Management Letter 25-02

January 7, 2025

Tony Snyder
ADA Program Manager
4040 Fairview Industrial Dr. SE
Salem OR 97302

Dear Mr. Snyder,

Our 2021 Audit Plan included an audit of the ADA Settlement Agreement compliance. With the level of oversight this program has from an external accessibility consultant during the life of the agreement, we did not find conditions to warrant an audit. However, we did respond by examining costs associated with curb ramp construction. We completed an initial assessment of cost data in June 2022 then updated our assessment in January and October 2023 as projects were completed. This memo summarizes our observations and is intended for use by ADA Program management and their staff. All other readers are encouraged to exercise caution when considering action based on this information.

Background

The Oregon Transportation Commission (OTC) and the Oregon Department of Transportation (ODOT) are committed to accelerating the development of a transportation system that is modern, reliable, and serves all Oregonians in an efficient, environmentally responsible, and safe manner. ODOT is committed to creating a healthy multimodal network that improves the safety and well-being of all Oregonians. In 2022, ODOT initiated modifications to the ADA Program staffing structure to ensure agency-wide visibility, authority, and accountability to deliver on their commitment to improve accessibility of Oregon's transportation system.

A key area of improving accessibility is the remediation of non-compliant curb ramps. In 2016, ODOT and the Association of Oregon Centers for Independent Living (AOCIL) entered into a 15-year settlement agreement, to make state highways more accessible to people with disabilities. As part of this agreement, ODOT committed to remediating noncompliant curb ramps identified in January 2019 within a 15-year period. These curb ramps are located on the State Highway System and may belong to local agencies. Although ODOT will bring curb ramps outside their jurisdiction into compliance, the responsibility for continued compliance belongs to the city or county that owns the right of way.

ODOT dedicated $5M immediately to address noncompliant curb ramps in top priority locations. In 2017, the plaintiffs agreed that once the initial $5M was expended, all remaining

priority locations will be remediated during the 15-year lifetime of the Agreement. The plaintiffs agreed that priority locations could be addressed in the Statewide Transportation Improvement Program (STIP) process when possible.

Early in this process, ODOT learned that the cost of curb ramp construction was high and had hoped savings would be realized as the ADA Curb Ramp Program matured. On March 11, 2021, ODOT's Delivery and Operations Division Administrator gave an update to the OTC on their progress and cost reduction strategies in design, construction, and contracting. Early in this process, ODOT learned that the cost of curb ramp construction was high and had hoped savings would be realized as the ADA Curb Ramp Program matured.

We scoped our engagement to analyze curb ramp costs associated with STIP projects that had begun since 2016. Since many of the projects had not completed the construction phase, we monitored these projects until more than 74% of the projects were complete.[1] Our final analysis was concluded in May 2024. It is important to note that our analysis included all curb ramps within the project and was not limited to those prioritized under the Settlement Agreement.

Observations

ODOT does not have a complete inventory of curb ramps that are under construction or reconstruction.

The ODOT Curb Ramp inventory, stored in the TransInfo database, has a total of 32,032 curb ramps as of February 20, 2024. The inventory includes a mix of ramps that have been mitigated and others that are awaiting future action. Those that have been mitigated only appear in the inventory after they have had a final quality inspection report submitted and accepted. This may take several months, as discussed below. The inventory does not identify which ramps are scheduled for mitigation, are currently under construction, or those which have been constructed and awaiting inspection.

We suggest that ODOT identify curb ramps in TransInfo, or other system, during the design phase. This will allow for tracking of all curb ramps under construction and ensure that all assets are accounted for from planning to completion.

Curb ramp data in TransGIS may not be made visible on a timely basis.

