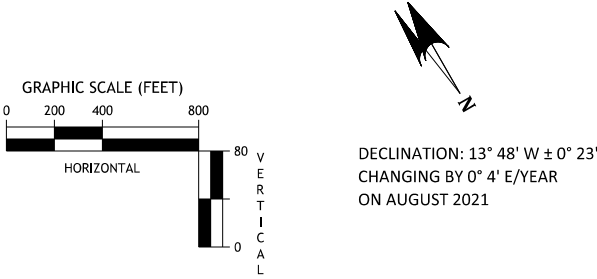
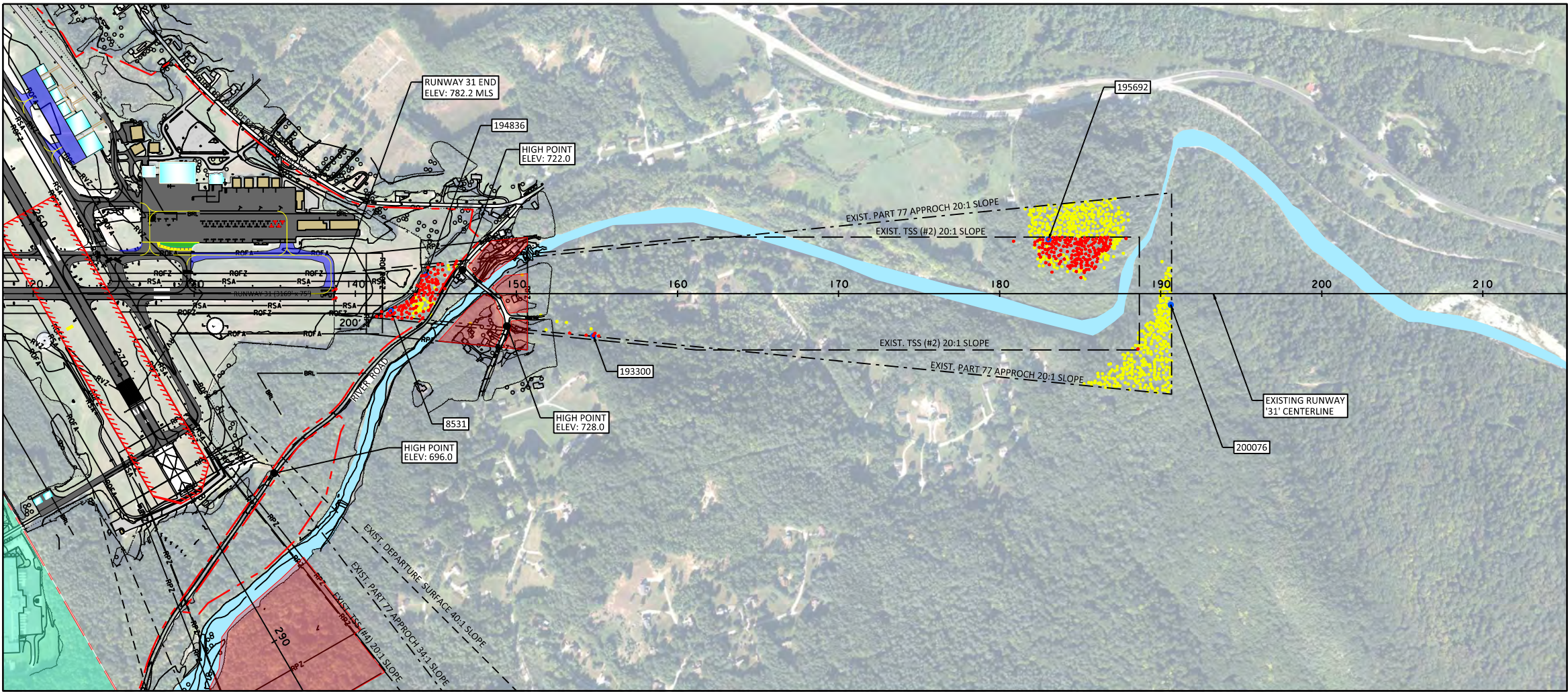
- NOTES:
1. OBSTRUCTION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, "GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS.
 2. DUE TO THE LARGE QUANTITY OF OBSTRUCTIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR THIS RUNWAY IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER. THE PENETRATING OBSTRUCTIONS ARE IDENTIFIED IN THE DATA OBSTRUCTION TABLES ON SHEET 10.
 3. ROADWAY ELEVATIONS INCLUDE THE FAR PART 77 TRAVERSE WAY ADJUSTMENT.

REVISIONS

NO.	Description	Date	By



PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007
FILE NAME: z16h171_RUNWAY 13 INNER.dgn
PLOT DATE: 9/10/2021
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
CHECKED BY: BRL
RUNWAY 13 INNER PORTION OF APPROACH SURFACE SHEET 8 OF 13



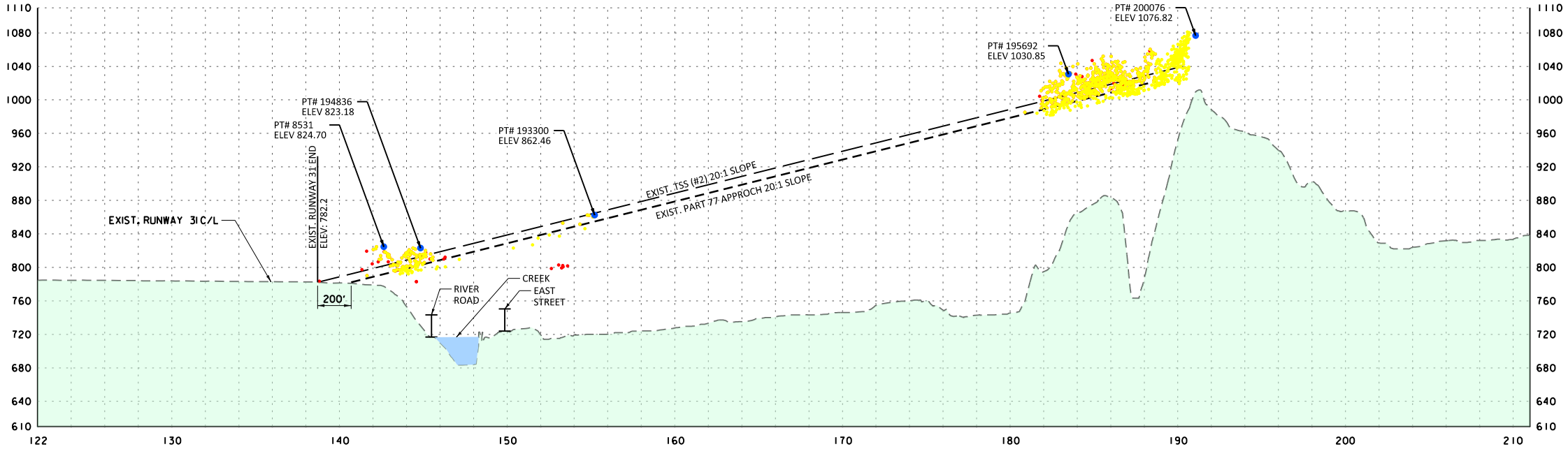
LEGEND

- EX. BUILDING
- EX. AIRFIELD PAVEMENT
- BUILDING IMPROVEMENTS
- BUILDING REMOVAL
- AIRFIELD PAVEMENT
- AIRFIELD PAVEMENT REMOVAL
- FUTURE AVIGATION EASEMENTS
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- RVZ RUNWAY VISIBILITY ZONE (RVZ)
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- PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE (TSS)
- EX. AIRPORT PROPERTY LINE
- EX. FENCE LINE
- SURVEY MARKER
- TREE PENETRATION
- APPROACH, THRESHOLD SITING SURFACE (TSS), OBSTRUCTIONS
- APPROACH, PART 77, OBSTRUCTIONS
- DEPARTURE SURFACE OBSTRUCTIONS
- SAMPLE OBSTURATION POINT
- GROUND PENETRATION
- ROAD + VEHICLE HEIGHT (10' PRIVATE / 15' PUBLIC)

- NOTES:
- OBSTURATION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, "GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS."
 - DUE TO THE LARGE QUANTITY OF OBSTURATIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR THIS RUNWAY IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER. THE PENETRATING OBSTRUCTIONS ARE IDENTIFIED IN THE DATA OBSTURATION TABLES ON SHEET 10.
 - ROADWAY ELEVATIONS INCLUDE THE FAR PART 77 TRAVERSE WAY ADJUSTMENT.

REVISIONS

NO.	Description	Date	By



FILE NAME = N:\Projects\4111\4111-05_350865\4400-NSTN\4111\Obstruction\4111\Obstruction_data.dgn
DATE/TIME = 9/10/2021 10:46:56
USER = 4406

RUNWAY 1												
			PART 77 APPROACH 34:1		OBSTACLE CLEARANCE SURFACE 20 :1 (#4)		DEPARTURE SURFACE 40:1					
PT#	OBJECT	OBJ. ELEV	PART 77 ELEV.	PENETRATION (FT.)	OCS #4 ELEV.	PENETRATION (FT.)	DEP ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
78391	TREE	802.283	788.59	14	808.686	-6	792.494	10	1520981.25	373105.684	EXISTING COND.	
11650	TREE	870.238	854.578	16			848.584	22	1521276.763	370867.603	EXISTING COND.	
119039	TREE	830.676	793.31	37		-	796.506	34	1520672.007	372938.887	EXISTING COND.	
97223	TREE	911.268	865.736	46		-	858.068	53	1522081.616	370504.452	EXISTING COND.	
87631	TREE	853.404	845.507	8			840.874	13	1520586.609	371162.106	EXISTING COND.	
78967	TREE	844.787		-		-	795.875	49	1520569.249	372962.071	EXISTING COND.	
103807	TREE	929.873		-		-	870.859	59	1522454.301	370000.247	EXISTING COND.	
112887	TREE	957.647		-		-	908.311	49	1522845.967	368509.783	EXISTING COND.	
126699	TREE	989.272		-		-	929.773	59	1523165.095	367657.573	EXISTING COND.	

- object is outside the limits of the surface

RUNWAY 19												
			PART 77 APPROACH 50:1		OBSTACLE CLEARANCE SURFACE 34 :1 (#5)		DEPARTURE SURFACE 40:1					
PT#	OBJECT	OBJ. ELEV	PART 77 ELEV.	PENETRATION (FT.)	OCS #5 ELEV.	PENETRATION (FT.)	DEP ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
127643	TREE	794.634	775.666	19		-	781.08	14	1520601.933	379134.24	EXISTING COND.	
127555	TREE	809.737		-		-	779.782	30	1520541.051	379081.049	EXISTING COND.	
130634	TREE	944.854		-		-	919.836	25	1522951.303	384733.17	EXISTING COND.	
130850	TREE	971.459		-		-	935.257	36	1523150.82	385354.156	EXISTING COND.	
129778	TREE	937.346	904.592	33		-	942.239	-5	1522311.487	385616.496	EXISTING COND.	
130458	TREE	977.957		-		-	960.796	17	1523045.33	386373.791	EXISTING COND.	
STATE ROUTE 102 (CENTERLINE)		711	785.8	-75	791.2	-80	793.3	-82	1521055.869	379653.343	EXISTING COND.	
STATE ROUTE 102 (HIGH POINT)		723		-		-	795.1	-72	1520363.508	379705.317	EXISTING COND.	

- object is outside the limits of the surface

RUNWAY 13										
			PART 77 APPROACH 20:1		OBSTACLE CLEARANCE SURFACE 20 :1 (#2)					
PT#	OBJECT	OBJ. ELEV	PART 77 ELEV.	PENETRATION (FT.)	OCS #2 ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
185484	TREE	819.59		-	808.841	11	1519446.026	375811.763	EXISTING COND.	
185860	TREE	832.076	833.776	-2		-	1518687.521	375884.06	EXISTING COND.	
STATE ROUTE 7B (CENTERLINE)		794	789	5	799	-5	1519535.497	375577.475	EXISTING COND.	
STATE ROUTE 7B (HIGH POINT)		798	789	9	799	-1	1519479.07	375468.082	EXISTING COND.	

- object is outside the limits of the surface

RUNWAY 31										
			PART 77 APPROACH 20:1		OBSTACLE CLEARANCE SURFACE 20 :1 (#2)					
PT#	OBJECT	OBJ. ELEV	PART 77 ELEV.	PENETRATION (FT.)	OCS #2 ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
8531	TREE	824.697	789.766	35	799.766	25	1522857.721	373608.513	EXISTING COND.	
194836	TREE	823.177	800.709	22	810.709	12	1523157.287	373697.884	EXISTING COND.	
193300	TREE	862.462	852.643	10	862.643	0	1523883.322	372864.593	EXISTING COND.	
195692	TREE	1030.85	993.916	37	1003.916	27	1526645.234	372020.251	EXISTING COND.	
200076	TREE	1076.819	1031.871	45		-	1527112.928	371297.564	EXISTING COND.	
197340	TREE	1048.973	1005.988	43		-	1526887.543	371959.482	EXISTING COND.	
EAST ST. (CENTERLINE)		737	821.7	-85	831.7	-95	1523457.081	373402.11	EXISTING COND.	
EAST ST. (HIGH POINT)		741	725.7	15	835.7	-95	1523496.241	373213.005	EXISTING COND.	

- object is outside the limits of the surface

NOTES:

1. OBSTRUCTION SURVEY WAS CONDUCTED BY QUANTUM SPATIAL ON 4-17-2019, SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B, "GENERAL GUIDANCE AND SPECIFICATIONS FOR SUBMISSION OF AERONAUTICAL SURVEYS TO NGS: FIELD DATA COLLECTION AND GEOGRAPHIC INFORMATION SYSTEM (GIS) STANDARDS.
2. DUE TO THE LARGE QUANTITY OF OBSTRUCTIONS POINTS, SAMPLE POINTS WITH THEIR CORRESPONDING IDENTIFIERS ARE SHOWN. THE COMPLETE DATA FOR THIS RUNWAY IS AVAILABLE FOR REVIEW UNDER SEPARATE COVER.
3. ROADWAY ELEVATIONS NOT INCLUDED AS PART OF THE OBSTRUCTION SURVEY DATA WERE GENERATED FROM GROUND CONTROL ELEVATIONS. ROADWAY ELEVATIONS INCLUDE THE FAR PART 77 TRAVERSE WAY ADJUSTMENT.



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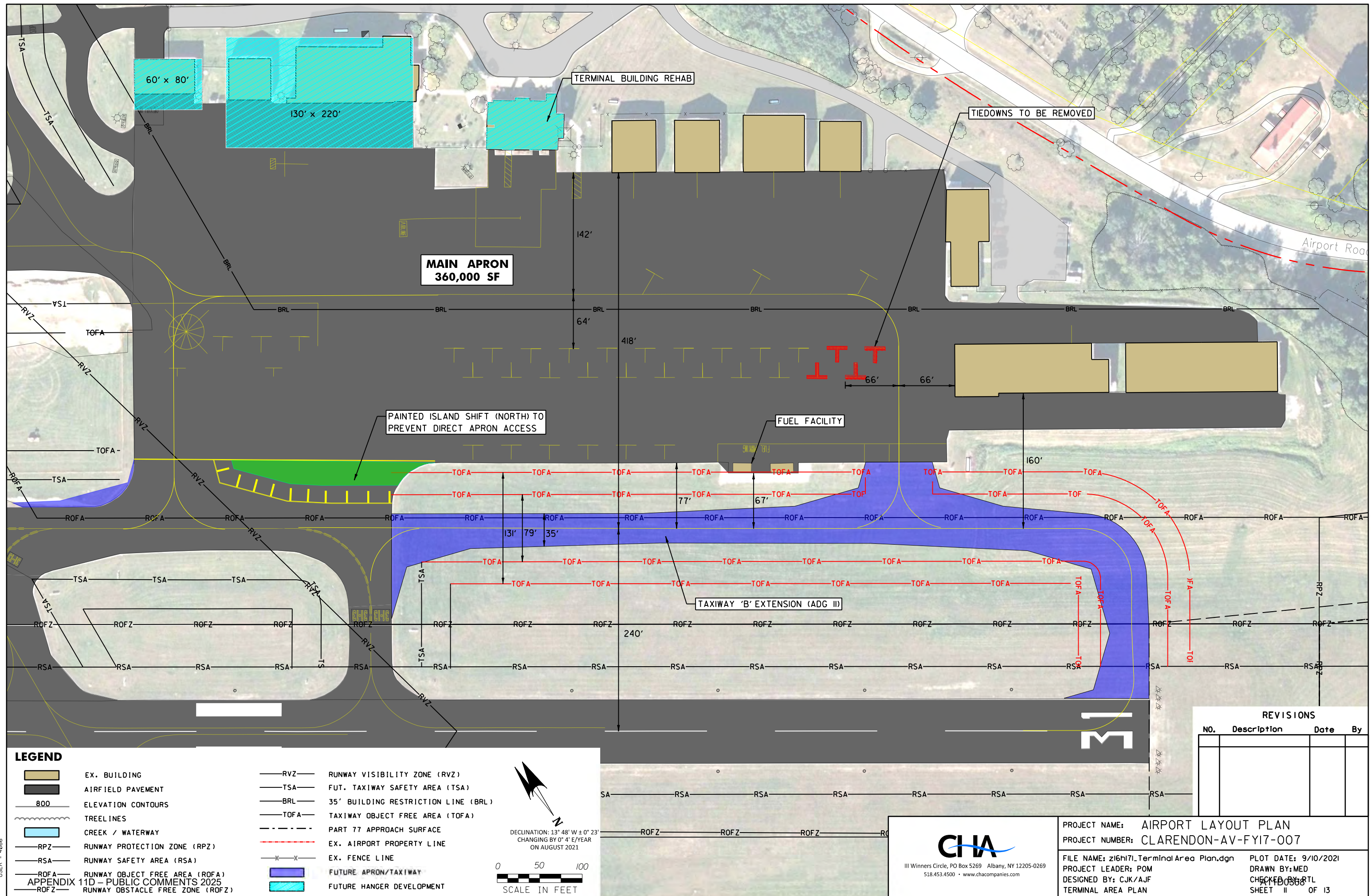
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PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16h171.Obstruction_data.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
OBSTRUCTION DATA SHEET

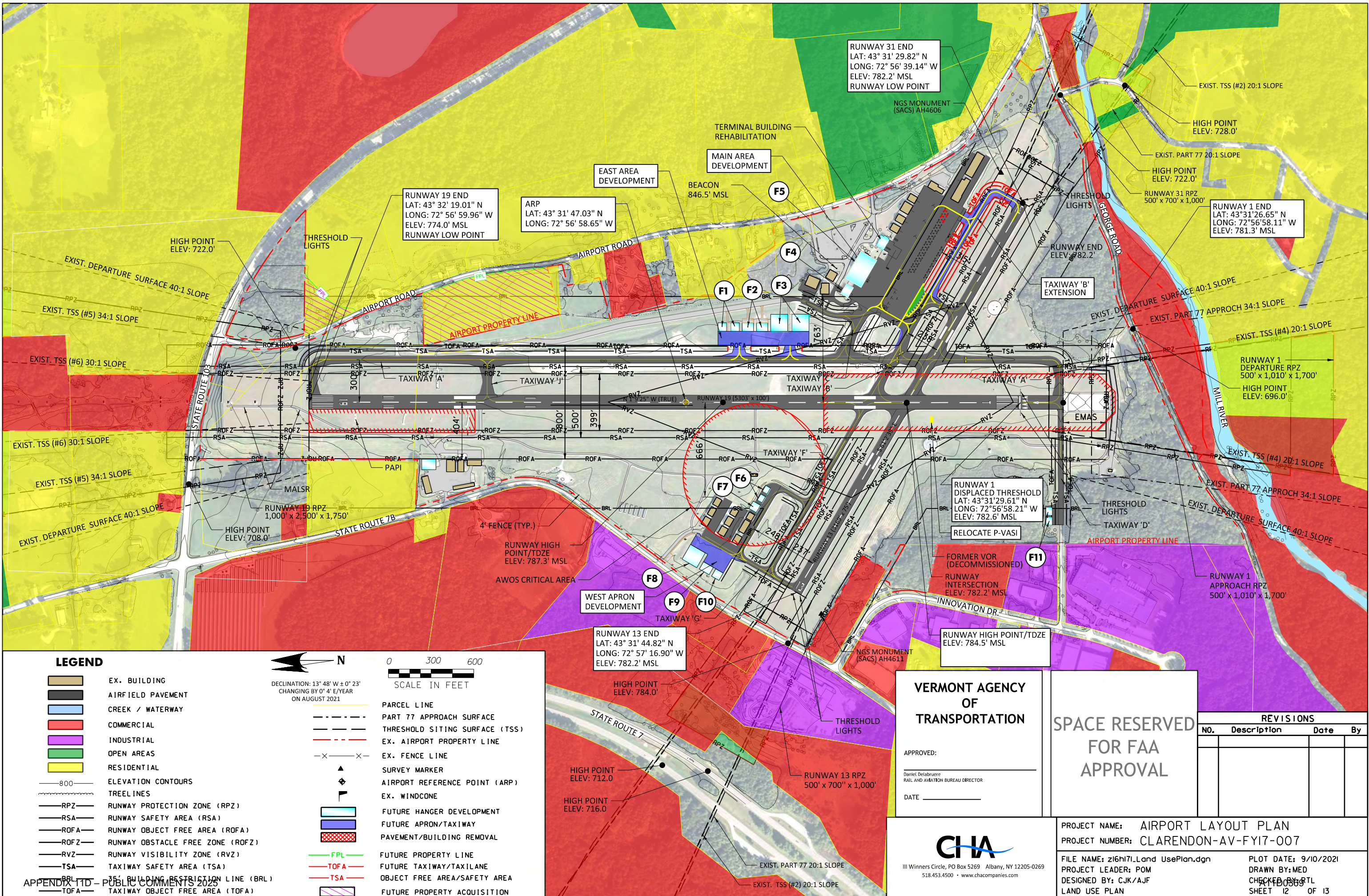
REVISIONS

NO.	Description	Date	By

PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: RTL
SHEET 10 OF 13

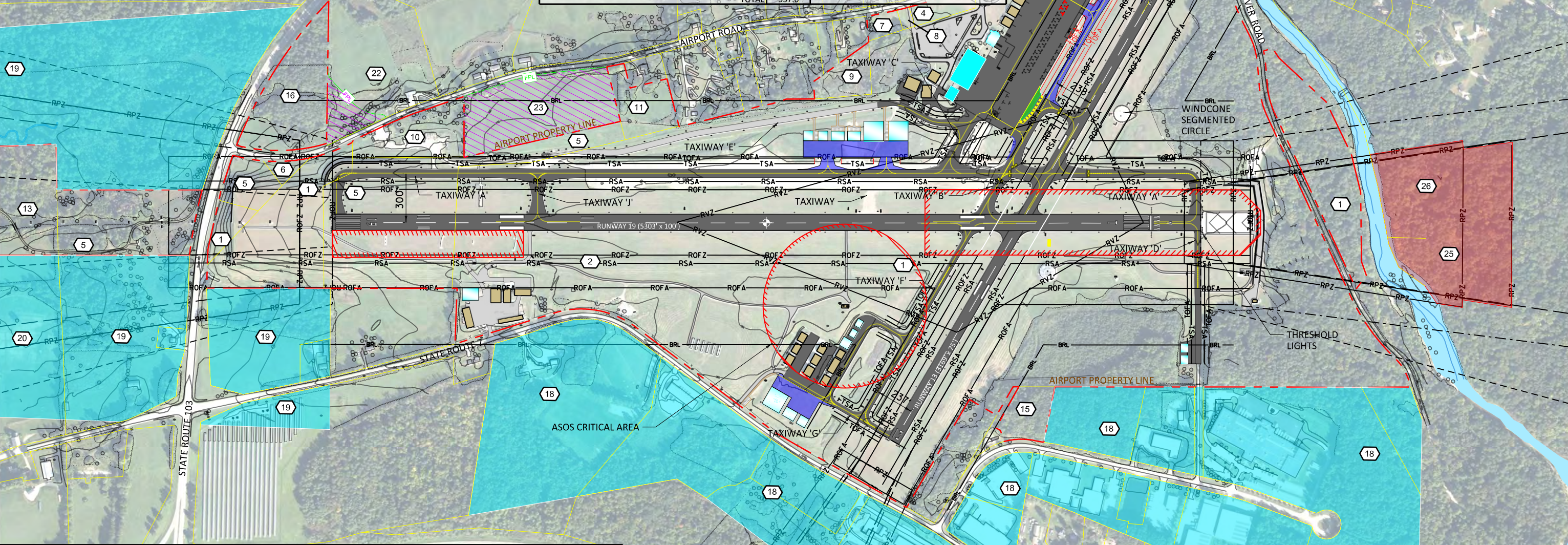


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DATE / TIME = 9/10/2021 10:46:06
USER = 4066



PROPOSED AIRPORT PROPERTY - EASEMENT					
REFERENCE NUMBER	BOOK AND PAGE	OWNER	EXISTING LAND USE	ACREAGE	PURPOSE
19	53/426	GILBERT A. ET UX PIERCE	FORESTED	4.6	HEIGHT AND LAND USE CONTROL
20	53/426	HENRY & ILSE VERGI	OPEN SPACE	0.4	HEIGHT AND LAND USE CONTROL
21	N/A	N/A	FORESTED / OPEN SPACE	5.4	HEIGHT AND LAND USE CONTROL
24	N/A	N/A	AGRICULTURAL	3.2	HEIGHT AND LAND USE CONTROL
25	N/A	N/A	CONSERVATION	2.9	HEIGHT AND LAND USE CONTROL
26	N/A	N/A	CONSERVATION / FORESTED	6.5	HEIGHT AND LAND USE CONTROL
27	N/A	N/A	CONSERVATION	<0.1	HEIGHT AND LAND USE CONTROL
28	N/A	N/A	CONSERVATION	0.2	HEIGHT AND LAND USE CONTROL
29	N/A	N/A	CONSERVATION	0.5	HEIGHT AND LAND USE CONTROL
30	N/A	N/A	CONSERVATION	1.0	HEIGHT AND LAND USE CONTROL
31	N/A	N/A	RESIDENTIAL	0.3	HEIGHT AND LAND USE CONTROL
32	N/A	N/A	RESIDENTIAL	0.2	HEIGHT AND LAND USE CONTROL
33	N/A	N/A	RESIDENTIAL	<0.1	HEIGHT AND LAND USE CONTROL
34	N/A	N/A	RESIDENTIAL	<0.1	HEIGHT AND LAND USE CONTROL
35	N/A	N/A	CONSERVATION	0.9	HEIGHT AND LAND USE CONTROL
36	N/A	N/A	CONSERVATION	1.2	HEIGHT AND LAND USE CONTROL

EXISTING AIRPORT PROPERTY - FEE SIMPLE							
REFERENCE NUMBER	BOOK AND PAGE	OWNER	ACREAGE	AIP NUMBER	AIP ACREAGE	ACQUISITION DATE	PURPOSE
1	N/A	STATE OF VERMONT	238.9	N/A	N/A	N/A	AVIATION
2	27/158	STATE OF VERMONT	31.3	5902	31.2	1942	AVIATION
3	32/1	STATE OF VERMONT	0.6	6103	X	1961	AVIATION
4	53/426	STATE OF VERMONT	1.2	3-50-0015-08	1.3	1985	AVIATION
5	53/426	STATE OF VERMONT	26.5	6-50-0015-07	12.34	1985	AVIATION
6	65/472	STATE OF VERMONT	0.5	3-50-0015-11	0.5	1989	AVIATION
7	52/102	STATE OF VERMONT	0.7	N/A	N/A	1984	AVIATION
8	55/399	STATE OF VERMONT	0.2	N/A	N/A	1986	AVIATION
9	76/249	STATE OF VERMONT	1.8	N/A	N/A	1993	AVIATION
10	81/79	STATE OF VERMONT	3.9	N/A	N/A	1994	AVIATION
11	83/179	STATE OF VERMONT	2.7	N/A	N/A	1995	AVIATION
12	93/545	STATE OF VERMONT	1.8	N/A	N/A	1995	AVIATION
13	103/534	STATE OF VERMONT	8.3	N/A	N/A	2001	AVIATION
14	104/51	STATE OF VERMONT	9.5	N/A	N/A	2001	AVIATION
15	105/458	STATE OF VERMONT	2.0	N/A	N/A	2002	AVIATION
16	130/433	STATE OF VERMONT	7.1	3-50-0015-26	7.6	2007	AVIATION
TOTAL			337.0				



LEGEND

EX. BUILDING

AIRFIELD PAVEMENT

CREEK / WATERWAY

800

ELEVATION CONTOURS

TREELINES

RPZ

RUNWAY PROTECTION ZONE (RPZ)

RSA

RUNWAY SAFETY AREA (RSA)

ROFA

RUNWAY OBJECT FREE AREA (ROFA)

ROFZ

RUNWAY OBSTACLE FREE ZONE (ROFZ)

RVZ

RUNWAY VISIBILITY ZONE (RVZ)

TSA

TAXIWAY SAFETY AREA (TSA)

BRL

35' BUILDING RESTRICTION LINE (BRL)

TOFA

TAXIWAY OBJECT FREE AREA (TOFA)

PART 77 APPROACH SURFACE

THRESHOLD SITING SURFACE (TSS)

GLIDE SLOPE CRITICAL AREA

EX. AIRPORT PROPERTY LINE

DECLINATION: 13° 48' W ± 0° 23'

CHANGING BY 0° 4' E/YEAR

ON AUGUST 2021

0

300

600

SCALE IN FEET

XX

PARCEL NUMBER

PARCEL LINE

EX. FENCE LINE

▲

SURVEY MARKER

●

AIRPORT REFERENCE POINT (ARP)

▲

EX. WINDCONE

FUTURE HANGER DEVELOPMENT

FUTURE APRON/TAXIWAY

PAVEMENT/BUILDING REMOVAL

FUTURE PROPERTY LINE

FUTURE TAXIWAY/TAXILANE

OBJECT FREE AREA/SAFETY AREA

EX. AVIGATION EASEMENTS

FUTURE AVIGATION EASEMENTS

FUTURE PROPERTY ACQUISITION

APPENDIX 11D - PUBLIC COMMENTS 2025

PROPOSED PROPERTY ACQUISITION - FEE SIMPLE					
REFERENCE NUMBER	BOOK AND PAGE	OWNER	EXISTING LAND USE	ACREAGE	PURPOSE
19 WEST	53/426	GILBERT A. ET UX PIERCE	OPEN SPACE	5.2	AVIATION
19 EAST	53/426	GILBERT A. ET UX PIERCE	FORESTED	7	AVIATION
20	53/426	HENRY & ILSE VERGI	OPEN SPACE	4	AVIATION
21	N/A	N/A	FORESTED / OPEN SPACE	2.8	AVIATION
22	N/A	N/A	RESIDENTIAL / FORESTED	1.5	AVIATION
23	N/A	DAVID & MARY DRANSFIELD	RESIDENTIAL	8.0	AVIATION

EXISTING AIRPORT PROPERTY - EASEMENT							
REFERENCE NUMBER	BOOK AND PAGE	OWNER	ACREAGE	AIP NUMBER	AIP ACREAGE	ACQUISITION DATE	PURPOSE
17	31/418	CLIFFORD H. & MARY E. BROWN	< 0.1	6103	N/A	1961	AVIATION
18	51/180	WILLIAM A. & DORIS H. WEEKS	119.9	N/A	N/A	1983	AVIATION
19	53/426	GILBERT A. ET UX PIERCE	64.1	6-50-0015-07	51.7	1985	AVIATION
20	53/426	HENRY & ILSE VERGI	10.5	6-50-0015-07	16.5	1985	AVIATION

REVISIONS			
NO.	Description	Date	By

CHA
111 Winners Circle, PO Box 5269 Albany, NY 12205-0269
518.453.4500 • www.chacompanies.com

PROJECT NAME: AIRPORT LAYOUT PLAN
PROJECT NUMBER: CLARENDON-AV-FY17-007

FILE NAME: z16n171.Property Map.dgn
PROJECT LEADER: POM
DESIGNED BY: CJK/AJF
AIRPORT PROPERTY MAP

PLOT DATE: 9/10/2021
DRAWN BY: MED
CHECKED BY: RTL
SHEET 13 OF 13

Fw: AAIA Comments to ALP

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:26 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (1 MB)

AAIA Comments to ALP.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 25, 2025 3:05 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: AAIA Comments to ALP

Good afternoon,

Please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 25, 2025 3:05 PM

To: Helbling, Tony <helbling@wilsonconst.com>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>

Subject: RE: AAIA Comments to ALP

Hi Tony, thank you for your comments. They'll be sent to the master plan team and included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 **CELL** 503-302-5455
M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>
Sent: Tuesday, February 25, 2025 12:36 PM
To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; Brandy Steffen <brandy.steffen@jla.us.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: AAIA Comments to ALP

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Please enter into the record for the Aurora State Airport Master Plan.

Tony Helbling
Chair
AAIA

February 25, 2025

Alex Thomas, Planning and Programs Manager
Tony Beach, State Airports Manager
Brandy Steffen, JLA
Oregon Department of Aviation
3040 25th St SE
Salem, OR 97602
Alex.R.Thomas@odav.oregon.gov

Re – AAIA Comments to Airport Layout Plan (Aurora State Airport Master Plan)

Dear Mr. Thomas,

Please include in the record.

This letter is submitted on behalf of the Aurora Airport Improvement Association (AAIA). AAIA continues to have significant concern about the Aurora State Airport Master Plan.

The proposed master plan neglects airport safety because it continues to plan to punt the runway extension that has been needed for more than 15 years. The safety value of a runway extension to **6000'** has long been the primary focus of this airport's future. Through this most recent Master Planning process, however, it seems ODAV completely lost sight of this top priority. The priority of safety.

The focus of the airport's future has never been the introduction of scheduled airline service or a massive expansion outside the rough footprint of the State-owned land and through the fence properties. Claims otherwise are "boogie-men" meant to distract the process and stir opposition to a runway extension. Aurora State Airport will never be an FAR Part 139 airport.

This current draft Airport Layout Plan and the process that brought us all to this point are clear evidence of ODAV's effort to avoid ever extending the runway to 5500', let alone to the beneficially safe length of 6000'. This proposed plan ignores safety and places any extension far in the future, behind and at the mercy of other projects that due to exorbitant funding requirements, will never happen. This is being done by ODAV claiming those projects are required to be done in the name of safety. This is a false analysis.

The runway extension should happen early in the planning schedule. The FAA allows for this as freely admitted by FAA Planner, Tim House, during a PAC meeting. When questioned, he explained that the sponsor must only show in the plan **progress toward compliance** before the runway can

be extended. This is different from ODAV's claim of perfect design guidance compliance before the runway can be extended.

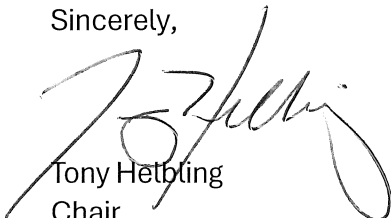
ODAV needs to state in the Master Plan that it intends for the Airport Boundary to be adjusted to take in of the property long identified in all master plans as suitable for airport related use that runs to Airport Road NE in the ALP. Although the FAA does not require specific designation, the State of Oregon land use system, as called out by the courts, does recognize the boundary as important. ODAV is a state agency and as called out in Oregon Revised Statute 836.642, the agency should recognize the importance of the airport, as a whole, whether privately or publicly owned.

ODAV needs to fight for the airport by applying for variances or MoS for ROFA – it is possible as per precedent set in Key West, Florida and Rutland, Vermont. It is clear the FAA can consider pre-existing conditions, as called out in FAA guidance, as reasoning for allowances to be made.

As previously requested, AAIA asks again that ODAV involve Through the Fence (TTF) parties as collaborative partners in the airport Master Plan process moving forward. This request applies across all state airports. The AAIA highlights the following reasons for their involvement:

- **Direct Impact and Proximity:** Through the Fence parties are located within the confines of the airport property, meaning they are directly affected by any developments or changes proposed in the Master Plan. As such, their interests and operations are more closely impacted than those of any other participants in the planning process.
- **Private Investments Based on ORS 836-642:** Through the Fence parties have made private investments based on the efficacy and stipulations of Oregon Revised Statute 836-642. These investments contribute to the airport's development and its operational success.
- **Source of Airport Improvement Needs:** The investments made by TTF parties contribute directly to the need for airport improvements. These improvements, in turn, are necessary for ensuring safety, efficiency, and respectful business operations, which must be coordinated with the surrounding communities.

Sincerely,



Tony Hettrling
Chair
AAIA

Re: Submittal for the record on Aurora State Airport and expansion plans and alternatives

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 7:59 AM

To phickman@comcast.net <phickman@comcast.net>

Cc 'Dave Mauk' <dave@charbonneaucountryclub.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

 1 attachment (16 KB)

Aurora Airport submittal 1-20-25.docx;

Thank you so much Pat. An email to me is just fine. Thanks so much and I'll pass this along to the rest of the team.

Take care,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: phickman@comcast.net <phickman@comcast.net>

Sent: Monday, January 20, 2025 7:06 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Cc: 'Dave Mauk' <dave@charbonneaucountryclub.com>

Subject: Submittal for the record on Aurora State Airport and expansion plans and alternatives

Hello Brandy,

I did not find the link where comments can be submitted when clicking the link “Refined Preferred Alternative comments”.

It took me to the alternative plans in PDF, no link for any comments submittal that I could locate. So please see my attached word document for my comments and input regarding the plan and to enter into the public record

Thank you

Charbonneau/Wilsonville resident



January 20, 2025

I'm opposed to any Aurora State Airport expansion. I have personally been monitoring (over 8 years) the ODA Oregon Department of Aviation overseeing government agencies and many special interest groups as they take steps to expand the Airport for personal and financial gain. The real crux of why this deceptive process is happening with any means possible is so they can bring in large aircraft and create a jet corporate centric airport. As well outside the fence interests to construct space for vertical takeoff aircraft including considered drone delivery services

Why? Business and corporate interests want to increase traffic for jet fuel sales, flight base of operations services (land grabs) on and on, all while pushing out what this airport really is based on, a rural small operation for smaller aircraft. All of this comes at a huge decrease in our citizens' rights to a good quality of life that should not be impacted by very noisy constant jet and jet helicopter operations, pollution, and increased ground traffic.

The airport should get the runway resurfaced/repared to correct the crown and for improved drainage some additional extension to the North maybe 300 feet. Keep this airport a class D. Do not grant special "waivers" for larger fleets and heavier aircraft that again brings more harm and impact to all surrounding residents. The ODA is a special interest operation catering to the wishes of deep pockets. It has been and continues to not work for the tax paying residents this has been proven over many decades. Untruthful and Corrupt as they have proven time and again

With Regards,

Pat Hickman
Local resident of Wilsonville

Not only was a No Build alternative barely considered, but four of the seven Alternatives which were premised on ARC B-II airfield status (i.e. for small private jets) were removed from consideration the day before this summer's Open House. Apparently ODAV had informed the FAA that it desired to continue inviting larger airplanes including larger/heavier C-II and D-II private jets to use the airport, so the FAA said the airfield must be expanded to the C-II design standards. After the B-II alternatives were summarily dropped without any input from the PAC or the Oregon Aviation Board, then the PAC was informed that the remaining three alternatives were being modified to meet FAA requirements for expanding the airfield to C-II standards. When presented to the Aviation Board, a member described the situation as "a real conundrum."

Fw: Draft Airport Layout Plan Sketch

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-25 10:26 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (231 KB)

LT ODAV-Draft Airport Layout Plan Sketch.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 25, 2025 9:32 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; STEPHENS Cathryn E <CStephens@eugene-or.gov>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Draft Airport Layout Plan Sketch

Good morning,

I am including Ms. Stephens in case she did not receive the original email and attachment.

Brandy and Samantha, please include this in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 25, 2025 9:30 AM

To: Darlene Ferretti <Darlene.Ferretti@jordanramis.com>

Cc: oneil@wilsonvilleoregon.gov; mayor@ci.aurora.or.us; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; AHRENS Melissa * DLCD <Melissa.AHRENS@dlcd.oregon.gov>; dlcd.director@dlcd.oregon.gov; HOWARD Gordon * DLCD <Gordon.HOWARD@dlcd.oregon.gov>; AttorneyGeneral@doj.oregon.gov; WARNER Chris * GOV

<Chris.WARNER@oregon.gov>; James D. Howsley <jamie.howsley@jordanramis.com>

Subject: RE: Draft Airport Layout Plan Sketch

Hi Ms. Ferretti,

Thank you for these comments. I see that they are addressed to our Board Chair Cathryn Stephens, but I don't see her as a recipient of this email. I will forward it to her to make sure she receives it, and I will forward it to the rest of the planning team and it will be included in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Darlene Ferretti <Darlene.Ferretti@jordanramis.com>

Sent: Tuesday, February 25, 2025 9:19 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Oregon Department of Aviation <mail.aviation@ODAV.oregon.gov>

Cc: oneil@wilsonvilleoregon.gov; mayor@ci.aurora.or.us; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>; dlcd.director@dlcd.oregon.gov; HOWARD Gordon * DLCD <Gordon.HOWARD@dlcd.oregon.gov>; AttorneyGeneral@doj.oregon.gov; WARNER Chris * GOV <Chris.WARNER@oregon.gov>; James D. Howsley <jamie.howsley@jordanramis.com>

Subject: Draft Airport Layout Plan Sketch

You don't often get email from darlene.ferretti@jordanramis.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good morning,

Please find attached a letter of today's date from Mr. Howsley.

Thank you,

Darlene

Darlene Ferretti | Legal Assistant

Direct: (503) 598-5551

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February 25, 2025

VIA EMAIL ONLY

Tony Beach
State Airports Manager
Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97302
Email: Anthony.beach@odav.oregon.gov

Cathryn Stephens
Oregon Aviation Board
Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97302
Email: mail.aviation@odav.oregon.gov

Re: Draft Airport Layout Plan Sketch

Dear Mr. Beach and Ms. Stephens:

Thank you for hosting the Public Advisory Committee meetings for the new Aurora State Airport Master Plan. We represent Smith Aurora, LLC which owns tax lots 1400 and 1500 on the west side of Highway 551, which are zoned Exclusive Farm Use. On these and adjacent tax lots, large greenhouses and open fields grow food crops and flowering plants for distribution throughout the Pacific Northwest. Smith is a family business which has made significant capital investments in the farm and employs 180 workers. The Master Plan would diminish Smith's ability to adequately supply its customers. Therefore, Smith does not support the current draft Airport Layout Plan in the proposed Master Plan.

The draft Airport Layout Plan sketch illustrates that a broad strip of property will be taken from Smith's property for the relocation of the highway. It is important for ODAV to understand the adverse impacts to Smith's farm operations which would result from that taking to the property, which means there is no room left for essential truck operations and the septic drain fields. Specifically, the taking will eliminate much of the truck maneuvering area and hamstring the shipping operations, and thereby increase operational costs and reduce farm income after the project is complete. It also would eliminate half of the parking for full size tractor trailers. The taking will displace the large septic field which abuts the current right-of-way. Relocation of those two uses onto other areas of the property is problematic due to the location of the existing greenhouses. Finally, the taking will displace existing fields along the southern highway frontage where crops currently grow. Those relocations will reduce the areas available for growing crops with a corresponding reduction in farm income.

ODAV should anticipate a considerable cost to cure these problems, and thus substantial severance damages for the taking. In an earlier meeting, ODAV's consultant David Miller stated that the cost estimates for acquiring property were derived using the assessor's market value. But the assessor does not measure severance damages. Thus far we have not seen any indication that severance damages for any impacted property are included in the Capital Improvement Plan cost estimate for the highway relocation (or in the costs of other property acquisitions shown on the draft plans). That financial omission must be corrected before the plan is submitted to the FAA or the Oregon Aviation Board if those decision makers are to have a realistic cost estimate. And legally speaking, adoption of

February 25, 2025

Page 2

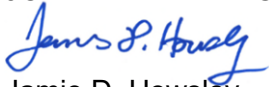
the plan by the Oregon Aviation Board must address the statewide planning goals and thus, under Goal 2, be supported by an adequate factual base. See OAR 660-015-0000(2). If ODAV simply disregards this testimony and the testimony of others regarding the severance damages to their properties, then any decision adopting the plan will lack substantial evidence to support it. *Columbia Pacific v. City of Portland*, 289 Or App 739, 757, 412 P3d 258, rev den, 363 Or 390 (2018).

Many participants in the PAC meetings have noted the very large public cost for moving the highway, especially in relation to the comparatively short runway extension and the small number of benefitted airport users. The alternative airports including Salem, McMinnville, and Hillsboro are located in cities and already have longer runways and ample areas for additional hangars, without adversely impacting Smith's farm operations. ODAV and OAB should recognize that the region has nearby alternatives for the planes that need longer runways. Under Oregon land use law, ODAV cannot expand its urban airport onto land zoned for Exclusive Farm Use when nearby airports have ample aviation facilities for the private jets that the runway extension and highway relocation are intended to serve. See OAR 660-004-0020(2)(b) ("Areas that do not require a new exception cannot reasonably accommodate the use.").

Thank you for your attention to this matter.

Sincerely,

JORDAN RAMIS PC



Jamie D. Howsley

Admitted in Oregon and Washington

cc: Peter Rempp, Smith Gardens, Inc.
Mayor Sean O'Neil, oneil@wilsonvilleoregon.gov
Mayor Brian Asher, mayor@ci.aurora.or.us
Kenji Sugahara, ODAV, kenji.sugahara@odav.oregon.gov
Melissa Ahrens, DLCD, melissa.ahrens@dlcd.oregon.gov
Brenda Bateman, DLCD, dlcd.director@dlcd.oregon.gov
Gordon Howard, DLCD, gordon.howard@dlcd.oregon.gov
Dan Rayfield, Attorney General, AttorneyGeneral@doj.oregon.gov
Chris Warner, Governor's Office, Chris.Warner@oregon.gov

Fw: UAO Airport Master Plan - Contact from Betsy Johnson

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Fri 2025-02-07 11:26 AM

To Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Samantha Peterson <SPeterson@CenturyWest.com>

Sent: Friday, February 7, 2025 11:14 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: Brandy Steffen <brandy.steffen@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; W. Matt Rogers <WRogers@CenturyWest.com>

Subject: UAO Airport Master Plan - Contact from Betsy Johnson

For the public record.

...

Date: 2/6/2025

Telephone call to CWE office from Ms. Betsy Johnson to David Miller, Century West Engineering

Time: 3:13pm

Call Duration: 32 minutes (32:13)

Number: 503.313.3160

On 2/6/25, former Senator Johnson called David Miller to discuss the comments she made on the record earlier in the day during the Oregon Department of Aviation (ODAV) board meeting, and to ask several related questions. The conversation covered topics discussed at the board meeting and no new information related to the refined preferred alternative was discussed. Ms. Johnson provided a range of opinions and conclusions on the preferred alternative, the overall planning process, ODAV's role as airport owner, and the Federal Aviation Administration (FAA).

Caller areas of interest/concern:

- **Private drainfield at south end of Runway 17/35.** Ms. Johnson asked where the drainfield will be moved to, and why proposals to modify the current drainfield to meet FAA standards, rather than relocating it, have not been considered. My responses were consistent with comments made earlier in the day during the board meeting. I noted that the decision to remove/relocate the drainfield out of the runway safety area (RSA) was made by ODAV and FAA based on available information.
 - The southern drainfield doesn't meet (RSA) grading or load carrying standards as it sits today (James Kirby - CWE)
 - *The drainfield owner/lease holder has not provided enough information (despite many recent requests) to make an assessment the viability of their proposal.* (James Kirby - CWE)

I noted that the recommendation is to eliminate a non-standard item currently located in the RSA, and that future drainfield locations are TBD. No alternative locations on ODAV-owned airport property have been proposed and no evaluations of potential sites within the adjacent privately owned hangar development area have been performed as part of the master plan.

- **Hubbard Highway Shift and Impacts to Adjacent Property Owners.** Ms. Johnson repeated her earlier concerns about the master plan creating “a cloud of condemnation” for the parcels abutting the west side of the Hubbard Highway by showing the highway shift and property acquisition. She dismissed the proposed highway shift as financially unfeasible and unnecessary.
- **Overall Feasibility of the Master Plan to be Implemented/Funded.** Ms. Johnson repeated her earlier comments that the plan would never be funded, so why should the Board ever approve it.
- **Impacts on Airport Users, Jobs, Private Investment, Current Legislature Activities, etc.** Ms. Johnson offered extended comments about these topics and questioned ODAV’s intent.

...

Date: 2/7/2025

Telephone call to CWE office from Ms. Betsy Johnson to David Miller, Century West Engineering

Time: 10:33am

Call Duration: <2 minutes (1:33)

Number: 503.313.3160

On 2/7/25, former Senator Johnson called David Miller to follow-up on her previous call (2/6/25) asking for more information about my comment:

The drainfield owner/lease holder has not provided enough information (despite many recent requests) to make an assessment the viability of their proposal. (James Kirby - CWE)

She asked who specifically has not responded, and I suggested that she speak with James Kirby (CWE) directly, as I was not personally involved in those communications.



David M. Miller, AICP | Lead Aviation Planner

208 West 9th Avenue #3 | Ellensburg, WA 98926

509.795.5870 x600 | 503.860.1947 (Cell) | dmiller@centurywest.com

www.centurywest.com



Please consider the environment before printing this e-mail

Fw: Aurora

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:30 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (780 KB)

Aurora comments - 01-21-2025.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:44 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: RE: Aurora

Here's the attachment.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Samantha Peterson <SPeterson@CenturyWest.com>

Sent: Tuesday, January 21, 2025 9:39 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Aurora

APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0386

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Same with this one, I'm not seeing the attached letter.

Thanks,
Samantha

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Tuesday, January 21, 2025 4:42 PM
To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: FW: Aurora

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony
Sent: Tuesday, January 21, 2025 4:39 PM
To: Betsy Johnson <betsy@betsyjohnson.com>; brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: Sen Girod <Sen.FredGirod@oregonlegislature.gov>
Subject: RE: Aurora

Hi Betsy, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Betsy Johnson <betsy@betsyjohnson.com>
Sent: Tuesday, January 21, 2025 4:13 PM
To: brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Cc: Sen Girod <GirodF@oregonlegislature.gov>
Subject: Aurora

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

As attached

Betsy Johnson

Post Office Box R • Scappoose, Oregon 97056
(503) 543-4200 • FAX (503) 543-5296
Email: betsy@betsyjohnson.com

January 21, 2025

Alex Thomas, Planning & Programs Manager
Tony Beach, State Airport Manager
Brandy Steffen, JLA

RE: January 21, 2025 Comment Letter ODAV Updated Refined Proposed Preferred Alternative

Mr. Thomas, Mr. Beach and Ms. Steffen,

I have communicated with the Oregon Department of Aviation previously. While my "in person" testimony may have been deleted or "otherwise lost", I appreciate the opportunity to comment on the current status of the ODAV Updated Refined Proposed Preferred Alternative.

This latest iteration of is a vast improvement over original planning concepts. Those of us working toward mutually agreeable solutions appreciate ODAV's willingness to make modifications, but problems still exist.

1. The updated and modified alternative still significantly damages front-line business hangars at Aurora by removing drain fields relied upon by those hangars.

Alternatives to the removal of the Southend septic system have been offered by recognized airport planning experts. These "compromise" alternatives have been summarily dismissed by ODAV staff.

I would ask that a meeting be convened immediately to thoroughly "vet" proposed solutions for the "drain field issue" including exploration of an EMAS system or a modification of standards ("MOS") until a viable alternative septic drain field location is identified at the airport.

I refer you to correspondence already in the record from Mr. Aron Faegre, as well as a very comprehensive memorandum from Wendie L. Kellington dated January 21, 2025.

2. ODAV has failed to expand the airport boundary to include all the land that every previous Master Plan since 1976 has identified as suitable for airport-related development. Even land ODAV wishes to acquire from willing sellers for airport development is rendered meaningless if it is not identified in the airport boundary.

3. As the Court of Appeals has previously pointed out, putting land into the airport boundary is what ODAV is supposed to do with land it forecasts as eligible for airport development.

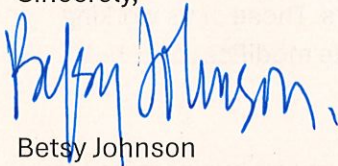
Again, I refer you to Ms. Kellington's January 21, 2025 Memorandum.

4. I respectfully request an "in person" meeting with Aurora Airport Stakeholders to finalize the Master Plan "Preferred Alternative" prior to any submission to the FAA. Previously, meetings have all been by "Zoom", with totally inadequate opportunity for real dialog and consensus.

At this juncture, ODAV has been reasonable about modifications to previous planning documents. These modifications demonstrate ODAV tries to seek compromise, but also reveals that ideas fundamentally different from the ODAV staff have merit and should be included in final documents submitted to the FAA.

As a former Director of ODAV and a 20 year veteran of the Oregon Legislature, I believe it is reasonable to expect that state agencies should work with transparency to deliver both good policy as well as a defensible process.

Sincerely,



Betsy Johnson

Cc: Senator Fred Girod

Re: Aurora State Airport Master Plan Website Comments - Brett Kacalek

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Thu 2025-01-23 3:20 PM

To pondrock@gmail.com <pondrock@gmail.com>

Cc THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>;
Samantha Peterson <SPeterson@CenturyWest.com>

Thank you for your comment, Brett. I've sent this along to the rest of the team as well.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

From: Brett Kacalek <noreply@jotform.com>

Sent: Wednesday, January 22, 2025 4:02 PM

Subject: Re: Aurora State Airport Master Plan Website Comments - Brett Kacalek

 Aurora State Airport Master Plan Website Comments

Name Brett Kacalek

Organization Bullfrog Properties, LLC

Comments or questions? Date: 1/22/2025

To Whom It May Concern,

Subject: Opposition to the Aurora State
Airport Master Plan and Proposed Relocation
of Hubbard Highway

Dear Alex Thomas, ODAV Planning and
Programs Manager,

I am writing to formally express my
opposition to the proposed Aurora State
Airport Master Plan, particularly the relocation
of Hubbard Highway, due to the significant

negative impacts it will have on my property located at 22540 Boones Ferry Rd NE, Aurora, OR 97071.

Key Concerns:

1. Impact on Property Use and Loss of Property

The proposed relocation of Hubbard Highway would directly encroach on my property, resulting in a loss of land. This loss not only diminishes the overall value of my property but also disrupts its current use. As a property owner, I depend on the land for nursery stock, livestock, and a landscape business. This relocation would render portions unusable or inaccessible, severely impacting these operations.

2. Lack of Notification and Inclusion in the Planning Process

We were not adequately informed about this project, nor was the community of property owners affected. Proper notification and opportunities for feedback are critical to ensure transparency and fairness, yet these were insufficient. There may still be property owners who will be impacted but have not been adequately informed. The community deserves opportunities to voice legitimate concerns and not be shut out of the process.

3. Increased Noise Pollution

The proposed airport expansion and Hubbard Highway realignment will significantly increase noise pollution. The proximity of additional air traffic and vehicles to our facility will disrupt operations and create a diminished quality of life. Increased noise levels will also impact the marketability and value of my property, making it less desirable for future buyers.

4. Drainage and Water Runoff

The realignment and associated construction could alter natural drainage patterns, potentially causing flooding or erosion issues on my property and those in the surrounding area. This could result in costly mitigation efforts and long-term environmental damage.

5. Economic Burden and Unfair Compensation

The potential loss of property and reduced utility will create an economic burden. Short-term, the disruption of operations will cause immediate financial strain due to the inability to fully utilize the land for business purposes. Long-term, the loss of property and reduced accessibility will diminish the overall value and growth opportunities of the business. Compensation for such impacts rarely reflects the true loss in value and usability, further exacerbating the financial burden placed on property owners.

Request for Reconsideration

Given these substantial concerns, I strongly urge the Oregon Department of Aviation and all associated planning authorities to:

Reevaluate the necessity of relocating Hubbard Highway and explore alternative routes that minimize the impact on private property.

Engage directly with affected property owners to ensure their voices are heard, and their concerns are addressed.

Conduct a comprehensive economic impact study to assess the broader implications of this project.

Consider the economic impact potential lawsuits from disgruntled property owners will bring to the proposed roadway relocation.

In addressing the non-standard Runway and Taxiway Safety Areas (RSA/TSA) at Aurora State Airport, several alternatives have been considered that do not involve relocating Hubbard Cutoff Road. Notably:

Refined Alternative 2 – Shift Runway East and Extend Runway North to 5,500 feet: This proposal suggests shifting the runway approximately 85 feet east and extending it 497 feet north, achieving a total length of

5,500 feet. This adjustment would clear the Runway Object Free Area (ROFA) of existing public roads without altering Hubbard Highway. However, it necessitates the acquisition of approximately 37 acres of property east of the airport and the relocation of certain facilities, including the Air Traffic Control Tower (ATCT).

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Realistic Alternative No. 3: Proposed by George Van Hoomissen, this alternative involves extending the existing runway by 500 feet to the north, bringing it to a total length of 5,500 feet, without relocating Hubbard Highway. While this approach would not fully resolve all non-standard conditions, it would enhance safety and operational capabilities with minimal impact on surrounding properties.

OREGON

Realistic Alternative No. 4: Also suggested by Van Hoomissen, this option entails extending the runway 500 feet north and shifting Hubbard Highway westward within its existing right-of-way. This would mitigate some ROFA infringements without requiring significant property acquisitions. However, it would necessitate coordination with the Oregon Department of Transportation (ODOT) and may not fully eliminate all non-standard conditions.

OREGON

These alternatives aim to address FAA compliance issues while minimizing disruptions to existing infrastructure and private properties.

Conclusion

While I understand the desire to improve the Aurora State Airport, such developments should not come at the expense of local property owners and community members. I respectfully request that my concerns be given due consideration and that the proposed relocation of Hubbard Highway be revisited to prevent undue harm to my

property and livelihood.

Thank you for your attention to this matter. I look forward to your response and the opportunity to discuss potential resolutions.

Sincerely,

Brett Kacalek
Property Owner

Rod Kacalek
Property Owner

Bullfrog Properties, LLC

22540 Boones Ferry Rd NE
Aurora, OR 97071

503-678-7744 Office

This email may contain confidential information and is for the sole purpose of the intended recipient. If you are not the intended recipient, please contact the sender immediately and delete the e-mail and any attachments from your computer.

I would like to receive email updates.

If you would like a
response, please tell us
the best way to contact
you: Email

Email pondrock@gmail.com

Phone Number (503) 209-3687

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: UAO airport plan

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:09 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:39 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: UAO airport plan

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:34 AM

To: Mohamed Michael Kansa <m.m.kansa@gmail.com>; brandy.steffen@jla.us.com

Subject: RE: UAO airport plan

Hi Michael, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Mohamed Michael Kansa <m.m.kanso@gmail.com>

Sent: Monday, January 20, 2025 7:04 PM

To: brandy.steffen@jla.us.com; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: UAO airport plan

You don't often get email from m.m.kanso@gmail.com. [Learn why this is important](#)

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Dear Tony, Thank you for considering all airport users, neighbors, airport businesses and airport property owners input. Thank you for the significant improvements in the current plan over the previous plan! Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments. We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost. Finally, please eliminate or reduce to an absolute minimum the amount of airport boundary increase, my definition of the airport boundary is all the property currently in aviation use or development and outlined by Arndt rd, Airport rd, Keil rd, & highway 551. Adding additional real estate to UAO would be extremely expensive and is very unpopular with our neighbors and will destroy very important businesses and jobs at the airport. Please use any and all FAA approved mitigation measures to keep the airport safely in its current boundaries. Thank you again for listening and your recent improvements to the plan.

Sincerely,
Michael Kansa

Fw: AAIA TESTIMONY FOR RECORD CONCERNING KUAO UPDATED REFINED PREFERRED ALTERNATIVE

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:08 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 2 attachments (2 MB)

AAIA LTR 1.21.25 Preferred alternative FINAL.pdf; Exhibit 1 MP- Masterplan Alternative 2025-1-20B.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 3:31 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: AAIA TESTIMONY FOR RECORD CONCERNING KUAO UPDATED REFINED PREFERRED ALTERNATIVE

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Wendie Kellington <wk@klgpc.com>

Sent: Tuesday, January 21, 2025 1:34 PM
APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0398

To: brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Tony Helbling - Wilson Construction Company (helbling@wilsonconst.com) <helbling@wilsonconst.com>; Ted Millar <tmillar@wwpmi.com>; Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Bruce Bennett - Aurora Aviation (bruce@auroraaviation.com) <bruce@auroraaviation.com>; Schuster, Brad <brad.schuster@aopa.org>; Rachel Bacon <rb@klgpc.com>

Subject: AAIA TESTIMONY FOR RECORD CONCERNING KUAO UPDATED REFINED PREFERRED ALTERNATIVE

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Good Afternoon,

Attached is the Aurora Airport Improvement Association's testimony (AAIA letter plus exhibit) concerning ODAV's proposed updated "Refined Preferred Alternative" for the Aurora State Airport Master Plan. Please provide a copy to the ODAV Board. Please confirm receipt. Thank you. Regards, Wendie Kellington



Wendie L. Kellington | Attorney at Law.

MAILING ADDRESS:

P.O. Box 2209

Lake Oswego, OR 97035

PHYSICAL ADDRESS

4500 Kruse Way, #340

Lake Oswego Or 97035

(503) 636-0069 office

(503) 636-0102 fax

wk@klgpc.com

www.wkellington.com



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January 21, 2025

VIA ELECTRONIC MAIL

Alex Thomas
Planning and Programs Manager
Tony Beach
State Airports Manager
Oregon Department of Aviation
Brandy Steffen
JLA

Re: January 21, 2025 Comment Letter on Behalf of Aurora Airport Improvement Association for Aurora State Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative

Mr. Thomas, Mr. Beach and Ms Steffen,

This letter is written on behalf of the Aurora Airport Improvement Association (AAIA), whose members include Aurora Airport aviation private business stakeholders, including AAIA members who are also PAC members: Ted Millar for TLM Holdings, LLC, Tony Helbling for Wilson Construction, John Bickford for Atlantic Aviation, Rian Johnson for Vans Aircraft, Dave Wagner, Willamette Aviation/Tri Prop Aviation, all of whom are together referred to herein as “Aeronautical Stakeholders”. Please include this letter in the record for the Oregon Department of Aviation’s (ODAV) proposed Updated Refined Preferred Alternative for the Aurora State Airport Master Plan.

While it is Appreciated, ODAV’s Updated Refined Preferred Alternative Still Removes the Drainfield Relied Upon by the Frontline Hangars. The Southend Septic System Must be Retained, Otherwise the Frontline Hangars are Useless

1. **ISSUE: ODAV’s Updated Refined Alternative Still “Removes” the Frontline Hangars by Removing their Septic System with No Alternative:**

Based upon public input, ODAV modified the Preferred Alternative to remove the planned condemnation of the frontline hangars and removed the service road paralleling the taxiway that was driving ODAV’s condemnation plan. The Aeronautical Stakeholders greatly appreciate that adjustment to ODAV’s Updated Preferred Alternative. But while the Aeronautical Stakeholders appreciate this adjustment to the Updated Preferred Alternative, it is only a symbolic improvement

so long as ODAV continues to show a preferred master plan that removes the Southend Drainfield, with no identified alternative. No one can use the front line hangars without the septic system that ODAV's Updated Refined Preferred Alternative plans to "remove". Saving the frontline hangars from condemnation is obviously meaningless if ODAV removes the Southend Drainfield. Please understand that the 1000+ jobs and \$150 million in private investment those hangars represent goes away without a septic system, just as surely as if the front end hangars were condemned by ODAV.

REQUEST: The Updated Preferred Alternative should be adjusted to leave the drainfield in place¹ with the caveat that the preferred alternative ultimately selected should simply state that either (1) the drainfield will be improved to meet FAA standards (i.e. using the EMAS system), or (2) moved if it cannot be improved to FAA design standards at such time as there is a viable alternative location identified for the drainfield at the airport. Concerning the second option, a Modification to Standards (MOS)² could be approved to last until a viable alternative septic drainfield location is identified at the airport.³ Regarding the first option, we note that there is undisputed evidence in the record that it is feasible to improve the drainfield with an EMAS system that would meet all relevant FAA standards, as Mr. Faegre explains in his letter also submitted this date. As Mr. Faegre explains, these EMAS systems are successfully used in many airports including large airports serving aircraft that are much heavier than those at Aurora.

Legal Basis: Making this requested adjustment to the Updated Refined Preferred Alternative meets ODAV's legal responsibilities and makes good policy sense. Further, ODAV is bound by ORS 836.640-642, which is a statute developed by Business Oregon and adopted by the legislature to strongly encourage private investment at the Aurora Airport. The statute commands ODAV to carry out that objective. ORS 836.642 requires ODAV to "Preserve investments [at the Aurora Airport] and the level of service provided by [the Aurora Airport]" and to "promote economic development" at Aurora "by creating family wage jobs, increasing local tax bases" through support of private aviation-related uses so that they may "develop

¹As noted in other submittals, ODAV expressly approved the drainfield's current location as a part of the goal exception that Marion County approved. This is already in the record and for brevity is not repeated here.

² As Mr. Faegre points out in his letter submitted this date, FAA no longer limits MOS to a five year duration per Engineering Policy Memo 23-01 and instead now simply and practically requires a "status update on the nonstandard condition every five years" and that "to the extent practical" that the nonstandard condition will get "high priority" for funding to "mitigate the associated nonstandard condition whenever the opportunity to meet standards becomes feasible."

³ Details concerning these two options are explained in HDSE's letter submitted this date for the record of this matter. The point we hope to make here is that both of these options for the drainfield are feasible and reasonable. The binary demand in the Updated Refined Preferred Alternative to simply remove the drainfield to nowhere is unhelpful, destructive and wholly unnecessary.

and thrive.” ODAV’s Updated Refined Preferred Alternative that fails to accommodate the septic system that such economic development depends upon, is in direct contravention of those statutes.

ODAV Must Identify, Show, and Expand the Oregon Land Use Airport Boundary as Required by ORS 836.616(2) and ORS 836.640-642

ODAV seeks to designate as “Reserves” private land at the airport for ODAV acquisition from willing sellers for the purpose of putting that land to aeronautical use. ODAV states it will use FAA funding to acquire such land. However, this cannot be achieved unless ODAV expands the Oregon land use airport boundary as required by ORS 836.616(2) and OAR 660-13-0040. A diagram of the required airport boundary to meet ODAV’s objectives is attached as Exhibit 1.

The Court of Appeals explained that inclusion of land within the airport’s land use boundary is necessary in order for ODAV to be able to achieve its goal of putting that land to aeronautical use:

In this case, it is undisputed that the relevant part of the airport boundary is the edge of the state-owned airport property that is bordered by Keil Road. *See* OAR 660-013-0040 (the airport boundary, for purposes of ORS 836.616(2), is shown on a map “adopted by a local government” pursuant to “comprehensive plan and land use regulation requirements”).¹⁷ As explained above, the provisions of ORS 836.600 to 836.630 allow airport uses and supersede ORS 215.213 and 215.283 “[w]ithin airport boundaries.” ORS 836.616(2); *see also* OAR 660-013-0100 (requiring local governments to “adopt land use regulations for areas within the airport boundaries” that authorize the airport uses enumerated in ORS 836.616).

¹⁷ The map of the Aurora State Airport that has been adopted by Marion County is the 1976 Master Plan ALP, which is part of the Marion County Comprehensive Plan.

¹⁸ *Defendants’ Brief*, at 10. *City of Aurora*, 2016 WL 1000000, at *10.

In the absence of expanding the airport’s land use boundary, ODAV cannot meet FAA grant assurances that would make ODAV eligible for FAA funding to acquire the properties in the “Reserve”. This is because those grant assurances require certification that the uses for which FAA grant funds are to be expended are lawful under state law and local law. ODAV must be prepared to make those grant assurances at the time when a willing seller emerges, otherwise the willing seller opportunity will be lost. The way Oregon law says ODAV can make such grant assurances and be in a position to timely acquire such land from a willing seller, is

to establish the airport boundary in the master plan around all of the land that ODAV envisions being put to airport related uses over the master plan's 20-year horizon. As the Court of Appeals noted, the airport's land use boundary has remained static since the land use boundary was first established in the 1976 master plan that was incorporated into the Marion County comprehensive plan. It is time to adjust the airport's land use boundary now to achieve ODAV's and the legislature's objectives for the Aurora Airport. It is undeniable that ODAV should do so as a part of the master planning effort in order to realize the promise of the Updated Preferred Alternative.

Further, ORS 836.640(1) and (5) expect that ODAV will expand the land use airport boundary to include the privately owned through the fence areas to achieve the outcomes listed in ORS 836.642. Again, ODAV cannot achieve the objectives that the legislature requires ODAV to achieve in the absence of expanding the airport's land use boundary.

Finally, expanding the airport land use boundary is necessary for ODAV's Keil Rd and related ODAV acquisitions to result in the intended airport related use. If ODAV wishes to move drainfields, for example, the potential areas to do so should also be in the airport boundary. If ODAV wants to relocate Keil Road, then the area for such relocation must be in the airport land use boundary. Those master plan features are otherwise on land zoned EFU. In the Court of Appeals words, "airport uses" are allowed to "supersede [EFU zone rules]" when they are "[w]ithin airport boundaries." Accordingly, now is the time when the land use boundary for the airport should be expanded because now is the time when it is efficient and effective to do so - all of the information required by OAR 660-012-0040 is being developed in this process and is easily available.

REQUEST: Expand the Aurora Airport land use boundary as contemplated and required by ORS 836-616(2), 836.640-642, and OAR 660-013-0040 as a part of the selection of the airport's preferred alternative.

Legal Basis: ORS 836-616(2), 836.640-642, and OAR 660-013-0040.

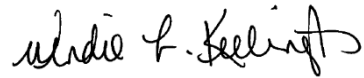
Invitation for a Meaningful Meeting to Discuss the Details

Given the importance of getting the master plan right, the importance of the continued success of the airport and the commands of ORS 836-616(2), 836.640-642, and OAR 660-013-0040, ODAV should meet, in person, with representatives of the Aeronautical Stakeholders to finalize the master plan's preferred alternative so that it (1) is capable of achieving ODAV's and the legislature's goals for the airport, (2) can provide the framework for the airport to continue to thrive over the master plan's 20-year planning horizon, and (3) minimize the likelihood of endless appeals

by airport opponents. AAIA stands willing to participate in such a constructive discussion.

Thank you for your consideration.

Very truly yours,

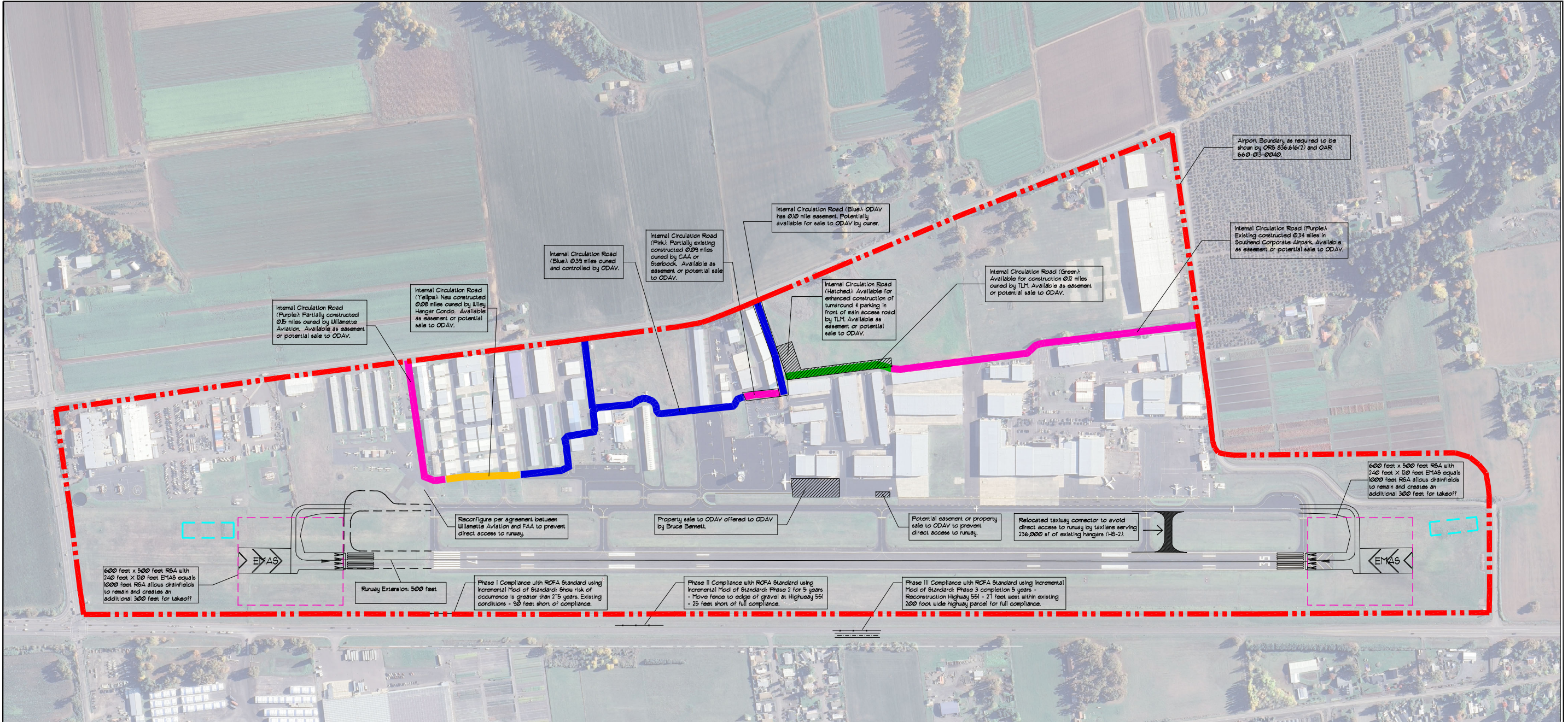
A handwritten signature in black ink, appearing to read "Wendie L. Kellington". The signature is fluid and cursive, with the first name "Wendie" being more prominent.

Wendie L. Kellington

WLK:wlk

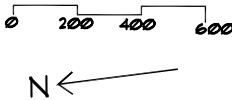
Exhibit 1 – Airport Land Use Boundary Diagram

CC: Tony Helbling, President AAIA



1.

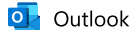
SITE PLAN



KEY

- AIRPORT BOUNDARY AS REQUIRED TO BE SHOWN PER ORS 836.616(2) AND OAR 660-013-0040
- 500 FT RUNWAY EXTENSION
- 600 FT X 500 FT RSA WITH EMAS EQUALS 1000 FT RSA
- DRAINFIELDS CAN REMAIN AS CONSTRUCTED IN SMALLER RSA USING EMAS

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. 1" 0" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	NO.	DATE	BY	APPR.	REVISIONS	AURORA AIRPORT IMPROVEMENT ASSOC. PROPOSED ALTERNATIVE				AURORA STATE AIRPORT (UAO)					DRAWING MP-AAIA			
						DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	AURORA STATE AIRPORT – MASTER PLAN ALTERNATIVE AAIA								
						AF	AF/TH	AF	300' = 1"									
						DATE:	PROJECT:											
						JANUARY 20, 2025	MP – MASTERPLAN ALT AAIA											



Outlook

Fw: 040725-UAO-ALPFullSet.pdf

From Brandy Steffen <brandy.steffen@jla.us.com>
Date Mon 4/14/2025 8:12 AM
To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN
| JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com »
[Schedule](#)
[a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Friday, April 11, 2025 3:02 PM
To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: FW: 040725-UAO-ALPFullSet.pdf

Good afternoon,

Please include in the public record.

Thank you, have a great weekend!

Tony Beach

OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 **CELL** 503-302-5455
M-F 7:30am - 4pm

From: BEACH Anthony
Sent: Friday, April 11, 2025 3:01 PM
To: Wendie Kellington <wk@klgpc.com>
Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Ted Millar <tmillar@wwpmi.com>
Subject: RE: 040725-UAO-ALPFullSet.pdf

Hi Wendie,

I spoke with our planner at the FAA, they indicated it would not be a problem to make this edit. We'll send an updated version to the FAA and publish it on the website next week.

Thanks again for your input and participation throughout this process.

Tony Beach

OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 **CELL** 503-302-5455
M-F 7:30am - 4pm

From: Wendie Kellington <wk@klgpc.com>
Sent: Friday, April 11, 2025 11:44 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Ted Millar <tmillar@wwpmi.com>
Subject: Re: 040725-UAO-ALPFullSet.pdf

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony, thank you. Why is this master plan different from all the others regarding the TLM property? Removing the designation of 'suitable for airport related development' is not consistent with the county plan or the idea that ODAV can acquire the property for aviation uses. ODAV does itself and aeronautics no favors with this very significant change. I strongly recommend that ODAV restore that longstanding designation.

On Apr 11, 2025, at 11:30 AM, BEACH Anthony <Anthony.BEACH@odav.oregon.gov> wrote:

Good morning Wendie,

The Airport Layout Plan (ALP) describes and graphically depicts recommended development for the Airport based on facility needs and forecast demand. The ALP Plans set is just one part of the Master Plan, and includes specific criteria for the Airport facility and sponsor-owned property to satisfy FAA requirements and grant obligations. Part of the ALP Plans set include off-airport land use, which depict city/county zoning and land use designations.

In addition to the Through The Fence Access Points being identified on the ALP, aeronautical uses on adjacent private property are depicted in the Master Plan in [Working Paper No. 1](#). Figures 2-13 and 2-16 show the "Aviation Related Through-the-fence (TTF)" and "TTF Areas."

Thanks again for your comment.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Thursday, April 10, 2025 4:44 PM

To: Wendie Kellington <wk@klgpc.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: Ted Millar <tmillar@wwpmi.com>

Subject: RE: 040725-UAO-ALPFullSet.pdf

Hi Wendie, we've received your comments, they'll be included in the public record.

We will take a look and get back to you.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Wendie Kellington <wk@klgpc.com>

Sent: Thursday, April 10, 2025 4:13 PM

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Ted Millar <tmillar@wwpmi.com>

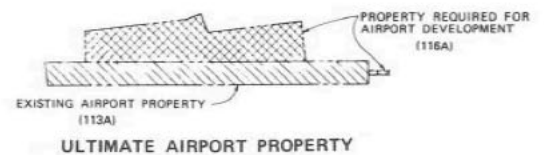
Subject: 040725-UAO-ALPFullSet.pdf

Importance: High

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Kenji, Tony,

Just got the attached today. What happened to the statement that has been on every other ALP and importantly is on the ALP (image below) in the county's acknowledged plan (1976) that says Ted's property is suitable for airport related development? Please restore that. It matters a lot. Please let me know if you will not do so and if so what the reason is. I am hoping that this is just an oversight. That statement benefits everyone including the state's ALP stating it can be bought by ODAV from a willing seller for airport related uses. And it is a settled land use issue – hard won. Thanks Wendie



BASIC DATA TABLE		
AIRPORT DATA		
	EXISTING	ULTIMATE
AIRPORT ELEVATION (MSL)	195'	195'
AIRPORT REFERENCE POINT (ARP) LAT.	45° 14' 43"	45° 14' 44"
LNG.	122° 46' 07"	122° 46' 07"
NAVIGATIONAL AIDS	NONE	MLS
NORMAL MAX. TEMP. HOTTEST MONTH	84° F (29°C)	84° F (29°C)
FUNCTIONAL ROLE	S3	S2
MISCELLANEOUS FACILITIES:		
TAXIWAY MARKING AND LIGHTING	NONE	BASIC

B/C	Non-precision Instrument Runway Larger Than Utility
GU	General Utility
BT	Basic Transport
S3	Low Density Secondary System
S2	Medium Density Secondary System

Re: Improper actions allowing some substitutions and alternates versus denying others

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Fri 2025-02-14 10:18 AM

To Wendie Kellington <wk@klgpc.com>

Cc Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

 2 attachments (526 KB)

Ltr Posegate.pdf; RE: our client ODAV - Aurora Airport Master Plan PAC;

Hello Wendie,

We have received your email. We will add it to the public records page of the website soon.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Wendie Kellington <wk@klgpc.com>

Sent: Tuesday, February 11, 2025 6:55 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Subject: Improper actions allowing some substitutions and alternates versus denying others

Brandy and Stacy,

Please see the attached letter and email chain for inclusion in the record of the Aurora State Airport Master Plan proceeding. Please confirm receipt. Thank you. Wendie Kellington



Wendie L. Kellington | Attorney at Law.

MAILING ADDRESS:

P.O. Box 2209

Lake Oswego, OR 97035

PHYSICAL ADDRESS

4500 Kruse Way, #340

Lake Oswego Or 97035

(503) 636-0069 office

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APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0409



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February 11, 2025

Via Electronic Mail
Stacy Posegate
Department of Justice

RE: ODAV Ad Hoc Exclusion of Designated Alternates for Aurora Airport Master Plan
Public Advisory Committee Meetings

Dear Stacy:

As you know, a client of this firm requested that I serve as their designated alternate for the 2/11/25 Master Plan Public Advisory Committee (PAC) meeting. This is to reiterate that request. It was a time sensitive request because the relevant PAC meeting is this evening at 5 pm and is probably the last PAC meeting, the last opportunity to influence the outcome of a process vitally important to our clients.

