

Miscellaneous Issues

Module 11

Miscellaneous Issues

- Pre-Paving Meetings
- Paving Dailies
- Late Season Paving
- Communication

Pre-Paving Meetings

00745.41 Prepaving Conference - Supervisory personnel of the Contractor, including any subcontractors who are to be involved in the paving work, shall meet with the Engineer at a mutually agreed time to discuss methods of accomplishing all phases of the paving work. A representative of the Contractor responsible for quality control on the project shall also attend for all Level 3 and Level 4 mixes where quantities exceed 5,000 tons.

Pre-Paving Meetings

- Gain understanding of Contractor's overall plan for paving
- Come to agreement on any specification issues
- Lay out quality and workmanship expectations
- Detailed list is attached at the end of the chapter

Pre-Paving Issues

Contractor

- Personnel Roles and Responsibilities
- Paving Plan
- Paving Methodology

Agency

- Roles and Responsibilities
- Miscellaneous Issues

Dailies for HMAC

Dailies for HMAC

- Review General Daily Progress Report (form 734-3474)
- Review Paving Diary Developed by Roseburg Crew
- Other ideas??

Oregon Department of Transportation
GENERAL DAILY PROGRESS REPORT

PROJECT NAME: **STATE ST. BRIDGE SERVICE** CONTRACT NO. **12000**
 COUNTY: **DEWITT** PROJECT NO. **001**
 CONTRACTOR: **W. J. BROWN & SONS** EST. BIDDING:

DATE: **08/11/09** TIME: **08:00**

WEATHER: **Cloudy** WIND: **0-10** TEMP: **65** REL. HUMIDITY: **70**

NUMBER OF PERSONNEL AND TOLerable EQUIPMENT

COMPANY	TYPE	NO.	TYPE	NO.
PRIME CONTRACTOR	CONCRETE	1	CONCRETE	1
PRIME CONTRACTOR	STEEL	1	STEEL	1
PRIME CONTRACTOR	WOOD	1	WOOD	1
PRIME CONTRACTOR	IRON	1	IRON	1
PRIME CONTRACTOR	COPPER	1	COPPER	1
PRIME CONTRACTOR	ALUMINUM	1	ALUMINUM	1
PRIME CONTRACTOR	BRASS	1	BRASS	1
PRIME CONTRACTOR	STEEL	1	STEEL	1
PRIME CONTRACTOR	WOOD	1	WOOD	1
PRIME CONTRACTOR	IRON	1	IRON	1
PRIME CONTRACTOR	COPPER	1	COPPER	1
PRIME CONTRACTOR	ALUMINUM	1	ALUMINUM	1
PRIME CONTRACTOR	BRASS	1	BRASS	1

LOCATION: **STATE ST. BRIDGE SERVICE** DESCRIPTION OF WORK: **Bridge Deck Replacement**

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	PERCENT	DATE
CONCRETE	CU YD	1000	100%	08/11/09
STEEL	TONS	100	100%	08/11/09
WOOD	CU YD	100	100%	08/11/09
IRON	TONS	100	100%	08/11/09
COPPER	TONS	100	100%	08/11/09
ALUMINUM	TONS	100	100%	08/11/09
BRASS	TONS	100	100%	08/11/09

APPROVED: *Phil Dine* DATE: **08/11/09**

PAVING INSPECTOR'S DAILY REPORT

PROJECT NAME: _____ DATE: _____
 CONTRACT NO. _____
 P.A. NUMBER: _____

Weather Conditions: _____
 REF. TEMP: _____ WIND: _____ HUMIDITY: _____
 PRECIP: _____ VIS: _____
 ROAD: _____ SURF: _____

Inspector: _____
 Contractor: _____
 Paving Machine: _____
 Paving Start Time: _____ Paving End Time: _____

HOT MIX ASPHALT INFORMATION

Type of Hot Mix: _____
 Production: _____
 Bit Design: _____
 Asphalt Brand & Supplier: _____

DAILY QUANTITIES

BEIR	DESCRIPTION	QUANTITY THIS DATE	DATE	ATMOSPHERIC QUANTITY
	PLACING HOURS			
	PLOTT CAR HOURS			
	TRACKS			

ARE ANY OF THE ABOVE QUANTITIES PLACED THIS DATE ACCEPTED AS SMALL QUANTITIES? YES ___ NO ___
 (Indicate on reverse in daily report)

