



TRUCKEE TAHOE AIRPORT DISTRICT BOARD OF DIRECTOR STAFF REPORT

AGENDA TITLE: Reconstruct Apron A2 2025, Contract Award

MEETING DATE: April 23, 2025

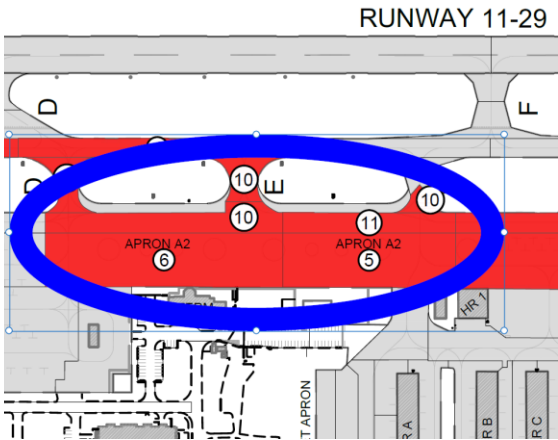
PREPARED BY: Vince Wawrzynski, Operations Director

RECOMMENDED ACTION: Truckee Tahoe Airport District Board of Directors award a contract to the low bidder for Reconstruction of Apron A2 and authorize the General Manager to sign the necessary contracts to complete the Project.

Background: The Truckee Tahoe Airport has continued to apply for FAA, Airport Improvement Program (AIP) Funds for Apron A2 design as part of the overall long range KTRK pavement management plan. The KTRK Pavement Maintenance/Management Plan (PMMP) June 2021, identifies Apron A2 for complete reconstruction in 2024 to avoid the forecast pavement section failure in 2026, as indicated in the below chart/figure from the PMMP.

**TABLE NO. 4-2
TRUCKEE TAHOE AIRPORT
REHABILITATION PLAN - DEEP-SEATED DISTRESS**

| Estimated Date of Rehabilitation | Element | Station | Remaining Life (Years) from 2020 | Estimated Year of Failure | Code* | Recommended Rehabilitation Description |
|----------------------------------|----------------------------------|----------------------|----------------------------------|---------------------------|-------|--|
| 2021 | Taxiway A | 0+00 to 24+00 | 9 | 2029 | A1 | Reconstruction |
| 2021 | Taxiway A | 24+00 to 31+25 | 4 | 2024 | A1 | Reconstruction |
| 2021 | Taxiway B Runup | See Plates 5-1 & 5-2 | 7 | 2027 | A1 | Reconstruction (with Taxiway A) |
| 2021 | Taxiway B | 0+50 to 1+75 | 12 | 2032 | A1 | Reconstruction (with Taxiway A) |
| 2023 | Taxiway V | 0+00 to 1+25 | 9 | 2029 | A2 | Reconstruction (with Runway 2-20) |
| 2023 | Taxiway Q | 0+00 to 1+25 | 16 | 2036 | A2 | Reconstruction (with Runway 2-20) |
| 2024 | Apron A2 | See Plates 5-1 & 5-2 | 6 | 2026 | A3 | Reconstruction |
| 2024 | Taxiways D(south), E, & F(south) | See Plates 5-1 & 5-2 | 10 | 2030 | A3 | Reconstruction (with Apron A2) |
| 2024 | Taxilane Q | 12+50 to 25+50 | 10-11 | 2030-2031 | A3 | Reconstruction (with Apron A2) |