To recap, this firm's request to serve as a PAC Member's alternate was made to ODAV's Tony Beach on **February 3, 2025**. On February 4, 2025, Mr Beach responded to that request: "we don't designate PAC members or alternates for specific meetings," which is inaccurate. ODAV has allowed designation of alternates as well as complete substitutions for particular PAC meetings as well as on longer terms. On February 4, 2025, I corresponded with you requesting that you advise Mr. Beach that he may not exclude the undersigned from serving in a delegate role, where the exclusion has no basis other than Mr. Beach's personal preferences about the messenger and anticipated message. I explained to you that such exclusion is inappropriate and unconstitutional. You corresponded with me today stating that excluding in this manner "is in the agency's discretion", explaining that ODAV has "chosen not to allow additional members this late in the game" and asked me "Can you help me to understand why this is unconstitutional"? This is that explanation.

I would think that you understand that ODAV is not permitted to make standardless, ad hoc decisions about who can participate in public meetings or government led policy discussions. While government entities may impose reasonable, content-neutral rules for participation, such rules must be clearly defined, consistently applied, and not subject to arbitrary enforcement. No "clearly defined" content neutral rules are at issue here, there is no consistent application of Mr. Beach's discretion to pick and choose who he allows to serve as an alternate, instead his choices are, with all due respect, wholly and impermissibly arbitrary.

The federal First Amendment guarantees the right to free speech and the ability to petition the government for redress of grievances. Government officials, acting in their official

capacity, as Mr. Beach, cannot exclude persons from policy discussions merely because they personally dislike the speaker or their anticipated message. Doing so constitutes unlawful viewpoint discrimination, which is presumptively unconstitutional. Please note that in Oregon, the constitution is more protective than the federal First Amendment. In this regard, Article I, Section 8 of the Oregon Constitution states that “No law shall be passed restraining the free expression of opinion, or restricting the right to speak, write, or print freely on any subject whatever; but every person shall be responsible for the abuse of this right.” Accordingly, both federal and state precedents are relevant. The United States Supreme Court has consistently ruled that government officials cannot deny participation in public discussions based on personal opposition to a speaker’s viewpoint (*Rosenberger v. Rector and Visitors of the University of Virginia*, 515 U.S. 819 (1995); *Police Department of Chicago v. Mosley*, 408 U.S. 92 (1972)). Oregon courts have consistently struck down governmental actions that impose content-based restrictions (*State v. Robertson*, 293 Or 402 (1982); *State v. Henry*, 302 Or 510 (1987)). Given these precedents, ODAV’s actions are indefensible under federal and Oregon law.

ODAV has organized PAC public meetings and created a designated public forum for discourse about the Aurora Airport Master Plan. Only PAC members are guaranteed opportunities to speak in that forum without time limits and are the only ones who have the opportunity to vote in the process that ODAV established, when ODAV allows voting. General public comments are allowed but are limited to 3 minutes or less and ODAV may or may not get to them. The “general public” is not allowed more than one opportunity if any to speak. Therefore, being relegated to speaking on behalf of a PAC member during the general public comment period is a disadvantage and harms the interest of that PAC member. Moreover, ODAV gives the testimony of PAC members significant weight that is not assigned to the general public. Which again harms the interests of PAC members who designate alternatives to speak on their behalf when Mr. Beach deems such person unworthy of serving as an alternate. Only PAC members are allowed to speak to ODAV and its consultants during PAC meetings. In fact, ODAV will not talk to anyone about the master plan outside of the PAC process. The only way to have any hope of influencing the outcome of the master plan process is as a PAC member, speaking during the PAC-member part of PAC meetings.

Excluding individuals from these discussions because they or their message are personally disliked undermines the core democratic function of public discourse and constitutes impermissible censorship.

Moreover, ODAV’s arbitrary exercise of discretion violates the Oregon Public Meetings Law (ORS 192.610-192.690). Oregon’s Public Meetings Law guarantees open governance and public participation in meetings of government advisory bodies, such as the PAC. While agencies may establish reasonable, content-neutral rules for participation, they cannot impose standardless, ad hoc restrictions that selectively exclude individuals based on their identity or viewpoint, as here.

The U.S. District Court for the District of Oregon has directly addressed the issue of excluding individuals from public meetings. In *Walsh v. Enge* (2015), the court ruled that a City of Portland policy allowing exclusions even based on past behavior or anticipated disruptions

was unconstitutional because it effectively silenced dissenting voices. While the undersigned has never been disruptive, ODAV's exclusion of a designated PAC alternate based on personal disagreement violates fundamental public participation rights while allowing others to participate as alternates or substitutes freely.

Concerning the ad hoc nature of Mr. Beach's case-by-case refusals, the United States Supreme Court does not tolerate standardless governmental limits on who can or cannot participate in public discourse. Thus, in *City of Lakewood v. Plain Dealer Publishing Co.* (1988), the Supreme Court ruled that standardless discretion is unconstitutional when it allows government officials to make ad hoc decisions about who can or cannot speak. The Court held that regulations must have "narrow, objective, and definite standards" to prevent viewpoint discrimination.

ODAV's arbitrary restrictions on who can and cannot be a designated alternate are also unlawful prior restraints on participation in public meetings. Per *Walsh v. Enge* (D. Or. 2015) the U.S. District Court for the District of Oregon struck down Portland's policy of prospectively banning individuals from attending public meetings based on past behavior or anticipated disruptions. While there is no issue of disruption as the undersigned has never been disruptive or participated in misconduct, even exclusion's on that basis is not allowed unless justified by actual, documented misconduct, not by a general dislike of a person or their viewpoints. Similarly, in *Minnesota Voters Alliance v. Mansky* (2018), the Supreme Court invalidated a Minnesota law banning political attire in polling places because the ban lacked clear standards and was enforced arbitrarily.

Given these robust protections, Mr. Beach's ad hoc exclusion of some people and allowance of others as PAC member designated alternates based on personal dislike of the speaker or message is unlawful.

Very truly yours,

A handwritten signature in black ink, appearing to read "Wendie L. Kellington". The signature is fluid and cursive, with the first name "Wendie" being more prominent.

Wendie L. Kellington

WLK:wlk
CC: Clients

RE: our client ODAV - Aurora Airport Master Plan PAC

From Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Date Tue 2025-02-11 7:38 AM

To Wendie Kellington <wk@klgpc.com>

Good morning Wendie,

I have reached out to Tony to ask about the changes to the list to see when they have occurred. As you point out however, it is in the agency's discretion and they have apparently chosen not to allow additional members this late in the game. They have recently declined a similar request from the City of Wilsonville for the exact same reasons they have denied your request and Ms. Johnson.

Can you help me to understand why this is unconstitutional?

Stacy C. Posegate

Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel
Division
971-718-7950

From: Wendie Kellington <wk@klgpc.com>

Sent: Monday, February 10, 2025 3:24 PM

To: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Subject: RE: our client ODAV - Aurora Airport Master Plan PAC

CAUTION EXTERNAL EMAIL* This email originated from outside of DOJ. Treat attachments and links with caution. *CAUTION EXTERNAL EMAIL

Stacy,

Thank you. However, your responses are mistaken. The list you sent is not the latest list if you look at the current PAC list it is in fact very different from the one you sent.

<https://publicproject.net/files/2025-02/uao-amp-pacmembers-250207.pdf?8127927eb8>

Moreover, under the protocols under "Committee Structure" it states that "additions or refinement of PAC members may take place at the discretion of ODAV staff."

https://publicproject.net/files/2025-02/1738623281_uao-amp-pacprotocolsfinal-250203.pdf?b04aef13bf

There are in fact serving alternatives, as there should be and as the rules establish is allowed. What appears to be happening is that staff is using its discretion in improper ways – to pick and choose alternates based upon whether staff prefers the messenger / the content of the message and that is, as you know, improper including is unconstitutional. Again, I ask whether I may serve as Atlantic's alternate and be treated the same as others identically situated. Please let me know. Thank you. Best,
Wendie



Wendie L. Kellington | Attorney at Law.

MAILING ADDRESS:

P.O. Box 2209

Lake Oswego, OR 97035
PHYSICAL ADDRESS
4500 Kruse Way, #340
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From: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>
Sent: Monday, February 10, 2025 2:24 PM
To: Wendie Kellington <wk@klgpc.com>
Subject: FW: our client ODAV - Aurora Airport Master Plan PAC

Resending in case you didn't see this.

Stacy C. Posegate
Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel
Division
971-718-7950

From: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>
Sent: Tuesday, February 4, 2025 10:16 AM
To: Wendie Kellington <wk@klgpc.com>
Cc: Anderson Becki L <Becki.L.Anderson@doj.oregon.gov>; Scruggs Rebecca <rebecca.scruggs@doj.oregon.gov>
Subject: RE: our client ODAV - Aurora Airport Master Plan PAC

Good morning Wendie,
I fully support the agency's decision to not allow alternates at this time. Correct me if I am wrong, but I believe that requests were made to identify both you and Betsey Johnson as alternates prior to the last PAC meeting and that ODAV directed you to the

PAC protocols which require identification of alternates at the onset of the project. These protocols were sent to PAC members and are also available on the project website. <https://publicproject.net/files/2021/AuroraAirport/uao-amp-pacprotocols-110221.pdf?b72e48ca09>. I have also attached a copy for your convenience.

I am not clear as to why your client is unable to attend or why it is necessary for him to request that he, or any member of the PAC, be able to substitute his attorney in his role as PAC member. This is not a commonly recognized practice and it does not appear to serve the primary purpose of the PAC. I assume that all identified PAC members, like your client, were selected because of their individualized interests and personal experiences, which is specifically valuable to the process. Your client in particular appears to be particularly adept at representing and articulating his interests.

Finally, and probably the most significant to me, is that although you are not a PAC member, you have spoken at each meeting, sometimes multiple times. You have done a great job of explaining your concerns and helping to support your client and the other PAC members that likely have the same concerns. ODAV has provided a full forum for all persons to participate, hear the issues and offer their perspectives, PAC members and non PAC members alike. If there is a land use law or agency policy in their public participation requirements, I am unaware of what that might be.

Stacy C. Posegate

Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel
Division

971-718-7950

GG1296-22

From: Wendie Kellington <wk@klgpc.com>

Sent: Tuesday, February 4, 2025 6:58 AM

To: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Subject: our client ODAV - Aurora Airport Master Plan PAC

CAUTION EXTERNAL EMAIL* This email originated from outside of DOJ. Treat attachments and links with caution. *CAUTION EXTERNAL EMAIL

Stacy,

Our firm's client Atlantic Aviation wishes to designate me as their alternate for the upcoming PAC meeting. Tony Beach is refusing based upon, with all due respect, rules he is making up that appear to be sourced for wholly inappropriate personal considerations. He refused the request last meeting as well. As you know, there is no rule against designating alternates. There are surely rules about decorum and relevance, as with any public meeting. However, few people are more aware of the importance and existence of

such rules as a lawyer. Please let me know if you will advise Tony that I may participate on February 11 at Atlantic's alternate. Thank you. I hope you are well. All the best,
Wendie



Wendie L. Kellington | Attorney at Law.

MAILING ADDRESS:

P.O. Box 2209

Lake Oswego, OR 97035

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***** CONFIDENTIALITY NOTICE ***** This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system. *****

Fw: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:28 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

 4 attachments (8 MB)

TLM 2.25.25 comments.pdf; Exhibit 1 - 2017 SAC Reduced.pdf; EXHIBIT 2 HDSE GOAL EXCEPTIONpdf.pdf; Exhibit 3 Reduced.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 25, 2025 3:01 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 25, 2025 3:00 PM

To: Wendie Kellington <wk@klgpc.com>; brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Ted Millar <tmillar@wwpmi.com>

Subject: RE: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2

Good afternoon Wendie,

Confirming we received this email with 4 attachments. Thanks for your comments, they'll be sent to the master plan team and included in the public record.

Thanks again,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Wendie Kellington <wk@klgpc.com>

Sent: Tuesday, February 25, 2025 2:50 PM

To: brandy.steffen@jla.us.com; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Ted Millar <tmillar@wwpmi.com>

Subject: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good Afternoon,

Enclosed please find the attached for the record of the Aurora Airport Master Planning effort. One more PDF will follow in a second email to avoid oversize limits. Please confirm receipt. Regards, Wendie Kellington



Wendie L. Kellington | Attorney at Law.

MAILING ADDRESS:

P.O. Box 2209

Lake Oswego, OR 97035

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Fw: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 2 of 2

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:27 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (5 MB)
EXHIBIT 4 Signed ALP.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, February 25, 2025 3:02 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 2 of 2

Good afternoon, here is part 2 of Wendie's emails. Please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, February 25, 2025 3:01 PM

To: Wendie Kellington <wk@klgpc.com>; brandy.steffen@jla.us.com; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Cc: Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Ted Millar <tmillar@wwpmi.com>

Subject: RE: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 2 of 2

Hi Wendie, confirming we have received this second part of your email with 1 attachment. It will be included in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Wendie Kellington <wk@klgpc.com>
Sent: Tuesday, February 25, 2025 2:51 PM
To: brandy.steffen@jla.us.com; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Ted Millar <tmillar@wwpmi.com>
Subject: RE: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 2 of 2

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Part 2 of 2 is attached for the record of the Aurora Airport master plan effort. Please confirm receipt.
Regards, Wendie Kellington

From: Wendie Kellington
Sent: Tuesday, February 25, 2025 2:50 PM
To: brandy.steffen@jla.us.com; Tony Beach (anthony.beach@aviation.state.or.us) <anthony.beach@aviation.state.or.us>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: Aron Faegre (faegre@earthlink.net) <faegre@earthlink.net>; Ted Millar <tmillar@wwpmi.com>
Subject: TLM 2.25.25 comments - Aurora Airport Master Plan Record part 1 of 2

Good Afternoon,

Enclosed please find the attached for the record of the Aurora Airport Master Planning effort. One more PDF will follow in a second email to avoid oversize limits. Please confirm receipt. Regards, Wendie Kellington



Wendie L. Kellington | Attorney at Law.

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February 25, 2025

VIA ELECTRONIC MAIL

Alex Thomas
Planning and Programs Manager
Tony Beach
State Airports Manager
Oregon Department of Aviation
Brandy Steffen
JLA

Re: February 25, 2025, Comment Letter on Behalf of TLM Holdings LLC for Aurora State
Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative

Mr. Thomas, Mr. Beach and Ms. Steffen,

This letter is written on behalf of TLM Holdings, LLC and Ted Millar, its managing member (“TLM”). Please include this letter and attachments in the record for the Oregon Department of Aviation’s (ODAV) Master Plan. TLM owns real property at the airport (hangars) and undeveloped land that is adjacent to it. TLM’s adjacent property (known as the “church” property) while zoned EFU, has been shown on every airport master plan since 1976 as being suitable for airport related development.

Record and Improper Process

ODAV has not placed on the master plan website all submittals from the undersigned and other aeronautical stakeholders for the master plan’s record. That failure should not be interpreted as limiting the contents of the record before the agency for this effort. The record must and does include all submittals, including those not on the website. That failure has also made it impossible to know what airport opponents allege, what their evidence is and to provide any reasonable opportunity to respond to evidence and argument presented.

The process that ODAV has used for adopting this master plan is contrary to Statewide Planning Goal 1 (Citizen Involvement), which requires a meaningful opportunity for public engagement, and has proceeded in a manner that is wholly contrary to ODAV’s State Agency Coordination Program, Oregon’s administrative procedures act and Oregon land use statutes and rules, as well as *Fasano v. Washington County*, 264 Or 574 (1973) for quasi-judicial actions which this master plan likely is. ODAV has made assertions in “PAC” meetings about why it is taking specified actions, claiming there is justification somewhere in the record, but no such justification exists – at least not anywhere that the public including stakeholders have access to. ODAV’s process has made it impossible for aeronautical stakeholders including TLM to

meaningfully participate and protect their property rights in their property they own at the airport.

The process ODAV has used is not only contrary to the above authorities and requirements but also is contrary to FAA's rules about master planning which we have cited at length in other submittals and incorporate here for brevity. What OAAV should do is pause this effort and allow meaningful public engagement in a real hearing process where airport, pilot and passenger safety as well as economic development and prosperity are not relegated to afterthoughts and where participants can speak to and with ODAV based upon a transparent record that is timely made available to participants.

The final Master Plan must show the expansion of the airport boundary per ORS 836.616(2), ORS 836.640-642 and ODAV's state agency coordination program

ODAV must include in the master plan a map demonstrating where the airport's land use boundary will be expanded to achieve the Master Plan's objectives.¹ Marion County must then adopt that "map" showing "the location of the airport boundary." OAR 660-013-0040(1). It is *ODAV's responsibility* to show in its master plan the airport land use boundary within which master plan objectives are to be achieved over the 20-year master planning horizon. It is *ODAV's responsibility* to demonstrate its objectives are consistent with applicable County Plan provisions and statewide planning goals as a part of the master plan process. In this regard, ODAV's State Agency Coordination Program ("SAC," Exhibit 1, p 23-24), says that in adopting master plans that ODAV "shall evaluate and write draft findings of compatibility with acknowledged comprehensive plans of affected cities and counties" as well as "findings of compliance" with applicable planning goals and that ODAV "*shall present to the Aviation Board the draft plan, findings of compatibility with the acknowledged comprehensive plans of affecting cities and counties and findings of compliance with applicable statewide planning goals.*"

There are Marion County plan (including in the County's acknowledged TSP/RTSP) provisions that apply that ODAV has ignored, including policies that say that airports in general are a valuable transportation asset to be protected and that the Aurora Airport should be supported to grow to provide its significant economic benefits and safely accommodate all aircraft that use it. There are state planning goals that ostensibly apply that ODAV has ignored that ODAV must either demonstrate compliance with, take an exception to or demonstrate that they do not apply. Yet, ODAV has done exactly **none** of the required planning work, to the significant detriment of all airport stakeholders who require a master plan that is not tied up for years in litigation based upon ODAV failures. For example, ODAV seeks to designate "Aeronautical Reserves" for aeronautical use, that ODAV wishes to acquire using federal money from willing sellers, but that land is not yet zoned for aeronautical use. ODAV seeks to acquire other land – generally in the area of Keil Road -- for aeronautical related uses that is also not zoned for aeronautical use. Moreover, each and every master plan has properly identified

¹ Perhaps that is what ODAV intends by showing all of the various aeronautical use acquisitions and uses on the latest version of the preferred alternative. If that is ODAV's intention, then such should be made clear. Ambiguity helps no one, drives up the cost of airport development and the potential for litigation.

privately owned land at the airport as being suitable for airport development. To realize these objectives, state law (and FAA rules) requires that ODAV show in its airport master plans the airport's land use boundary where aeronautical land uses are expected to occur over the master planning horizon of 20 years, that Marion County can then adopt into its Comprehensive Plan/TSP/RTSP. ODAV has the obligation to demonstrate compliance with applicable Marion County plan provisions and state goals for ODAV's master planning objectives but has failed to make any effort to do so.

Further, ORS 836.640(1) and (5) expect that ODAV will expand the land use airport boundary to include the privately owned through the fence areas to achieve the outcomes listed in ORS 836.642. ODAV cannot achieve the objectives that the legislature requires ODAV to achieve in the absence of expanding the airport's land use boundary.² In the Court of Appeals words, "airport uses" are allowed to "supersede [EFU zone rules]" when they are "[w]ithin airport boundaries." Accordingly, now is the time to adjust the land use boundary for the airport. Now is when the SAC anticipates such will occur, when ORS 836.640-642 expects it to happen and importantly now is when it is efficient and effective to do so - all of the information required by OAR 660-013-0040 is being developed in this process and is easily available.

ODAV's persistence in ignoring its land use related responsibilities for this master plan is nothing short of puzzling. ODAV's SAC p, 5, 6, says that Master Plans affect land use and, at those pages and in others, the SAC establishes that applicable state planning goals are supposed to be addressed in findings supporting ODAV's airport master plan. For example, SAC, p 6 explains that ODAV "can show compliance with the statewide planning goals and the Aviation Facility Planning Requirements, as required by OAR 660-013-0040, through the Airport Master Planning process and the Airport Layout Plans (ALP) approved by the Federal Aviation Administration (FAA)." ODAV's SAC program (p 22), explains that "The focus of the Department's efforts to establish compatibility with acknowledged comprehensive plans will be at the facility planning and project planning stages of an Airport Master Plan or Airport Layout Plan."

This is not ODAV's first master plan rodeo where the legal stakes are high, either. The Court of Appeals remanded the last ODAV master plan and explained that inclusion of land within the airport's land use boundary is necessary in order for ODAV to be able to achieve its goal of putting that land to aeronautical use:

² Private parties can initiate such land use efforts, but it is an astonishing waste of resources for ODAV not to do its job and move the boundary like it is supposed to do in this million dollar master planning effort so to provide a way for ODAV to realize ODAV's objectives, but instead, simply rely upon the private sector to do all the work to expand the boundary in individual land use applications to Marion County.

In this case, it is undisputed that the relevant part of the airport boundary is the edge of the state-owned airport property that is bordered by Keil Road. *See* OAR 660-013-0040 (the airport boundary, for purposes of ORS 836.616(2), is shown on a map “adopted by a local government” pursuant to “comprehensive plan and land use regulation requirements”).¹⁷ As explained above, the provisions of ORS 836.600 to 836.630 allow airport uses and supersede ORS 215.213 and 215.283 “[w]ithin airport boundaries.” ORS 836.616(2); *see also* OAR 660-013-0100 (requiring local governments to “adopt land use regulations for areas within the airport boundaries” that authorize the airport uses enumerated in ORS 836.616).

¹⁷ The map of the Aurora State Airport that has been adopted by Marion County is the 1976 Master Plan ALP, which is part of the Marion County Comprehensive Plan.

¹⁸ *Debra Ann Schaefer and City of Aurora v. Oregon State Land Use Board*, 2019 OR 100, 445 P.3d 100, 445 P.3d 100, 445 P.3d 100, 445 P.3d 100.

ODAV’s failure to show an adjusted land use airport boundary and adopt findings as required, means that ODAV is making itself and the State of Oregon by extension, ineligible to obtain or spend any FAA grant money on master plan objectives because ODAV cannot truthfully aver that federal grant money will be spent on lawful uses, a required showing for any federal grant.

As the Court of Appeals noted, the airport’s land use boundary has remained static since the land use boundary was first established in the 1976 master plan that was incorporated into the Marion County comprehensive plan. Most of the land at the airport is already subject to goal exceptions as an area that is committed to airport development. Exhibit 3 (Aurora Airport “committed” goal exception). It is time to adjust the airport’s land use boundary to achieve ODAV’s legitimate objectives that are the legislature’s objectives, for the Aurora Airport.

It is undeniable that ODAV should do so as a part of the master planning effort in order to realize the premise of the Updated Preferred Alternative: to support the airport and achieve the now critically needed runway extension.

ODAV should not “remove” HDSE’s Southend drainfield that serves numerous businesses and aircraft hangars

Based upon public input, ODAV modified the Preferred Alternative to remove the planned condemnation of the frontline hangars and removed the service road paralleling the taxiway that was driving ODAV’s condemnation plan. While that was an improvement and we appreciate this adjustment to the Preferred Alternative, it turns out that it was only a symbolic improvement to the master plan. That is because ODAV continues to show a preferred master plan that removes the Southend Drainfield, with no identified alternative. No one can use the

front-line hangars without the septic system that ODAV's Updated Refined Preferred Alternative plans to "remove" with no alternative. Saving the frontline hangars from condemnation is obviously meaningless if ODAV removes the Southend Drainfield. Please understand that the 1500+ jobs and \$150 million in private investment those hangars represent, go away without a septic system, just as surely as if the front-end hangars were condemned by ODAV.

Moreover, ODAV's basis for removing the drainfield lacks evidentiary support – ODAV's claim that the drainfield does not comply with FAA guidance is incorrect. As noted in other submittals, ODAV and FAA expressly approved the drainfield's current location as a part of the HDSE goal exception that Marion County approved. Exhibit 2. The FAA guidance about soil strength in the RSA has been the same for decades. ODAV and FAA knew the soil strength guidance and applied it correctly when they approved the drainfield exactly as it is and where it is. If the HDSE drainfield soils were a sincere issue then ODAV would be showing significant spoil strengthening for the entire RSA which is composed of the same soils. The fact is, this is a made up problem that has no legal or evidentiary support.

Finally, ODAV is bound by ORS 836.640-642, which is a statute it has all but ignored in this process, and was developed by Business Oregon and adopted by the legislature to strongly encourage private investment at the Aurora Airport. The statute commands ODAV to carry out that objective. ORS 836.642 requires ODAV to "Preserve investments [at the Aurora Airport] and the level of service provided by [the Aurora Airport]" and to "promote economic development" at Aurora "by creating family wage jobs, increasing local tax bases" through support of private aviation-related uses so that they may "develop and thrive." ODAV's Updated Refined Preferred Alternative that fails to accommodate the septic system that such economic development depends upon, is in direct contravention of those statutes.

Extend the Runway as a Short Term Project

ODAV must prioritize the critically needed runway extension in this master plan to occur in the short term. To date it is scheduled for the end of the planning horizon and perhaps never to occur since ODAV has placed it after moving Highway 551 and other expensive wholly unnecessary projects. If ODAV cares the least about aircraft, pilot and passenger safety, then it will show the runway extension as a priority for the short term. The runway extension has been needed since 2012. *See* Exhibit 4, 2012 Master Plan approved ALP. Anything less is an abdication of ODAV's responsibilities as the owner of the runway at the airport.

Thank you for your consideration.

Very truly yours,



Wendie L. Kellington

WLK:wlk

Exhibit 1 – ODAV SAC Program
Exhibit 2 – HDSE Approval
Exhibit 3 Aurora Airport Committed Goal Exception
Exhibit 3: FAA and ODAV approved Airport Layout Plan

CC: Ted Millar, TLM Holdings LLC

OREGON DEPARTMENT OF AVIATION
STATE AGENCY COORDINATION PROGRAM

IN ACCORDANCE WITH ORS 197.180 AND OAR CHAPTER 660,
DIVISION 30 AND 31

March 7, 2017

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EXECUTIVE SUMMARY

Since 1973, Oregon has maintained a strong statewide program for land use planning. The foundation of that program is a set of 19 Statewide Planning Goals. Oregon's statewide goals are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan and the zoning and land-division ordinances needed to put the plan into effect. Oregon's planning laws apply not only to local governments but also to special districts and state agencies. The laws strongly emphasize coordination – keeping local plans and state programs consistent with each other, with the goals, and with acknowledged local plans. State law (ORS 197.180) requires that all state agency programs that affect land use must be carried out in conformance with local land use plans and regulations and in compliance with the statewide land use planning goals. The Land Conservation and Development Commission (LCDC) is charged with establishing State Agency Coordination (or SAC) requirements and assuring that agencies act in accordance with this statute. LCDC administrative rules (OAR Chapter 660, Divisions 030 and 031) set forth requirements for State Agency Coordination (SAC) agreements, and establish a process for formal LCDC certification of each agency's SAC program.

The Oregon Department of Aviation is responsible for the State's Aviation System plan which is an element of the State's Transportation System Plan for all transportation modes. Statewide Planning Goal 12 (Transportation) requires state and local transportation plans in order to facilitate the flow of goods and services so as to strengthen local and regional economies. The goal requires plans to consider all modes of transportation and specifically identifies aviation (air) as a mode of transportation. Furthermore, state law at ORS 836.600 through 836.630, supplemented by OAR 660, division 13, supports the continued operation and vitality of Oregon's airports, promotes a convenient and economic system of airports in the state, and relies on state and local land use planning to reduce risks to aircraft operations and nearby land uses. Therefore, adoption and maintenance of the Department of Aviation state agency coordination agreement is required by both state statutes and by related administrative rules. The agreement assures coordinated land use planning and development at all jurisdictional levels including state, county, region, city and special district, including, port districts and airport districts.

Chapter 1 – Introduction

As stated in OAR 660-13-0030 the "Oregon Department of Aviation (ODA) shall prepare and adopt a state Aviation System Plan (ASP) in accordance with ORS Chapters 835 and 836 and the State Agency Coordination Program approved under ORS 197.180. ODA shall coordinate the preparation, adoption, and amendment of land use planning elements of the state ASP with local governments and airport sponsors. The purpose of the state ASP is to provide state policy guidance and a framework for planning and operation of a convenient and economic system of airports, and for land use planning to reduce risks to aircraft operations and nearby land uses. The state ASP shall encourage and support the continued operation and vitality of Oregon's airports."

In turn a "city or county with planning authority for one or more airports, or areas within safety zones or compatibility zones described in this division, shall adopt comprehensive plan and land use regulations for airports consistent with the requirements of this division and ORS 836.600 through 836.630. Local comprehensive plan and land use regulation requirements shall be coordinated with acknowledged transportation system plans for the city, county, and Metropolitan Planning Organization (MPO) required by OAR 660, division 12. Local comprehensive plan and land use regulation requirements shall be consistent with adopted elements of the state ASP and shall be coordinated with affected state and federal agencies, local governments, airport

sponsors, and special districts.”

A state agency coordination program for ODA must contain a number of “elements” and must be adopted by ODA as an administrative rule. ODA is one of 26 state agencies with previously certified state agency coordination programs. The Department's current coordination program was certified in January of 1983 and updated in 1990 while ODA was a part of the Oregon Department of Transportation as the Aeronautical Division. Since then, the state agency coordination statute has been amended as well as LCDC administrative rules that implement that statute.

Chapter 2 – ODA Organization and Programs

The State Aviation Board, as required in ORS 835.015 *“shall incorporate as part of its program a definite plan for the development of airports, state airways, airplane industries and aviation generally.”* The Department *“shall also cooperate with and assist the federal government, the municipalities of the state, and other persons in the development of aviation activities. Municipalities are authorized to cooperate with the Department in the development of aviation and aviation facilities in this state, and shall notify the Department of, and allow the Department to participate in an advisory capacity in, all municipal airport or aviation system planning.”* The Department of Aviation (ODA) consists of the Aviation Board, the Director, one Assistant Director and staff divided among three divisions: Projects and Planning, Airports Management and Administration.

In addition, the function of the State Aviation Board is *“to perform such acts, adopt or amend and issue such orders, rules and regulations, and make, promulgate and amend such minimum standards,”* all consistent with the provisions of ORS chapter 835.

ODA’s programs are divided into several program areas.

Planning Program: The Department's Projects and Planning program is carried out on several levels ranging from a general statewide transportation system plan (Oregon Aviation Plan), to a Statewide Capital Improvement Planning program (SCIP) for Oregon’s federally funded airports and a Pavement Evaluation Program (PEP), which precedes the Pavement Maintenance Program (PMP) for paved public use airports in Oregon.

Operations Program: The Department operates 28 state owned airports throughout Oregon.

Maintenance Program: The Department maintains its facilities through general maintenance and upkeep. Of the 28 state owned airports, 12 receive federal funds from the Federal Aviation Administration (FAA) in order to maintain specific airport design, operations and maintenance standards, through grant assurances once federal funds are accepted by the state for capital projects.

Modernization Program: The Department modernizes state owned airports by building new facilities and upgrading existing facilities, including pavement, hangars, critical and essential infrastructure.

Funding Program: The Department receives a number of funds through the FAA’s Airport Improvement Program (AIP) through the issuance of Federal Grants, jet and aviation gas tax, pilot registration, airport registration, aircraft registration, aircraft tie-down fees, access agreements and land leases at various state owned airports.

Regulatory Program: The Department regulates several aviation related activities ODA issues licenses and permits, conducts inspections, issues guidance letters and enforces laws and rules

relating to aviation and aviation activities. The department coordinates with local jurisdictions in order to ensure compatible land uses in close proximity to airports.

Technical Assistance Program: The Department provides a variety of other technical services such as planning, construction, improvement, maintenance or operation of airports or air navigation facilities in accordance with ORS 835.015 regarding the development of aviation

Chapter 3 - ODA Programs Affecting Land Use

Goal 12 states that a Transportation Plan is *“to provide and encourage a safe, convenient and economic transportation system”* and shall consider all modes of transportation including aviation. ODA has programs that either carry out or are used to make decisions to carry out one or more activities that are subject to the statewide planning goals or local acknowledged comprehensive plans. These activities include:

1. Adopting both the Oregon Aviation System Plan as well as Airport Master Plans, which include Airport Layout Plans that significantly affect the requirements or objectives of the State’s Transportation Planning Goal (Goal 12).
2. Adopting Airport Master Plans, that could include Airport Layout Plans, may include the following projects:
 - a. Enlarging an existing airport facility to increase the level of transportation service provided, relocating an existing transportation facility, or constructing a new transportation facility.
 - b. Constructing a new Airport Operations Area (AOA), enlarging an existing AOA, or significantly changing the use of an AOA.
 - c. Changing the size of land parcels through the sale or purchase of property.
 - d. Altering land or structures in a way that significantly affects resources or areas protected by state and federal laws or acknowledged comprehensive plans. Examples include:
 - (A). Placing or disposing of materials in wetlands, waterways or floodplains;
 - (B). Draining wetlands by ditching or by other means;
 - (C). Removing riparian vegetation.
3. Agency review of proposed development in and around Airport Safety Overlay Zone areas in order to promote aviation safety by prohibiting structures, trees, and other objects of natural growth from penetrating “airport imaginary surfaces.”
4. Agency review of structures outside of Airport Safety Overlay Zone areas that could be classified as a hazard to air navigation based on the Federal Aviation Administration Advisory Circular (A/C) 7460-1.

The Department's Projects and Planning program affects land use planning and development, especially when development occurs within the Airport Safety Overlay Zone. One issue of concern is the encroachment into overlay zones of buildings and tall structures (e.g., cell towers and wind turbines), as addressed by the FAA’s Part 77 Imaginary Surfaces for Obstruction Evaluation criteria. Other areas of this program that relate to land use planning include projects or planning for the enlargement of facilities (i.e., airports) due to growth and increase in airport activity. This enlargement, growth and increase of airports can include the expansion of the physical infrastructure and the purchase of land for future airport related development.

The Department's regulatory program is a “land use program” because through it, permits and

licenses listed in ORS 836 and OAR 660, division 31 are issued. These include airport licensing and airport site approval (ORS 836.105 & OAR 660-031-0012(g)(B)). All of these permits are "Class B permits" subject to LCDRC's Permit Compliance and Compatibility Rules (OAR 660, division 31).

The Department of Aviation's technical assistance and administrative services programs are not land use programs because they are not used by the Department to carry out activities that significantly affect land use or to make decisions to carry out activities which significantly affect land use. This service can be used by persons or jurisdictions in connection with the planning, acquisition, construction, improvement, maintenance or operation of airports or air navigation facilities.

ORS 835.015 states: "The State Aviation Board with the advice of the Oregon Department of Aviation shall incorporate as part of its program a definite plan for the development of airports, state airways, airplane industries and aviation generally. It shall through the department cooperate with and assist the federal government, the municipalities of the state, and other persons in the development of aviation activities. Municipalities are authorized to cooperate with the department in the development of aviation and aviation facilities in this state, and shall notify the department of, and allow the department to participate in an advisory capacity in, all municipal airport or aviation system planning."

ORS 836.010 states: "The Director of the Oregon Department of Aviation may, insofar as is reasonably possible, make available the Oregon Department of Aviation's engineering and other technical services with or without charge, to any person requesting such services in connection with the planning, acquisition, construction, improvement, maintenance or operation of airports or air navigation facilities."

It should be noted that the Department is charged with providing public comments as necessary with regard to local land use or permit applications that concern land within the Airport Safety Overlay Zones of airports throughout the State and as required by OAR 738-070. Once these comments are provided it is up to the local land use reviewing agency to consider them and ultimately to enforce the relevant statutes and rules through their locally adopted ordinances, codes and policies.

Chapter 4 – Coordination of Programs Affecting Land Use

The Department can show compliance with the statewide planning goals and the Aviation Facility Planning Requirements, as required by OAR 660-013-0040, through the Airport Master Planning process and the Airport Layout Plans (ALP) approved by the Federal Aviation Administration (FAA) or the Oregon Department of Aviation (ODA) for the non-NPIAS airports. Through the development of an Airport Master Plan and Airport Layout Plan, the Oregon land use planning goals can be addressed and documented. Once complete by ODA, a local jurisdiction must adopt the Master Plan as required by OAR 660, division 13.

Planning Program: ODA assures compliance and compatibility of airport development with local government comprehensive plans relating to land uses around airports through the use of provisions in OAR 660, Division 013 and OAR 660, Division 031. These rules require that both the sponsors of airports and local jurisdictions must establish a coordination process that ensures compliance with applicable laws and compatible development of the airport and surrounding areas. At each planning stage, compliance and compatibility issues generally come into focus with sufficient clarity to enable them to be addressed and resolved. The result of this successive refinement process shall be the resolution of all compliance and compatibility issues by the end of the project planning stage of the Airport Master planning program.

Coordination Procedures for Operations, Maintenance and Modernization Programs: The identification of which particular operation and modernization activities significantly affect land use is done during the development of a project prospectus for all activities that proceed through

the Department's project planning process. Compliance and compatibility for operations and modernization projects is evaluated during this process. Daily operations and general maintenance at airports generally do not proceed through the project planning process because they are ongoing activities and do not directly affect land use.

Regulatory Program Procedures: For all of the Department's license and permit programs that affect land use, the Department will notify applicants of their responsibility to demonstrate compliance and compatibility with local land use regulations. The Department will not issue a license or permit unless certification of compatibility is demonstrated by the applicant.

Chapter 5 – Program of Cooperation and Technical Assistance

The Department is interested in amendments to the transportation and land use/zoning elements of city and county comprehensive plans that relate to any airport located within or abutting their jurisdiction. In addition, the Department is interested in a number of types of city and county plan implementation and plan amendment actions that can affect transportation facilities. The Department shall be notified by local governments in accordance with OAR 660, division 13 about:

1. Actions affecting future airport expansions or development
2. Actions affecting future development in close proximity to airports throughout the State
3. Actions affecting state airport drainage
4. Actions involving noise sensitive land uses in the vicinity of airports
5. Actions that involve physical hazards to air navigation and airport obstructions
6. Actions that involve development in runway protection zones, approach safety zones and Airport Safety Overlay Zones
7. Water Impoundments as described in ORS 836.623

ODA will work to incorporate its plans and programs into comprehensive plans in a number of ways. The Department will request that affected cities and counties incorporate relevant portions of the Aviation System Plan and Airport Master Plans be adopted by the Department into comprehensive plans. As an early step in the planning process for an Airport Master Planning project, ODA will coordinate with the affected local government(s) in their required amendment of their comprehensive plans and land use regulations to make them consistent with applicable modal system plans and facility plans, in accordance with OAR 660, division 13. The Department will work with Metropolitan Planning Organizations (MPOs) in the formulation of regional transportation plans. The Department will also work with cities and counties to incorporate agency adopted Airport Master Plans into their local comprehensive plans.

Most of the Department's coordination with local public facility planning will occur during comprehensive planning and development plan updates. As allowed by ORS 835.015 municipalities are encouraged to cooperate with the Department in the development of aviation and aviation facilities in this state, and this Department will assist local governments with airport land use planning. The primary concerns of the Department are that:

1. Local Public facility plans include relevant portions of adopted modal systems plans, regional transportation plans, Airport Master Plan, Airport Layout Plan or project plans.
2. State facilities are not proposed to provide services that are contrary to their functions as set

forth in state and regional transportation plans.

3. Proposed improvements to state airport facilities are consistent with state transportation plans.
4. Short range improvements to state airport facilities may not be proposed if they are not listed in the Department's capital improvement program unless the improvement is needed or required; no projects in the Department's capital improvement program can proceed without first addressing the most critical or essential project.
5. Improvements identified in the Department's capital improvements programs that are compatible with the acknowledged comprehensive plan are identified in the Airport Master Plan or Airport Layout Plan.
6. The Airport Master Plan or the Airport Layout Plan identifies facilities that are needed to serve commercially and industrially planned areas at state airports.

Chapter 6 – Coordination with State and Federal Agencies and Special Districts

The Department's primary areas of coordination with the Department of Land Conservation and Development (DLCD) involve ODA's airport planning program for future airport capital improvements, as well as city and county proposed comprehensive plan and land use ordinance amendments. The Department may also coordinate with DLCD to help resolve issues of local compliance with the statewide planning goals and State laws regarding the compatibility of Airport Master Plans and Airport Layout Plans with acknowledged comprehensive plans for any of its land use programs.

The Department coordinates with a large number of stakeholders, including city, county, state and federal agencies and special districts as it prepares its various Airport Master Plans or Airport Layout Plans. The Department's coordination procedures provide coordination opportunities throughout the Department's planning program.

Chapter 7 – Organization of ODA's Coordination Program

Following are descriptions of organizational responsibilities.

Aviation Board: The Aviation Board, with the advice of the Department, shall incorporate as part of its program a definite plan for the development of airports, state airways, airplane industries and aviation generally. It shall, through the Department, cooperate with and assist the Federal government, the local jurisdictions of the state and other persons in the development of aviation activities. Local jurisdictions are authorized to cooperate with the Department in the development of aviation and aviation facilities in this state and shall notify the Department of and allow the Department to participate in an advisory capacity in all municipal airport or aviation system planning (ORS 835.015).

Aviation Director: The Department is under the supervision and control of a Director who is responsible for the performance of the duties, functions and powers of the Department (ORS 835.100).

Project and Planning Division: The manager of the Project and Planning Division has responsibility for ODA's coordination and technical assistance program. The manager works closely with other airports and local jurisdictions as well as other staff at the Department to assure that objectives are carried out.

CHAPTER 1
INTRODUCTION

INTRODUCTION

Achieving effective coordination between state and local planning bodies was one of the principal issues addressed by the 1973 Legislature in enacting Oregon's land use planning act. The law requires agency coordination to be brought about in two ways (1) through the preparation, acknowledgement and updates of comprehensive plans and zoning ordinances, and (2) by the preparation and certification of state agency coordination programs.

State agency coordination programs describe what agencies will do to comply with Oregon's land use planning program. More specifically, they describe how an agency will meet its obligation under ORS 197.180 to carry out its programs affecting land use in compliance with the statewide planning goals and in a manner compatible with acknowledged comprehensive plans. This is contained in four major elements of the state agency coordination program.

1. Description of agency rules and programs affecting land use.
2. Procedures for carrying out programs affecting land use in compliance with the goals and in a manner compatible with acknowledged comprehensive plans.
3. Procedures for coordinating with the Department of Land Conservation and Development, affected state and federal agencies and special districts.
4. Program for cooperating with and providing technical assistance to local governments.

This is ODA's revised State Agency Coordination Program. It will replace the Department's 1990 State Agency Coordination Program adopted when the Department of Aviation was the Division of Aeronautics under ODOT, which remained ODA's agreement because rules and statutes applicable to the Division of Aeronautics remained in effect for ODA after it was created. The Aviation SAC agreement was certified by the Land Conservation and Development Commission and therefor has continued to apply to ODA.

CHAPTER 2
ODA ORGANIZATION AND PROGRAMS

ODA STRUCTURE AND ENABLING STATUTES

The Department of Aviation is established by ORS 835.015 and carries out the functions set forth in ORS 835 through ORS 838. The Department consists of the State Aviation Board, the Director, one Assistant Director, and three divisions: Projects and Planning, Airports Management and Administration. Figure 1 shows the structure of the Department.

The State Aviation Board, created by ORS 835.102, is the policy body of the Department of Aviation. The function of the Board is to “perform such acts, adopt or amend and issue such orders, rules and regulations, and make, promulgate and amend such minimum standards.” The primary duty of the State Aviation Board is to “incorporate as part of its program a definite plan for the development of airports, state airways, airplane industries and aviation generally.” By way of the Board adopting Airport Master Plans, they formally recognize the future development of an airport. The Board may also direct staff to work directly with local governments to adopt such plans into their comprehensive plans and development codes as required by ORS 836. Furthermore, the Department shall “cooperate with and assist the federal government, the municipalities of the state, and other persons in the development of aviation activities” as required by ORS 835.015.

The Department of Aviation is responsible for promoting air safety and overseeing the statewide aeronautics system in Oregon. The Department operates, maintains, and improves the 28 state owned airports that are open to the public. In addition, the Department oversees and licenses public use airports, heliports, seaplane bases, and personal-use aviation facilities. The Department is organized under ORS Chapter 835.

Appendix B and C contains copies of the indexes of ODA statutes and rules respectively.

SUMMARY OF ODA PROGRAMS

ODA carries out a number of programs, each of which is composed of a variety of activities. Following is a summary of the principal program areas carried out by the Department.

PLANNING PROGRAM

The Department's Projects and Planning program is carried out through a variety of different programs including a general statewide aviation modal system plan (Oregon Aviation Plan), a Statewide Capital Improvement Planning program (SCIP) and a Pavement Evaluation Program (PEP), which identifies the requirements for the statewide Pavement Maintenance Program (PMP).

1. As one of its duties, the State Aviation Board shall plan for the development of airports, state airways, airplane industries and aviation generally. The Board, with the advice of the Oregon Department of Aviation, shall participate in an advisory capacity with all municipal airport or aviation system planning projects.
2. The Project and Planning Division as well as the Airports Management Division shall prepare a program to collect, summarize and analyze information concerning the condition and usage of each of the state owned airports. Each division shall compile such information in a form

suitable for use by the Director in the planning activities of the Department.

3. As the plan is developed by the Aviation Board, the Director shall prepare and submit to the Board for approval an implementation program. Work approved by the Board to carry out the plan shall be assigned to the appropriate Division for design, construction, maintenance and operation of the facility.

Systems Planning

The Department prepares its five (5) year capital improvement program (CIP) based on the adopted Airport Master Plans and approved Airport Layout Plans (ALPs). The Department's State Agency Coordination Program will be followed in the adoption of Airport Master Plans and the Airport Layout Plans. The Statewide Capital Improvement Plan (SCIP) establishes the direction for the Department's capital improvement programs for both federally and non-federally funded airports.

The Modal System Plan and Facility Plans are described in more detail below.

Oregon Aviation Plan: This is the overall plan and policy for aviation statewide and for the state owned airports. This plan evaluates system wide needs for aviation services, identifies and classifies facilities by function and importance to meet the needs, and establishes policies for the system and each class of facilities. These policies may cover topics such as prioritization of resources across the system; allocation of resources between maintenance, preservation, operation, and modernization; operational goals for classes of facilities; and relationship of facility categories to land use. The Oregon Aviation Plan is adopted by the State Board of Aviation and is the aviation component of the Oregon Transportation Plan.

Airport Master Plans and Airport Layout Plans: These are plans for individual airport facilities owned and operated by the Department. They include the identification of needs for using the facility, an overall plan for improving the facility to meet the needs, and policies for operating the facility. As part of the Master Planning process a committee is formed which includes local jurisdictional representatives to provide guidance and input about the development of the airport and surrounding area (AOA). The local jurisdiction is able to provide background information as to whether the current land use ordinance and comprehensive plans are compatible with the updated airport plans. The State Aviation Board adopts facility plans based on the final approved Airport Master Plans and Airport Layout Plans.

By having local jurisdictions on the review committee ODA is able to:

- Identify local and state objectives when it comes to the aviation system in the State.
- Helps ensure that local land use plans are compatible with aviation uses within the AOA
- Codes are in place regarding compatible land uses surrounding the airport, principally within the FAA part 77 Imaginary surfaces.
- Ensure that future growth of the airport facility is being taken in to account and that land use compatibilities are in place via adopted Comprehensive Plans and Development Codes.
- Defines ODA's and the local jurisdiction's roles, responsibilities and authorities and guides subsequent decisions by the affected local government and ODA about land uses, the aviation system.

Project Planning

The Department of Aviation's planning activities include preparing and updating the Oregon Aviation System Plan and preparing Airport Master Plans, environmental studies, and Airport Layout Plans for state owned airports and air navigation facilities. The Division develops a system plan project priority listing. Facility plans are implemented through the development and implementation of the Capital Improvement Project (CIP) list. For example, project plans may be developed for the extension of an airport runway consistent with the Airport Layout Plan for the airport.

Project planning starts with the preparation of a project prospectus. This is a preliminary description and evaluation of a proposed project which is used by the Department to schedule project development activities.

The prospectus also classifies the project in accordance with the requirements of the Federal Aviation Administration (FAA) and other federal agencies and their regulations and requirements. The Environmental Protection Agency (EPA) classifies projects based on the likelihood that significant environmental effects would result from the construction of the project. The classifications are as follows.

1. Class 1 projects include actions that significantly affect the quality of the environment and require draft and final environmental impact statements (EIS). The type of work normally placed in Class 1 includes (a) a major project involving acquisition or more than minor amounts of land, substantial changes to the airport including large amounts of demolition or large increase in impervious surface (i.e., pavement).
2. Class 2 projects include activities that have little or no environmental impact and consequently are categorically excluded from environmental analysis by federal regulations. The types of work placed in this class include minor improvement, repair and preservation.
3. Class 3 projects include actions where the significance of the environmental impact is unclear and is evaluated through the preparation of an environmental assessment (EA). The purpose of the EA is to establish whether the proposed project will significantly affect the environment. If a potentially significant impact is discovered, the project is reclassified to Class 1 and an EIS is prepared. Otherwise, the assessment results in a "finding of no significant impact" (FONSI).

Once a project prospectus has been approved, the development of project plans for Class 1 and Class 3 projects proceed through two phases, a location phase and a design phase. For Class 2 projects, work may proceed directly to the design phase.

During the location phase, project alternatives are evaluated and specific parameters for project design are determined. Environmental assessments and environmental impact statements are prepared at this level of project planning.

In the design phase, construction plans, specifications and estimates are developed consistent with the design approval. The design phase concludes with the approval of project plans, specifications and estimates (PS&E). With PS&E approval, funding for project construction is approved.

Several clearances are required before PS&E approval may be granted. Final plans and specifications are reviewed for consistency with environmental mitigation requirements and land use requirements. Land use permits involving design details, such as building permits and floodplain permits, are obtained before completion of final plans. Permits for in-stream work, removal or fill, and necessary removal or disposal of materials are obtained as well.

OPERATIONS PROGRAM

The Department operates 28 state airports, and related facilities such as pilot planning and briefing facilities, hangars and fueling facilities. Operations activities include airport lighting and navigation aids, elimination of hazards to air navigation, and a number of other safety and support activities. The operations program includes the acquisition of land needed to carry out operations activities.

MAINTENANCE PROGRAM

The Department maintains its facilities by mowing, spraying vegetation, re-applying airfield markings, a Pavement Maintenance Program (PMP), and carrying out similar preservation of facility activities.

MODERNIZATION PROGRAM

The Department modernizes state airports. Activities in this program include building new facilities, making facility expansions such as adding new apron areas, extending existing runways and upgrading facilities such as the rehabilitation of impervious areas as well as critical and essential services based on the needs of the FAA, state, local community and other aviation stakeholders.

FUNDING PROGRAM

Of the Department's 28 state owned airports, 12 are eligible to receive federal grants administered by the FAA. These grants are to be used for projects, as identified in the FAA's Airport Improvement Program. The Department prepares a five (5) year capital improvement program to identify the specific project and funding source.

The purpose of the five (5) year capital improvement program is different than that of the Department's planning program. Capital improvements programs are not plans; they reflect the Department's best estimate of how projected revenues can be matched to airport improvement needs. Capital improvements programs also are not a substitute for the funding decisions that are made in concert with the project planning process.

REGULATORY PROGRAM

The Department is responsible for airport site approval and licensing. It also conducts airport safety inspections. (ORS 836.025, 836.080-120) The Division may also adopt rules which define physical hazards to air navigation and establish standards for lighting or marking objects and structures that constitute hazards to air navigation (ORS 836.530, 836.535). The Division also

registers pilots and aircraft (ORS 837.005 837.070) and licenses aircraft dealers (ORS 837.075).

TECHNICAL ASSISTANCE PROGRAM

The Department may assist local governments and airport operators with planning, acquisition, construction, improvement, maintenance or operation of airports or air navigation facilities. (ORS 836.015) The Division is also authorized to act as agent of any municipality in receiving and disbursing federal moneys and in contracting for and supervising planning, acquisition, construction, improvement, maintenance and operation. (ORS 836.025)

CHAPTER 3
ODA LAND USE PROGRAMS

ODA LAND USE PROGRAMS

METHOD FOR IDENTIFYING LAND USE PROGRAMS

SAC Administrative Rule Requirements

An OAR 660-030-0005 defines land use programs as follows:

(2) "Rules and Programs Affecting Land Use":

(a) Are state agency's rules and programs (hereafter referred to as "land use programs") which are:

(A) Specifically referenced in the statewide planning goals; or

(B) Reasonably expected to have significant effects on:

(i) Resources, objectives or areas identified in the statewide planning goals; or

(ii) Present or future land uses identified in acknowledged comprehensive plans.

(b) Do not include state agency rules and programs, including any specific activities or functions which occur under the rules and programs listed in paragraph (2)(a)(A) of this rule if:

(A) An applicable statute, constitutional provision or appellate court decision expressly exempts the requirement of compliance with the statewide goals and compatibility with acknowledged comprehensive plans: or

(B) The rule, program, or activity is nor reasonably expected to have a significant effect on:

(i) Resources objectives or areas identified in the statewide goals; or

(ii) Present or future land uses identified in acknowledged comprehensive plans; or

(C) A state agency transfers or acquires ownership or an interest in rear property without making any change in the use of the property. Action concurrent with or subsequent to a change of ownership that will affect land use or the areas of the property is subject to either the statewide goals or applicable city or county land use regulations.

Application of OAR 660-030-0005

1. Adopting both the Oregon Aviation System Plan as well as Airport Master Plans, which include Airport Layout Plans that significantly affect the requirements or objectives of the State's Transportation Planning Goal (Goal 12).

2. Adopting Airport Master Plans, that could include Airport Layout Plans, may include the following projects:

a. Enlarging an existing airport facility to increase the level of transportation service provided, relocating an existing transportation facility, or constructing a new transportation facility.

b. Constructing a new Airport Operations Area (AOA), enlarging an existing AOA, or significantly changing the use of an AOA.

c. Changing the size of land parcels through the sale or purchase of property.

d. Altering land or structures in a way that significantly affects resources or areas protected by

state and federal laws or acknowledged comprehensive plans. Examples include:

- (A). Placing or disposing of materials in wetlands, waterways or floodplains;
- (B). Draining wetlands by ditching or by other means;
- (C). Removing riparian vegetation.

3. Agency review of proposed development in and around Airport Safety Overlay Zone areas in order to promote aviation safety by prohibiting structures, trees, and other objects of natural growth from penetrating "airport imaginary surfaces."
4. Agency review of structures outside of Airport Safety Overlay Zone areas that could be classified as a hazard to air navigation based on the Federal Aviation Administration Advisory Circular (A/C) 7460-1.

ANALYSIS OF ODA PROGRAMS

Projects and Planning Program

Most of the Department's planning program is a land use program because it carries out the Department's aviation planning activities which affect the objectives of statewide land use Goal 12 and because it is used to make decisions to carry out one or more of the activities affecting land use listed above. All Class 1 and Class 3 projects involve activities which significantly affect land use. Some Class 2 projects, however, do not involve any activities which significantly affect land use including minor improvements, repairs and preservation at airports; these can include airfield repair or replacement of lights and signs, pavement maintenance and mowing/weed control. These types of activities are mostly considered under the Operations and Maintenance program. Some other activities carried out in the Department's planning program also do not significantly affect land use. These include information gathering, analysis, and reporting. It should be noted that the Department is asked to provide public comment for land use applications that are in close proximity to airport facilities throughout the State, not just State owned facilities. These comments, if provided, are only recommendations to the local land use reviewing agency and typically are resolved through the adoption of local ordinances, codes and policies.

Operations and Maintenance Program's

A limited number of items in the Department's operations and maintenance programs can be considered land use programs. Most of the developments are considered outright permitted uses which may only require a building permit. An example of this is the development of hangars, a pilot lounge or a restaurant on airport property. However, most of the activities carried out under these programs do not affect land use and can be considered general maintenance such as replacing runway lights, repainting markings, windsock replacement and weed control.

Modernization Program

The Department's modernization program is a program affecting land use because most of the activities carried out under the program significantly affect land use. However, building some Class 2 projects does not involve any activities that significantly affect land use.

Funding Program

Some of the Department's funding programs may be considered a land use program because future projects are based on revenue collected by the agency and therefore decisions to carry out activities which affect land use. The program that funds Airport Improvement Projects (AIP) affects land use since that program could involve the expansion of an AOA or construct structures that can house uses activities which may require local land use approvals. It should be noted that these funds do not include operations and maintenance at airports. The Department's management of funds to carry out activities affecting land use is also dependent on decisions that are made in the project planning process; meaning funding decisions are not made independently of the planning process. The funds administered may facilitate activities which affect land use but are not determinative on whether those activities are carried out.

Regulatory Program

Some of ODA's permit programs are listed in OAR 660, div.31. These include airport site approval which are classified as Class B permits and are subject to the LCDC Permit Compliance and Compatibility Rule. (OAR 660-031).

Technical Assistance and Administrative Support Programs

ODA's technical assistance and administrative support programs may be considered land use programs because they could carry out activities that significantly affect land use or decisions about land use activities in and around airports (including airport overlay zones). The technical assistance and administrative support programs focus on airport and aviation safety. The assistance ODA provides to jurisdictions includes assistance to updates to their comprehensive plans and zoning codes, while ensuring that ORSs and OARs are followed and adopted. In addition to assistance, ODA also reviews land use applications near airports to ensure that land uses are compatible, as required by OAR 660-013. The Department also reviews structures near airports to ensure that air navigation are free and clear of obstructions as defined in Title 14 CFR Part 77 – Imaginary Surfaces. It should be noted that the Department is asked to provide public comment for land use applications that are in close proximity to airport facilities throughout the State, not just State owned facilities. These comments are only recommendations to the local land use reviewing agency and are enforced by their adopted ordinances, codes and policies.

CHAPTER 4
COORDINATION OF LAND USE PROGRAMS

IDENTIFICATION OF EXEMPT AND COMPATIBLE LAND USE PROGRAMS

None of ODA's land use programs are expressly exempted by statute, constitutional provision or appellate court decision from the requirements in ORS 197.180 to be compatible with acknowledged comprehensive plans.

PROGRAM FOR ASSURING COMPLIANCE WITH THE STATEWIDE PLANNING GOALS AND COMPATIBILITY WITH ACKNOWLEDGED COMPREHENSIVE PLANS

ORS 197.180 and the LCDC State Agency Coordination Rule, OAR 660, div 30, require that the Department develop procedures and adopt an administrative rule for assuring that programs affecting land use are carried out in compliance with the statewide planning goals and in a manner compatible with acknowledged comprehensive plans.

In most instances, the Department shall achieve compliance with the statewide planning goals by assuring that its land use programs are compatible with applicable acknowledged comprehensive plans. However, the Department shall adopt findings demonstrating compliance with the statewide goals when required to do so by OAR 660-030-065(3). The procedures which follow identify the circumstances when the Department shall directly apply the statewide planning goals.

PLANNING PROGRAM PROCEDURES

ODA's program for assuring compliance and compatibility recognizes the successive stages of airport master planning and establishes a process that coordinates compliance and compatibility determinations during the time an Airport Master Plan or Airport Layout Plan is being developed. At each Airport Master Plan or Airport Layout Plan stage, some compliance and compatibility issues come into focus with sufficient clarity to enable them to be addressed. These issues, if possible, need to be resolved at that time. Other issues may be apparent but not seen clearly enough to determine compliance and compatibility. These issues shall be resolved in subsequent planning stages and any plan decisions that depend on their resolution shall be contingent decisions. The result of this successive refinement process shall be the resolution of all compliance and compatibility issues by the end of the planning stage of the Airport Master Plan or Airport Layout Plan planning program.

The Department's coordination efforts at the Airport Master Plan or Airport Layout Plan stages will be directed at involving metropolitan planning organizations, local governments and others in the development of statewide transportation policies and plans. Since these plans have general statewide applicability and since ODA has the mandate under ORS 835.015 to incorporate as part of its program a definite plan for the development of airports, state airways, airplane industries and aviation generally. However, compatibility determinations shall be made for new facilities identified in modal systems plans that affect identifiable geographic areas. Compliance with any statewide planning goals that specifically apply will be established at these planning stages.

The focus of the Department's efforts to establish compatibility with acknowledged comprehensive plans will be at the facility planning and project planning stages of an Airport Master Plan or Airport Layout Plan. At these stages, the effects of the Department's plans are more regional and local in nature although some statewide effects are also present.

Following are the procedures that the Department shall or may use to coordinate its planning program. The required procedures have been incorporated into the Department's administrative rule for state agency coordination, OAR chapter 738 Division 130 (Appendix D).

COORDINATION PROCEDURES FOR ADOPTING THE STATE AVIATION PLAN, AIRPORT MASTER PLAN OR AIRPORT LAYOUT PLAN

1. Except in the case of aviation plan updates, which include Airport Layout Plan 'as-built' updates or updating existing data from previously approved chapters in the Oregon Aviation Plan, the Department shall involve DLCD and affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and other interested parties in the development or amendment of a facility plan. This involvement may take the form of mailings, meetings or other means that the Department determines are appropriate for the circumstances. The Department shall hold at least one public meeting on the plan prior to adoption.
2. The Department shall provide a draft of the proposed facility plan to planning representatives of all affected cities, counties and metropolitan planning organization and shall request that they identify any specific plan requirements which apply, any general plan requirements which apply and whether the draft facility plan is compatible with the acknowledged comprehensive plan. If no reply is received from an affected city, county or metropolitan planning organization within 45 days of the Department's request for a compatibility determination, the Department may deem that the draft plan is compatible with that jurisdiction's acknowledged comprehensive plan. The Department may extend the reply time if requested to do so by an affected city, county or metropolitan planning organization.
3. If any statewide goal or comprehensive plan conflicts are identified, the Department shall meet with the local government planning representatives to discuss ways to resolve the conflicts. These may include:
 - (a) Changing the draft facility plan to eliminate the conflicts;
 - (b) Working with the local governments to amend the local comprehensive plans to eliminate the conflicts; or
 - (c) Identifying the conflicts in the draft facility plan and including policies that commit the Department to resolving the conflicts prior to the conclusion of the transportation planning program for the affected portions of the transportation facility.
4. The Department shall evaluate and write draft findings of compatibility with acknowledged comprehensive plans of affected cities and counties, findings of compliance with any statewide planning goals which specifically apply as determined by OAR 660-030-0065(3)(d), and findings of compliance with all provisions of other statewide planning goals that can be clearly defined if the comprehensive plan of an affected city or county contains no conditions specifically applicable or any general provisions, purposes or objectives that would be substantially affected by the facility plan.
5. The Department shall present to the Aviation Board the draft plan, findings of compatibility with the acknowledged comprehensive plans of affecting cities and counties and findings of

compliance with applicable statewide planning goals.

6. The Aviation Board shall adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan
7. The Department shall provide copies of the adopted final facility plan and findings to DLCD, to affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and to others who request to receive a copy.

COORDINATION PROCEDURES FOR ADOPTING PLANS FOR CLASS 1 AND 3 PROJECTS

1. The Department shall involve affected cities, counties, metropolitan planning organizations, state and federal agencies, special districts and other interested parties in the development of project plans. The Department shall include planning officials of the affected cities, counties and metropolitan planning organization on the project technical advisory committee.
2. Goal compliance and plan compatibility shall be analyzed in conjunction with the development of the Draft Environmental Impact Statement or Environmental Assessment. The environmental analysis shall identify and address relevant land use requirements in sufficient detail to support subsequent land use decisions necessary to authorize the project.
3. Except as otherwise set forth in section (4) of this rule, the Department shall rely on affected cities and counties to initiate completion of all plan amendments and zone changes necessary to achieve compliance with the statewide planning goals and compatibility with local comprehensive plans after completion of the Draft Environmental Impact Statement or Environmental Assessment and before completion of the Final Environmental Impact Statement or Revised Environmental Assessment. These shall include the adoption of general and specific plan provisions necessary to address applicable statewide planning goals.
4. The Department may complete a Final Environmental Impact Statement or Revised Environmental Assessment before the affected cities and counties make necessary plan amendments and zone changes in the following case:
 - (a) The Final Environmental Impact Statement or Revised Environmental Assessment identifies that the project be constructed in phases; and
 - (b) The Department finds:
 - (A) There is an immediate need to construct one or more phases of the project. Immediate need may include, but is not limited to, the facility to be improved or replaced currently exceeds or is expected to exceed within five years the level of service identified in the Oregon Aviation Plan; and
 - (B) The project phase to be constructed meets a transportation need independent of the overall project, is consistent with the purpose and need of the overall project as identified in the FEIS, and will benefit the surrounding transportation system even if no further phases of the project are granted land use approval.
 - (c) The project does not require an exception to a statewide planning goal pursuant to ORS 197.732.
5. If a Final Environmental Impact Statement or Revised Environmental Assessment is completed

pursuant to section (4) of this rule, all necessary plan amendments and zone changes associated with the particular phase of the project to be constructed shall be made by the city or county prior to constructing that phase of the project. The Department may assist affected cities and counties with amendments to their comprehensive plans and land use regulations necessary to make them consistent with applicable modal system plans, facility plans and the agreed project scope and objectives.

6. If compatibility with a city or county comprehensive plan cannot be achieved, the Department may modify one or more project alternatives to achieve compatibility or discontinue the project.
7. The Board or its designee shall adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties when it grants design approval for the project. Notice of the decision shall be mailed out to all interested parties.
8. The Department shall obtain all other land use approvals and planning permits prior to construction of the project.

COORDINATION PROCEDURES FOR CLASS 2 PROJECTS DETERMINED TO SIGNIFICANTLY AFFECT LAND USE

Coordination procedures are much simpler for Class 2 projects than for Class 1 or Class 3 projects because the land use impacts of projects in this class are minor. Projects are reviewed when the project prospectus is prepared to determine whether they would involve any activities that would significantly affect land use. The following coordination process shall be follow for those projects that would affect land use.

1. Planning officials of affected cities and counties shall be contacted at the start of project planning to identify any possible compliance or compatibility conflicts and ways to avoiding conflicts.
2. The Department shall attempt to avoid any identified compliance or compatibility conflicts as it develops its plans.
3. Planning officials of affected cities and counties shall be requested to review preliminary final plans to identify whether any local land use approvals are needed and whether any of the acknowledged comprehensive plan's general provisions would be substantially affected. If no local planning approvals are required and if the plan's general provisions would not be substantially affected the Department shall conclude that the project is compatible. If no comments are received from an affected local jurisdiction within 15 days of the Department's request for a compatibility determination, the Department may deem that the preliminary project plans are compatible with the acknowledged comprehensive plan for that jurisdiction. The Department may extend the reply time if requested to do so by an affected city or county.
4. If any local planning approvals are required the Department shall either modify its project plans so as to not require approvals, or shall apply for the necessary approvals.
5. If the affected city or county does not grant approval, the Department may:

- (a) Modify the project plans so as to not require approval;
- (b) Discontinue further work on the project; or
- (c) Appeal the city or county decision.

6. The Department shall obtain local planning approvals prior to construction of the project.

COORDINATION PROCEDURES FOR OPERATIONS, MAINTENANCE AND MODERNIZATION PROGRAMS

The identification of operations and modernization program projects significantly affecting land use occurs when a project prospectus is prepared. Compliance and compatibility for projects that affect land use are established during the project planning process. Additional coordination in accordance with the procedures listed below will only be necessary if significant changes to project plans are proposed.

For operations and maintenance activities that do not proceed through the project planning process, the Department will determine whether the activities are among those listed in previous chapters. The following coordination procedures shall be used when carrying out activities that would significantly affect land use.

1. The Department shall consult planning officials of the affected city or county to determine whether any local land use approvals are required to carry out the proposed activity.
2. If any local planning approvals are required, the Department shall either modify the proposed activity not to require approval, or shall apply for the necessary approvals.
3. If the approvals are not granted by the approval authority, the Department may:
 - (a) Modify the proposed activity so as to not require permits;
 - (b) Not do the proposed activity; or
 - (c) Appeal the local decision.

REFERRAL OF COMPATIBILITY DISPUTES TO THE LAND CONSERVATION AND DEVELOPMENT BOARD

If a compatibility conflict persists after pursuing the compatibility procedures listed above, the Department shall request that the Land Conservation and Development Board make a compatibility determination in accordance with OAR 660-030-070 (7) through (12).

CHAPTER 5

PROGRAM OF COOPERATION AND TECHNICAL ASSISTANCE

COORDINATION WITH PLAN IMPLEMENTATION AND PLAN AMENDMENT

The Department is interested in amendments to the transportation elements of city and county comprehensive plans, as it relates to airports and airport activities. In addition, the Department is interested in a number of types of city and county plan implementation and plan amendment actions that can affect airports facilities. The Department's interests relate to its role as the builder and operator of state owned airport facilities and its role as the statewide aviation planning agency. In accordance with ORS 836.608 the Department must receive notification from and work with local governments in the following instances.

Actions Affecting Future State Airports: Land use actions adjacent to state airports that may affect future expansions of these facilities. The most significant areas of concern include lands near airport runways, taxiways and airport property used for both airside and landside activities.

Actions Affecting State Airports: Land use actions adjacent to or in the vicinity of state airports that will significantly change the quantity or rate of runoff discharge to state ditches and drainage structures, or that may block a drainage way that conveys runoff from state drainage systems.

Actions Involving Noise Sensitive Land Uses In the Vicinity of Public Use Airports: Land use actions on properties in noise corridors around public use airports. Areas of interest include (1) areas identified by Airport Master Plans and (2) areas within 1,500 feet of airport runways for airports for which there is no master plan.

Actions that Involve Physical Hazards to Air Navigation and Airport Obstructions: Land use actions that may result in the creation of physical hazards to air navigation in the state generally and those actions that may result in obstructions to airspace in the vicinity of public and private use airports. Areas of interest generally include (1) areas within 5,000 feet of the runway of a visual approach airport; (2) areas within 10,000 feet of an instrument approach airport, (3) areas designated by an Airport Master Plan or Airport Layout Plan, and (4) any construction of more than 200 feet in height above the ground level. The objective is to identify potential obstructions that may penetrate Title 14 CFR Part 77 – Imaginary Surfaces or impact any activity around airports including missed approaches or flow flying aircraft.

Actions that involve Development in Runway Protection Zones and Approach Safety Zones of Public and Private Use Airports: All proposed development in airport runway protection zones; including all actions that affect the densities of development in approach and transitional safety zones including building population densities, coverage densities and overall densities. Areas of interest are identified in Airport Master Plans, Airport Layout Plans, Title 14 CFR Part 77 – Imaginary Surfaces and both the FAA's and ODA's Land Use Compatibility documents.

COORDINATION WITH COMPREHENSIVE PLAN IMPLEMENTATION

ODA shall use the following process to coordinate with local governments on the plan implementation actions:

1. ODA shall periodically provide all cities and counties with the names and addresses of people in the Department who should be notified regarding all land use actions and building permits of

interest to the Department. Interests of land use actions and building permits include not only state owned airports, but any public use airport within the state.

2. ODA shall respond to local notices within the time prescribed in the notice. The Department shall identify concerns and relate them to comprehensive plan and ordinance requirements. All Divisions of the Department shall coordinate to assure consistency in the Department's comments.
3. ODA shall advise local governments on what factual information is needed to address its concerns and may assist in providing needed information within the limits of its resources. ODA may also comment on the adequacy of factual information supplied by applicants.
4. ODA shall offer to meet with planning officials and applicants in instances where there are significant conflicts.
5. ODA may pursue the following actions where local actions conflict with ODA plans and programs:
 - a. Meet with planning officials and applicants and participate in the local decision-making process;
 - b. Request informal mediation by the Department of Land Conservation and Development; and
 - c. Appeal the decision.

COORDINATION WITH COMPREHENSIVE PLAN AMENDMENTS

ODA shall use the following process to coordinate with local governments on the plan amendment actions:

1. ODA shall periodically provide all cities and counties with the names and addresses of people in the Department who should be notified regarding plan amendments of interest to the Department.
2. If timely notice has been received, ODA shall respond to proposed plan amendments prior to the public first hearing. If not, ODA may ask for an extension of time to review the proposal. ODA shall identify its concerns and relate them to applicable ordinance requirements, plan policies and statewide goal requirements. All Divisions of the Department shall coordinate internally and have one point contact to assure consistency in the Department's comments. ODA will coordinate with DLCDC on proposed local plan amendments to ensure that any aviation components is fully addressed and is in compliance with both OAR 660-013 and any applicable aviation ORS and OAR.
3. If the Department has concerns about a proposed plan amendment, it shall identify applicable aviation/transportation plans and advise local governments on what factual information is needed to address its concerns. The Department may assist in providing needed information within the limits of its resources. ODA may also comment on the adequacy of factual information supplied by applicants. All comments are subject to timelines and deadlines as identified adopted by the local jurisdictions and in state law.
4. ODA may pursue the following actions where local actions conflict with ODA plans and programs:

- a. Meet with planning officials and applicants and participate in the local planning process;
- b. Request informal mediation by the Department of Land Conservation and Development;
and
- c. Appeal the decision.

INCORPORATION OF ODA PLANS AND PROGRAMS INTO COMPREHENSIVE PLANS AND PARTICIPATION IN PERIODIC REVIEW

ODA shall work to the extent possible to incorporate its plans and programs into comprehensive plans in the following ways:

1. ODA shall request that affected cities and counties incorporate relevant portions of the Airport Land Use Compatibility Guidebook and Airport Master Plan or Airport Layout Plan adopted by the Department into their comprehensive plans. ODA shall assist local governments with the amendments.
2. As an early step in the project planning process for Class 1 and Class 3 projects, ODA shall request that the affected local governments amend their comprehensive plans and land use regulations to make them consistent with applicable Airport Master Plan or Airport Layout Plan.
3. ODA shall work with cities and counties during periodic review to incorporate its plans into local comprehensive plans.

PERIODIC REVIEW AND COORDINATION WITH LOCAL PUBLIC FACILITY PLANNING

Most of the Department's coordination with local public facility planning will occur during periodic review. Therefore the procedures for carrying out such coordination have been combined with periodic review procedures. If a city or county adopts or amends a public facilities plan independent of periodic review, the Department shall follow the procedures for coordinating with plan amendments combined with relevant portions of the procedures listed below.

1. The Department shall notify the Department of Land Conservation and Development when it adopts or amends an Airport Master Plan or Airport Layout Plan, and shall request that DLCD identify these comprehensive plans in periodic review notices.
2. After the Department receives notice of a city or county periodic review, it shall notify the city or county of Department plans that have been adopted pursuant to ORS 835.015 since acknowledgement of the local comprehensive plan. The Department shall also identify substantial changes in circumstances related to statewide aviation that should be addressed during the local government's comprehensive plan review.
3. The Department shall provide the city or county with inventory information on state facilities that need to be included in the public facilities plan. This information may include modal systems plans, facility plans, capital improvements programs, project plans and relevant data.
4. The Department shall assist the city or county, to the extent that resources allow, in their preparation of the portion of the public facilities plan that affects statewide Airport Master Plans or Airport Layout Plans. The Department may also work with the city or county and the Oregon Business Development Department to identify potential sources of funding to carry

airside and landside projects identified in the Airport Master Plans or Airport Layout Plans.

5. The Department shall request to be furnished drafts of the public facilities plan and other portions of the comprehensive plan review to ensure compatibility with adopted plans pursuant to ORS 835.015.
6. The Department shall notify the city or county of any concerns about possible conflicts with its plans and programs prior to the first local public hearing of which it receives timely notice. The Department has the following interest in addition to those listed at the beginning of this chapter:
 - a. Airport Master Plans and Airport Layout Plans include relevant portions of adopted regional transportation plans, facilities plans, and project plans.
 - b. State facilities or improvements not be proposed to provide services that are contrary to their functions as set forth in the Airport Master Plans or Airport Layout Plans.
 - c. Proposed improvements to state facilities be consistent with Airport Master Plans or Airport Layout Plans.
 - d. Improvements identified in the Department's capital improvements programs that are compatible with the acknowledged comprehensive plan are identified in the Airport Master Plans or Airport Layout Plans.
 - e. Airport Master Plans or Airport Layout Plans identify facilities needed to serve commercially and industrially planned areas at state airports.
7. The Department shall offer to meet with local planning officials in order to resolve conflicts. The Department may also request assistance from the Department of Land Conservation and Development to mediate conflicts.
8. The Department shall notify the Department of Land Conservation and Development of conflicts that remain after a city or county has adopted its final review order.

LOCAL GOVERNMENT RELIANCE ON ODA AIRPORT MASTER PLANS AND AIRPORT LAYOUT PLANS

ODA encourages local governments to adopt relevant portions of the Department's Airport Planning Rule and Land Use Compatibility Guidebook in order to comply with applicable provisions of Goal 12 pursuant to OAR 660-013.

TECHNICAL ASSISTANCE

The Department has a long history of providing technical assistance to cities and counties. The Department's many programs are listed in earlier chapters. The Department will provide technical assistance to local governments on public facility funding, local public facility plans, permit issuance and economic development as required by ORS 197.712(2)(f) and 197.717(1) and (2). The Department recognizes that providing technical assistance will assist it in meeting its goals, and therefore will strive to meet the needs of cities and counties to the extent that its resources allow.

CHAPTER 6

COORDINATION WITH AGENCIES AND SPECIAL DISTRICTS

COORDINATION WITH THE DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT

The Department's primary areas of coordination with the Department of Land Conservation and Development (DLCD) involve the Department's planning program, city and county plan amendments, and intermittent comprehensive plan review. The Department may also coordinate with DLCD to help resolve issues of compliance with the statewide planning goals and compatibility with acknowledged comprehensive plans for any of its land use programs. Coordination procedures are described in previous chapters.

COORDINATION WITH STATE AND FEDERAL AGENCIES AND SPECIAL DISTRICTS

The Department coordinates with an extensive list of state and federal agencies as it develops Airport Master Plans, Airport Layout Plans or Airport Capital Improvement Project plans. The greatest degree of coordination occurs for Class 1 and Class 3 projects. The Department notifies potentially interested agencies through the state clearinghouse and through its own notification process. Agencies that may be notified include, but are not limited to:

STATE AGENCIES:

Department of Land Conservation and Development
Department of Environmental Quality
Department of Energy
Business Oregon

FEDERAL AGENCIES:

Federal Aviation Administration
US Department of Transportation
US Customs Enforcement

INTERAGENCY COORDINATION CONTACT FOR LAND USE

Chapter 7 identifies the persons in the Department who should be contacted under various circumstances.

CHAPTER 7

ORGANIZATION OF ODA PLANNING COORDINATION PROGRAM

ORGANIZATION OF THE PROGRAM

Overall Description

The Department has established a strong outreach component through its Project and Planning Division. This Division is responsible for managing the program throughout the state of Oregon and coordinates with local governments on land use matters affecting the airports throughout the State; this includes state owned and non-state owned facilities. This is the level where most of the program will be implemented. The Project and Planning Division of the Department of Aviation provides central coordination of the program as well as technical assistance and land use coordination for aviation in the State.

Following are descriptions of organizational responsibilities.

Project and Planning Division

The State Aviation Board and the Director of the Department of Aviation has overall responsibility for ODA's coordination program. The Planning and Project Division reporting to the Director will be responsible for carrying out coordination, technical assistance and land use coordination for the program. The Project and Planning Division works closely with the State Airports Manager, Department Director and other airport sponsors throughout the State to assure that the objectives of this Division is carried out. Responsibilities of the Division include but not limited to:

1. Coordinating and recommending the development of land use policy for the Department to the Director and the State Aviation Board to maintain consistency throughout the State and for all airports.
2. Maintaining and amending the Department's state agency coordination program and interpreting Department compliance and compatibility procedures; assuring that all Divisions of the Department and local jurisdictions carry out their land use programs in accordance with the Department's state agency coordination program, Oregon Revised Statute (ORS) and Oregon Administrative Rules (OAR).
3. Developing findings when the Department must act incompatibly in order to fulfill a statutory obligation.
4. Coordinating land use policy for the Department with the Department of Land Conservation and Development.
5. Coordinating comprehensive plan review responses with the Department of Land Conservation and Development.
6. Requesting informal mediation and formal compatibility determination by the Land Conservation and Development Commission.
7. Providing the technical resources needed in responding to planning issues.
8. Developing guidelines, model comprehensive plan policies and land use ordinances.
9. Coordinating with State, Federal and local agencies while following the policy adopted by the Oregon Board of Aviation for the naming, changing, modifying or the adjustment of airport facilities.

BEFORE THE BOARD OF COMMISSIONERS
FOR MARION COUNTY, OREGON

In the Matter of the	)	Case No. CP 03-4
	)	
Application of:	)	Clerk's File No. 4968
	)	
RICHARD VAN GRUNSVEN	)	COMPREHENSIVE
OF HD AVIATION, TED MILLAR	)	PLAN AMENDMENT
OF SOUTH END AVIATION,	)	
AND JACK HOGAN	)	AN ADMINISTRATIVE ORDINANCE

ORDINANCE NO. 1205

THE MARION COUNTY BOARD OF COMMISSIONERS HEREBY ORDAINS AS
FOLLOWS:

SECTION I. Purpose

This Ordinance is enacted pursuant to the authority granted to general law counties in the State of Oregon by ORS Chapters 197, 203, and 215 to implement the Marion County Comprehensive Land Use Plan. This ordinance amends the Marion County Comprehensive Plan by taking exceptions to Statewide Land Use Planning Goals 11—Public Facilities and Services and 14—Urbanization for certain properties to share a septic system at the Aurora State Airport. (T4S; R1W; Section 11A; Tax lots 200, 201, 203, and 400) and (T4S; R1W; Section 02D; Tax lots 1100 and 1600).