LOCATION OF WORK: _____
 DATE: _____ TIME: _____
 JPT: _____ TIME: _____

TAKE OIL SPREAD RATE CALCULATION

Standard Specification for Hot Mix Asphalt
1407 - 1009 0.00 - 2 gallons per Square Yard

gallon WALYR	gallon WALYR	gallon WALYR	gallon WALYR
_____	_____	_____	_____

gallon WALYR	gallon WALYR	gallon WALYR	gallon WALYR
_____	_____	_____	_____

AC SURFACTING CALCULATION

Width (feet)	Length (feet)	Depth (inches)	Factor (lb/ton/1000)	Type	Actual Total (lb/ton/1000)

EQUIPMENT OIL PAVING PRODUCT

PAVING (Check boxes if used)
 BLENDED ASPHALT _____
 PORTLAND CEMENT _____
 FINE AGGREGATE _____
 WELD EQUIPMENT _____

REMARKS (In back of problem, layout, computer results, etc.)

SIGNATURE _____

Late Season or Cold Weather
Paving

Paving Dates

- Base Courses and Temporary Surfacing: May be placed all year, subject to minimum surface temperature requirements.
- Wearing Courses: May only be placed between March 15 and September 30
 - Need approval from PQE to deviate...a CCO is normally required

Why a September 30 Cut-Off??

- Primarily related to studded tire usage
 - Studded tires allowed on November 1
- Mix surface (both open and dense HMAC) needs some time under traffic during warm weather to seal and knead the surface to minimize chances of studded tires “picking” or raveling the surface aggregates away.

Can I allow the Contractor to pave into October??

- Assessment of risk to ODOT
 - Safety (drainage)
 - Contract Costs (previous delays due to ODOT)
 - Staging and associated costs
 - Buy in from Region, Maintenance, and Construction Section

Risk Reducing Measures

- Use Multi-Cool program to evaluate the TAC for the anticipated conditions
- Assure yourself that the Contractor will have adequate rollers to complete the required compaction
- DO NOT pave in drizzle or rain (or snow)....period!!!

Might get away with it in the summer, but will be a disaster in October!!!!

Risk Reducing Measures
Temperature

- Raise mixing temperature
 - Oil ok up to about 350 F
 - May be limited for Open Graded Mixes due to draindown
- Tarp all loads...regardless of weather or haul distance. Make contractor aware we will reject any untarped loads
- Use insulated (double walled) trucks
- Borrow thermal camera to evaluate Contractors paving process

Risk Reducing Measures
Surface Conditions

- Enforce Surface Temperature Requirements
- Ensure surface is dry
- Avoid paving the day after a rain
 - Moisture in base mix can cause debonding in cooler conditions
 - Try to schedule paving after a couple of days of dry weather

Risk Reducing Measures
Tack

- See if supplier can provide warmer material
- Consider switching from CSS-1 to a CRS-1 or CRS-2. The latter are designed to break quicker and are allowed options in 00730.11.
- Consider paving grade "hot" tack
 - Difficult to shoot uniformly at very small application rates
 - Requires larger "snivies"

Risk Reducing Measures
Paver

- Consider a material transfer vehicle
- Minimize length of windrow in front of the paver
- Do not let the mix level in the hopper go below 1/2 full
- Make sure the screed is properly heated
- If the paver has an activated (vibrating) screed, turn it on.
- Go slow...do not stop unless absolutely necessary

Risk Reducing Measures
Compaction

- Ensure enough rollers available to complete pattern at anticipated production rates before mix cools.
- Keep breakdown rollers on top of paver
- Minimize watering of drums
- Consider extra compaction testing

Risk Reducing Measures
Compaction

- Make 5 +/- passes with a pneumatic tired roller after finish rolling is complete but the mat is still warm....this will help knead and seal the surface.
 - For Open Graded Mixes, may need to do this the following day after the sun has heated the mat somewhat...avoid tires picking aggregates
- Allow traffic on the mat while it is still warm