Once curb ramps are constructed, modified, upgraded, or improved, they must be inspected by an ODOT Certified Curb Ramp Inspector.[2] Once a curb ramp passes the quality inspection, the ODOT ADA Curb Ramp Inspection Form is submitted to the ODOT Standards Unit. This form will go through two rounds of quality control prior to the curb ramp being loaded in the TransInfo database. We selected a sample of 1,363 inspection forms and observed that 282 (21%) were not loaded for 6-12 months after the quality inspection form was submitted and

[1] The final date when payment data were gathered was October 12, 2023. For the purpose of this review, we defined 'complete' as being finished with the construction phase.

[2] ODOT Certified Curb Ramp Inspectors can be from the State, Federal agency, a local jurisdiction, contractor, or consultant firm.

the curb ramp data were recorded in TransInfo, another 68 (5%) took more than 12 months, while the remaining 1,013 were entered within the first six months.

All of the data in the TransInfo database goes through quality reviews that happen during set timeframes in the calendar year before becoming viewable by the public in TransGIS. This process of having the curb ramp inspected, submitting the inspection results, performing quality checks on the inspection forms, uploading to TransInfo, then being displayed in TransGIS where the curb ramp can be recognized as an asset, can take more than a year, perhaps as much as two years. While some of the delays are due to planned maintenance of the system, others occur from delays in data entry, and delays in submission of inspection forms. There are also instances where a form has been submitted then returned to the inspector for correction, causing further delays.

If ODOT identifies and performs real-time tracking of the curb ramps in TransInfo, or another system, reports could be run to identify which curb ramps are missing their inspection forms. We also suggest that ODOT implement a means to track curb ramps that are planned, under construction or remediation in real time. In addition, ODOT should provide additional training to support timely submission of inspection forms.

Calculating actual curb ramp cost has challenges.

Our original goal was to determine what ratio of contractor bid items were used to physically construct each curb ramp within our sample of STIP projects. We had hoped to vary the cost according to curb ramp size, style, and location using the parameters on the design sheets. This level of analysis would have been too time intensive to calculate actual cubic feet, determine material usage, and account for all design changes.

We suggest that if this information is desired by ODOT, they have the design engineer calculate the size/area of the curb ramp and list specific materials to be used. Estimated material cost could then be calculated during planning.

ODOT uses the Contract Payment System (CPS) to record services provided and materials used for ODOT highway and bridge construction projects. Each file begins with a download of the construction contract data which includes specific bid/pay items. The individual bid item quantities and per unit costs are updated as needed when contract payments are made. As a matter of practice, the raw material to construct curb ramps in these STIP projects are often included with material costs associated with other construction work that use the same materials. In addition, much of the cost associated with curb ramp construction includes mobilization, traffic control, temporary pedestrian access routes, Right of Way, and other related expenses. These too are lumped together and not broken out by job task.