SECTION II. Procedural History

The Marion County Board of Commissioners held a public hearing on September 22, 2004, for which proper public notice and advertisement was given. The purpose of the hearing was to consider proposed amendments to the Marion County Comprehensive Plan to take exceptions to Statewide Land Use Planning Goals 11—Public Facilities and Services and 14—Urbanization for certain properties to share a septic system at the Aurora State Airport. All persons present during the public hearing were given the opportunity to speak or present written statements.

SECTION III. Adoption of Findings and Conclusion

The Board has reviewed the evidence and testimony in the record. The amendments to the Marion County Comprehensive Plan made hereunder are based on consideration and analysis of existing Marion County Comprehensive plan goals and policies and zoning regulations and the provision of ORS Chapters 197 and 215, Oregon Administrative Rules 660 Divisions 4, 11, 14, 8, and 33, and the State Land Use Planning Goals.

After careful consideration of all facts and evidence in the record, the Board adopts as its own the Facts and Findings contained in Exhibit A, attached hereto, and by this reference incorporated herein. The properties which are granted goal exceptions are shown on the map attached as Exhibit B, attached hereto, and by this reference incorporated herein.

SECTION IV. Action

The exceptions to Goals 11 and 14 to permit six parcels at the Aurora Airport to share an existing septic disposal system are **GRANTED**.

SECTION VI. Severability

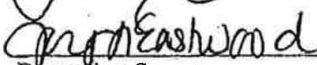
Should any section, subsection, paragraph, sentence, clause, or phrase of this Ordinance or any policy, provision, findings, statement, conclusion, or designation to a particular land use or area of land, or any other portion, segment or element of this Ordinance or of any amendments thereto and adopted hereunder, be declared invalid for any reason, such declaration shall not affect the validity and continued application of any other portion or element of this Ordinance or amendments to the Comprehensive Plan; and if this Ordinance or any portion thereof should be held to be invalid on one ground, but valid on another, it shall be construed that the valid ground is the one upon which this Ordinance of any portion thereof was enacted.

SECTION VII. Effective Date

Pursuant to Ordinance 669, this is an administrative Ordinance and shall take effect 21 days after the adoption and signatures of the Marion County Board of Commissioners.

SIGNED and FINALIZED this 13 day of October, 2004 at Salem, Oregon.

MARION COUNTY BOARD OF COMMISSIONERS


Chair

Recording Secretary

JUDICIAL NOTICE

Oregon Revised Statutes (ORS) Chapter 197.830 provides that land use decisions may be reviewed by the Land Use Board of Appeals (LUBA) by filing a notice of intent to appeal within 21 days from the date this ordinance becomes final.

Exhibit A

**Facts and Findings:
Exceptions to Goals 11 and 14**

BACKGROUND:

In 1999, the applicants received approval from the Oregon Department of Environmental Quality (DEQ) to construct a recirculating gravel filter septic disposal system which was intended to serve six parcels at the southern end of the Aurora. After constructing the system, the applicants were informed by DEQ that Goal 11 forbids the extension of septic lines across property lines and an exception to Goal 11 would have to be taken in order to connect and operate the system.

In June 2003, the applicants applied for a comprehensive plan change to take an exception to Goal 11 to permit shared septic facilities. Staff from the Department of Land Conservation and Development commented that the Goal 11 exception would have to be accompanied with either an exception to Goal 14, because the Public zone at that time did not comply with Goal 14 requirements, or amendments to the Public zone that would bring it into compliance with Goal 14 requirements for rural uses outside of rural communities.

The county was involved in a periodic review task to amend the rural zoning ordinance to comply with Goal 14 and the applicants agreed to place their application on hold until the Goal 14 issues were resolved regarding the Public zone. On July 28, 2004, the Marion County Board of Commissioners adopted amendments to the Marion County Rural Zoning Ordinance which brought the code into compliance with Goal 14 requirements. Subsequently, this application was taken off hold and the applicants requested that the Board call-up the request and hold the first evidentiary hearing. Notice of public hearing was mailed on September 1, 2004 to property owners within 500 feet of the subject parcels. Notice was also published in the Statesman-Journal.

On September 22, 2004, the Board held a public hearing to consider amendments to the Marion County Comprehensive Plan taking exceptions to Goals 11 and 14 for an existing shared septic system for six parcels at the southern end of the Aurora Airport. The Board closed the hearing and directed staff to prepare an ordinance taking those exceptions.

FACTS:

1. The subject properties are designated Public in the Marion County Comprehensive Plan and are correspondingly zoned P (PUBLIC) under the Marion County Rural Zoning Ordinance (MCRZO). The purpose of the Public designation and zone is to provide regulations governing the development of land appropriate for specific public and semi-public uses.

2. The properties are located on the north side of Keil Road NE, approximately 1,700 feet west of the intersection of Airport Road NE and Keil Road. The parcels contain aircraft related facilities and are proposed for additional development in the future.
3. Adjacent properties to the southwest, west, east, and north are zoned P and contain the Aurora Airport and airport related uses and businesses. Properties to the south are zoned EFU (EXCLUSIVE FARM USE) and are devoted to farm use.
4. The airport facility was constructed at this site in 1943 to provide an emergency alternate field for carrier aircraft. It has been in operation as an airport, and zoned public, since that time. Since before 1968, additional land east of the runway and north of Keil Road has also been zoned public and closely associated with the airport. Between 1968 and 1981, properties to the south of Arndt Road and east of the runway were rezoned to public and developed with airport uses. In 1981, the airport facility, and surrounding airport related uses in the public zone, were acknowledged as exceptions in the Marion County Comprehensive Plan.
5. The 1976 Airport Master Plan was adopted by Marion County as part of its comprehensive plan. The adoption included a committed exception area to Statewide Planning Goal 3 of approximately 250 acres at the Aurora State Airport. In 1994, an exception for an additional 1.86 acres was taken and acknowledged to add land to the southwest of the airport. The County's Airport Overlay Zone, Marion County Rural Zoning Ordinance (MCRZO) Chapter 177 has been applied to both the 1981 exception area and the area added in 1994.
6. In Legislative Amendment 03-3, which amended the Marion County Rural Zoning Ordinance to comply with Goal 14 requirements for rural exception areas, an exception to Goal 14 for size of use was approved for airport related uses at the Aurora State Airport due to its being developed with a use that is urban in nature and requiring urban styled development to support the existing uses.

COMMENTS:

7. Marion County Building Inspection commented that based on the information submitted in the attached site plan, Building Inspection cannot make a determination on the permit requirements.
8. The FAA commented, "on-airport development requires submittal to FAA of FAA Form 7460-1, off-airport development requires submittal of separate form 7860-1, concurrence of Oregon Dept. of Aviation required for on-airport development, recommended for off-airport development."
9. All other contacted agencies stated that they had no objections or had not commented at the time the staff report was prepared. All comprehensive plan changes are subject to review by the State Department of Land Conservation and Development (DLCD).

DLCD's comments are contained in the file and explained in the background section of this report.

ANALYSIS:

10. Goal 11—Public Facilities and Services states: "Local Governments shall not allow the establishment or extension of sewer systems outside urban growth boundaries or unincorporated community boundaries...." The Goal defines "extension of a sewer or water system" as "the extension of a pipe, conduit, pipeline, main, or other physical component from or to an existing sewer or water system in order to provide service to a use that was not served by the system on the applicable date of this rule...."

Goal 14—Urbanization prohibits the establishment of urban services on rural lands and the shared septic facility constitutes a urban level of service as defined by Goal 11. Because of this, an exception to Goal 14 will have to be taken along with an exception to Goal 11.

11. The exception requirements for land physically developed to uses other than those allowed by the applicable goal is set forth in OAR 660-004-0025:

- (1) A local government may adopt an exception to a goal when the land subject to the exception is physically developed to the extent that it is no longer available for uses allowed by the applicable goal.
- (2) Whether land has been physically developed with uses not allowed by an applicable Goal will depend on the situation at the site of the exception. The exact nature and extent of the areas found to be physically developed shall be clearly set forth in the justification for the exception. The specific area(s) must be shown on a map or otherwise described and keyed to the appropriate findings of fact. The findings of fact shall identify the extent and location of the existing physical development on the land and can include information on structures, roads, sewer and water facilities, and utility facilities. Uses allowed by the applicable goal(s) to which an exception is being taken shall not be used to justify a physically developed exception.

12. It was determined previously in Legislative Amendment Case No. 03-3 that the existing airport-related development at the airport exceeds the size limitations for commercial and industrial uses allowed by Goal 14 and the Unincorporated Communities Rule and an exception was taken to permit continued development to occur at a level consistent with existing development at the airport. The Land Use Board of Appeals (LUBA) recognized that the level of development at the airport would likely require exceptions to Goals 11 and 14, referring to the Aurora State Airport as an "urban public facility" and commenting that the text of an exception "probably could be very similar to that required for the proposed exception to Goal 3," an exception which was subsequently acknowledged by LCDC. *Murray et al. v. Marion County*, 23 Or LUBA 268 (1992).

13. OAR 660-014-0040 sets forth the criteria for taking an exception to Goal 11—Public Facilities and Goal 14—Urbanization:

- (1) As used in this rule, "undeveloped rural land" includes all land outside of acknowledged urban growth boundaries except for rural areas committed to urban development. This definition includes all resource and nonresource lands outside of urban growth boundaries. It also includes those lands subject to built and committed exceptions to Goals 3 or 4, but *not* developed at urban density or committed to urban level development.
- (2) A county can justify an exception to Goal 14 to allow incorporation of a new city or establishment of new urban development on undeveloped rural land. Reasons which can justify why the policies in Goals 3, 4, 11, and 14 should not apply can include but are not limited to findings that an urban population and urban levels of facilities and services are necessary to support an economic activity which is dependent upon an adjacent or nearby natural resource.
- (3) To approve an exception under this rule, a county must also show:
 - (a) That Goal 2, Part II(c)(1) and (c)(2) are met by showing the proposed urban development cannot be reasonably accommodated in or through expansion of existing urban growth boundaries or by intensification of development at existing rural centers;
 - (b) That Goal 2, Part II(c)(3) is met by showing the long-term environmental, economic, social and energy consequences resulting from urban development at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located on other undeveloped rural lands, considering:
 - (A) Whether the amount of land included within the boundaries of the proposed urban development is appropriate, and
 - (B) Whether urban development is limited by the air, water, energy and land resources at or available to the proposed site, and whether urban development at the proposed site will adversely affect the air, water, energy and land resources of the surrounding area.
 - (c) That Goal 2, Part II(c)(4) is met by showing the proposed urban uses are compatible with adjacent uses or will be so rendered through measures designed to reduce adverse impacts considering:
 - (A) Whether urban development at the proposed site detracts from the ability of existing cities and service districts to provide services; and

- (B) Whether the potential for continued resource management of land at present levels surrounding and nearby the site proposed for urban development is assured.
 - (d) That an appropriate level of public facilities and services are likely to be provided in a timely and efficient manner;
 - (e) That incorporation of a new city or establishment or new urban development of undeveloped rural land is coordinated with comprehensive plans of affected jurisdictions and consistent with plans that control the area proposed for incorporation.
14. The Aurora Airport has been in place since 1943 and airport related uses have been associated with the airport since before 1968. The airport consists of properties in multiple ownerships providing a wide range of aviation-related and support services such as aircraft instruction, rental, maintenance, charter, sales, avionics sale and repair, aircraft construction, storage, fueling, helicopter maintenance and fueling, aerial photography, and others. This airport provides necessary air transportation services to businesses and individuals in Marion, Clackamas, Washington and Multnomah counties, enhancing the economy of the region and the state. The airport facility depends on its location, and the commercial, industrial and population centers and growth in the area, for its viability and necessity. This state airport facility is uniquely able to provide services to the surrounding rural area and nearby communities, as well as a connection to other urban airports because of its proximity to the Interstate 5 corridor and Highway 99E, the county roadway system, Clackamas County and the south Metro area. In addition, the need for airport transportation facilities is recognized in the Marion County Comprehensive Plan (MCCP).
- The Aurora State Airport is needed to serve the economic and air transportation needs of the surrounding community which is dependent upon the existing location of the airport. The criteria in 13(1) and 13(2) are met.
15. The nearest UGB is that of the City of Aurora, approximately 1500 feet to the southeast of the airport. The land between the existing UGB and the airport boundary is resource land. The City of Aurora originally proposed that the airport be included in the UGB when it was going through acknowledgement; however, this was not approved by LCDC and the UGB was reduced to the present area. It continues to be unreasonable to extend the UGB this distance due to the amount of intervening resource land at this time. There are also no rural centers which could encompass the proposed exception area. The closest rural center, Fargo Interchange, is over 9,000 feet west of the airport. The criterion in 13(3)(a) is met.
16. The criteria in 13(3)(b) require that the long-term environmental, economic, social and energy consequences resulting from urban development at the proposed site not be significantly more adverse than would result from the same proposal being located on

other undeveloped rural lands. Because the Aurora Airport is already developed with airport and airport-related uses, and because of its demonstrated need to be located where it currently is, as explained in #14, there are no alternative locations being considered requiring the use of undeveloped land.

Additionally, information provided by the applicant demonstrates that developing the properties with septic or holding tanks would be much more expensive than using a shared septic system.

Also there are environmental concerns developing with septic systems on the subject properties. The soils on the subject properties are not optimum soils for septic systems and can be difficult to locate a system on an individual property. A shared septic also provides the opportunity to process the effluent in a more complete manner that can be certified to meet Leadership in Energy and Environmental Design (LEED) standards.

Considering the lack of alternatives locations for the airport, as well as the benefits economically and environmentally and the potential for positive affects on the air, water, energy and land resources of properties and surrounding area, the criteria in 13(3)(a) and (b) are met.

17. Public facilities are not provided by any of the surrounding cities or service districts. The airport has existed surrounded by resource land and uses since 1943. During that time there has been no evidence that the airport has reduced the potential for continued resource management of land surrounding the airport. Aside from a runway extension, no expansion of airport facilities has occurred historically and no expansion of facilities is proposed in the airport master plan. There is no evidence that a shared septic system for the subject properties will adversely impact surrounding property uses. The criterion in 13(3)(c) is met.
18. The airport has established an Aurora Airport Water Control District to provide a fire suppression water system. Development on the subject properties would still be limited to the capacity of systems in place, including holding tanks, which would serve the uses. Although the City of Aurora sewer system became operational in 2001, there are no plans to extend the system to the airport, at this time, nor has any determination been made of the capacity of the city system to serve the airport. The criterion in 13(3)(d) is met.
19. No incorporation of a new city or establishment is proposed. Any new urban development of undeveloped rural land will be coordinated with the comprehensive plans of affected jurisdictions and applicable zoning. The criterion in 13(3)(e) is met.
20. OAR 660-004-0018 states that for "physically developed" and "irrevocably committed" exceptions to goals, plan, and zone designations shall authorize a single numeric minimum lot size and shall limit uses, density, and public facilities and services to those:
 - (a) Which are the same as the existing land uses on the exception site; or

- (b) Which meet the following requirements:
 - (A) The rural uses, density, and public facilities and services will maintain the land as "Rural Land" as defined by the goals and are consistent with all other applicable Goal requirements; and
 - (B) The rural uses, density, and public facilities and services will not commit adjacent or nearby resource land to nonresource use as defined in OAR 660-004-0028; and
 - (c) The rural uses, density, and public facilities and services are compatible with adjacent or nearby resource uses.
21. The proposal does not change the allowable commercial or industrial uses at the airport. The purpose of the exception is to allow a shared septic system to serve six parcels at the airport, consistent with the existing urban level of development already existing at the airport. There is no evidence that an exception to permit a shared septic will not commit adjacent or nearby resource land to nonresource use as defined in OAR 660-004-0028. The proposal satisfies the criterion in 20(a) and (b).
22. The airport has a history of being compatible with adjacent and nearby resources uses since its inception over sixty years ago. There is no evidence that allowing the subject properties to share a septic system will be incompatible with surrounding resource uses. The shared septic will be located on the properties where the septic is shared and will not commit surrounding land to nonresource uses. The surrounding resource uses have also been compatible with airport uses. The master planning process, which the Oregon Department of Aviation recently completed for the airport in 2000, requires consideration of National Environmental Protection Act (NEPA) requirements as well as compatibility with surrounding uses. The proposal satisfies the criterion in 20(c).
23. In addition to providing procedures, the M CCP provides guidelines and policies to ensure compatibility with the adopted comprehensive plan and consistency in the planning process. The first guideline is that the proposal should comply with the Statewide Planning Goals that apply in a particular situation. This proposal must be consistent with all applicable Statewide Planning Goals except Goals 3, 11 and 14 for which exceptions have been taken.
24. The proposal is consistent with Statewide Planning Goal 1—Citizen Involvement, which provides for citizen involvement in the planning process. Notice was sent of the request for goal exceptions. A public hearing will be held before the Board of Commissioners where concerned citizens will have the opportunity to provide comment and make suggestions.

The application is consistent with Goal 2—Land Use Planning since the proposal is consistent with the County's acknowledged comprehensive plan. Moreover, appropriate analysis of the exception provisions have been provided with regard to Goals 11 and 14.

Goals 3—Agricultural Lands, 4—Forest Lands and 5—Open Spaces, Scenic and Historic Areas, and Natural Resources are not applicable to this proposal.

Because the airport and related uses already exist, and the proposal seeks to maintain development at the existing level of uses and sizes, there is no evidence that the proposal will impact air, water or land resource quality over any impacts of the existing airport. Development within the public zone is subject to standards that address and seek to minimize adverse impacts to surrounding uses and resources. The proposal is consistent with Goal 6—Air, Water and Land Resources Quality.

The airport is not in an area subject to natural disasters; the proposal is consistent with Goal 7—Areas Subject to Natural Disasters and Hazards.

Goal 8—Recreational Needs is not applicable to this proposal.

The proposal is consistent with Goal 9—Economic Development. The subject properties are needed to serve commercial, industrial, and public uses in the surrounding community. Allowing development to continue at sizes commensurate with existing development will sustain the economic viability of the airport. The airport and associated uses provide employment to the area and in the state. Employment at the airport should also increase as use of the airport continues to increase as described in the Aurora State Airport Master Plan.

Goal 10—Housing is not applicable to this proposal.

The proposal is consistent with Goal 12—Transportation because the airport is necessary to serve the aviation needs of users at the airport and the surrounding communities. The location of this airport has also been demonstrated to be necessary because neighboring cities and communities do not provide public airport facilities. In addition, the airport is either bordered by or in close proximity to major road facilities, the Interstate 5 corridor, Hubbard Cutoff Road, Highway 99E, Arndt Road, Keil Road, and Airport Road, which provide the traveling public access to and from the airport for both persons and freight.

Goals 13—Energy Conservation, 15—Willamette River Greenway, 16—Estuarine Resources, 17—Coastal Shorelands, 18—Beaches and Dunes and 19—Ocean Resources do not apply to this proposal.

Overall, the proposal is in compliance with the Statewide Planning Goals or an appropriate exception has been taken.

25. The proposal must also conform to the relevant policies in the comprehensive plan. In discussing this requirement, only relevant comprehensive plan policies will be mentioned.

Rural Services Policy #1: The impact on existing services and the potential for additional facilities should be evaluated when rural development is proposed.

Rural Services Policy #2: It is the intent of Marion County to maintain the rural character of areas outside of urban growth boundaries by allowing those uses that do not increase the potential for urban services.

Rural Services Policy #3: Only facilities and services that are necessary to accommodate planned rural land uses should be provided unless it can be shown that the proposed service will not encourage development inconsistent with maintaining the rural density and character of the area.

Rural Services Policy #4: The sizing of public or private service facilities shall be based on maintaining the rural character of the area. Systems that cannot be cost effective without exceeding the rural densities specified in this Plan shall not be approved. The County shall coordinate with private utilities to ensure that rural development can be serviced efficiently.

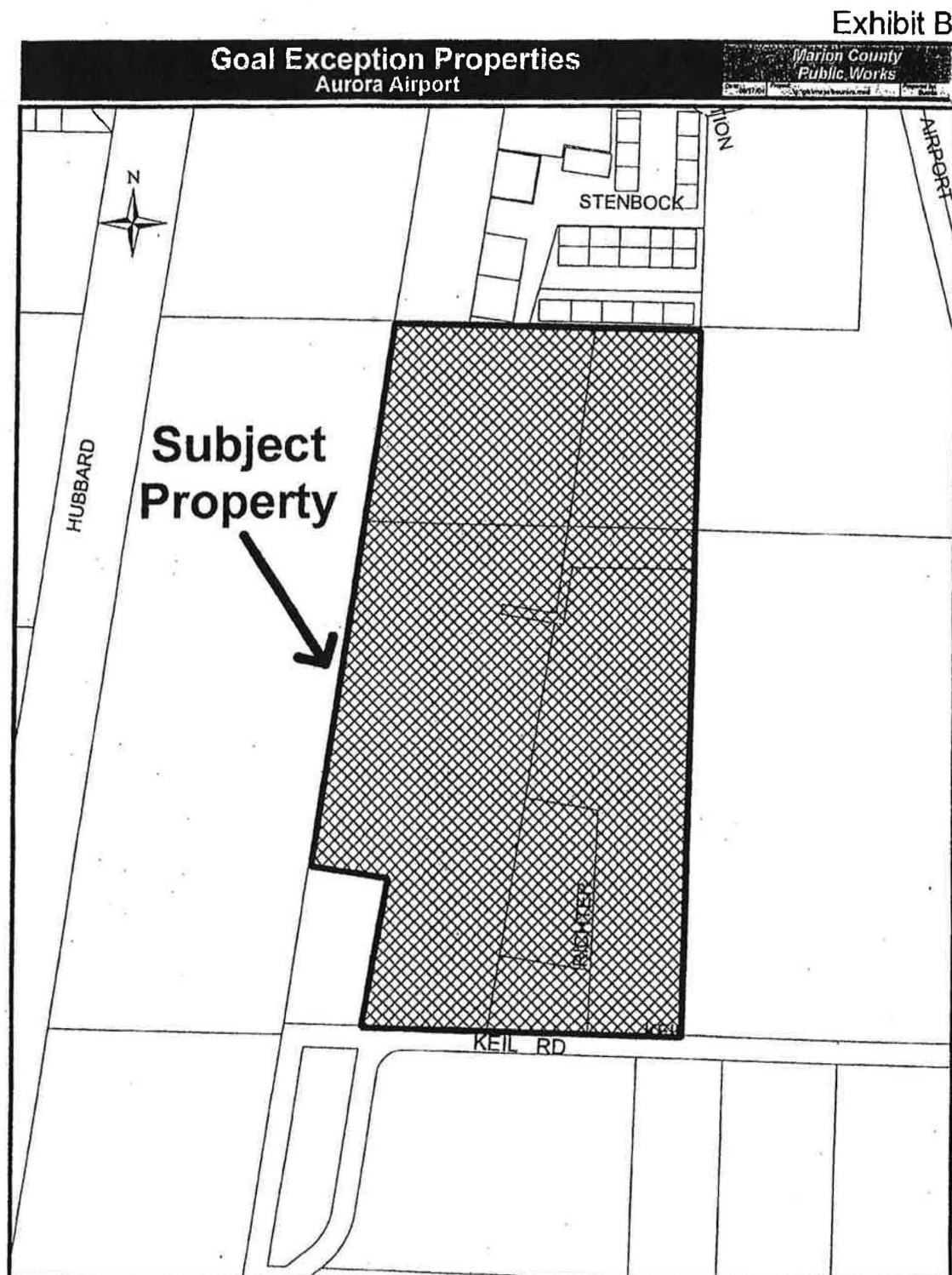
Any new development on the subject properties will be airport-related and similar to, and no more intensive than, existing development. There is no evidence that the existence of the airport since 1943 has increased the need for urban services or that the development at the airport has impacted the density or character of the rural area. The shared septic facility reflects the urban nature of uses at the airport while not committing the parcels to a fully urban level of development. The parcels would still be able to be developed with urban facilities once those became available. The proposal complies with the rural development policies.

Transportation Policy #8: Airports and airstrips shall be located in areas that are safe for air operations and compatible with surrounding uses.

The existing location of the airport has demonstrated it is in a safe location for air operations. There have been concerns from neighboring residential areas regarding noise at the airport. Efforts have been made over the years to reduce the level of noise associated with airport operations. This proposal will not have an impact on airport operations and, so, will not affect the level of noise produced at the airport. The fact that many of the surrounding lands are in resource zones helps to mitigate the impact of noise from the airport on those lands and surrounding urbanized uses. The proposal complies with applicable transportation policies.

CONCLUSION:

The Board finds that the proposed exceptions meet the applicable criteria in the Oregon Administrative Rules, Oregon Revised Statutes, Statewide Planning Goals, and the Marion County Comprehensive Plan that physically developed and reasons exceptions to Goals 11 and 14 are justified for the subject properties to be able to share a septic system at the Aurora State Airport.



AREA 2.1 - AURORA AIRPORT

Total Acreage 250
Total Parcels 9
Occupied Parcels 5

Plan Designation: Public Use
Zoning: P (Public)

Findings and Conclusions

1. Approximatley 140 acres of this area is owned and operated by the state of Oregon as public airport. The long narrow strip paralleling State Highway 144 contains the runway.
2. Many of the other developed parcels contain private airport related commercial businesses.
3. The entire area is identified in the State Board of Aeronautics Master Plan as being needed for future airport facilities. It is, therefore, recognized by Marion County as being committed to airport related development.

AREA 2.2 - SUNSET HAVEN

Total Acreage 10
Total Parcels 35
Occupied Parcels 34

Plan Designation: Rural Residential
Zoning: AR (Acreage Residential)

Findings and Conclusions

1. This area is a subdivision platted in 1968 creating thirty-five 10,000 square foot lots.
2. All but one of the 10,000 square foot lots presently contain dwellings and the area is therefore developed.

AREA 2.3 - DEER CREEK

Total Acreage 82
Total Parcels 148
Occupied Parcels 121

Plan Designation: Rural Residential
Zoning: AR (Acreage Residential)

Findings and Conclusions

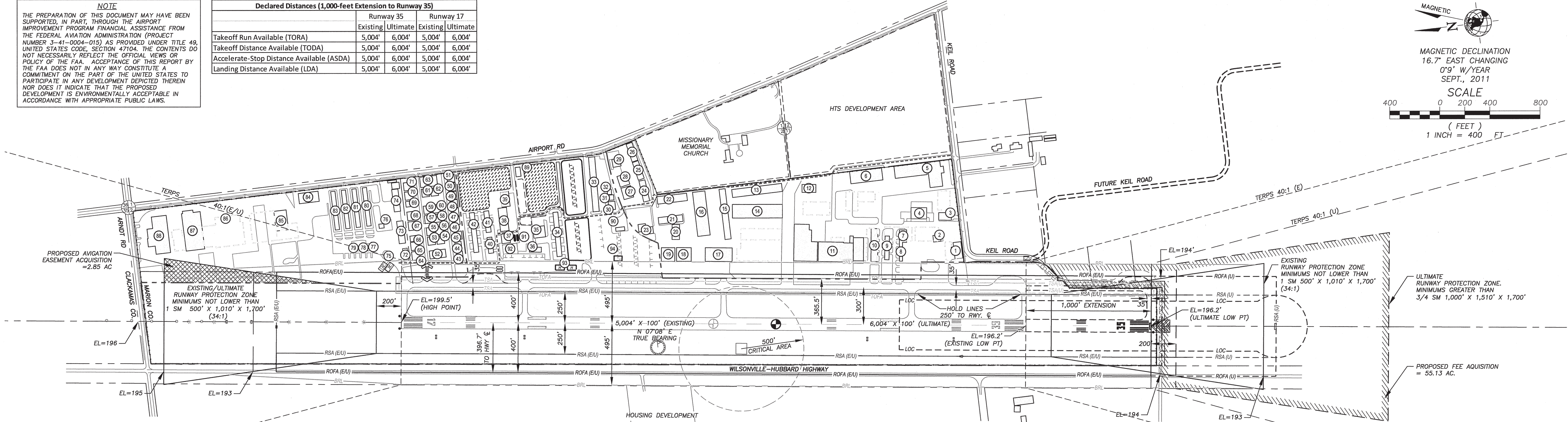
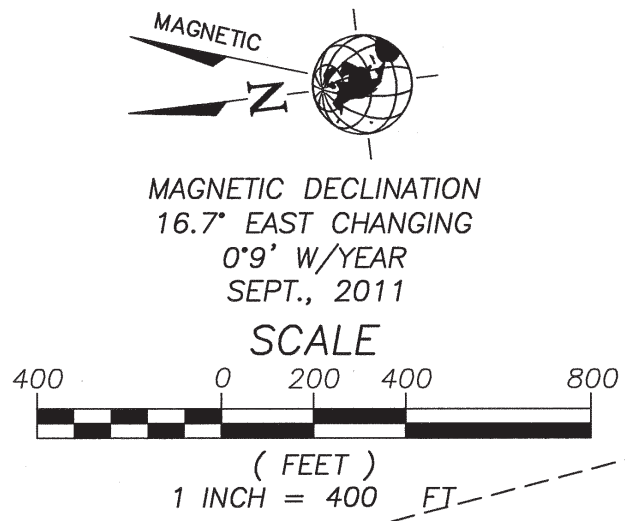
1. Deer Creek Estates Subdivision (1971), with approximately 10,000 square foot lot sizes, occupies 53 acres of this area. This subdivision is 90 percent occupied with dwellings and is therefore developed.
2. An additional seven acres at the southwest corner of the area was platted in 1974 into five lots as Cederfield Subdivision. Two dwellings occupy this subdivision with the remaining three lots committed to future development.

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NOTE
THE PREPARATION OF THIS DOCUMENT MAY HAVE BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEDERAL AVIATION ADMINISTRATION (PROJECT NUMBER 3-41-0004-015) AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

Declared Distances (1,000-foot Extension to Runway 35)			
	Runway 35		Runway 17
	Existing	Ultimate	Existing Ultimate
Takeoff Run Available (TORA)	5,004'	6,004'	5,004' 6,004'
Takeoff Distance Available (TODA)	5,004'	6,004'	5,004' 6,004'
Accelerate-Stop Distance Available (ASDA)	5,004'	6,004'	5,004' 6,004'
Landing Distance Available (LDA)	5,004'	6,004'	5,004' 6,004'



Runway 17/35 Data		
	Existing	Ultimate
Percent Effective Gradient	0.06%	Same
Percent Wind Coverage (10.5 kts)	98.93%	Same
Maximum Elevation Above MSL	199.5'	Same
Runway Length	5,004'	6,004'
Runway Width	100'	Same
Runway Surface Type	Asphalt	Same
Runway Strength (Dual Wheel Gear)	45,000 lbs	60,000 lbs
FAR Part 77 Approach Category		
Runway 17	C (NP)	Same
Runway 35	C (NP)	D (NP)
Approach Type		
Runway 17	Nonprecision	Same
Runway 35	Not lower than 1 sm	Same
Approach Slope (Required / Clear)		
Runway 17	34:1 / 34:1	Same
Runway 35	Not lower than 1 sm	Not lower than 3/4 sm
Runway Lighting		
Runway 17	MIRL	Same
Runway 35	Precision	Same
Taxiway Lighting		
Runway 17	MTL / Reflectors	Same
Runway 35	Standard	Same
Navigation Aids		
Runway 17	LOC/DME, NDB	Same
Runway 35	ODALS, VASI, REIL	ODALS, PAPI, REIL
Runway Safety Area Dimension		
Runway 17	500' x 1,000' beyond rwy end	Same
Runway 35	800' x 1,000' beyond rwy end	Same
Runway Obstacle Free Zone (OFZ)		
Runway 17	No OFZ Penetrations	Same
Runway End Coordinates		
Runway 17	Latitude 45°15'14.166"N	Same
Runway 35	Latitude 45°14'25.148"N	Same
Runway 17	Longitude 122°46'07.828"W	Same
Runway 35	Longitude 122°46'16.515"W	122°46'18.251"W

Airport Data		
	Existing	Ultimate
Airport Elevation (MSL)	199.5'	Same
Airport Reference Point (ARP)		
Latitude	45°14'54.085"N	45°14'44.758"N
Longitude	122°46'11.405"W	122°46'13.040"W
Mean Maximum Temperature	84°	Same
Airport Reference Code (ARC)	C-II	C-II
Airport Service Level	General Aviation	Same
Design Aircraft	IAI Astra 1125	Cessna Citation X

Notes
Horizontal datum is NAD 1983, vertical datum is NAVD88.
The Airport is flat. Elevations / ground contours vary by less than 5 feet and are not shown. Drainage features are typically 2-3 feet lower than adjacent land.
Building restriction line is based on a 35-foot building located 495 feet from the runway centerline not penetrating FAR Part 77 surfaces for the Airport.
A Residential Through The Fence (RTTF) access exists at hangar #64 at the Wylee Condominium Association. The tenant is the resident caretaker for the airport.

Legend		
	EXISTING	ULTIMATE
AIRPORT PROPERTY LINE	---	---
FEE ACQUISITION	---	SAME
AVIGATION EASEMENT ACQUISITION	---	SAME
ON-AIRPORT BUILDING	---	---
OFF-AIRPORT BUILDING	---	---
FENCE	---	SAME
AIRPORT REFERENCE POINT	---	---
BUILDING RESTRICTION LINE (35' AGL) (BRL)	---	SAME
RUNWAY SAFETY AREA (RSA)	---	---
RUNWAY OBJECT FREE AREA (ROFA)	---	---
RUNWAY PROTECTION ZONE (RPZ)	---	---
EXTENDED RUNWAY CENTERLINE	---	SAME
DISPLACED THRESHOLD	N/A	---
RUNWAY HOLDLINE	---	SAME
TAXIWAY SAFETY AREA (TSA)	---	---
TAXIWAY OBJECT FREE AREA (TOFA)	---	---
SERVICE ROAD	N/A	---
HANGAR DEVELOPMENT AREA	---	SAME
APRON / TIEDOWN AREA	---	---
WINDCONE & SEGMENTED CIRCLE	---	---
VASI	---	SAME
PAPI	N/A	SAME
REIL	---	SAME
ODAL	---	---
LOCALIZER	---	---
LOCALIZER CRITICAL AREA	---	SAME
CARGO APRON	N/A	---
PAVEMENT	---	---
PAVEMENT REMOVAL	---	SAME
FUEL TANKS	---	---
HELICOPTER PARKING	---	---
RESIDENTIAL THROUGH THE FENCE ACCESS (RTTF)	---	SAME

Modifications to Standards		
	Standard Being Modified	Proposed Action
1	Advisory Circular (AC) 150/5300-13, para 307 (Runway Object Free Area)	The standard runway object free area (OFA) for Airport Reference Code C-II airports is 800 feet. Highway 551 runs north/south parallel to Runway 17/35; the approximate distance from the Runway 17/35 centerline to the Highway 551 centerline is 400 feet. As the airport geometry is not changing from the current condition, the Oregon Department of Aviation (ODA) requests a modification of the OFA design standard to allow the runway and highway to remain in their current positions.
2	AC 150/5300-13, Appendix 14 (Declared Distances)	The ODA requests the existing threshold for Runway 17 be referenced in determining FAR Part 77 surfaces and design standard surfaces referenced in AC 150/5300-13 (i.e., RSA, RPZ, OFA, OFZ).

Airport Facilities and Buildings Legend			
Building No.	Name / Owner	Use	Estimated Top Elevation (AGL)
Existing Ultimate			
1	Leased by Aurora Jet Center	Maintenance, Aircraft Storage	27'
2	Aurora Jet Center	Fixed Base Operator	22'
3	Private Southend Hangar	Aircraft Storage	19'
4	BPS Associates	Aircraft Storage	23'
5	Van's Aircraft	Business	30'
6	Artex	Business	26'
7, 8	Foxtrot Hangars / Southend Airpark	Aircraft Storage	21'
9	Hangar Row G / Southend Airpark	Aircraft Storage	13'
10	Hangar Row H / Southend Airpark	Business, Aircraft Storage	21'
11	Hangar India, Juliet & Kilo / Southend Airpark	Business, Aircraft Storage	38'
12	Winco	Business	29'
13	Hangar November / Southend Airpark	Business, Aircraft Storage	29'
14	Hangar Mike / Southend Airpark	Business, Aircraft Storage	31'
15 - 17	Airport Aviation Condo Association	Aircraft Storage	32'
18	Airport Aviation Condo Association	Aircraft Storage	32'
19	Aurora Aviation	Maintenance	26'
20 - 22	Airport Aviation Condo Association	Aircraft Storage	25'
23	Columbia Aviation Association	Clubhouse	21'

Airport Facilities and Buildings Legend			
Building No.	Name / Owner	Use	Estimated Top Elevation (AGL)
Existing Ultimate			
24 - 26	Meridian Condos	Business	23'
27 - 29	Pacific Coast Aviation	Business	26'
30 - 33	Oregon Dept. of Aviation	Aircraft Storage	25'
34	Columbia Helicopters	Aircraft Storage	22'
35	Columbia Helicopters	Maintenance	28'
36	Aurora Aviation	Fixed Base Operator	16'
37	Pitts Hangar	Aircraft Storage	26'
38 - 42	Aurora Business Park	Aircraft Storage	25'
43 - 71	Wylee Condo Association	Aircraft Storage	27'
72	Civil Air Patrol Building	Aircraft Storage	26'
73	Sunset Helicopters	Business	26'
74	Aerometal	Business	27'
75	Willamette Aviation	Aircraft Fueling	7'
76	Willamette Aviation	Fixed Base Operator	12'
77 - 83	Willamette Aviation	Aircraft Storage	16'
84	Marlow Treit	Aircraft Storage	22'
85 - 88	Columbia Helicopters	Business	30'
89	Fire Suppression Tanks	Fire Suppression	12'
90	Aurora Rural Fire Protection District	Emergency Response	TBD
91	Aurora Aviation	Aircraft Fueling	16'
92	Oregon Dept. of Aviation	Cargo Apron	N/A
93	Oregon Dept. of Aviation	Helicopter Parking	N/A
94	Oregon Dept. of Aviation	Air Traffic Control Tower	90'

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APPROVAL BLOCK	
OREGON DEPARTMENT OF AVIATION	
SIGNATURE <i>Markus J. Smith</i>	DATE: 10/17/2012
TITLE <i>Director</i>	
FEDERAL AVIATION ADMINISTRATION	
SIGNATURE <i>Carol J. Smith</i>	DATE: 10/18/12
TITLE <i>Manager, Statewide ADO</i>	
APPROVAL LETTER DATED: 10/19/12	

SHEET INFO	
DESIGNED	SML
DRAWN	RAI
CHECKED	REA
APPROVED	---
LAST EDIT	10/17/2012
PLOT DATE	6/28/2012
SUBMITTAL	

REVISIONS	
NO.	BY DATE REMARKS

AIRPORT LAYOUT PLAN DRAWING		
OREGON DEPARTMENT OF AVIATION AURORA STATE AIRPORT ~ MASTER PLAN UPDATE		
PROJECT NUMBER 034317	DRAWING FILE NAME 034317-XREF-MSTR-ALP	SCALE 1"=400'

SHEET NUMBER	
1	
2 of 10	

Re: Comments regarding Refined Alternative Plan, Aurora State Airport

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 11:52 AM

To Dave Mauk <dave@charbonneaucountryclub.com>

Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>;
Samantha Peterson <SPeterson@CenturyWest.com>

 1 attachment (70 KB)

Comment-AMP-final.pdf;

Received, thank you Dave!

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

From: Dave Mauk <dave@charbonneaucountryclub.com>

Sent: Tuesday, January 21, 2025 11:50 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Comments regarding Refined Alternative Plan, Aurora State Airport

Brandi -

Thank you for entering the attached comments to the record of the Airport Master Plan.

Yours -

--

Dave

David E. Mauk

Charbonneau Country Club | Board Member

Chair, Civic Affairs Committee

January 20, 2025

Comments Submitted In Reference to the Refined Preferred Alternative:

The role of ODAV advocating for expanding Aurora State Airport appears in conflict with their role in maintaining statewide aviation safety. Over the past dozen years, ODAV has shown a disproportionate interest in Aurora Airport. Its actions in appealing to the special interests of a small, elite group of operators as clients, resemble a chamber of commerce lobbying effort.

The immediate communities impacted by more noise overhead, more surface traffic, and less safety, are not given ample weight in the Refined Preferred Alternative (plan). One would never know that this airport is next to thousands of people living in several residential communities. The plan is heavily weighted to special interests favoring expansion, while ignoring neighbors' concerns.

At what point is it government malfeasance that an agency of the State of Oregon is seriously considering tens of millions spent at a constrained site with a 5,000 foot landing strip, overwhelmingly handling light and medium aircraft, when two under-capacity, flight-ready, full service airports, sized for large, heavy aircraft, are both about 20 nautical miles away?

ODAV is serving the special interests of transient aircraft, wealthy out-of-state operators, and highly affluent owners of multimillion dollar, elite jets. This is while disregarding communities whose quality of life, property values, and safety are at risk by the plan. The airport is in an agricultural district of fertile soils and stable crops. More pollutants in the air and on the ground threaten this. The plan disrespects the local community and disregards the risks it imposes.

Aurora State Airport served as a back-up landing strip for the military during WWII. It provided air patrols, support and training. It did not handle large aircraft and heavy payloads. Today it has a civil air patrol base, is home for a regional air ambulance service, and both an aircraft and avionics manufacturer. All of these activities are supported by our local communities. As are the other jobs and businesses based at the airport, and others that are in the vicinity because of it.

None of these jobs, nor the two helicopter operators, are in jeopardy if the plan is not adopted. This bears repeating. The mechanics and repair shops; aircraft and avionics companies; air ambulance service; flight instruction operations; the two helicopter firms; and, other businesses at the airport who provide services, will all prosper as they do today. One change would be that the airport's relationship with the community would be greatly improved.

Aurora State Airport is currently deficient in its own ability to handle emergencies, fires, security and law enforcement. It has no fire truck. No advanced fire suppression equipment. It has no water source. No sewer. Its drain fields are inadequate. It has no housing, no food service. What it is - is a constrained sight near residential neighborhoods, productive farmland, and adjacent to a busy local arterial road, a even busier state highway, within sight of the congested I-5 interstate. Expanding the airport at this location to attract larger aircraft is a fool's errand with the plan lacking community benefits, when multiple, fully operational airports are 12 minutes away through the air.

Aurora Airport, constructed as a flight strip, is a general aviation facility on a constrained site with that landing strip. Its users are over 90% piston, turbo prop and light to medium jet aircraft. All of which can continue to use this facility without creating a ODAV trophy airport. The years of providing waivers, drawing up expansion plans, litigation, and spending money that the state doesn't have, is evidence that ODAV is not accountable to the citizens or government of Oregon. It is a travesty that the ambitions of a elite operators, and agency charged with maintaining flight safety in our state, are empire building at the expense of the community where it operates and state taxpayers.

In representing, and on behalf of 3,000 voters of the Charbonneau District of Wilsonville, the Refined Preferred Alternative is firmly opposed. Please reject the plan and find a solution that doesn't degrade the quality of life, property values, safety and land where we live and we call home.

Yours,

Dave

David E. Mauk

Charbonneau Country Club | Board Member

Chair, Civic Affairs Committee

Fw: Public Comment Submission

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-02-05 4:09 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (51 KB)

Letter-ODAV Cathryn Stephens.pdf;

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#) » Email is the best way to reach me; I try to respond within 3 full workdays.

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, February 5, 2025 3:45:38 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Public Comment Submission

FYI, please include in the record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: MORRIS Alexis <Alexis.MORRIS@odav.oregon.gov>

Sent: Wednesday, February 5, 2025 3:44 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Public Comment Submission

Hey Tony and Alex,

Just FYI, I just received this public comment about the Aurora Master plan that was submitted to the board for tomorrow's meeting. It has been forwarded the board for their review.

Alexis Morris

Marketing & Administrative Specialist

State Aviation Board Administrator

Cell: (503) 507-6965

Alexis.morris@odav.oregon.gov

From: Dave Mauk <dave@charbonneaucountryclub.com>

Sent: Wednesday, February 5, 2025 2:49 PM

To: Oregon Department of Aviation <mail.aviation@ODAV.oregon.gov>

Subject: Public Comment Submission

You don't often get email from dave@charbonneaucountryclub.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thank you for recording the attached public comment in the record, & considering it at the State Aviation Board meeting of February 6, 2025.

Respectfully,

--

Dave

David E. Mauk

Charbonneau Country Club | Board Member

Chair, Civic Affairs Committee

February 5, 2025

Dear Chairwoman Stephens and the State Aviation Board,

I am a member of Aurora State Airport PAC and PAAM associations, Charbonneau board member, and chair of its civic affairs committee and transportation task force. Our community, part of the city of Wilsonville, has been interested in the new Airport Master Plan from the outset.

That this has been many years in the making is itself a testament to the trials of Aurora State Airport. I think it's fair to say that it's taken a toll on everyone involved, from airport operators, business owners, officials within the various jurisdictions, and the citizen stakeholders of the surrounding communities. And it seems, it's a plan without a home, since the cost of bringing the constrained Aurora airport up to FAA standards is 'significantly expensive.' In layman's terms it's called a boondoggle.

The estimated cost, the proposed changes to local and state roadways, unreasonable nature of property acquisition, and ramp to years of expensive litigation make this plan reckless and irresponsible. It's obvious that 'there is no way this can be justified for any general aviation airport.' The Airport Master Plan for Aurora State Airport is nothing short of a travesty. At what point does the board say enough is enough? The locals have been loudly saying that. for years.

Was it bureaucracy run amuck? Politics? Behind the scenes manipulation of officials by self-interested parties? Whatever got us to this point, it's clear that what's now before PAC is totally unacceptable. This compounds the earlier bomb that dropped this summer, stating the airfield must conform to C-II, not B-II standards, which reduced the alternative designs to three. This came at a PAC meeting less than 48 hours after showing, and asking the public to pick among seven alternatives. Both of these significant revelations display serious communication breakdowns that crashes trust about the process, its intentions, goals, and ODAV itself.

As someone who has been in the business world my entire career, while serving on numerous corporate and nonprofit boards, the absence of due diligence in financial projections, budgets, return on investment, cost-benefit analysis, financial performance metrics, cost of capital, and source of funding displays a level of incompetency only matched by its irresponsibility.

Aurora State Airport is a constrained site. It makes no sense to spend tens of millions at this location, when other airfields within minutes of minutes of flying time already meet those standards. Go back to the drawing board and find a solution that works for more parties. That works for those underutilized airports in our region that are ready-made for large aircraft, airfreight, charters, executive jets, air commuting, and unmanned drones, that already meet FAA standards. That works for Aurora's neighboring communities who don't want more air traffic, noise and risks to our safety. That works for agricultural businesses threatened by airport expansion. The economic impact of less transient and large jet use is far less than the costs associated with expanding Aurora State Airport. And the jobs currently at the airport will largely be unaffected. In fact, without the threat of ODAV's growth ambitions, employers might be more inclined to hire to grow their businesses..

ODAV, along with FAA's checkbook, has spent \$1 million getting to this point. ODAV is currently using and seeking more tax-payer money from Oregon's general fund, in part for legal fees incurred by Oregon's public process and land use laws. The Oregon public has more of a right than ever to question how their funds are being used. Costly lawsuits are not part of a winning hand. ODAV can not be trusted with further funds, no matter the source, until it proves less reckless with it's budget. Why would the Airport plan, as it exists today, deserve more than maintenance funds?

Another element of this fiasco is addressing ODAV's role in Oregon state aviation. Its public service and safety missions appear grounded by its advocacy role promoting aviation. They don't seem compatible. Aurora's entangled master plan process has revealed that it's time to investigate whether this agency's purpose has crash-landed, and needs to be rebuilt as a public service agency whose primary responsibility is for aviation safety, not aviation growth. Maybe the agency needs to return as a division of ODOT, where it can receive more public accountability.

Aurora State Airport's master plan has been a boondoggle from the start. Airport advocates are few, and are there for their own financial interests. It's about development ambitions not flight safety. It's about a handful of elite individuals, some of whom are not Oregon residents, gaming the system for their own economic benefit, not what it brings to the region. Public benefits are disproportionately below its costs. Expansion advocates long ago lost legitimacy, both in the courts of law and public opinion. Surrounding communities overwhelmingly disapprove of the plan, and will continue their opposition as long as this plan is alive. The community appreciates and respects the civil air patrol and emergency response roles at the airport, that are not compromised by denying the preferred alternative Airport Master Plan.

ODAV enabled the current C-II designation in the first place, by permitting greater non-compliant use of the airport by larger aircraft. It makes sense to find another home for these planes at one of the five underutilized regional airports, all within 24 nautical miles of Aurora Airport, that are fully equipped and designated to handle those aircraft. Both Salem and McMinnville airports have dual, asphalt runways, with their longest exceeding 5,400 feet, instrument landing systems, fire suppression, and full service facilities. Utilizing a neighboring airport conforming to FAA standards is surely a better, more cost effective solution than spending tens of millions on a constrained airport that the community is adamantly opposed to, and is used by few aircraft over 30,000 pounds. Proper due diligence would include an assessment of regional airports as an alternative to expanding Aurora State Airport. Failure to do so is a dereliction of oversight, to the point of negligence.

Data shows B-II to be the proper designation for this general aviation airport where over 90% of operations are aircraft under 15,000 pounds. A plan based on this will easily conform to FAA standards without costly improvements, purchasing private or public land, inviting even more community resistance, and incurring costly law suits, further delaying conformance to standards.

ODAV has made no inroads in the course of all this. No friends. No credibility. No trust. Our communities have suffered through all these years of tension about its future. The flying public and users of Oregon's airports deserve better. ODAV could use a win, too.

It's time to move on from this boondoggle, reset the mission, and provide well maintained, safe airports instead of empire building at a corner of Marion County in a reckless crusade. The city of Salem, itself within Marion County, is home to an up-to-date airport that has 751 acres with asphalt cross runways, roomy taxi ways, excellent facilities, useful service roads, lots of real estate, and easy freeway access. What more could you want? And ODAV doesn't have, nor need to spend tens of millions on a constrained site. Its scarce resources can be better spent on repairing crumbled runways, upgrading worn facilities, and increasing safety at the state's other 27 owned airports.

Pursuing the Airport Master Plan for an airstrip at a constrained site is fiercely opposed by community stakeholders. We believe that the aircraft-ready airports of McMinnville Municipal and Salem-Willamette Valley deserve to be considered by ODAV. And further, we believe the inevitable, common sense conclusion of meeting standards will be a size and designation for a general aviation airport that truly serves public, not elite, nor out-of-state interests.

Respectfully yours,

Dave

David E. Mauk

Charbonneau Country Club
director, civic affairs chair

Re: Aurora State Airport Master Plan Website Comments - Dave Mauk

From Dave Mauk <noreply@jotform.com>

Date Tue 2025-01-21 11:40 AM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Dave Mauk

Organization Charbonneau Country Club

Comments or questions? January 20, 2025
Comments Submitted In Reference to the
Refined Preferred Alternative:

The role of ODAV advocating for expanding Aurora State Airport appears in conflict with their role in maintaining statewide aviation safety. Over the past dozen years, ODAV has shown a disproportionate interest in Aurora Airport. Its actions in appealing to the special interests of a small, elite group of operators as clients, resemble a chamber of commerce lobbying effort.

The immediate communities impacted by more noise overhead, more surface traffic, and less safety, are not given ample weight in the Refined Preferred Alternative (plan). One would never know that this airport is next to thousands of people living in several residential communities. The plan is heavily weighted to special interests favoring expansion, while ignoring neighbors' concerns.

At what point is it government malfeasance that an agency of the State of Oregon is seriously considering tens of millions spent at a constrained site with a 5,000 foot landing strip, overwhelmingly handling light and medium aircraft, when two under-capacity, flight-ready, full service airports, sized for

large, heavy aircraft, are both about 20 nautical miles away?

ODAV is serving the special interests of transient aircraft, wealthy out-of-state operators, and highly affluent owners of multimillion dollar, elite jets. This is while disregarding communities whose quality of life, property values, and safety are at risk by the plan. The airport is in an agricultural district of fertile soils and stable crops. More pollutants in the air and on the ground threaten this. The plan disrespects the local community and disregards the risks it imposes.

Aurora State Airport served as a back-up landing strip for the military during WWII. It provided air patrols, support and training. It did not handle large aircraft and heavy payloads. Today it has a civil air patrol base, is home for a regional air ambulance service, and both an aircraft and avionics manufacturer. All of these activities are supported by our local communities. As are the other jobs and businesses based at the airport, and others that are in the vicinity because of it.

None of these jobs, nor the two helicopter operators, are in jeopardy if the plan is not adopted. This bears repeating. The mechanics and repair shops; aircraft and avionics companies; air ambulance service; flight instruction operations; the two helicopter firms; and, other businesses at the airport who provide services, will all prosper as they do today. One change would be that the airport's relationship with the community would be greatly improved.

Aurora State Airport is currently deficient in its own ability to handle emergencies, fires, security and law enforcement. It has no fire truck. No advanced fire suppression equipment. It has no water source. No sewer. Its drain fields are inadequate. It has no housing, no food service. What it is - is a constrained sight near residential neighborhoods, productive farmland, and adjacent to a busy local arterial road, a even busier state highway, within sight of the congested I-5 interstate. Expanding the

airport at this location to attract larger aircraft is a fool's errand with the plan lacking community benefits, when multiple, fully operational airports are 12 minutes away through the air.

Aurora Airport, constructed as a flight strip, is a general aviation facility on a constrained site with that landing strip. Its users are over 90% piston, turbo prop and light to medium jet aircraft. All of which can continue to use this facility without creating a ODAV trophy airport. The years of providing waivers, drawing up expansion plans, litigation, and spending money that the state doesn't have, is evidence that ODAV is not accountable to the citizens or government of Oregon. It is a travesty that the ambitions of a elite operators, and agency charged with maintaining flight safety in our state, are empire building at the expense of the community where it operates and state taxpayers.

In representing, and on behalf of 3,000 voters of the Charbonneau District of Wilsonville, the Refined Preferred Alternative is firmly opposed. Please reject the plan and find a solution that doesn't degrade the quality of life, property values, safety and land where we live and we call home.

Yours,
David E. Mauk,
Charbonneau Country Club | Board Member
| Chair, Civic Affairs Committee

I would like to receive email updates.

If you would like a response, please tell us the best way to contact you:

Email

Email

dave@charbonneaucountryclub.com

Phone Number

(206) 920-4442

You can [edit this submission](#) and [view all your submissions](#) easily.

Fw: Comment re February 11 PAC Meeting

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:30 PM

To 'Dave Mauk' <dave@charbonneaucountryclub.com>

Cc THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

 1 attachment (100 KB)

ODAV Comment 2.25.25.pdf;

Hi Dave,

Thank you so much for your comments and kind words. We've received your attachment of your comments from the last PAC meeting and will include it in our records. I've also sent on to the rest of the project team, for their immediate review.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Dave Mauk <dave@charbonneaucountryclub.com>

Sent: Tuesday, February 25, 2025 12:28 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: Comment re February 11 PAC Meeting

Brandi -

Thank you for your professionalism during the PAC meetings considering the Aurora AMP. In light of ODAV board meetings being held in person & streamed, I agree with those who felt having that format for these meetings would have been preferable.

One more thing. It's highly unlikely in the current climate at the federal government that the FAA will be favorably looking at funding a general aviation airport on an urban-rural fringe of Oregon these days.

The attachment are my comments after the last PAC meeting about the refined preferred alternative.

Thank you -

--

Dave

David E. Mauk

Charbonneau Country Club | Board Member

Chair, Civic Affairs Committee



February 25, 2025

Something that became clear during the February PAC meeting, when Senate Concurrent Resolution 2 was then under consideration, is how out-of-sync the Airport Master Plan is with the airport's history, and its potential in serving regional emergencies and disasters. As recited in the Resolution, Aurora State Airport was a flight strip for air patrols and flight training conducted on behalf of the US Air Force during WWII. Civil air patrol and flight training remain functions at the airport today.

Besides this, the airport is a general aviation airport with its landing strip, and by virtue of its through-the-fence operations, home to numerous aircraft-related businesses and services. There is no question that the airport can fill a greater role and add capability for emergency and disaster management. However, ODAV is not focused on this opportunity as a reasonable plan, that serves a broad, regional public interest, not a narrow elitist one.

Currently, the Aurora State Airport is underprepared for emergency and disaster responsiveness, without the infrastructure and facilities to handle this. An airport built-out on its existing foundation of emergency and disaster management better serves the general public, and has positive regional importance in safety and emergency responsiveness.

The two heavy-life helicopter operators, as well as the air medic service, all located at the airport, are critical assets on which to build a more robust infrastructure and capacity that can better support emergency management for a populous, multi-county region of the state.

Additionally, there are also the two businesses that install and repair components of the electrical grid for the entire nation, which makes adding resiliency to Aurora State Airport a important priority for the State of Oregon. The current Airport Master Plan for leveraging scare ODAV funds using the FAA to subsidize executive jet usage is a questionable business model when compared to building upon an existing foundation of emergency management.

The current infrastructure of Aurora State Airport is 85 years old, with three small drain fields, limited fresh water supply, no fire suppression, no fire fighting equipment, no security, minimum advanced communications and inadequately prepared property for staging an emergency management response. This is where the state aviation board can apply its limited resources for improving Aurora State Airport, developing a critical emergence response and management center regionally, not an unnecessary plan based on executive commuter jets.

There are five airports with asphalt surfaces, suitable lengths, and modern facilities within a 10 minute flight of Aurora Airport that are fully capable of handling medium and large jet aircraft. In particular, Salem-Willamette Valley and McMinnville Municipal deserve your due diligence as locations for an executive flight emphasis, instead of spending millions of state and federal funds at a constrained site that is better suited as a regional base for emergency management flight services.

Your consideration is appreciated.

Dave

David E. Mauk
Charbonneau Country Club | Board Member
Chair, Civic Affairs Committee

32000 SW Charbonneau Drive • Wilsonville, OR 97070

Re: Aurora State Airport Master Plan Website Comments - Daniel McGuire

From Daniel McGuire <noreply@jotform.com>

Date Fri 2025-01-24 3:00 PM

To JLA Tech Support <tech@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>; Brandy Steffen <brandy.steffen@jla.us.com>

 Aurora State Airport Master Plan Website Comments

Name Daniel McGuire

Organization 100 Fold LLC

Comments or questions? After Reading the expansion plans for the Aurora airport, and then analyzing the oppositions from those who are now protesting the Airports intended plans I have arrived at an obvious conclusion. The proposed plans should be halted immediately due to being unnecessary and harmful to the entire area surrounding the airport and even farer reaching communities. The protest and uproar from property and homeowners, farmers and businesses that will be affected by losing their properties is a massive hardship and this outrage will not halt until this expansion plan is terminated. This is an un-necessary and extreme financial waste by moving forward, it does not make financial sense! Unless maybe there is hope and promises of Grant money from the government or something of value coming back from the contractors who reward the others involved. The proposed expansion look's illegal by taking agricultural land. This was confirmed in your last attempt and failed plan to extend the runway. Obviously this plan has been in the works for years and was a surprise to me, I did research when I bought my property A little over 2 years ago and was concerned then about Airport expansion. After doing research we

did not see any warning of pending expansion, just the failed effort to extend the runway due to a high court ruling, thanks to 1000 friends of Oregon.

The secrecy and craftiness to hide this plan from the public also brings concerns about you truly caring for anyone other than yourselves and financial gain. Many of the parties to be adversely affected still are not aware of the plan that could devastate their rights as property owners. Soon many others will join forces with the opposition to stop the expansion when they discover this outrage! I recently just found out late last year about the expansion thanks to a caring neighboring property owner. I also Built a structure on the 10 acres earlier last year I own on Boones ferry Rd, at a cost of over \$120,000 and moving the highway west would destroy that building and my plans for future agriculture and an AG Business development which is my intent when acquiring this land. Just the threat of this expansion has devalued our property values by around 20%.

Daniel McGuire, Melanie McGuire
22430 Boones Ferry Road NE, Aurora OR
97002

If you would like a response, please tell us the best way to contact you:

Email

Email

bmrddaniel@gmail.com

Phone Number

(503) 348-3848

You can [edit this submission](#) and [view all your submissions](#) easily.

Re: PAC meeting

From Brandy Steffen <brandy.steffen@jla.us.com>
Date Mon 2025-02-10 2:59 PM
To Chris Neamtzu <neamtzu@ci.wilsonville.or.us>
Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Thanks for the heads up Chris! Please let Councilor Shevlin know to check their junk folder for the invite from Zoom.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Chris Neamtzu <neamtzu@ci.wilsonville.or.us>
Sent: Monday, February 10, 2025 12:28 PM
To: Brandy Steffen <brandy.steffen@jla.us.com>
Subject: PAC meeting

Hello Brandy,

I am writing to let you know that I have a personal issue that has arisen that is in conflict with the PAC meeting tomorrow evening.

As a result, I am unable to attend. If you would please be so kind as to ensure that Councilor Shevlin receives the zoom access link as the alternate, I would appreciate it.

Councilor Shevlin can be reached at Shevlin@wilsonvilleoregon.gov .

Thank you,

Chris Neamtzu, AICP

Community Development Director
City of Wilsonville

503.570.1574

neamtzu@ci.wilsonville.or.us

www.ci.wilsonville.or.us



29799 SW Town Center Loop East, Wilsonville, OR 97070

Disclosure Notice: Messages to and from this e-mail address may be subject to the Oregon Public Records Law.



Outlook

Fw: HDSE / ODAV Meeting 3/19

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 3/19/2025 4:50 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

FYI

BRANDY STEFFEN**| JLA PUBLIC INVOLVEMENT**

Partner + Senior Program Manager

brandy.steffen@jla.us.com »

[Schedule](#)

[a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, March 19, 2025 4:46 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: HDSE / ODAV Meeting 3/19

Good afternoon, please include in the public record for the UAO master plan.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Wednesday, March 19, 2025 4:45 PM

To: Luke Nickerson <luke@flyaerometal.com>; gtvh@vhfour.com

Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Subject: HDSE / ODAV Meeting 3/19

Hi Luke and George,

Thanks again for coming down to Salem to meet with us. As you know, we are working to address a number of non-standard conditions at the Aurora State Airport, and safety is a top priority for us.

Though the primary focus of this meeting was next steps for HDSE's drain field, you also asked for a revision to language in our draft master plan, for us to continue discussions on ways to make the existing drain field meet FAA standards, and an update/commitment on timeframes. I also briefly discussed our Minimum Standards for UAO ([found here](#)), and parking aircraft on our apron with Luke.

Regarding prior discussions on the drain field, please see the information we posted to the master plan webpage here: <https://publicproject.net/files/UAOAMP/202202-kirbyj-drainfield-emails.pdf>. There is additional information listed under PAC Meeting #8 for the December 10th 2024 PAC meeting here under the "Meetings" section here: <https://publicproject.net/auroraairport#>

Since neither of you were involved in those conversations, we can further discuss the drain field's ability to meet FAA standards. As we stated in this meeting, we do not believe that the drain field can meet the standard.

We will also provide clarification on timeframes for next steps as soon as we can. We plan to give sufficient notice so HDSE has ample time to make plans and react accordingly.

Regarding changes to the master plan, we will consider whether any changes can or should be made to clarify the intent of the current language and ODAV's position.

Thanks again for taking the time to meet with us in person, we will reach out as soon as we have more information.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am - 4pm

From: Luke Nickerson <luke@flyaerometal.com>
Sent: Monday, March 17, 2025 3:04 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Meeting 3/19

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Mr. Beach,

I'm looking forward to our meeting on Wednesday.

If your schedule allows at the conclusion of our meeting about HDSE's drain field, I have a few more items of business I would like to discuss:

On behalf of Aerometal International Inc.:

- Storage of a second DC-3 on the state ramp

On behalf of Pacific Skies Aviation LLC:

APPENDIX 11D – PUBLIC COMMENTS 2025

A11D0498

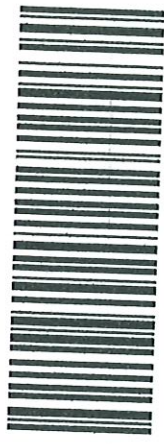
- Transfer and or establishing through the fence agreements during a real property transaction
- Transfer or establishing ODAV permits to allow for the retailing of 100LL & Jet A at Aurora State

Kind regards,
Luke Nickerson

Cell: 503-555-1234

HDSE
14355 Keil Road NE
Aurora, Oregon 97002

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE
CERTIFIED MAIL



7019 0140 0000 1719 5045

Oregon Department of Aviation
Attention: Kenji Sugahara, Director
3040 25th Street SE
Salem, Oregon 97302

97302-113540



Retail



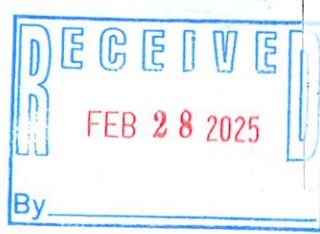
RDC 99

97302

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U.S. POSTAGE PAID
FCM LETTER
AURORA, OR 97002
FEB 25, 2025



HDSE Sewer System Owners Association
Bravo Hangar
14355 Keil Road NE
Aurora, OR 97002

February 24, 2025

Delivery by Certified Mail & Email (kenji.sugahara@odav.oregon.gov)



Oregon Department of Aviation
Attention: Kenji Sugahara, Director
3040 25th Street SE
Salem, OR 97302

Re: Comments on Proposed Master Plan for the Aurora State Airport
Notice under Aurora State Airport Lease and Easement

Dear Director Sugahara:

I am writing on behalf of the HDSE Sewer System Owners Association ("**HDSE**"), an Oregon nonprofit corporation which operates a drainfield on property at the south end of the Aurora State Airport pursuant to a certain Non-Commercial Site Lease (the "**Lease**") with the State of Oregon, acting by and through its Oregon Department of Aviation ("**ODAV**"), as well as a certain Aurora State Airport Utility Easement (the "**Easement**") granted to HDSE by ODAV effective September 1, 2019.

Please note that the original Base Term of the Lease was from September 1, 2019 through August 29, 2024; and, in accordance with the terms of the Lease, HDSE exercised its option to renew the Lease for an additional five years. Thus, the current term of the Lease will expire on August 30, 2029, unless HDSE exercises its right to renew the Lease for an additional five years beyond that date. Also please note that, under the Easement, ODAV granted to HDSE a perpetual easement on, over, under and through the portion of the airport which HDSE uses for its drainfield, and such Easement provides rights to HDSE which are in addition to, and not dependent upon, the Lease.

During the February 11, 2025 meeting of the Planning Advisory Committee for the Aurora State Airport Master Plan (the "**Master Plan**"), ODAV provided a presentation which included a plan which is referred to as ODAV's Refined Preferred Alternative. Pages 16 and 17 of that presentation showed maps of the airport which identified the location of HDSE's drainfield, and the map Legends indicated: "DRAINFIELD TO BE REMOVED." Also, Page 24 of the presentation showed a draft Airport Layout Plan which identified the location of HDSE's drainfield, along with a legend titled "NON STANDARD CONDITIONS" which indicated that the planned "disposition" for the drainfield is "TO BE REMOVED."

Please be advised that HDSE strongly objects to ODAV moving forward toward adoption of the Master Plan so long as the document contains language stating that HDSE's drain field must be removed. ODAV should consider this letter to be public input to ODAV with respect to the Master Plan, as well as a Notice to ODAV under the Lease and the Easement.

HDSE understands that ODAV desires to have the Master Plan show a pathway for ODAV to bring the airport into full compliance with all applicable FAA standards over time, and HDSE understands that ODAV currently contends that achieving such compliance will require that HDSE's drainfield be removed from the Runway Safety Area ("**RSA**"). However, there is absolutely no evidence in the record which supports ODAV's contention that removal of the drainfield is the only viable pathway to such compliance, while there is substantial evidence in the record to the contrary.

HDSE is aware that FAA Advisory Circular 150/5300-13B states that the RSA should be:

1. Cleared and graded with no potentially hazardous ruts, humps, depressions, or other surface variations;
2. Drained by grading or storm sewers to prevent water accumulation;
3. Capable, under dry conditions, of supporting snow removal equipment, ARFF equipment, and the occasional passage of aircraft without causing damage to the aircraft; and
4. Graded to the longitudinal and transverse grades in paragraph 3.16.5 (of the Advisory Circular).

Further, HDSE is aware that Paragraph 3.10.1.5 of the Advisory Circular states that the RSA should comply with the compaction criteria in Specification P-152, Excavation Subgrade and Embankment, found in AC 150/5370-10.

As various representatives of HDSE and members of the Planning Advisory Committee have repeatedly informed ODAV, both orally and in writing on numerous occasions, there is nothing in any state or Federal law, or in any FAA or ODAV regulation, which specifically prohibits HDSE's drainfield from remaining exactly where it is now. In fact, the pertinent FAA advisory guidance only calls for the RSA to meet the standards cited above, and based on the analysis and recommendations which HDSE has received from competent professionals, HDSE believes that the drainfield can be modified to ensure that it will indeed meet those standards.

For this reason, the text of the Master Plan and any maps, diagrams and legends contained therein should not say that the HDSE drainfield will be removed, but rather should indicate ODAV's intent to either: (a) ensure that the drainfield is modified if necessary to comply with RSA standards, or (b) if the drainfield cannot achieve such compliance in its current location, then to have the drainfield relocated outside the RSA. A simple and easy change to your map legends which would be acceptable to HDSE would be for the legends to indicate "**DRAINFIELD TO BE REMEDIED.**" This proposed modification would make the map legends identify the condition which ODAV currently contends is "non-standard" and also indicate that ODAV intends for that condition to be addressed, without incorrectly (and therefore improperly) suggesting that the condition may be addressed only by removal of the drainfield, which most certainly has not been established as of this date.

HDSE is aware that Sections 16, 17, and 18 of the Lease contain provisions under which ODAV may require HDSE to take steps to modify the drainfield if necessary in order to ensure that the drainfield complies with all applicable laws, ordinances, rules, and regulations; and, in the event that HDSE were to be unwilling or unable to modify the drainfield so as to achieve such compliance, then ODAV would have the right to require that the drainfield be removed. However, the Lease and the Easement certainly do not allow for ODAV to unilaterally require that HDSE remove the drainfield, when to HDSE's knowledge there has been no showing to date that the drainfield currently violates any applicable law, ordinance, rule or regulation; and further, even if such a showing of non-compliance could be made, ODAV would have no right to require HDSE to remove the drainfield so long as HDSE is proceeding with reasonable diligence and in good faith to modify the drainfield as necessary in order to remedy such issue as soon as practicable.

Although HDSE does not concede that the drainfield is currently non-compliant, we are nevertheless aware that ODAV has expressed concern that the drainfield may fail to meet the RSA standards specified in the Advisory Circular referenced above, and as the tenant under the Lease and the grantee under the Easement, HDSE wishes to be responsive to ODAV's concerns. Therefore, please be advised that HDSE intends to undertake work to modify the drainfield in order to address the concerns which ODAV has raised.

Accordingly, I am sending along with this letter a Report of Geotechnical Engineering Services, which was prepared for HDSE's architect Aron Faegre and Associates and which has previously been provided to ODAV by others on several prior occasions. That report, which was stamped by professional engineer Brett A. Shipton, P.E., G.E., outlines the approach that HDSE intends to take to modify the drainfield so as to ensure that it meets the FAA's RSA standards. Please be advised that HDSE intends to move forward within the next 30 days to engage qualified professionals to produce the necessary construction plans for this project and, as soon as such plans are complete, we will send to ODAV a Notice of proposed alteration on FAA Form 7460-1 (Notice of Proposed Construction or Alteration), providing additional information concerning the work that HDSE intends to commence, all as required by Section 11 of the Lease.

In the meantime, if ODAV would prefer that HDSE defer the drainfield modifications described above in order to allow time for ODAV and HDSE to collaboratively explore other alternatives for addressing ODAV's concerns, then HDSE would be happy to defer that work and would be open to discussing with ODAV the possibility of relocating the drainfield to another location on the airport. If ODAV is also open to that possibility, then HDSE would urge ODAV to further modify the Master Plan so that the Preferred Alternative and the Airport Layout Plan will show potential locations to which the drainfield could be relocated. HDSE suggests that the most obvious places where the drainfield potentially might be relocated would be the land which ODAV intends to acquire that is adjacent to Keil Road and east of the current airport boundary, or the land already owned by ODAV which is at the far north end of the airport. Note that, if the drainfield were to be relocated to either of those locations, the drainfield then would be completely outside of the RSA, even after completion of the runway extension that is called for in the Master Plan.

In ODAV's consideration of the preceding requests, ODAV certainly should note and take heed of the provisions of Section 3.10.2.1 of AC 150/5300-13B, which address design considerations for Non-Standard RSAs and call for airport sponsors to: (1) Evaluate all practicable alternatives and opportunities to improve a non-standard RSA until it meets all standards for grade, construction, and object fragility, and (2) On the ALP, identify future development necessary to attain a standard RSA.

Oregon Department of Aviation
February 24, 2025
Page Four.

ODAV's current draft of the Master Plan clearly fails to comply with that FAA guidance, since it unjustifiably precludes compliance with RSA standards by means of the practicable alternative that HDSE now intends to commence, and because it also fails to identify the future development that would be necessary to achieve compliance in the event that at some point in the future ODAV and HDSE ultimately determine that the drainfield should be moved to a new location outside the RSA.

Please be advised that if ODAV continues to move forward toward adoption of the Master Plan with that document including language which asserts that HDSE's drainfield must be removed from the RSA without acknowledging that there is a potential alternative pathway to meeting the FAA's RSA standards, or by asserting that the drainfield must be relocated without providing any alternative location on the airport where the drainfield feasibly could be moved, then that course of conduct by ODAV will cause significant damages to HDSE and its members. If that occurs, regrettably, HDSE will be forced to take appropriate legal action to protect its rights under the Lease and under the Easement.

HDSE sincerely hopes that legal action will not become necessary, as we would greatly prefer to work collaboratively with ODAV in order to achieve a cost-effective resolution of ODAV's concerns about the drainfield. Like ODAV, HDSE wants the airport to be improved, and therefore we hope that you will direct ODAV's staff and consultants to partner with HDSE in efforts to make that happen. We would suggest that a positive step toward establishing such a constructive collaboration would be for ODAV to modify its draft of the Master Plan as suggested above.

I would appreciate it if you would respond to this letter in writing to confirm your receipt.

Sincerely,



Lukas Nickerson
President
HDSE Sewer System Owners Association

CC: Joe Franco – Partner, Holland & Knight LLP
Wendy Kellington – Kellington Law Group, PC

joe.franco@hklaw.com
wk@klgpc.com

Tony Beach – ODAV State Airports Manager
Alex Thomas – ODAV Planning, Policy, & Programs Mgr.
Brandon Pike – ODAV Aviation Planner
Kevin Olsen – ODAV Airport Leasing & Contracts

anthony.beach@odav.oregon.gov
alex.r.thomas@odav.oregon.gov
brandon.pike@odav.oregon.gov
kevin.j.olsen@odav.oregon.gov

Fw: HDSE Letter and Holdover Status

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Mon 2025-03-03 9:56 AM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

 2 attachments (1 MB)

20250228133238672.pdf; RE: Existing Drain field;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Friday, February 28, 2025 3:16 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: HDSE Letter and Holdover Status

Good afternoon, please include in the public record for the master plan.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Friday, February 28, 2025 3:10 PM

To: Lukas Nickerson <Luke@flyaerometal.com>

Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: HDSE Letter and Holdover Status

Good afternoon Mr. Nickerson,

I understand you are now the President of the HDSE Sewer System Owners Association. We have received your letter dated February 24th (attached) regarding comments on the master plan for the Aurora State Airport and HDSE's drain field lease. I have forwarded the letter to the master plan team, it will be included in the public record for the master plan.

Please also see the attached email sent 8/15/2023 to then HDSE President Tony Helbling. HDSE's lease is currently in holdover status pending the outcome of the master plan.

We appreciate you reaching out as the point of contact for HDSE. We will be in touch to assess options and next steps as the master plan concludes.

Thanks again,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

RE: Existing Drain field

From BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Date Tue 2023-08-15 4:13 PM

To Helbling, Tony <helbling@wilsonconst.com>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Good afternoon Tony,

We have given notice on 7/30/2021 that we can't enter the renewal term when the current lease term expires August 30th, 2024. What we can do is look at the drain field and RSA compliance in the master planning process. If August 30th 2024 arrives before the master plan is complete, we will keep the lease in holdover (month to month) until an outcome is determined. We can discuss more about these steps and your research in a future meeting.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Helbling, Tony <helbling@wilsonconst.com>
Sent: Thursday, August 10, 2023 11:25 AM
To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Existing Drain field

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Kenji and Tony –

We understand the ODAV position on the existing drain field. At the same time, we've done quite a bit of research and would like to set up a discussion to share that information with you. In the spirit of yesterday's discussion, we're thinking there may be a way to create a win for all involved as the airport moves forward.

Could we set up a meeting in the next few weeks to go over this info?

Tony Helbling

President
HDSE

Fw: KUAO Mater Plan Testimony

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-25 8:53 AM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

 1 attachment (277 KB)
20250223b-Letter to ODAV.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Sent: Monday, February 24, 2025 4:56 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: FW: KUAO Mater Plan Testimony

Hello,

Good afternoon. Please include within the UAO master plan record.

ALEX THOMAS

OREGON DEPARTMENT OF AVIATION (ODAV)

POLICY, PLANNING, & PROGRAMS MANAGER



CELL 971-375-2357

EMAIL Alex.R.Thomas@ODAV.Oregon.Gov

SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

[Schedule a meeting with me.](#)

[Schedule a meeting with any of the programs listed below.](#)

Alternative Contacts:

COAR Grants: Grants@ODAV.Oregon.Gov

Procurement / Contracts: Contracts@ODAV.Oregon.Gov

Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov

Land Use / Tall Structure: LandUse@ODAV.Oregon.Gov

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This e-mail may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. If you are not the addressee or it appears from the context or otherwise that you have received this e-mail in error, please advise me immediately by reply e-mail, keep the contents confidential, and immediately delete the message and any attachments from your system.

From: Lukas Nickerson <nickersonlukas@gmail.com>

Date: Monday, February 24, 2025 at 13:51

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: Joe.Franco@hklaw.com <joe.franco@hklaw.com>, Wendie Kellington <wk@klgpc.com>, BEACH Anthony <Anthony.BEACH@odav.oregon.gov>, THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>, PIKE Brandon <Brandon.PIKE@odav.oregon.gov>, OLSEN Kevin J <Kevin.J.OLSEN@odav.oregon.gov>

Subject: KUAO Mater Plan Testimony

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Kenji - Good Afternoon,

Please see the attached letter from HDSE regarding the drain field at Aurora State. Would you please ensure it is entered in as public testimony for the Aurora State Master Plan project?

Kind regards,
Lukas Nickerson

HDSE Sewer System Owners Association

Bravo Hangar
14355 Keil Road NE
Aurora, OR 97002

February 24, 2025

Delivery by Certified Mail & Email (kenji.sugahara@odav.oregon.gov)

Oregon Department of Aviation
Attention: Kenji Sugahara, Director
3040 25th Street SE
Salem, OR 97302

Re: Comments on Proposed Master Plan for the Aurora State Airport
Notice under Aurora State Airport Lease and Easement

Dear Director Sugahara:

I am writing on behalf of the HDSE Sewer System Owners Association ("**HDSE**"), an Oregon nonprofit corporation which operates a drainfield on property at the south end of the Aurora State Airport pursuant to a certain Non-Commercial Site Lease (the "**Lease**") with the State of Oregon, acting by and through its Oregon Department of Aviation ("**ODAV**"), as well as a certain Aurora State Airport Utility Easement (the "**Easement**") granted to HDSE by ODAV effective September 1, 2019.

Please note that the original Base Term of the Lease was from September 1, 2019 through August 29, 2024; and, in accordance with the terms of the Lease, HDSE exercised its option to renew the Lease for an additional five years. Thus, the current term of the Lease will expire on August 30, 2029, unless HDSE exercises its right to renew the Lease for an additional five years beyond that date. Also please note that, under the Easement, ODAV granted to HDSE a perpetual easement on, over, under and through the portion of the airport which HDSE uses for its drainfield, and such Easement provides rights to HDSE which are in addition to, and not dependent upon, the Lease.

During the February 11, 2025 meeting of the Planning Advisory Committee for the Aurora State Airport Master Plan (the "**Master Plan**"), ODAV provided a presentation which included a plan which is referred to as ODAV's Refined Preferred Alternative. Pages 16 and 17 of that presentation showed maps of the airport which identified the location of HDSE's drainfield, and the map Legends indicated: "DRAINFIELD TO BE REMOVED." Also, Page 24 of the presentation showed a draft Airport Layout Plan which identified the location of HDSE's drainfield, along with a legend titled "NON STANDARD CONDITIONS" which indicated that the planned "disposition" for the drainfield is "TO BE REMOVED."