Communication

Communication

- Project Manager
 - Delegated authority?
 - Preferred documentation process
- QCCS
 - Ensure material quality issues taken care of
 - Issues with CDT
- QA Staff
 - Check in with QAT when they are on-site
 - Advice from QAC when problems arise
 - QAC a resource for inexperienced inspectors

Communication

- Construction Section Staff
 - Advice from PDE for pavement repair, milling, or overlay questions
 - PME for mix design or materials questions or issues
 - PQE or Asst PQE for any HMAC questions, issues or assistance for inexperienced inspectors
 - Lab personnel for emulsion or asphalt sample testing issues

Communication

- Contractors (what they expect)
 - Clarify our expectations
 - Point out problems as they arise...don't wait for PM, APM, or PC to after the fact
 - Know the specs...in particular when a stop work order is to be issued
 - Ask questions....
 - Work together to resolve problems....
 - Apply good common sense

QUESTIONS/COMMENTS





GENERAL DAILY PROGRESS REPORT

PROJECT NAME (SECTION) FORM EXAMPLE	CONTRACT NO. 12000
HIGHWAY MAIN HIGHWAY	FEDERAL AID NO. STP-S0000(4)
CONTRACTOR OR SUBCONTRACTOR PRIME CONSTRUCTION	

WEATHER						NUMBER OF PERSONNEL AND MAJOR EQUIPMENT																							
CLEAR	FAIR	CLOUDY	SHOWER	RAIN	SNOW	SUPERVISORS	OPERATORS	TRUCK DRIVERS	LABORERS	TRAINEES	FLAGGER	PILOT CAR	BELLY DUMPS	BACK HOE	BLADE	COMPACTOR	COMPRESSOR	CRANE	DISTRIBUTOR	DOZER	LOADER	PAVER	ROLLER	SCRAPPER	TRUCK (DUMP)	TRUCK (PICKUP)	TRUCK (WATER)	BELLY DUMPS	
	X																												
10-32	32-50	50-70	70-83	OVER 83																									
	X																												
WIND		STILL	LOW	MED	HIGH																								
	X																												
HUMIDITY		DRY	LOW	MED	HIGH																								
		X																											
CONTRACTOR/SUBCONTRACTOR						HOURS																							
PRIME CONSTRUCTION						10	1	3	6	6	1					1						1	1	1			1	6	
SUB FLAGGING, INC						10	1				4																		
SUB SIGN COMPANY						8	1		2																	1			
SUB SURVEYING						8							2																

LOCATION	AND/OR	DESCRIPTION OF WORK	ESTIMATED QUANTITIES		
			ITEM NO.	THIS DATE	TOTAL
36+580-37+580		Temp. Flexible Pavement Markers	60	1969 ea.	1969 ea.
36+580-37+580		Flaggers	140	40 hrs.	176 hrs
36+580-37+580		19mm Dense Graded HMAC	440	3327.23 Mg.	9981.69 Mg
36+000, 38+000		Remove Existing Signs	550	100%	100%
38+500 Lt.		Remove & Reinstall Existing Signs	560	100%	100%

REMARKS: Include condition of traffic control and roadway; important discussions with contractor; rejected work or materials and reasons; delays, difficulties, accidents, utility damage and other unusual conditions and events; arrivals and departures of major equipment, visitors.

Paving started at 7:15 am. First subplot tested showed asphalt content 0.2% above the upper specification limit. Asphalt adjusted at the plant. Compaction running at about 98% of MAMD. Truck #23 broke down with HMAC load #13 on the way to the project. Rejected load #13. Paving went smooth. Will continue paving the mainline tomorrow.

Sub Sign Company on project today to remove and reinstall existing signs. They will return tomorrow to install permanent signs. All sign locations have been staked.

Completed Employee Interview Report (form 734-3475) for Sub Flagging, Inc.

PREPARED BY:	CERT NO.	SIGNATURE:	SHIFT	S	M	T	W	T	F	S	WORK DATE
Phil Dirt	49999		Day		x						8/9/2001

USE BACK FOR ADDITIONAL REMARKS - SEE BACK

PAVING INSPECTORS DAILY REPORT

PROJECT NAME:

CONTRACT NO.