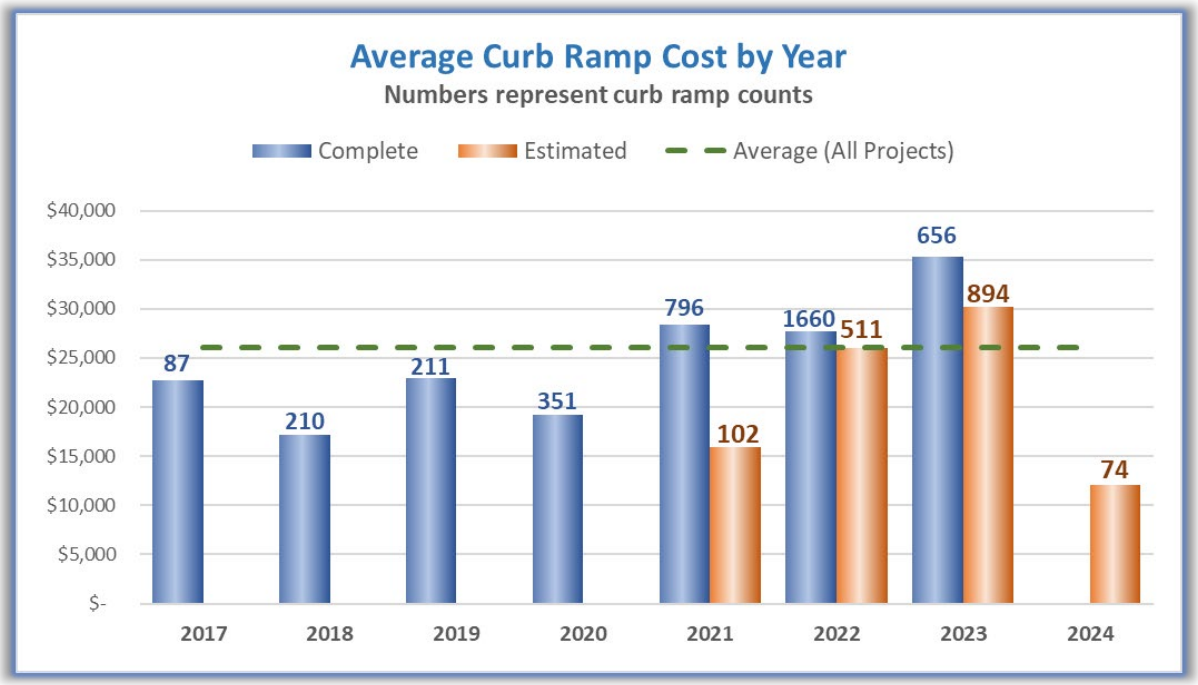
If ODOT would like to track specific bid item related to curb ramp construction, we suggest these bid items be tracked separately.

Curb ramp costs calculated by the auditor are estimates and should not be interpreted as actual costs.

Due to data limitations, we relied on information provided by the Resident Engineers in charge of the projects we selected. We requested an estimated percentage rate for each bid/pay item that would be attributed to curb ramp construction. It is important to note that

depending on the stage of construction, some estimates were made on curb ramps that had not been constructed yet or were currently under construction.

We selected a total of 76 projects that represented 5,552 curb ramps. There were 3,971 ramps that had completed construction between 2017 and August 2023. There were another 1,581 that were still under construction, scheduled to be constructed by the end of 2024. The average curb ramp cost for all of these projects, using the rates provided by the Resident Engineers, was calculated to be $26,108.



Constructing curb ramps under the STIP process may be more economical.

In order to remediate priority curb ramp locations as efficiently as possible, ODOT chose to remediate some curb ramps in stand-alone curb ramp projects managed by the ADA Program. Other curb ramps were remediated in the standard Statewide Transportation Improvement Program (STIP) process. The STIP process timeframe may span several years. The plaintiffs agreed that priority locations could be addressed in the STIP process when possible.

In September 2022, the ADA Program calculated their average curb ramp costs for the stand-alone curb ramp projects to date and found that the average construction cost was $35,800. For our analysis, we focused on STIP projects and found that the average construction cost was $26,108. When we isolate the 20 STIP projects that were primarily curb ramp projects, the average construction cost was slightly higher, at $26,932, but considerably less than those constructed by the ADA Program.[3] Much of this difference may be related to charging only a proportional amount of mobilization and traffic control costs to curb ramp construction.

[3] We considered any project to be primarily a curb ramp project when the percentage of total construction costs attributed to curb ramp construction was >90%. The average curb ramp cost for the remaining projects was $25,772.