Please be advised that HDSE strongly objects to ODAV moving forward toward adoption of the Master Plan so long as the document contains language stating that HDSE's drain field must be removed. ODAV should consider this letter to be public input to ODAV with respect to the Master Plan, as well as a Notice to ODAV under the Lease and the Easement.

HDSE understands that ODAV desires to have the Master Plan show a pathway for ODAV to bring the airport into full compliance with all applicable FAA standards over time, and HDSE understands that ODAV currently contends that achieving such compliance will require that HDSE's drainfield be removed from the Runway Safety Area ("**RSA**"). However, there is absolutely no evidence in the record which supports ODAV's contention that removal of the drainfield is the only viable pathway to such compliance, while there is substantial evidence in the record to the contrary.

HDSE is aware that FAA Advisory Circular 150/5300-13B states that the RSA should be:

1. Cleared and graded with no potentially hazardous ruts, humps, depressions, or other surface variations;
2. Drained by grading or storm sewers to prevent water accumulation;
3. Capable, under dry conditions, of supporting snow removal equipment, ARFF equipment, and the occasional passage of aircraft without causing damage to the aircraft; and
4. Graded to the longitudinal and transverse grades in paragraph 3.16.5 (of the Advisory Circular).

Further, HDSE is aware that Paragraph 3.10.1.5 of the Advisory Circular states that the RSA should comply with the compaction criteria in Specification P-152, Excavation Subgrade and Embankment, found in AC 150/5370-10.

As various representatives of HDSE and members of the Planning Advisory Committee have repeatedly informed ODAV, both orally and in writing on numerous occasions, there is nothing in any state or Federal law, or in any FAA or ODAV regulation, which specifically prohibits HDSE's drainfield from remaining exactly where it is now. In fact, the pertinent FAA advisory guidance only calls for the RSA to meet the standards cited above, and based on the analysis and recommendations which HDSE has received from competent professionals, HDSE believes that the drainfield can be modified to ensure that it will indeed meet those standards.

For this reason, the text of the Master Plan and any maps, diagrams and legends contained therein should not say that the HDSE drainfield will be removed, but rather should indicate ODAV's intent to **either**: (a) ensure that the drainfield is modified if necessary to comply with RSA standards, **or** (b) **if the drainfield cannot achieve such compliance in its current location**, then to have the drainfield relocated outside the RSA. A simple and easy change to your map legends which would be acceptable to HDSE would be for the legends to indicate "**DRAINFIELD TO BE REMEDIED**." This proposed modification would make the map legends identify the condition which ODAV currently contends is "non-standard" and also indicate that ODAV intends for that condition to be addressed, without incorrectly (and therefore improperly) suggesting that the condition may be addressed only by removal of the drainfield, which most certainly has not been established as of this date.

HDSE is aware that Sections 16, 17, and 18 of the Lease contain provisions under which ODAV may require HDSE to take steps to modify the drainfield if necessary in order to ensure that the drainfield complies with all applicable laws, ordinances, rules, and regulations; and, **in the event that HDSE were to be unwilling or unable to modify the drainfield so as to achieve such compliance**, then ODAV would have the right to require that the drainfield be removed. However, the Lease and the Easement certainly do not allow for ODAV to unilaterally require that HDSE remove the drainfield, when to HDSE's knowledge there has been no showing to date that the drainfield currently violates any applicable law, ordinance, rule or regulation; and further, even if such a showing of non-compliance could be made, ODAV would have no right to require HDSE to remove the drainfield so long as HDSE is proceeding with reasonable diligence and in good faith to modify the drainfield as necessary in order to remedy such issue as soon as practicable.

Although HDSE does not concede that the drainfield is currently non-compliant, we are nevertheless aware that ODAV has expressed concern that the drainfield may fail to meet the RSA standards specified in the Advisory Circular referenced above, and as the tenant under the Lease and the grantee under the Easement, HDSE wishes to be responsive to ODAV's concerns. Therefore, please be advised that HDSE intends to undertake work to modify the drainfield in order to address the concerns which ODAV has raised.

Accordingly, I am sending along with this letter a Report of Geotechnical Engineering Services, which was prepared for HDSE's architect Aron Faegre and Associates and which has previously been provided to ODAV by others on several prior occasions. That report, which was stamped by professional engineer Brett A. Shipton, P.E., G.E., outlines the approach that HDSE intends to take to modify the drainfield so as to ensure that it meets the FAA's RSA standards. Please be advised that HDSE intends to move forward within the next 30 days to engage qualified professionals to produce the necessary construction plans for this project and, as soon as such plans are complete, we will send to ODAV a Notice of proposed alteration on FAA Form 7460-1 (Notice of Proposed Construction or Alteration), providing additional information concerning the work that HDSE intends to commence, all as required by Section 11 of the Lease.

In the meantime, if ODAV would prefer that HDSE defer the drainfield modifications described above in order to allow time for ODAV and HDSE to collaboratively explore other alternatives for addressing ODAV's concerns, then HDSE would be happy to defer that work and would be open to discussing with ODAV the possibility of relocating the drainfield to another location on the airport. If ODAV is also open to that possibility, then HDSE would urge ODAV to further modify the Master Plan so that the Preferred Alternative and the Airport Layout Plan will show potential locations to which the drainfield could be relocated. HDSE suggests that the most obvious places where the drainfield potentially might be relocated would be the land which ODAV intends to acquire that is adjacent to Keil Road and east of the current airport boundary, or the land already owned by ODAV which is at the far north end of the airport. Note that, if the drainfield were to be relocated to either of those locations, the drainfield then would be completely outside of the RSA, even after completion of the runway extension that is called for in the Master Plan.

In ODAV's consideration of the preceding requests, ODAV certainly should note and take heed of the provisions of Section 3.10.2.1 of AC 150/5300-13B, which address design considerations for Non-Standard RSAs and call for airport sponsors to: (1) Evaluate all practicable alternatives and opportunities to improve a non-standard RSA until it meets all standards for grade, construction, and object fragility, and (2) On the ALP, identify future development necessary to attain a standard RSA.

ODAV's current draft of the Master Plan clearly fails to comply with that FAA guidance, since it unjustifiably precludes compliance with RSA standards by means of the practicable alternative that HDSE now intends to commence, and because it also fails to identify the future development that would be necessary to achieve compliance in the event that at some point in the future ODAV and HDSE ultimately determine that the drainfield should be moved to a new location outside the RSA.

Please be advised that if ODAV continues to move forward toward adoption of the Master Plan with that document including language which asserts that HDSE's drainfield must be removed from the RSA without acknowledging that there is a potential alternative pathway to meeting the FAA's RSA standards, or by asserting that the drainfield must be relocated without providing any alternative location on the airport where the drainfield feasibly could be moved, then that course of conduct by ODAV will cause significant damages to HDSE and its members. If that occurs, regrettably, HDSE will be forced to take appropriate legal action to protect its rights under the Lease and under the Easement.

HDSE sincerely hopes that legal action will not become necessary, as we would greatly prefer to work collaboratively with ODAV in order to achieve a cost-effective resolution of ODAV's concerns about the drainfield. Like ODAV, HDSE wants the airport to be improved, and therefore we hope that you will direct ODAV's staff and consultants to partner with HDSE in efforts to make that happen. We would suggest that a positive step toward establishing such a constructive collaboration would be for ODAV to modify its draft of the Master Plan as suggested above.

I would appreciate it if you would respond to this letter in writing to confirm your receipt.

Sincerely,



Lukas Nickerson
President
HDSE Sewer System Owners Association

CC: Joe Franco – Partner, Holland & Knight LLP
Wendy Kellington – Kellington Law Group, PC

joe.franco@hklaw.com
wk@klgpc.com

Tony Beach – ODAV State Airports Manager
Alex Thomas – ODAV Planning, Policy, & Programs Mgr.
Brandon Pike – ODAV Aviation Planner
Kevin Olsen – ODAV Airport Leasing & Contracts

anthony.beach@odav.oregon.gov
alex.r.thomas@odav.oregon.gov
brandon.pike@odav.oregon.gov
kevin.j.olsen@odav.oregon.gov

Fw: Comment Letter ODAV updated Refined Proposed Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:30 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (330 KB)

Xerox Scan_01212025160045.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:43 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: RE: Comment Letter ODAV updated Refined Proposed Preferred Alternative

Here's the attachment.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Samantha Peterson <SPeterson@CenturyWest.com>

Sent: Tuesday, January 21, 2025 9:38 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Comment Letter ODAV updated Refined Proposed Preferred Alternative

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Can you re-forward the attached letter for this one? It didn't come through.

Samantha

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 4:42 PM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Comment Letter ODAV updated Refined Proposed Preferred Alternative

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 4:40 PM

To: Kevin Ferrasci O'Malley <kevin@wilsonvillechamber.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Subject: RE: Comment Letter ODAV updated Refined Proposed Preferred Alternative

Hi Kevin, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Kevin Ferrasci O'Malley <kevin@wilsonvillechamber.com>

Sent: Tuesday, January 21, 2025 4:13 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Comment Letter ODAV updated Refined Proposed Preferred Alternative

You don't often get email from kevin@wilsonvillechamber.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Ms Steffen and Mr Beach

Attached is our comment letter
Can you please reply upon receipt.

Sincerely
Kevin

Kevin Ferrasci O'Malley
CEO
Wilsonville Area Chamber of Commerce

<http://wilsonvillechamber.com>
<https://www.oregonbrc.org/>
<http://www.facebook.com/wilsonvillechamber>
<https://www.facebook.com/oregonbrc>
<https://linkedin.com/in/kevinferrasciomalley>

If you would like to schedule a phone meeting with me the fastest way is to please go to:

<http://www.15withkevin.com>

(You're of course always welcome to make a request via email
it will just take a bit more time with back and forth emails for us to match up our calendars. At the
15withKevin.com website you will have immediate access to my calendar availability)

W: 503-682-0411 X: 2
8565 SW Salish Lane, Suite 150 (*)
Wilsonville, Oregon 97070

(*) Our offices are located in the Oregon Restaurant and Lodging Assoc. building. It's best to park in the west
side parking lot and to enter thru the side door.

Don't forget to subscribe to the Chamber e-Newsletter at this link: www.bit.ly/WACCnewsletter

WILSONVILLE

AREA CHAMBER OF COMMERCE

January 21, 2025

VIA ELECTRONIC MAIL

Alex Thomas, Planning and Programs Manager
Tony Beach, State Airports Manager
Oregon Department of Aviation
Brandy Steffen, JLA

Re: January 21, 2025 Comment Letter on Behalf of Wilsonville Area Chamber of Commerce for Aurora State Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative

Mr. Thomas, Mr. Beach and Ms Steffen,

The Wilsonville Area Chamber of Commerce sincerely appreciates the opportunity to participate in the Oregon Department of Aviation's Aurora State Airport Master Plan process.

Our stated vision is to “create and promote economic prosperity for businesses and citizens in the south metro region.” Additionally, the Federal Aviation Administration (FAA) encourages airport master plans to consider economic impacts.

For this reason, we have repeatedly requested fact-based, meaningful discussions regarding the economic impacts of the proposed alternatives throughout this process. Despite multiple assurances that these discussions would take place, they have not occurred.

As a result, the Wilsonville Area Chamber of Commerce cannot endorse the final report, as it fails to provide any credible analysis of the economic impact upon our regional businesses and communities. The potential consequences for long-standing businesses, their employees, and surrounding areas are significant and must be thoroughly evaluated before advancing any preferred alternatives.

We remain committed to addressing this critical concern and welcome the opportunity to continue these discussions.

Thank you for your consideration.

Sincerely,



Kevin Ferrasci O'Malley, CEO

Wilsonville Area Chamber of Commerce
8565 SW Salish Lane Suite 150
Wilsonville, OR 97070



Re: City of Wilsonville Rep to ASA MP PAC

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2/4/2025 4:34 PM

To Mark Ottenad <ottenad@ci.wilsonville.or.us>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc Councilor Anne Shevlin <shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe Mombert <mombert@ci.wilsonville.or.us>

Thank you for the information, Mark. We will update the PAC membership roster to reflect this change.

Thank you,

BRANDY STEFFEN

| **JLA PUBLIC INVOLVEMENT**

Partner + Senior Program Manager

brandy.steffen@jla.us.com »

[Schedule](#)

[a 30 minute meeting](#)

From: Mark Ottenad <ottenad@ci.wilsonville.or.us>

Sent: Friday, January 24, 2025 9:17 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Councilor Anne Shevlin <shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe Mombert <mombert@ci.wilsonville.or.us>

Subject: City of Wilsonville Rep to ASA MP PAC

Good day Brandy and Tony,

Please note that the City of Wilsonville rep to the Aurora State Airport Master Plan PAC is now City Councilor Anne Shevlin, who replaces retiring Councilor Joann Linville.

City Councilor Anne Shevlin
City of Wilsonville
503-570-1501
shevlin@wilsonvilleoregon.gov

Note that the City is migrating our URL from ci.wilsonville.or.us to wilsonvilleoregon.gov.

Thank you.

- Mark

Mark C. Ottenad

Public/Government Affairs Director

City of Wilsonville / South Metro Area Regional Transit (SMART) / Explore Wilsonville

29799 SW Town Center Loop East

APPENDIX 11D - PUBLIC COMMENTS 2025

A11D0519

Wilsonville, OR 97070

~~General Manager~~

~~Director~~

ottenad@ci.wilsonville.or.us

www.ci.wilsonville.or.us

www.ridesmart.com

www.ExploreWilsonville.com



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RE: City of Wilsonville Rep to ASA MP PAC

From BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Date Fri 2/7/2025 9:26 AM

To Mark Ottenad <ottenad@ci.wilsonville.or.us>; Brandy Steffen
<brandy.steffen@jla.us.com>

Cc Mayor Shawn O'Neil <oneil@wilsonvilleoregon.gov>; Councilor Anne Shevlin
<shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe
Mombert <mombert@ci.wilsonville.or.us>; SUGAHARA Kenji
<Kenji.SUGAHARA@odav.oregon.gov>; THOMAS Alex R
<Alex.R.THOMAS@odav.oregon.gov>

Hi Mark,

We have recently received and denied similar requests by Wendy Kellington and Betsy Johnson. I am willing to share that correspondence which also refers to this same protocol with you, and has also been included in the public record.

Our goal is to keep the process as fair and consistent as possible for everyone, and we appreciate Chris' involvement in our master plan process so far.

Thank you for your understanding, and we look forward to the City's participation in our upcoming meeting.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Mark Ottenad <ottenad@ci.wilsonville.or.us>

Sent: Thursday, February 6, 2025 8:41 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; Brandy Steffen
<brandy.steffen@jla.us.com>

Cc: Mayor Shawn O'Neil <oneil@wilsonvilleoregon.gov>; Councilor Anne Shevlin
<shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe

Mombert <mombert@ci.wilsonville.or.us>; SUGAHARA Kenji
<Kenji.SUGAHARA@odav.oregon.gov>; THOMAS Alex R
<Alex.R.THOMAS@odav.oregon.gov>
Subject: RE: City of Wilsonville Rep to ASA MP PAC

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hello Tony,

The City finds this request confusing and inappropriate.

1. Basic matter of principle: Why does ODAV care whom the City of Wilsonville chooses to represent us on the PAC. This is a matter of local choice, and should not be of concern to ODAV. We are not asking for any accommodations to on-board a new member.
2. The City Council unanimously appointed Councilor Shevlin on Jan. 23, 2025, to fulfill the position of City's rep to the ASA MP PAC. City staff cannot override its own city council.
3. The document you reference is from 2021, and was intended for a planning process that was to take originally 12-18 months, and NOT over four years! It is common sense that organizations are going to have personnel turn-over during such an extended planning time period.
4. While the document you reference indicates that additions or refinement of PAC members may take place at the discretion of ODAV staff, please expressly state, in writing, that ODAV staff are unwilling to seat our designated elected official as a member representing the City of Wilsonville.

I have to say, this seems a little petty and unbecoming of a state agency in terms of partnering with local governments.

Thank you for your time and consideration.

- Mark

Mark Ottenad, Public/Government Affairs Director
City of Wilsonville / SMART / Explore Wilsonville
503-570-1505
ottenad@ci.wilsonville.or.us

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Wednesday, February 5, 2025 2:18 PM
To: Brandy Steffen <brandy.steffen@jla.us.com>; Mark Ottenad <ottenad@ci.wilsonville.or.us>
Cc: Councilor Anne Shevlin <shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe Mombert <mombert@ci.wilsonville.or.us>
Subject: RE: City of Wilsonville Rep to ASA MP PAC

Hi Mark, we have Chris Neamtzu as the Alternate on the PAC. Is there a reason Chris can't serve as the Primary?

Per our [PAC Protocols](#), "The alternate must be identified to ODAV at the project onset and attend all meetings so that past business doesn't need to be revisited."

Since Chris was the Alternate, we're happy to make him the Wilsonville's PAC representative, and Councilor Anne Shevlin the new Alternate.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Brandy Steffen <brandy.steffen@jla.us.com>
Sent: Tuesday, February 4, 2025 4:34 PM
To: Mark Ottenad <ottenad@ci.wilsonville.or.us>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Cc: Councilor Anne Shevlin <shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe Mombert <mombert@ci.wilsonville.or.us>
Subject: Re: City of Wilsonville Rep to ASA MP PAC

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thank you for the information, Mark. We will update the PAC membership roster to reflect this change.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Mark Ottenad <ottenad@ci.wilsonville.or.us>

Sent: Friday, January 24, 2025 9:17 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Cc: Councilor Anne Shevlin <shevlin@wilsonvilleoregon.gov>; Chris Neamtzu <neamtzu@ci.wilsonville.or.us>; Zoe Mombert <mombert@ci.wilsonville.or.us>

Subject: City of Wilsonville Rep to ASA MP PAC

Good day Brandy and Tony,

Please note that the City of Wilsonville rep to the Aurora State Airport Master Plan PAC is now City Councilor Anne Shevlin, who replaces retiring Councilor Joann Linville.

City Councilor Anne Shevlin
City of Wilsonville
503-570-1501
shevlin@wilsonvilleoregon.gov

Note that the City is migrating our URL from ci.wilsonville.or.us to wilsonvilleoregon.gov.

Thank you.

- Mark

Mark C. Ottenad

Public/Government Affairs Director

City of Wilsonville / South Metro Area Regional Transit (SMART) / Explore Wilsonville

29799 SW Town Center Loop East

Wilsonville, OR 97070

General: 503-682-1011

Direct: 503-570-1505

ottenad@ci.wilsonville.or.us

www.ci.wilsonville.or.us

www.ridesmart.com

www.ExploreWilsonville.com



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Fw: Question about

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Fri 2025-01-17 9:12 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

I'm not sure if this needs to be tracked on the website, but I wanted to keep you in the loop.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Friday, January 17, 2025 7:55 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; MORRIS Alexis <Alexis.MORRIS@odav.oregon.gov>

Subject: FW: Question about

FYI

From: Poehler, William <bpoehler@Salem.gannett.com>

Sent: Thursday, January 16, 2025 5:32 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Question about

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Tony-

Great. Thank you. I wanted to check about the postcards.

Thank you,

-Bill Poehler

Reporter

Statesman Journal

503-881-8545

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Thursday, January 16, 2025 3:56 PM
To: Poehler, William <bpoeehler@Salem.gannett.com>
Subject: RE: Question about

Hi Bill,

For each PAC and public master plan meeting, ODAV and the master plan team have sent email notifications to PAC members, and anyone from the public who has signed up or requested to receive outreach and notifications for the Master Plan. We have also published ads in the Statesman Journal, Canby Herald, and Wilsonville Spokesman, as well as mailed physical postcards with meeting notices to the residents and owners of properties within a 1 mile radius of the airport. Some of these postcard notices have gone out of state, as those were the formal notice mailing addresses received from Marion and Clackamas Counties. When we got to the Alternatives portion of the master plan process, we additionally sent postcards to all of the physical mailing addresses of properties potentially affected by the alternatives. Sending postcards to the County's formal notice addresses as well as the physical addresses likely resulted in duplication, but we wanted to ensure they were being received by those potentially affected.

Further, ODAV has a link in the center of the homepage of our website pointing people to the master plan project website. We have also provided updates as well as pointed to the project website and where to subscribe for master plan updates in public meetings such as our Board meetings. There have been several articles about the master plan in the three papers over the years. Additionally, we have asked all PAC members to share master plan information and meeting details with the constituents of the organizations or groups they are representing (members include local neighborhood/development areas as well as the local counties and cities). The City of Wilsonville also mailed out postcards in advance of the last public meeting and has posted extensive information on their website.

I am happy to hear our postcards reached the person that you've been in touch with. Attached is a copy of the postcard we have sent out for the next master plan meeting. Upcoming meeting information, the project website address, and contact information are provided for them to ask questions and understand everything that is going on with the aurora master plan.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Poehler, William <bpoeehler@Salem.gannett.com>
Sent: Thursday, January 16, 2025 10:51 AM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: Question about

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Tony-

Can you tell me what kind of outreach JLA/ODAV did with neighbors of properties around the airport about the master plan? I've had some tell me that they received post cards to addresses in other states and never received anything and didn't know what was going on at all.

Thank you,

-Bill Poehler
Reporter
Statesman Journal
503-881-8545

Fw: Highway 551

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-07 10:07 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 7, 2025 7:37 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Highway 551

FYI, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 7, 2025 7:37 AM

To: Poehler, William <bpoehler@Salem.gannett.com>

Subject: RE: Highway 551

We haven't looked into that, but theoretically it is possible to have a drainfield outside of the Runway Safety Area. When private development occurs on our property, permitting/due diligence is always the

responsibility of the developer.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Poehler, William <bpoeehler@Salem.gannett.com>

Sent: Monday, January 6, 2025 4:35 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Highway 551

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Tony-

Oh, okay. Now that makes more sense. I was looking at that again. So if the drainfield has to be removed from the runway safety area, and Keil Road were moved, could that drainfield be moved to the space that would theoretically be vacant from where the road is moved?

Thank you,
-Bill Poehler
Reporter
Statesman Journal
503-881-8545

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Monday, January 6, 2025 3:19 PM

To: Poehler, William <bpoeehler@Salem.gannett.com>

Subject: RE: Highway 551

Hi Bill,

Thanks again for coming down to our office to talk UAO Master Plan. I enjoyed the discussion and answering your questions.

I did want to follow up on one question, you asked why the non-standard ditch isn't depicted south of the taxiway and runway. After taking a closer look, it is because that ditch shifts east outside of the Runway Safety Area, and is not a non-standard condition in that location.

I hope your new year is off to a great start, please let me know if I can answer any other questions or provide further clarification.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Thursday, January 2, 2025 4:06 PM

To: HOUSE David J <David.J.HOUSE@odot.oregon.gov>; Poehler, William <bpoeehler@Salem.gannett.com>

Subject: RE: Highway 551
APPENDIX 18D - PUBLIC COMMENTS 2025

A11D0530

Hi guys, happy new year!

Thanks for the link and pointing him my way, David.

I'm now in touch with Bill and will answer his questions.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: HOUSE David J <David.J.HOUSE@odot.oregon.gov>

Sent: Thursday, January 2, 2025 12:11 PM

To: Poehler, William <bpoeehler@Salem.gannett.com>

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: RE: Highway 551

Hi,

This is still in the planning process at Oregon Department of Aviation – maybe you saw their planning doc: <https://publicproject.net/AuroraAirport>

So I suggest contacting Tony Beach at ODAV: Anthony.BEACH@odav.oregon.gov

Happy new year!

David House

ODOT Public Affairs for Region 2 North – projects in Clatsop, Columbia, Tillamook, Yamhill and Marion counties, and northeast Polk counties

503-551-8641

From: Poehler, William <bpoeehler@Salem.gannett.com>

Sent: Thursday, January 2, 2025 10:57 AM

To: HOUSE David J <David.J.HOUSE@odot.oregon.gov>

Subject: Highway 551

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

David-

I'm writing a story about the master plan process at Aurora State Airport, and as part of that they are proposing to move Highway 551 to the east alongside the airport, basically from Keil Road to Arndt Road. Who from ODOT should I talk with about the proposal to move the highway?

Thank you,

-Bill Poehler

Reporter

Statesman Journal

503-881-8545

Fw: Aurora airport master plan comments

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:08 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:39 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora airport master plan comments

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:35 AM

To: Josh <jpruzek@aol.com>; brandy.steffen@jla.us.com

Subject: RE: Aurora airport master plan comments

Hi Josh, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Josh <jpruzek@aol.com>

Sent: Monday, January 20, 2025 8:21 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com

Subject: Aurora airport master plan comments

You don't often get email from jpruzek@aol.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hello Tony,

Thank you for the opportunity to provide input on the ongoing changes to the Aurora State Airport Master Plan. I have flown out of Aurora State since 1996, worked there as a flight instructor and charter pilot for 4+ years, and have based four aircraft there since 2003. I am also the AOPA Airport Support Network volunteer for KUAO and a former AOPA NW Mountain Regional Manager. Aurora is one of the most significant airports in the region and I appreciate the balance needed to guide this critical piece of transportation infrastructure into the future.

Although I have not attended many of the public meetings on the Master Plan, I do remain abreast of it and appreciate the significant improvements made in recent revisions. Here are a few comments concerning the most recent revision:

- Please consider highlighting the importance of maintaining existing infrastructure made by airport tenants as leasehold improvements. These represent major investments made by tenants over the years and critical portions of the existing airport infrastructure. Failure to do so could send an unintended message to current and future leaseholders that airport investments are unwise.
- I support including the 1.1-acre ODAV property purchase of the ramp space currently adjoining the south end of the main UAO ramp, south of the tower, in your "priority purchase" list. This will improve access to the Columbia Aviation Association clubhouse as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars, and the Aurora Flight training ramp. This ramp and taxi-lane improvement will increase safety, reduce runway incursions, and improve traffic flow much like the prior plan considered via the parallel taxiway but without displacing any hangars.

Thank you again for your efforts to continually improve the KUAO Master Plan. As a 25+ year user of the airport, I am optimistic that you and the ODAV will arrive at a solution that balances the needs of all stakeholders, and better positions Aurora State for the next 25 years.

Best Regards,

Josh Pruzek
AOPA Airport Support Network Volunteer - UAO
N808JP, N806PS & N240WP

A "Blue Hangar" tenant since 2003

Fw: Aurora Airport expansion - ODAV seeking comment

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-25 8:53 AM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Sent: Monday, February 24, 2025 4:56 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: FW: Aurora Airport expansion - ODAV seeking comment

Hello,

Good afternoon. Please include within the UAO master plan record.

ALEX THOMAS

OREGON DEPARTMENT OF AVIATION (ODAV)

POLICY, PLANNING, & PROGRAMS MANAGER



CELL 971-375-2357

EMAIL Alex.R.Thomas@ODAV.Oregon.Gov

SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

[Schedule a meeting with me.](#)

[Schedule a meeting with any of the programs listed below.](#)

Alternative Contacts:

COAR Grants: Grants@ODAV.Oregon.Gov

Procurement / Contracts: Contracts@ODAV.Oregon.Gov

Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov

Land Use / Tall Structure: LandUse@ODAV.Oregon.Gov

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From: Buehrig, Karen <KarenB@clackamas.us>
Date: Friday, February 21, 2025 at 16:26
To: PIKE Brandon <Brandon.PIKE@odav.oregon.gov>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>, BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: RE: Aurora Airport expansion - ODAV seeking comment

You don't often get email from karenb@clackamas.us. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Brandon – I wanted to thank you for your very detailed response. I do not have any additional comments at this time.

Karen

Karen Buehrig
Phone – (503) 742-4683
Mobile – (971) 291-8127

Clackamas County
Working Hours: Monday – Friday 8 AM – 5 PM

From: PIKE Brandon <Brandon.PIKE@odav.oregon.gov>
Sent: Thursday, February 6, 2025 10:58 AM
To: Buehrig, Karen <KarenB@clackamas.us>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: RE: Aurora Airport expansion - ODAV seeking comment

Warning: External email. Be cautious opening attachments and links.

Hi Karen,

Thanks for reaching out about this. I'd be glad to chat with you sometime if you'd like. I've also provided an explanation below:

Yes, in the proposed scenario, dubbed the *refined preferred alternative*, the runway would be extended to the north 497'. You may have already seen this version of the plan, but just in case, here's a link to the preferred alternative I'm referencing: <https://publicproject.net/files/UAOAMP/uao-refinedpreferredalternative-010725.pdf>

As an aside, full project information and maps can be found on the project website:
<https://publicproject.net/auroraairport#>

The lines you're noticing to the north of Arndt Road are likely the new boundaries of the runway protection zone (RPZ), shown in light blue in Figure 1 of the refined preliminary alternative. Because the runway's dimensions would change under the new plan, with the runway extending farther to the north, the associated RPZ would shift to the north, as well. Pursuant to the FAA's design guidelines for airports and runways (AC 150/5300-13B), the RPZ is designed to enhance the protection of people and property on the ground.

In an ideal scenario, the airport sponsor/owner would have ownership or control over the land in the RPZ in order to reduce the potential for conflicts and ensure compatible land uses. But in cases like this where it's under separate ownership, there are a number of land use types that can still be deemed compatible. Pursuant to the State of Oregon's [Airport Land Use Compatibility Guidebook](#), agricultural uses (excluding livestock), parks, utilities, and certain transportation features (roads, parking, terminals) can all be deemed compatible assuming they meet a list of criteria relating to height, creation of smoke, creation of bird attractants, etc. (per Table 3-4: Compatible Land Uses per FAR Part 77 Surfaces and FAA Safety Areas).

When coming up with this plan, our consultant reviewed Clackamas County's zoning for the area north of Arndt Road and determined that it was zoned EFU—which is generally one of the zones that's easiest to ensure compatibility when located inside an RPZ. Like any development or land use actions on property adjacent to public-use airports in Oregon, if future development or zoning changes were to occur on this land, ODAV would comment at that time, as appropriate (if, for example, a proposed structure would impact airspace).

Finally, with the proposed changes to the dimensions of the runway, Clackamas County's associated airport overlay zone would automatically expand 497' to the north, based on my understanding of how your overlay zone is written (ZDO 713). Therefore, while I don't think your code would need revisions as a result of the new airport master plan, the dimensions of your overlay zone would change. Structures north of the runway would be subject to slightly more stringent height limitations per federal (14 CFR FAR Part 77) and state (OAR 738, Division 70) aviation regulations, since the approach surface would begin 497' sooner than it currently does.

Let us know if you foresee any issues with any of this at this stage. As part of the airport master planning process, our goal is to include the local community, public officials, and other stakeholders throughout the process.

Additionally, let us know if you'd like to discuss this further or if you have follow-up questions.

Best,

BRANDON PIKE

OREGON DEPARTMENT OF AVIATION
(ODAV)

AVIATION PLANNER



PHONE 971-372-1339

EMAIL brandon.pike@odav.oregon.gov

3040 25TH STREET SE, SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

Alternative Contacts:

COAR Grants: Grants@ODAV.Oregon.Gov

Procurement / Contracts: Contracts@ODAV.Oregon.Gov

Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov

Land Use / Tall Structures: LandUse@ODAV.Oregon.Gov

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From: Buehrig, Karen <KarenB@clackamas.us>
Date: Wednesday, February 5, 2025 at 10:21
To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Subject: FW: Aurora Airport expansion - ODAV seeking comment

You don't often get email from karenb@clackamas.us. [Learn why this is important](#)

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Alex-

Do you have the time to talk with me to help me understand the implications of this plan on land in unincorporated Clackamas County? It appears that there are some lines that extend north of Arndt Road, but I can't really tell what they mean.

Thank you for your assistance.

Karen

Karen Buehrig
Long Range Planning Manager, Clackamas County
Phone – (503) 742-4683
Mobile – (971) 291-8127

Clackamas County
Working Hours: Monday – Friday 8 AM – 5 PM

From: REID Kelly * DLCD <Kelly.REID@dlcd.oregon.gov>
Sent: Monday, February 3, 2025 1:38 PM
To: Hughes, Jennifer <jenniferh@clackamas.us>; Buehrig, Karen <KarenB@clackamas.us>
Subject: Aurora Airport expansion - ODAV seeking comment

Warning: External email. Be cautious opening attachments and links.

Hi Jennifer and Karen,

I am not sure if you all have been involved in any of the [Aurora Airport Master Plan](#) meetings, but Melissa Ahrens shared with me that the Dept. of Aviation is seeking comment on the preferred alternative and has another meeting scheduled for February 11th.

We thought it might be possible that some land under Clackamas County jurisdiction on the north side of Arndt Road could be impacted, based on the maps in this revised plan: [uao-refinedpreferredalternative-010725.pdf](#)

Just wanted to make sure you are aware.

Best,



Kelly Reid

Regional Representative for Multnomah and Clackamas Counties
Portland Metro Regional Solutions

Pronouns: She/her

Oregon Department of Land Conservation and Development

1600 SW Fourth Avenue, Suite 109 | Portland, OR 97201

Cell: 971-345-1987

kelly.reid@dlcd.oregon.gov | www.oregon.gov/LCD

FW: FAA Modifications of Standards

From BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Date Fri 2/28/2025 11:12 AM

To Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen
<brandy.steffen@jla.us.com>

Cc THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Sent: Friday, February 28, 2025 7:27 AM

To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>; BEACH Anthony
<Anthony.BEACH@odav.oregon.gov>

Subject: Fw: FAA Modifications of Standards

Tony- can you get this added to the public record for the PAC? Ty!

Kenji

From: Rottinghaus, Mike (FAA) <mike.rottinghaus@faa.gov>

Sent: Friday, February 28, 2025 8:50:49 AM

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: House Timothy <Timothy.A.House@faa.gov>

Subject: FAA Modifications of Standards

Mr. Sugahara,

You don't often get email from mike.rottinghaus@faa.gov. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

It is my understanding you received a letter from Mr. Aron Faegre, dated February 25, 2025, concerning the potential for application of Modification of Standards (MOS) at Aurora State Airport, Aurora, OR. As the subject matter expert for MOS within FAA's Office of Airports, Mr. Faegre contacted me in late January to gain a better understanding of the purpose of an FAA issued MOS. As a professional courtesy, I provided him a brief explanation of the purpose and limitations of an FAA MOS, which he captured in the telephone memorandum attached to his February 5, 2025, letter. There was no discussion related to application at a specific airport or project.

Mr. Faegre's letter introduced additional context surrounding the basis for his inquiry, specifically at Aurora State Airport, that we did not discuss. Unfortunately, Mr. Faegre's letter is lacking some further understanding of an MOS. An MOS is a grant instrument that allows FAA to participate in a development project that contains nonstandard conditions. It represents a site-specific change to the published standard based on local conditions at the time of a project and only applies to a specific development project. It does not represent a permanent waiver or exception to an FAA standard and does not have an enduring application.

The assertion that an MOS is not available in Oregon is not accurate. I believe that confusion lies with our policy that an MOS is only applicable for development and equipment projects. Issuance of an MOS will be considered for a proposed development project with nonstandard conditions at a time the Airport expressing interest to proceed with a project. An FAA issued MOS remains valid for the proposed project for up to five years, after which time, the project specific MOS expires.

Given airport operations and risk are ever changing and the airport planning process establishes airport development strategies beyond 5 years, it is FAA's policy to not consider issuance of an MOS for a Master Plan or ALP project. The ALP needs to reflect full conformance with current FAA standards to help identify where nonconformance is an issue. This aids an airport with the decision-making process as it relates to funding of proposed development.

I have discussed this matter with Tim House of the FAA Seattle Airport District Office (ADO), and I believe we have a consistent understanding. Please continue to work with the Seattle ADO to address this matter.

Respectfully,

Mike A. Rottinghaus, P.E.

Federal Aviation Administration

Airport Engineering - Design & Construction Branch AAS-110

800 Independence Ave. SW

Washington D.C. 20591

O:(202) 267-3622

Fw: Aurora Oregon Airport KUAO

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:10 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:38 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Aurora Oregon Airport KUAO

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:30 AM

To: Mary Schu <maryschuaviation@gmail.com>; brandy.steffen@jla.us.com

Subject: RE: Aurora Oregon Airport KUAO

Hi Mary, received, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Mary Schu <maryschuaviation@gmail.com>

Sent: Sunday, January 19, 2025 5:24 PM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com

Subject: Re: Aurora Oregon Airport KUAO

You don't often get email from maryschuaviation@gmail.com. [Learn why this is important](#)

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Hello again,

I would like to make an additional clarification regarding the Airport boundary that needs to be considered:

The Aurora Airport boundary (KUAO) is all the property currently in aviation use or development and outlined by Arndt rd, Airport rd, Keil rd, & highway 551.

I hope that is helpful in comparing this to other smaller possibilities that are not inclusive of what is currently necessary for the Aurora Airport.

Thank you for your time and kind consideration in this very important matter.

Sincerely,
Mary Schu
ATP, CFI, FAAATeam
FAA Designated pilot examiner
2015 National Flight Instructor of the Year

Maryschuaviation@gmail.com
541-390-3980

On Sat, Jan 18, 2025 at 2:50 PM Mary Schu <maryschuaviation@gmail.com> wrote:

Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Finally, please eliminate or reduce to an absolute minimum the amount of airport boundary increase, adding additional real estate to UAO would be extremely expensive and is very unpopular with our neighbors. Please use any and all FAA approved mitigation measures to keep the airport safely in its current boundaries.

Thank you again for listening and your recent improvements to the plan.

Sincerely,
Mary Schu
ATP, CFI, DPE Designated Pilot Examiner

Fw: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:29 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

 1 attachment (206 KB)

AOPA Letter RE_UAO 2024 Master Plan Alternatives_01212025_FINAL.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:46 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: RE: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Here's the attachment. I made sure to include these in the first round in the morning, but missed them in the evening. Thanks for making sure we have everything included.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Samantha Peterson <SPeterson@CenturyWest.com>
Sent: Tuesday, January 21, 2025 9:41 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: RE: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Same with Brad's email. I'm not seeing the attached letters.

Thanks,
Samantha

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Sent: Tuesday, January 21, 2025 4:42 PM
To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>
Subject: FW: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Good afternoon, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony
Sent: Tuesday, January 21, 2025 4:38 PM
To: Schuster, Brad <brad.schuster@aopa.org>; THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; brandy.steffen@jla.us.com
Subject: RE: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Hi Brad, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Schuster, Brad <brad.schuster@aopa.org>
Sent: Tuesday, January 21, 2025 3:39 PM
To: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>
Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; brandy.steffen@jla.us.com
Subject: AOPA TESTIMONY FOR RECORD CONCERNING AURORA STATE AIRPORT UPDATED REFINED PREFERRED ALTERNATIVE

Importance: High

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Good afternoon Alex,

Attached is the Aircraft Owners and Pilots Association (AOPA) testimony for the record concerning ODAV's proposed updated "Refined Preferred Alternative" for the Aurora State Airport Master Plan.

Request you acknowledge receipt and provide a copy to the appropriate parties.

Thanks again for your collective continuing efforts to find a fair, balanced, and reasonable alternative for UAO airport users, tenants, and the local broader communities.

Blue skies.

Brad Schuster

AK and Northwest Mountain Region Manager

Aircraft Owners & Pilots Association (AOPA)

Tel: 202.851.7502

www.aopa.org

[Join AOPA!](#)

Fw: 1-21-25 Comment For Aurora Airport Master Plan - Current Refined Preferred Alternative

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-01-22 9:29 AM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

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[Check my availability](#) » [Schedule a 30 minute check-in](#)

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Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, January 22, 2025 7:49 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: 1-21-25 Comment For Aurora Airport Master Plan - Current Refined Preferred Alternative

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am - 4pm

-----Original Message-----

From: BEACH Anthony

Sent: Wednesday, January 22, 2025 7:48 AM

To: 'Tom Stevenson' <tstevens@iinet.com>; brandy.steffen@jla.us.com

Subject: RE: 1-21-25 Comment For Aurora Airport Master Plan - Current Refined Preferred Alternative

Hi Tom, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach
OREGON DEPARTMENT OF AVIATION
STATE AIRPORTS MANAGER
OFFICE 503-378-2523 CELL 503-302-5455
M-F 7:30am - 4pm

-----Original Message-----

From: Tom Stevenson <tstevens@iinet.com>
Sent: Tuesday, January 21, 2025 11:20 PM
To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.us.com
Subject: 1-21-25 Comment For Aurora Airport Master Plan - Current Refined Preferred Alternative

[You don't often get email from tstevens@iinet.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the significant importance of maintaining the septic systems and their leases. These are owned by the airport tenants and are located on airport property. It is felt that these are a critical piece of the airport infrastructure and represent major investments.

We also ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars, or the huge projected cost.

Thank you again for listening and your recent improvements to the plan.

Tom Stevenson
Pilot, Airport User, and CAA Member



601 Pennsylvania Ave NW, Suite 250
Washington, D.C. 20004

T. 202-509-9670
www.aopa.org

January 21, 2025

Alex Thomas, ODAV Planning & Programs Manager
Oregon Department of Aviation (ODAV)
3040 25th Street SE
Salem, OR 97302

TRANSMITTED VIA ELECTRONIC MAIL TO: Alex.R.THOMAS@odav.oregon.gov

RE: Aurora State Airport (UAO) Master Plan Alternatives – Concerns/Recommendations

Dear Alex:

On behalf of the Aircraft Owners and Pilots Association (AOPA), the world's largest general aviation membership organization, we write to express our concerns over the proposed Aurora State Airport (UAO) master plan update and recommend the Oregon Department of Aviation (ODAV) consider the alternatives provided by the UAO aviation community.

We wholeheartedly agree with the position held by many of the aeronautical users of UAO and Planning Action Committee (PAC) that NONE of the three alternatives originally proposed reflected a fair and reasonable future for UAO development that would have been in the best interest of the UAO aviation ecosystem. On a related note, AOPA concurs with the requests made by the Aurora Airport Improvement Association (AAIA) in their letter dated January 21, 2025 "*January 21, 2025 Comment Letter on Behalf of Aurora Airport Improvement Association for Aurora State Airport Master Plan – ODAV Updated Refined Proposed Preferred Alternative*" through their legal counsel Wendie Kellington as it reflects a rational perspective with the best interests of the airport users, tenants, and broader communities in mind.

Although AOPA always supports Federal Aviation Administration (FAA) design standard compliance, it is significantly easier to do so when conditions to meet standards can be met without unreasonable limitations or impacts being imposed on our members. In particular, the previously planned demolition of hangars would have been very counter-productive, and we congratulate ODAV, the PAC, and the entire Aurora area aviation community for collaborating to get this alternative removed from the current plan.

AOPA also supports the following:

- Lengthening of the runway that has been planned since the 1970's as it is vital for the safe operations of the aircraft currently utilizing UAO and we believe this project is long past-due and that it should be made a priority with no strings attached
- Improving airport infrastructure (septic systems in particular) to ensure they fully comply with FAA standards (if current design/construction conflicts with FAA guidance due to airport designation changes)

Aurora State Airport Master Plan Alternatives

January 21, 2025

Page 2 of 2

- Improving separation-related safety objectives by acquiring property to enable both extending the main ODAV-managed ramp/taxi-lane south to connect with taxiway A while simultaneously improving airport ground vehicle safety and flow
 - Particularly as this suggested purchase would represent a significant savings when compared to other previously suggested alternatives, this land purchase should be added to the UAO plan purchase list as among your highest priority projects on your Capital Improvement Plan.

Please let us know if there is anything else AOPA can do to help ensure that the right decisions are made for the future of the Aurora State airport and that those decisions are in support of the entire UAO airport user, tenant/owner, and surrounding communities. Feel free to contact me with respect to this topic or any other matters impacting general aviation. I can be reached at email: brad.schuster@aopa.org or by phone: 202-851-7502.

Sincerely,



Brad Schuster, AOPA
Alaska and Northwest Mountain Regional Manager

Cc:
ODAV Director
ODAV State Airports Manager
JLA Public Involvement Strategist

AIRCRAFT OWNERS AND PILOTS ASSOCIATION

Fw: Auora master plan

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-01-21 1:10 PM

To Jen Winslow <Jen.winslow@jla.us.com>; Ashley Balsom <ashley.balsom@jla.us.com>

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

She/Her » [Why pronouns matter](#)

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Meeting + email hours 9 a.m.–5 p.m. Monday–Thursday » Administrative-only hours Friday

[Check my availability](#) » [Schedule a 30 minute check-in](#)

JLA Public Involvement's mission: To create collaborative, meaningful and exceptionally effective public processes that lead to better, more inclusive outcomes.

Please note: I will be on vacation, without access to my email, starting Friday, 01/24/25 and returning Monday, 02/03/25.

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Tuesday, January 21, 2025 7:38 AM

To: Samantha Peterson <SPeterson@CenturyWest.com>; Brandy Steffen <brandy.steffen@jla.us.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Auora master plan

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: BEACH Anthony

Sent: Tuesday, January 21, 2025 7:29 AM

To: Walter Swan <waswan@comcast.net>; brandy.steffen@jla.com

Subject: RE: Auora master plan

Hi Walt, thank you for your input, I've forwarded it to the master plan team and it will be included in the public record.

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 CELL 503-302-5455

M-F 7:30am – 4pm

From: Walter Swan <waswan@comcast.net>

Sent: Sunday, January 19, 2025 10:47 AM

To: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>; brandy.steffen@jla.com

Subject: Aurora master plan

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Mr Beach, Ms Steffen;

I am an interested party and a member of Columbia Aviation Association and have same concerns as many people about the Aurora Airport master plan being considered. I am in agreement with the letter below.

Thank you for listening.

Walt Swan

[View in your browser](#)

Regarding the Aurora Airport - Current Refined Preferred Alternative

Dear Tony,

Thank you for considering us airport users' and property owners (as Columbia Aviation Association members) input and for the significant improvements in the current plan over the previous.

Please consider highlighting the importance of maintaining the septic systems and their leases, these are owned by airport tenants and located on airport property as we feel these are a critical piece of the airport infrastructure and represent major investments.

We ask that you include the 1.1 acre ODAV property purchase of the ramp space currently adjoining the south end of main UAO ramp (south of the tower) in your "priority purchase" list as this will significantly improve access to CAA as well as Pacific Coast Avionics, the main public ramp, all the mid-field hangars and Aurora Flight trainings ramp. This notable ramp and taxi-lane improvement will increase safety and flow much like the prior plan considered via a parallel taxiway and road but without displacing any hangars or the huge cost.

Thank you again for listening and your recent improvements to the plan.

||

y.

Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

From Brandy Steffen <brandy.steffen@jla.us.com>
Date Thu 2025-01-16 3:49 PM
To David Waggoner <willametteaviation@icloud.com>
Cc BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

 1 attachment (6 MB)
A1 Hot Spot for Master Plan.pdf;

Thanks for your email David. I received the attachment and will pass this along to the rest of the team.

Thanks,
BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT
Senior Program Manager + Partner
She/Her » [Why pronouns matter](#)
brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

From: David Waggoner <willametteaviation@icloud.com>
Sent: Thursday, January 16, 2025 2:24 PM
To: Brandy Steffen <brandy.steffen@jla.us.com>
Subject: Re: Reminder - Submit comments on Refined Preferred Alternative by 01/21/25

Brandy,

I noticed an omission dealing with Hot Spot 1 at the airport. Please see my attached comment.

Let me know if you have any question. Please confirm you received the attachment.

Thank you,

David Waggoner

Willamette Aviation Service
23115 Airport Rd NE
Aurora OR 97002

Direct: 503-680-3597
Office: 503-678-2252
dave@willametteair.com

On Jan 14, 2025, at 4:00 PM, Brandy Steffen <brandy.steffen@jla.us.com> wrote:

Hello PAC members,

Thank you to those of you who have already submitted comments on the [refined preferred alternative](#). If you haven't done so already, please email your comments to me by Tuesday, January 21 (a week from today).

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

From: Brandy Steffen

Sent: Tuesday, January 7, 2025 1:22 PM

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Aurora Airport - Refined Preferred Alternative comments by 01/21/25

Good afternoon PAC members,

Thank you for attending PAC Meeting #8 and submitting your feedback on the Preferred Alternative. ODAV and the Planning Team has reviewed all feedback received and has made the following key refinements:

- Removed the proposed parallel taxiway.
- Removed the proposed vehicle service road that would require additional property acquisition.
- Depicted the priority property acquisition as the property required to meet FAA standards, based on the existing and future runway configuration. Reserve property acquisition is depicted in the event of a future willing seller and for the purpose of FAA grant funding eligibility.

The Refined Preferred Alternative maintains the improvements needed to comply with RSA, TSA, and ROFA standards. Please review the [Refined Preferred Alternative Summary](#) including the Refined Preferred Alternative figures for additional detail on the project website: <https://publicproject.net/auroraairport#> (on the "Resources & Documents" Page).

Please submit any comments on the [Refined Preferred Alternative](#) no later than Tuesday, January 21, 2025.

Thank you,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

brandy.steffen@jla.us.com » Office 503-235-5881 » jla.us.com

Tri-Prop, LLC
*Opening Doors for the General Aviation
Community*

23115 Airport Rd NE #6
Aurora, OR 97002
503-678-3343
tri.prop3@gmail.com

January 16th, 2025

RE: A1 Hot Spot Mitigation

Brandy Steffen,

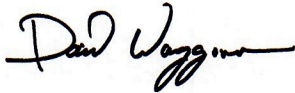
The Refined Preferred Alternatives does not reflect the modifications required to mitigate Hot Spot A1 at the Aurora Airport. Although the Hot Spot will be removed when the runway is extended, that may be years in the future. It is my understanding the mitigation plan must be reflected in the Master Plan before it can be included on the Airport Layout Plan and approved.

Attached is the plan to eliminate Hot Spot 1 submitted to the ODAV and FAA on June 9th, 2023. You will note that mitigation plan suggests a one -way in and one-way taxiway lane between Taxiway A and the TTF taxilane. This will eliminate traffic congestion around A1.

Both Tony Beach from ODAV and George Buley, the Northwest Mountain Region, Runway Safety Program Manager have included in the development of this recommendation. The Hot Spot and a proposed change to Taxiway A have been discussed earlier in the Master Planning process.

I recommend the A1 Hot Spot mitigation be included in the Master Plan.

Thank you,

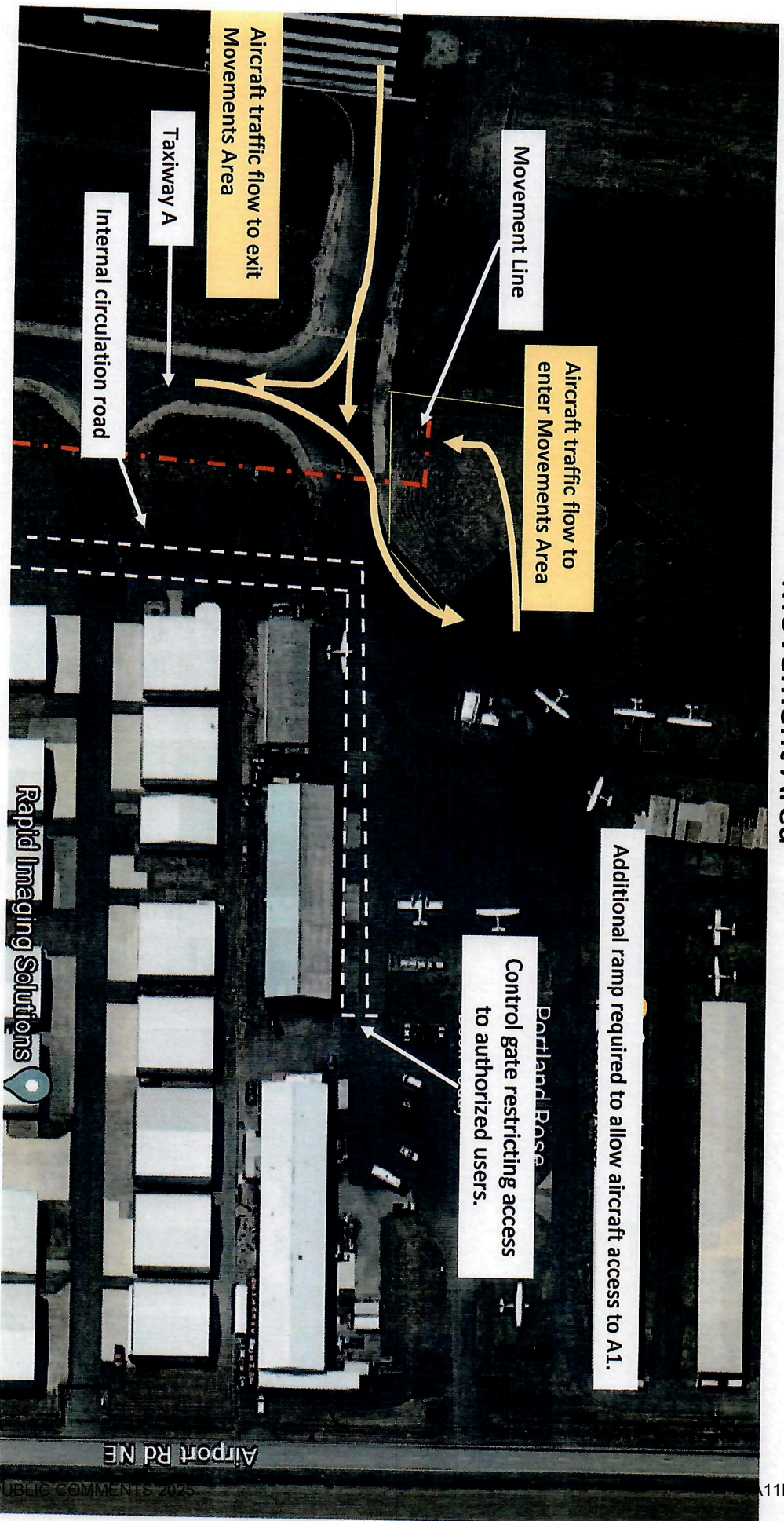


David & Richard Waggoner
Tri-Prop, LLC
Opening Doors for the General Aviation Community
503-678-3343 – Office
503-680-3597 – Direct

Attachments:

FAA 7460-1 dtd 9 Jun 23 - A1 HS
Extracts;
Facility Goals and Requirements, Taxiways and Taxilanes, Chapter 4
Preliminary Alternatives Summary, Landside Alternatives Introduction
Figure 11: Remove Direct Access - North End

Proposed Taxilane and Internal circulation road with proper setback and aircraft flow to and from the Movement Area



Attachment item 21, FAA 7460-1 dtd 06/09/2023

Extract –

Facility Goals and Requirements, Taxiways and Taxilanes, Chapter 4

Two FAA-designated hot spots exist on the Aurora State Airport taxiway system. A hot spot is a location on an airport movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary. The hot spots and other locations on the Taxiway A system that warrant further consideration are summarized below:

Hot Spot #1 is located at Taxiway A and A1. Based on previous discussions with FAA, it is understood that this hot spot will be removed from the designation list if proper marking and signage is installed. Airport management reports that the appropriate pavement markings have been updated and the signage will be addressed in a future project. Further discussion with FAA will be required to remove the designation from the FAA Hot Spots List database.

Extract -

Preliminary Alternatives Summary, Landside Alternatives Introduction Figure 11: Remove Direct Access - North End

FIGURE 11: REMOVE DIRECT ACCESS - NORTH END

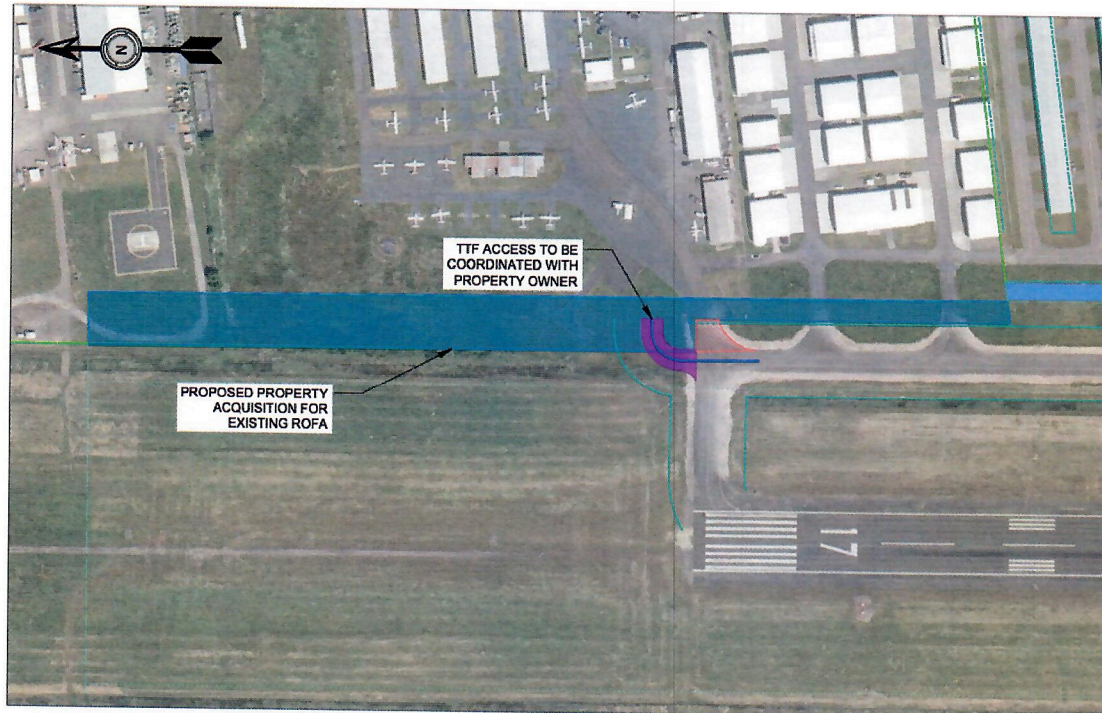


Figure 11 depicts a proposed reconfiguration of the existing TTF taxilane connection to Taxiway A1. The change in configuration would create a new taxi route between the adjacent apron and the runway, including a 90-degree turn to access Taxiway A and a second 90-degree turn to access Taxiway A1. This would eliminate the direct aircraft access configuration on Taxiway A1. The proposed changes require a new taxiway section and coordination with the adjacent private property owner. It is noted that a portion of this private property is also located in the ROFA for the existing Runway 17/35, which is recommended for property acquisition to meet FAA standards.

Re: Reminder - PAC Meeting 9 is next Tuesday

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Wed 2025-02-05 10:22 AM

To Michael Weimer <MWeimer@lifeflight.org>

Cc Ben Clayton <bclayton@lifeflight.org>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Hi Michael,

Thanks for reaching out. You are listed as an alternate and Ben is the primary PAC member. We ask that only one member/alternate participates in the meeting discussions but both are welcome to attend the meeting (the alternate would just participate via the "attendee" or public section).

I also sometimes get delivery delay messages for your email, so please let me know if you are NOT receiving the PAC emails.

Please let me know if you have any other questions.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: Michael Weimer <MWeimer@lifeflight.org>

Sent: Tuesday, February 4, 2025 1:23 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>

Subject: RE: Reminder - PAC Meeting 9 is next Tuesday

Hi Brandy,

I am not sure if I am an official PAC member or not. Can you please clarify? If so, I have not received a Zoom invite.

Michael Weimer | Chief Operating Officer

Office 503.678.4364 | Mobile 208.258.4323 | Fax 503.678.4369

Life Flight Network | 1550 South Tech Lane | Suite 105 | Meridian, ID 83642



From: Brandy Steffen <brandy.steffen@jla.us.com>

Sent: Tuesday, February 4, 2025 9:00 AM

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: Reminder - PAC Meeting 9 is next Tuesday

WARNING: This email originated outside of Life Flight Network's email system.

DO NOT REPLY, OPEN OR CLICK links or attachments unless you recognize the sender and know the content is safe.

Hello PAC members,

We are looking forward to seeing you at **next week's meeting (VIRTUAL) on Tuesday, February 11, 2025 from 5:00-8:00 p.m.** when we'll review and discuss the refined preferred alternative, the Airport Layout Plan (ALP), and Capital Improvement Plan (CIP) for the Airport Master Plan project.

Date/Time: Tuesday, February 11, 2025 from 5:00-8:00 p.m.

Location: Zoom

- PAC members have been registered via Zoom and will get an email directly from Zoom with the login information (please check your junk folder). Please do not forward this email to anyone.
- Others can join using the link on the website: <https://publicproject.net/AuroraAirport> (on the "meetings" page)

Materials: The agenda is attached and posted to the website.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

From: Brandy Steffen

Sent: Friday, January 10, 2025 4:56 PM

Cc: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: PAC Meeting 9 scheduled for Tuesday, Feb. 11, 2025

Hello PAC members,

We are looking forward to seeing you at the **next meeting (VIRTUAL) on Tuesday, February 11, 2025 from 5:00-8:00 p.m.** when we'll review and discuss the refined preferred alternative, the Airport Layout Plan (ALP), and Capital Improvement Plan (CIP) for the Airport Master Plan project.

Thanks again for all of the comments from the last PAC meeting. As a reminder, **please submit any comments on the [Refined Preferred Alternative](#) no later than Tuesday, January 21, 2025.**

Date/Time: Tuesday, February 11, 2025 from 5:00-8:00 p.m.

Location: Zoom

- PAC members have been registered via Zoom and will get an email directly from Zoom with the login information (please check your junk folder). Please do not forward this email to anyone.
- Others can join using the link on the website: <https://publicproject.net/AuroraAirport> (on the "meetings" page)

Materials: The agenda will be posted to the website once it is finalized.

Thanks,

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Senior Program Manager + Partner

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Fw: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-02-25 8:53 AM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

 2 attachments (16 MB)

Friends of French Prairie v. Dept of Aviation.pdf; p17027coll5_29140.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Sent: Monday, February 24, 2025 4:58 PM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>; BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Subject: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

Hello,

Good afternoon. Please include within the UAO master plan record.

ALEX THOMAS

OREGON DEPARTMENT OF AVIATION (ODAV)

POLICY, PLANNING, & PROGRAMS MANAGER



CELL 971-375-2357

EMAIL Alex.R.Thomas@ODAV.Oregon.Gov

SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

[Schedule a meeting with me.](#)

[Schedule a meeting with any of the programs listed below.](#)

Alternative Contacts:

COAR Grants: Grants@ODAV.Oregon.Gov

Procurement / Contracts: Contracts@ODAV.Oregon.Gov

Pavement (PEP/PMP): Pavement@ODAV.Oregon.Gov

Land Use / Tall Structure: LandUse@ODAV.Oregon.Gov

From: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>
Date: Friday, February 21, 2025 at 17:17
To: House Timothy <Timothy.A.House@faa.gov>, WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>, AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>, Doyle, Peter (FAA) <peter.doyle@faa.gov>, PARADA Angela G * DAS <Angela.G.Parada@das.oregon.gov>, BROOKS Kelly S * GOV <Kelly.S.BROOKS@oregon.gov>
Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>, BEACH Anthony <Anthony.BEACH@odav.oregon.gov>
Subject: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

Folks-

Since you weren't cc'ed on this email. I am passing this along for transparency purposes. Also note that all of this will be uploaded to the project website for transparency as well.

Kelly- this just popped up so if anything, this would be an update.

TY!

From: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>
Date: Friday, February 21, 2025 at 4:59 PM
To: fofp99@gmail.com <fofp99@gmail.com>
Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>, Cathryn.E.Stephens@ci.eugene.or.us <cathryn.e.stephens@ci.eugene.or.us>, Anderson Becki L <Becki.L.Anderson@doj.oregon.gov>, Scruggs Rebecca <rebecca.scruggs@doj.oregon.gov>
Subject: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Dear Mr. Williams,
Director Sugahara forwarded your emails to me to assist in providing a response. As the Director stated, your emails will be made part of the Aurora Master Plan decision record to preserve your statements and to ensure that any member of the public will have access to all of the comments and testimony provided as part of the planning process.

As to your comment below, it appears that you are not asking a question. But, instead stating your interpretation of ODAV and the Board's legal obligations with respect to the process for making a final land use decision, including the final adoption of a master plan and the issuance of the state agency coordination findings supporting that plan. As Dir. Sugahara responded to you below, the Board and ODAV will follow the appropriate process for taking these final actions. I invite you to review ORS 197.180, ORS 836.025, OAR 660, division 30 and OAR 738, division 130 if you have any further questions about the laws that apply to the Board and ODAV's land use planning authority and duties.

I would also like to take this opportunity to correct you on a statement that you made during the last PAC meeting and that you continue to make publicly that the Court of Appeals held that the 2012 Master Plan was never adopted. That is not correct and none of the three tribunals (LUBA, the Court of Appeals or the Marion County Circuit Court) have issued any order or judgment finding that that the 2012 Master Plan was, or was not, adopted. I have attached for your convenience the final judgments by the Court of Appeals in 2021 when it was asked to review LUBA's affirmation of the Board's 2019 State Agency

Coordination Findings, and the 2023 Judgment affirming the Marion County Circuit Court's dismissal of the petitions for judicial review of the 2019 SAC Findings. As I believe you are aware, the Court of Appeals in its 2012 decision found that it was unable to determine whether LUBA's decision was correct because the record before LUBA was not complete. On that basis, it remanded the matter back to LUBA. LUBA in turn remanded the matter back to the Board, at its request. The effect of this remand, as stated in the 2023 attached judgment, was to render the **2019 SAC Decision** ineffective. No decision was entered or made as to the validity of the 2012 Master Plan. I ask that you please review your files which should include the briefing, orders and judgments in the LUBA matter, the circuit court matter and the two court of appeals cases and refrain from misstating the ultimate holdings in these cases.

I hope that this email addresses your comments below and any additional questions you may regarding the 2012

Stacy C. Posegate

Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel Division

971-718-7950

GG1296-22

From: Ben Williams <fofp99@gmail.com>

Date: Friday, February 21, 2025 at 11:02 AM

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: STEPHENS Cathryn E <CStephens@eugene-or.gov>, House Timothy <Timothy.A.House@faa.gov>, Doyle, Peter (FAA) <peter.doyle@faa.gov>, WARNER Chris * GOV <Chris.WARNER@oregon.gov>, WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>, AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>, Austin Barnes <abarnes@co.marion.or.us>, Guile-Hinman, Amanda <guile@ci.wilsonville.or.us>, Joseph Schaefer (jschaefer@ci.aurora.or.us) <jschaefer@ci.aurora.or.us>, mk@friends.org <mk@friends.org>

Subject: Re: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Kenji;

Thank you for the prompt response to my last email concerning the approval and adoption process for the Aurora Airport Master Plan. However, the response that my letter will be added to the record does not actually address the inquiry. To clarify, the question I asked is whether ODAV will confirm that the Oregon Aviation Board will adopt the master plan with land use findings pursuant to OAR 738-130-0055(6), and any appeals of that adoption will be completed, prior to ODAV or the OAB signing the Airport Layout Plan and prior to confirming to the FAA that the master plan is consistent with local land use and zoning pursuant to grant assurance number 6.

Please answer yes or no, and include the answer in the record.

Further, to Mr. House:

Will the FAA confirm that it will not sign the Airport Layout Plan or conclude that grant assurance number 6 is satisfied until the Oregon Aviation Board has adopted the master plan with land use findings pursuant to OAR 738-130-0055(6) and successfully resolved any appeals thereof under Oregon law?

Please answer yes or no, and include the answer in the record.

Sincerely

Ben Williams

Friends of French Prairie

On Tue, Feb 18, 2025 at 8:43 AM SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov> wrote:

Mr. Williams,

Thank you very much. Your letter will be added to the ongoing master plan record and both the Department and the Board intend that any final decision made with respect to the master plan, including state agency coordination findings supporting that plan, will be made in accordance with the applicable state and federal law.

Sincerely,

KENJI SUGAHARA
OREGON DEPARTMENT OF AVIATION
DIRECTOR



OFFICE 503-378-2340

EMAIL kenji.sugahara@odav.oregon.gov

3040 25TH STREET SE, SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

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From: Ben Williams <fofp99@gmail.com>

Sent: Monday, February 17, 2025 11:04 AM

To: STEPHENS Cathryn E <CStephens@eugene-or.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: House Timothy <Timothy.A.House@faa.gov>; Doyle, Peter (FAA) <peter.doyle@faa.gov>; WARNER Chris * GOV <Chris.WARNER@oregon.gov>; WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>; AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>; Austin Barnes <abarnes@co.marion.or.us>; Guile-Hinman, Amanda <guile@ci.wilsonville.or.us>; Joseph Schaefer (jschaefer@ci.aurora.or.us) <jschaefer@ci.aurora.or.us>; mk@friends.org

Subject: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Chair Stephens and Director Sugahara;

Please see the attached letter regarding the approval and adoption process for the Aurora Airport Master Plan in addition to the process for compliance with local comprehensive plans and statewide planning goals.

The intent is to clarify confusion resulting from what the PAC and Aviation Board have been told versus the statutory requirements that apply.

Sincerely

--

Ben Williams
Friends of French Prairie
fofp99@gmail.com

--

Ben Williams
Friends of French Prairie
fofp99@gmail.com

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***This is a nonprecedential memorandum opinion
pursuant to ORAP 10.30 and may not be cited
except as provided in ORAP 10.30(1).***

IN THE COURT OF APPEALS OF THE
STATE OF OREGON

FRIENDS OF FRENCH PRAIRIE
and 1000 Friends of Oregon,
Petitioners-Appellants
Cross-Respondents,
v.

DEPARTMENT OF AVIATION
and State Aviation Board,
Respondents-Respondents,
and

AURORA AIRPORT IMPROVEMENT ASSOCIATION
and Bruce Bennett,
Proposed Intervenor-Respondents,
Cross-Appellants.

Marion County Circuit Court
19CV56274; A179634 (Control)

CITY OF AURORA,
Petitioner-Appellant,
Cross-Respondent,

v.

OREGON DEPARTMENT OF AVIATION
and Oregon State Aviation Board,
Respondents-Respondents,
and

AURORA AIRPORT IMPROVEMENT ASSOCIATION
and Bruce Bennett,
Proposed Intervenor-Respondents,
Cross-Appellants.

Marion County Circuit Court
19CV55909; A179649

Joseph SCHAEFER,
Petitioner-Appellant,
Cross-Respondent,
v.

OREGON DEPARTMENT OF AVIATION
and Oregon State Aviation Board,
Respondents-Respondents,
and

AURORA AIRPORT IMPROVEMENT ASSOCIATION
and Bruce Bennett,
Proposed Intervenor-Respondents,
Cross-Appellants.

Marion County Circuit Court
19CV54617; A179661

Daniel J. Wren, Judge.

Submitted August 4, 2023.

Andrew Mulkey filed the briefs for appellants-cross-respondents Friends of French Prairie and 1000 Friends of Oregon.

David James Robinson filed the brief for appellant-cross-respondent City of Aurora.

Joseph Schaefer filed the brief *pro se*.

Erick J. Haynie, David Watnick, and Perkins Coie LLP filed the briefs for cross-appellants Aurora Airport Improvement Association and Bruce Bennett.

Ellen F. Rosenblum, Attorney General, Benjamin Gutman, Solicitor General, and Jona J. Maukonen, Assistant Attorney General, filed the brief for respondents Oregon Department of Aviation and Oregon State Aviation Board.

Amanda Guile-Hinman filed the brief *amicus curiae* for City of Wilsonville.

Before Tookey, Presiding Judge, Egan, Judge, and Kamins, Judge.

TOOKEY, P. J.

Remanded with instructions to modify judgment to dismiss petitions for judicial review without prejudice; otherwise affirmed.

TOOKEY, P. J.

In this consolidated appeal from a judgment dismissing three petitions for judicial review as moot, petitioners assert a combined 12 assignments of error. The petitions for judicial review sought review of an October 31, 2019, decision (the 2019 Order)¹ of the Oregon Aviation Board (OAB) under ORS 183.484, which provides for judicial review of orders in other than contested cases. Petitioners' cases in the trial court were stayed during the pendency of an appeal by the same parties to LUBA of the 2019 Order.

LUBA ultimately remanded the 2019 Order to OAB. In its opinion remanding the 2019 Order, LUBA, consistent with its precedent, concluded that "after remand, the challenged decision is ineffective." No party sought judicial review of that decision by LUBA. The trial court then dismissed the petitions for judicial review of the 2019 Order as moot with prejudice.

Now, on appeal from the trial court's judgment dismissing the petitions for judicial review as moot with prejudice, petitioners Friends of French Prairie and 1000 Friends of Oregon (Friends) assert three assignments of error; petitioner City of Aurora asserts five assignments of error; and petitioner Joseph Schaefer asserts four assignments of error.² We remand with instructions to dismiss the petitions for judicial review without prejudice and otherwise affirm.

Friends' First Assignment of Error, Aurora's Fourth Assignment of Error, and Schaefer's Third Assignment of Error. In their first assignment of error, Friends, relying on *Kalmiopsis Audubon Soc'y v. Div. of State Lands*, 66 Or App 810, 812, 676 P2d 885 (1984), assert that the trial court erred because "as a matter of law, LUBA's remand did not deprive the court of its ability to review respondents' 2019 Order." As Friends see it, both LUBA and the circuit court had jurisdiction to review the 2019 Order, with LUBA's "scope of

¹ As we explained in *Schaefer v. Oregon Aviation Board*, 312 Or App 316, 318, 495 P3d 1267, *adh'd to as modified on recons*, 313 Or App 725, 492 P3d 782, *rev den*, 369 Or 69 (2021), the 2019 Order adopted findings of "land use compatibility to bring [OAB's] adoption of [a] Master Plan [for the Aurora State Airport] into compliance with ORS 197.180 and an implementing rule, OAR 738-130-0055(6)."

² Additionally, the City of Wilsonville has filed an *amicus curiae* brief in support of petitioners.

review over state agency land use decisions *** limited to determining whether ‘the state agency made a decision that violated the goals’” (quoting ORS 197.835(9)(b)) and with the circuit court’s scope of review to include “review [of] appellant’s non-goal-related claims.” Friends acknowledge that, as a result of LUBA’s remand, OAB could “no longer rely on the 2019 order,” but contend that that “did not deprive the circuit court of its ability to complete its independent and parallel review.”

Examining “mootness is one part of the broader question of whether a justiciable controversy exists.” *Couey v. Atkins*, 357 Or 460, 470, 355 P3d 866 (2015) (internal quotation marks omitted). Generally speaking, a justiciable controversy exists under Oregon law “when the interests of the parties to the action are adverse” and “the court’s decision in the matter will have some practical effect on the rights of the parties to the controversy.” *Barcik v. Kubiaczyk*, 321 Or 174, 182, 895 P2d 765 (1995) (internal quotation marks omitted). An otherwise justiciable case “becomes moot when a court’s decision will no longer have a practical effect on the rights of the parties.” *State v. K. J. B.*, 362 Or 777, 785, 416 P3d 291 (2018). “[W]e review for legal error a trial court’s ruling on a motion to dismiss on mootness grounds.” *Birchall v. Miller*, 314 Or App 521, 522, 497 P3d 1268 (2021).

Assuming without deciding that both LUBA and the trial court had jurisdiction to review the 2019 Order, as Friends contend, we conclude that the trial court did not err in concluding that the petitions for judicial review of the 2019 Order had become moot. The 2019 Order was remanded to OAB by LUBA, and by operation of LUBA’s remand, it had become ineffective. *See Eastern Oregon Mining Association v. DEQ*, 360 Or 10, 16, 376 P3d 288 (2016) (explaining that, “[u]nder the Administrative Procedure Act, a challenge to an order in other than contested case entitles a court to ‘affirm, reverse, or remand *the order*’ that is the subject of the challenge,” and if “there is no longer any order in effect for a court to affirm, reverse, or remand” then the case has no practical effect and is moot (quoting ORS 183.484(5) (a); emphasis in *Eastern Oregon Mining Association*)). Our decision in *Kalmiopsis Audubon Soc’y*, which held that “the

legislature did not intend to divest this court of jurisdiction over appeals taken pursuant to ORS 183.480 and 183.482 claiming [Administrative Procedures Act] violations, even when the agency decision comes within the definition of a land use decision,” 66 Or App at 815, does not alter that conclusion regarding mootness. In other words, *Kalmiopsis Audubon Soc’y* did not conclude that when an administrative agency remands of an order a parallel review of that order by the circuit court is not moot.

Further, in Friends’ first assignment of error, as well as in Aurora’s fourth assignment of error, and in Schaefer’s third assignment of error,³ petitioners raise various contentions of error under ORS 183.484(4)⁴ regarding OAB “withdrawing” the 2019 Order. ORS 183.484(4) specifies circumstances under which an agency may withdraw an order for reconsideration subsequent to the filing of a petition for review.

The difficulty with petitioner’s arguments is that, although the trial court used the word “withdrawal” in its ruling, OAB did not withdraw the 2019 Order “for purposes of reconsideration” within the meaning of ORS 183.484(4), nor did the trial court find that it did. Rather, after our remand to LUBA, LUBA remanded the 2019 Order to OAB, and the trial court determined that LUBA’s remand rendered the petitions for judicial review moot. Thus, contrary to respondents’ arguments, the mandates of ORS 183.484(4) are inapplicable with regard to the agency order and the trial court’s ruling in this case.

Friends’ Second Assignment of Error and Schaefer’s Fourth Assignment of Error. These assignments of error concern the trial court’s determination that ORS 14.175⁵ did

³ Another aspect of Schaefer’s third assignment of error is discussed below.

⁴ ORS 183.484(4) provides:

“At any time subsequent to the filing of the petition for review and prior to the date set for hearing, the agency may withdraw its order for purposes of reconsideration. If an agency withdraws an order for purposes of reconsideration, it shall, within such time as the court may allow, affirm, modify or reverse its order.”

⁵ ORS 14.175 provides:

“In any action in which a party alleges that an act, policy or practice of a public body, as defined in ORS 174.109, or of any officer, employee or agent of

not apply to petitioners' claims. Specifically, Friends' second assignment of error asserts that "the circuit court erred when it declined to review the case under ORS 14.175," because, in cases like this one, where there is a challenge to an administrative agency decision that involves both "goal related and non-goal related assignments of error" and which is appealed to both LUBA and the circuit court, given "LUBA's statutory deadlines for review and expedited timelines for review at the Court of Appeals, a LUBA proceeding will likely proceed much faster than the circuit court." Thus, as Friends see it, the nongoal related claims in the circuit court will evade review.

Schaefer's fourth assignment of error asserts that "the dismissal with prejudice means the APA claims will evade future judicial review, and therefore the circuit court erred in concluding the ORS 14.175 exception to mootness does not apply." That is so, in Schaefer's view, because dismissal with prejudice prevents the trial court from considering a future challenge to "the 2012 Master Plan," and because OAB "is not obligated to act on LUBA's remand."

The trial court determined that the exception to mootness set forth at ORS 14.175 did not apply, because the "challenged policy or practice, or similar acts," were not "likely to evade judicial review in the future." ORS 14.175(3). Reviewing for legal error, *Progressive Party of Oregon v. Atkins*, 276 Or App 700, 706-07, 370 P3d 506, *rev den*, 360 Or 697 (2016), we conclude that the trial court did not err.

In this case, petitioners obtained judicial review of the challenged the 2019 Order in *Schaefer v. Oregon Aviation Board*, 312 Or App 316, 495 P3d 1267, *adh'd to as modified on recons*, 313 Or App 725, 492 P3d 782, *rev den*,

a public body, as defined in ORS 174.109, is unconstitutional or is otherwise contrary to law, the party may continue to prosecute the action and the court may issue a judgment on the validity of the challenged act, policy or practice even though the specific act, policy or practice giving rise to the action no longer has a practical effect on the party if the court determines that:

- "(1) The party had standing to commence the action;
- "(2) The act challenged by the party is capable of repetition, or the policy or practice challenged by the party continues in effect; and
- "(3) The challenged policy or practice, or similar acts, are likely to evade judicial review in the future."

369 Or 69 (2021), after an appeal from LUBA. As a result of that review, we remanded back to LUBA, and LUBA then remanded back to OAB, rendering the 2019 Order ineffective. Thus, petitioners prevailed on their challenge to the 2019 Order, after obtaining judicial review of that order.

Although Friends may be correct that LUBA proceedings generally move more quickly than judicial review under ORS 183.484, and assuming without deciding that, as Friends asserts, both LUBA and the circuit court have jurisdiction to review different aspects of certain state agency decisions, we are not persuaded that LUBA completing its review prior to the circuit court means an issue is “likely to evade judicial review.” Further, regarding Schaefer’s argument concerning dismissal with prejudice, as explained below, we conclude the trial court erred in that regard and we remand with instructions to dismiss without prejudice.

Schaefer’s and Aurora’s First Assignments of Error and Friends’ Third Assignment of Error. The trial court’s order dismissing the petitions for judicial review as moot contained the following statement: “This dismissal neither makes nor implies any findings or conclusions as to the final agency order dated October 31, 2019, or to the 2011 Aurora Airport Master Plan referenced therein.”

In his first assignment of error, Schaefer contends that the trial court “inconsistently and therefore erroneously ruled that dismissal for lack of a final agency order ‘neither makes nor implies any findings or conclusions as to the final agency order dated October 31, 2019, or to the 2011 Aurora Airport Master Plan referenced therein.’” In Aurora’s first assignment of error, it joins Schaefer’s first assignment of error. In Friends’ third assignment of error, they contend that “the circuit court’s order is internally inconsistent, and its conclusion that its dismissal for lack of a final decision does not make or imply any findings or conclusions about the 2019 order or the airport master plan referenced therein ultimately undermines its conclusion that the case is moot.”