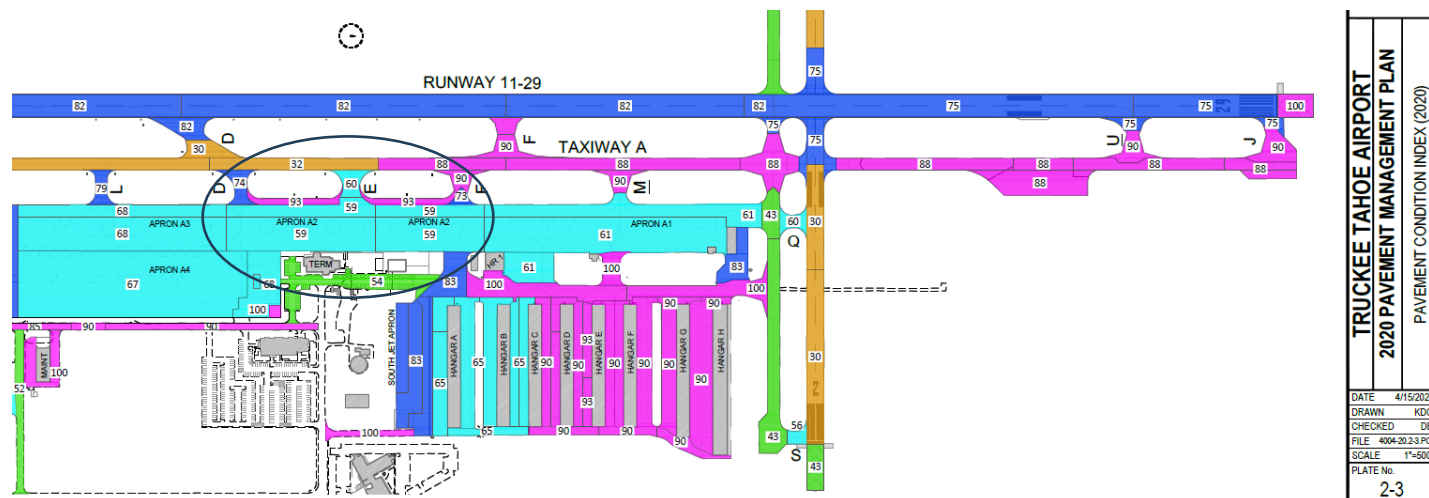


Section 5-2.9 in the PMMP provides the following write up on the condition of all the aprons and more specifically the proposed Apron A2, with a low Pavement Condition Index (PCI) score of 59, as indicated in the below graphic.

5-2.9 Apron Reconstruction Projects

All of the apron pavements that serve the large jets (Aprons A1, A2, and A3) are under-designed for this size aircraft. These pavement sections have only 9" of total pavement section thickness, and a total pavement section of approximately 18" is needed to support the forecast aircraft fleet mix. While they can support some operations of heavy aircraft, they will need to be reconstructed to provide the proper life and performance based on the forecast traffic. Apron A2 is the most heavily used by the larger jets, which explains why its remaining pavement life is only 5-6 years.

The reconstruction of these aprons will need to include the use of the "grade bumped" asphaltic concrete oil of PG 76-28 PM to support the heavier jet aircraft in the current forecast on hot summer days.



Brandley Engineering has provided some additional background to this specific project as follows:

- All the apron pavements are under-designed for the large jet aircraft as noted in the PMMP, however the heavier usage of the Apron A2 portion of the apron in front of the terminal building has caused the subgrade strength to deteriorate faster than other portions of the apron. The PMMP forecasted a pavement section structural failure of the subgrade of the Apron A2 area by the year 2026 based on the forecast traffic. The PMMP originally recommended reconstructing these pavements in 2024, which was initially delayed due to funding availability.
- The sub-standard pavement section thickness on the apron provides a continuous risk that it could fail under the large jet aircraft currently using it. A failure has not occurred yet due to the sub-standard pavement section, but that doesn't mean that it will not

occur. Combining this risk with a failing subgrade is a recipe for a potential catastrophic failure.

- Soil borings taken in the Summer of 2024 for the design of Apron A2 further support the weakened subgrade strength that was derived from test data in the 2021 PMMP. This subgrade strength with the existing pavement section along with the forecast traffic still supports the PMMP forecast that a subgrade failure could occur by 2026.
- If all the jet traffic were eliminated from the Apron A2 section to delay subgrade failure, they would inevitably have to park on other Aprons (Apron A1 to the east or Apron A3 to the west). This would not be an adequate solution as these aprons are also under-designed for these aircraft and the increased traffic would then cause those pavements to fail significantly faster. Operationally, the most valuable portion of the apron in front of the terminal building would become unusable for these aircraft, which would likely be very problematic for the airport.
- The Apron A2 pavement section is at a critical tipping point, such that a recommendation or justification for delaying the reconstruction of this Apron any further cannot be made.