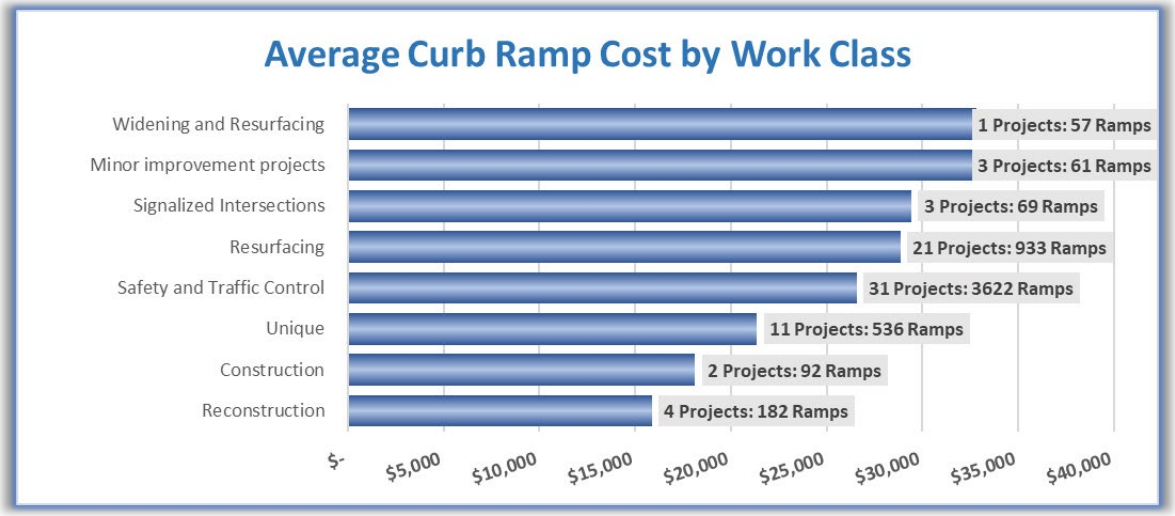
It is important to note that our analysis included all the curb ramps within a project, some of which were not included in the Settlement Agreement. If we only included those, the cost would most likely be higher. In addition, the calculation made by the ADA Program included ramp-only projects that focused on remediating ramps in the Settlement Agreement. These projects may have included other paving and safety costs that were included in the total project cost, causing the individual curb ramp cost to be higher.

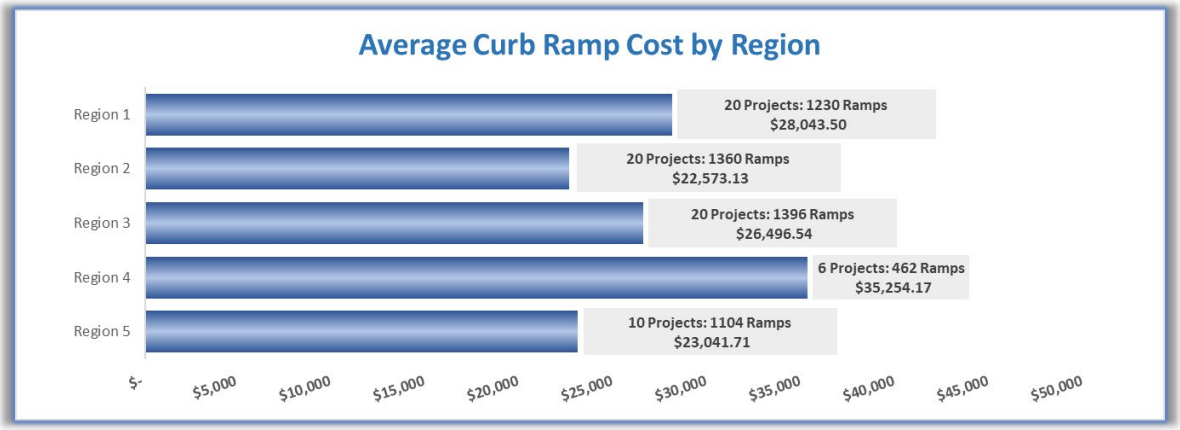
Additional curb ramp construction savings may be realized by examining costs more closely.