We are not persuaded by petitioners’ arguments. We understand the trial court’s statement regarding its findings and conclusions to mean that its decision dismissing

the action as moot should not be read as making any determinations as to the merits of petitioners' claims, and merely reflecting that, in view of the 2019 Order being remanded, the cases were moot. Having determined that the cases were moot, the trial court did not err in declining to reach the merits of petitioners' claims. *City of Damascus v. State of Oregon*, 367 Or 41, 68 n 13, 472 P3d 741 (2020) (“[T]here are prudential and jurisprudential reasons to avoid unnecessarily deciding legal issues that may be presented in a case, if the case can be appropriately resolved on more limited grounds.”).

Schaefer's Second Assignment of Error and Aurora's Second and Third Assignments of Error. In Schaefer's second assignment of error, which is joined by Aurora in its second assignment of error, they contend that “[w]hether the Final Agency Order in 2019 is a separate proceeding from the 2012 Master Plan is a precluded issue that the Court of Appeals already decided.”⁶ They assert that the trial court improperly “segregate[d]” the “2012 Master Plan *** from the Final Agency Order adopted in 2019 into two separate proceedings.”

In Aurora's third assignment of error, it contends that the “circuit court erred in treating the 2012 Airport Master Plan as separate from the 2019 Final Agency Order because that plan was only a preliminary agency decision that preceded final agency action under ORS 183.310(6)(b).”⁷ Aurora contends that “the 2012 Aurora Airport Master

⁶ Petitioners' “preclusion” argument relies on our opinion in *Schaefer*, 312 Or App 316. In that case, we concluded, among other legal points, that “the version of the master plan that the [OAB] approved on October 27, 2011, along with any other materials that the board considered at that meeting, had to be part of the record before LUBA” in petitioners' appeal to LUBA of the 2019 Order. *Id.* at 326. We explained that that was so because the 2019 Order was “an effort to comply with OAR 738-130-0055(6), which provides that ‘[t]he Aviation Board shall adopt findings of [land-use] compatibility *** when it adopts the final facility plan,’” and, under that rule, “the board's adoption of a final facility plan and its land-use compatibility findings are two parts of the same proceeding.” *Id.* at 325 (brackets, omission, and emphasis in *Schaefer*).

⁷ ORS 183.310(6)(b) provides:

“‘Final order’ means final agency action expressed in writing. ‘Final order’ does not include any tentative or preliminary agency declaration or statement that:

“(A) Precedes final agency action; or

Plan was a nonfinal agency order subject to review once Respondents adopted the 2019 Final Agency Order.”

In our view, the trial court did not err in the manner described in Schaefer’s and Aurora’s second assignments of error or Aurora’s third assignment of error. Given the record, we understand the trial court’s order to have recognized that the final order that provided it with jurisdiction under ORS 183.484—the 2019 Order—was ineffective and for that reason the case was moot. Regardless of whether the 2019 Order was appropriately characterized as part of the same proceeding as an earlier proceeding, petitioners’ challenge to the 2019 Order had become moot.

Aurora’s Fifth Assignment of Error and Schaefer’s Third Assignment of Error. As noted, the trial court dismissed the petitions for judicial review with prejudice. In its fifth assignment of error, Aurora contends that that was error. Additionally, in its argument in its third assignment of error, Schaefer contends that that was error. We conclude that although the trial court did not err in dismissing the petitions as moot, they should have been dismissed without prejudice. *See, e.g., Arnold v. Kotek*, 370 Or 716, 719, 524 P3d 955 (2023) (dismissing motion for stay as moot, but doing so “without prejudice”).⁸

Consequently, we remand with instructions to modify the judgment to dismiss the petitions for judicial review without prejudice, and we otherwise affirm.⁹

“(B) Does not preclude further agency consideration of the subject matter of the statement or declaration.”

⁸ Citing ORAP 10.30(2)(b), Aurora and Schaefer request that we publish a precedential decision in resolving this appeal. Having considered the factors in ORAP 10.30(2)(b), we conclude a nonprecedential decision is appropriate.

Further, to the extent petitioners have raised arguments that we have not specifically addressed in this opinion, we reject them.

⁹ We note that cross-appellants, the Aurora Airport Improvement Association and Bruce Bennett, have filed a “conditional cross appeal,” in which they ask that, if we determine that petitioners’ petitions for review are not moot, we reverse the trial court’s “apparent determination that it otherwise had subject matter jurisdiction.” We need not reach that argument, because we agree with the trial court that this case is moot.

Further, cross-appellants, whose motions to intervene in the trial court were denied as moot, request that “in the event *** this Court rules in favor of Petitioner-Appellants and orders and further proceedings in the Circuit Court,” we reverse “the Circuit Court’s denial of their intervention motions, to ensure

Remanded with instructions to modify judgment to dismiss petitions for judicial review without prejudice; otherwise affirmed.

[their] participation in any Circuit Court proceedings upon remand.” Because we agree with the trial court that this case is moot, and remand for the limited purpose of modifying the judgment to reflect that the dismissals are without prejudice, we conclude that the trial court did not err in denying the motions to intervene because they are moot.

IN THE COURT OF APPEALS OF THE
STATE OF OREGON

Joseph SCHAEFER,
City of Aurora, City of Wilsonville,
1000 Friends of Oregon, and
Friends of French Prairie,
Petitioners,

and

CLACKAMAS COUNTY,
Intervenor-Petitioner below,

v.

OREGON AVIATION BOARD;
Oregon Department of Aviation;
Aurora Airport Improvement Association;
Bruce Bennett; Wilson Construction Company, Inc.;
Ted Millar; TLM Holdings, LLC;
Anthony Alan Helbling; and
Wilsonville Chamber of Commerce,
Respondents.

Land Use Board of Appeals
2019123, 2019127, 2019129, 2019130;
A175219

Submitted March 19, 2021.

Joseph Schaefer filed the brief *pro se*.

Sara Kendrick filed the brief for petitioner City of Aurora.

Barbara A. Jacobson and J. Ryan Adams filed the brief for petitioner City of Wilsonville.

Andrew Mulkey filed the brief for petitioners 1000 Friends of Oregon and Friends of French Prairie.

Ellen F. Rosenblum, Attorney General, Benjamin Gutman, Solicitor General, and Jona J. Maukonen, Assistant Attorney General, filed the brief for respondents Oregon Aviation Board and Oregon Department of Aviation.

Eric S. Postma and Bittner & Hahs, PC; Wendie L. Kellington and Kellington Law Group, PC, filed the brief for respondents Aurora Airport Improvement Association, Bruce Bennett, Wilsonville Construction Company, Inc., Ted Millar, TLM Holdings, LLC, Anthony Alan Helbling, and Wilsonville Chamber of Commerce.

Before Armstrong, Presiding Judge, and Tookey, Judge, and Aoyagi, Judge.

ARMSTRONG, P. J.

Reversed and remanded.

ARMSTRONG, P. J.

In 2011, the Oregon Aviation Board (board) adopted a Master Plan for the Aurora State Airport. In 2019, the board belatedly adopted findings of land use compatibility to bring its adoption of the Master Plan into compliance with ORS 197.180 and an implementing rule, OAR 738-130-0055(6).¹ The board determined that the Master Plan complied with the Marion County Comprehensive Plan and that, because of that compliance, there was no need to consider whether it complied with any statewide planning goals. Alternatively, the board determined that the Master Plan complied with the goals.

Petitioners appealed to the Land Use Board of Appeals (LUBA), contending that the Master Plan that the board actually adopted in 2011 was not in the record and, in any case, that the 2012 Master Plan, which was in the record, was compatible with neither the Marion County Comprehensive Plan nor the statewide planning goals. Petitioners asserted, among other things, that the Airport Layout Plan contained in the 2012 Master Plan showed the airport development extending onto nearby land that is zoned for Exclusive Farm Use (EFU). LUBA rejected all of petitioners' challenges, concluded that the 2012 Master Plan complied with the Marion County Comprehensive Plan and that the goals did not apply, and dismissed the appeal.

¹ ORS 197.180(1) provides as follows:

“Except as provided in ORS 197.277 or subsection (2) of this section or unless expressly exempted by another statute from any of the requirements of this section, state agencies shall carry out their planning duties, powers and responsibilities and take actions that are authorized by law with respect to programs affecting land use:

“(a) In compliance with the goals, rules implementing the goals and rules implementing this section; and

“(b) In a manner compatible with acknowledged comprehensive plans and land use regulations.”

OAR 738-130-0055(6) provides as follows: “The Aviation Board shall adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan.”

In 2011, a similar but separate rule, promulgated by the Oregon Department of Transportation, applied to the board's adoption of facility plans like the Master Plan. However, the parties have not addressed any differences between the two rules, and, accordingly, we do not address any differences.

LUBA concluded that the decision was not a land use decision because, after deciding—correctly, in LUBA’s view—that the Master Plan complied with the Marion County Comprehensive Plan (MCCP), the board did not need to directly apply the goals.² ORS 197.015(10)(a)(B) (“Land use decision” includes “A final decision or determination of a state agency other than the commission with respect to which the agency is required to apply the goals.”). Our disposition in this case makes it unnecessary for us to consider whether LUBA’s construction of ORS 197.180(1) and ORS 197.015(10)(a)(B) is correct.

Petitioners seek judicial review, contending that, for a variety of reasons, LUBA’s decision was unlawful in substance and procedure.³ As we will explain, we agree with petitioners City of Aurora and City of Wilsonville that LUBA committed procedural error by denying petitioners’ objection that the Master Plan approved in 2011 needed to be in the record. We also address various petitioners’ contentions that LUBA’s order is unlawful in substance because (1) it holds, contrary to the Master Plan document, that the Master Plan does not include airport-related development on EFU land; (2) LUBA incorrectly construed ORS 836.642 and, based on that construction, concluded that the airport expansion complies with various provisions of the MCCP and Goal 14 because any land use at the Aurora State Airport is a rural

² The board relied on OAR 660-030-0065(2), which provides as follows:

“Except as provided in section (3) of this rule, a state agency shall comply with the statewide goals by assuring that its land use program is compatible with the applicable acknowledged comprehensive plan(s) as provided in OAR 660-030-0070.”

The parties have disputed whether that provision applies and, if it does, whether it is valid. However, our disposition makes it unnecessary for us to consider those issues.

³ Some of the parties have filed joint briefs on judicial review. Petitioners 1000 Friends of Oregon and Friends of French Prairie have filed a joint brief, and we refer to them as 1000 Friends.

Respondents Aurora Airport Improvement Association, Bruce Bennett, Wilson Construction Company, Inc., Ted Millar, TLM Holdings, LLC, Anthony Alan Helbling, and Wilsonville Chamber of Commerce have filed joint briefs, and we refer to them as the private respondents.

Respondents Oregon Aviation Board and Oregon Department of Aviation have filed a joint brief, and we refer to them as the agency respondents.

Petitioners City of Aurora, City of Wilsonville, and Joseph Schaefer have filed individual briefs.

use as a matter of law; and (3) LUBA incorrectly construed OAR 660-012-0065(3)(n) when it held that the changes proposed in the Master Plan were not changes that would “permit service to a larger class of airplane” and, consequently, that the Master Plan complied with Goals 3, 11, and 14 as a matter of law. As explained below, we agree with petitioners on all of those points. We reject without discussion petitioner City of Wilsonville’s fourth and fifth assignments of error, and our disposition makes it unnecessary for us to address private respondents’ cross-assignment of error.⁴ We reverse and remand LUBA’s order.

I. BACKGROUND

We begin with a brief procedural background and provide additional facts below as we address each of petitioners’ arguments. In late 2009, the board began a public process to update the master plan for the Aurora State Airport. At a meeting on October 27, 2011, the board had before it a document entitled Aurora State Airport Master Plan, which we refer to as the 2011 Master Plan. The board adopted a Master Plan at the October 27, 2011, meeting.⁵

After the Federal Aviation Administration (FAA) rejected the preferred development alternative identified in the 2011 Master Plan, the Master Plan was modified in 2012. Throughout this opinion, we refer to the modified master plan document as the 2012 Master Plan or simply the Master Plan. The FAA eventually approved the preferred alternative identified in the 2012 Master Plan, and the director of the Oregon Aviation Department signed the plan. However, the board never formally approved or adopted the 2012 Master Plan after October 27, 2011.

⁴ In petitioner City of Wilsonville’s fourth assignment of error, it contends that the City of Wilsonville and Clackamas County are an “affected city [and] county” under OAR 738-130-000(5). It does not contend that the City of Aurora is an affected city, and we express no opinion on that question.

⁵ Petitioner City of Wilsonville contends that the board adopted only the last two chapters of the Master Plan at the October 27, 2011, meeting and argues that LUBA erred in determining that the board legitimately adopted any version of the Master Plan. Likewise, petitioner City of Aurora contends that the 2012 Master Plan was never adopted. LUBA should consider those arguments on remand in light of the complete record. For purposes of this opinion, we assume, without deciding, that the board adopted the 2012 Master Plan on October 27, 2011.

In 2019, the board adopted findings of land use compatibility for the 2012 Master Plan. The board explained that it had “adopted the Master Plan at its October 27, 2011, meeting.”

Petitioners challenged the land-use compatibility findings before LUBA. LUBA rejected all of petitioners’ assignments of error to the procedure and substance of the board’s findings, and petitioners seek judicial review.

II. STANDARD OF REVIEW

At the outset, we consider our standard of review of LUBA’s decision in a case, like this one, where LUBA considered whether “[t]he state agency made a decision that violated the goals.” ORS 197.835(9)(b). As always, our task on review is to discern whether LUBA’s order is “unlawful in substance or procedure,” ORS 197.850(9)(a), and we “may not substitute [our] judgment for that of [LUBA] as to any issue of fact,” ORS 197.850(8). Our understanding of how to implement that standard of review turns on LUBA’s scope of review.

ORS 197.835 sets out LUBA’s scope of review. For our purposes, the relevant subsection of the statute is subsection (9), which provides as follows:

“In addition to the review under subsections (1) to (8) of this section, [LUBA] shall reverse or remand the land use decision under review if the board finds:

“(a) The local government or special district:

“(A) Exceeded its jurisdiction;

“(B) Failed to follow the procedures applicable to the matter before it in a manner that prejudiced the substantial rights of the petitioner;

“(C) Made a decision not supported by substantial evidence in the whole record;

“(D) Improperly construed the applicable law; or

“(E) Made an unconstitutional decision; or

“(b) *The state agency made a decision that violated the goals.*”

(Emphasis added.); *see also* ORS 197.835(8) (LUBA “shall reverse or remand a decision involving the application of a

plan or land use regulation provision if the decision is not in compliance with applicable provisions of the comprehensive plan or land use regulations”).

Abundant case law applies our standard of review of LUBA orders applying subsection (9)(a), that is, LUBA orders deciding whether a local government or special district committed reversible error in one of the five specified ways. Under that case law, our review of LUBA’s determination of whether a local government made a decision not supported by substantial evidence in the whole record, ORS 197.835(9)(a)(C), is very limited:

“[W]here LUBA has properly understood and applied the ‘substantial evidence’ test of ORS 197.835(9)(a)(C), a reviewing court should affirm its order, notwithstanding the reviewing court’s disagreement with LUBA as to whether the evidence is ‘substantial.’ This does not mean, of course, that a reviewing court must blindly accept LUBA’s evaluation of substantiality. The evidence in a particular case might be so at odds with LUBA’s evaluation that a reviewing court could infer that LUBA had misunderstood or misapplied its scope of review, and reversal or remand might be proper.”

Younger v. City of Portland, 305 Or 346, 358-59, 752 P2d 262 (1988) (citation omitted). In other words, “where LUBA has review of a local government’s findings of fact, we review to determine whether LUBA ‘misunderstood or misapplied’ the substantial evidence standard of review.” *Rogue Advocates v. Jackson County*, 282 Or App 381, 388 n 4, 385 P3d 1262 (2016) (quoting *Younger*, 305 Or at 359).

In contrast with the specificity of LUBA’s scope of review established in ORS 197.835(9)(a)(A) through (E), paragraph (9)(b) of ORS 197.835 states only that LUBA shall reverse and remand “if the board finds *** [t]he state agency made a decision that violated the goals.” **We have never addressed what our standard of review requires when LUBA has reviewed a state agency decision for compliance with the goals.**

Under ORS 197.835(9)(a), LUBA uses an appellate lens to review the local government or special district’s decision: LUBA makes determinations about the jurisdiction and

procedural adequacy of the previous decisionmaker, ORS 197.835(9)(a)(A), (B); the sufficiency of the evidence before the previous decisionmaker, ORS 197.835(9)(a)(C); or the legal correctness of the previous decisionmaker's decision, ORS 197.835(9)(a)(D), (E). By contrast, in defining LUBA's scope of review, ORS 197.835(9)(b) **does not invoke appellate concepts that would cause LUBA to defer to the factual or legal determinations of any previous decisionmaker**. Rather, it appears that, under ORS 197.835(9)(b), LUBA directly assesses, in the first instance, whether the substance of the state agency's decision complied with the goals.

This case does not require us to fully elaborate our standard of review of LUBA's decisions under ORS 197.835(9)(b). In a case like this one, where the central question is whether a facility plan—a document—complies with the goals, and the parties agree (for some purposes, at least) that that document is in the record, our review is largely for mistaken construction of the applicable law; **there are few, if any, relevant factual issues for us to review**. ORS 197.850(9)(a). To the extent that we are called on to review LUBA's factual determinations in this case, it suffices to note that, as to the few disputed facts at issue, there is no evidence in the record to support LUBA's erroneous findings.⁶

III. ANALYSIS

A. *The 2011 Master Plan*

We begin our analysis by considering petitioners' City of Aurora and City of Wilsonville's contention that LUBA erred in denying petitioners' requests to add to the

⁶ It may be that we review factfinding by LUBA under ORS 197.835(9)(b) for substantial evidence. *Cf.* ORS 197.850(9)(c) (providing that the court shall reverse and remand a LUBA order if “[t]he order is not supported by substantial evidence in the whole record as to facts found by the board under ORS 197.835(2)”; *Rogue Advocates*, 282 Or App at 388 n 4 (“Under ORS 197.850(9)(c), where LUBA itself engages in fact finding [about certain enumerated procedural issues], we review those findings for substantial evidence.”). *See also Zimmerman v. LCDC*, 274 Or App 512, 519, 361 P3d 619 (2015) (noting that our review of LUBA's legal determinations is the “functional equivalent” of our standard of review of an agency's legal determination under ORS 183.482(8)(a)); ORS 183.482(8)(c) (Court of Appeals reviews agency factfinding for substantial evidence); ORS 183.482(7) (Court of Appeals “shall not substitute its judgment for that of the agency as to any issue of fact”). However, as noted in the text, we need not decide that question here.

record the Master Plan document that the board had before it on October 27, 2011.

A document entitled Aurora State Airport Master Plan appears in the record. That document includes material created after 2011, including an Appendix to Chapter 5 that narrates events that occurred through at least November 2012.⁷ LUBA and the parties agree that the version of the master plan in the record is the 2012 version. That document indisputably was substantially modified after October 27, 2011, by, for example, identifying a different development option as the preferred alternative and omitting some of the discussion and documentation relating to the original preferred alternative. Although the Appendix to Chapter 5 narrates subsequent events and some of the changes that were made, the 2012 Master Plan does not include the text of the 2011 Master Plan or a complete list of changes; it is impossible to identify most of the material that was added and any that was removed after October 27, 2011.

OAR 661-010-0025(1)(b), one of LUBA's evidentiary rules, provides that the record "shall include" "[a]ll written testimony and all exhibits, maps, documents or other materials specifically incorporated into the record or placed before, and not rejected by, the final decision maker, during the course of the proceedings before the final decision maker." Before LUBA, petitioners contended that the document that the board approved on October 27, 2011, was required to be in the record. LUBA did not disagree with that proposition, but rather held that the 2012 Master Plan document included the master plan that had been approved on October 27, 2011. On that ground, it rejected petitioners' contentions that the 2011 Master Plan document had to be included in the record.

On review, petitioners City of Aurora and City of Wilsonville assign error to that ruling, pointing out that there is no evidence that the 2012 Master Plan includes the 2011 version and that the 2012 Master Plan itself demonstrates that it does not include the 2011 version. Agency respondents defend LUBA's determination that the 2012

⁷ Petitioner City of Wilsonville points out that parts of the 2012 Master Plan are dated later than 2012, including one item that is dated 2017.

Master Plan includes the 2011 Master Plan. For their part, private respondents contend that the proceedings before the board in 2019 are the only “proceedings before the final decision maker” that are at issue here, and that the 2012 Master Plan was the only version of the master plan presented in those proceedings.

We agree with petitioners. First, no evidence supports LUBA’s determination that the 2012 Master Plan included the version of the Master Plan approved on October 27, 2011. To the contrary, the 2012 Master Plan itself demonstrates conclusively that the later version is different from the earlier version; it narrates events and explains some of the changes to the document that occurred after 2011, which include identifying a different preferred alternative in the text and on the Airport Layout Plan (ALP). And it is impossible to tell from the 2012 Master Plan what material was added and what was removed after 2011. LUBA erred in concluding that the 2012 Master Plan includes the 2011 Master Plan.

We also reject private respondents’ contention that the events of 2019 are the only “proceedings before the final decision maker” at issue here. OAR 661-010-0025(1)(b). The board made its 2019 findings in an effort to comply with OAR 738-130-0055(6), which provides that “[t]he Aviation Board shall adopt findings of [land-use] compatibility *** *when it adopts the final facility plan.*” (Emphasis added.) Under that rule, the board’s adoption of a final facility plan and its land-use compatibility findings are two parts of the same proceeding. That remains the case here, notwithstanding the delay between the adoption of the Master Plan and the findings of land-use compatibility.⁸

⁸ Given the process contemplated in OAR 738-130-0055(6) to implement ORS 197.180(1), we also question whether an agency can treat its adoption of a facility plan as final while also contemplating, as the board argues it did here, that the plan may undergo significant changes before it achieves its final form. If the “final facility plan” that is adopted and for which the agency adopts land-use compatibility findings is not, in fact, the final version of the facility plan, then it is not clear how the procedure established in OAR 738-130-0055 actually ensures that the agency is “carry[ing] out [its] planning duties, powers and responsibilities and tak[ing] actions that are authorized by law with respect to programs affecting land use” “[i]n compliance with the goals” and “[i]n a manner compatible with acknowledged comprehensive plans and land use regulations.” ORS 197.180(1).

The version of the master plan that the board approved on October 27, 2011, along with any other materials that the board considered at that meeting, had to be part of the record before LUBA. OAR 661-010-0025(1)(b). We need not consider whether that procedural error, standing alone, would merit reversal, because, as explained below, we agree with petitioners that the case must be remanded in any event.

B. Compliance with the MCCP and the Goals

1. Marion County's failure to identify conflicts with the MCCP

We turn to the parties' central contentions about LUBA's determination that the 2012 Master Plan complies with the MCCP and that Goals 3, 11, and 14 do not apply. As an initial matter, we reject the agency respondents' contention that LUBA should not have evaluated the Master Plan for compliance with the MCCP because Marion County was part of the public master planning process and did not identify any conflicts with its comprehensive plan. See OAR 738-130-0055(2) (allowing the Oregon Department of Aviation (ODA) to "deem that the draft plan is compatible with that jurisdiction's acknowledged comprehensive plan" if it receives no response from a jurisdiction after providing a draft plan to the jurisdiction).

The agency respondents do not explain, and we do not perceive, how ODA's ability to deem the draft plan compatible with the MCCP affects *the board's* obligation to "adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan." OAR 738-130-0055(6); see also ORS 197.180(1) (requiring state agencies to "take actions that are authorized by law with respect to programs affecting land use *** [i]n compliance with the goals, rules implementing the goals and rules implementing this section; and [i]n a manner compatible with acknowledged comprehensive plans and land use regulations"). Moreover, even to any extent that the board could have relied on ODA's decision to deem a plan compatible with the comprehensive

plan, that is not what the board did in this case; rather, it adopted findings of compatibility.

2. *The Master Plan proposes airport development on EFU land*

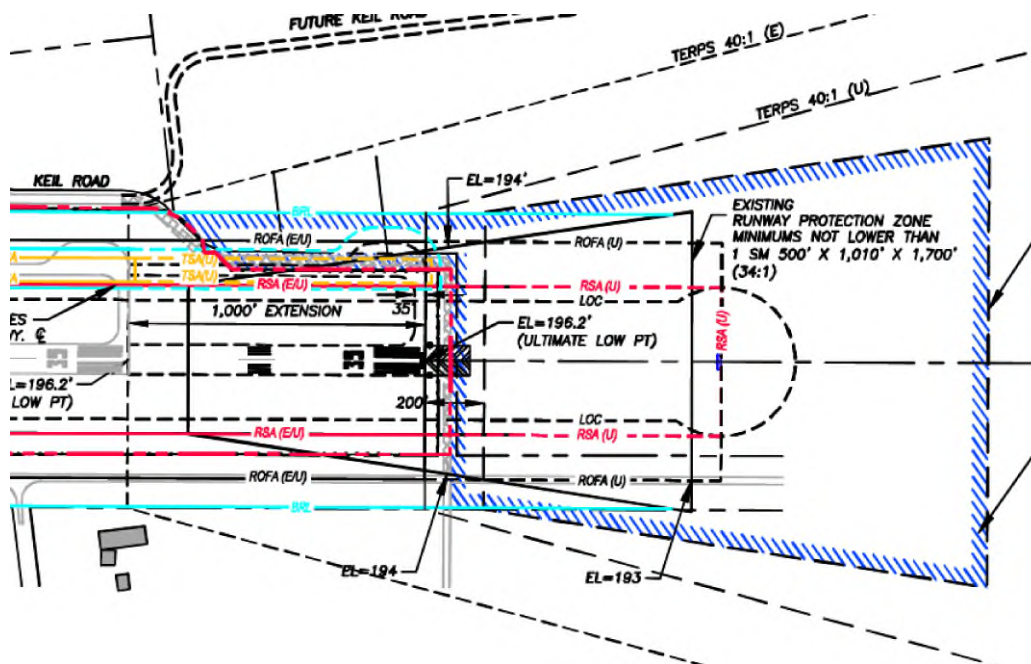
We next consider whether the Master Plan proposes airport development on land zoned EFU. Before LUBA, petitioners contended that it did, and, consequently, that the Master Plan was incompatible with the Agricultural Lands policies of the MCCP. Rather than relying on the contents of the Master Plan itself to answer that question, LUBA relied substantially on information provided later, including information about changes, or potential changes, to the board's development plans that took place after the Master Plan was complete, to determine that the Master Plan did not propose airport development on EFU land.

We begin with factual background. The Master Plan contains seven chapters that, together, provide the facts and reasoning to support its proposed development plan, which the Master Plan identifies as the preferred alternative. The preferred alternative is described in text and also depicted in the Airport Layout Plan, or ALP, a set of drawings that makes up Chapter 6. The Master Plan explains that the ALP is “a pictorial culmination of the master planning process.” That is, as the Master Plan explains, “[t]he ALP depicts the current airport layout and proposed improvements to the Airport for the 20-year planning period.” *See also* OAR 738-005-0010(20) (ALP “refers to a major product of airport master planning”). An ALP must be submitted to the FAA for approval, and “[a]ll airport development carried out at federally obligated airports [like the Aurora State Airport] must be done in accordance with an FAA-approved ALP.” OAR 738-005-0010(20).

The state-owned property that the airport occupies is zoned Public (P) in the Marion County Code. On the south and southeast, the airport property ends at Keil Road, and the property across Keil Road from the airport to the south and east is zoned EFU. The ALP in the Master Plan depicts a runway extension of 1,000 feet to the south of the

existing runway, within the boundary of the property that the airport currently occupies. As shown in Figures 1 and 2, at the end of the runway, the ALP depicts an additional chevron-striped stopway continuing southward in line with the runway.⁹ The stopway extends beyond the airport property line, across Keil Road, and onto land zoned EFU. The ALP also depicts an Instrument Landing System Localizer extending further beyond the stopway to the south on EFU land.¹⁰ The ALP also depicts part of a taxiway on the east side of the runway (upwards on the ALP drawings) extending off of the airport property, across existing Keil Road (which is shown on the ALP as being rerouted) onto land zoned EFU.

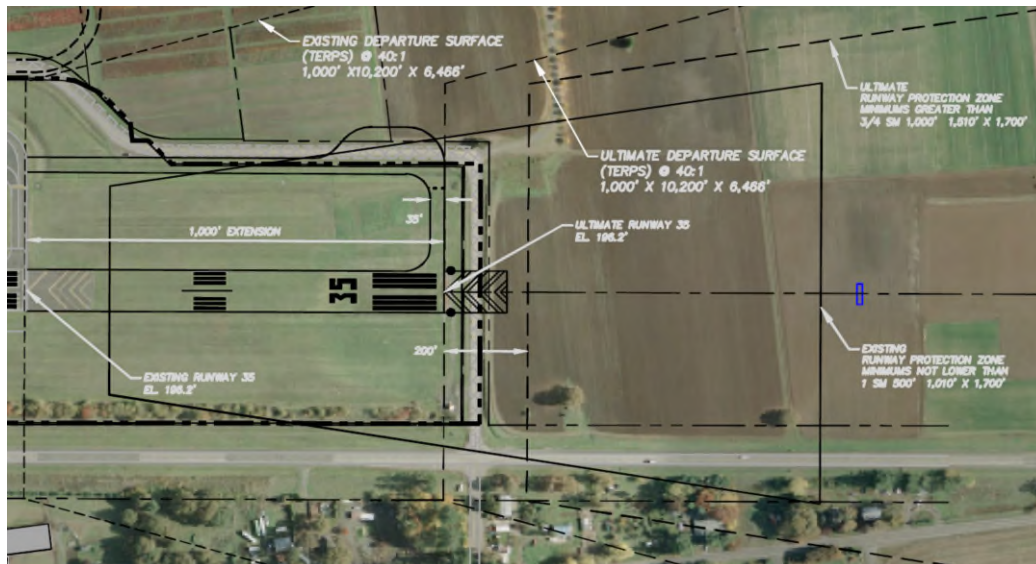
Figure 1



⁹ We have included excerpts from two of the drawings that make up the ALP to make the expansions off the existing airport property more easily understood. Both drawings show the same expansions in the same places.

¹⁰ In light of our conclusion, explained below, that the Master Plan proposes development of the stopway and taxiway on EFU land, we do not reach private respondents' contention, raised in their cross-assignment of error, that the Localizer is an allowed use in the EFU zone.

For the same reason, we do not reach the parties' arguments about the Runway Protection Zone, the Runway Object Free Area, and the relocation of Keil Road. On remand, LUBA may consider those arguments, as well as arguments about the Localizer, in light of our clarification that the Master Plan, and only the Master Plan, embodies the relevant decision.

Figure 2

The record also contains additional information about the board's development plans and the significance of the development proposed in an airport master plan. For example, in their testimony, Matthew Maass, ODA Deputy Director, and Aron Fagre, an airport planning expert, explained in a variety of ways that the development shown on the ALP is not actually the development that the board intends for the airport. Maass explained that "[t]he Master Plan is a concept document that shows where future development might go" and that "My understanding is, that it is the intent of this agency to not construct any pavement on current EFU land as part of the runway extension." Fagre indicated that "ALPs are not drawn to surveyed or engineering specificity" and opined that "it is certainly feasible for the airport to construct all improvements—runway, taxiway including run up area and stop way in the Marion County P zone."

LUBA rejected petitioners' arguments that the ALP depicted, and, consequently, the Master Plan proposed, airport development on EFU land. After noting various respondents' arguments, including their contention that the ALP "is not a design-level document or a site plan," LUBA explained, "given respondents' responses [to petitioners' arguments] and the evidence in the record, it is not clear to us that the taxiway and the stopway are

proposed to be located outside the P zone.” LUBA also held that

“respondents’ explanation that ODA could choose not to construct the taxiway or install the Localizer if they had to be located on EFU land, and that the stopway will be located in the P zone, undercuts petitioners’ speculation that the improvements will be located in the EFU zone. Stated differently, petitioners’ speculation that those improvements may be located outside the P zone is, at this point, just speculation, and not enough to demonstrate that the 2012 Airport Plan is incompatible with the MCCP.”

LUBA misunderstood its task. It relied on testimony in the record about the board’s plans for development to conclude that the board did not intend to construct airport improvements on EFU land. **But the question is not what the board’s development plans are; the question is what development the Master Plan proposes, and whether that development is consistent with the MCCP and the goals.** OAR 738-130-0055(6) (requiring the board to adopt land-use compatibility findings “when it adopts the final facility plan”); OAR 738-130-0005 (the purpose of ODA’s state agency coordination rules is to establish procedures to “assure that [ODA] land use programs”—including “[a]doption of transportation facility plans,” OAR 738-130-0025(3)—“are carried out in compliance with the statewide planning goals and in a manner compatible with acknowledged comprehensive plans”).

LUBA reasoned that, because the ALP “is not a design-level document or a site plan,” it is impossible to assess the development it depicts for compliance with the MCCP and the goals; thus, LUBA relied on other testimony about where the improvements might or might not ultimately be built to determine the Master Plan’s compliance with those provisions. That reasoning again misapprehends the task at hand. The ALP is not a casual sketch of potential future development; it is the “pictorial culmination of the master planning process” and it depicts the “proposed improvements to the airport for the 20-year planning period.” It must be approved by the FAA, and “[a]ll airport development” “must be done in accordance with” it. OAR

738-005-0010(20). In light of the ALP's role in the master planning process, the ALP drawings are the authoritative documents that determine the location of the improvements proposed by the Master Plan.¹¹

The improvements that the ALP depicts extend off the airport property and onto EFU property. Thus, the Master Plan proposes airport development on EFU land. That conclusion requires us to remand to LUBA for reconsideration of its determination that the Master Plan complies with the Agricultural Lands policies of the MCCP.¹²

3. *ORS 836.640 does not apply*

LUBA rejected petitioners' other challenges to the Master Plan's compliance with the MCCP on the ground that those arguments relied on an assumption that the airport expansion was an urban use of rural land, but that ORS 836.640 establishes, as a matter of law, that the airport and the development proposed in the Master Plan are rural uses.¹³ On review, petitioners Schaefer and City of Aurora contend that LUBA erred in relying on ORS 836.640 to conclude that the airport development was "rural" for land use

¹¹ We do not discount the possibility that, once design-level documents for the improvements proposed in the Master Plan are developed, the details of the location of the improvements may change from the locations shown on the ALP drawings. Our point is simply that, as the "final facility plan," OAR 730-130-0055(6), the Master Plan, and its "pictorial culmination," the ALP, are, as a matter of law, sufficiently authoritative to be evaluated for compliance with the MCCP and the goals.

¹² Private respondents contend that the compatibility of the Master Plan with the MCCP was conclusively determined by the Marion County Board of Commissioners' 2013 adoption of a resolution in support of the Master Plan. The resolution states that the Board of Commissioners "acknowledges and supports" the 2012 Master Plan; it is not a determination, formal or otherwise, of the plan's compliance with the MCCP.

¹³ Petitioners challenged the Master Plan's compliance with the Rural Development Policies 1, 3, and 4; Rural Services Policies 1 through 4; Special District Policies 6, 7, and 8; Urban Land Use Goals a, b, and c; Urban Growth Policies 1, 2, 3, and 6; Growth Management Framework Purposes 1, 2, 3, and 5; and Growth Management Framework Goals 1, 6, and 7.

Petitioners also contended that the Master Plan conflicted with the MCCP because the 1976 Aurora State Airport Master Plan is part of the MCCP, and it proposed extension of the runway to the north rather than the south. Schaefer renews that argument on appeal. However, in light of our disposition, we do not reach it. LUBA should consider it on remand.

purposes.¹⁴ They point out that LUBA has previously held that, “in view of the area served and level of service provided,” formerly existing and proposed uses at the Aurora State Airport “are clearly urban public facility uses.” *Murray v. Marion County*, 23 Or LUBA 268, 283-84 (1992).

Petitioners’ argument requires us to construe ORS 836.642, which we do by “examining the text and context of [the statute], with the goal of determining legislative intent. *State v. Gaines*, 346 Or 160, 171, 206 P3d 1042 (2009).” *Stop the Dump Coalition v. Yamhill County*, 364 Or 432, 446, 435 P3d 698 (2019). ORS 836.642(1) requires the ODA to “establish a pilot program at up to six rural airports to encourage development of through the fence operations designed to promote economic development.”¹⁵ The pilot program “shall operate at” “[t]he Aurora State Airport” and “[n]ot more than five additional rural airports.” ORS 836.642(2). “‘Rural airport’ means an airport described in ORS 836.610(1) that principally serves a city or metropolitan statistical area with a population of 500,000 or fewer.” ORS 836.640(4). Thus, ORS 836.642 implies that the Aurora State Airport is a “rural airport,” a defined term referring to an airport that “principally serves a city or metropolitan statistical area with a population of 500,000 or fewer.”¹⁶

¹⁴ We reject without discussion respondents’ contention that these assignments of error are not preserved or were waived before LUBA.

In its order, LUBA indicated that it was relying on ORS 836.642 in part because petitioner Schaefer had not adequately developed an argument to the contrary. Regardless of whether that is accurate with regard to Schaefer, the City of Aurora fully developed its argument that ORS 836.642 was irrelevant to the question at hand, and it renews that argument on appeal.

It is true that neither Schaefer nor the City of Aurora developed extremely detailed arguments against the application of ORS 836.642. That is because, as we explain below, nothing about the statutory text or context suggests that it applies here; thus, very little explanation was required to demonstrate that it did not apply.

¹⁵ “‘Through the fence operation’ means a customary and usual aviation-related activity that *** [i]s conducted by a commercial or industrial user of property within an airport boundary; and *** [r]elies, for business purposes, on the ability to taxi aircraft directly from the property employed for the commercial or industrial use to an airport runway.” ORS 836.640(5).

¹⁶ That statutory implication is in some tension with the Master Plan, which notes that, in the Oregon Aviation Plan, the statewide plan promulgated by the ODA, the Aurora State Airport is categorized as an Urban General Aviation Airport serving the Portland metropolitan area.

LUBA concluded that those statutory provisions establish as a matter of law that all current uses at the Aurora State Airport and the additional development proposed by the Master Plan are rural, rather than urban, uses for purposes of Goal 14 and the MCCP provisions listed above, 312 Or App at 331 n 13. *See generally 1000 Friends of Oregon v. LCDC (Curry Co.)*, 301 Or 447, 724 P2d 268 (1986) (explaining the significance of rural and urban land uses). LUBA misconstrued the statute. As explained below, although ORS 836.642 does address land use, its provisions unambiguously demonstrate that the legislature did not intend its implied categorization of the Aurora State Airport as a “rural airport” to affect the question of whether existing or new land uses at the airport are urban or rural.

ORS 836.642(4) is the only subsection of the statute that addresses land use. It provides,

“The Department of Land Conservation and Development [(DLCD)], the county and a city, if any, within whose jurisdiction a pilot site is located shall coordinate with the Oregon Department of Aviation to ensure that the applicable comprehensive plans and land use regulations, including airport zoning classifications pursuant to ORS 836.600 to 836.630, facilitate through the fence operations and support the development or expansion of the pilot site *consistent with applicable statewide land use planning requirements.*”

(Emphasis added.) Thus, ORS 836.642 establishes a pilot program encouraging “through the fence programs” at certain “rural airports”—airports serving small cities or metropolitan areas—including Aurora State. It tasks DLCD, the county, and a city with working with ODA to ensure that the applicable comprehensive plans and land use regulations “support the development or expansion of the pilot site *consistent with applicable statewide land use planning requirements.*” ORS 836.642(4) (emphasis added). The text does not suggest that the legislature intended any section of ORS 836.642 to affect how land use requirements apply to the programs or uses of land at the identified airports; to the contrary, it explicitly makes the programs subject to “applicable statewide land use requirements.” ORS 836.642(4).

Nor does the legislature's use of "rural" to describe airports eligible for the pilot program suggest anything about how existing or new uses at airports with pilot programs should be categorized for land-use purposes. As noted above, in ORS 836.642, "rural airport" is a defined term describing airports serving smaller cities and metropolitan statistical areas. Whether the land uses that exist or are proposed for a "rural airport" are rural or urban is an entirely separate question, one that the statute does not purport to address.

Because private respondents appear to argue that the provisions of ORS 836.600 to 836.630 indicate that ORS 836.642 affects the classification of airport uses as rural or urban, we also briefly address those provisions. In 1995 and 1997, the legislature acted to protect and support existing airports, including by modifying land-use laws within airport boundaries. Or Laws 1995, ch 285; Or Laws 1997, ch 859. ORS 836.600 sets out state policy regarding airports:

"In recognition of the importance of the network of airports to the economy of the state and the safety and recreation of its citizens, the policy of the State of Oregon is to encourage and support the continued operation and vitality of Oregon's airports. Such encouragement and support extends to all commercial and recreational uses and activities described in ORS 836.616(2)."

For purposes of ORS 836.600 to 836.630, airport is defined as

"the strip of land used for taking off and landing aircraft, together with all adjacent land used in 1994 in connection with the aircraft landing or taking off from the strip of land, including but not limited to land used for the existing commercial and recreational airport uses and activities as of December 31, 1994."

ORS 836.605(2).

ORS 836.616(2) provides that, "[w]ithin airport boundaries established pursuant to [LCDC] rules, local government land use regulations shall authorize" a variety of airport uses. ORS 836.625(1) clarifies that "[t]he limitations on uses made of land in exclusive farm use zones described

in ORS 215.213 and 215.283 do not apply to the provisions of ORS 836.600 to 836.630 regarding airport uses.”

In this case, it is undisputed that the relevant part of the airport boundary is the edge of the state-owned airport property that is bordered by Keil Road. *See* OAR 660-013-0040 (the airport boundary, for purposes of ORS 836.616(2), is shown on a map “adopted by a local government” pursuant to “comprehensive plan and land use regulation requirements”).¹⁷ As explained above, the provisions of ORS 836.600 to 836.630 allow airport uses and supersede ORS 215.213 and 215.283 “[w]ithin airport boundaries.” ORS 836.616(2); *see also* OAR 660-013-0100 (requiring local governments to “adopt land use regulations for areas within the airport boundaries” that authorize the airport uses enumerated in ORS 836.616).

The provisions of ORS 836.600 to 836.630 are independent from ORS 836.640 and 836.642, and they do not suggest that we should understand the latter provisions to have a greater effect on land use than their text indicates. Nor do the provisions of ORS 836.600 to 836.630 apply directly to the airport development that the Master Plan proposes outside the airport boundaries.

In short, nothing about the statutory text or context suggests that LUBA’s construction of ORS 836.642 is correct. LUBA erred by relying on ORS 836.642 to conclude that existing and new uses at the Aurora State Airport are rural.¹⁸

4. *OAR 660-012-0065(3)(n) does not apply*

Finally, we consider petitioners 1000 Friends’ and Schaefer’s contention that LUBA erred in concluding that OAR 660-012-0065(3)(n) excused the board’s decision from complying with Goals 3, 11, and 14. The board reasoned

¹⁷ The map of the Aurora State Airport that has been adopted by Marion County is the 1976 Master Plan ALP, which is part of the Marion County Comprehensive Plan.

¹⁸ Petitioners Schaefer and City of Aurora also provide legislative history supporting their view of the statute’s meaning. However, because the text of the statute unambiguously demonstrates that it has no bearing on whether a use is urban or rural for land-use purposes, we need not continue our analysis. *Gaines*, 346 Or at 172.

that the development proposed by the Master Plan would not change the airport's Airport Reference Code, which is described below, and, consequently, that it did not propose expansion or alteration of the airport that would "permit service to a larger class of airplane."¹⁹ Before LUBA, petitioners disputed that contention.

In its order, LUBA adopted the reasoning in the response briefs and concluded, without elaboration, that "the improvements contemplated by the 2012 Airport Plan do not permit service to a larger class of airplanes." The response briefs whose arguments LUBA adopted construe "a larger class of airplanes" to mean a class made up of larger airplanes as measured by their wingspan or tail height.

On judicial review, petitioner 1000 Friends disputes that construction and contends that the development proposed in the Master Plan does permit service to a larger class of airplanes. Both 1000 Friends and Schaefer also argue that LUBA's construction of OAR 660-012-0065(3)(n) conflicts with numerous statutes and the goals because, **under LUBA's construction, the rule allows airport development on EFU land without an exception to the goals and without applying the farm-impacts test required by ORS 215.213(10)(b) and ORS 215.283(3)(b).**²⁰

"When interpreting an administrative rule, we seek to divine the intent of the rule's drafters, employing

¹⁹ As an alternative to its conclusion that OAR 660-012-0065(3)(n) applied, the board reasoned that OAR 660-012-0065(3)(a), (b), or (d) applied to some of the challenged airport improvements. It urges us to rely on its alternative reasoning as a ground for rejecting petitioners' challenge to LUBA's interpretation of OAR 660-012-0065(3)(n).

OAR 660-012-0065(3)(a) and (b) address transportation uses that are either allowed by ORS 215.213 or 215.283 or that are accessory to uses allowed under those statutes, subject to the farm impacts test. *See* ORS 215.213(10)(b); ORS 215.283(3)(b). OAR 660-012-0065(3)(d) allows "[r]ealignment of roads not otherwise allowed under subsection (a) or (b) of this section," subject to application of the farm impacts tests and the alternatives test set out in OAR 660-012-0065(5). Before LUBA, the board was silent about its alternative reasoning, and it has never identified what airport-related use or uses are allowed, in its view, under ORS 215.283.

LUBA did not acknowledge or address the board's alternative reasoning. Under these circumstances, we leave it to LUBA to consider, on remand, the significance of that alternative reasoning.

²⁰ Schaefer also raises additional arguments about the rule's validity.

essentially the same framework that we employ when interpreting a statute. Under that analytical framework, we consider the text of the rule in its regulatory and statutory context.” *Noble v. Dept. of Fish and Wildlife*, 355 Or 435, 448, 326 P3d 589 (2014) (internal citation omitted) (citing *State v. Hogevooll*, 348 Or 104, 109, 228 P3d 569 (2010)). “In construing statutes and administrative rules, we are obliged to determine the correct interpretation, regardless of the nature of the parties’ arguments or the quality of the information that they supply to the court.” *Gunderson, LLC v. City of Portland*, 352 Or 648, 662, 290 P3d 803 (2012) (citing *Dept. of Human Services v. J. R. F.*, 351 Or 570, 579, 273 P3d 87 (2012), and *Stull v. Hoke*, 326 Or 72, 77, 948 P2d 722 (1997)). As explained below, applying those principles, we conclude that LUBA erred in concluding that OAR 660-012-0065(3)(n) applies to the development proposed in the Master Plan.

We begin by considering the statutory and regulatory context of OAR 660-012-0065(3)(n). ORS 215.213 and ORS 215.283 govern uses allowed on EFU land.²¹ In subsections (1) and (2), both statutes set out lists of allowed farm and nonfarm uses. Airport development is not one of the uses identified in subsections (1) or (2) of either statute. ORS 215.283(3) and ORS 215.213(10), which have the same text, set out a framework for transportation facilities and improvements that are not addressed in earlier subsections. They provide as follows:

“Roads, highways and other transportation facilities and improvements not allowed under subsections (1) and (2) of this section may be established, subject to the approval of the governing body or its designee, in areas zoned for exclusive farm use subject to:

“(a) Adoption of an exception to the goal related to agricultural lands and to any other applicable goal with which the facility or improvement does not comply; or

“(b) ORS 215.296 for those uses identified by rule of the Land Conservation and Development Commission

²¹ ORS 215.213 applies in counties that adopted a marginal lands system prior to 1993, and ORS 215.283 applies in nonmarginal lands counties. Each contains the same provision, set out in the text, regarding transportation facilities and improvements. ORS 215.213(10); ORS 215.283(3). ORS 215.283 applies in Marion County, where the airport is located.

[(LCDC)] as provided in section 3, chapter 529, Oregon Laws 1993.”²²

ORS 215.296 sets out the farm-impacts test, which requires assessment of whether a proposed nonfarm use on EFU land would “[f]orce a significant change’ in accepted farm practices or ‘[s]ignificantly increase the cost’ of those practices on surrounding agricultural lands.” *Stop the Dump Coalition v. Yamhill County*, 364 Or 432, 434, 435 P3d 698 (2019) (quoting ORS 215.296). Thus, under ORS 215.213 and ORS 215.283, establishing a transportation facility or improvement that is not listed elsewhere in those statutes on EFU land requires either (a) an exception to Goal 2 or, (b) for uses identified by LCDC rule, application of the farm-impacts test.

LCDC is empowered to refine the legislature’s policy regarding uses on EFU land “so long as [LCDC’s rules] are not *less* restrictive than [ORS 215.213 and 215.283]—that is, if they do not allow *more* uses than the statutes.” *Lane County v. LCDC*, 325 Or 569, 583, 942 P2d 278 (1997) (emphases in original). Consistently with the statutory scheme, LCDC has promulgated OAR 660-012-0065 to “identif[y] transportation facilities, services and improvements which may be permitted on rural lands consistent with Goals 3, 4, 11, and 14 without a goal exception.” OAR 660-012-0065(1). OAR 660-012-0065(3) provides as follows:

“The following transportation improvements are consistent with Goals 3, 4, 11, and 14 subject to the requirements of this rule:

“*****

“(n) Expansions or alterations of public use airports that do not permit service to a larger class of airplanes[.]

The rule does not elaborate on what it means to “permit service to a larger class of airplanes.”

²² Section 3, chapter 529, Oregon Laws 1993 provided as follows:

“The Department of Transportation shall, by March 30, 1994, submit to the Land Conservation and Development Commission proposed rules identifying the other roads, highways and transportation facilities that may be allowed pursuant to ORS 215.213(10)(b) and 215.283(5)(b). The Land Conservation and Development Commission shall adopt rules implementing ORS 215.213(10)(b) and 215.283(5)(b) by June 30, 1994.”

To understand the rule and the development proposed in the Master Plan, some technical background information is necessary. We begin by considering Airport Reference Codes (ARCs). The FAA uses an ARC to relate airport design standards to the characteristics of the aircraft that use the airport. A given airplane's ARC is made up of a letter, which represents the Aircraft Approach Category and is determined by aircraft approach speed, and a roman numeral, which represents the Airplane Design Group and is determined by wingspan or tail height of the aircraft.

An airport's ARC is the same as the ARC of the airport's "critical aircraft," which, the Master Plan explains, is "the most demanding aircraft that uses the airport 'regularly' or 'substantially.'" The Master Plan explains that the FAA defines "regular" or "substantial" use as "at least 500 annual itinerant operations." The FAA must approve the determination of an airport's critical aircraft. FAA Advisory Circular 150, 5000-17, *Critical Aircraft and Regular Use Determination* (2017), at 2.6, 2-4 (available at https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5000-17.pdf (last accessed June 8, 2021)).²³

"Different aircraft may define separate elements of airport design. Therefore, effective planning of an airport may need to consider different and multiple Critical Aircraft ***." *Id.* at 3.1.1, 3-1. Above, we explained that the critical aircraft determination takes into account the Aircraft Approach Category (approach speed) and Airplane Design Group (wingspan or tail height) of the aircraft that regularly use the airport. Those classifications determine many of the airfield design standards including runway and taxiway width and separation and the size of various areas at the sides and ends of the runway that protect aircraft and nearby land uses.

²³ We take judicial notice of FAA Advisory Circular 150, 5000-17, *Critical Aircraft and Regular Use Determination* (2017) (available at https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5000-17.pdf (last accessed June 8, 2021)), and FAA Advisory Circular 150/5325-4B, *Runway Length Requirements for Airport Design* (2005) (available at https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5325-4B.pdf (last accessed June 8, 2021)). See, e.g., *Thomas v. Wasco County*, 284 Or App 17, 23 n 9, 392 P3d 741 (2017), *rev den*, 362 Or 666 (2018) (taking judicial notice in a LUBA case).

Determining runway length, however, requires reference to a potentially different critical aircraft: The “critical aircraft or grouping of aircraft for runway length” is “the single aircraft, or grouping of aircraft with similar operational requirements, that have the longest runway length requirement that makes regular use of the runway.” *Id.* at 3.2.1, 3-1. Generally, runway length requirements for planes up to 60,000 pounds Maximum Certified Takeoff Weight (MTOW) are determined by reference to a “family grouping of airplanes having similar performance characteristics and operating weights.” FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design* (2005), ¶ 102, 2 (emphasis omitted) (available at https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_150_5325-4B.pdf (last accessed June 8, 2021)). Those family groupings depend on MTOW and, for small planes up to 12,500 pounds MTOW, approach speed and number of passengers. *See id.*, Table 1-1, at 3. Runway length requirements for planes over 60,000 pounds MTOW are determined by the needs of the particular aircraft, rather than a family grouping. *Id.*

With that background in mind, we return to the text of OAR 660-012-0065(3)(n), which, again, provides that “[e]xpansions or alterations of public use airports that do not permit service to a larger class of airplanes” are consistent with goals 3, 4, 11, and 14 without goal exceptions. As we understand LUBA’s reasoning, it concluded that the term “class of airplanes” refers to the Airplane Design Group—the wingspan or tail height. That is, it appears that LUBA understood “larger” in “larger class of airplanes” to refer to the size of the airplanes, and it looked to the physical dimensions of the airplanes, as represented by the Airplane Design Group, to determine airplane size.

The FAA does not use the term “class” to describe airplane sizes.²⁴ As set out above, however, the FAA groups

²⁴ The FAA does sort airplanes into classes for pilot-licensing purposes. 14 CFR § 61.5(b) (2021). In the aircraft category “airplane,” the four classes are “[s]ingle-engine land”; “[m]ultiengine land”; “[s]ingle-engine sea”; and “[m]ultiengine sea.” 14 CFR § 61.5(b)(2). None of the parties proposes that that sorting system is the one to which the rule refers, and we agree that that understanding is implausible.

airplanes in several ways; as relevant here, it groups them by weight as well as by wingspan or tail height. Even if we were to accept LUBA's premise that "larger" modifies "airplanes"—that the phrase "larger class of airplanes" is equivalent to "class of larger airplanes"—we do not understand why LCDC would have intended to consider only wingspan or tail height, rather than also including airplanes that are larger by weight.

However, we think it is more likely that, by placing "larger" immediately before "class," rather than immediately before "airplanes," LCDC indicated an intention to refer to a larger—that is, a more inclusive—class of airplanes, rather than merely referring to larger airplanes. With that understanding, and considering that the FAA's method of determining critical aircraft includes consideration of MTOW and approach speed as well as wingspan or tail height, we conclude that LCDC intended "larger class of airplanes" to mean a class that includes airplanes with a greater variety of approach speeds, a greater variety of MTOWs, or a greater variety of wingspans or tail heights.

That textual understanding is consistent with the rule's context. As explained above, the legislature has empowered LCDC to allow certain transportation improvements—improvements that the legislature has not considered important enough to list in sections (1) and (2) of the statutory provisions—on EFU land without exceptions to goals 3, 4, 11, and 14. ORS 215.213(10)(b); ORS 215.283(3)(b). The uses allowed under those provisions necessarily represent LCDC's balancing of goal 12 transportation needs against goals 3, 4, 11, and 14. *See* ORS 197.340(1) (requiring LCDC to "give the goals equal weight in any matter in which the goals are required to be applied"). The considerations that might be relevant to that balancing process are numerous. However, we perceive no reason that LCDC would focus its rule exclusively on the physical dimensions of the wings or tails of airplanes that serve the airport.

The board, and the response briefs whose reasoning LUBA adopted, also reasoned that the development that the Master Plan proposes for the airport does not "permit service" to a larger class of airplanes because, when the Master

Plan was created, the airport's ARC could already have been C-II; that is, it was already serving many of the larger planes that the airport expansion would accommodate.

To assist in our consideration of that argument, we set out additional facts about the airport expansion proposed by the Master Plan. The Master Plan explains that, last time the Master Plan was updated, in 2000, the planned ARC for the airport was B-II:

“According to the 2000 Airport Master Plan, the planned ARC was B-II, exemplified by the King Air turboprop and the Cessna Citation jet. At that time, ODA decided to constrain the forecast by keeping the airfield ARC at B-II. A runway designed for ARC B-II is adequate for about 45% of the business jets manufactured.”

(Footnote omitted.) By the time of the 2012 update, the airport had more than 500 annual itinerant operations by airplanes that fit into Aircraft Approach Category C. Consequently, the Master Plan proposed that “the current ARC should be C-II.” The Master Plan elaborated:

“The current and forecast ARC is C-II, which reflects a family of business jets. The critical aircraft is the aircraft in ARC that uses the Airport the most. The current critical aircraft is the IAI Astra 1125. A runway designed for ARC C-II would be adequate for about 90% of the business jets manufactured.”

(Footnote omitted.)

To explain how the airport could currently be meeting the FAA standards for an ARC of C-II even though it had a planned ARC of B-II and met B-II design standards, the Master Plan explained that “the airfield is adequate for many operators of Aircraft Approach Category C airplanes, even though the Airport does not meet all design standards for ARC C-II.”²⁵

The Master Plan proposed improvements to the airport to move from ARC B-II design standards to ARC

²⁵ Although the airport's planned ARC was B-II, it met C-II design standards in some respects, including in runway and taxiway width. In addition, larger planes can use airports with shorter runways and other lower-level design standards by employing constrained operations. The Master Plan explains that “[a] constrained operation is one that must reduce payload for takeoff, or stop en route for fuel, for example.”

C-II design standards. The improvements necessary to meet C-II design standards were expanding the Runway Safety Area, expanding the Runway Object Free Area, expanding the Obstacle Free Zone, expanding the Runway Protection Zone, and adding runway blast pads.

The Master Plan also proposed lengthening the runway to a length more appropriate for the MTOW classification of the new critical aircraft. The Master Plan explains, “The current runway length of 5,004 feet accommodates 100% of the small aircraft fleet [(MTOW up to 12,500 lbs.)] with fewer than 10 passenger seats. However, the recommended lengths for larger aircraft exceed the current runway length.” The development option that the Master Plan proposed included a runway expansion of 1,000 feet, yielding a 6,004-foot runway. The Master Plan identified a 5,500-foot runway as adequate for 100% of large airplanes with MTOW between 12,500 and 60,000 at 60% of their useful load. The Master Plan also explained, “The runway extension [(of 1,000 feet)] would accommodate nearly all business Jets with ARC C-II and below that could potentially operate at the Airport.”

As explained above, the board reasoned (and respondents argued before LUBA) that the development proposed by the Master Plan would not “permit service to a larger class of airplanes” because, although the airport’s planned ARC was B-II, the airport already served enough planes with an ARC of C-II to bring its ARC up to C-II. They contended that the airport expansion would not “permit service” to a larger class of airplanes because the airport already served larger airplanes. LUBA apparently agreed.

As we understand that argument, it construes “permit” to mean “to make possible.” *Webster’s Third New Int’l Dictionary* 1683 (unabridged ed 2002). Thus, the reasoning goes, because it is already possible for a larger class of airplanes to use the airport, the expansion does not “permit” service to those airplanes.

“Permit” also has another meaning: “to give (a person) leave : authorize.” *Id.* If we understand “permit service” to be synonymous with “authorize service,” then the rule is focused on the design capacity of the airport’s facilities,

rather than the airplanes that it is possible for the facilities to accommodate. Under that interpretation, the question is whether the expansion or alteration of the airport authorizes service to a larger class of airplanes by increasing airport design standards or, by contrast, whether the expansion or alteration merely updates airport facilities within the existing design standards.

The latter construction is more consistent with the rule's context. If "permit" means "make possible," the rule allows nearly all expansions or alterations of public-use airports on EFU land. Many large airplanes can use an airport the size of Aurora State by means of constrained operations or in an emergency; the Master Plan documents service at Aurora State to planes with an ARC of D-III and a plane with an MTOW of 93,500 pounds. *See also* FAA AC 150/5000-17, *Critical Aircraft and Regular Use Determinations*, 3.11.1, at 3-4 ("[T]he airport sponsor cannot restrict airport access based on design standards without an FAA determination ***."). Because it is already possible for very large airplanes to use the airport, very few, if any, expansions or alterations will make it possible for a larger class of airplanes to use the airport.

Furthermore, as explained above, an airport's ARC increases only when the ARCs of the aircraft that *currently use* the airport have increased, because the critical aircraft determines the airport's ARC, and the critical aircraft is based on the airplanes that "regularly" or "substantially" use the airport. Consequently, an airport expansion or alteration that increases ARC design standards will always follow increased service to larger airplanes; it will never precede that service. If "permit service" means to make service possible, then an alteration or expansion that increases design standards will always fall within the rule—and be exempt from the goals—because that alteration or expansion will merely bring the airport facilities up to the design standards required by the airplanes currently served.

By contrast, if "permit service" means "authorize service," then the focus of the rule is on the design and size of the airport facilities, a logical consideration given the rule's context. As explained above, OAR 660-012-0065(3)(n)

represents LCDC's decision on how to balance goal 12 transportation needs against goals 3, 4, 11, and 14. In that context, LCDC likely intended the rule to focus on airport design and space needs, not whether it is possible for larger and faster planes to use runways that are designed for smaller, slower planes.

We conclude that LCDC intended “permit service” to mean “authorize service.” With that understanding, an upgrade to design standards for a greater ARC or a longer runway to serve planes with greater MTOW is an expansion or alteration that permits—authorizes—service to a larger class of airplanes. Airplanes in the upgraded ARC or the greater MTOW grouping are then among the airplanes authorized to use the airport by virtue of its design standards.

Thus, an “expansion[] or alteration[] of a public use airport that do[es] not permit service to a larger class of airplanes” is an expansion or alteration that does not authorize the airport, by increasing design standards or otherwise, to serve a group of airplanes with a greater variety of approach speeds, a greater variety of MTOWs, or a greater variety of wingspans or tail heights. OAR 660-012-0065(3)(n). The Master Plan proposes increasing the airfield design standards from ARC B-II to ARC C-II and increasing the length of the runway to accommodate airplanes that approach the runway faster and airplanes that have an MTOW over 12,500 pounds. Accordingly, the Master Plan proposes an alteration or expansion of the airport that permits service to a larger class of airplanes.²⁶

To summarize, LUBA erred in excluding the 2011 Master Plan—the Master Plan document that was before the board on October 27, 2011—from the record; in holding

²⁶ In light of our conclusion that OAR 660-012-0065(3)(n) does not cover the airport expansion proposed in the Master Plan, we need not consider petitioners 1000 Friends' and Schaefer's contentions that the rule is invalid. We do note, however, that nothing in the text of the rule suggests that LCDC intends to allow any transportation improvements on EFU land without applying the farm impacts test; the rule does not purport to supersede the statutory requirement that “[r]oads, highways and other transportation facilities and improvements” not otherwise addressed in ORS 215.213 and 215.283 can be allowed without a goal exception only if they are also “subject to” “ORS 215.296,” the farm impacts test. ORS 215.213(10); ORS 215.283(3).

that the 2012 Master Plan did not propose airport development on EFU land; in relying on ORS 836.642 to conclude that proposed new uses at the Aurora State Airport are rural uses for land-use purposes; and in determining that OAR 660-012-0065(3)(n) applied.

Reversed and remanded.

Fw: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

From Brandy Steffen <brandy.steffen@jla.us.com>

Date Tue 2025-03-04 2:22 PM

To Ashley Balsom <ashley.balsom@jla.us.com>; Jen Winslow <Jen.winslow@jla.us.com>

 2 attachments (16 MB)

p17027coll5_29140.pdf; Friends of French Prairie v. Dept of Aviation.pdf;

BRANDY STEFFEN | JLA PUBLIC INVOLVEMENT

Partner + Senior Program Manager

brandy.steffen@jla.us.com » [Schedule a 30 minute meeting](#)

From: BEACH Anthony <Anthony.BEACH@odav.oregon.gov>

Sent: Wednesday, February 26, 2025 11:09 AM

To: Brandy Steffen <brandy.steffen@jla.us.com>; Samantha Peterson <SPeterson@CenturyWest.com>

Cc: THOMAS Alex R <Alex.R.THOMAS@odav.oregon.gov>

Subject: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

Good morning, please include in the public record.

Thank you,

Tony Beach

OREGON DEPARTMENT OF AVIATION

STATE AIRPORTS MANAGER

OFFICE 503-378-2523 **CELL** 503-302-5455

M-F 7:30am – 4pm

From: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Sent: Tuesday, February 25, 2025 12:05:19 PM

To: Ben Williams <fofp99@gmail.com>

Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Cathryn.E.Stephens@ci.eugene.or.us
<cathryn.e.stephens@ci.eugene.or.us>; Anderson Becki L <Becki.L.Anderson@doj.oregon.gov>; Scruggs Rebecca
<rebecca.scruggs@doj.oregon.gov>

Subject: RE: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

Mr. Williams,

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thank you for your quick response.

Again, I direct you to Dir. Sugahara's response to your question regarding the process for issuing a final decision adopting the master plan and a final decision on the state agency coordination requirements. To the extent you have in fact asked a question, that question has been answered to the best of the agency's ability. To repeat, ODAV and the Board will follow state law with respect to the adoption of the master plan and the adoption of the state agency coordination findings. If you have further questions or comments regarding the Board's adoption of the state agency coordination findings, that decision will be made as part of a regularly scheduled and noticed Board meeting. Until that agenda item has been set, any questions or comments as to process or the substance of a future state agency coordination decision are premature. Please refer to ODAV's website for a listing of future meetings and agenda items.

You are incorrect as to your interpretation of the meaning and effect of the multiple judicial decisions, including the Supreme Court's denial of a petition for review, relating to the Board's 2019 State Agency Coordination findings. And, I assume from your email below that you will continue to misrepresent the express wording of these decisions. While I would prefer that you refrain from doing so, at this point and as we explained to LUBA in our request to remand the matter back to the Board, this issue is now moot and no longer relevant to the current master planning process.

I am also unclear as to why it is necessary to include the Governor's office, DLCD, Marion County, or any organization on these emails and have removed them again from this discussion. Please feel free to forward my response if you feel that is necessary to include them.

Stacy C. Posegate

Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel Division
971-718-7950

From: Ben Williams <fofp99@gmail.com>

Sent: Sunday, February 23, 2025 1:43 PM

To: Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov>

Cc: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>; Cathryn.E.Stephens@ci.eugene.or.us; Anderson Becki L <Becki.L.Anderson@doj.oregon.gov>; Scruggs Rebecca <rebecca.scruggs@doj.oregon.gov>; WARNER Chris * GOV <Chris.Warner@oregon.gov>; House Timothy <timothy.a.house@faa.gov>; Doyle, Peter (FAA) <peter.doyle@faa.gov>; WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>; AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>; Austin Barnes <abarnes@co.marion.or.us>; Guile-Hinman, Amanda <guile@ci.wilsonville.or.us>; Mary Kyle McCurdy <mkm@friends.org>; Joseph Schaefer (jschaefer@ci.aurora.or.us) <jschaefer@ci.aurora.or.us>

Subject: Re: FW: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

CAUTION EXTERNAL EMAIL This email originated from outside of DOJ. Treat attachments and links with caution.

CAUTION EXTERNAL EMAIL

Stacey;

Thank you for your email responding to the questions I sent to Director Sugahara and Tim House of the FAA. This correspondence is also attached in PDF.

First, let me point out that while you assumed I was making some kind of definitive statement about Oregon law relative to the approval and adoption to the current Aurora Airport master plan, in fact I asked a question of both gentlemen about approval and adoption and compliance with Oregon land use laws. A question which you did not answer.

Second, specific to your assertion that I have been making misleading and incorrect statements concerning the Court of Appeals findings about adoption and approval of the 2012 Master Plan, you qualify it by stating that “none of the three tribunals...have issued **any order or judgment** finding that the 2012 Master Plan was, or was not, adopted.” That lawyerly language admits the 2012 Master Plan may not have been adopted, and deflects from the historical reality because, as you know, the substantive rulings from the Oregon Court of Appeals are in the form of opinions, not orders or judgments. And LUBA’s second order never addressed the Court of Appeals’ instruction to reconsider whether the Master Plan complies with the Agricultural Lands policies of the comprehensive plan. Your clients and LUBA skated around that instruction, and no final determination of compliance was ever made by either LUBA or the Aviation Board.

The Court of Appeals found that the Aviation Board failed to approve and adopt the 2012 Aurora Airport master plan. Your appeal of that decision to the Oregon Supreme Court argued that “The Aviation Board and ODA adopted the 2012 Aurora Airport Master Plan in 2011” but that court refused to even consider the argument. I know it was never adopted not just because I attended every Aviation Board meeting in 2011 and 2012, but because in 2019 ODAV confirmed that fact in writing —see attached.

That in turn led to the failed attempt by the Aviation Board in October of 2019 to retroactively approve the 2012 master plan eight years after the fact!

Notwithstanding those personal observations, you referenced the LUBA and Court of Appeals rulings, from which you ignore these salient quotations (all of which I do have in my files!), so allow me to share.

1. The 2012 Master Plan was not properly approved and adopted.

*...it is impossible to tell from the 2012 Master Plan what material was added and what was removed after 2011. LUBA erred in concluding that the 2012 Master Plan includes the 2011 Master Plan... **the board never formally approved or adopted the 2012 Master Plan after October 27, 2011.***

Court of Appeals, June 16, 2021, No. 419, Pages 325 & 320.

2. The master plan was never determined to comply with Marion County’s Comprehensive Plan.

*the Master Plan proposes airport development on EFU land. **That conclusion requires us to remand to LUBA for reconsideration of its determination that the Master Plan complies with the Agricultural Lands policies of the M CCP.***

Court of Appeals, June 16, 2021, No. 419, Page 331.

3. The 2012 Master Plan does not exist without the 2019 OAB decision.

*We also reject private respondents’ contention that the events of 2019 are the only “proceedings before the final decision maker” at issue here. OAR 661-010-0025(1)(b). The board made its 2019 findings in an effort to comply with OAR 738-130-0055(6), which provides that “[t]he Aviation Board shall adopt findings of [land-use] compatibility * * * when it adopts the final facility plan.” (Emphasis added.) **Under that rule, the board’s adoption of a final facility plan and its land-use compatibility findings are two parts of the same proceeding.** That remains the case here, notwithstanding the delay between the adoption of the Master Plan and the findings of land-use compatibility.*

4. The 2012 Master Plan is "ineffective".

The petitions for judicial review sought review of an October 31, 2019, decision (the 2019 Order) of the Oregon Aviation Board (OAB) under ORS 183.484, which provides for judicial review of orders in other than contested cases...In its opinion remanding the 2019 Order, LUBA, consistent with its precedent, concluded that "after remand, the challenged decision is ineffective."

Court of Appeals Opinion; March 6, 2024 [Nonprecedential Memo Op: 331 Or App 438 (2024), Page 441.

I trust that you and your client will reset your interpretation of the referenced rulings and additionally elect to cease the revisionist history in terms of what did and did not happen in the period from 2011 through 2024 as concerns the compliance of the master plan with the Marion County comprehensive plan as well as the approval and adoption of the so-called 2012 Aurora Airport Master Plan.

It is also worth noting to you that the so-called 2012 Aurora Airport Master Plan is posted on the Aurora Airport web site as the "Current Master Plan," which is rather difficult to understand on the face of it, given all of the above!

Sincerely



Ben Williams, President

Friends of French Prairie

On Fri, Feb 21, 2025 at 4:59 PM Posegate Stacy C <Stacy.C.Posegate@doj.oregon.gov> wrote:

Dear Mr. Williams,

Director Sugahara forwarded your emails to me to assist in providing a response. As the Director stated, your emails will be made part of the Aurora Master Plan decision record to preserve your statements and to ensure that any member of the public will have access to all of the comments and testimony provided as part of the planning process.

As to your comment below, it appears that you are not asking a question. But, instead stating your interpretation of ODAV and the Board's legal obligations with respect to the process for making a final land use decision, including the final adoption of a master plan and the issuance of the state agency coordination findings supporting that plan. As Dir. Sugahara responded to you below, the Board and ODAV will follow the appropriate process for taking these final actions. I invite you to review ORS 197.180, ORS 836.025, OAR 660, division 30 and OAR 738, division 130 if you have any further questions about the laws that apply to the Board and ODAV's land use planning authority and duties.

I would also like to take this opportunity to correct you on a statement that you made during the last PAC meeting and that you continue to make publicly that the Court of Appeals held that the 2012 Master Plan was never adopted. That is not correct and none of the three tribunals (LUBA, the Court of Appeals or the Marion County Circuit Court) have issued any order or judgment finding that the 2012 Master Plan was, or was not, adopted. I have attached for your convenience the final judgments by the Court of Appeals in 2021 when it was asked to review LUBA's affirmation of the Board's 2019 State Agency Coordination Findings, and the 2023 Judgment affirming the Marion County Circuit

Court's dismissal of the petitions for judicial review of the 2019 SAC Findings. As I believe you are aware, the Court of Appeals in its 2012 decision found that it was unable to determine whether LUBA's decision was correct because the record before LUBA was not complete. On that basis, it remanded the matter back to LUBA. LUBA in turn remanded the matter back to the Board, at its request. The effect of this remand, as stated in the 2023 attached judgment, was to render the **2019 SAC Decision** ineffective. No decision was entered or made as to the validity of the 2012 Master Plan. I ask that you please review your files which should include the briefing, orders and judgments in the LUBA matter, the circuit court matter and the two court of appeals cases and refrain from misstating the ultimate holdings in these cases.

I hope that this email addresses your comments below and any additional questions you may regarding the 2012

Stacy C. Posegate

Sr. Asst. Atty General | Transportation and Infrastructure | General Counsel Division
971-718-7950
GG1296-22

From: Ben Williams <fofp99@gmail.com>

Date: Friday, February 21, 2025 at 11:02 AM

To: SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: STEPHENS Cathryn E <CStephens@eugene-or.gov>, House Timothy <Timothy.A.House@faa.gov>, Doyle, Peter (FAA) <peter.doyle@faa.gov>, WARNER Chris * GOV <Chris.WARNER@oregon.gov>, WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>, AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>, Austin Barnes <abarnes@co.marion.or.us>, Guile-Hinman, Amanda <guile@ci.wilsonville.or.us>, Joseph Schaefer (jschaefer@ci.aurora.or.us) <jschaefer@ci.aurora.or.us>, mk@friends.org <mk@friends.org>

Subject: Re: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Kenji;

Thank you for the prompt response to my last email concerning the approval and adoption process for the Aurora Airport Master Plan. However, the response that my letter will be added to the record does not actually address the inquiry. To clarify, the question I asked is whether ODAV will confirm that the Oregon Aviation Board will adopt the master plan with land use findings pursuant to OAR 738-130-0055(6), and any appeals of that adoption will be completed, prior to ODAV or the OAB signing the Airport Layout Plan and prior to confirming to the FAA that the master plan is consistent with local land use and zoning pursuant to grant assurance number 6.

Please answer yes or no, and include the answer in the record.

Further, to Mr. House:

Will the FAA confirm that it will not sign the Airport Layout Plan or conclude that grant assurance number 6 is satisfied until the Oregon Aviation Board has adopted the master plan with land use findings pursuant to OAR 738-130-0055(6) and successfully resolved any appeals thereof under Oregon law?

Please answer yes or no, and include the answer in the record.

Sincerely

Ben Williams

Friends of French Prairie

On Tue, Feb 18, 2025 at 8:43 AM SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov> wrote:

Mr. Williams,

Thank you very much. Your letter will be added to the ongoing master plan record and both the Department and the Board intend that any final decision made with respect to the master plan, including state agency coordination findings supporting that plan, will be made in accordance with the applicable state and federal law.

Sincerely,

KENJI SUGAHARA
OREGON DEPARTMENT OF AVIATION
DIRECTOR



OFFICE 503-378-2340

EMAIL kenji.sugahara@odav.oregon.gov

3040 25TH STREET SE, SALEM, OR 97302

WWW.OREGON.GOV/AVIATION

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From: Ben Williams <fofp99@gmail.com>

Sent: Monday, February 17, 2025 11:04 AM

To: STEPHENS Cathryn E <CStephens@eugene-or.gov>; SUGAHARA Kenji <Kenji.SUGAHARA@odav.oregon.gov>

Cc: House Timothy <Timothy.A.House@faa.gov>; Doyle, Peter (FAA) <peter.doyle@faa.gov>; WARNER Chris * GOV <Chris.WARNER@oregon.gov>; WYTOSKI Beth * GOV <Beth.Wytoski@oregon.gov>; AHRENS Melissa * DLCD <Melissa.Ahrens@dlcd.oregon.gov>; Austin Barnes <abarnes@co.marion.or.us>; Guile-Hinman, Amanda <guile@ci.wilsonville.or.us>; Joseph Schaefer (<jschaefer@ci.aurora.or.us>); <jschaefer@ci.aurora.or.us>; <mk@friends.org>

Subject: Communication re: Aurora Airport Master Plan Adoption and Compatibility Process

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Chair Stephens and Director Sugahara;

Please see the attached letter regarding the approval and adoption process for the Aurora Airport Master Plan in addition to the process for compliance with local comprehensive plans and statewide planning goals.

The intent is to clarify confusion resulting from what the PAC and Aviation Board have been told versus the statutory requirements that apply.

Sincerely

--

Ben Williams
Friends of French Prairie
fofp99@gmail.com

--

Ben Williams
Friends of French Prairie
fofp99@gmail.com

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--

Ben Williams
Friends of French Prairie
fofp99@gmail.com

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immediately delete the message and any attachments from your system.

Mayors of the Aurora State Airport Area Communities

Aurora



Wilsonville

Mayor Brian Asher

Mayor Shawn O'Neil

June 2, 2025

Sent via email to:

The Honorable Tina Kotek, Governor, State of Oregon

Governor.Kotek@oregon.gov

The Honorable Ron Wyden, U.S. Senator

Breanna_Irish@wyden.senate.gov

The Honorable Jeff Merkley, U.S. Senator

Sara_Schmitt@merkley.senate.gov

Honorable Andrea Salinas, U.S. Representative

Erin.Chen@mail.house.gov

RE: Intervention Requested to Address Issues of Significant Public Concern with Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODAV) Aurora State Airport (KUAO) 2021-2025 Master Planning Process

Dear Governor Kotek, Senator Wyden, Senator Merkley and Congresswoman Salinas:

We write to you as the elected leaders of the communities—the Cities of Aurora and Wilsonville—located in closest proximity to the Aurora State Airport (KUAO) to express our profound disappointment at the Federal Aviation Administration (FAA) and Oregon Department of Aviation (ODAV) handling of the long, drawn-out 2021-2025 Aurora State Airport Master Planning process.

ODAV and the FAA are now proposing a \$185 million boondoggle to greatly expand the Aurora State Airport with more larger jets and a longer runway despite substantial public-safety concerns over the Airport's operations in a highly constrained site. Our communities bear the brunt of impacts of the airport's operations, and yet the federal and state aviation departments are discounting our concerns with plans to expand the airport despite numerous public-safety and other substantial problems that have been identified but not addressed in the pending Master Plan.

We request your immediate intervention to correct a series of failures with the master plan process and to provide a path forward that utilizes actual airport data, provides for a regional approach to airport planning and respects local community concerns regarding aircraft noise and low-altitude overflights.

In particular, we respectfully ask for:

- **Governor Kotek to instruct the ODAV State Aviation Board to Not adopt the new Aurora State Airport Master Plan** and instead to request a re-do of the Plan without a predetermined outcome favoring expansion that conforms with actual data, the reality on the ground of the Airport's highly constrained site, the role of other airports in the region and local community aspirations.

- **Senators Wyden and Merkley and Congresswoman Salinas to intercede with the FAA to Not approve the new Aurora State Airport Airport Layout Plan (ALP)** submitted by ODAV and to return the unapproved ALP to ODAV for action first by the State Aviation Board.

Furthermore, we request our federal representatives to lobby the FAA to not force ODAV to accept a larger class of aircraft known as C-II and D-II at the Aurora State Airport, and instead to request the FAA to withdraw the finding that B II airfield design is not appropriate.

The Cities of Aurora and Wilsonville, along with other Planning Advisory Committee (PAC) members to the Aurora State Airport Master Planning process such as 1000 Friends of Oregon and Friends of French Prairie, seek to raise significant issues of public concern, yet there has not been a single public hearing before either the FAA or ODAV. This federally funded Aurora State Airport Master Plan demonstrates the federal and state aviation departments apparent bias and inability at providing fair public processes that meet Oregon's standards for meaningful public engagement.

One of the most important aspects that the FAA has highlighted at the Aurora State Airport is the Airport's current unsafe operation that threatens public safety. So many modifications of public-safety standards have occurred over the years that the FAA now demands improvement to these public-safety concerns by moving a state highway and greatly enlarging the Airport. The FAA has in effect threatened ODAV that failure to expand the Aurora State Airport will result in the Airport being placed in a "maintenance mode" and withdrawal of federal aviation funds. And ODAV allows larger, heavier aircraft to use the Airport than the Airport's rating that further increases public-safety risks, and results in damage to the runway. Thus, in a sense, ODAV's actions in allowing larger aircraft to use the Aurora State Airport has forced the agency into a position that it must accept Airport expansion in order to keep receiving federal airport improvement funds — many members of the community speculate that this was ODAV's intention all along in allowing more larger, over-sized aircraft to use the Airport.