DISCUSSION:

Engineering work is complete, and biddable plans were published on March 12, 2025, via the TTAD Website. A pre-bid meeting and site walk through was conducted on March 27, 2025. Sealed bids were collected on April 16, 2025. The results of those bids are as follows:

| Contractor | Schedule A (Two Phases) | Schedule B (One Phase) |
|---------------------|-------------------------|------------------------|
| McGuire Hester | \$4,860,079.00 | \$4,718,256.00 |
| Meyers Earthwork | \$5,186,597.00 | \$4,905,602.00 |
| QualCon | \$6,052,155.00 | \$6,122,155.00 |
| Mercer-Fraser | \$6,175,000.00 | \$5,875,000.00 |
| Stimple -Weibelhaus | \$6,891,600.00 | \$6,790,350.00 |
| Granite | \$7,341,341.00 | NA |

Schedule A refers to a two phased approach that leaves a portion of the Apron A2 available for ramp operations during construction. Schedule B is a simplified plan that disrupts the entire A2 ramp at once for construction. In planning discussions, TTAD Staff decided that if Schedule A was within 5% of the cost of schedule B, and that if Schedule A added no more than a few weeks to the overall project timeline; then the reduction in ramp disruptions during our busiest season would be worth the small increase in cost. For the low bid; the two prices were within 3%, so a two-phased approach under schedule A is what is recommended by management.

The contract award will enable reconstruction of the Apron A2 from the current 9" to a required 18", reduce water drainage problems, and accommodate a hydronic heated concrete area to the North of the terminal building. The hydronic system is planned for the area shaded by the terminal in the winter and typically retains dangerous amounts of ice. Slips and falls are frequent in this area despite active countermeasures. To support a hydronic system with electricity and a

gas fired furnace, the airport will need to construct a utility shed immediately to the West of the dispatch office staircase. Project management of the Utility Shed is under separate contracts. It was important to break the Utility Shed out of the larger contract for FAA fund availability prescriptions. This utility shed will also support future electrification of ramp services by bringing in 400 Amps. Substantial utilities will need to be installed and represent a major portion of this sub project. Costs to construct the utility shed that are not captured in the contract to be awarded under 'Reconstruct Apron A2' are listed in the table below.

| | |
|-------------------------|-----------|
| Engineering | \$26,000 |
| Construction Management | \$5,000 |
| Permits/Fees | \$2,000 |
| Building Contractor | \$52,000 |
| Utilities Contractor | \$80,000 |
| Total | \$165,000 |

Fiscal Impact: The District has \$1,163,000 in AIG and \$249,000 in AIP entitlements that may be applied to this project as verified by our FAA Airport Division Office (ADO).

| <u>Estimated Summary of Project Costs - 4/17/25</u> | |
|---|---------------------|
| | |
| | 4/16/2025 As-Bid |
| <u>Engineering Services - Brandley Engineering</u> | |
| Engineering Design | \$ 228,500 |
| Bidding Assistance, Engineering During Construction, Final Project Closeout | \$ 98,000 |
| Resident Engineering, Testing, Inspection | \$ 220,000 |
| <u>Contractor - McGuire and Hester</u> | |
| Construction Cost | \$ 4,860,079 |
| <u>Snowmelt Utility Shed Special Services - Other Consultants / Subcontractors</u> | |
| Snowmelt Apron Shed Construction | \$ 132,000 |
| Snowmelt Apron Engineering & Special Inspections & Submittal Review | \$ 33,000 |
| Total Engineering + Construction (No Administrative Costs) | \$ 5,571,579 |
| | |
| <i>Total Project Costs</i> | \$ 5,571,579 |
| Available FAA AIP Funding | \$ 249,000 |
| Caltrans State Matching Grant | \$ 12,000 |
| Available FAA AIG Funding | \$ 1,163,000 |
| Sponsor Participation | \$ 4,147,579 |

Recommended Motion: Option 2

TWO MOTIONS - SAMPLE MOTION:

- (1) I move to reject all bids submitted on 4/16/2025 for the Apron A2 Reconstruction Project.
- (2) I move to award McGuire and Hester Company the contract for Reconstruction of Apron A2 as presented, for a contract price of \$4,860,079.00, and authorize the General Manager to sign the necessary documents for the contract award for the Project.

ATTACHMENTS:

Abstract of bids

Apron A2 Reconstruct Cost Estimate 10.15.24

Emailed confirmation of FAA funding – Roy Ambrose

Apron A2 Reconstruct Cost Estimate 04.18.25

McGuire Hester bid proposal

Staff Report Apron A2 Reconstruction 10.16.24

TTAD Utility Shed Hydronics Truck Charging Cost Estimate