



TRUCKEE TAHOE AIRPORT DISTRICT - INTEROFFICE MEMORANDUM

TO: BOARD OF DIRECTORS
FROM: PAVMENT MAINTENANCE PLAN AD HOC COMMITTEE AND STAFF
SUBJECT: REPORT ON AD HOC COMMITTEE CONCLUSIONS
DATE: 1/18/2012

The Pavement Maintenance Plan Ad Hoc Committee met on Jan. 16, 2011 to review questions raised at the Dec. 1, 2011 Board Meeting. As the Board finalized review of the Pavement Management Plan (PMP), a few questions remained. The Board asked Mr. Brandley to review the following and report back to the Ad Hoc Committee. These questions were:

1. Look at 1/19 with aircraft group 1-9 + 30% of traffic. You do not need to adjust 10/28.
2. What will the new load bearing capacity of the west side of 10/28 be after we construct your design?
3. If we add 3" of asphalt (AC) on east side...what is the load bearing capacity?
4. Review and report on an apparent discrepancy between the runway load bearing data presented in June 2011 and the information contained in the PMP presented Dec. 1, 2011.

To answer questions 1 through 3 in detail I will refer you to Supplement No. 1 as prepared by Mr. Brandley. (See Attached)

AD HOC COMMITTEE ANALYSIS AND RECOMMENDATIONS

The Ad Hoc Committee bifurcated the PMP from the Runway discussion. There is consensus that the PMP be instituted as approved in December 2011. There was discussion regarding the existing and eventual load bearing capacity and, therefore, the design parameters of Runway 10/28 as well as all other pavement sections.

The Ad Hoc Committee reviewed this analysis in detail and concluded that Runway 1/19 is capable and ready to accommodate additional traffic and should have a designated Load Bearing of 35/50 from its current 12,500 pound limit. The Committee recommends immediately changing this designation.

Regarding Questions 2 and 3, the Ad Hoc Committee reviewed Mr. Brandley's analysis which confirms that after construction, the west 4600 feet of 10/28 will have a 50/80 load bearing capacity as was presented at the Dec. 1, 2011 Board meeting. However, the east 2300 feet of 10/28, reconstructed in 2009, has a 40/55 load bearing capacity. To account for this difference Mr. Brandley recommended in the PMP "that all future rehabilitation projects be designed such that the maximum design load-carrying capacity of all elements matches the anticipated use." This recommendation would lead to overlaying the east section in 15 years which will provide a uniform 50/80 standard for the complete runway, as well as improvements of the apron and some taxiways to match this standard. This recommendation is not accepted by all Ad Hoc Committee members. All members of the Ad Hoc committee agreed that the load bearing capacity on Runway 10/28 should be changed from the current 60/100 designation to 50/80 as is recommended in the PMP. There was also agreement that discussions should continue regarding the ultimate desired load bearing capacity of this Runway. The 50/80 reduction will be in the best interest of the District and the long term maintenance of the Runway.

Regarding Question 4, there was some concern that in June of 2011 Mr. Brandley reported an existing load bearing for the westerly 4600 feet of Runway 10/28 of 29/38, with Design Option A raising it to 37/57. This was inconsistent with finalized Design Option A plans for 10/28 which brought the load to a 50/80 standard (again referring to the westerly 5000 feet). Mr. Brandley explained that the June numbers were conservative and based on a CBR analysis and the best available information he and the District had at the time. The December numbers account for a full analysis of the new FWD data, on-site testing, and inspection data. The December numbers also account for all data and information in the PMP which ran a parallel design track as the runway design. After this review he concluded a more accurate load bearing was 40/55 for the entire existing length of Runway 10/28. With this as a baseline, Mr. Brandley's design which included pulverizing the AC/AB, adding 2 inches of crushed rock to the center 50 feet and paving 3 inches of new AC brought the new designed load bearing up to the 50/80 standard for the westerly 5000 feet as was outlined in the PMP and presented at December 2011 Board Meeting.

SUMMARY:

The Ad Hoc Committee recommends an increase in load bearing for Runway 1/19 from 12,500 lbs to 35/50 and to reduce the load bearing for 10/28 from the current 60/100 to 50/80. The Ad Hoc Committee and Staff also agreed to continue moving forward with the 10/28 rehabilitation project by commencing the bidding process on the design approved by the Board of Directors at the June 23, 2011 Board Meeting.

As we move through the bidding and award process (if FAA funding is received) over the next 3 months there are ample opportunities to discuss final load bearing capacity. If the Board concludes that the 50/80 load bearing standard is too aggressive, the design can be easily modified to accommodate a lower standard by adjusting the amount of material we add to the center 50 foot section of the runway.