Airport expansionists have demonstrated that they are very concerned about FAA's finding of a lack of ODAV compliance with important public-safety standards and demand for correction of key safety features without further "modifications of standards" (MOS). A proposed Oregon Senate Resolution praising the Aurora State Airport's importance was introduced in the current 2025 state legislative session for the primary purpose of seeking FAA deferral of not issuing MOS for public safety standards at the Airport, and was deemed important enough that those giving oral testimony before the Rules Committee sought to equate federal modifications of standards with local conditional use permits in an attempt to lessen the fact that in this

case the desired MOS's result in a relaxing of airfield design standards and a loosening of safety standards. In other words, Airport expansion interests seek new modifications of standards that have the effect of decreasing public safety.

We are concerned that ODAV is again making similar mistakes as it did with the prior controversial 2011/2012 Aurora State Airport Master Plan process that both the Oregon Supreme Court and the Oregon Court of Appeals found in 2021 violated Oregon land-use and public-process laws. The Court of Appeals found that the Aviation Board failed to approve and adopt the "2012 Master Plan" in 2011— notwithstanding that it was submitted to the FAA, which then approved the accompanying Airport Layout Plan that was then signed by both FAA and ODAV. The 2012 Master Plan was not approved and adopted at the time, OAB only attempting to do so eight years after the fact in 2019. We have found so far that the State Aviation Board is unable to demonstrate decisive leadership that provides confidence to local-government officials that federal and state planning processes are conducted in a legal and ethical manner above reproach, which at this time appears questionable.

On the following pages is a summary of core problems with the increasing contentious 2021-2025 Aurora State Airport Master Plan process — substantial problems that most parties in the master plan process oppose. In all of our years of government service, we have never seen federal and state agencies act with such disregard to the concerns of local communities, and appropriate and fair public process. We request your intervention now to provide for an unbiased process that produces trust-worthy results for a viable Aurora State Airport Master Plan. We believe that if ODAV were to comply with—rather than seek to evade—the letter and spirit of Oregon's land-use and public-process laws, judicial intervention to set a course correction would not be a necessary remedy that must be pursued by local governments and concerned citizens.

Again, we appreciate your time and consideration of these important issues, and we look forward to your timely response. Thank you.

Sincerely,



Brian Asher, Mayor
City of Aurora
mayor@ci.aurora.or.us



Shawn O'Neil, Mayor
City of Wilsonville
mayor@ci.wilsonville.or.us

cc: Office of Governor Tina Kotek
Senate President Rob Wagner
Senator Courtney Neron Misslin (SD 13)
Clackamas County Board of County Commissioners
Marion County Board of County Commissioners
William Garrison, FAA NW Mountain Region

State Aviation Board
House Speaker Julie Fahey
Metro Council President Lynn Peterson
Metro Councilor Garrett Rosenthal
Gordon Howard, DLCD Regional Rep
Warren Ferrell, Seattle Airports Dist Office

Following is a summary of core problems with the increasing controversial 2021-2025 Aurora State Airport Master Plan process:

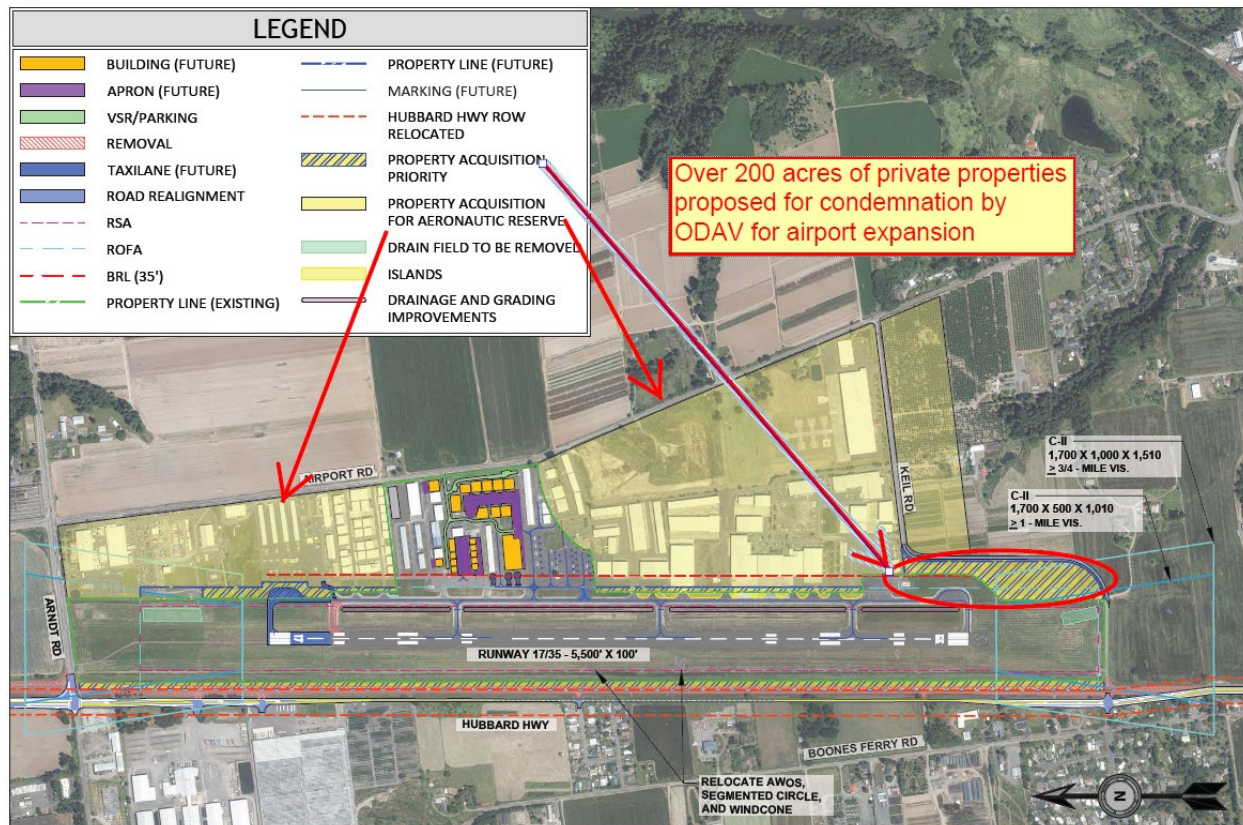
- **Proposed Expansion of Aurora State Airport by the new Master Plan proposes to condemn over 210 acres of private property, including:**
 - 148 acres of private airport businesses' property zoned "Public Use";
 - 62 acres zoned Exclusive Farm Use (EFU), composed of 16 acres at the former church camp, 31 acres of prime farmland south of Keil Road, and 15 acres west of State Highway 551 proposed for relocation by the Master Plan.

As described by PAC member Tony Helbling of Wilson Construction, ODAV's publicly stated position to acquire private business properties at the Airport creates "pre-condemnation blight" by reducing the real-estate value of these properties. Additionally, the proposed property acquisition by ODAV to be funded by FAA Airport Improvement funds includes prime EFU farmland, dozens of low-income residents' housing and local, long-term agricultural-based businesses along Highway 551, which ODAV proposed to relocate 80 feet to the west of current location.



AURORA STATE AIRPORT REFINED PREFERRED ALTERNATIVE

Figure 1: Overview



- **Only Airport-Expansion Alternatives Are to Be Considered; No Alternatives Maintain Airport's Current Footprint:** Of seven (7) original Alternatives in the draft Master Plan, three (3) that would keep the Airport operational for the vast majority of 88% of all current airport users have been arbitrarily eliminated by the FAA. Only four (4) Alternatives remain that all propose to expand the airport onto prime farmland, add a 500-foot runway extension and spend millions of taxpayer dollars to move State Highway 551 to accommodate only 7% of large, oversized aircraft.

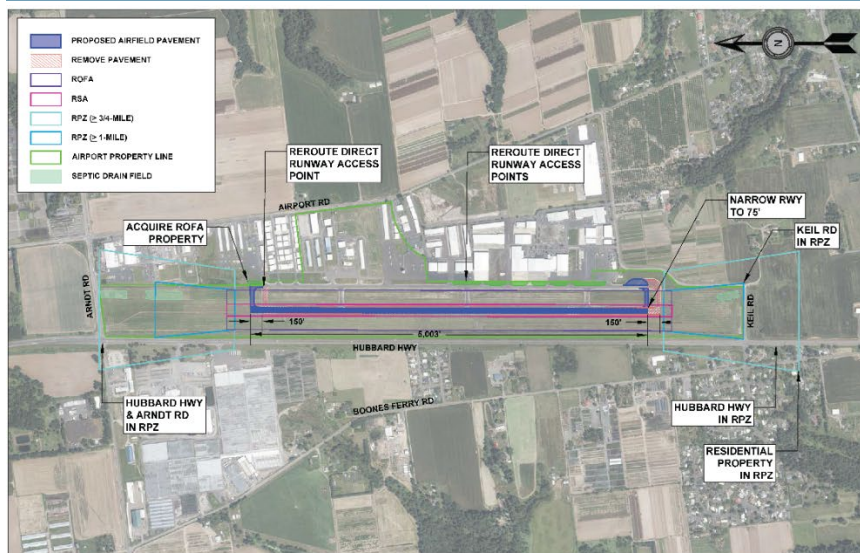
The FAA, however, has told the public that a “No Action” Alternative is *Not allowable* and *only Airport expansion* can occur since the Aurora State Airport is already violating too many air-safety requirements, which seems to indicate that other steps should be taken to increase public safety.



AFTER COORDINATION WITH FAA, B-II ALTERNATIVES ARE NOT VIABLE AND WILL NOT BE CONSIDERED FURTHER

FIGURE 7: AIRSIDE ALTERNATIVE 7

CHANGE TO B-II, SHIFT RUNWAY NORTH, AND MAINTAIN CURRENT LENGTH



Primary Components:

- Downgrades runway to ADG/AAC B-II.
 - » Operational changes to realize B-II use criteria requires further study.
- Narrows runway to 75 feet (B-II standard).
- Maintains current runway length (5,003 feet).
- Shift entire runway 150 feet north to bring Runway 35 RPZ (> 1-mile) onto Airport property.
- Extends parallel taxiway (Taxiway A) to the north with runway.
- Remove/relocate existing Taxiway A1 connector at north end of Taxiway A in conjunction with runway-parallel taxiway shift; eliminates existing direct runway access at that location.
- Acquire property in extended Taxiway Object Free Area (TOFA) at north end of future parallel taxiway.
- Install painted islands between Taxiway A and the adjacent southern TTF properties to address direct runway access and V/DP issues.

Issues Addressed by Alternative:

- ROFA is clear of existing public roads.
- Airport control of ROFA is achieved through reduction in surface dimension.
- Addresses direct runway access and V/DP issues through pavement removal and painted islands.
- Keil Road is outside of ROFA.
- Septic drainfields, wind cones, and weather equipment do not conflict with smaller RSA or OFA.
- Reduces incompatible land uses - Hubbard Highway, Keil Road, Boones Ferry Road and residential areas do not conflict with smaller > 1-mile RPZ.
- Direct runway access and V/DP issues addressed through painted islands and pavement removal.

Other Issues to be Addressed:

- Existing incompatible land uses (Hubbard Highway, Keil Road, Boones Ferry Road and residential areas) remain in larger > 3/4-mile RPZs.

New Issues:

- Operational changes required to maintain B-II standards (<500 C-II or larger annual operations).

Change to B-II, Shift Runway North, and Maintain Current Length

See Exhibit for details.

- **Bogus Operations Forecast Numbers Used to Justify Airport Expansion:** The FAA and ODAV are ignoring nine (9) years' worth of actual Airport control tower flight operations data to project future Airport growth. Rather than use actual Airport operations data or the standard “FAA Oregon Federal Contract Tower Terminal Area Forecast (TAF) Model,” the draft Master Plan uses inflated population growth projections of Clackamas and Marion Counties to determine future Airport growth. ODAV's FAA-approved dubious methodology inexplicably equates population growth with increasing operations at the Airport — a false correlation between general population growth of counties and Airport without passenger air service. Furthermore, ODAV Airport Operations Forecast is 50% greater than the

standard FAA Oregon Federal Contract Tower Terminal Area Forecast (TAF) Model forecast.

- Actual Data Is Contrary to Decisions Favoring Airport Expansion:** FAA and ODAV are disregarding actual airport operations data that shows a decrease over time in larger, heavier C-I and C-II aircraft, and that smaller, lighter B-II and smaller aircraft are the vast majority of Airport users. The current FAA-approved Airport Layout Plan shows the Aurora State Airport to be an airport with an Airport Reference Code (ARC) of C-II. This increase in ARC occurred as a result of the so-called “2012 Master Plan,” and prior to that the airport was rated as B-II. Approximately 88% of all aircraft using the airport are smaller B-II aircraft, while about 7% of aircraft are larger C-I and larger aircraft. It makes no sense to expand the airport for larger aircraft when those aircraft operations are decreasing.

TABLE 3-7: AURORA STATE AIRPORT INSTRUMENT FLIGHT OPERATIONS

TFMSC IFR Operations by AAC/ADG - Calendar Year Data											Average Annual Operations		
AAC/ADG	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
A-I	2,372	2,638	2,414	2,482	2,750	2,750	3,428	2,458	2,162	2,330	2,578	28.0%	87.9%
A-II	410	494	1,108	1,554	1,814	1,966	1,844	1,158	930	1,398	1,268	13.8%	
A-III	14	6	2	4	4	10	6	2	0	4	5	0.1%	
A-IV	0	0	0	0	0	0	0	0	0	0	0	0.0%	
B-I	1,498	1,368	1,422	1,194	1,198	1,126	1,134	1,190	1,024	1,154	1,231	13.4%	
B-II	2,222	2,232	2,214	2,620	3,270	3,110	3,152	3,798	3,448	4,182	3,025	32.8%	
B-III	0	0	0	2	0	2	4	8	2	0	2	0.0%	
B-IV	0	0	0	0	0	0	0	0	0	0	0	0.0%	
C-I	360	374	514	440	340	306	274	286	170	274	334	3.6%	
C-II	348	378	294	208	316	370	358	226	242	264	300	3.3%	
C-III	18	10	4	8	0	14	50	54	10	0	17	0.2%	7.3%
C-IV	0	0	0	0	0	0	0	0	0	0	0	0.0%	
C-V	0	0	0	0	0	0	0	0	0	0	0	0.0%	
D-I	2	8	16	0	4	6	8	4	0	12	6	0.1%	
D-II	4	0	4	0	2	6	2	8	26	84	14	0.2%	
D-III	6	10	4	2	6	8	4	0	4	6	5	0.1%	
D-IV	0	0	0	0	0	0	0	0	0	0	0	0.0%	
D-V	0	0	0	0	0	0	0	0	0	0	0	0.0%	
Unknown	446	390	380	388	504	376	366	472	442	572	434	4.7%	
Total	7,700	7,908	8,376	8,902	10,208	10,050	10,630	9,664	8,460	10,280	9,218	100.0%	
Operations by AAC C and D Aircraft	738	780	836	658	668	710	696	578	452	640	676		
Operations by ADG II and Larger	3,022	3,130	3,630	4,398	5,412	5,486	5,420	5,254	4,662	5,938	4,635		

Source: FAA TFMSC Report - 4/14/2022 (Aurora State Airport)

Table 3-7 from the new Aurora State Airport Master Plan compares 2021 Operations data with the 10-year Average Annual Operations data and reveals the following:

- At no time did C-II aircraft ever meet the 500 operations FAA threshold for designating an airport's ARC

- The most active class of aircraft accounting for largest share of operations at 33% are **B-II aircraft**, which totaled 2,066 operations in 2021, *45% over the 10-year average*.
- The second most active group, **C-I aircraft**, totaled 252 ops in 2021, *23% below the 10-year average*.
- The third most active group, **C-II aircraft**, totaled 218 ops in 2021, *52% below the 10-year average*.

To make matters worse, ODAV has submitted to the FAA for approval an Airport Layout Plan (ALP) that states that ODAV seeks to re-classify the Aurora State Airport as CII/DII, although during the master plan process the concept of increasing aircraft size to DII was never presented nor discussed. Thus, ODAV has again demonstrated deceit in how the agency approaches the master-planning process in relation to the conclusion of the Aurora State Airport Master Plan.

- **ODAV Seeks a Money Grab with Airport Expansion for Bigger Aircraft that Burn More Fuel:** The main revenue source for Oregon Department of Aviation is a tax on aviation fuel, with Aurora State Airport generating a significant cash flow for the agency. ODAV also generates revenue from aircraft hangar leases at the Airport.

Expansion of the Aurora State Airport to accommodate more large, heavy aircraft can dramatically increase aviation fuel sales and hangar rentals that provide more funds for ODAV, despite negative impacts to residents, farmers, environment and climate-change goals. In essence, the Aurora State Airport competes with other regional airports as a relatively cheap gas station and parking lot for aircraft and no additional landing fees.

- **FAA and ODAV Do Not Consider Negative Impacts to Other Regional Airports of Aurora State Airport Expansion:** The FAA and ODAV disregard that other regional airports—including Hillsboro, PDX, Salem, McMinnville, Troutdale and Eugene—with over 5,000-foot runways are all underutilized and would welcome additional based aircraft and operations. Each of these airports has less total average daily operations in 2023, ranging from -22% to -64%, than 10 years prior in peak-year of 2013.

How does the Aurora State Airport fit in with other airports in the area? Does it make sense to spend millions on expanding Aurora, when so many other airports are operating far below past levels? The Master Plan makes no attempt to conduct an analysis, which the land use laws require prior to expansion onto agricultural land outside an urban growth boundary. In the interest of safety, should we keep

larger private jets with heavy fuel loads at the safest possible airport, PDX, where highest level fire services are provided 24/7 on-airport?

The table of data below illustrates the across-the-board decline in aircraft operations at regional airports in northwest Oregon.

Airport	Direction & Distance from KUAO	Runway dimensions (largest)	Weight Capacity (single gear)	Fire & Rescue	TAF data avg daily Total Ops (peak year)	2019: avg daily Total Ops	2023: avg daily Total Ops	% local Ops	2023 _{vs} peak year
Aurora (KUAO)	--	5,003ft x 100ft	30,000 lbs	no ARFF Index	286 (2013)	172	173	46%	-40%
Portland International (KPDX)	22nm NNE	11,000ft x 200ft	200,000 lbs	ARFF Index E	898 (1997)	653	521	1%	-42%
Hillsboro (KHIO)	19nm NW	6,600ft x 150ft	50,000 lbs	no ARFF Index	714 (2008)	422	503	64%	-30%
Salem (KSLE)	23nm SW	5,811ft x 150ft	105,000 lbs	ARFF Index B	272 (2007)	108	121	41%	-56%
McMinnville (KMMV)	16nm W	5,420ft x 100ft	40,000 lbs	no ARFF Index	213 (2007)	no ATC, no count	no ATC, no count	??	
Troutdale (KTTD)	24nm NE	5,399ft x 150ft	19,000 lbs	no ARFF Index	367 (2018)	267	287	72%	-22%
Eugene (KEUG)	70nm SSW	8,009ft x 150ft	120,000 lbs	ARFF Index C	443 (1991)	172	159	32%	-64%

ARFF: Aircraft Rescue & Fire Fighting Index ranges from 'A' to 'E'; PDX has the highest ARFF Index, to handle accidents for the largest aircraft. ATADS & TAF are two FAA databases; ATADS provides precise operational counts for each of 500+ U.S. airports with ATC (air traffic control tower); TAF is Terminal Area Forecast and provides past annual operations totals and future projected ops levels for each of nearly 4,000 U.S. airports. Weight Bearing Capacity is an important metric, to define which aircraft can safely and sustainably use a runway. When an airport authority allows [uses](#) by larger and overweight aircraft, the runway surface is rapidly degraded, which reduces safety.

Rather than working with the FAA create a rational coordinated airport operations program in the Portland metro/Willamette Valley region, ODAV's actions to expand the Aurora State Airport at the current projected cost of \$185 million is severely detrimental to these other airports' operations. For example the Port of Portland is seeking \$150+ million to strengthen the PDX runway to be seismically resilient; whereas Oregon Department of Geology and Mineral Industries geologic hazard maps illustrate that the Aurora State Airport runway will be broken apart into pieces when the projected 9.0 Cascadia Subduction Earthquake hits.

- **Aurora State Airport Master Plan Effort is Tainted by Poor Quality, Four-Year-Long Public-Engagement Process:** The Aurora State Airport Master Plan process has been riddled with unnecessary requirements and lack of communications that hamper public engagement. While commencing the Aurora State Airport master plan process in 2021, one-year-plus delays by FAA and ODAV are now resulting in a tentative completion date of the master plan in 2025. A four-year process for a small airport's master plan is by definition a long, drawn-out process that frustrates meaningful opportunity for public engagement.

ODAV initially required advance public registration to attend public meetings of the PAC and key information about the process has not been communicated timely to

the PAC. If members of the public had not registered in advance to attend a PAC meeting, they were unable to attend at all.

Other than a meeting agenda, ODAV never sent any information to the PAC members prior to PAC meetings. Thus, PAC members went in “blind” each time to a PAC meeting and had no idea of the specific issues or topics to be discussed. Even at the last PAC meeting in February 2025, the Director of ODAV expressed surprise that the proposed ALP had not been sent to PAC members in advance of the meeting; thus PAC members were unable to intelligently review and discuss the ALP as presented.

An FAA/ODAV-hosted Open House on the four (4) remaining Airport-expansion alternatives in June 2024 was barely promoted by the agencies, with no announcements being published in local media or other forms of substantial public notification being used. Since the City of Wilsonville could not allow such a travesty of public input by conducted, the City actively notified local-area constituents. ***And to make matters worse, the agencies ran out of public comment forms less than half-way through the three-hour open-house event attended by hundreds of concerned citizens whose comments were unable to be collected or addressed.***

- **Master Plan Totally Ignores Important Issues and Key State Laws:** None of the four (4) remaining Aurora State Airport expansion alternatives in the draft Master Plan address substantively any land-use, surface transportation, pollution and other issues of concern to area constituents or that are required by Oregon law:

A. No study of surface-transportation impacts on poor quality roads in the Airport area vicinity that are narrow, unimproved rural county roads with no shoulders or sidewalks and deep ditches. No study of Airport expansion on increased traffic has been conducted and no improvements to roads servicing the Airport are proposed by the Master Plan. While proposing airport expansion, the Master Plan ignores that people need to drive to the airport on hazardous roads and are unable to take a bus, walk or bike to the Airport.

Related to the lack of study of Airport expansion impacts to local roads, ODAV failed to conduct Oregon’s mandatory Climate Friendly Equitable Communities (CFEC) analysis on the proposed relocation of State Highway 551 and enlarged intersection with Boones Ferry Road. The \$185 million proposed Airport expansion seeks to condemn private-property for State highway roadway relocation/expansion over one mile long and displace lower-income neighborhoods and rural agricultural businesses.

B. Negative impacts to the farming-based agricultural economy due to proposed airport expansion onto prime EFU farmlands of French Prairie and

resulting speculative real-estate deals that drive up the cost of farmland near the airport are not addressed. Already local farmers complain about land-speculation of developers buying cheap farmland to ‘flip’ to an urban airport use.

- C. **No mitigation methods for low-flying overflights and loud aircraft noise** that negatively impact area real-estate values and residents’ quality-of-life are presented in the Master Plan. Already the cities of Aurora and Wilsonville field increasing numbers of complaints from constituents regarding loud and low-flying aircraft that do not follow ODAV-designated flight paths. Aurora and Wilsonville-area residents resent that neither ODAV nor the FAA have taken seriously an increasing number of noise and public-safety complaints.
- D. **Failure to conduct review of a lack of infrastructure at the Aurora State Airport, including no study of safe domestic water, sewage/wastewater treatment, stormwater treatment, and the lack of fire-fighting equipment on site.** Currently, ODAV plans to call PDX and request a foam fire-fighting truck be sent when a aircraft crash happens at the Aurora State Airport. When that special fire-fighting truck arrives an hour later at the Aurora State Airport, it will be too late to be of any use.
- E. **Lack of study of known pollution** sources from fuel, sewage, contaminated stormwater and US EPA-listed PFAS forever chemicals generated by Airport users. The master plan completely disregards any study of negative impacts from stormwater pollution to salmon-bearing streams with headwaters adjacent to the Airport. The Aurora State Airport is listed on the EPA and Oregon DEQ lists of sites contaminated by FAS forever chemicals generated by Airport users.
- F. **Absence of any review of impacts from increasing climate change greenhouse gas (GHG) emissions at the Airport.** The Master Plan proposes a substantial increase in large jets using the Airport . Money-making ODAV fuel sales at Aurora State Airport are disregarded by the Master Plan, as are the state mandates of Oregon’s Climate Action Plan that call for reduction in carbon emissions.
- G. **Master Plan Disregards Seismic Earthquake hazard** documented by the Oregon Department of Geology and Mineral Industries (DOGAMI) data showing that the Aurora State Airport is located in an area subject to major potential damage in a projected 9.0 Cascadia Subduction Zone Earthquake. Airport area soils are prone to shaking and liquefaction during major earthquake, resulting in runway broken-apart into many sections and unserviceable for a long period of time. Only helicopters, which don’t need a runway, will be able to operate at the Aurora State Airport for months or years after the Big One hits.

H. State land-use Goals 3, 11, and 14 to not conduct urban-level activities on rural farmlands is also flouted by ODAV, which seeks to expand the airport without municipal governance or public sewage or water service and other urban-development requirements. Rather, ODAV unfairly subsidizes airport businesses that do not pay typical charges that businesses in other cities pay for roads, sidewalks and other public utilities.

I. Adverse effects to residents' quality of life and homeowner real-estate values are not accounted for in the master plan. Already residents of Aurora/Wilsonville area complain about low-flying and loud aircraft that likely increases with expanded airport for larger, heavier aircraft.

A primary concern pertains to the extremely lopsided membership composition of the Planning Advisory Committee (PAC). The Department of Aviation stacked the Planning Advisory Committee with self-dealing financial interests at the Airport that benefit from taxpayer-funded Airport operations and capital improvements. A review of the PAC membership demonstrates that well over half of the PAC membership is comprised of entities with direct pecuniary interest in furthering airport expansion at taxpayer expense.

Additionally, the same pro-airport expansion entities are represented multiple times on the PAC. Two associations placed on the PAC are composed of a majority of Airport financial interests, including Aurora Airport Improvement Association and Positive Aurora Airport Management association.

By all appearances, the process and committee composition has the appearance of a “tick the box” exercise in public involvement. This led us to conclude that the outcome is predetermined and that the inevitable result will lead to airport expansion regardless of the impacts on safety, the environment and surrounding infrastructure — and surprise, surprise (*not!*), the Master Plan proposes a massive expansion of the Airport.

Another key problem is that ODAV omitted three key state agencies as PAC members: Department of Agriculture (ODA), Department of Environmental Quality (DEQ) and Department of Transportation (ODOT).

- The Aurora State Airport is located in the heart of the Oregon’s best “foundation farmland” of French Prairie, which hosts some of Oregon’s foremost traded-sector ag producers, nurseries and food processors. Real-estate speculation and uncontrolled urban-level development—as are occurring at the Aurora State Airport area—are harmful to this prime ag-sector economic cluster. By excluding the Department of Agriculture from the public process, the Department of Aviation continues a trend of excluding parties that may provide valuable information or may question the Aviation agency’s objectives.

- We read in the media that the US Environmental Protection Agency (EPA) indicates that 750 Oregon sites could expose residents to 'forever chemicals' of per- and poly-fluorinated substances or PFAS, where growing evidence points to their adverse health effects, including some cancers. In Oregon, the state Department of Environmental Quality (DEQ) is testing locations including the Aurora State Airport for known or suspected PFAS use. Again, the Department of Aviation's exclusion of DEQ demonstrates an on-going pattern of discriminatory conduct.
- ODAV has now proposed a \$185 Million expansion of the Aurora State Airport that includes moving over a one-mile-long segment of State Highway 551 (Wilsonville-Hubbard Cut-off) and condemning extensive amount of private-property for Airport expansion use. ODAV, however, has had minimal communications with ODOT, an agency having severe budget problems, regarding the proposed relocation of State Highway 551.

We understand that the Governor's Office Executive Order 20-04 on Climate Action "Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions" (GHG) directs DEQ to develop strategies that "Cap and Reduce Greenhouse Gas Emissions." We are concerned that representatives of the Governor's Office appointed to the State Aviation Board and Department of Aviation staff simultaneously are advocating for major expansion of the Aurora State Airport that results in substantial increases in aviation-gas fossil-fuel consumption and GHG emissions, contrary to the Executive Order on Climate Action.

One of the major reasons stated by aviation interests for Aurora State Airport runway extension is to increase the sale of aviation fuel so that a larger class of aircraft may takeoff from the airport with full tanks of gas. We note that the tax on aviation fuel is the primary source of operational revenue for the Department of Aviation. Thus, the Department of Aviation has a direct pecuniary interest in advocating for increased aviation-gas fuel sales that would accompany expansion of the Aurora State Airport, seemingly in direct conflict with the Governor's Executive Order on Climate Action.

Additionally, DEQ data appears to indicate that the NMPDES (National Pollution Discharge Elimination System) permit for the Department of Aviation's Aurora State Airport discharge into Mill Creek-Pudding River watershed expired June 30, 2017. We understand that area residents have expressed concerns for surface-water, ground-water and well-water quality due to prospective airport run-off pollutants, unregulated septic systems and potential ground water pollution. Cumulatively, these all appear to be good reasons from the Department of Aviation's perspective to exclude DEQ from Airport planning efforts.

The Department of Aviation’s tightly controlled master planning process fails to meet the test for meaningful public engagement. The Zoom meeting format used by the Department of Aviation does not list or show all participants in the meeting and provide clear labeling of names and affiliations. It is unclear to the public who is attending the meetings and who or what entity that participants represent. At the November 16, 2021, PAC meeting, it was difficult to ascertain from many of the name labels who was attending in what role. Names and affiliations of all PAC members and staff/consultants should be clearly evident.

Additionally, some PAC members were allowed to have two representatives participate in the meeting, while some PAC members were ignored and not allowed to participate in the meeting. These elements indicate a failure of meaningful public process.

The facilitators for the PAC meeting often used a series of unscientific “polls” to gauge participants’ thoughts or perspectives; however, it was unclear who was participating — was it PAC members, Aviation staff and consultants, and/or the public? Moreover, the facilitators interpreted the results of the poll that may or may not be an accurate reflection of the participants involved.

The Department of Aviation states that “As the airport sponsor, ODA staff will be the final decision-making authority. They will decide what is included in the Master Plan.” Setting aside the fact that this pronouncement at the start of a “public involvement” process sends a message that is contrary to Oregon’s Statewide Planning Goal Number 1, we believe this is false information; only the appointed body (*i.e.*, the Oregon Aviation Board) can legally approve a master plan. The failure of the Oregon State Aviation Board to adopt the 2011 or 2012 Aurora State Airport Master Plan was a centerpiece for the Oregon Supreme Court’s affirmation of the Court of Appeal’s decision against the Department of Aviation for failure to comply with Oregon law.

During the November 16, 2021, PAC meeting, aviation consultants indicated that they would consider nearby external “outside the fence” proposed urban-level developments in the Airport master-planning process — implying that such proposed developments would favor Airport expansion. However, the consultants gave no indication of reviewing such information in light of Oregon’s EFU land-use laws, nor the potential reality of such proposed developments ever actually occurring. Additionally, consultants gave no indication of considering the “negative” aspects of proposed developments outside the Airport, such as increased surface-transportation impacts/traffic congestion and potential mitigation, increased land-speculation harming the ag industry, and increased pollution and environmental impacts.

The Department of Aviation has allowed and promoted the dissemination of false information about the seismic resilience of the Aurora State Airport. At the October 6, 2021, Oregon Aviation Board planning session and at the November 16,

2021, PAC meeting, misinformation about the seismic conditions of the Aurora State Airport area was provided without rebuttal. At the October meeting, the Aviation Board had considerable discussion on resilience, and the importance of selling the resilience concept to the public and government officials as a component of building support for state and federal funds for the Aurora State Airport expansion. Aviation Board Chair Meeker indicated a desire to improve “lines of communication” between the Governor’s Office and airport businesses to promote resilience.

Contrary to statements that depict the Aurora State Airport as a crucial facility for the projected 9.0 Cascadia Subduction Zone Earthquake, the Aurora State Airport is listed at the lowest-level of Tier 3 airports in the Oregon Resilience Plan. The Tier designations “indicate the priorities for making future investments.” In other words, the Department of Aviation is effectively targeting one of the lowest priority airports to prepare for recovery in the Oregon Resilience Plan for potentially one the largest airport capital improvement projects ever planned by the state.

With respect to the airport’s ability to withstand a Cascadia Subduction Zone Earthquake, reports by the Oregon Department of Geology and Mineral Industries (DOGAMI) show that the Aurora State Airport is located in an area subject to major potential damage in a projected 9.0 Cascadia Subduction Zone Earthquake. The “Mid/Southern Willamette Valley Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates,” DOGAMI publication IMS-24, shows that the Aurora State Airport specifically is located in an area:

- Rated High for Ground Shake Amplification
- Rated High for Amplification Susceptibility
- Rated Moderate to High for Liquefaction Susceptibility

The same deep, fine soils that make the French Prairie area such exemplary foundation farmland also mean these soils are subject to amplification and liquefaction. As a result of such an earthquake, the airport runway would likely be unserviceable for a long period of time (6-12 months) post-earthquake. Rather than allow aircraft to take off or land due to an inoperable runway, the most likely role of the Aurora State Airport will be to accommodate vertical take-off and landing of heavy-lift helicopters with locally-based Columbia Helicopters and Helicopter Transport Services, neither of which require a runway extension to operate.

Attachments:

Attachment 1: Excerpted slides from ODAV and FAA presentations on the Aurora State Airport Master Plan and FAA Modifications of Standards.

Attachment 2: Letter from City of Wilsonville to ODAV and FAA, RE: Comments on Draft 2022 Aurora State Airport Master Plan Chapters 1-3, April 12, 2022

Exhibit A. Letter from Mayors of the Aurora State Airport Communities (Aurora-Wilsonville) to the Office of Honorable Kate Brown, Governor of Oregon, RE: Issues of Public Concern with Oregon Department of Aviation's Aurora State Airport Master Planning Process, December 13, 2021

Letter from Cities of Aurora and Wilsonville to Sen. Lee Beyer and Rep. Susan McLain, Co-Chairs Joint Committee on Transportation, RE Request for Public Hearing on HB 2497 – Proposed Legislation to Create Transparent Public Process for State Aviation Department

Agency Communications and Coordination with Local Governments and Communities on Aurora State Airport Issues of Concern, March 11, 2021

Aurora State Airport in Relation to The Oregon Resilience Plan and DOGAMI Earthquake Susceptibility Maps – 2019

Exhibit B. Letter from City of Wilsonville to Oregon Aviation Board, RE: Public Disenfranchisement by the Oregon Aviation Board for the Proposed 2021-22 Aurora State Airport Master Planning Process, August 4, 2021

Exhibit C. Letter from Cities of Aurora and Wilsonville to Senators Wyden and Merkley, Request for Intervention in Ensuring Proper Award of FAA Grant Funds to the Oregon Department of Aviation for Aurora State Airport Master Plan Update, July 6, 2021

Summary of Court of Appeals Ruling on Aurora Airport Master Plan

Articles about Court of Appeals Siding with Opponents of Aurora Airport Expansion

Exhibit D. Letter from Representative Courtney Neron, HD-26, and Representative Susan McLain, HD-29, to Oregon Aviation Board, RE: 2021 Aurora State Airport Master Planning Process, June 17, 2021

Exhibit E. Letter from City of Wilsonville to Oregon Aviation Board, RE: Proposed 2021-22 Aurora State Airport Master Planning Process, June 14, 2021

Exhibit F. Letter from Clackamas County and City of Wilsonville to Governor Kate Brown, Senate President Peter Courtney and House Speaker Tina Kotek, RE: Request to Cancel Oregon Department of Aviation application to Federal Aviation Administration (FAA) for funds to extend the Aurora State Airport runway, August 8, 2018

Attachment 1



AURORA STATE AIRPORT MASTER PLANNING PROCESS

AIRFIELD DESIGN, NONSTANDARD CONDITIONS AND FAA REQUIRED SAFETY IMPROVEMENTS PRESENTED IN PAC MEETINGS

Prepared by Friends of French Prairie; April 21, 2025

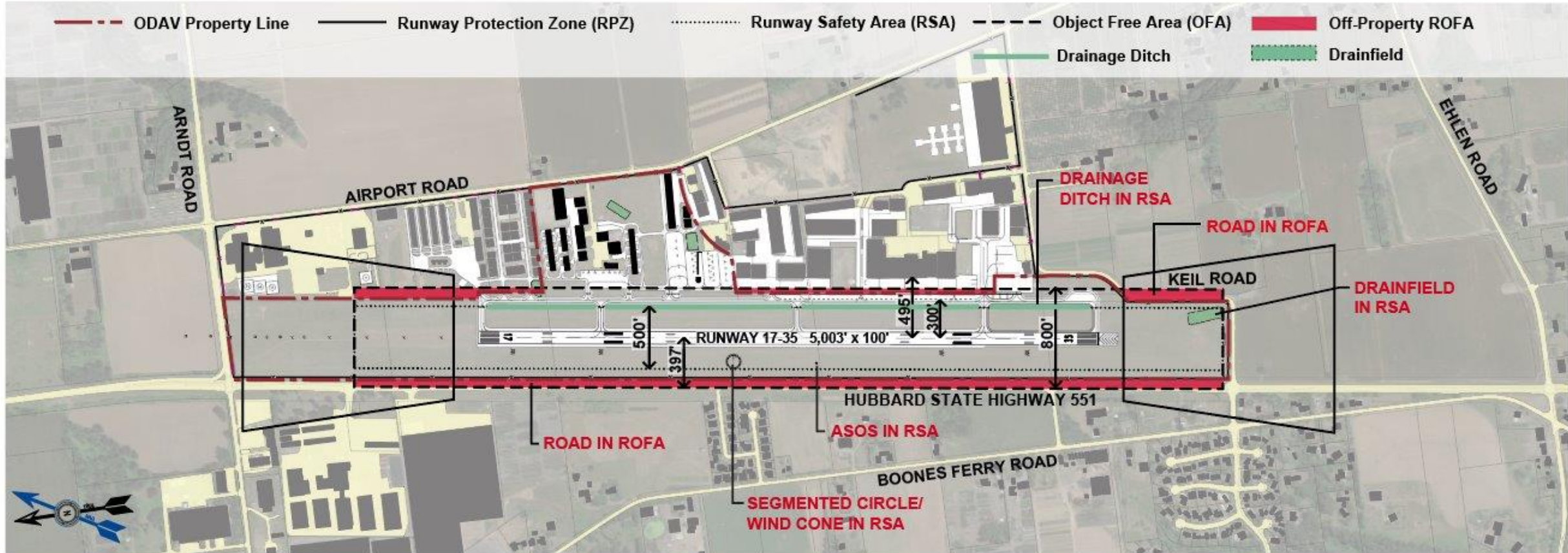
CONDITIONAL USE PERMIT MODIFICATION OF STANDARD

- A Conditional Use Permit (CUP) is a special permission granted by local authorities that allows a property owner to use their land in a way that is not typically allowed under existing zoning laws.
- Modification of Standard (MOS) is any deviation from, or addition to standards, applicable to airport design, material, and construction standards, or equipment projects resulting in an acceptable level of safety, useful life, lower costs, greater efficiency, or the need to accommodate an unusual local condition on a specific project through approval on a case-by-case basis.

Facility Requirements – Summary of Evaluation

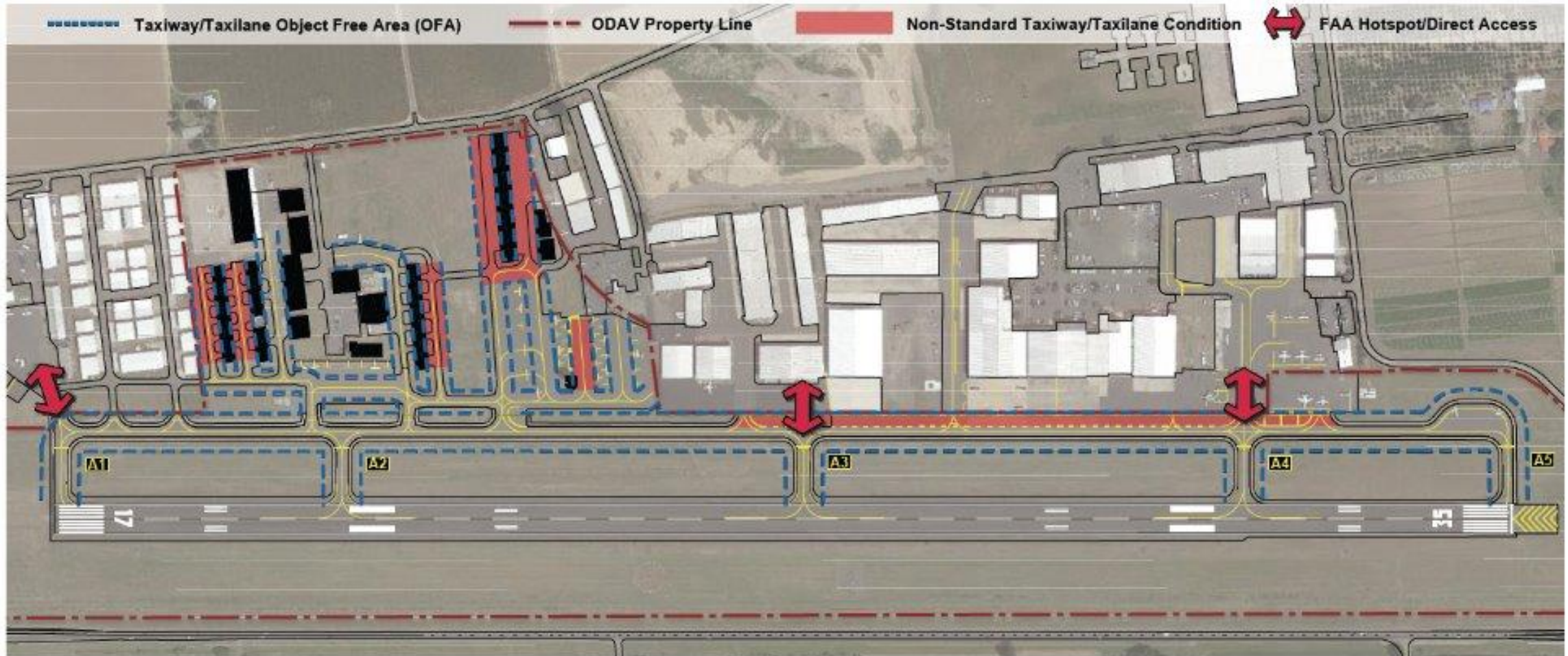
- Existing & Future Design Aircraft – Medium/Large Business Jet
 - C-II standards for runway-taxiway system
 - All airfield components must meet C-II standards
- Runway Length Evaluation: Justified Length: 5,500 feet
 - Based on current and forecast air traffic

Facility Requirements Summary – Airside



Source: Century West Engineering

Facility Requirements Summary – Landside



Source: Century West Engineering

Facility Requirements Review

- Design Standards
 - Runway Object Free Area (ROFA)
 - **Non-standard Items**: Hubbard Highway, Keil Road, ASOS, Wind Cone
 - Runway Safety Area (RSA)
 - **Non-standard Items**: Drain field (south end), open ditches
 - Direct Runway Access
 - **FAA design guidance**: Avoid straight-line direct access taxi routes between aprons/hangars and runway
- Landside Capacity
 - Development/redevelopment of landside areas to accommodate new demand for hangars and aircraft parking

PAC Feedback Comment Themes - MOS

PAC Meeting 7: Oct. 15, 2024

- Can we request a modification of standards (MOS)?
 - Under current FAA guidance, MOS are temporary and not a permanent solution for non-standard conditions. FAA has indicated they are not providing a MOS for this project.
- Does the 2012 ALP include an approved MOS?
 - No, the ALP noted that a MOS would be requested. Request for MOS is a specific process separate from the ALP approval process and does not guarantee an approval of a MOS.
- Can we move toward conformance by relocating the property fence closer to Hubbard Highway?
 - The fence and a portion of Highway 551 is within the ROFA. Both the highway and fence require relocation outside of the ROFA.

Comment Theme – Drain Fields

- Why are there no proposed locations for relocating the drain fields?
 - Privately-owned drain fields, located on leased ODAV property do not meet C-II runway safety area (RSA) standards and will be removed. Replacement of drain fields will be the responsibility of the owners.
- Were the drain fields approved by FAA in their current locations at the time of construction?
 - We have no record of the depth of FAA involvement in the permitting of these facilities when they were constructed. However, at the time the runway was classified as ARC B-II, which had a smaller RSA that did not conflict with the drain field placement.
- Is it possible to modify the drain fields in place to conform with RSA standards?
 - Structural enhancements have been evaluated by ODAV and FAA and have been found to not meet RSA grading standards and could impede the function of the drain field.

Comment Themes - Additional

- Why is the vehicle service road (VSR) parallel to the taxiway?
 - Many of the recent Vehicle or Pedestrian Deviations (VPD) reported by ATC involved vehicles entering movement areas as they go around parked aircraft on the apron. The VSR, as depicted, provides a safe and clear path free of parked aircraft for ground vehicles to operate while also providing a visual cue to drivers to remain in the non-movement area.
- We object to the depicted acquisition of privately-owned property for aeronautical reserve.
 - It is ODAV's intention to acquire the properties identified for aeronautical reserve from willing sellers if, and when they become available. By depicting the parcels on the ALP, it allows ODAV to pursue FAA funding for property acquisition.
- Can Hubbard Highway be rerouted along Boones Ferry Road?
 - That concept was evaluated and discarded due to necessary ROW acquisition, costs of construction, and greater impacts to residential.

Nonstandard Conditions

The below listed **nonstandard conditions** are the highest priority to FAA for the Airport (ODAV) to mitigate at Aurora State Airport.

- Runway Object Free Area (ROFA)
 - Acquire property within the ROFA
 - Relocate the ASOS, Windcone, Fencing, Roadways outside of the ROFA
- Runway Safety Area (RSA)
 - Remove drain fields out of RSA
 - Mitigate drainage ditch
- Direct Access Taxiways to Runway
 - Relocate or remove taxiways that connect the apron directly to the

Note – mitigating other nonstandard conditions not listed above will be coordinated with FAA on timing and priority.

Reminder – A modification of standards (MOS) is not a planning level solution for any nonstandard conditions in the Airport Master Plan.

Input received on the Preferred & Refined Preferred Alternative

PAC Meeting 9: Feb. 11, 2025

Opportunities for Feedback:

- PAC Meeting #7- and two-week comment period
- PAC Meeting #8- and two-week comment period
- 1/6/25 Publication of Refined Preferred Alternative and two-week comment period (ending 1/21)

Feedback we've heard:

- A no build alternative should be considered (*note, a no build was presented and discarded as part of the preliminary alternatives*)
- Reduce or eliminate impacts to existing hangars
- A parallel taxiway is not needed
- Depict a vehicle service road on private TTF property (*note, this is a facility plan for on-airport improvements*)
- Improve the drainfield(s) that are in the safety areas to meet standards without requiring relocation
- Shift Hubbard Highway within the ROW to minimize impacts to adjacent properties
- Include the private TTF properties within the airport boundary

Refinements to the Preferred Alternative

Based on input received, ODAV has made the following refinements:

- Removed the Parallel Taxiway
- Removed the Vehicle Service Road (VSR)
 - Eliminates the need to acquire property that would impact existing hangars
 - Aircraft tiedowns and helicopter parking were re-added to the main apron area.
- Reduced required property acquisition to the areas needed to meet FAA ROFA/TOFA and RSA standards
 - Additional property has been identified as “Reserve” and will be included in the ALP to allow for ODAV to use FAA grant funding in the event properties come available for purchase

Refined Preferred Alternative

There was no change in recommendations to the other proposed improvements, including:

- Proposed runway extension to the North
- Removal/relocation of drain fields outside of the RSA/TSA
- Relocation/shift of Hubbard Highway and Keil Road outside of the ROFA
- Relocation of the ASOS and windcone outside of the ROFA
- Reconfigured apron tiedowns to meet standards
- Future depicted hangar sites on state-owned property
- Improve the drainage ditch in the RSA to meet standards

What isn't a MOS

FAA presentation on
MOS, Aug. 6, 2020

- An approved MOS cannot be modified. The airport must submit a new MOS if changes are needed.
- MOS is not used for:
 - Non-standard RSA dimensions.
 - Non-standard Obstacle Free Zone (OFZ) surfaces.
 - Non-standard approach / departure surfaces.
 - To match existing equipment owned by the airport.
 - Impermissible land use within Runway Protection Zone (RPZ) limits.



Attachment 2



April 12, 2022

Martha Meeker, Chair, and Oregon Aviation Board
Betty Stansbury, Aviation Director
Sarah Lucas, Aviation Planner
Oregon Department of Aviation

Sent via email to:
aviation.mail@aviation.state.or.us
betty.stansbury@aviation.state.or.us
Sarah.LUCAS@odav.oregon.gov

Benjamin Mello, Airport Capacity Program Manager
Federal Aviation Administration Seattle Airports District Office
FAA Northwest Mountain Region Airports Division

Benjamin.j.mello@faa.gov

RE: Comments on Draft 2022 Aurora State Airport Master Plan Chapters 1-3

Dear Chair Meeker, Director Stansbury, members of the Oregon Aviation Board, Manager Mellow and Aviation Staff:

The City of Wilsonville is a jurisdiction impacted by the operations of the Aurora State Airport and adjacent through-the-fence private properties that are conducted under the auspices of the Oregon Department of Aviation (ODAV) and the Federal Aviation Administration (FAA). The City of Wilsonville has been an active participant for over 20 years in relation to the Aurora State Airport, including serving on the Planning Advisory Committees (PAC) of the Aurora State Airport Master Plan process in 2011/12 and 2022. The City has sought to collaborate with local governments and state agencies to comply with Oregon public-process and land-use laws and engage in coordinated planning.

The following comments review general, structural problems and issues of concern with the current 2022 Draft Aurora State Airport Master Plan and process, and also catalog a set of specific questions pertaining to Chapters 1-3.

1. Failure to Provide Public Notice of Public Comment Opportunity on Draft Master Plan Chapters 1-3

ODAV failed to publish any kind of public notice of the public comment opportunity on 2022 Draft Master Plan Chapters 2 through 3 that has a due date of April 12. Rather, notice of the opportunity to comment and the deadline for public comments was only provided verbally by ODAV and consultant during the April 5 PAC Work Session meeting. This kind of public engagement failure is endemic to how ODAV operates in general, and specifically during the 2022 Aurora State Airport Master Plan process.

Rhetorically speaking, how are members of the public to be aware that there is a public comment opportunity if no public written notice is published or advertised in advance of the comment deadline?

2. Reference and Reliance on Invalid 2012 Aurora State Airport Master Plan Taints Current 2022 Draft Master Plan.

During the past 10-years-plus, the City has seen ODAV act without due regard to Oregon land-use and public-process procedures and laws in relation to implementing the invalid Aurora State Airport Master Plan of 2011/2012. The City has been forced by ODAV to file administrative appeals with the state Land Use Board of Appeals (LUBA) and to file lawsuits in state Circuit Court and subsequently file appeals to the Oregon Court of Appeals and Oregon Supreme Court to force the agency to comply with Oregon law. The City and other parties have been successful in various cases seeking judicial remedies to correct unlawful land-use actions by ODAV and county seeking Airport expansion.

On June 16, 2021, the Oregon Court of Appeals ruled that ODAV misapplied state land-use laws in approving the contentious 2012 Aurora State Airport Master Plan; see *Schaefer v. Oregon Aviation Board*, 312 Or App 316 (2021). The Court reversed and remanded to LUBA the decision on the master plan, finding that LUBA erred in excluding the prior critical 2011 master plan work from the record; in erroneously finding that the master plan did not propose airport development on an Exclusive Farm Use (EFU) zoned land; and also erroneously finding that any proposed new uses at the Aurora State Airport are considered rural uses for land-use purposes.

The City of Wilsonville together with the City of Aurora, 1000 Friends of Oregon, Friends of French Prairie and Aurora Planning Commission Chair Joseph Schaefer filed an appeal with the court in March 2021 regarding a LUBA decision that dismissed their appeal challenging the legality of the 2012 master plan. LUBA ruled in December 2020 that it did not have jurisdiction to hear the appeal as land-use decisions of the Department of Aviation's adoption of 'findings of compatibility' and approval of the 2012 Master Plan.

The Oregon Aviation Board, acting contrary to advice from the Oregon Attorney General's Office, elected in September 2021 to appeal the Court of Appeals ruling to the Oregon Supreme Court. Acting in judicially lightning-fast time, on Dec. 9, 2021, the Oregon Supreme Court dismissed an appeal by ODAV and others that resulted in upholding the June 16, 2021, decision by the Court of Appeals, which declared that ODAV misapplied state land-use laws in approving the contentious 2012 Aurora State Airport Master Plan.

The Supreme Court denied review of the Court of Appeals decision that reversed and remanded a December 2020 Land Use Board of Appeals (LUBA) decision approving the master plan, finding that LUBA erred in excluding the prior critical 2011-12 master plan work from the record; in erroneously finding that the master plan did not propose airport

development on Exclusive Farm Use (EFU) land; and also erroneously finding that any proposed new uses at the Aurora Airport are considered rural uses for land-use purposes.

The 10-year-long controversy over the 2012 Aurora State Airport Master Plan originated with a confusing, convoluted process over several years, resulting in an invalid master plan that ignored Oregon public-process and land-use laws. Rather than seek to work with the impacted local communities adjacent to the Airport, ODAV pressed forward with airport expansion efforts contrary to state law, including an unsuccessful attempt in September 2018 to seek legislative permission for a \$37 million grant application to the FAA to extend the Airport runway.

And now, after all of this effort at obfuscation by the agency, ODAV staff have finally confirmed what the Oregon Attorney General's Office communicated in March 2021 And acknowledged that there is NO Valid 2012 Aurora State Airport Master Plan — “the State Aviation Board *did not approve* the 2012 Master plan” (emphasis added):

From: PECK Heather <heather.peck@odav.oregon.gov>

Date: April 5, 2022 at 12:10:29 PM PDT

To: LUCAS Sarah <Sarah.LUCAS@odav.oregon.gov>, ben.williams@liturgica.com,
brandy.steffen@jla.us.com

Cc: benjamin.j.mello@faa.gov

Subject: Re: Comments in advance of PAC Work Session today

Thank you again, for your comments and we will include them in the record, files and forward to the FAA.

For clarification however, while you are correct that the State Aviation Board did not approve the 2012 Master plan, the FAA did approve the methodology, the data as related to the forecast, the forecast and the final ALP, as also signed and dated by the FAA.

Kind Regards,
Heather

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By definition, a master plan that is not adopted by the governing body Oregon Aviation Board remains an unapproved draft plan. Thus, ODAV now concedes after losing in the judicial process the absence of a valid 2012 Aurora State Airport Master Plan that was never adopted by the Oregon Aviation Board. As an invalid plan without adopted findings and conclusions, for all practical purposes the 2012 Aurora State Airport Master Plan is an unapproved draft without any standing in law.

The current 2022 Draft Aurora State Airport Master Plan Chapters 1 through 3 reference on over 20 occasions the invalid 2012 Aurora State Airport Master Plan. By referencing a

nonexistent master plan—or more precisely an invalid draft plan—the new 2022 Draft Master Plan becomes tainted.

The only remedy in this instance is remove all references to the invalid, draft 2012 Aurora State Airport Master Plan from the 2022 Draft Aurora State Airport Master Plan. As the next Section 2 discusses, a pertinent question is What Prior Version of the Aurora State Master Plan is valid? Based ODAV's actions—or inaction—it would appear that the 1976 Master Plan is the current, adopted and codified appropriately version.

3. ODAV “Packs the PAC” with Self-Serving Financial Interests Benefiting from Taxpayer-Funded Airport Expansion.

As the City called-out earlier at the start of new master plan process, ODAV's composition of the Master Plan Planning Advisory Committee (PAC) is “packed” with self-serving special interests that benefit from taxpayer-funded expansion of the Aurora State Airport. A review of the PAC members listed on p 1-5 shows that:

- 19 PAC members (59%) represent vested financial interests that have expressed a desire for increased development and expansion of the Airport;
- 7 PAC members (22%) are local governments and public-interest organizations that have expressed issues of concern regarding operations of the Airport'
- 6 PAC members (19%) are neutral state and tribal-government agencies.

As an agency funded primarily by a state tax on aviation fuel, ODAV itself is a financial beneficiary of Airport runway extension and expansion plans that result in increased use and sales of aviation fuel.

ODAV omitted two key state agencies from the PAC—Oregon Department of Agriculture and Oregon Department of Environmental Quality. Each agency is charged with a mission and areas of responsibility that would have benefitted ODAV's Airport master planning effort. The Department of Agriculture could advise on the rural agricultural farming traded-sector component of the regional economy of French Prairie surrounding the Airport, and DEQ could advise on issues of environmental pollution that the Airport emits.

Certainly having a wide representation of various stakeholders is beneficial to the master plan process; however, stacking the PAC with pro-Airport expansionists could appear as though ODAV has manipulated the new 2022 Aurora State Airport master planning process from the outset to ensure that a majority of the PAC members would favor Airport expansion. In a similar fashion, one could surmise that ODAV ensured that local community and public-interest voices would be overwhelmed by being a minority of the PAC membership.

4. ODAV Appears to Manipulate Federal Process to Trump State Law.

The citation above from ODAV staff indicates that while “the State Aviation Board did not approve the 2012 Master plan, the FAA did approve the methodology, the data as related to the forecast, the forecast and the final ALP, as also signed and dated by the FAA.” This statement reveals the agency’s motive to seek to use a *federal* decision/document as a method to evade *state* land-use and public-process procedures and laws.

That is, in Oregon statutes, a state agency must apply to the land-use jurisdiction for an exception to zoning land uses. In this instance, ODAV is to apply to Marion County for a goal exception to the County Comprehensive Plan that includes adoption of the airport map, assumed to the ALP, or FAA Airport Layout Plan. As was noted at the April 5 PAC Work Session meeting by Matthew Crall, Planning Services Division Manager for the Oregon Department of Land Conservation and Development, ODAV must comply with Oregon land-use laws requiring the agency like any other party apply for a goal exception to the county comprehensive plan that includes adoption of the airport map.

On March 30, 2022, the Oregon Court of Appeals reversed and remanded an October 2021 LUBA determination that a private-property development project near the Airport was exempt from the state’s land-use process. LUBA erroneously found Marion County did not need to grant exemptions to state land use goals involving the preservation of farmland, adequate public facilities, and urbanization.

The Court of Appeals ruled in *Schaefer v. Marion County*, 318 Or App 617 (2022), that the rezoning from Exclusive Farm Use (EFU) to an airport use would have to go through state land-use procedures. To do so, a map that includes the expansion of the airport development would have to be adopted by Marion County, which the Court of Appeals determined has not been done since 1976.

The Court of Appeals opinion goes on to say, “The statute itself does not modify the procedure for expanding the airport boundary.” (*Id.* at 634). That means the Airport’s boundaries cannot be expanded just because ODAV says so in the Airport Master Plan. Rather, the agency must effectuate the proposed Master Plan and follow the law like other parties without assuming that ODAV has an FFA trump card to play that allows the agency to bypass state land-use laws.

The 2022 Draft Aurora State Airport Master Plan Chapter 2, p 2-4, states that “Several planning studies have been completed through the Airport’s history, including FAA-funded master plans in 1976, 1988, and 2012.” Based on a lack of changes to the Marion County Comprehensive Plan, ODAV failed to apply for a Comprehensive Plan goal exception or Airport ALP Map for any Aurora State Master Plan update conducted in 1998 or 2012. As the Court of Appeals found in *Schaefer v. Marion County*, the last Comprehensive Plan update for the Aurora State Airport Master Plan occurred in 1976. “The 1976 Aurora State

Airport Master Plan, including its airport layout plan, which is a map of the airport, is part of the Marion County Comprehensive Plan.” (*Id.* at 620).

Thus, ODAV is unable to use or reference an FAA-approved ALP Map that the agency has failed to gain an exception for in the Marion County Comprehensive Plan. The last such Master Plan to have been done correctly is the 1976 Aurora State Airport Master Plan.

5. Goals of the Draft Master Plan Do Not Relate to the Output of the Plan.

In discussing the “Goals of the Airport Master Plan,” ODAV indicates that the “primary goal of the master plan is to provide the framework and vision needed to define future facility needs at Aurora State Airport.” The Goals enumerated raise a number of questions, and also demonstrate the Draft Master Plan fails to meet the “primary goal” of “future facility needs” at the Airport.

- Goal 6 states “identify potential environmental and land use requirements that may impact development.” What are some examples of both environmental and land use requirements in this context?
- Goal 8 indicates that the Master Plan is to “Develop an Airport Layout Plan to graphically depict proposed improvements” and “Prepare a supporting Capital Improvement Plan.” This goal raises a number of questions, including will there be a new ALP created as part of this process? If not, why? What ALP will be used? When was it created? Was there an opportunity for public input on the ALP?

Furthermore, as is discussed later, the “supporting Capital Improvement Plan” (CIP) falls far short of the actual infrastructure needs at the Airport. The CIP portion of Chapters 2 and 3 demonstrate a lack of compliance with Oregon regulations for major new, urban-level development in terms of infrastructure planning and financing, especially in high-value EFU ag lands.

- Goal 9 seeks to “Provide recommendations * * * to remove barriers to appropriate growth at the Airport – What are some examples of recommendations to improve land use and zoning oversight to “remove barriers to appropriate growth at the airport”? How is “appropriate growth” measured in this context?
 - o How specifically will potential environmental and socioeconomic impacts be measured, weighed or evaluated in the context of ‘future development’ at the airport?
 - o Was the utilization of federal funds to construct projects (air traffic control tower) identified in an un-adopted master plan legal?

6. ODAV's Permissive Attitude Towards Overweight/Oversized Aircraft at Aurora State Airport Creates Constrained Operations.

The 2022 Draft Master Plan cites on multiple occasions the 2019 Constrained Operations Runway Justification Study that “indicated in excess of 500 annual operations,” p 2-18. Chapter 3, Aviation Activity Forecasts, is largely based on the 2019 Aurora State Airport Constrained Operations Runway Justification Study, which determined that aircraft operating at the Airport experienced 645 constrained operations in 2018. It should be noted that this number was based on pilot surveys that were *not validated* against flight plans, and did not take into consideration that ODAV's practice of allowing an increasing number of oversized aircraft to operate at the Airport was the major factor driving the number of constrained operations.

Further, that number of 645 purported constrained operations in 2018 represents a 33% increase over that reported in the unapproved 2012 Master Plan, in spite of a 24% reduction in Total Operations since 2010. That increase can only be attributed to ODAV's practice of allowing an increasing number of oversize jets to operate at the Airport which drives the increase in constrained operations.

Thus, the 2022 Draft Master Plan *never* discusses that the constrained operations are caused by ODAV's very actions of granting permission for overweight/oversized aircraft to use the Aurora State Airport. A public records request of ODAV by the City of Wilsonville reveals over a hundred waivers have been granted by ODAV over the past 10 years 2012-2021 to aircraft that are overweight or oversized for the Aurora State Airport runway, also thereby creating a public safety issue.

The Aurora State Airport runway is 5,003 feet and has a strength rating of 45,000 pounds. ODAV has regularly granted permission for aircraft with manufacturer-specified minimum runway lengths at maximum takeoff weight that exceed 6,000 feet and have a maximum takeoff weight of 70,000 pounds. ODAV regularly provides overweight waivers to a Global Express aircraft that has a maximum takeoff weight of 92,500 pounds, a minimum takeoff distance of 6,170 feet and weighs 50,200 pounds when empty. In addition to creating situations that create constrained operations, ODAV creates long-term pavement maintenance problems and public safety concerns by regularly granting permission for overweight and oversized aircraft to use the Airport.

Additionally, the 2019 Constrained Operations Runway Justification Study appears to use a faulty methodology and inaccurate data to arrive at conclusions. For instance, the Minimum Takeoff Distances listed for the four jets listed in the 2022 Draft Master Plan with the most constrained operations are higher than the published Minimum Takeoff Distances from the aircraft manufacturers. The Falcon 50, which had the single largest number of reported constrained operations in 2018 at 160, is shown on p 16 of Chapter 1 to have a Minimum

Takeoff Distance of 5,413 feet when, the published manufacturer's specification is 4,935 feet.

Moreover, in the 2019 Constrained Operations Runway Justification Study data listing annual operations and constrained operations, the Falcon 50 is shown to have had 226 (p 1-16) operations at Aurora in 2018, of which 160 (p 1-18) were constrained. That is almost 71% constrained operations for a jet with manufacturer's minimum takeoff distance shorter than the runway at Aurora.

Compounding questions on the accuracy of the data presented in the 2019 Constrained Operations Runway Justification Study, the Falcon 900 is listed on p 1-16 as having 68 operations at Aurora in 2018, of which 75 were reported from the survey (p 1-18) to be constrained. That is to say, the aircraft is reported to have 110% of the operations constrained, which seems to be mathematically impossible.

We also note that operations flight data of the 2019 Constrained Operations Runway Justification Study and the 2022 Draft Master Plan tables of TFMSC activity operations often do not match for the two plans' years 2012 – 2018. It seems odd for FAA historical TFMSC activity operations data to vary so substantially over a two-year period between 2019 and 2022. For example:

Aircraft: Falcon 50	2012	2013	2014	2015	2016	2017	2018
2022 Draft Master Plan	16	32	108	228	320	332	276
2019 Constrained Operations Study	10	18	96	220	310	316	276
# Variance	6	14	12	8	10	16	0
% Variance	60%	78%	13%	4%	3%	5%	0%

Aircraft: Falcon 900	2012	2013	2014	2015	2016	2017	2018
2022 Draft Master Plan	180	148	48	10	56	82	70
2019 Constrained Operations Study	180	144	48	8	54	80	68
# Variance	0	4	0	2	2	2	2
% Variance	0%	3%	0%	25%	4%	3%	3%

Data sources:

2022 Draft Master Plan, Chapter 3, Table 3-8: Historical TFMSC Activity by ARC (Select Jets), p 3-14

2019 Constrained Operations Runway Justification Study, TFMSC IFR Data - Select Jet Aircraft Operations Table, p 1-16

Furthermore, the Draft Master Plan fails to acknowledge ODAV's financial benefit for providing permission for overweight/oversized aircraft to use the Airport. ODAV's primary funding source is a tax on aviation fuel, of which increased sales benefit the ODAV financially. Thus, ODAV has a motivation to increase the number of constrained operations

in order to justify a longer runway that allow aircraft to take on more fuel, and thereby benefit ODAV financially. ODAV is artificially producing the conditions that create constrained operations by granting permission for overweight/oversized aircraft to use the Aurora State Airport. Based on the public-records review, if the agency did not grant these permissions, the number of constrained operations would be insignificant.

7. ODAV's Push for Urban-Level Development to Expand Aurora State Airport's Footprint Is Contrary to State Law.

ODAV's effort to expand the Aurora State Airport's footprint through an extended runway and new through-the-fence nearby private properties rely on the conversion of surrounding EFU ag farmland and result in new development and increased activity. The agency's effort to extend the Airport runway is well documented, including prior desire for longer runway in the now invalid 2012 Master Plan, 2018 legislative request to apply for \$37 million in FAA funds for runway extension, and 2019 Constrained Operations Runway Justification Study.

Airport expansionists ODAV and private developers appear to have elected to not follow Oregon land-use law procedures that call for seeking a Goal exception and Comprehensive Plan amendment to accommodate both public- and private-sector EFU land conversion for development. The Court of Appeals has ruled now in two separate but related cases cited above, *Schaefer v. Oregon Aviation Board*, 312 Or App 316 (2021) and *Schaefer v. Marion County*, 318 Or App 617 (2022), pertaining to land-use procedures by public entities—ODAV and Marion County—and private developers. In both lawsuits, the Court of Appeals reversed and remanded to LUBA the base case for review with compliance with Oregon public process and land-use laws that require Goal exception and Comprehensive Plan amendment.

Oregon land-use law calls for urban-level development that includes new pavement, public and commercial structures, increased jobs and automobile traffic, etc., to be sited in cities that provide municipal governance and public utility infrastructure, including domestic water service, wastewater/sewage processing, stormwater treatment facilities, appropriate surface transportation infrastructure, including safe roadways and alternative bike/ped facilities. Oregon land-use law disfavors urban-level activities outside of cities that occurs in unincorporated county, prime EFU lands, such as the situation with the Aurora State Airport. The 2022 Draft Master Plan fails to address this core issue of compliance with Oregon land-use law and the corresponding need for municipal governance and public infrastructure.

While ODAV may seek to claim that the new 2022 Draft Master Plan deals only with the limited amount of public agency-owned land at the Airport, considerable amount of the Master Plan directly addresses issues associated with adjacent and nearby private-property development that is dependent on a proposed public-use finding of the Master

Plan that is to facilitate EFU land conversion. The Landside Facilities section of Chapter 2, pp 2-37 – 2-39, “includes the landside facilities (depicted in Figure 2-12) designed to support airport operations, including aircraft storage and maintenance. This section of the existing conditions analysis includes a discussion of General Aviation (GA) Terminal Areas and ‘Through-The-Fence’ (TTF) development, hangars/airport buildings, airport surface roads, vehicle parking, airport fencing, and utilities.”

Neither the Landside Facilities section, pp 2-37 – 2-39, nor the Airport Vicinity Zoning/Land Use section, p 2-23, present any analysis for how ODAV is to comply with Oregon land-use law and local zoning ordinances to implement plans for Airport expansion. In a similar manner, the 2022 Draft Master Plan provides no analysis regarding needed public utility infrastructure to support proposed new developments of runway extension and Airport through-the-fence commercial properties.

By advancing Master Plan objectives to lengthen the Aurora State Airport runway and increase the conversion of nearby high-value EFU lands to airport use to accommodate new commercial developments, ODAV is violating a key tenant of Oregon land-use law. The agency appears to rely on the limited FAA federal airport master plan process to evade Oregon land-use law procedures for Airport development.

8. ODAV’s Airport Master Plan Fails to Meet Oregon State Standards for Urban-Level Development.

In Oregon, urban-level development plans that propose major new development and infrastructure improvements such as a new air traffic control tower, runway extension, aircraft hangers, public-service facilities, commercial office space and the like that impact land-use zoning, surface transportation facilities, environmental resources, surface and groundwater, emergency-response services, etc. devote considerable study to needed public infrastructure utilities to accommodate new development. The 2022 Draft Aurora State Airport Master plan spends a paltry eight pages on key infrastructure components that directly impact public safety and environmental quality.

Chapter 2 section “Applicable Planning Studies/Documents,” p 2-16 through p 2-23, covers in a cursory manner crucial infrastructure issues of public concern, including

- Applicable Planning Studies/Documents, including the Marion County Comprehensive Plan, Marion County Rural Transportation System Plan (RTSP), City of Aurora Transportation System Plan (TSP), Oregon Aviation Plan, Oregon Resilience Plan and 2019 Constrained Operations Runway Justification Study.
- Environmental Data

- Environmental Screening/NEPA Categories, including Air Quality, Biological Resources, Hazardous Materials, Solid Waste and Pollution Prevention, Natural Resources and Energy Supply, Water Resources,
- Local Surface Transportation
- Area Land Use/Zoning, including Airport Vicinity Zoning/Land Use.

The 2022 Draft Master Plan Chapter 2, p 2-16 through p 2-23, reveals a host of environmental problems and issues of public health and safety concerns without addressing mitigation or remediation for infrastructure shortcomings:

- Unsafe public utilities:
 - o “[A]bove ground storage tank fueling facility and one recently decommissioned fueling facility with underground storage tanks located on ODAV-owned property that are planned to be removed. There are also other privately-owned facilities surrounding the Airport property that have their own fueling facilities.
 - o “Water at the Airport is provided from a system of wells. In the early 2000s, with the assistance of Marion County, the Aurora Airport Water Control District was created to address major fire and life safety needs for privately-owned land adjacent to ODAV property at the Airport. The system included an underground tank system, a pump house, underground water pipes, fire hydrants, and numerous connections for fire sprinkler systems.
 - o “Sanitary sewer is provided by individual and shared drain field/septic tank systems. There are at least nine individual drain fields located on ODAV owned property that are shared for both aviation related uses on both private and publicly owned land.
 - o “The Airport’s stormwater system is made up of a network of edge drain, culverts and surface drainage features which generally flow to the east, west, and south sides of the Airport. Most of the stormwater runoff originating on ODAV-owned property and airfield facilities like the runway, taxiway, and apron flows to the west side of the Airport.”

The Draft Master Plan fails to note that DEQ data appears to indicate that the NPDES (National Pollution Discharge Elimination System) permit for ODAV’s Aurora State Airport discharge into Mill Creek-Pudding River watershed expired June 30, 2017. Is this information still current? If so, does the Master Plan recommend that ODAV come into compliance with environmental laws?

- Air Pollution:

- o “The Aurora State Airport property falls within a census block where all air quality-related environmental hazard indexes are between the 24th and 73rd percentile nationwide. The Airport property scores within the 51st percentile for diesel particulate matter, the 73rd percentile for PM2.5 levels, the 24th percentile for ozone summer seasonal average of daily maximum eight-hour concentrations in the air, the 51st percentile for cancer risk from the inhalation of air toxics, and the 69th percentile nationwide for other respiratory hazards exposure.”
- Water Pollution:
 - o “Many of the surface waters in the vicinity of the Aurora State Airport property are contaminated and listed on the DEQ 303(d) list. Contaminated surface waters in the vicinity of the Airport include:
 - “A segment of the Pudding River east of the Airport is on the 303(d) list of impaired waterways for guthion, water temperatures, and dieldrin. It is impaired for fish and aquatic life, fishing, and public and private domestic water supplies.
 - “The entire Mill Creek-Pudding River sub-watershed (1st–4th order streams) is listed on the 303(d) list for benthic macroinvertebrates bioassessments and inorganic arsenic. It is considered impaired habitat for fish and aquatic life, fishing, public and private domestic water supplies, and recreational contact with the water.
 - “A segment of the Molalla River that intersects the Pudding River east of the Airport is not a 303(d)-listed waterway but is listed by the EPA’s ‘How’s My Waterway’ tool as impaired for fishing due to flow regime modification.
 - “The segment of the Willamette River that the Molalla River flows into north of the Airport is also a 303(d)-listed waterway. It is listed for the following factors: noxious aquatic plants, aldrin, benthic macroinvertebrates bioassessments, temperatures, 4,4’-DDE, 4,4’DDT, dieldrin, and PCBs. It is considered impaired for aesthetic quality, boating, fish and aquatic life, fishing, and public and private domestic water supply.
 - o “Compromised waters in the vicinity of the Airport property include critical habitat for federally threatened Upper Willamette River Chinook and steelhead populations. These waters also flow downstream to additional critical habitat areas for other species of federally listed fish species in the Columbia River.”

What is the role of ODAV, FAA and the Aurora State Airport in creating these adverse environmental conditions? How does Airport septic and stormwater

pollution figure into the water pollution issues cited above? Where is the arsenic coming from and what are the ppm compared to the US Environmental Protection Agency (EPA) tolerances?

The Draft 2022 Master Plan also fails to note that the EPA and the Oregon Department of Environmental Quality (DEQ) are reported to be testing locations at the Aurora State Airport for known or suspected use of 'forever chemicals' of per- and poly-fluorinated substances or PFAS, where growing evidence points to their adverse health effects, including some cancers. ODAV elected to omit DEQ from the PAC.

- Endangered species impacts:
 - o “[T]he Molalla River (three miles northeast of the Airport), the Pudding River (0.85 mile east of the Airport), and Mill Creek (0.75 mile southeast of the Airport) are designated as habitat for Chinook salmon (federally threatened; state classified sensitive critical), Pacific lamprey (federal species of concern; state classified sensitive vulnerable), and steelhead (federally threatened; state classified sensitive vulnerable) based on records of historic sightings.
 - o “Sub-watersheds surrounding the Airport are considered Essential Fish Habitat (EFH) for Chinook and coho salmon. Federal agencies are required to consult with the National Oceanic and Atmospheric Administration (NOAA) Fisheries regarding any action authorized, funded, or undertaken that may adversely affect EFH. Stormwater runoff from the Airport property flows into the Chinook and steelhead critical habitat areas as well as the Chinook and coho EFH areas.”
- Airport Vicinity Zoning/Land Use:
 - o “The Airport is generally surrounded by Marion County Exclusive Farm Use (EFU) districts, and a few parcels of Acreage Residential (AR) and Industrial (I) located in the immediate vicinity of the property.
 - o “The intent of the EFU zone (Marion County Code 17.136) is to provide and preserve the continued practice of commercial agriculture. It is intended to be applied in areas composed of tracts that are predominantly high-value farm soils. EFU zone generally prohibits the construction, use, or design of buildings and structures except for facilities used in agricultural or forestry operations, replacing or restoring a lawfully established dwellings, supporting exploration of geothermal or mineral resources, or supporting agri-tourism destinations and events.”

ODAV’s mission to expand the footprint of the Aurora State Airport with a runway extension and additional through-the-fence commercial operations,

located in prime EFU ag land of French Prairie, would appear to contradict the intent of both Oregon and Marion County's EFU zone, which "prohibits the construction, use, or design of buildings and structures except for facilities used in agricultural or forestry operations."

The 2022 Draft Master Plan provides no analysis of surface transportation impacts of Airport-related operations on area roads. In effect, by advocating for Airport expansion without any infrastructure recommendations to accommodate new development, ODAV is externalizing Airport-related costs onto local roads of Clackamas and Marion Counties and City of Aurora without providing compensation for mitigation. The Draft Master Plan merely notes a couple of relevant transportation plans, including the Marion County Rural Transportation System Plan and the City of Aurora Transportation System Plan, while ignoring the adjacent Clackamas County Transportation System Plan and the Oregon Department of Transportation (ODOT) Region Two/Mid-Willamette Valley Council of Governments Regional Transportation Plan.

The short Local Surface Transportation section indicates that the "Airport is located between Interstate 5 and State Highway 99E. Interstate 5, which is an essential north-south commerce link for the western United States, runs west of the Airport providing access to the Portland metro area. Access to the Airport is also provided by Highway 551 (Canby (*sic*) Wilsonville-Hubbard Highway) from the north and south, Arndt Road from the east and west, and Airport Road from Aurora. Keil Road is located south of the Airport and provides additional airport business access from Highway 551 and Airport Road. State Highway 99E, accessible to the Airport via Ehlen Road off of Highway 551 and Airport Road, provides access to the nearby communities of Canby, and Oregon City." Highway 551 (misabeled as Canby-Hubbard Highway; actual label is Wilsonville-Hubbard Cut-off) is an ODOT facility, as is Highway 99E and I-5 and the nearby at-capacity I-5 Boone Bridge; segments of Arndt Road, Airport Road and Ehlen Road fall under jurisdiction of Clackamas and Marion Counties.

So while acknowledging the roadways of other jurisdictions that provide access to Airport, the 2022 Draft Master Plan fails to provide any analysis of Airport-related traffic on these roads or impacts to these surface transportation facilities. How do businesses at the Airport use these roads? What is the traffic volumes and capacity of area roadways to accommodate new development at the Airport? None of these questions are answered the Draft Master Plan.

In a similar manner, the 2022 Draft Master Plan provides no strategies to mitigate the impacts of Airport expansion onto local roads, nor potential resources to fund needed roadway improvements to accommodate increased activities at the Airport. For example, the Draft Master Plan cites on p 2-6 "that there are 2,672 direct, indirect and induced jobs at the Airport." Assuming that there are hundreds or thousands of

employees working at public and private employers at the Aurora State Airport, the Draft Master Plan provides no traffic analysis and no origination/destination trip data to determine impacts to surface transportation facilities. Given that there is no public transit service nor sidewalks nor shoulders on roads in the vicinity of the Airport, anyone who works at the Airport must drive in an automobile. So while the 2022 Draft Master Plan is shaping up to recommend runway extension and “through-the-fence” Airport expansion

The 2022 Draft Master Plan acknowledges a host of environmental resource degradation and public safety issues and transportation plans, but then does nothing to address these issues in terms of analysis or mitigation recommendations. On its face, the 2022 Draft Master Plan fails the test for an Oregon land-development master plan.

9. ODAV’s Failure to Accurately Communicate to FAA Status of Prior FAA-funded 2012 Aurora State Airport Master Plan Violates FAA Grant Assurances that Should Result in an FAA Finding of Noncompliance that Results in a Denial of Future Funding.

As a component of obtaining the nearly \$1 million FAA grant to fund the new 2022 Aurora State Airport Master Plan effort, ODAV made assurances in writing to FAA that all grant procedures were followed to produce a previous final, adopted 2012 Aurora State Airport Master Plan that would qualify agency to receiving funding for a new master plan. However, ODAV now admits that there is no valid, final adopted 2012 Aurora State Airport Master Plan, which is contrary to the grant assurances provided by ODAV to FAA.

The 2020 Draft Master Plan, p 2-42, states:

“As a recipient of both federal and state airport improvement grant funds, the airport sponsor is contractually bound to various sponsor obligations referred to as ‘Grant Assurances’, developed by FAA and the State of Oregon. These obligations, presented in detail in federal and state statute and administrative codes, document the commitments made by the airport sponsor to fulfill the intent of the grantor (FAA or state) required when accepting federal and/or state funding for airport improvements. *Failure to comply with the grant assurances may result in a finding of noncompliance and/or forfeiture of future funding.*” (Emphasis added).