F.A. NUMBER:

DATE:

PERSONNEL

Paving Inspector:

Ticket Taker:

Contractor QC @ Plant:

Contractor QC On Grade:

Paving Foreman:

TP & DT:

Paving Start Time: Paving End Time:

Weather Conditions:

SKY	TEMP	WIND	HUMIDITY
Clear	to 32°F	Still	Low
Fair	32° - 50°F	Low	Medium
Cloudy	50° - 70°F	High	High
Rain	70°F +		
Snow			

Outside Ambient Air Temp: °F

HOT MIX ASPHALT INFORMATION

Type of Mix Being Placed:

Production - Ton Per Hour:

Mix Design Number: Specific Gravity:

Asphalt Brand & Supplier:

Recommended Laydown Temperature: °F

Laydown Temperature Behind the Paver:

Sta.	<input style="width: 40px; height: 20px;" type="text"/>
Temp.	<input style="width: 40px; height: 20px;" type="text"/>
Sta.	<input style="width: 40px; height: 20px;" type="text"/>
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DAILY QUANTITIES

BI #	DESCRIPTION	QUANTITY THIS DATE	ACCUMULATIVE QUANTITY
	FLAGGING HOURS		
	PILOT CAR HOURS		
	TACK OIL		

ARE ANY OF THE AC QUANTITIES PLACED THIS DATE ACCEPTED AS SMALL QUANTITY? YES _____ NO _____
 (Describe on reverse in daily narrative)

LOCATION OF WORK

RIGHT: STA. to STA. M.P. to M.P.

LEFT: STA. to STA. M.P. to M.P.

TACK OIL SPREAD RATE CALCULATIONS

Spread Rate Specifications Per Sec. 00730.44 ***

140°F - 185°F 0.05 - 2 gallons per Square Yard

gallons _____ = W x L / 9	gallons _____ = W x L / 9	gallons _____ = W x L / 9	gallons _____ = W x L / 9
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gallons _____ = W x L / 9	gallons _____ = W x L / 9	gallons _____ = W x L / 9	gallons _____ = W x L / 9
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AC SURFACING CALCULATION

Width (in feet)	x	Length (in feet)	x	Depth (in feet)	x	Factor (Density/2000)	=	Tons	vs	Actual Tons (From Delivery Ticket)

EQUIPMENT ON PAVING PROJECT

PAVER (Brand Name & Model #)

BREAKDOWN ROLLER

INTERMEDIATE ROLLER

FINISH ROLLER

MISC. EQUIPMENT

NARRATIVE (Include any problems, Delays, Compaction Results, etc.)

SIGNATURE _____

PREPAVING ISSUES

CONTRACTOR

- A) Personnel Roles and Responsibilities**
- Decision makers/line of communications for problems and contract issues?
 - Who is CAT I, CAT II? Decisions on mix changes/adjustments?
 - Who is CDT?
 - Who will be directing the rollers? CDT? Foreman? Superintendent?
 - Smoothness measurements? Who and how?
 - Safety
- B) Paving Plan**
- Approved Mix design?
 - Starting Date, Time and Location?
 - Layout of paver pulls? Locations of longitudinal and transverse joints?
 - Dealing with business and residence accesses?
 - Soft spots in base aggregates..Plan for corrective work?
 - Traffic Control Plan? What is it and who is responsible?
 - Temporary buttons/stripping layout and placement?
- C) Paving Methodologies**
- Production Rates? Haul Distances? Adequate trucking available?
 - What kind of trucks(bellys, end dumps, etc)? Access to workzone issues? Clean out areas? Release agents?
 - Paver size? Grade controls? Clean up?
 - Roller types and sizes? Adequate rollers for anticipated production rate?
 - Minimizing tracking of tack onto existing roadways?

AGENCY

- A) Roles and responsibilities**
- Decision makers/line of communications for problems and contract issues?
 - Authority delegated to paving inspectors/QCCS?
 - Communications lines with local businesses and residents?
 - Paperflow...who gets what documentation?
 - Ticket taker, who and how?
 - Quantity tracking
- B) Miscellaneous Issues**
- Lay out quality and workmanship expectations
 - Process for dealing with rain/bad weather?
 - Use of pneumatic rollers for leveling or first base courses over uneven existing surfaces
 - Review date and time of day work limitations?
 - Noise issues?
 - Environmental Issues?
 - Special project specific testing/spec requirements?
 - Relations with and notification of media regarding closures?