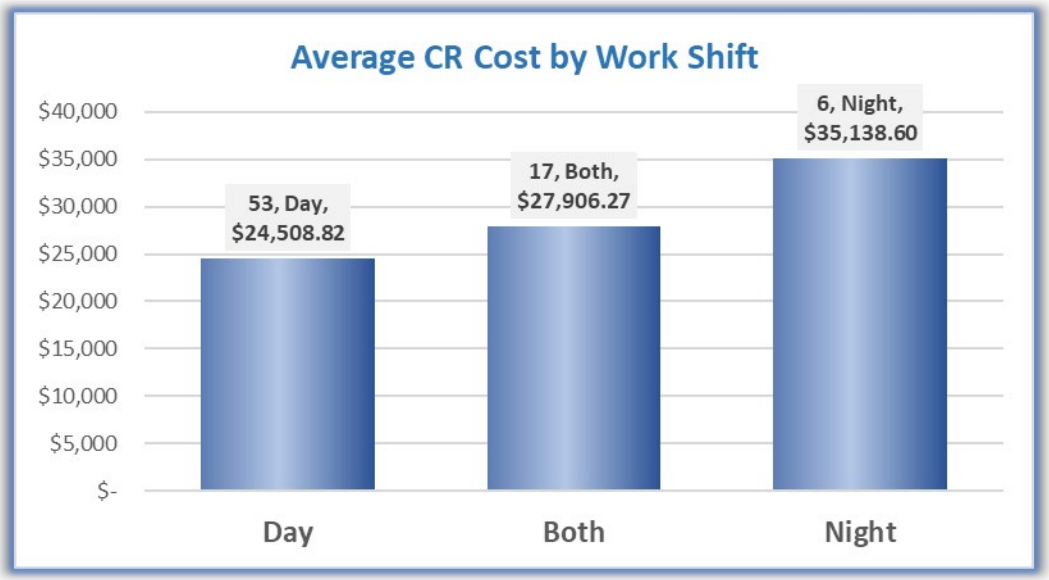
We redistributed the curb ramp projects and related costs after considering different factors that may have had an impact on curb ramp construction costs. Although the results may indicate that there could be potential savings by examining these costs more closely, we caution the reader from making any conclusions about the information presented. It is important to keep in mind that these are all estimated costs, our sample size was small, and there are many variables that impact cost. In addition, there are key factors that are not considered, such as ramp design, location complexity, and final curb ramp quality.

We suggest that the ADA Program closely examine these costs and consider which ones are important and warrant further investigative action.

We communicated the results of our cost analysis to ADA program management. The following summary charts and other related data were provided to the ADA program management.







Review Steps

To complete this engagement, we performed the following steps:

1. Identified potential curb ramp projects by searching the following:
    - ADA Program's BLoRP Ramp Project Inventory
    - Electronic Bidding Information Distribution System (eBids)
    - Doc Express
    - Statewide Transportation Improvement Program (STIP) Project Search Tool
    - ODOT Agreement Lookup Tool
    - Purchasing and Contract Management System (PCMS)
    - SPD Reports AE Project Delivery Procurement Reports
    - ADA Contract Folder

- ADA Project Expense Report

We limited our list of contracts to those that had a minimum of 10 curb ramps constructed since 2018 and those with contract bid/pay items recorded in the Contractor Payment System (CPS).

2. Determined individual project curb ramp counts by searching curb ramp billing quantities found in CPS and by requesting final counts from the Resident Engineers.

3. Calculated individual curb ramp costs by requesting Resident Engineers to estimate the percent of construction related contract bid items that were used for curb ramp construction. We divided the total estimated cost by the number of curb ramps constructed. During the last quarter of 2023, we updated the bid items to include those that had been added since our prior audit work. In addition, we requested percentages from the REs for those new bid items where the auditor was not able to provide their own judgement based on data collected earlier.

4. Monitored curb ramp projects and updated costs in June 2022, January 2023, and October 2023.

5. Analyzed curb ramp costs while considering multiple factors that could have an impact on individual curb ramp construction costs, which was finalized in May 2024.

Our work was not performed in accordance with generally accepted government auditing standards; however, this letter went through our internal quality control process. We believe that the evidence obtained provides a reasonable basis for our observations.

We appreciated the cooperation of the Delivery and Operations Division. This review was conducted by Laura Johnston, Principal Internal Auditor. Please let us know if you have any questions.