The 2020 Draft Master Plan, p 2-43, states:

“Consistency with Local Plans (Assurance #6)

“All projects must be consistent with city and county comprehensive plans, transportation plans, zoning ordinances, development codes, and hazard mitigation plans. The airport sponsor should familiarize themselves with local planning

documents before a project is considered *to ensure that all projects follow local plans and ordinances.*" (Emphasis added).

As has been demonstrated and ODAV has conceded, there is no valid adopted Aurora State Airport Master Plan 2012, and neither the Master Plan nor its ALP were submitted to Marion County for amendments to the Comprehensive Plan. Thus, ODAV has failed to follow through on Grant Assurance #6, Consistency with Local Plans.

ODAV also fails to the test to fulfill FAA Grant Assurance #2, Compatible Land Use, which states in 2020 Draft Master Plan, p 2-44:

"Compatible Land Use (Assurance #21)

"Land uses around an airport should be planned and implemented in a manner that ensures surrounding development and activities are compatible with the airport. Aurora State Airport is located in unincorporated Marion County."

As Figure 2-8: Zoning Map on p 2-22 illustrates, the Aurora State Airport is located in unincorporated Marion County in high-value agricultural land zoned EFU. Oregon land use law seeks to protect EFU lands; ODAV's master-plan analysis seeks to convert EFU lands near Airport into an Airport use, contrary to state law, without a goal exception process that the agency has not pursued.

Thus, there is a question if ODAV has complied with FAA Grant Assurance #2, Compatible Land Use, by failing to ensure that "surrounding development and activities are compatible with the airport." By definition, EFU agricultural land is not compatible with Master Plan development proposals to extend runway and convert nearby EFU lands into Airport use.

ODAV's failure to meet FAA Grant Assurance #6 that "All projects must be consistent with city and county comprehensive plans" and potential lack of compliance with FAA Grant Assurance #21, Compatible Land Use, should prompt the FAA to take action. The appropriate remedy in this situation for ODAV'S failure to comply with one or more of the grant assurances is for FAA to issue a finding of noncompliance that results in the forfeiture of future funding.

10. Chapter 2, "Existing Conditions Analysis," Omits Key Information Needed to Determine Actual Site Conditions.

The 2022 Draft Master Plan cites on p 2-6 the OAP to indicate that there are 2,672 direct, indirect and induced jobs at the Airport. However, this information does not disclose how many jobs are there specifically at the Airport? This kind of data would tend to support the need for municipal governance and the provision of city utilities and transportation alternatives, all of which are missing at Airport.

Chapter 2 contains contradictory information: p 2-6 states that there are 281 aircraft based at the Airport; however, Figure 2-2 states that there are 396 'based aircraft.' What accounts for the difference here?

In a similar fashion, Figure 2-2 shows 94,935 annual operations; however, the Baseline is shown as 76,028 operations. Is Figure 2-2 incorrect?

The text on p 2-10 states that the based aircraft does not include helicopters; however, Figures 2-5 and 3-8 shows 10 helicopters contributing to the 281 based aircraft at the airport. Which is correct?

How many gallons of jet fuel is stored on ODAV property? Has ODAV accounted for any underground fuel-storage tanks? Are there any documented leaks in the underground storage tanks located on ODAV property?

If the 2019 Constrained Operations Study concluded that a runway extension of 7888' was justified, why was the recommendation only for 6002'?

What is the level of accuracy expected from the survey conducted in the 2019 Constrained Operations Study?

Page 2-20 states that Columbia Helicopter is identified by EPA as a RCRA Corrective Action Site. What does that mean exactly? What was found there? Were there any fines? Is the site in compliance now?

Page 2-22 raises the question if FAR Part 77 overlay airspace extend over any part of the city of Wilsonville? Why is the FAR 77 overlay not included inside the Wilsonville corporate limits on figure 2-8?

Figure 2-8 does not properly identify city of Wilsonville zoning, it would appear to be a generic categorization. That should be noted, or changed.

Page 2-23, where exactly are the two areas of residential property that are located under the primary, approach, or transitional surfaces?

Is pavement condition a consideration in allowing operations that exceeding weight limits? Who approves such requests? Are all requests granted? How many requests are granted versus denied? Please provide numbers.

Does a runway expansion cause the RPZ to impact other residential homes not currently impacted?

Should the utilities section on page 2-39 address fire and police protection?

What are some examples of 'FAA noncompliance' as described on p 2-41?

11. Chapter 3, Aviation Activity Forecasts, Raises Questions that Are Unanswered.

Chapter 3 lists Annual Aircraft Operations only for the years 2016 thru 2021; however, the same chapter uses 2012 thru 2021, for example Aurora State Airport Instrument Flight Operations. The same, consistent set of years should be used for all data tables and analysis, 2012 thru 2021. In consistent use of comparison years does not provide for the public to be able to determine accurate data, and could be interpreted as agency data/process manipulation.

Page 3-8, if the number of active commercial and private pilots will decline as indicated, how will operations increase? This appears to be contradictory information.

Is there a decibel level that should not be exceeded in residential areas near GA airports?

How many of the total aircraft operations are touch-and-go landings? That is, many members of the public suspect that ODAV is “artificially” inflating the operations count by including pilot training touch-and-go landings, each of which counts as two operations (touching down to runway and then lifting off of runway).

How many of the based aircraft are seasonal – that is, located at Airport more than half the calendar year? How is seasonality measured and through what process? Are there multiple surveys in a year?

12. ODAV’s Prior Master Plan Historical Forecasting Track Record Consistently Over Estimates the Projected Number of Based Aircraft and Operations.

A review of prior ODAV master plan work in comparison to current data used in the 2022 Draft Master Plan demonstrates a historical track record of a high rate of error and most often overestimating the forecasted number of based aircraft, fleet mix and operations. Wide divergence between projections estimated 10 years ago and those of 2022 provide substantial reason to doubt the accuracy or validity of new 2022 Master Plan projections.

When comparing the 2012 Aurora State Airport Master Plan Based Aircraft and Fleet Mix Forecast compared to the new Draft 2022 Aurora State Airport Master Plan, the prior forecast for total based aircraft was off by 44%—overestimating the total number of Based Aircraft. Additionally, most of the Fleet Mix Forecast was also off substantially:

2012 and 2022 Master Plans Forecast of Based Aircraft and Fleet Mix Forecast: 2020/2021 Timeframe

	Year	Single Engine	Multiengine Piston	Turboprop	Jet	Helicopter	Other	Total
2012 Master Plan	2020	288	25	20	33	34	5	405
2022 Draft Master Plan	2021	216	6	13	36	10	0	281
# Variance		72	19	7	-3	24	5	124
% Variance		33%	317%	54%	-8%	240%	—	44%

ODAV's historical track record of overestimating the number of Based Aircraft at the Aurora State Airport is reflected in this graph in the new 2022 Draft Master Plan, p 3-15. Only when ODAV conducted an actual inventory of Based Aircraft in 2021 with a "Validated Count" of 218 did the public learn the actual number of Based Aircraft was substantially lower than ever previously reported or estimated.

FIGURE 3-2: HISTORICAL TAF – BASED AIRCRAFT



Source: FAA TAF 2000-2045 (Aurora State Airport) www.taf.faa.gov

When projecting out an additional 10 years to 2030 timeframe, the 2012 forecast margin of error increases by a third—increasing the over-estimate from 44% to 65%—compared to the 2022 forecast. The 2012 Master Plan projected a total 464 based aircraft by 2030, while the new 2022 Master Plan projects 281 based aircraft by 2031, representing a 65% overestimate compared to the new 2022 estimate.

2012 and 2022 Master Plans Forecast of Based Aircraft and Fleet Mix Forecast: 2030/2031 Timeframe

Comparison by Plan of Based Aircraft	Year	Single Engine	Multiengine Piston	Turboprop	Jet	Helicopter	Other	Total
2012 Master Plan	2030	316	27	26	47	43	5	464
2022 Draft Master Plan	2031	240	6	15	15	16	0	281
# Variance		76	21	11	32	27	5	183
% Variance		32%	350%	73%	213%	169%	—	65%

Data sources:

2012 Master Plan Table 3J. Based Aircraft and Fleet Mix Forecast, p 3-22

2022 Draft Master Plan Table 3-14: Forecast Based Aircraft Fleet Mix, p 3-19

The point here is that the prior 2012 Master Plan Based Aircraft and Fleet Mix Forecast was substantially off the mark on most counts. As listed below with the Operations Forecast, it appears that overestimating is common problem with Aurora State Airport Master Plans.

When comparing the 2012 Aurora State Airport Master Plan Operations Fleet Mix Forecast compared to the new Draft 2022 Aurora State Airport Master Plan, the prior forecast overestimated operations by 40% compared to the new 2022 estimate.

2012 and 2022 Master Plans Forecast of Operations Fleet Mix Forecast: 2020/2021 Timeframe

	Year	Single Engine	Multiengine Piston	Turboprop	Jet	Helicopter	Total
2012 Master Plan	2020	37,218	7,444	11,697	15,951	34,028	106,338
2022 Draft Master Plan	2021	60,823	760	3,041	5,322	6,082	76,028
# Variance		-23,605	6,684	8,656	10,629	27,946	30,310
% Variance		-39%	879%	285%	200%	459%	40%

When projecting out an additional 10 years to 2030 timeframe, the 2012 forecast margin of the Operations Fleet Mix continues a pattern of overestimating total operations and mis-estimating the fleet mix operations count.

2012 and 2022 Master Plans Forecast of Operations Fleet Mix Forecast: 2030/2031 Timeframe

	Year	Single Engine	Multiengine Piston	Turboprop	Jet	Helicopter	Total
2012 Master Plan	2030	37,316	8,707	14,926	22,389	41,047	124,386
2022 Draft Master Plan	2031	75,143	764	4,297	7,638	7,638	95,480
# Variance		-37,827	7,943	10,629	14,751	33,409	28,906
% Variance		-50%	1040%	247%	193%	437%	30%

Data sources:

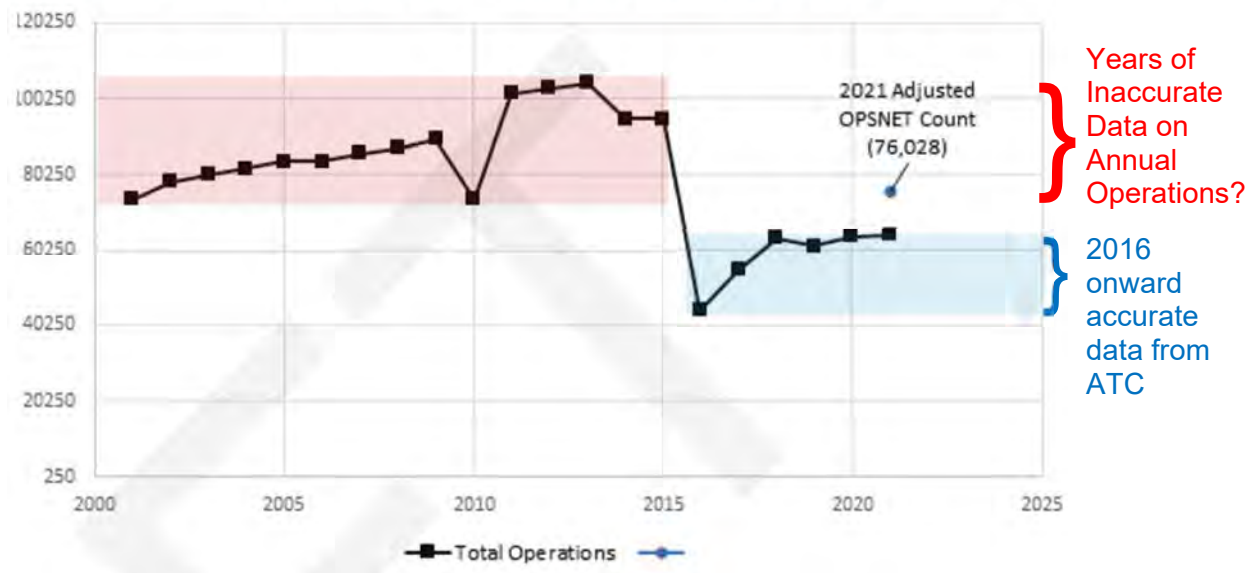
2012 Master Plan Table 3Table 3M. Operations Fleet Mix Forecast, p 3-29

2022 Draft Master Plan Table 3-16: Operations Fleet Mix, p 3-22

ODAV's historical record of inaccurate, over-estimated Operations count at the Aurora State Airport is reflected in this graph in the new 2022 Draft Master Plan, p 3-15. Only when the Aurora State Airport Air Traffic Control Tower opened in 2015 did accurate operational data become available that showed ODAV's gross overestimation of prior years' annual aircraft operations.

Additionally, despite having FAA Operations Network (OPSNET) Traffic Counts datasets that show 69,742 total operations in 2021 (2022 Draft Master Plan Table 2-6: OPSNET Airport Traffic Counts, p 2-10) ODAV inexplicably inflated the annual aircraft operations count by 6,286 or 9%, providing an even higher starting point for forecast operations.

FIGURE 3-3: HISTORICAL TAF – ANNUAL AIRCRAFT OPERATIONS



The highly inaccurate 2012 Aurora State Airport Master Plan Based Aircraft and Fleet Mix Forecast and Operations Fleet Mix Forecast compared to new Draft 2022 Draft Aurora State Airport Master Plan does not provide confidence in aviation forecasting. This becomes even more so when the Draft 2022 Draft Aurora State Airport Master Plan opts to ignore data contained in the recent 2019 Constrained Operations Study.

13. 2022 Draft Master Plan Ignores Recent 2019 Forecast Operations.

The new Draft 2022 Master Plan appears to ignore ODAV/FAA compiled operational flight data and forecast developed in the 2019 Constrained Operations Runway Justification Study for the Aurora State Airport, funded with a \$70,000 ODAV grant. The Draft Master Plan does not justify or explain why the 2022 Draft Master Plan's forecasts vary so considerably from the previously FAA-approved 2019 Constrained Operations Runway Justification Study.

The forecast of operations variance between the new 2022 Draft Master Plan and the already approved FAA 2019 Constrained Operations Runway Justification Study starts with a 6% or 4,315 increase in 2021 and escalates to a differential of 58% or 44,033 annual operations by 2041.

It seems implausible that an FAA-approved aviation operations forecast conducted in 2019 just two years prior to the 2021 baseline date of the 2022 Draft Master Plan could be so utterly incorrect as forecast in the 2022 Draft Master Plan. A more plausible explanation is that ODAV is continuing an established pattern of overestimating operations forecast that result in a decision to extend the runway and expand the Airport's through-the-fence footprint onto prime EFU ag land.

The comparison of Forecast Operations between the new 2022 Draft Master Plan and the 2019 Constrained Operations Runway Justification Study demonstrates a significant variation from the Study's just-published forecast. Rhetorically speaking, if we can't rely on the 2019 forecast, why would we trust the 2022 forecast?

2022 Master Plan and 2019 Constrained Operations Study Forecast of Operations

	2021	2026	2031	2036	2041
2022 Draft Master Plan, p 3-23	76,028	85,201	95,480	107,000	119,909
Constrained Operations Study, p 1-14	71,713	72,706	73,939	74,788	75,876
# Variance	4,315	12,495	21,541	32,212	44,033
% Variance	6%	17%	29%	43%	58%

Data sources:

2022 Draft Master Plan Table 3-16: Operations Fleet Mix, p 3-22

2019 Constrained Operations Runway Justification Study, p 1-14

14. Draft Master Plan Fails to Account for Federal and State Effort to Reduce Climate-Changing Carbon and Greenhouse Gas (GHG) Emissions.

Finally, the 2022 Draft Master Plan makes NO effort to address the highly relevant issue of federal and state effort to reduce climate-changing carbon and greenhouse gas (GHG) emissions. In fact, by advocating for Airport runway extension and increase in fuel flowage that benefits ODAV's coffers, the agency is directly contradicting Oregon Governor's Office Executive Order 20-04 on Climate Action "Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions" that directs DEQ to develop strategies that "Cap and Reduce Greenhouse Gas Emissions."

The 2022 Draft Master Plan documents that over 4.2 million gallons of fuel have been sold at the Airport between 2016 and 2021 (Table 3-4: Fuel Flowage (Gallons)). Based on a standard conversion factor of 22.38 pounds of CO₂ produced by burning a gallon of diesel fuel, the Airport has emitted an estimated 95 million pounds of CO₂ during this timeframe. The 2022 Draft Master Plan anticipates generating additional CO₂ by advocating development without addressing remediation or reduction strategies.

One of the major reasons stated during OAB meetings and PAC meetings by OAB members, ODAV staff and aviation interests in support of Aurora State Airport runway extension is to increase the sale of aviation fuel so that a larger class of aircraft may takeoff from the airport with full tanks of gas. Again, note that the tax on aviation fuel is the primary source of operational revenue for ODAV. Thus, the agency itself has a direct pecuniary interest in advocating for increased aviation-gas fuel sales that would accompany expansion of the Aurora State Airport, seemingly in direct conflict with the Governor's Executive Order on Climate Action.

The City of Wilsonville appreciates consideration of our comments and looks forward to ODAV and FAA responses to the issues of concern and questions raised regarding the 2022 Draft Master Plan Chapters 1-3. Thank you for your time and consideration.

Sincerely,



Mark Ottenad, Public/Government Affairs Director
City of Wilsonville

Exhibits:

- A. December 13, 2021: Mayors of the Aurora State Airport Communities—Aurora and Wilsonville—Letter to The Honorable Kate Brown, Governor of Oregon, c/o Staff of the Office of the Governor, RE: Issues of Public Concern with Oregon Department of Aviation's Aurora State Airport Master Planning Process
- B. August 4, 2021: City of Wilsonville Mayor Julie Fitzgerald Letter to Martha Meeker, Chair, Oregon Aviation Board, and Betty Stansbury, Aviation Director, RE: Public Disenfranchisement by the Oregon Aviation Board for the Proposed 2021-22 Aurora State Airport Master Planning Process
- C. July 6, 2021: City of Aurora Mayor Brian Asher and City of Wilsonville Mayor Julie Fitzgerald letter to The Honorable Ron Wyden, U.S. Senator, and The Honorable Jeff Merkley, U.S. Senator, RE: Request for Your Intervention in Ensure Proper Award of FAA Grant Funds to the Oregon Department of Aviation for Aurora State Airport Master Plan Update
- D. June 17, 2021: Representative Courtney Neron, HD-26, and Representative Susan McLain, HD-29, letter to Martha Meeker, Chair, Oregon Aviation Board, Betty Stansbury, Aviation Director, RE: 2021 Aurora State Airport Master Planning Process
- E. June 14, 2021: City of Wilsonville Mayor Julie Fitzgerald Letter to Martha Meeker, Chair, Oregon Aviation Board, and Betty Stansbury, Aviation Director, RE: Concerns with Proposed 2021-22 Aurora State Airport Master Planning Process
- F. August 8, 2018: Clackamas County Board Chair Jim Bernard and City of Wilsonville Mayor Tim Knapp letter to the Governor, Senate President and House Speaker: RE: Request to Cancel Oregon Department of Aviation application to Federal Aviation Administration (FAA) for funds to extend the Aurora State Airport runway

cc: Members of the Oregon Congressional Delegation: Senator Wyden, Senator Merkley, Congressman Schrader

Office of Governor Kate Brown

Members of the Oregon Legislature: Speaker Rayfield, Senate President Courtney, Representative McLain, Representative Courtney Neron

Leading Oregon Gubernatorial Candidates Christine Drazan, Tina Kotek, Bud Pierce, Tobias Read, Bob Tiernan, Betsy Johnson

FAA Northwest Mountain Region administrators: Director Fernuik, (Acting) Manager Seattle Airports District Office Manager Ferrell, Planning & Programming Branch Manager Schaffer, Safety & Standards Branch Manager Ritchie

Mayors of the Aurora State Airport Area Communities

Aurora

Wilsonville

December 13, 2021

The Honorable Kate Brown, Governor of Oregon

c/o Staff of the Office of the Governor

Gina Zejdlik, Chief of Staff

Amira Streeter, Policy Advisor–Climate, Energy and Transportation

Annie McColaugh, Director–Federal Affairs

Jason Miner, Policy Director–Natural Resources

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RE: Issues of Public Concern with Oregon Department of Aviation's Aurora State Airport Master Planning Process

Dear Governor Brown:

We write to you as the elected leaders of the communities located in closest proximity to the Aurora State Airport to express our profound disappointment at the Oregon Department of Aviation's biased handling of the Aurora State Airport Master Planning process. Our communities bear the brunt of impacts of the airport's operations, and yet the Aviation Department appears to be discounting our concerns and is primarily responsive to vested financial interests at the airport.

This observation is true in general, as Department of Aviation staff and board members indicate meeting constantly with private-sector airport interests, while rarely meeting with local community members, city councilors and staff. Multiple communications from officials at the Cities of Aurora and Wilsonville to the Aviation Department over the past several years are generally ignored and not responded to.

The Cities of Aurora and Wilsonville, along with other Planning Advisory Committee (PAC) members to the Department of Aviation's Aurora State Airport Master Planning process such as 1000 Friends of Oregon and Friends of French Prairie, seek to raise significant issues of public concern. This federally funded master plan has gotten off to a rocky start in a manner that demonstrates the Department's apparent bias and inability at providing fair public processes that meet Oregon's standards for meaningful public engagement.

We are concerned that the Department of Aviation is again making similar mistakes as it did with the 2011 or 2012 Aurora State Airport Master Plan process that both the Oregon Supreme Court and the Oregon Court of Appeals found in 2021 violated Oregon land-use and public-process laws. We request that the Governor's Office demonstrate decisive leadership that provides confidence to local-government officials that federal and state planning processes are

conducted in a legal and ethical manner above reproach, which at this time appears questionable.

A primary concern pertains to the extremely lopsided membership composition of the Planning Advisory Committee (PAC). The Department of Aviation has stacked the Planning Advisory Committee with self-dealing financial interests at the Airport that benefit from taxpayer-funded Airport operations and capital improvements. A review of the PAC membership demonstrates that well over half of the PAC membership is comprised of entities with direct pecuniary interest in furthering airport expansion at taxpayer expense.

The same pro-airport expansion entities are represented multiple times on the PAC. Two associations placed on the PAC are composed of a majority of Airport financial interests:

- The attorney for the Aurora Airport Improvement Association represented at the June 3, 2021, Oregon Aviation Board meeting that most of the businesses at the Aurora State Airport belonged to the Aurora Airport Improvement Association.
- In a similar manner, most of the same airport entities are also members of Positive Aurora Airport Management association, a local airport operations management group.

By all appearances, the process and committee composition has the appearance of a “tick the box” exercise in public involvement. This leaves us to conclude that the outcome is predetermined and that the inevitable result will lead to airport expansion regardless of the impacts on safety, the environment and surrounding infrastructure.

Another key problem is that the Department of Aviation has omitted two key state agencies as PAC members: Department of Agriculture and Department of Environmental Quality (DEQ). The Aurora State Airport is located in the heart of the Oregon’s best “foundation farmland” of French Prairie, which hosts some of Oregon’s foremost traded-sector ag producers, nurseries and food processors. Real-estate speculation and uncontrolled urban-level development—as are occurring at the Aurora State Airport area—are harmful to this prime ag-sector economic cluster. By excluding the Department of Agriculture from the public process, the Department of Aviation continues a trend of excluding parties that may provide valuable information or may question the Aviation agency’s objectives.

We read in the media that the US Environmental Protection Agency (EPA) indicates that 750 Oregon sites could expose residents to ‘forever chemicals’ of per- and poly-fluorinated substances or PFAS, where growing evidence points to their adverse health effects, including some cancers. In Oregon, the state Department of Environmental Quality (DEQ) is testing locations including the Aurora State Airport for known or suspected PFAS use. Again, the Department of Aviation’s exclusion of DEQ demonstrates an on-going pattern of discriminatory conduct.

We understand that the Governor’s Office Executive Order 20-04 on Climate Action “Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions” (GHG)

directs DEQ to develop strategies that “Cap and Reduce Greenhouse Gas Emissions.” We are concerned that representatives of the Governor’s Office appointed to the Oregon Aviation Board and Department of Aviation staff simultaneously are advocating for major expansion of the Aurora State Airport that results in substantial increases in aviation-gas fossil-fuel consumption and GHG emissions, contrary to the Executive Order on Climate Action.

One of the major reasons stated by aviation interests for Aurora State Airport runway extension is to increase the sale of aviation fuel so that a larger class of aircraft may takeoff from the airport with full tanks of gas. We note that the tax on aviation fuel is the primary source of operational revenue for the Department of Aviation. Thus, the Department of Aviation has a direct pecuniary interest in advocating for increased aviation-gas fuel sales that would accompany expansion of the Aurora State Airport, seemingly in direct conflict with the Governor’s Executive Order on Climate Action.

Additionally, DEQ data appears to indicate that the NMPDES (National Pollution Discharge Elimination System) permit for the Department of Aviation’s Aurora State Airport discharge into Mill Creek-Pudding River watershed expired June 30, 2017. We understand that area residents have expressed concerns for surface-water, ground-water and well-water quality due to prospective airport run-off pollutants, unregulated septic systems and potential ground water pollution. Cumulatively, these all appear to be good reasons from the Department of Aviation’s perspective to exclude DEQ from Airport planning efforts.

The Department of Aviation’s tightly controlled master planning process fails to meet the test for meaningful public engagement. The Zoom meeting format used by the Department of Aviation does not list or show all participants in the meeting and provide clear labeling of names and affiliations. It is unclear to the public who is attending the meetings and who or what entity that participants represent. At the November 16, 2021, PAC meeting, it was difficult to ascertain from many of the name labels who was attending in what role. Names and affiliations of all PAC members and staff/consultants should be clearly evident.

Additionally, some PAC members were allowed to have two representatives participate in the meeting, while some PAC members were ignored and not allowed to participate in the meeting. These elements indicate a failure of meaningful public process.

The facilitators for the PAC meeting used a series of unscientific “polls” to gauge participants’ thoughts or perspectives; however, it was unclear who was participating — was it PAC members, Aviation staff and consultants, and/or the public? Moreover, the facilitators interpreted the results of the poll that may or may not be an accurate reflection of the participants involved.

The Department of Aviation states that “As the airport sponsor, ODA staff will be the final decision-making authority. They will decide what is included in the Master Plan.” Setting aside the fact that this pronouncement at the start of a “public involvement” process sends a message that is contrary to Oregon’s Statewide Planning Goal Number 1, we believe this is false

information; only the appointed body (*i.e.*, the Oregon Aviation Board) can legally approve a master plan. The failure of the Aviation Board to adopt the 2011 or 2012 Aurora State Airport Master Plan was a centerpiece for the Oregon Supreme Court's affirmation of the Court of Appeal's decision against the Department of Aviation for failure to comply with Oregon law.

During the November 16, 2021, PAC meeting, aviation consultants indicated that they would consider nearby external "outside the fence" proposed urban-level developments in the Airport master-planning process — implying that such proposed developments would favor Airport expansion. However, the consultants gave no indication of reviewing such information in light of Oregon's EFU land-use laws, nor the potential reality of such proposed developments ever actually occurring. Additionally, consultants gave no indication of considering the "negative" aspects of proposed developments outside the Airport, such as increased surface-transportation impacts/traffic congestion and potential mitigation, increased land-speculation harming the ag industry, and increased pollution and environmental impacts.

The Department of Aviation has allowed and promoted the dissemination of false information about the seismic resilience of the Aurora State Airport. At the October 6, 2021, Oregon Aviation Board planning session and at the November 16, 2021, PAC meeting, misinformation about the seismic conditions of the Aurora State Airport area was provided without rebuttal. At the October meeting, the Aviation Board had considerable discussion on resilience, and the importance of selling the resilience concept to the public and government officials as a component of building support for state and federal funds for the Aurora State Airport expansion. Aviation Board Chair Meeker indicated a desire to improve "lines of communication" between the Governor's Office and airport businesses to promote resilience.

Contrary to statements that depict the Aurora State Airport as a crucial facility for the projected 9.0 Cascadia Subduction Zone Earthquake, the Aurora State Airport is listed at the lowest-level of Tier 3 airports in the Oregon Resilience Plan. The Tier designations "indicate the priorities for making future investments." In other words, the Department of Aviation is effectively targeting one of the lowest priority airports to prepare for recovery in the Oregon Resilience Plan for potentially one the largest airport capital improvement projects ever planned by the state.

With respect to the airport's ability to withstand a Cascadia Subduction Zone Earthquake, reports by the Oregon Department of Geology and Mineral Industries (DOGAMI) show that the Aurora State Airport is located in an area subject to major potential damage in a projected 9.0 Cascadia Subduction Zone Earthquake. The "Mid/Southern Willamette Valley Geologic Hazards, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates," DOGAMI publication IMS-24, shows that the Aurora State Airport specifically is located in an area:

- Rated High for Ground Shake Amplification
- Rated High for Amplification Susceptibility
- Rated Moderate to High for Liquefaction Susceptibility

The same deep, fine soils that make the French Prairie area such exemplary foundation farmland also mean these soils are subject to amplification and liquefaction. As a result of such an earthquake, the airport runway would likely be unserviceable for a long period of time (6-12 months) post-earthquake. Rather than allow aircraft to take off or land due to an inoperable runway, the most likely role of the Aurora State Airport will be to accommodate vertical take-off and landing of heavy-lift helicopters with locally-based Columbia Helicopters and Helicopter Transport Services, neither of which require a runway extension to operate.

In all of our years of government service, we have never seen a state agency act with such disregard to the concerns of the local communities, and appropriate and fair public process. We request your intervention now to provide for an unbiased process that produces trust-worthy results. We believe that if the Department of Aviation were to comply with—rather than seek to evade—the letter and spirit of Oregon's land-use and public-process laws, judicial intervention to set a course correction would not be a necessary remedy that must be pursued by local governments and concerned citizens.

Again, we appreciate your time and consideration of these important issues, and we look forward to your response. Thank you.

Sincerely,



Brian Asher, Mayor
City of Aurora



Julie Fitzgerald, Mayor
City of Wilsonville

Enc:

- Letter from Cities of Aurora and Wilsonville to Sen. Lee Beyer and Rep. Susan McLain, Co-Chairs Joint Committee on Transportation, RE Request for Public Hearing on HB 2497 – Proposed Legislation to Create Transparent Public Process for State Aviation Department Agency Communications and Coordination with Local Governments and Communities on Aurora State Airport Issues of Concern, March 11, 2021
- Aurora State Airport in Relation to The Oregon Resilience Plan and DOGAMI Earthquake Susceptibility Maps – 2019

cc: Oregon Aviation Board
Senator Ron Wyden
Senator Jeff Merkley
Congressman Kurt Schrader
Congresswoman Suzanne Bonamici
House Speaker Tina Kotek
Senate President Peter Courtney
Representative Susan McLain (HD 29)
Representative Courtney Neron (HD 26)
Representative Christine Drazan (HD 39)
Senator Bill Kennemer (SD 20)
Metro Council President Lynn Peterson
Metro Councilor Garrett Rosenthal

Clackamas County Board of County
Commissioners
Marion County Board of County
Commissioners
FAA Mountain Region staff
Heather Fernuiik, Director
Chris Schaffer, Planning & Programming
Manager
Warren Ferrell (Acting) Manager, Seattle
Airports District Office



March 11, 2021

Senator Lee Beyer, Co-Chair
Representative Susan McLain, Co-Chair
Joint Committee on Transportation
Oregon Legislative Assembly

Sen.LeeBeyer@oregonlegislature.gov
Rep.SusanMcLain@oregonlegislature.gov
patrick.h.brennan@oregonlegislature.gov

RE: Request for Public Hearing on HB 2497 – Proposed Legislation to Create Transparent Public Process for State Aviation Department Agency Communications and Coordination with Local Governments and Communities on Aurora State Airport Issues of Concern

Dear Co-Chairs Beyer and McLain and Members of the Committee:

We are writing to you as the elected leaders of two cities each located near the Aurora State Airport to request your support this legislative session in resolving a decade's-long controversy between the Oregon Department of Aviation (ODA) and our communities regarding the agency's uncooperative attitude with respect to the Aurora State Airport Master Plan and management of the airport.

At the request of the Aurora and Wilsonville City Councils, Representative Courtney Neron (HD-26) has introduced HB 2497 as a "process bill" that does not dictate predetermined results. Rather, the proposed legislation creates an open transparent, public process to establish formal channels of intergovernmental communication and coordination between the state Aviation agency and directly impacted local governments, which has been sorely lacking over the past 10 years.

We believe that ODA circumvented Oregon public-process laws regarding the purported adoption of the *2012 Aurora State Airport Master Plan*. Ever since we began disputing what we view as an illegal process, the state agency has been virtually unresponsive to our local communities. We are alarmed about the agency's efforts to promote increasingly urbanized levels of activity in unincorporated county territory of high-value EFU farmland without inviting meaningful public input and without supporting public infrastructure — all contrary to Oregon Goals for citizen-involvement and land-use planning. The PSU Oregon Solutions' *Aurora State Airport Assessment Report* commissioned by the legislature in 2018 found a host of agency management troubles, improper influence and poor public engagement and communications problems regarding ODA's operations and planning at the Aurora State Airport.

HB 2497 also provides for updating the controversial *2012 Aurora State Airport Master Plan* that has been the subject of significant community concern and litigation, conducting a much-needed environmental assessment of current airport pollution levels, and planning for eventual annexation of the airport by the City of Aurora to provide municipal governance and urban services.

We respectfully request that the Joint Committee on Transportation provide a public-hearing opportunity for HB 2497 as a way to prepare a roadmap forward for resolving the 10-year-long Aurora State Airport conflict between the state agency and local communities. To date, *the only open public forum* on ODA's efforts to expand the Aurora State Airport was held by the Wilsonville City Council in November 2018 that drew 200 attendees.

Sincerely,

Brian Asher, Mayor
Mayor@ci.aurora.or.us

Julie Fitzgerald, Mayor
Mayor@ci.wilsonville.or.us

cc: Senate President Peter Courtney; House Speaker Tina Kotek; Gina Zejdlik, Governor's Chief of Staff

Aurora State Airport in Relation to The Oregon Resilience Plan and DOGAMI Earthquake Susceptibility Maps - 2019

The Oregon Resilience Plan

Reducing Risk and Improving Recovery for the Next Cascadia Earthquake and Tsunami

Report to the
77th Legislative Assembly

from
Oregon Seismic Safety Policy
Advisory Commission (OSSPAC)



Salem, Oregon
February 2013

Air Transportation

The state of Oregon has an extensive aviation system that provides valuable transportation options for the public, ranging from small airports in remote regions of the state to large commercial service airports. Ninety-seven public-use airports provide support to the economic health and vitality of Oregon and contribute to the quality of life for its citizens and visitors.

- Fifty-seven public-use airports are partially supported by FAA and included in the National Plan of Integrated Airport System (NPIAS).
- Sixteen public-use airports are either owned by other municipalities or are privately owned.
- Over 400 private airports and landing strips are located within Oregon.

The 2007 Oregon Aviation Plan established five categories of airports, based on the definitions outlined within the National Plan of Integrated Airports System (NPIAS), the design criteria outlined by the Airport Reference Code (ARC), and the facilities inventory.

CATEGORY I: COMMERCIAL SERVICE AIRPORTS

These airports support some level of scheduled commercial airline service in addition to a full range of general aviation aircraft. This includes both domestic and international destinations.

CATEGORY II: URBAN GENERAL AVIATION AIRPORTS

These airports support all general aviation aircraft and accommodate corporate aviation activity including business jets, helicopters, and other general aviation activity. The primary users are business related and service a large geographic region, or they experience high levels of general aviation activity.

CATEGORY III: REGIONAL GENERAL AVIATION AIRPORTS

These airports support most twin and single engine aircraft, may accommodate occasional business jets, and support regional transportation needs.

CATEGORY IV: LOCAL GENERAL AVIATION AIRPORTS

These airports primarily support single engine, general aviation aircraft, but are capable of accommodating smaller twin-engine general aviation aircraft. They also support local air transportation needs and special use aviation activities.

CATEGORY V: REMOTE ACCESS AND EMERGENCY SERVICE AIRPORTS

These airports primarily support single-engine, general aviation aircraft, special use aviation activities, and access to remote areas; or they provide emergency service access.

The following list identifies airports within each category that have the potential to maintain or quickly restore operational functions after a major earthquake. The Transportation Task Group arranged these 29 airports into a tier system to indicate the priorities for making future investments. Tier 1 (T1) is comprised of the essential airports that will allow access to major population centers and areas

considered vital for both rescue operations and economic restoration. Tier 2 (T2) is a larger network of airports that provide access to most rural areas and will be needed to restore major commercial operations. Tier 3 (T3) airports will provide economic and commercial restoration to the entire region after a Cascadia subduction zone event. ←

Category I	Category II	Category III	Category IV	Category V
*Redmond (T1)	Scappoose (T2)	Tillamook (T2)	Mulino State (T3)	Independence State (T3)
PDX (T1)	Troutdale (T3)	Roseburg (T1)	Albany (T3)	Siletz Bay State (T2)
Salem (T1)	Hillsboro (T2)	Bandon State (T2)	Lebanon (T3)	Cape Blanco State (T2)
Eugene (T1)	Portland Heliport (T3)	Grants Pass (T3)	Florence (T3)	
Rogue Valley Medford (T1)	Aurora State (T3) ←		Creswell (T3)	
Klamath Falls (T1)	McMinnville (T3)		Cottage Grove State (T3)	
	Newport (T2)		Myrtle Creek (T3)	
	Corvallis (T3)		Brookings (T2)	

*Primary emergency response airport for FEMA Region X: Redmond municipal airport, centrally located in central Oregon, is ideally situated to be the primary FEMA emergency response airport.

Figure 5.16: Oregon Airports (Source: Oregon Department of Aviation)

The Portland International Airport (PDX) is one of Oregon's vital transportation network links. As the state's major airport, PDX will play a key role in re-establishing our economy by facilitating the movement of people, goods, and services after a major statewide emergency event. Other airports in Oregon will also play a vital role during the post-disaster emergency response and initial recovery phase. During the emergency response, for example, displaced residents, injured people, and the elderly may need to be evacuated by means of airports; and airports will also provide a staging area for needed supplies (such as water, food, medical supplies, and materials for temporary housing). Until highway and rail transportation can be fully restored, air transportation, along with ships off the coast, will be the lifelines for Oregon's citizens.

Oregon Transportation Resiliency Status

*Key to the Table

TARGETS TO ACHIEVE DIFFERENT LEVELS OF RECOVERY:

Minimal: (A minimum level of service is restored, primarily for the use of emergency responders, repair crews, and vehicles transporting food and other critical supplies.)

R

Functional: (Although service is not yet restored to full capacity, it is sufficient to get the economy moving again—e.g. some truck/freight traffic can be accommodated. There may be fewer lanes in use, some weight restrictions, and lower speed limits.)

Y

Operational: (Restoration is up to 90% of capacity: A full level of service has been restored and is sufficient to allow people to commute to school and to work.)

G

ESTIMATED TIME FOR RECOVERY TO 60% OPERATIONAL GIVEN CURRENT CONDITIONS:

S

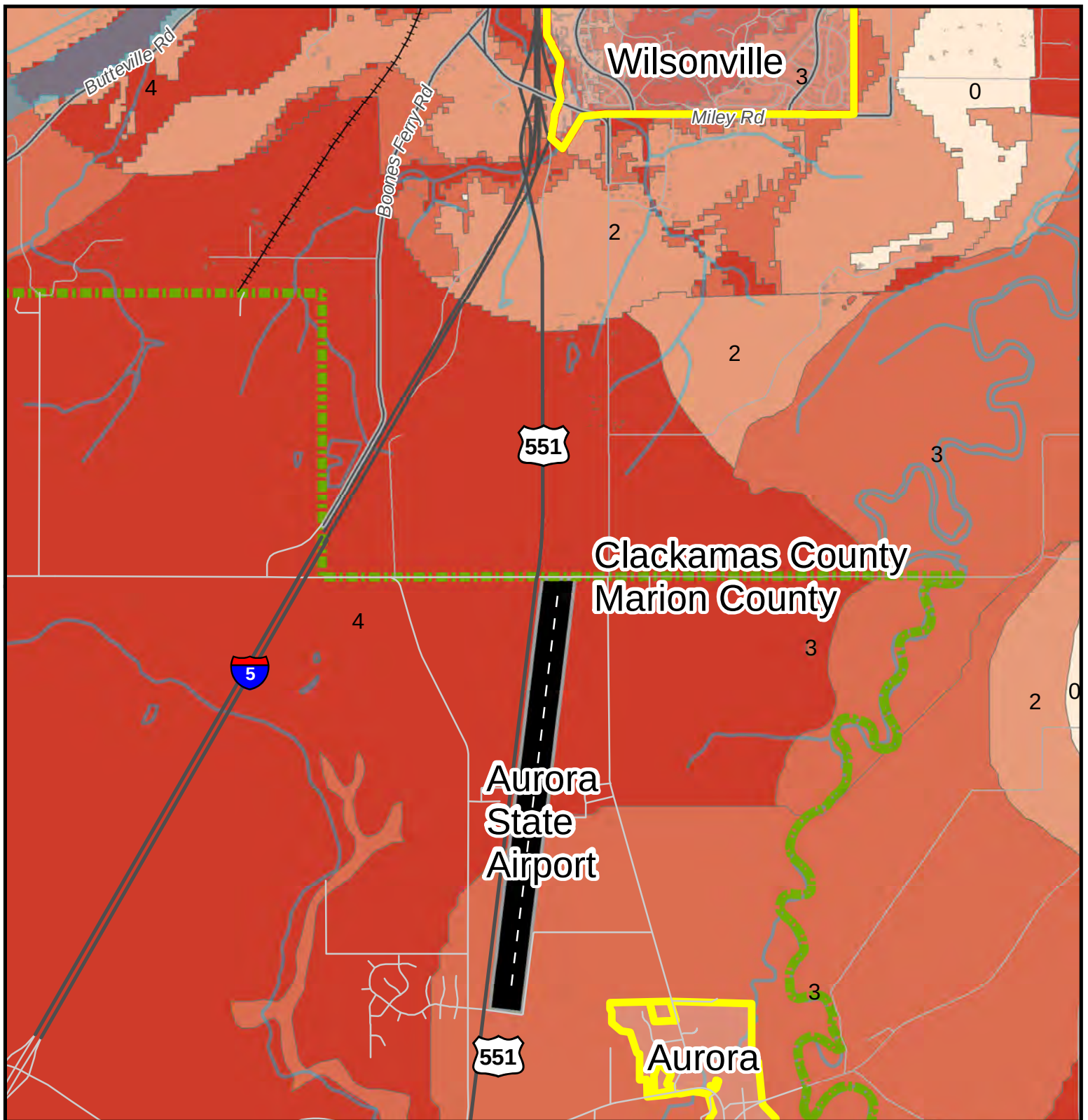
ESTIMATED TIME FOR RECOVERY TO 90% OPERATIONAL GIVEN CURRENT CONDITIONS:

X

Comparison of Target States and Estimated Time for Recovery

Infrastructure Facilities	Event Occurs	0 – 24 hours	1 – 3 days	3 – 7 days	1 – 4 weeks	1 – 3 months	3 – 6 months	6 – 12 months	1 – 3 years	3+ years
Central Oregon Zone										
► OREGON STATE HIGHWAY SYSTEM										
State Highway System - Tier 1 SLR¹⁾			R	Y	G			S	X	
Roadways			R	Y	G/S		X			
Bridges			R	Y	G		S	X		
Landslides			R	Y	G			S	X	
State Highway System - Tier 2 SLR			R		Y	G			S	X
Roadways			R		Y	G/S		X		
Bridges			R		Y	G		S	X	
Landslides			R		Y	G			S	X
State Highway System - Tier 3 SLR				R		Y	G		S	X
Roadways				R		Y	G/S		X	
Bridges				R		Y	G		S	X
Landslides				R		Y	G		S	X
State Highway System - Other Routes					R		Y	G	S	X
Roadways					R		Y	G	X	
Bridges					R		Y	G	S	X
Landslides					R		Y	G	S	X
► AIRPORTS & AIR TRANSPORTATION										
Tier I - Oregon Airports System										
Redmond Municipal Roberts Field Airport - FEMA		R	S		Y	G	X			
Klamath Falls Airport		R	S		Y	G	X			
FAA Facility			R	Y	G					
► OREGON RAIL TRANSPORTATION										
UPRR										
CA/OR State Line to Bieber Line Jct. (Klamath Falls)			Y	G	S	X				

<i>Infrastructure Facilities</i>	<i>Event Occurs</i>	<i>0 – 24 hours</i>	<i>1 – 3 days</i>	<i>3 – 7 days</i>	<i>1 – 4 weeks</i>	<i>1 – 3 months</i>	<i>3 – 6 months</i>	<i>6 – 12 months</i>	<i>1 – 3 years</i>	<i>3+ years</i>
Bieber Ln Jct. (Klamath Falls) to Chemult (Shared)			Y	G	S	X				
Chemult to Eugene					Y	G	S	X		
BNSF										
CA/OR State Line to Bieber Line Jct. (Klamath Falls)		G	S	X						
Chemult to Redmond		G	S	X						
Redmond to O.T. Jct. (connection with UP at Columbia			Y	G	S	X				
► OREGON PUBLIC TRANSIT										
Admin & Maintenance Facilities ²⁾						R	Y	G	S	X
Local Area Paratransit On-Demand Service (critical				R	Y	S	G	X		
Local Area Paratransit On-Demand Service (full						R	Y	G	S	X
Local Roadway Fixed Route Service (emergency				R	Y	S	G	X		
Local Roadway Fixed Route Service (regular						R	Y	G	S	X
Intercity & Commuter Bus ⁴⁾						R	Y	G	S	X
Willamette Valley Zone										
► OREGON STATE HIGHWAY SYSTEM										
State Highway System - Tier 1 SLR ¹⁾			R	Y	G			S	X	
Roadways			R	Y	G		S	X		
Bridges			R	Y	G			S	X	
Landslides			R	Y	G			S	X	
State Highway System - Tier 2 SLR			R		Y	G			S	X
Roadways			R		Y	G	S	X		
Bridges			R		Y	G			S	X
Landslides			R		Y	G			S	X
State Highway System - Tier 3 SLR				R		Y	G		S	X
Roadways				R		Y	G	S	X	
Bridges				R		Y	G		S	X
Landslides				R		Y	G		S	X
State Highway System - Other Routes					R		Y	G	S	X
Roadways					R		Y	G	S	X
Bridges					R		Y	G	S	X
Landslides					R		Y	G	S	X
► AIRPORTS & AIR TRANSPORTATION ⁵⁾										
Tier I - Oregon Airports System										
Portland International Airport (PDX) (Tier 1)		R			Y	S		G	X	
Salem McNary Field		R			Y	S		G	X	
Eugene Mahlon Sweet Field		R			Y	S		G	X	
Rogue Valley International Medford		R			Y	S		G	X	
Roseburg Regional Airport		R			Y	S		G	X	
Tier III Oregon General Aviation Airport System										
Troutdale			R		S	Y		G		X
Portland Heliport			R		S	Y		G		X
→ Aurora State			R		S	Y		G		X
McMinnville Municipal			R		S	Y		G		X
Corvallis			R		S	Y		G		X



The City of Wilsonville, Oregon
Clackamas and Washington Counties

Liquefaction Susceptibility



County Boundary

City Limits

**Aurora State
Airport Area
Earthquake
Liquefaction
Susceptibility**

0 Miles 0.5

A11D0684



APPENDIX 11D – PUBLIC COMMENTS 2020

Summary: This map shows liquefaction susceptibility for Oregon calculated following the methods of FEMA's 2011 HAZUS-MH MR4 technical manual. The map was prepared in support of a series of ground motion and ground failure maps for a scenario Magnitude 9.0 Cascadia Subduction Earthquake developed by the Oregon Department of Geology and Mineral Industries. The scenario maps were prepared for the Oregon Seismic Safety Policy Advisory Commission for its use in preparing a report to the 77th Oregon Legislative Assembly entitled "The Oregon Resilience Plan; Reducing Risk and Improving Recovery for the Next Cascadia Earthquake and Tsunami".

M:\projects\2016\100918_Liquefaction.mxd

**OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
INTERPRETIVE MAP SERIES 24**

GEOLOGIC HAZARDS, EARTHQUAKE AND LANDSLIDE HAZARD MAPS, AND FUTURE EARTHQUAKE DAMAGE ESTIMATES FOR SIX COUNTIES IN THE MID/SOUTHERN WILLAMETTE VALLEY INCLUDING YAMHILL, MARION, POLK, BENTON, LINN, AND LANE COUNTIES AND THE CITY OF ALBANY, OREGON

**APPENDIX E:
MARION COUNTY**

CRUSTAL EARTHQUAKE SCENARIO

Scenario Details
Ground Motion Map

SUBDUCTION ZONE EARTHQUAKE SCENARIO

Scenario Details
Ground Motion Map

GEOLOGIC HAZARD MAPS

Relative Ground-Shaking Amplification Susceptibility Map
Relative Liquefaction Hazard Susceptibility Map
Relative Earthquake-induced Landslide Susceptibility Map
Identified Landslide Areas Map

HAZUS-MH GLOBAL REPORT FOR CRUSTAL SCENARIO

HAZUS-MH GLOBAL REPORT FOR SUBDUCTION ZONE SCENARIO

CRUSTAL EARTHQUAKE SCENARIO DETAILS FOR MARION COUNTY

Crustal Earthquake Scenario: A magnitude 6.9 earthquake on the Mount Angel Fault.

For the magnitude 6.9 earthquake on the Mount Angel Fault scenario, we defined the fault source using the “deterministic seismic source” option within HAZUS-MH (Figure E1) (FEMA, 2003b). The fault and earthquake event were chosen by examination of USGS (2004) data and data in the Geomatrix Consultants, Inc. (1995) *Seismic Design Mapping, State of Oregon* report prepared for the Oregon Department of Transportation. In general, a likely worst-case scenario was selected. Figure E1 has the location of the fault, shown as the dark line, and the census tracts within Marion County. Figure E2 displays the peak ground acceleration (PGA) for the crustal scenario.

Scenario Name	Mount Angel M6.9
Type of Earthquake	Source
Fault Name	Mount Angel Fault
Historical Epicenter ID #	67
Probabilistic Return Period	NA
Longitude of Epicenter	-122.83
Latitude of Epicenter	45.05
Earthquake Magnitude	6.90
Depth (km)	0.00
Rupture Length (km)	30.69
Rupture Orientation (degrees)	0.00
Attenuation Function	Project 2000 West - Non Extensional

Crustal Earthquake Scenario Ground Motion Map

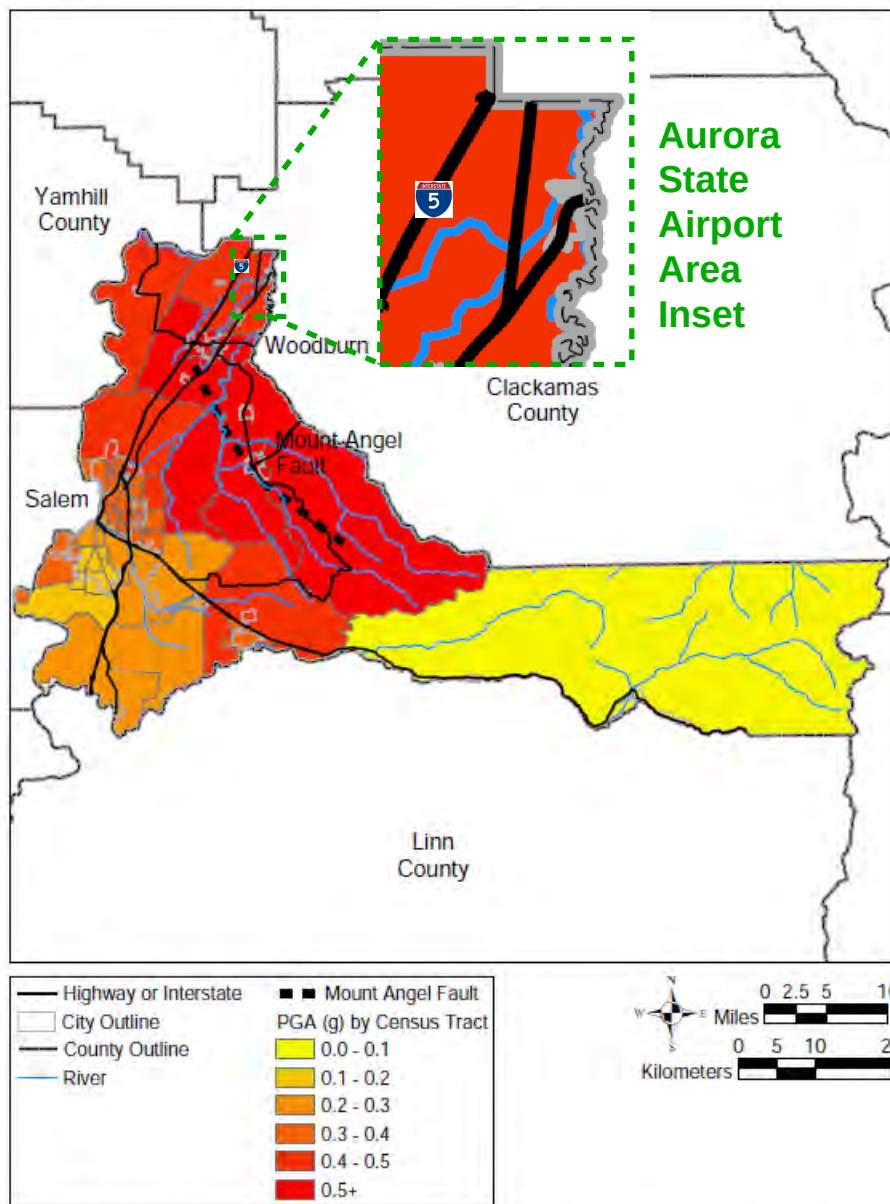
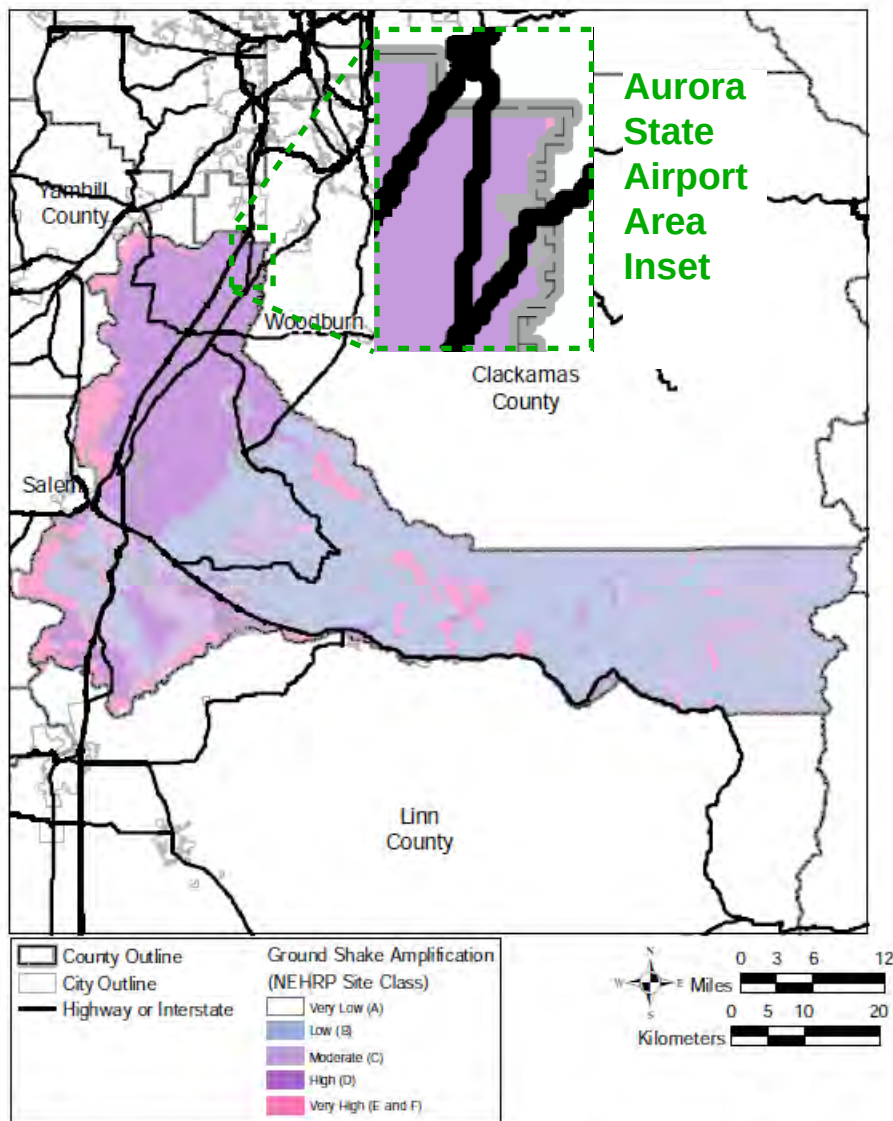


Figure E2. Peak ground acceleration (PGA) by census tracts map for the crustal earthquake scenario, Marion County, Oregon (FEMA, 2003b)

GEOLOGIC HAZARD MAPS

Relative Ground-Shaking Amplification Susceptibility Map**Figure E5.** Relative ground-shaking amplification susceptibility map for Marion County, Oregon.

Relative Amplification Hazard Map

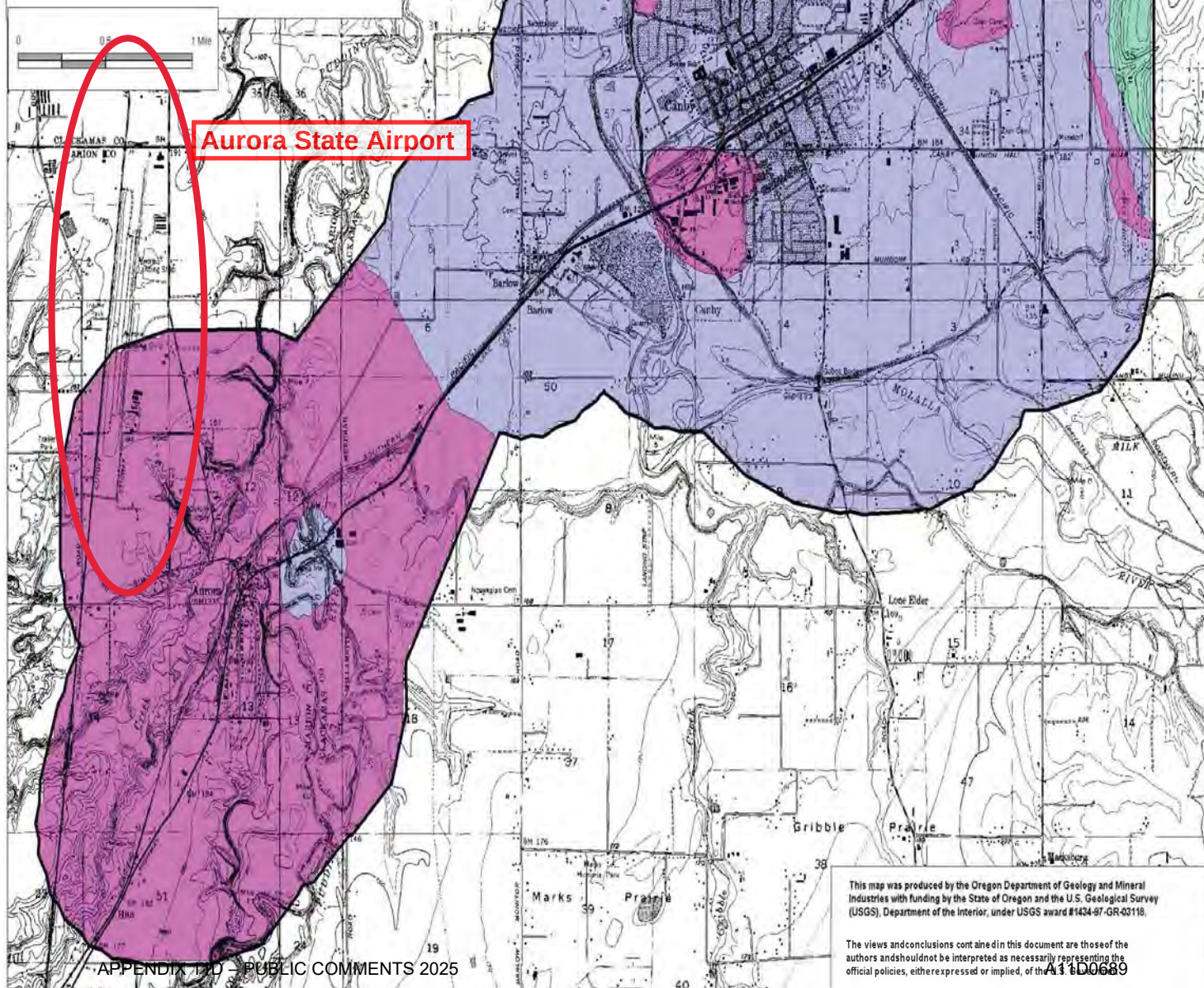
Hazard zones are based on the degree to which ground shaking from a given earthquake is likely to be amplified.

-  Highest amplification hazard (UBC soil type E)
-  Medium amplification hazard (UBC soil type D)
-  Low amplification hazard (UBC soil type C)
-  No amplification hazard (UBC soil type B)

See the accompanying text for an explanation of how these zones were defined and what the various levels of hazard mean.

IMPORTANT NOTICE

This map depicts only amplification hazard zones that are based on limited geologic and geophysical data as described in the accompanying report. At any given site in the map area, the maps for other types of hazards may show different hazard levels and need to be taken into consideration along with this map. This map cannot replace site-specific investigations. Some appropriate uses are discussed in the accompanying report.



This map was produced by the Oregon Department of Geology and Mineral Industries with funding by the State of Oregon and the U.S. Geological Survey (USGS), Department of the Interior, under USGS award #1434-97-GR-03118.

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Geological Survey.

Relative Earthquake Hazard Map

Hazard zones are based on the combined effects of ground shaking amplification, liquefaction, and earthquake-induced landsliding.

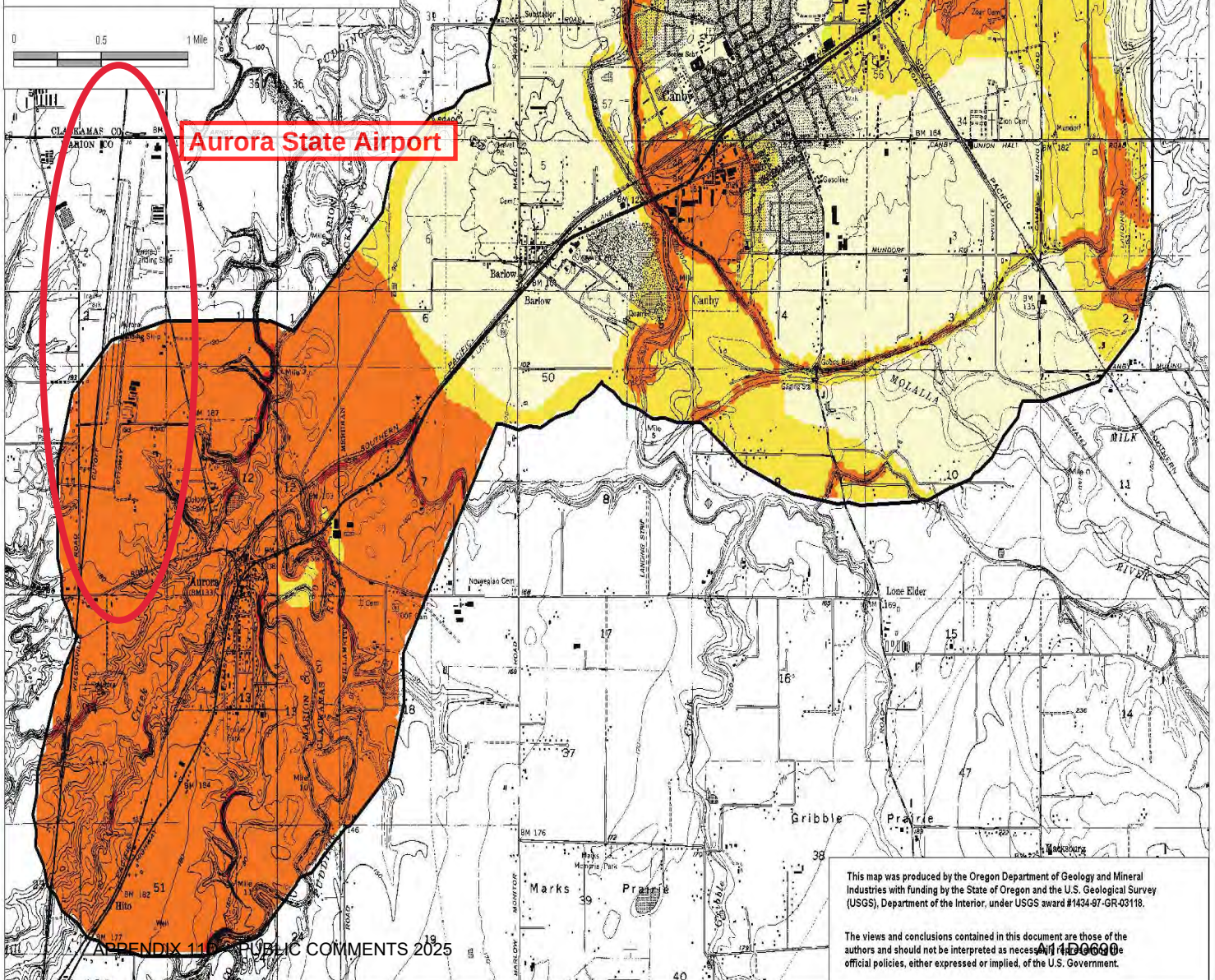
-  Zone A -- Highest hazard
 Zone B -- Intermediate to high hazard
 Zone C -- Low to intermediate hazard
 Zone D -- Lowest hazard

See the accompanying text for an explanation of how these zones were defined and what the various levels of hazard mean.

IMPORTANT NOTICE

This map depicts earthquake hazard zones that are the result of combining the maps of individual hazards and are based on limited geologic and geophysical data. These hazards and data are described in the accompanying report. At any given site in the map area, site-specific data could give results that differ from those shown on this map. This map cannot replace site-specific investigations. Some appropriate uses are discussed in the accompanying report.

This map shows areas that are relatively more or less hazardous due to local geological conditions within a community. For a complete understanding of the earthquake hazard, see also GMS-100, Earthquake Hazard Maps for Oregon.



This map was produced by the Oregon Department of Geology and Mineral Industries with funding by the State of Oregon and the U.S. Geological Survey (USGS), Department of the Interior, under USGS award #1434-97-GR-03118.

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Relative Hazard Map of Earthquake-Induced Landslides

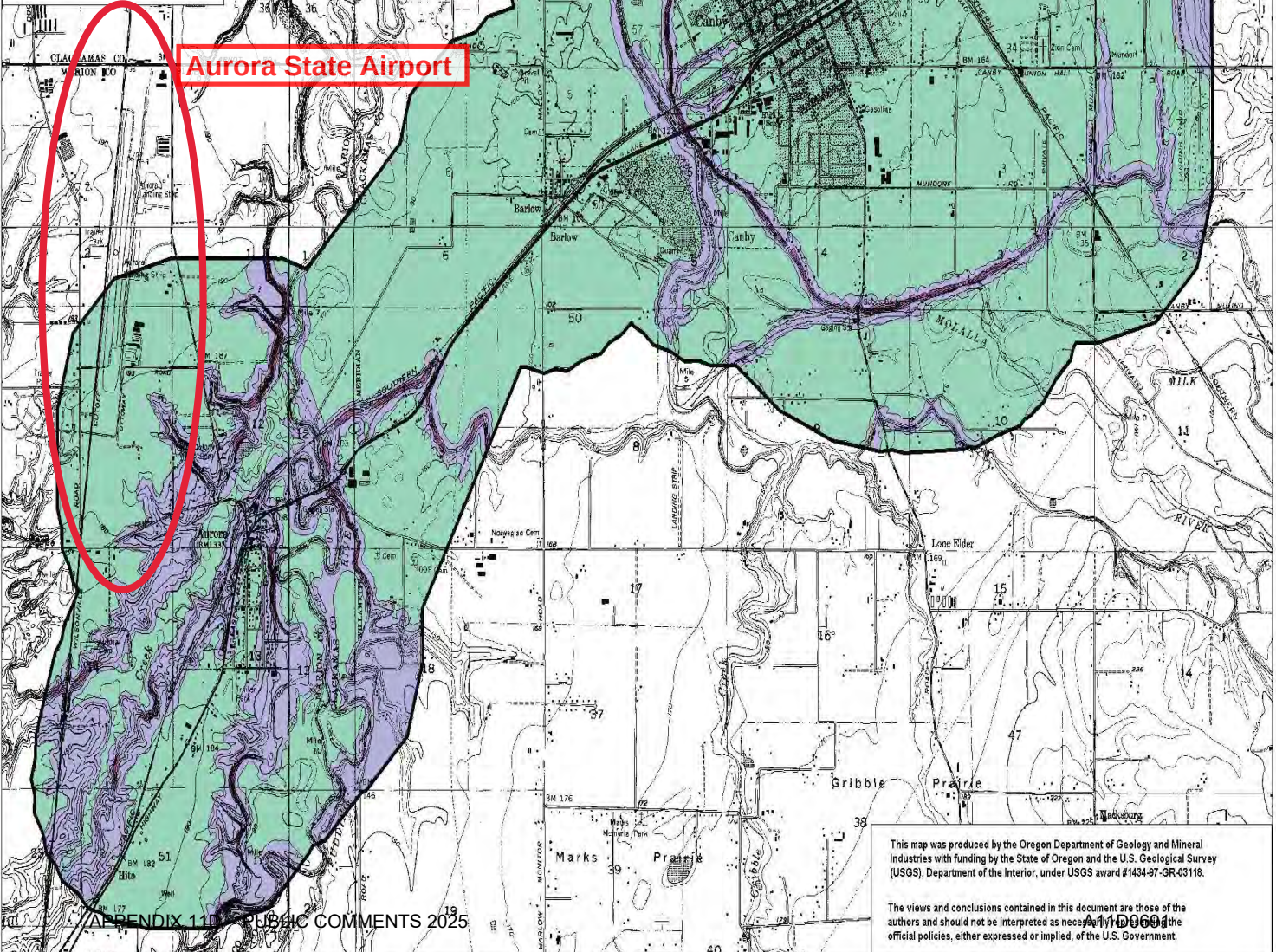
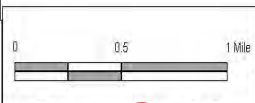
Hazard zones are based on the possibility that
a given earthquake will trigger landslides.

-  High landslide hazard
-  Medium landslide hazard
-  Low landslide hazard

See the accompanying text for an explanation of how these zones
were defined and what the various levels of hazard mean.

IMPORTANT NOTICE

This map depicts only landslide hazard zones that are based
on limited geologic and geophysical data as described in the
accompanying report. At any given site in the map area, the
maps for other types of hazards may show different hazard levels
and need to be taken into consideration along with this map.
This map cannot replace site-specific investigations. Some
appropriate uses are discussed in the accompanying report.



This map was produced by the Oregon Department of Geology and Mineral
Industries with funding by the State of Oregon and the U.S. Geological Survey
(USGS), Department of the Interior, under USGS award #1434-87-GR-03118.

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Canby-Barlow-Aurora Urban Area

Relative Liquefaction Hazard Map

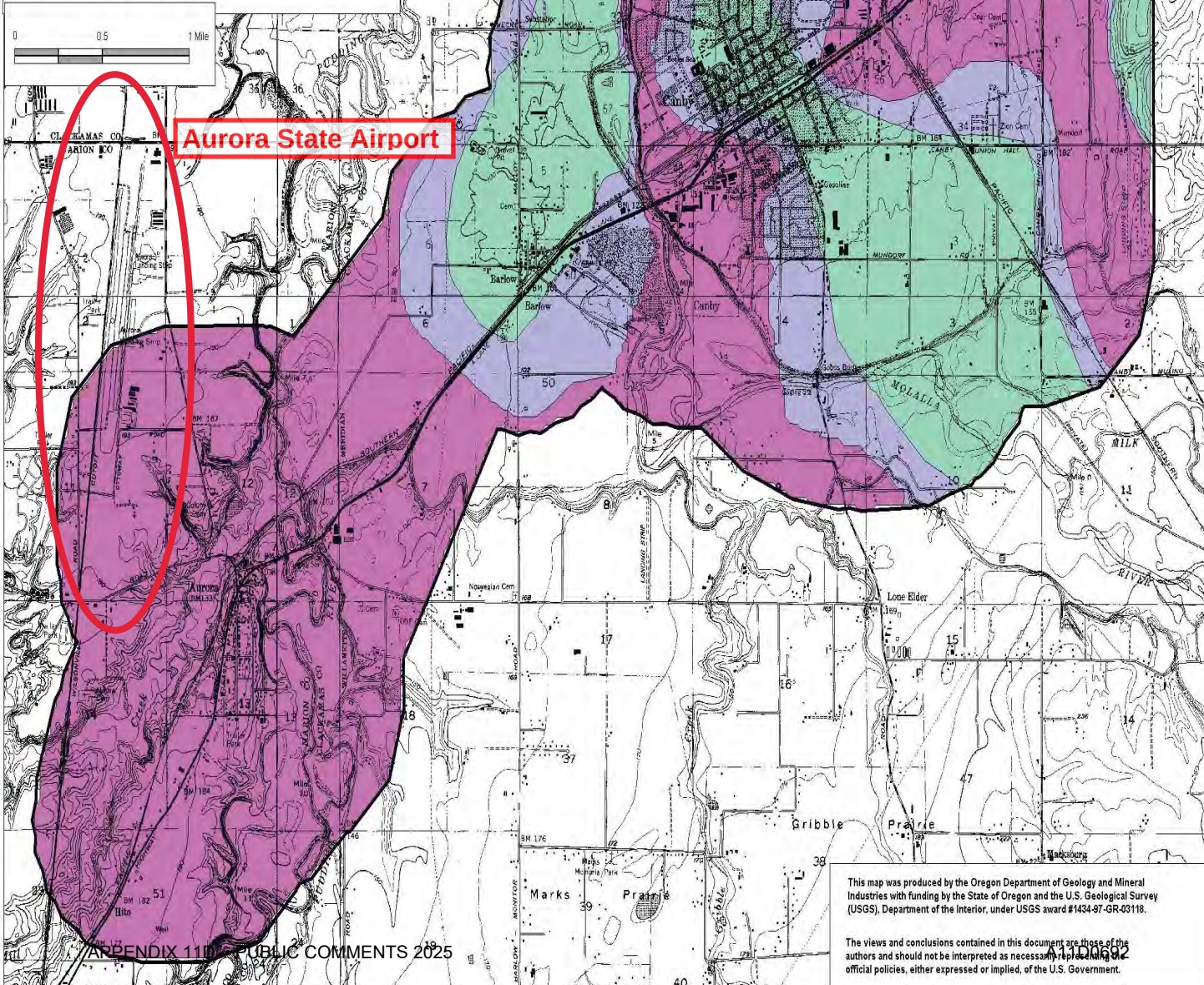
Hazard zones are based on the likelihood that liquefaction will occur in a given earthquake.



See the accompanying text for an explanation of how these zones were defined and what the various levels of hazard mean.

IMPORTANT NOTICE

This map depicts only liquefaction hazard zones that are based on limited geologic and geophysical data as described in the accompanying report. At any given site in the map area, the maps for other types of hazards may show different hazard levels and need to be taken into consideration along with this map. This map cannot replace site-specific investigations. Some appropriate uses are discussed in the accompanying report.



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August 4, 2021

Martha Meeker, Chair
Oregon Aviation Board
Oregon Department of Aviation
3040 25th Street SE
Salem, OR 97302

Sent via email to:
aviation.mail@aviation.state.or.us
betty.stansbury@aviation.state.or.us
cathy.rb.clark@aviation.state.or.us

RE: Public Disenfranchisement by the Oregon Aviation Board for the Proposed 2021-22 Aurora State Airport Master Planning Process

Dear Chair Meeker and Aviation Board Members:

I listened with pronounced disappointment to Aviation Board members and staff conversations concerning the proposed new Aurora State Airport Master Plan, following public testimony, at the last public Oregon Aviation Board (OAB) meeting on July 15, 2021.

The majority of the meeting discussion was devoted to efforts by airport business interests to pressure the OAB into filing an appeal of the Court of Appeals decision—finding several errors and violations of state law by the Aviation Department in the adoption of the 2011 or 2012 master plan—to the Oregon Supreme Court.

As we saw today in *Schaefer v. Oregon Aviation Board*, 313 Or App 725 (2021), the Court of Appeals roundly rejected the appeal by the airport business interests of the Court's reversal and remand of the Land Use Board of Appeals decision that upheld the flawed master plan.

What was not discussed at the July 15 OAB meeting was citizen testimony, once again, requesting a more balanced and inclusive Planning Advisory Committee (PAC) for this new master plan update. In fact, the only discussion we heard on this topic was a rhetorical question by Board Member Granato to Chair Meeker asking, even if the parties requesting a seat at the table were not granted one, couldn't they still attend all the meetings? The response from Chair Meeker response was a delighted, why of course they could!

Citizens have repeatedly asked to be equitably represented with a balance of seats on the Planning Advisory Committee. Instead, they are effectively told by OAB that they can silently attend and sit at the back of the room. This action demonstrates more of the same attempts by the OAB to hear only from those they wish to hear from, to the exclusion of the greater community public interest.

The PAC does not need a representative for every airport business, to the exclusion of those citizens whose lives and properties will be most impacted by the proposed airport expansion and runway extension. At the June 3 and July 15 OAB meetings, the attorney for the Aurora Airport Improvement Association indicated that she represented all or a vast majority of

Martha Meeker, Chair
Oregon Aviation Board
August 4, 2021
Page 2

businesses at the airport; the appointment of an Association representative satisfies any and all needs for airport business representation on the PAC.

We are still disappointed that the Aviation Department still has not responded to my letter of June 14, 2021, and prior City of Wilsonville communication attempts to the Department.

Thank you for your consideration.

Sincerely,



Julie Fitzgerald
Mayor, City of Wilsonville

Enc. (1)

cc: Members of the Oregon Congressional Delegation:
 Senator Ron Wyden
 Senator Jeff Merkley
 Congressman Kurt Schrader
Aurora Mayor Brian Asher
Members of the Oregon Legislature:
 Speaker Tina Kotek
 Senate President Peter Courtney
 Representative Susan McLain (HD 29)
 Representative Courtney Neron (HD 26)
 Representative Christine Drazan (HD 39)
 Senator Bill Kennemer (SD 20)
Clackamas County Board of County Commissioners
Charbonneau Country Club
Aurora-Butteville-Barlow Citizens Planning Organization
Friends of French Prairie
1000 Friends of Oregon

Presentation Slides from July 15, 2021, Oregon Aviation Board Meeting

This slide shows the lopsided composition of the PAC that seats a majority of vested airport financial interests to advise on Aurora State Airport Master Planning process.

Planning Advisory Committee (PAC) Membership: To Date

AABC/TLM Holdings - Ted Millar	Lynx Aviation, FBO - Tristan Dorian
AAIA - Bruce Bennett	Marion County - Danielle Bethell
Aurora ATC - TBD	Marion County Planning Dept. – Austin Barnes
Aurora CTE, Inc - Bill Graupp	ODA - Tony Beach, Airport Manager
City of Aurora - Brian Asher	ODOT - Naomi Zwerdling
City of Canby - TBD	Oregon Aviation Board - John Barsalou
City of Wilsonville - Julie Fitzgerald	Oregon Farm Bureau - Mary Anne Cooper
Clackamas County - Tootie Smith	PAAM - Tony Helbling
Columbia Helicopters - Rob Roedts	Governor's Office - Regional Solutions - Jody Christensen
DLCD - Matt Crall	Vans Aircraft - Rian Johnson
	Willamette Aviation, FBO - David Waggoner
	Wilsonville Chamber of Commerce - Kevin O'Melley

This slide appears to show how community organizations and public interest groups may be relegated to a “second class” Citizens Advisory Committee (CAC).

Citizen Groups Requesting to Participate as PAC/CAC Member(s)

Charbonneau Country Club - TBD
Deer Creek Estates - TBD
Prairie View Estates - TBD
Aurora-Butteville-Barlow CPO - TBD
1000 Friends - TBD
Friends of French Prairie - TBD
Seismic/Wildfire/Emergency Management –DEOM – TBD
Local Farmer's Representative - TBD



July 6, 2021

The Honorable Ron Wyden, U.S. Senator
The Honorable Jeff Merkley, U.S. Senator

RE: Request for Intervention in Ensuring Proper Award of FAA Grant Funds to the Oregon Department of Aviation for Aurora State Airport Master Plan Update

Dear Senators Wyden and Merkley:

We write to you collectively, representing the local communities of over 27,000 residents in closest proximity to the Aurora State Airport (Airport), to request your assistance. The update to the Airport Master Plan provides an opportunity for improved relations among the Airport and the communities it directly impacts. This must be an integral goal of the pending master plan update. It is vital that the Scope of Work for the update be sufficient to carry out this goal. We are, however, concerned that the presently proposed Scope of Work is inadequate to achieve that goal or to bring the Airport into land use compliance. We therefore respectfully request that your offices intervene on our behalf with the Federal Aviation Administration (FAA) Northwest Region to either place on hold or add specific conditions to the award of a pending grant to the Oregon Department of Aviation (ODA) for the Airport Master Plan update in order to provide ODA with the opportunity to adopt a Scope of Work appropriate to the task.

We support and agree with the FAA's requirement that a new master plan for the Airport is past due and necessary, but the Scope of Work proposed by ODA is inadequate and does not comply with key elements of federal and state law and public processes. Rather, ODA's proposed Scope of Work for this new update is based on the legally flawed and, we contend, never legally adopted 2011 or 2012 Master Plan, as noted in more detail below. Furthermore, ODA has already publicly announced an intent to complete the new plan in as short a time frame as possible and with as little environmental due diligence and traffic analysis (air and ground) as possible. This is all being done at the urging of private airport businesses with significant speculative financial stakes in a major Airport expansion.

We believe that the legal status of the 2011 or 2012 Airport Master Plan is invalid due to failure to comply with Oregon public process and land use laws. In June, the Oregon Court of Appeals agreed. The court reversed and remanded Land Use Board of Appeals (LUBA), in our favor, for admission of critical evidence that had not been produced and reconsideration of key legal issues in accordance with the Court's direction.

As summed-up by the *Salem Statesman Journal* on June 23, 2021:

"Oregon's aviation authority tried to circumnavigate the state's land-use system in adopting a plan to extend the runway at Aurora State Airport, the state's Court of Appeals determined.

"The state's Land Use Board of Appeals' decision to uphold the aviation board's plan was flawed because "there is no evidence in the record to support LUBA's erroneous findings" in the case, the court said in reversing and remanding the body's decision.

"The court said that the Land Use Board of Appeals "misunderstood its task" and mistakenly relied on testimony from Department of Aviation staff and associated businesses around the airport when making its decision."

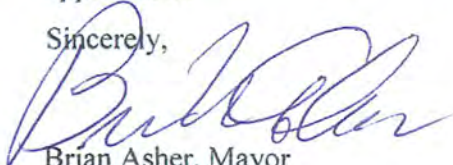
As a result of the apparent undue influence of private businesses and jet owners, ODA has consistently demonstrated a failure to follow the law, including the FAA Grant Assurance around land use compliance, nor the capacity and an unwillingness to undertake appropriate public processes, we believe that it is imperative that the FAA ensure that ODA rigorously follows the FAA Grant Assurance requirements regarding land use, which previously did not happen.

On June 3, 2021, the Oregon Aviation Board (the Board) approved, without any documentation, accepting nearly \$1 million of FAA grant funds to update the Airport master plan. There was no staff report, no resolution of adoption, and no proposed Scope of Work provided to the Board. The Board voted to accept the FAA grant to perform the master plan update but has delayed awarding the consultant's contract to do that work because of the omission of the proposed Scope of Work and the then pending Court of Appeals decision.

As necessary as a new master plan is, it is equally necessary that it be updated correctly. We obtained the proposed Scope of Work in response to a public records request. Among other things, the Scope of Work does not consider the impact of the Court of Appeals decision or pending LUBA and judicial review proceedings. Additionally, ODA has stacked the new Master Plan Public Advisory Committee with a clear majority of vested financial aviation and commercial interests, to the exclusion of impacted neighborhood associations, property owners, and conservation and public interest organizations. A momentary pause in funding the master plan update may help provide ODA with the incentive necessary to ensure an adequate Scope of Work and to provide all stakeholders a seat at the table.

Thank you for your time and consideration of our request. The favor of a response would be most appreciated.

Sincerely,



Brian Asher, Mayor
Mayor@ci.aurora.or.us



Julie Fitzgerald, Mayor
Fitzgerald@ci.wilsonville.or.us

encl: Media reports and Summary on the Oregon Court of Appeals decision on *Schaefer v. Oregon Aviation Board*, 312 Or App 316 (2021).

cc: Oregon Department of Aviation

SUMMARY OF COURT OF APPEALS RULING ON AURORA AIRPORT MASTER PLAN

prepared by Ben Williams, Friends of French Prairie

1. The 2012 Master Plan was not properly approved and adopted.

Therefore the current 2012 Master Plan is invalid and cannot be updated, requiring a new master plan!

...it is impossible to tell from the 2012 Master Plan what material was added and what was removed after 2011. LUBA erred in concluding that the 2012 Master Plan includes the 2011 Master Plan... the board never formally approved or adopted the 2012 Master Plan after October 27, 2011.

2. The master plan was never adopted into Marion County's Comprehensive Plan, and achieving compliance in itself does not provide an exemption from statewide planning goals.

Therefore airport master plans must comply with statewide planning goals to be valid!

The Master Plan proposes airport development on EFU land... LUBA misunderstood its task... But the question is not what the [Aviation] board's development plans are; the question is what development the Master Plan proposes, and whether that development is consistent with the MCCP and the goals... the Board of Commissioners "acknowledges and supports" the 2012 Master Plan... is not a determination, formal or otherwise, of the plan's compliance with the MCCP.

3. The airport and the proposed development (runway extension) are not rural uses.

Therefore, ORS statutes cannot be misapplied to achieve desired outcomes!

ORS 836.640 does not apply... LUBA misconstrued the statute... The text does not suggest that the legislature intended any section of ORS 836.642 to affect how land use requirements apply to the programs or uses of land at the identified airports; to the contrary, it explicitly makes the programs subject to "applicable statewide land use requirements."

4. The development proposed (runway extension) permits service to a larger class of airplanes.

Therefore, airport sponsors may not misrepresent FAA regulations for their benefit!

LUBA adopted the reasoning in the response briefs and concluded, without elaboration, that the improvements contemplated by the 2012 Airport Plan do not permit service to a larger class of airplanes... an upgrade to design standards for a greater ARC or a longer runway to serve planes with greater MTOW [Maximum Take Off Weight] is an expansion or alteration that permits—authorizes—service to a larger class of airplanes. Accordingly, the Master Plan proposes an alteration or expansion of the airport that permits service to a larger class of airplanes.

Summary of the Ruling [Schaefer v. Oregon Aviation Board, 312 Or App 316 (2021)]

To summarize, LUBA erred in excluding the 2011 Master Plan—the Master Plan document that was before the board on October 27, 2011—from the record; in holding that the 2012 Master Plan did not propose airport development on EFU land; in relying on ORS 836.642 to conclude that proposed new uses at the Aurora State Airport are rural uses for land-use purposes; and in determining that OAR 660-012-0065(3)(n) applied.

Reversed and remanded.

Court of Appeals Sides with Opponents of Aurora Airport Expansion

BY [TYLER FRANCKE, CANBY NEWS -](#)

[JUNE 16, 2021](#)

<https://canbyfirst.com/court-of-appeals-sides-with-opponents-of-aurora-airport-expansion/>

The Oregon Court of Appeals handed down a sweeping ruling Wednesday in favor of the cities of Aurora and Wilsonville, the land-use advocacy groups Friends of French Prairie and 1000 Friends of Oregon and others who had joined together to [oppose further expansion of the Aurora State Airport](#).

Airport opponents hailed the ruling as a “sweeping victory” in their battle to stop a proposed 1,000-foot runway extension that supporters say is needed to safely accommodate the numbers and classes of aircraft currently using the airport.

But opponents fear the runway extension and other planned upgrades will bring larger, louder aircraft — and more of them.

Most recently, the complicated land-use case has centered on the 2012 Aurora Airport Master Plan, which is a necessary prerequisite to the expansion, and which — opponents discovered in 2019 — [may have never been formally adopted](#) by the Oregon Department of Aviation.

Aurora airport supporters, along with the state aviation board itself, maintained that the plan was approved in October 2011 — but were unable to produce any minutes, final orders or other records verifying this.

An audio recording of the October 2011 meeting — which Friends of French Prairie President Ben Williams obtained through a public records request — appeared to confirm opponents’ suspicions that the master plan was never given a final stamp of approval.

The board attempted to skirt the issue in a controversial meeting held on Halloween 2019 in Sunriver, in which it attempted to formalize its version of events by approving a statement saying it had “adopted the Master Plan at its October 27, 2011, meeting.”

Opponents [challenged the move to the Oregon Land Use](#) Board of Appeals, or LUBA, which [dismissed the case last year](#), saying it did not have jurisdiction.

But the Court of Appeals disagreed, saying LUBA wrong on both the law and procedure. What’s more, the court sided with appellants on the matter of the master plan, concluding “the board never formally approved or adopted the 2012 Master Plan after October 27, 2011.”

The decision sends the case back to LUBA, which will now have to decide the original appeal on the merits, with no shortage of input from the appellate court. The Aviation Board and Oregon Department of Aviation may also appeal the ruling to the Oregon Supreme Court.

Opponents hailed Wednesday’s ruling as a long-awaited vindication of their claims that airport backers had ignored public input, established procedure and even state law in their efforts to push through the expansion.

“This decision is a major victory for Oregon land use, affirming that even a state agency cannot create methods to circumvent the state land-use system, especially by trying to do so through

simply asserting without proof compatibility with a county comprehensive plan,” Williams said in an email.

“It specifically negates the Department of Aviation’s attempt to claim it was not expanding onto [exclusive farm use] land when its own master plan for Aurora shows it does, and further negates their attempt to argue that increasing the airport classification will not bring in larger aircraft when that, in fact, is precisely what airport classifications are designed to do.”

“The city was right on the issues and right to act to preserve citizens’ role on land use in Oregon,” said Aurora Mayor Brian Asher. Aurora Planning Commission Chair Joseph Schaefer and the city had been the first to enter the fray, before being joined by Wilsonville and the Friends groups. “The decision agrees with everything we have long been saying without being heard. We have now been heard.”

Wilsonville Mayor Julie Fitzgerald also weighed in a statement to *The Canby Current*, saying the June 16 decision validated her city’s longstanding concerns that “the controversial 2012 Aurora State Airport Master Plan does not comply with state land-use laws.”

“This ruling mandates that the state aviation agency should seek to pilot for a pending new 2021-22 Aurora State Airport master plan update a transparent, fair and equitable public process in accordance with Oregon land-use laws,” she said.

“The city looks forward to the Department of Aviation balancing the new master plan advisory committee with representatives of local-area community planning organizations, homeowners associations and other conservation/public-interest organizations so as to avoid having a majority of vested airport financial interests.”

But airport backers appeared unfazed by the setback.

“Supporters and businesses of the airport are still looking into the court’s ruling and how it impacts the long-planned safety improvements,” [Friends of the Aurora State Airport](#) spokesman Dylan Frederick said. “Regardless, the ruling doesn’t distract our airport or our businesses from doing what we’ve always done best: conducting work that is mission-critical to local communities.

“It has long been the mission of the Aurora State Airport to be the safest and most emergency-ready general aviation airport in the state. We will keep striving toward that every day.”

Aviation board accepts grant funding for Aurora plan update

By Corey Buchanan, Woodburn Independent

June 15 2021

<https://pamplinmedia.com/wbi/152-news/511984-409065-aviation-board-accepts-grant-funding-for-aurora-plan-update>

Improvement association lawyer asks board to move forward with disputed runway extension project rather than update plan

The Oregon Aviation Board accepted 100% funding from the Federal Aviation Administration to complete an Aurora Airport master plan update during a meeting on June 3.

However, the board agreed to wait to hire a contractor for the update until the Oregon Court of Appeals makes a decision this month on whether to uphold a Land Use Board of Appeals ruling that dismissed complaints from the city of Wilsonville and other entities about the most recent airport master plan update in 2012.

Along with the unanimous vote to accept the funding, the meeting included a plea from attorney Wendie Kellington with the Aurora Airport Improvement Association, which represents businesses and pilots at the airport, asking the board to greenlight a 1,000-foot runway extension — the main source of controversy for the past decade — without completing the master plan update. The Wilsonville government has vigorously opposed the runway extension project as well as the process that led to its addition to the 2012 plan.

She relayed a message from an airport pilot saying the extension is crucial for ensuring safe flights there. She indicated the state hasn't reciprocated the considerable investments the private sector has put into the airport.

"Isn't it worth a discussion that this runaway extension doesn't need yet another alternatives analysis and really what we need to do is move forward?" she said.

OAB Chair Martha Meeker said she understood Kellington's concern about safety, but that the department and board had no choice: They must complete the master plan update to receive FAA grant funding for airport projects.

"The bottom line is the ODA can't pay for the extension unless we have FAA money. End of story," she said.

Kellington also suggested that the master plan update likely will lead to another legal challenge from groups that oppose the extension, such as the cities of Wilsonville and Aurora and Friends of French Prairie.

Meeker and ODA Director Betty Stansbury noted that the majority of master plan updates are not legally challenged while Meeker indicated that a letter Stansbury sent early in her tenure stating that the 2012 master plan update had not been finalized (she later reversed her stance) precipitated the current litigation.

"Litigation is the exception rather than the norm," Stansbury said. "We will do everything we can to do it right and limit the potential for litigation."

Stansbury also said during the meeting that she doesn't expect the Oregon Supreme Court to take up the current airport litigation if the OCOA decision is appealed.

While the runway extension project likely will be delayed at least until after the master plan update and a subsequent environmental assessment is finalized, Stansbury expressed motivation to move quickly on a tree removal project, which Kellington said pilots also desire to improve safety.

"Those trees shouldn't be there. I will personally direct efforts to get them down as quickly as we can," she said.

The city of Wilsonville will have a seat on an advisory committee for the plan update that will have 22 other members. The department hopes to complete the update by the end of 2022.

Oregon Court of Appeals reverses Aurora Airport ruling

By Corey Buchanan, Wilsonville Spokesman

June 17 2021

<https://pamplinmedia.com/wsp/134-news/512473-409771-oregon-court-of-appeals-reverses-aurora-airport-ruling>

The Land Use Board of Appeals will take on the case again after initially dismissing it.

After appealing an unfavorable opinion levied by the Oregon Land Use Board of Appeals, the cities of Wilsonville and Aurora — and other groups that have objected to planning efforts at the Aurora State Airport — received the validation they wanted from the Oregon Court of Appeals.

The court not only reversed LUBA's decision to dismiss the case and remanded it for another examination by the land use body, but documented deficiencies in the 2012 airport master plan update in a decision released Wednesday, June 16. The court determined that the master plan was changed following its purported adoption in 2011 and that, contrary to LUBA's ruling, projects added to the plan would encroach on agricultural land.

Along with the cities of Wilsonville and Aurora, 1000 Friends of Oregon (with Friends of French Prairie) and Aurora Planning Commissioner Joseph Scheader, filed the litigation to contest the Oregon Aviation Board's 2019 decision to adopt the findings of compatibility and compliance with statewide planning goals, which essentially validated the plan update. The Oregon Department of Aviation and Oregon Aviation Board defended the case.

Despite the decision, the legal process will likely continue as LUBA now must revisit its original case while taking the OCOA's findings into account.

The city of Wilsonville has concerns about a runway extension project that could lead to more flights flying into the airport — potentially exacerbating noise and traffic — while the city of Aurora wants the airport to be annexed into its jurisdiction. The mayors of both cities rejoiced in the ruling in separate press releases.

"The Court of Appeals decision validates the city of Wilsonville's long-stated concerns that the controversial 2012 Aurora State Airport Master Plan does not comply with state land-use laws," Wilsonville Mayor Julie Fitzgerald said. "This ruling mandates that the state aviation agency should seek to pilot for a pending new 2021-22 Aurora State Airport master Plan update a transparent, fair and equitable public process in accordance with Oregon land-use laws."

"The city was right on the issues and right to act to preserve citizens' role on land use in Oregon," said city of Aurora Mayor Brian Asher. "The decision agrees with everything we have long been saying without being heard. We have now been heard."

On the other hand, ODA Director Betty Stansbury did not comment on the decision and said starting the new master plan update, which will begin soon, is her primary focus. The Federal Aviation Administration stipulated restarting the process as a requirement for the department to receive grant funding.

Bruce Bennett, the owner of Aurora Aviation and intervenor in the case, said the decision was disappointing but felt that it was based on technicalities and wouldn't considerably affect airport planning moving forward. He also felt that LUBA had a better understanding of land use law than the OCOA.

"Projects will continue to be done," he said. "There's not a huge change coming."

In its opinion, LUBA ruled that the ODA did not have to simultaneously comply with the Marion County Comprehensive Plan and statewide planning goals. This point alone nullified many of the arguments established by petitioners. The body also said it lacked jurisdiction in the case.

The OCOA disagreed with LUBA's opinion regarding county and statewide law.

"The agency respondents do not explain, and we do not perceive, how ODA's ability to deem the draft plan compatible with the MCCP (Marion County Comprehensive Plan) affects the board's obligation to "adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan," OCOA's ruling reads.

Though she knew the restarting of the master planning process was imminent months ago, city of Wilsonville Attorney Barbara Jacobson has said the local government decided to appeal LUBA's decision in large part because they felt that it would create a dangerous precedent where local control usurps state law. OCOA's ruling also states that Marion County didn't perform an analysis of the master plan's compliance with its own laws, but simply acknowledged and supported the plan.

"If LUBA's ruling would have been allowed to stand the kind of approval Marion County did for this master plan means any county could have done a resolution for any airport without any analysis and skipped over land use planning goals and analysis, which would have been really bad land use law," Jacobson said.

While LUBA did not include the original master planning document (which has yet to be produced) for the record for the case, the OCOA disagreed with that decision and expressed that the plan had been modified between the time the document was approved and when it was sent to the Federal Aviation Administration. Wilsonville has long argued this point and Jacobson said that LUBA would not need to include the document, if it exists, in the record when it revisits the case.

"That document indisputably was substantially modified after Oct. 27, 2011, by -- for example -- identifying a different development option as the preferred alternative (for the runway extension) and omitting some of the discussion and documentation relating to the original preferred alternative," OCOA wrote.

The ruling also objected to LUBA's conclusions that future projects at the airport should be considered "rural" rather than urban use and that projects listed in the plan would not extend onto land zoned for exclusive use. It asserted that LUBA must now examine whether the document complies with Marion County agricultural land policies.

"We've contended for years that the long-term consequence of the intended expansion, meaning the 35 acres of ag land, would set all the other ag land south of Keil Road and north of Ellen Road up for rezoning as commercial or light industrial aviation-related development," Friends of French Prairie President Ben Williams said.

Finally, the court rejected defendants' argument that projects in the master plan did not need to comply with certain land use goals because projects were not expansionary, i.e. would not "permit service to a larger class of airplane." Jacobson said the airport had already brought in larger planes but that improvements will make that easier and potentially more prevalent. Airport proponents have advocated for the runway extension to improve flight safety.

What this ruling means for the current master planning process remains to be seen. However, the city of Wilsonville, Rep. Courtney Neron, D-Wilsonville, and Rep. Susan McLain, D-Hillsboro, have already voiced displeasure about the composition of the advisory committee that will help oversee the update, which has fewer citizen interest groups and more business interests involved in the process than during the controversial 2011 update. Officials have posited that business interests have undue influence over airport planning.

"I don't have a high level of confidence," Williams said about the potential for an improved planning process. "What has happened so far looks very much like starting the same troubled process that began in 2009 all over again."

He also felt that the prospect for legal battles to continue after the completion of the new plan update was highly likely.

Stansbury said she did not close the door on the possibility of amending committee representation.

"We tried to get a balanced group that represented all types of interest in the airport and surrounding communities," she said. "We tried to include agriculture and education, Marion County, Clackamas County, the cities of Wilsonville and Aurora; we tried for a broad representation. If there needs to be any tweaks to that I'll consider Rep. Neron and Rep. McLain's letter."

The Spokesman could not reach attorneys representing airport businesses, which intervened in the case, for comment.

Charbonneau Country Club wants placement on Aurora Airport committee

By Corey Buchanan, Wilsonville Spokesman

June 22 2021

<https://pamplinmedia.com/wsp/134-news/512842-410217-charbonneau-country-club-wants-placement-on-aurora-airport-committee>

The homeowners association says it will bear the consequences of decisions made.

Local organizations, including the Charbonneau Country Club homeowners association, are lobbying the Oregon Department of Aviation to reserve spots for them on a committee that will oversee the upcoming Aurora State Airport master planning process.

Friends of French Prairie, an organization focused on farmland preservation, and the Aurora-Butteville-Barlow Community Planning Organization have joined CCC in sending letters to ODA Director Betty Stansbury asking for inclusion on the Planning Advisory Committee for the formulation of the master plan update. The committee will advise the planning effort but doesn't have decision-making power.

The department is undergoing the effort after the Federal Aviation Administration stipulated that it needed to do so to receive federal grants. The process will include assessing current and future facility needs.

Last week the city of Wilsonville, Rep. Courtney Neron, D-Wilsonville, and Rep. Susan McLain, D-Hillsboro, raised concerns that the proposed committee wouldn't have representation from community groups. The committee is also slated to have a higher percentage of business-interest representatives than the committee that advised the 2012 master plan, which has faced legal challenges from the city of Wilsonville, Aurora and others for the past two years. Stansbury told the Spokesman last week she was open to tweaking committee representation but hadn't decided yet.

Charbonneau has a strong contingent of folks who have aired concerns about noise and pollution from the airport and vehemently disagree with plans for expansion, especially a proposed and long-disputed runway extension project. The CCC also said they're concerned about property values, traffic and road construction.

"The greatest number of people, approximately 3,000 residents (1,627 residences), live in our well-planned and popular community less than 9,000 feet from the north end of the Aurora Airport runway. Take-offs and landings are increasingly disruptive to the quality of life in our community, local roads are increasingly congested and concerns about air and water pollution are increasing among area residents," CCC homeowners association president Gary Newbore wrote in a letter. "For these facts alone, Charbonneau's strong voice should be heard regarding proposed changes that impact the quality of their lives, health or property values, and the effect on our 13 neighborhood homeowners associations. We will be the ones who will live with the consequences of the decisions made about the future of the Aurora State Airport and the use of federal taxpayer funds to make changes at this airport."

As currently proposed, the cities of Wilsonville, Canby and Aurora are included in the committee along with Clackamas and Marion counties, seven businesses, the business-affiliated Aurora Airport Improvement Association and Positive Aurora Airport Management groups, the

Wilsonville Area Chamber of Commerce, four state agencies and the North Marion School Board.

Along with CCC, McLain and Neron also wanted Deer Creek Estates (a mobile home park in Aurora) to be involved in the process.

"While we appreciate that the department has accounted for business and economic interests with nine representatives, we believe the nearby communities of Charbonneau and Deer Creek Estates, community planning organizations (CPOs), conservation and land-use groups, seismic safety, wildfire and emergency management experts need to be included in the Public Advisory Committee (PAC) representation, as well," Neron and McLain wrote in a letter to Stansbury.

"We note their absence in the current PAC composition and hope you will consider adding their diverse perspectives to the process."

Appeals court halts efforts to extend runway at Aurora Airport

Bill Poehler, Salem Statesman Journal

June 23, 2021

<https://www.statesmanjournal.com/story/news/2021/06/23/oregon-appeals-court-halts-efforts-extend-runway-aurora-airport/5312110001/>

Oregon's aviation authority tried to circumnavigate the state's land-use system in adopting a plan to extend the runway at Aurora State Airport, the state's Court of Appeals determined.

The state's Land Use Board of Appeals' decision to uphold the aviation board's plan was flawed because "there is no evidence in the record to support LUBA's erroneous findings" in the case, the court said in reversing and remanding the body's decision.

The court said that the Land Use Board of Appeals "misunderstood its task" and mistakenly relied on testimony from Department of Aviation staff and associated businesses around the airport when making its decision.

The airport, located just outside the Aurora city limits, is the third busiest in Oregon and one of 28 the state owns.

For years, the state and associated businesses advocated to extend the runway to 6,004 feet from its current 5,004 feet, arguing it wouldn't be used for allowing bigger aircraft, but would allow the planes that currently use it to fly out with larger fuel loads.

The appeal of the December 2020 ruling by LUBA was brought by Aurora planning commission chair Joseph Schaefer, who was joined by land-use advocacy groups and the cities of Aurora and Wilsonville, against the state's Department of Aviation and the Aviation Board. Several businesses that are based out of the airport joined the case on the state's side.

The Court of Appeals reversed LUBA on issues including:

- The airport's 2011 master plan was not in the state or LUBA records.
- The expansion can't be justified solely because the airport is in a rural area.
- The board incorrectly construed state law by saying the proposed changes wouldn't allow a larger class of airplane and that the plan complies with the state's land-use goals.

"It is a pretty important case because it does talk about the relationship of this state agency and (the associated businesses). It is remarkable," said Edward J. Sullivan, former legal counsel to Gov. Bob Straub and professor in planning and land use law at Willamette, Lewis & Clark and Portland State.

The plan that was never completed

The case stems from the Department of Aviation starting a new master plan for the airport in 2009.

In 2011, the state's aviation board adopted the new master plan. But the Federal Aviation Administration rejected the "displaced threshold" option for the runway extension in that plan, and the master plan was modified in 2012.

The state applied to the Federal Aviation Administration for over \$30 million in 2018 to extend the airport without it being in the most recently legally adopted master plan, which came in 2000. It wasn't awarded the funds.

In 2019, the Aviation Board voted to adopt the findings from the 2012 airport plan after Department of Aviation director Betty Stansbury backtracked on a letter in which she stated the plan had not been submitted for adoption.

The 2012 master plan was never formally approved or adopted by the Oregon Aviation Board, the Court of Appeals found, rejecting that the 2019 adoption was a component of the final decision.

In its December opinion, LUBA excluded the 2011 master plan from the record and found the 2012 master plan did not propose development on exclusive farm use.

But the Court of Appeals found that LUBA "misunderstood its task" and relied on testimony from associated businesses that the state did not intend to extend the runway on land zoned for farm use.

"There's all this stuff trying to undercut the land-use system. At least this time these guys got called out on it," said Ben Williams, president of land-use advocacy group Friends of French Prairie, one of the petitioners in the case.

The state argued that the master plan was not a land-use decision, and that component would be determined later by Marion County.

As the 2012 master plan was not properly adopted, Williams said, the airport will be required to have a new master plan.

Oregon Department of Aviation planning and projects manager Heather Peck told the Marion County commissioners in May the state is at the beginning of updating the Aurora Airport master plan and will be seeking money for that.

The Court of appeals found that airport development is not an allowed use on land zoned for farm use.

What's next?

With the decision, LUBA is required to reconsider its 2020 decision and determine whether the master plan complies with Oregon's agricultural lands policies.

The Department of Aviation and the Oregon Aviation Board have 35 days, until July 14, to file a notice of intent to appeal the ruling to the Oregon Supreme Court.

"The grounds for taking something up to the Supreme Court, is it just merely wrong or is it important and wrong? If a party who did not prevail tries to take it up they bear that burden," Sullivan said.

"I would say that maybe 1 out of 20 cases is accepted for review. It's a hard sell."

It's unclear whether the defendants will appeal.

“Supporters and businesses of the airport are still looking into the court’s ruling and how it impacts the long-planned safety improvements,” the Friends of Aurora Airport, which represents business interests involved as defendants in the case, said in a statement.

“Regardless, the ruling doesn’t distract our airport or our businesses from doing what we’ve always done best — conducting work that is mission-critical to local communities. It has long been the mission of the Aurora State Airport to be the safest and most emergency-ready general aviation airport in the state. We will keep striving toward that every day.”

Unless the Supreme Court takes the case and overturns the latest ruling, the long-sought runway extension has to go back to the drawing board.

“We won round two with a knockout,” Williams said.



June 17, 2021

Martha Meeker, Chair, Oregon Aviation Board
 Betty Stansbury, Aviation Director
 Oregon Department of Aviation

Sent via email to:
aviation.mail@aviation.state.or.us
betty.stansbury@aviation.state.or.us

RE: 2021 Aurora State Airport Master Planning Process

Chair Meeker and Director Stansbury:

As the State Representative for one of the impacted communities and as Chair of the Joint Committee on Transportation, we write to you with both appreciation for the task at hand and with counsel for a smooth and inclusive process aligned with Oregon Land Use Goal 1 for Citizen Involvement and Goal 2 for Land Use Planning.

We appreciate that on June 3, 2021 the Aviation Board approved acceptance of an FAA AIP Grant for funding of the Aurora State Airport Master Plan update. This aligns with proposed legislation introduced in the 2021 session (HB 2497) that, among other provisions, would have required the Department to develop a new master plan update for the Aurora State Airport. We are pleased to see that the Department is advancing the new master plan update in a timely manner without the need for legislative mandate. As legislators, we hope to look to the work you are embarking on as a model for how a master planning process should proceed.

We believe the State Master Plan process should create an inclusive table for a comprehensive conversation. Best standards and practices must make sure that those that are part of the dialogue feel heard and respected. Thoughtfully adding diverse voices from impacted communities will assist in this goal and show the Oregon Department of Aviation is committed to hearing all voices. Community impact, environmental impact, economic impact and emergency preparation, must be part of the robust planning and conversation and planning. Effective collaboration will result in a resilient, strategic, and functional airport plan that is responsive to its state and local roles.

It is our sincere hope and expectation that the Oregon Department of Aviation will incorporate additional components of HB2497 relative to public engagement and collaborative state and local intergovernmental planning throughout the process, in order to ensure the best possible service to our communities, honor existing land use goals, produce an agreeable outcome, and avoid the need for future legislation.

Elected leaders of Aurora and Wilsonville, located closest to the Aurora State Airport facility and

flight paths, have indicated their concerns to the legislature regarding the need for the Department to consider important issues impacting local communities. The mayors of Aurora and Wilsonville seek to discuss land-use planning, surface transportation impacts, public infrastructure provision, agriculture-sector effects, environmental concerns and quality-of-life issues pertaining to noise and overflights with the Department. The new master-planning process is a logical place for such conversations and we hope that the Department will take full advantage of the opportunity to improve agency communications in a public forum.

While we appreciate that the Department has accounted for business and economic interests with nine representatives, we believe the nearby communities of Charbonneau and Deer Creek Estates, community planning organizations (CPOs), conservation and land-use groups, seismic safety, wildfire and emergency management experts need to be included in the Public Advisory Committee (PAC) representation, as well. We note their absence in the current PAC composition and hope you will consider adding their diverse perspectives to the process.

Being mindful of the PSU Oregon Solutions' "Aurora State Airport Assessment Report", commissioned by the legislature in 2018 that found a number of issues relative to agency planning efforts and public engagement, we anticipate that the Oregon Department of Aviation has plans to correct these issues. It is our sincere hope that the Department moves forward with an understanding of the importance of conducting an open public process for the Aurora State Master Plan that engages local communities and all stakeholders.

Given the amount of public interest and significant issues of local concern regarding the Aurora State Airport, we request that the Department undertake a transparent, inclusive and comprehensive public process with model structure that complies with Oregon's Land Use Planning Goals.

Thank you for your consideration of our concerns and expectations. We stand ready to support the process and we welcome further dialogue with the Oregon Department of Aviation throughout the phases of planning and implementation.

Sincerely,

Representative Courtney Neron, HD-26



Representative Susan McLain, HD-29





June 14, 2021

Martha Meeker, Chair, Oregon Aviation Board
 Betty Stansbury, Aviation Director
 Oregon Aviation Board
 Oregon Department of Aviation
 3040 25th Street SE
 Salem, OR 97302

Sent via email to:
aviation.mail@aviation.state.or.us
betty.stansbury@aviation.state.or.us

RE: Proposed 2021-22 Aurora State Airport Master Planning Process

Dear Chair Meeker and Director Stansbury:

Several members of Wilsonville City staff attended the June 3, 2021 Oregon Aviation Board meeting, wherein the board accepted the FAA's AIP Grant for the funding of a new comprehensive Aurora State Airport Master Plan update. Needless to say, Wilsonville is pleased to hear that an updated Master Plan will be done, using what you both stated will be an all-inclusive and transparent process.

What Wilsonville is not pleased to see, however, is the proposed composition of the Master Plan Public Advisory Committee (PAC), which appears to be packed with self-serving special interests. In the past, both Wilsonville and Aurora, the two host communities located closest to the Aurora State Airport, have found the Department's lack of responsive communications and unwillingness to consider important issues impacting the local communities extremely troublesome. During this new Master Plan process, the mayors of Aurora and Wilsonville certainly hope to have an open dialogue with you concerning land-use planning, surface transportation impacts, public infrastructure provision, ag-sector effects, environmental concerns, and quality-of-life issues pertaining to noise and overflights. While we are hoping this will be an open, fair, and transparent process, it is not getting started that way. Wilsonville, its citizens, and its constituents are extremely concerned about the lopsided representation of vested financial interests in the proposed composition of the proposed PAC.

ODA has certainly accounted for airport business interests, with 10 representatives that constitute the majority of the PAC. The PAC, however, lacks any representation from other important members of the area community, including the nearby HOAs of Charbonneau, Prairie View Estates, and Deer Creek Estates, as well as public-interest bodies, including community planning organizations (CPOs) such as Aurora-Butteville-Barlow CPO and conservation/land-use groups, including 1,000 Friends of Oregon and Friends of French Prairie. A fair and open process requires equitable representation of both sides of any given interest. Therefore, we ask that you please add the above participants to equitably counter balance all of the airport special interest groups and also think about removing some of the duplicative special interest members. If Wilsonville is going to find this to be a fair and open process, there need to be voices on the PAC without direct financial interests at stake in expanding airport operations and extending the runway.

Martha Meeker
 Betty Stansbury
 June 14, 2021
 Page 2

It is interesting to compare the composition of the proposed PAC for this 2021 Master Plan to the last go-around:

Composition of Proposed 2021-22 Public Advisory Com (PAC):

- 10 business interests reps – 43%
- 6 local gov't reps – 26%
- 5 state gov't reps – 21%
- 1 federal gov't rep – 5%
- 1 public interest rep – 5%
- **0 citizen interest reps – 0%**

Composition of 2010-12 Planning Advisory Com (PAC):

- 6 business interest reps – 38%
- 5 local-gov't reps – 31%
- **4 citizen interests reps – 25%**
- 1 state gov't rep – 6%

At the June 3 Board meeting there were several statements made about trying to push this Master Plan through in 18 months or less, rather than the standard 24-month time frame. There was also a discussion of whether an environmental assessment of any kind could be avoided. Rushing this Plan and avoiding the critical environmental work is not a good idea if ODA is hoping to avoid future litigation.

Cumulatively, between ODA's packing the PAC with airport special interests and rushing the Master Planning process, we are getting a negative sense of déjà vu. I attach, for your reference, a letter written by some of the PAC members from the last 2010-12 Master Plan, who expressed "grave concerns" that participation in the process was not intended to be meaningful:

"As local-government and community-organization members of the Planning Advisory Committee (PAC) to the Aurora State Airport Master Plan, we have grave concerns that our participation in the process is not intended to be meaningful.

* * * * *

"[W]e are very concerned that the Aurora Airport master planning process is being rushed on a condensed schedule—reduced by one-third from the original timeline—without adequate discussion of issues at the PAC level in order to satisfy preconceived outcomes of a few special interests that may be detrimental to the greater public good.

* * * * *

"This is not the meaningful public-input practice that the Federal Aviation Administration (FAA) recommends for stakeholders in the master-planning process."

On a final note concerning the June 3, 2021 meeting, it was surprising to find that at a meeting that did not advertise or invite public testimony, an attorney who claimed to represent all of the airport businesses was allowed to present a lengthy argument about how a Master Plan

Martha Meeker
 Betty Stansbury
 June 14, 2021
 Page 3

update was not needed, nor was any environmental assessment, but rather ODA should instead focus on getting that runway extended now. Fortunately, Chair Meeker clearly articulated that ODA has no funds to do so without going through the FAA's required Master Plan update first. That being said, providing the lawyer for one side of the Aurora State Airport controversy unfettered time to lobby the Board appears to demonstrate, once again, ODA's apparent airport expansion bias, as opposed to advancing a fair and equitable Master Plan process.

As this new and hopefully more open and transparent process begins, we are especially mindful of the PSU Oregon Solutions' "Aurora State Airport Assessment Report," commissioned by the legislature in 2018, that found a number of problems with agency planning efforts and public engagement. We anticipate and expect that the Department's leadership intends to correct these deficiencies and understands the importance of conducting an open public process for the Aurora State Airport Master Plan that engages local communities and all stakeholders.

I understand one of your Board members expressed concern that the new Master Plan update might just generate more protracted litigation. We certainly hope not. Given the great amount of public interest and significant issues of local concern regarding the Aurora State Airport, we expect that the Department will, in fact, seek to undertake an open, transparent public process for all interests, that is not rushed and that complies with Oregon's Planning Goals, specifically Goal 1 Citizen Involvement and Goal 2 Land Use Planning.

Thank you for your consideration.

Sincerely,



Julie Fitzgerald
 Mayor, City of Wilsonville

Enc. (1)

cc: Oregon Aviation Board
 Members of the Oregon Congressional Delegation:
 Senator Ron Wyden
 Senator Jeff Merkley
 Congressman Kurt Schrader
 Aurora Mayor Brian Asher
 Members of the Oregon Legislature:
 Speaker Tina Kotek
 Senate President Peter Courtney
 Representative Susan McLain (HD 29)
 Representative Courtney Neron (HD 26)
 Representative Christine Drazan (HD 39)
 Senator Bill Kennemer (SD 20)
 Clackamas County Board of County Commissioners

**Members of the Planning Advisory Committee
to the Aurora State Airport Master Plan**

Charbonneau Country Club • City of Wilsonville • Clackamas County
Deer Creek Estates • Friends of Marion County

Mark Gardiner, Chair
State Aviation Board
Oregon Department of Aviation
3040 25th St. SE
Salem, OR 97302-1125

September 14, 2010

**RE: Request for meeting to discuss Aurora State Airport master planning
process and role of the Planning Advisory Committee**

Dear Mr. Gardiner:

As local-government and community-organization members of the Planning Advisory Committee (PAC) to the Aurora State Airport Master Plan, we have grave concerns that our participation in the process is not intended to be meaningful. We see serious deficiencies in how the process is being conducted by the consultant, W.H. Pacific, and we seek to resolve these issues of concern.

In a nutshell, we are very concerned that the Aurora Airport master planning process is being rushed on a condensed schedule—reduced by one-third from the original timeline—without adequate discussion of issues at the PAC level in order to satisfy preconceived outcomes of a few special interests that may be detrimental to the greater public good. It seems fairly clear that the consultant intends to march steadily through construction of ‘chapters’ of the master plan, according to a predetermined timetable, regardless of whether or not there has been adequate discussion at the PAC of the issues. This is not the meaningful public-input practice that the Federal Aviation Administration (FAA) recommends for stakeholders in the master-planning process.

The FAA is quite clear, as outlined in the document ‘Airport Master Plans,’ AC 150/5070-6A, that **stakeholders must have an early opportunity to meaningfully comment before major decisions are made.** Stakeholders in the master-planning process have been asked to enunciate their individual goals, but there has been no discussion on how to integrate these into establishing the ‘strategic role’ and the ‘study goals’ as outlined by the FAA. ODA and consultant W.H. Pacific have specifically rejected the establishment of a ‘vision’ for the Airport as a starting point, something several members of the PAC requested at the outset of the process.

We observe from the conduct of ODA that installation of an air traffic control tower is being actively pursued prior to development of the new master plan and without consultation with the PAC. The fact that ODA is acquiring funds to build a control tower in the absence of any cost estimate and without first conducting planning demonstrates a serious lapse in judgment. ODA has indicated that concurrent to the master plan update, the agency has contracted for an air traffic control tower siting study; again an issue that the PAC should discuss has been arbitrarily removed the planning process.

Further, it seems clear that the role of the PAC has been deliberately marginalized. The forecast of future activity at the airport has apparently been compiled and is about to be sent to the FAA for

approval without any advance discussion with the PAC. It is notable that there is no accurate information available on current activity levels, since there are no records of landings and take-offs. Any methodology used to generate undocumented current activity numbers to use as a starting point for future usage projections surely should require very close scrutiny. But the PAC has not been given that opportunity for review and discussion.

Despite the absence of any discussion of the 'strategic role' and 'study goals' and any review of the activity forecast with the PAC, the process developed by the consultant, under the direction of ODA, appears to be one of justifying the preconceived idea that runway expansion and strengthening is required at Aurora Airport. The Scope of Work, dated June 19, 2009, states on page 3 that consultant "W.H. Pacific will prepare a letter on behalf of ODA to request statements [presumably from large jet operators] to *help justify* an extension" of the runway (emphasis added). This would seem to clearly demonstrate an intent that undermines any pretense of a meaningful process.

We are not aware of any impact analysis based on a forecast of future activity that was developed. In short, this appears to leave the simplistic assumption that if the demand can be somehow justified, then it must be supplied, no matter the impacts. Common sense tells us that increasing the size and types of airplanes, and the increase in the frequency of their use, will have impacts. Going from a general aviation airport with mostly small, propeller-and-piston-engine light-airplane and smaller jets under 45,000 pounds to an airport catering to larger, heavier turbine-engine jet aircraft calls for a serious, reasoned analysis of impacts.

The Aurora State Airport is located in the French Prairie area of "foundation farmland," which the Oregon Department of Agriculture indicates contains Oregon's highest-quality agricultural soils, and has been able to co-exist with its neighbors as a small-aircraft airport. However, the airport is within a mile of the Portland Metro Urban Growth Boundary and dense residential development to the north. There are serious traffic-congestion problems on roads around the airport and on nearby Interstate 5 at the Boone Bridge "bottleneck" over the Willamette River. As the FAA document 'Airport Master Plans' makes clear, the regional setting of the airport must be examined "because the impact of airport planning decisions can extend well beyond the airport property line." What will be the impacts of this greater development at the airport be on noise, pollution, the surrounding farm lands, off-site surface transportation facilities including the interstate highway, and nearby residential areas? What, if any, mitigation should occur?

While the PAC's role has been marginalized, ODA plans to select interviewees outside of the PAC and master-planning process who will be asked to give their views on at least one of the major master-planning issues. The Scope of Work, page 8, states that "up to 20 people [will be interviewed] regarding future activity at the airport." That is a critical task. Who are these people and how has ODA directed the consultant to choose them? What meaningful process is there for the PAC in this regard? Again, there has been no discussion by the consultant with the PAC on this matter.

The Scope of Work, page 5, lists the main areas under which data will be collected. Under Item E, Environmental Inventory, there is no mention of collecting data on noise and traffic impacts on nearby communities and on their transportation infrastructure, key aspects listed by the FAA on page 123 with the title 'Environmental Overview for Master Plan Purposes,' FAA AC 150/5070-6B. Nor

is there any discussion in the Scope of Work of National Environmental Policy Act (NEPA) requirements and whether or not an Environmental Impact Statement (EIS) is required. The Scope of Work states that noise contours will be developed, but only to show existing conditions and those five years into the future. As the activity forecasts will be generated for five years, 10 years and 20 years into the future, the noise contours should be developed for the same time periods.

We are very concerned that the Aurora Airport master planning process is being rushed through on a condensed schedule without adequate discussion of the issues at the Planning Advisory Committee level in order to satisfy the preconceived outcomes of a few special interests. This is not the meaningful, due process input the FAA intended in their Master Plan process.

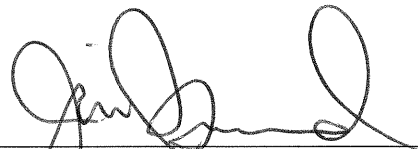
We respectfully request that a meeting be arranged at the earliest opportunity for the undersigned with you, the Acting Director of ODA, the consultant, and appropriate representatives of the FAA to discuss these concerns. Furthermore, we request that this letter be memorialized as a part of the record of the Aurora Airport Master Plan update. Too many issues of previous inside dealings connected with ODA's handling of matters at the Aurora Airport have recently come to light, and it is important that now, under new management direction, ODA not be a part of a process that lacks meaningful input, good planning, and transparency.

We thank you for your time and consideration.

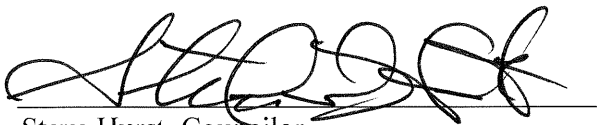
Respectfully submitted by the undersigned members of the Planning Advisory Committee to the Aurora State Airport Master Plan.



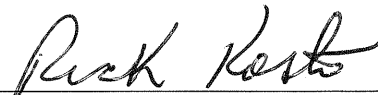
Tony Holt, Chair, Civic Affairs Committee
Charbonneau Country Club



Jim Bernard, Commissioner
Clackamas County Board of Commissioners



Steve Hurst, Councilor
City of Wilsonville City Council



Rick Kosta, President
Deer Creek Estates Homeowners' Association



Roger Kaye, President
Friends of Marion County



August 8, 2018

Honorable Kate Brown
Governor
900 Court Street, Suite 254
Salem, OR 97301-4047

Honorable Peter Courtney
Senate President
900 Court St. NE, S-201
Salem, Oregon 97301

Honorable Tina Kotek
House Speaker
900 Court St. NE, Rm. 269
Salem, Oregon 97301

RE: Request to Cancel Oregon Department of Aviation application to Federal Aviation Administration (FAA) for funds to extend the Aurora State Airport runway

Dear Governor Brown, President Courtney and Speaker Kotek:

We have just learned that the Oregon Department of Aviation (“ODA”) intends to apply today for federal funding for a \$33 million project to extend the runway by 1,000 feet of the Aurora State Airport. As the elected leaders of Clackamas County and the City of Wilsonville, we believe that this application is premature until the proposed project undergoes the required public-involvement process to assess potential impacts of a major airport expansion and mitigation strategies to address those impacts. We therefore request your assistance to table the pending application by ODA as referenced in a July 27, 2018, letter to the Senate President and House Speaker.

In June 2010 ODA agreed to exclude Clackamas County and the City of Wilsonville from the Intergovernmental Agreement on the Coordination of Growth Management and Transportation Issues (“IGA”) pertaining to the Aurora State Airport. The IGA contained an exhibit showing a “gerrymandered” Aurora Airport Impact Area map where the 10,000-foot impact area from the airport runway intentionally excludes lands under the jurisdiction of the County and City.

The subsequent 2012 Aurora State Airport Master Plan failed to follow state law in terms of public process and resulted in an Oregon Aviation Board decision to extend the runway that was contrary to the findings and conclusions in the plan. A project of this magnitude with potential, substantial impacts to nearby surface transportation facilities, area quality-of-life, and a vital agricultural economic cluster requires a robust public-input process. Due to a lack of public review of the proposed runway extension, neither impacts nor mitigation strategies have been considered.

The County and City have a valid public interest in protecting the welfare of our residents and businesses. We respectfully request that the proposed ODA grant application to the FAA be withdrawn and a new IGA be drawn-up that includes all of the local jurisdictions in the airport impact-area and the Oregon Department of Transportation. Furthermore, we call for a new Aurora State Airport master plan to be developed that meaningfully engages the public. We can state unequivocally that the County and City are committed to working with all of the stakeholders surrounding the Aurora State Airport in an open and transparent manner. Thank you for your time and consideration.

Sincerely,

Jim Bernard, Chair
Clackamas County Board of Commissioners

Tim Knapp, Mayor
City of Wilsonville City Council

Enclosures (6)

cc: FAA—Randall Fiertz, NW Mountain Region Airports Div. Director; Joelle Briggs, Seattle Office Dist. Manager
ODA—Martha Mickelson, Oregon State Aviation Board Chair; Brian DeForest, Interim Director

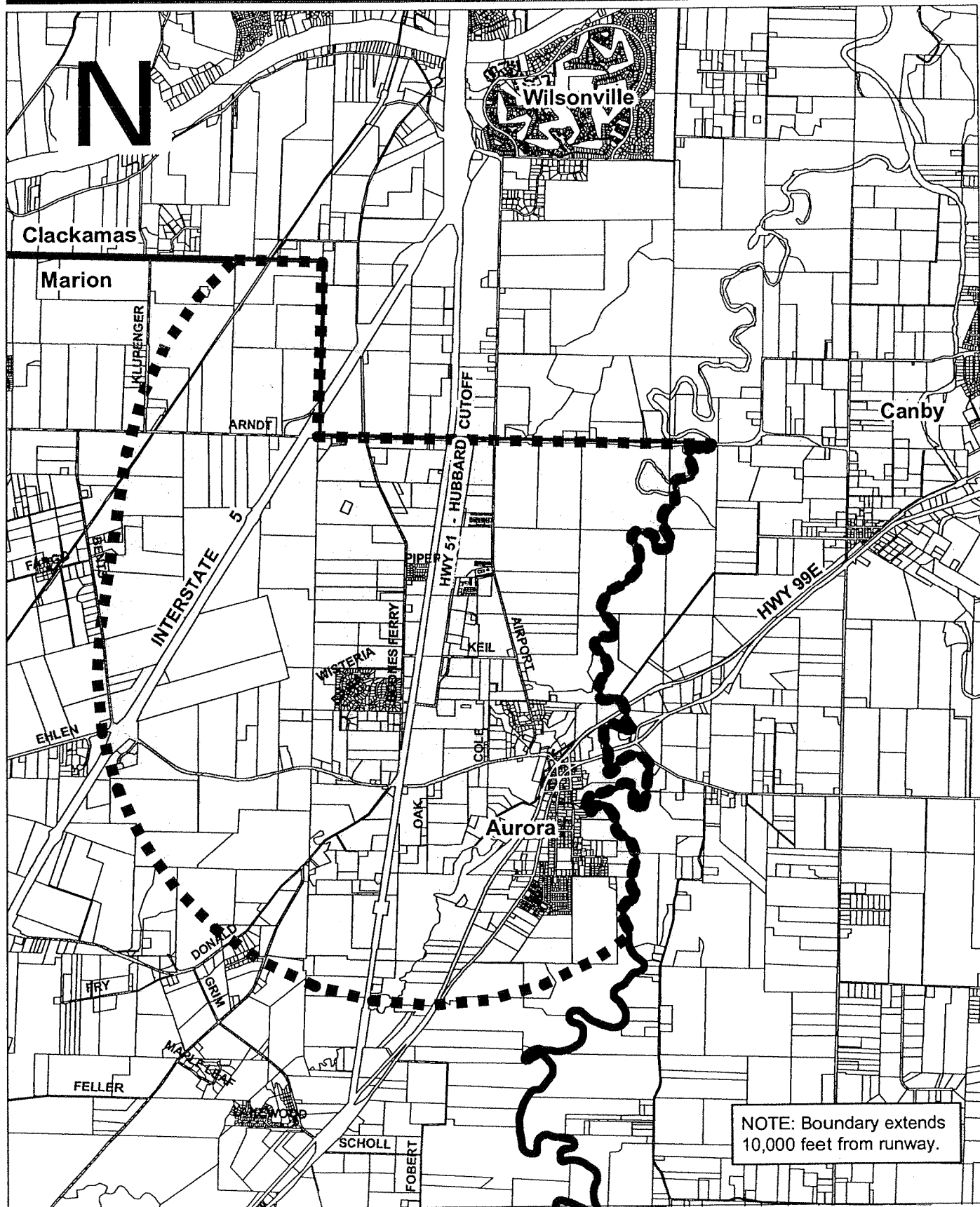
APPENDIX 11 - PUBLIC COMMENTS 2018

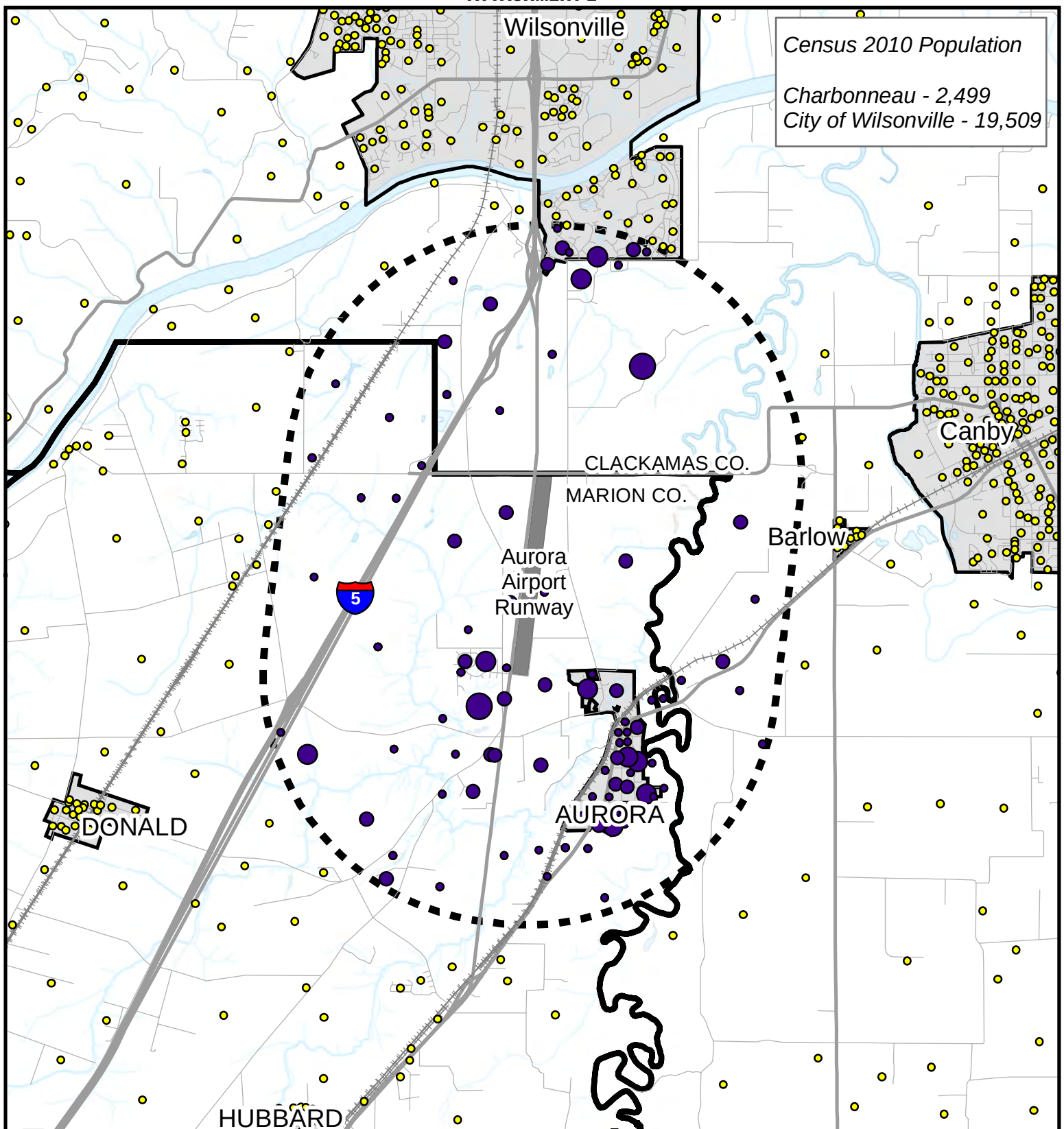
A11D0719

Aurora Airport Impact Area - Exhibit A

Marion County
Public Works

Date: 03/28/08 Project: 74511 request/Aurora 10000.mxd Prepared by: Bumble





Census 2010 Population
Charbonneau - 2,499
City of Wilsonville - 19,509

The City of Wilsonville, Oregon
Clackamas and Washington Counties

Aurora Airport

Census 2010 Population
in 10,000 Ft. Radius = 2978

APPENDIX 11D – PUBLIC COMMENTS 2025

10,000 Feet from Runway

Census Block Centers

Wilsonville 183
Aurora 860
Rural Clackamas County 623
Rural Marion County 1312

Population 2010

0 - 22
23 - 64
65 - 138
139 - 346
347 - 579



3/17/2015

0 Miles 1
A11D0721



Lynn Peterson
Chair

Commissioners
Bob Austin
Jim Bernard
Charlotte Lehan
Ann Lininger

BOARD OF COUNTY COMMISSIONERS

PUBLIC SERVICES BUILDING
2051 KAEN ROAD | OREGON CITY, OR 97045

November 3, 2009

Mr. Gregg Del Ponte
Acting Administrator
Oregon Department of Aviation
3040 25th SE
Salem, OR 97302-1125

Honorable Jim Meirow, Mayor
City of Aurora
21420 Main Street
Aurora, OR 97002

Honorable Patti Milne, Commissioner
Marion County Commission
Courthouse Square
555 Court Street N.E.
P.O. Box 14500
Salem, OR 97309-5036

Dear Director Del Ponte, Commissioner Milne and Mayor Meirow:

Consistent with our discussion concerning the Aurora Airport over the last several years, we are formally requesting that Clackamas County be added to the Aurora Airport Intergovernmental agreement as currently written.

With the commencement of the Aurora Airport Master Plan, the timing is good to have all of the local governments adjacent to the Aurora Airport at the table to discuss issues related to the Aurora State Airport planning and development.

We appreciate your favorable consideration of our request to join the Aurora Airport Intergovernmental agreement.

Sincerely,

CLACKAMAS COUNTY BOARD OF COMMISSIONERS

Lynn Peterson, Chair
On Behalf of the Clackamas County Board of Commissioners

LAP/sp/kjb



29799 SW Town Center Loop E
Wilsonville, Oregon 97070
(503) 682-1011
(503) 682-1015 Fax Administration
(503) 682-7025 Fax Community Development

November 20, 2009

Mr. Gregg Del Ponte, Acting Administrator
Oregon Department of Aviation
3040 25th SE
Salem, OR 97302-1125

Honorable Patti Milne, Commissioner
Marion County Commission
P.O. Box 14500
Salem, OR 97309-5036

Honorable Jim Meirow, Mayor
City of Aurora
21420 Main Street
Aurora, OR 97002

RE: Request to Join Aurora Airport Intergovernmental Agreement

Dear Director Del Ponte, Commissioner Milne and Mayor Meirow:

Consistent with our discussions concerning the Aurora Airport over the last several years, we are formally requesting that the City of Wilsonville be added as a partner jurisdiction along with Clackamas County to the April 2008 "Intergovernmental Agreement on the Coordination of Growth Management and Transportation Issues" pertaining to the Aurora Airport area ("Aurora Airport Intergovernmental Agreement").

With the commencement of the Aurora Airport Master Plan process, the timing is good to have all of the local governments adjacent to the Aurora Airport at the table to discuss issues related to the Aurora State Airport planning and development.

We appreciate your favorable consideration of our request to join the Aurora Airport Intergovernmental Agreement. Thank you for your time and consideration.

Sincerely,


Tim Knapp
Mayor

cc: Honorable Lynn Peterson, Commission Chair, Clackamas County





Marion County

OREGON

*Rec'd
6/22/10
JEL*

(503) 588-5212
(503) 588-5237 - FAX

BOARD OF COMMISSIONERS

Janet Carlson
Sam Brentano
Patti Milne

CHIEF ADMINISTRATIVE OFFICER

John Lattimer

June 21, 2010

Commissioner Lynn Peterson
Clackamas County
Board of Commissioners, Chair
2051 Kaen Road
Oregon City, Oregon 97045

✓
Mayor Tim Knapp
City of Wilsonville
29799 SW Town Center Loop E
Wilsonville, Oregon 97070

Dear Lynn and Tim *TM*

On behalf of Marion County, the Oregon Department of Aviation and the City of Aurora, I would like to present to you an updated, revised, and signed Intergovernmental Agreement regarding communications relating to the Aurora State Airport.

Over the past couple of years we have built strong working relationships that have allowed us to successfully face challenging issues that are of mutual interest to each of our individual jurisdictions. Maintaining open channels of communication will be critical as we continue to work together and face new challenges.

This revised agreement requires the signing jurisdictions to communicate with Wilsonville and Clackamas County about land use actions that affect the airport or are impacted by the airport.

As we all know, the state will begin the master plan process for the Aurora Airport with the first PAC meeting on July 22, at 6:00 p.m. in Charbonneau. We would like to invite you attend a meeting with Marion County, the City of Aurora and the Department of Aviation prior to that meeting. Please let me know your availability and we will schedule the meeting.

Please do not hesitate to contact me if you have any questions or suggestions.

Sincerely,

Patti
Patti Milne
Commissioner

cc: James Meirow, City of Aurora
Doug Hedlund, Oregon Department of Aviation

**INTERGOVERNMENTAL AGREEMENT ON
THE COORDINATION OF
GROWTH MANAGEMENT AND TRANSPORTATION ISSUES
BETWEEN
CITY OF AURORA, MARION COUNTY,
AND THE OREGON DEPARTMENT OF AVIATION**

This Agreement is entered into by and between the City of Aurora ("Aurora"), Marion County ("Marion County"), and the Oregon Department of Aviation ("ODA"), pursuant to ORS 190.003 to 190.110, which allows units of government to enter into agreements for the performance of any or all functions and activities which such units have authority to perform.

RECITALS

WHEREAS, the Aurora Airport Impact Area ("Impact Area") – Exhibit A is expected to experience substantial population and employment growth by the year 2050; and

WHEREAS, anticipated growth within the Impact Area will affect land areas within the jurisdictional boundaries of the City of Aurora, Marion County, and the State of Oregon Department of Aviation; and

WHEREAS, Aurora, Marion County, and the ODA wish to coordinate growth management and transportation related development processes and decisions within the Impact Area to ensure an appropriate opportunity is given for affected parties to review and address anticipated impacts; and

WHEREAS, to achieve this coordination, Aurora, Marion County, and the ODA are interested in identifying the Impact Area and establishing a process for coordination and cooperation; and

WHEREAS, Statewide Planning Goal 2 - Land Use Planning, requires that local government comprehensive plans and implementing measures be coordinated with the plans of affected governmental units and that local government, state and federal agency and special district plans and actions, relating to land use, be consistent with the comprehensive plans of cities and counties and regional plans adopted under ORS Chapter 197; and

WHEREAS, OAR 660, Division 12 requires coordination of state, regional and local transportation system plans establishing a coordinated network of transportation facilities to serve state, regional and local transportation needs; and

WHEREAS, ORS Chapter 836 and OAR 660, Division 13 requires planning and coordination of local, state and federal agencies to encourage and support the

continued operation and vitality of Oregon's airports and recognizes the interdependence between transportation systems and the communities on which they depend.

NOW, THEREFORE, Aurora, Marion County, and ODA agree as follows:

AGREEMENT

I. Purpose

The parties agree that they are mutually interested in and will work together to:

- A. Establish and amend, as necessary, the Aurora Airport Impact Area ("Impact Area") as identified on Exhibit "A" attached to this Agreement.
- B. Identify and resolve issues and concerns related to transportation and growth management in and around the Impact Area for the benefit of the parties as well as affected adjacent landowners, airport users, and other interested parties.
- C. Coordinate on growth management and transportation development decisions within the Impact Area.
- D. Encourage and support the continued operation and vitality of the Aurora Airport and recognize the interdependence between air and ground transportation systems within the Impact Area and the communities on which they depend.
- E. Provide notice and an opportunity to comment on land and transportation developments within the Impact Area which may reasonably affect the parties.
- F. Nothing in this Agreement shall be construed to require the parties to exercise jurisdiction beyond that which is required by state law.

II. Definitions

"Aurora Airport" means that area of land located at what is commonly known as the Aurora Airport that is designed, used or intended for use for the landing and take-off of aircraft, and any public or privately owned appurtenant areas and structures, including open space, used for airport buildings or other airport facilities or rights-of-way or which is located on lands located within the Marion County Public Zone.

"Impact Area" means the Aurora Airport, the Aurora Airpark, and those portions of North Marion County the development of which impacts the parties to this Agreement

and existing residents and businesses within each party's jurisdiction, as shown on the Aurora Airport Impact Area Map, attached as Exhibit A.

III. Amendment of Aurora Airport Impact Area Boundaries

- A. Impact Area boundaries may be amended by Marion County upon its own initiative or upon the written request of Aurora and/or the ODA.
- B. When amending boundaries, Marion County shall give notice to and work in cooperation and coordination with Aurora and the ODA, and shall consider the following factors:
 - 1. Existing and future land development;
 - 2. Existing and future local and state transportation corridors;
 - 3. Existing and future Aurora Airport usage and flight patterns; and
 - 4. Each affected jurisdictions' Comprehensive Plan boundaries and related goals and policies.

IV. Comprehensive Planning within the Impact Area

- A. Existing Comprehensive Plan designations and zoning, as currently designated by each party to lands within its jurisdiction, shall continue to apply to those lands within the Impact Area.
- B. Any party formally considering a Comprehensive Plan Amendment for lands within Impact Area boundaries shall provide for notice and opportunity for comment to the other parties to this Agreement in a manner provided in Article VI below.
- C. Special plans and studies undertaken that involve lands within the Impact Area such as infrastructure, environmental, or economic planning shall be shared amongst the parties.

V. Land Use Development and Coordination within the Impact Area

- A. This Agreement shall have no effect on the current local and statutory zoning and regulatory authority of each jurisdiction within the Impact Area boundaries, nor any existing intergovernmental agreements between the parties.
- B. Aurora and Marion County respectively agree to provide ODA, Wilsonville, and Clackamas County, with notice and an opportunity to comment, in the same manner as currently required for affected property owners by their

respective development codes for land use applications within the Impact Area. The parties shall provide each other with requested data, maps, and other information in hard copy or digital form in a timely manner.

- C. ODA shall provide Aurora, Wilsonville, Clackamas County, and Marion County with notice and opportunity to comment for all Airport Master Plan amendments, new access agreements (through-the-fence agreements), and for proposed development or infrastructure improvements, relative to the Aurora Airport.
- D. The parties shall discuss and work cooperatively to determine whether specific uses which would otherwise be permitted within existing exception areas under County zoning should be prohibited or restricted within the Impact Area to implement the purposes of this Agreement.

VI. Notice and Coordination Responsibilities

- A. Aurora and Marion County each shall provide ODA, Wilsonville, and Clackamas County with notice and an opportunity to comment prior to the first scheduled public hearing, in the same manner provided to property owners in their applicable codes, for all of their respective legislative plan amendments, zone changes, or new land use regulations and amendments affecting property within the Impact Area.
- B. Aurora and Marion County each shall provide ODA, Wilsonville, and Clackamas County with notice and an opportunity to comment prior to all of their respective administrative or public hearing actions, in the same manner provided to property owners in their applicable codes, for any quasi-judicial development applications (including, but not limited to, plan and zoning code amendments, conditional use permits and design review) within the Impact Area.
- C. ODA shall provide reasonable notice and opportunity to comment to Aurora, Wilsonville, Clackamas County, and Marion County for all Airport Master Plan amendments, new access agreements (through-the-fence agreements), and for its proposed development or infrastructure improvements, relative to the Aurora Airport.
- D. In order to fulfill the cooperative planning provisions of this Agreement, Aurora, Marion County, and ODA shall provide each other with all requested reasonable data, maps, and other information in hard copy or digital form in a timely manner.

VII. Amendments to this Agreement

This Agreement may be amended in writing by the agreement of all parties and may be reviewed by the parties at any time.

VIII. Termination

This Agreement may be terminated by any party as to the rights and responsibilities of that party within 60 days written notice to the other parties. Termination of the rights and responsibilities of one or more parties does not affect the rights and responsibilities of the remaining parties as to each other.

IX. Reservation of Rights and Authorities

This Agreement is intended only to achieve the purposes set forth in Section I of the Agreement and is not intended to create any right or responsibility which is legally enforceable by any person or entity against any Party and creates no rights in third parties or the right to judicial review regarding the acts or omissions of any Party. Each Party reserves all rights or authorities now or hereafter existing and nothing in this Agreement waives or forecloses the exercise of any such rights or authorities.

X. Severability

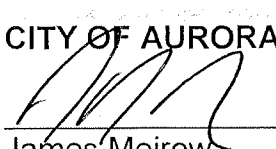
If any section, clause or phrase of this Agreement is invalidated by any court of competent jurisdiction, any and all remaining parts of the Agreement shall be severed from the invalid parts and shall remain in full force and effect.

XI. Effective Date

This Agreement is effective on the date it is fully executed.

IN WITNESS THEREOF, the respective parties have caused this Agreement to be executed by their authorized officer or representative on their behalf:

CITY OF AURORA


James Meirow
Mayor, City of Aurora

6/8/10
Date

ATTEST:

By: _____
City Recorder

MARION COUNTY

Janet Carlson
Janet Carlson
Chair, Board of Commissioners

6/7/10
Date

ATTEST:

By: _____
Recording Secretary

Approved as to form:

Sharon M. Roy 06/07/10
Legal Counsel

APPROVED AS TO FORM:

Peggy Mitchell 6/7/10
Marion County Contracts Date

OREGON DEPARTMENT OF AVIATION

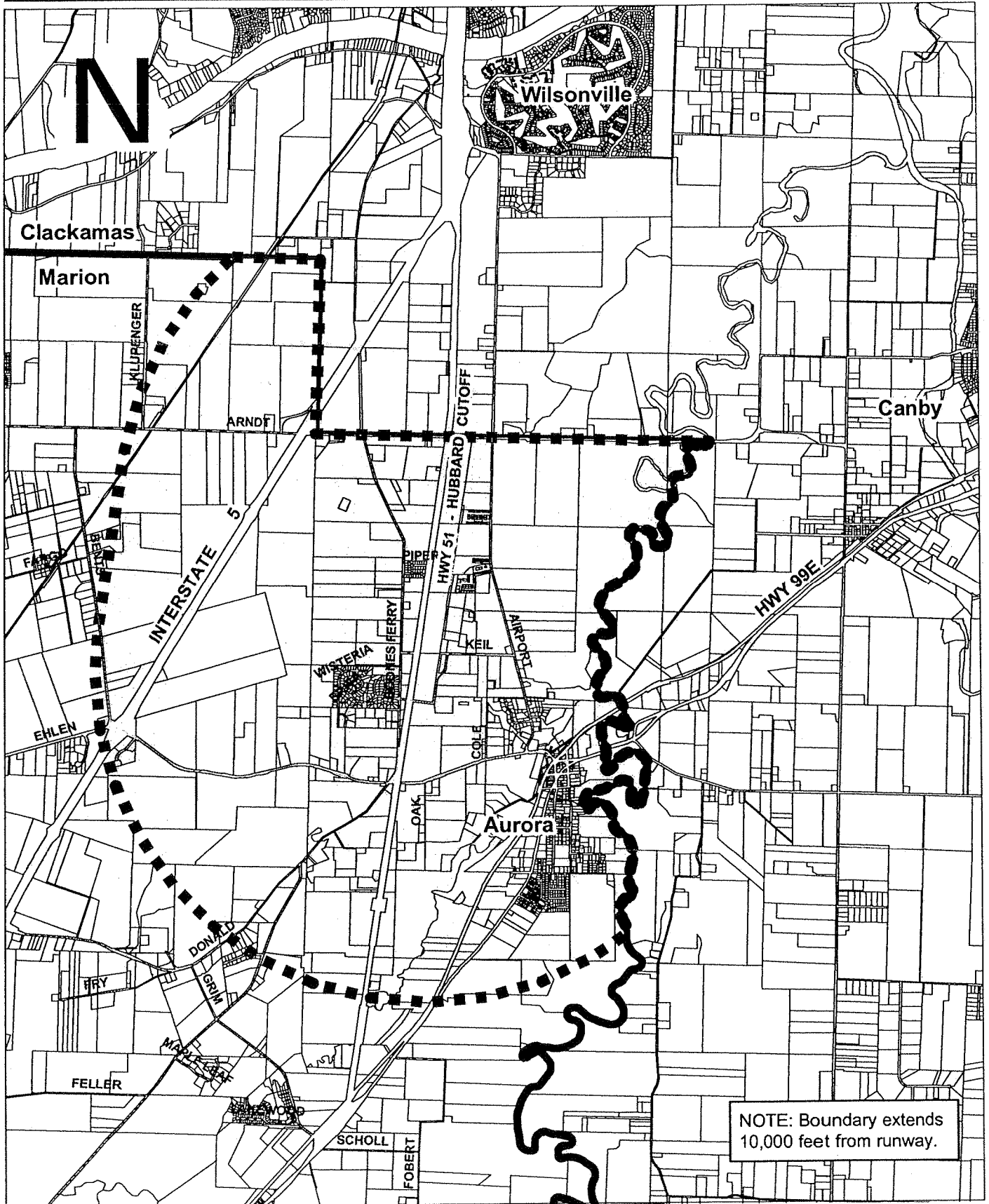
Doug Hedlund
Doug Hedlund
Director, Oregon Department of Aviation

6/8/10
Date

Aurora Airport Impact Area - Exhibit A

Marion County
Public Works

Date: 03/28/08 Project: 74511 request/Aurora 10000.mxd Prepared by: Bumble



A LETTER OF CONCERN

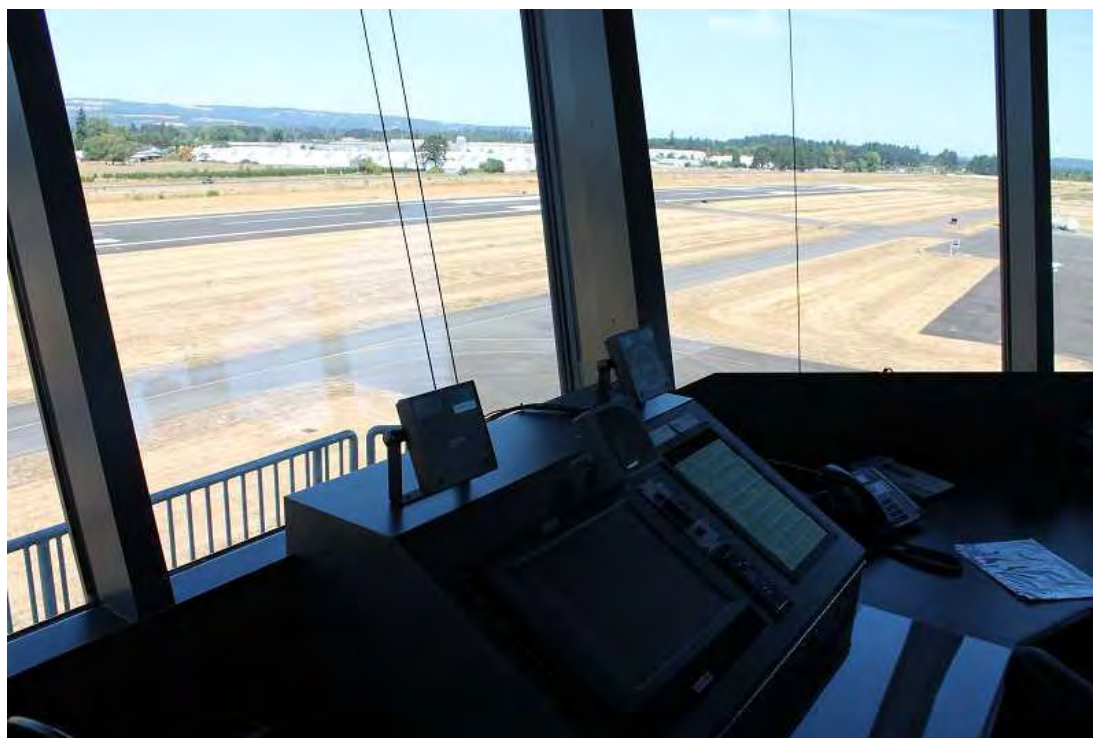
WilsonvilleSpokesman

Corey Buchanan, Wilsonville Spokesman

Tuesday, January 16, 2018

<https://portlandtribune.com/wsp/134-news/384055-272627-a-letter-of-concern>

City of Wilsonville expresses uneasiness about Aurora Airport legislation and the potential traffic impacts it might bring



SPOKESMAN FILE PHOTO -

A legislative bill that would expedite the process for the implementation of an Aurora Airport extension could be introduced at the Oregon State Legislature February session.

Potentially in unison with Clackamas County, the City of Wilsonville is expected to deliver a draft letter this month to Oregon Senate President Peter Courtney (D-Salem) and House Speaker Tina Kotek (D-Portland) expressing concern about a bill — which could be introduced in the Oregon State Legislature's February "short" session — that would "circumvent standard Oregon land-use and public process laws to allow a special interest to 'carve-out' to extend the runway at the Aurora State Airport," according to a draft of the letter obtained by the Spokesman.

The City of Wilsonville approved the letter Jan. 4 and sent it to the Clackamas County Board of Commissioners — which will then review the letter and determine whether to sign on. The letter could be revised before it's sent to state legislators.

Wilsonville City Council discussed the concept bill at length during a meeting Dec. 18.

"I have met with several different entities and communicated the opinion that we think it's not appropriate to have a legislative action to make an end run around Oregon land use process that would normally allow stakeholders to be part of the decision process but that's exactly what this legislation proposes," Knapp said at the meeting.

Multiple city councilors expressed concern that an airport extension could lead to increased traffic in the Wilsonville area.

"On a basic level I think back to our community survey that we do every year. The big theme from that is people are concerned about traffic. So that's all of the people that live in Wilsonville and come into work in Wilsonville, commute in, commute out. I think that has to be carefully considered, what this issue might do," Councilor Kristin Akervall said.

The legislative concept, which was put forth by Rep. Rick Lewis (R-Silverton), posits that the Aurora Airport, which is the largest state-owned airport in Oregon and employs 1,200 people, needs additional investment in order to "maintain aviation safety and commercial viability" and that the current runway is "inadequate and unsafe."

The current runway is 5,004 feet and, according to the Aurora Airport Improvement Association, the airport is the state's third busiest and ranks 31st in terms of runway length. This plan has been in the works since the 1976 Aurora Airport Master Plan proposed increasing the runway length to 6,000 feet — which is also the proposed length in the updated master plan.

The concept bill proposes to extend the airport's boundaries, add or expand airport taxi areas and add new or expand facilities for aviation related equipment.

The letter from the City of Wilsonville says the proposed bill would set a precedent that parties who "seek special treatment" should go directly to the legislature rather than go through the goal exception process in order to pass legislation.

Lewis said he wasn't sure exactly what legislative steps the bill would be avoiding but that he assumes the process would include public hearings.

Ben Williams of Friends of French Prairie was not happy when he caught wind of the bill's legislative concept when he spoke with the Spokesman in December.

"If the public was fully informed about A, what has happened, and B, the scope of the consequences, you can bet that the majority would be opposed to it because of the consequences and the precedent," he said.

Lewis, however, says that an extensive public process took place during the crafting of the Aurora Airport Master Plan, which was updated in 2013, and would rather not use more state money and prolong the project's implementation.

He added that additional public hearings will take place if the legislative concept becomes a bill and is assigned to a committee.

"Had the state not done a recent master plan update and this bill hadn't had public hearings, there would need to be more of a public process involved but that's all been done," Lewis said.

According to the Aurora Airport Master Plan, the current runway of 5,004 feet accommodates all small aircrafts with fewer than 10 passenger seats but larger aircraft require a longer runway. Also, the runway's shorter length constrains about 500 flights a year and forces them to "eliminate fuel and cargo to take off and land," according to the Aurora Airport Improvement Association.

The airport extension could allow corporate jets to take off at the airport. According to the master plan, the extension would cost over \$3 million.

Lewis is not sure why Wilsonville has raised concerns.

"As far as Wilsonville, I don't know (why) because they stand to benefit if larger corporate jets are able to land there. Corporate jets are less noisy. I would think people would look for lodging, restaurants in Wilsonville, so I'm not really sure what their issues are," he said.

Before the bill had been released, Wilsonville Chamber of Commerce CEO Kevin Ferrasci O'Malley said the WACC would likely support it.

"The Aurora Airport is a member in good standing of the Wilsonville Chamber of Commerce. Our stated WACC vision is to create and promote economic vitality for business in the south metro region," the chamber wrote in a statement. "Historically, the WACC has fully supported efforts to help the Aurora airport realize its potential. It's a powerful local generator of economic development and jobs to Wilsonville and the surrounding local area."

O'Malley says talks of massive changes regarding the airport are overblown.

"There are comments being made about it becoming an Orange County Airport by simply having a runway safety zone," he said. "That's not happening. It's fear mongering. This is allowing the small business aircrafts that are landing and taking off to do so more efficiently. That's what it's about."

Aurora Airport Improvement Association board member Tony Helbing, says the airport currently provides ample economic benefits to surrounding communities and the extension will increase the positive impact. Helbing also says businesses are more likely to use the Aurora Airport if a safer runway is implemented.

"It's important to know that as we want this runway extension, it has to do with our choice to be in business and that business we choose to do here has big ripple impacts into the surrounding community," Helbing said.

Williams believes the benefits of the expansion are more limited. "At the end of the day, the beneficiaries are developers who can have larger airport, larger jets, sell more fuel and more hangars," Williams said. "A few people are going to make a lot of money and there will be a few employment jobs working at aircraft hangars or pumping fuel but that doesn't translate to a lot of benefits for say Wilsonville or the city of Aurora. Most of the economic benefit goes to a small number of businesses and developers."

The Wilsonville letter also addresses concerns regarding "a lack of transportation options in the area," "unfair competition to adjacent jurisdictions," "environmental concerns" and "potential harm to the important agriculture economic cluster brought about by increased land-speculation and difficulty in conducting farming operations."

Additionally, the letter posits that the proposed legislation is too large and significant to be deliberated at the "short" 35-day February session, which will begin Feb. 5.