Sincerely,

Marlene V. Hartinger, MBA, CPA, CIA

Chief Auditor

cc: Executive Strategy Team Members

Oregon
Tina Kotek, Governor

Oregon Department of Transportation
Delivery & Operations Division
355 Capitol Street NE
Salem, OR 97301

January 7, 2025

Marlene Hartinger
ODOT Chief of Audit Services
355 Capitol Street NE
Salem, OR 97301

Re: Cost Examination of the ADA Ramp Program - Management Response

Dear Ms. Hartinger,

Thank you for conducting the Cost Examination of the ADA Ramp Program and providing us an opportunity to respond. The ADA program appreciates the attention given and information gathered by the Senior Internal Auditor. We find the observations useful and believe several validate Program improvements underway or planned. Below are the observations and the response/comments for each.

Observation 1: ODOT does not have a complete inventory of curb ramps that are under construction or reconstruction.

- The Program has an inventory of all the ADA Settlement curb ramps to be replaced or reconstructed, and we track how many (and which ones) are completed each year. We do not have a specific data system to track status of each ramp location under design or construction throughout the year.
- The Program uses the STIP database, monthly inputs by Project Managers and AE firms, and the Contract payment System (CPS) to assemble information on the ADA projects, both in design and under construction.
- The ADA program hired a consultant to work as our Owners Representative to support management of the ADA Delivery Program. Jacobs is working to create and operate a data system to give monthly updates on ADA projects, including tracking ADA ramps both under construction and in design. We anticipate a pilot program with this information rolling out in 2025. Taking advantage of the technology, we will then move to a searchable and easily filtered graphic interface for investigating projects, ramp progress, and visualizing Program successes.

Observation 2: Curb ramp data in TransGIS may not be made visible on a timely basis.

This observation was particularly true in the early years of the Program. In the last two years the delay between ramp construction and official acceptance of the ramp inspection forms has been significantly reduced. We modified our procedures to improve ramp inspection, quality control and acceptance of ramps, and we anticipate more improvements on this front in the upcoming year.

Observation 3: **Calculating actual curb ramp cost has challenges.**

ODOT has a long history of tracking the cost of repairing or replacing the different parts of our transportation system. Our existing process assures quality work is completed for a reasonable price. The Program tracks the total cost of each ramp set constructed. We use this data to determine the average cost of each ramp. Actual costs vary considerably based on location, the number of ramps in a project and the number of construction firms submitting a bid. The information in our cost model gives us confidence in determining scoping, STIP programming and the required budget for each project.

Observation 4: Constructing curb ramps under the STIP process may be more economical.

This observation is true, and ramps could be built more economically by projects doing multiple types of construction with their associated funding. For example, Region pavement projects are building ADA ramps for 15-20% less than the ADA ramp-only projects. When possible, we find opportunities to construct settlement curb ramps as part of multi-function, Region-based STIP projects because this is a more cost-effective way to deliver curb ramp work. We are providing funds to these multi-function projects, however in order to deliver the volume of ramps required to meet the timelines of the settlement agreement, we are primarily delivering ramps through single-function, ramp-focused projects.

Observation 5: Additional curb ramp construction savings may be realized by examining costs more closely.

Additional efficiencies and cost saving measures may be implemented through adjustments based on lessons learned during curb ramp delivery to date. For this reason, our owner's representative will review our existing procedures and recommend improvements for both time and cost savings. The ADA Delivery Program is at the midpoint of the ADA Settlement Agreement performance period, and we anticipate that the owner's representative will bring their mega program management experience to help identify opportunities for improvement.

Conclusion

The Program is grateful for the ramp cost examination by Audit Services. The observations are a validation that our efforts at self-examination and continuous improvement are on the correct pathway.

Again, thank you for this report and the opportunity to provide a response.

Sincerely,

Tony R Snyder

Tony Snyder PE
ADA Program Director