



U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Office of Airports
Safety and Standards Branch

777 S. Aviation Blvd., Suite 150
El Segundo, CA 90245

February 16, 2023

Mr. Eric Peterson
County of Santa Clara, Airports Administration
2500 Cunningham Ave.
San Jose, CA 95148

Subject: RHV Proposed TWY Renaming and RIM/Hotspot Exhibits

Dear Mr. Peterson;

This letter is in response to your email addressed to Ms. Laurie Suttmeier dated November 17, 2022. With your email you provided the County's proposals to change the Taxiway naming at the Reid-Hillview Airport (RHV) and to reconfigure certain areas of the movement area to address known Runway Incursion Mitigation (RIM) locations and hot spots. Enclosure 1 with this letter is a copy of that attachment from your email for reference.

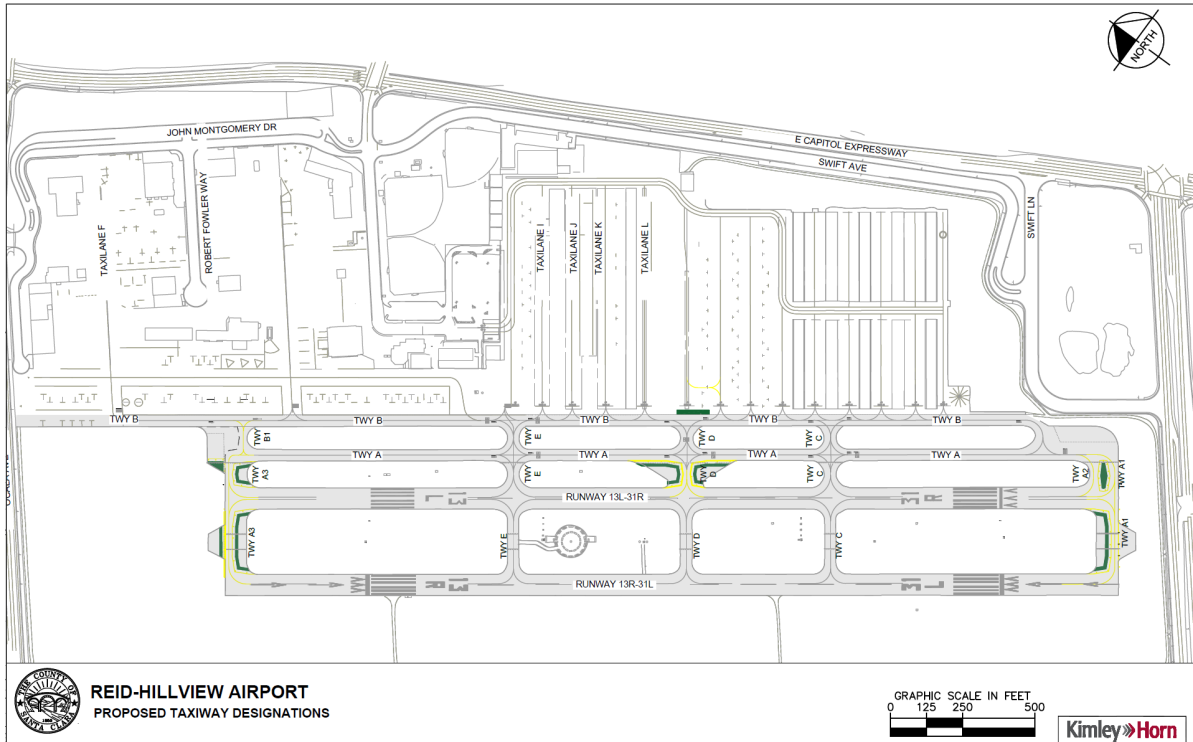
The Federal Aviation Administration (FAA) reviewed the County's proposals. The FAA generally concurs with the County's proposed geometry changes to address problematic and non-standard geometry at the RIM and hot spot locations. While the County's proposal for revising the taxiway nomenclature conforms better to FAA standards for taxiway designations, there remain some areas of inconsistencies. Enclosure 2 with this letter contains FAA's comments and recommendations on both the proposed geometry changes and taxiway nomenclature.

We will be happy to meet with you, your staff, and your consultants to discuss our comments and recommendations. If you have any questions, please contact my office at (424) 405-7303 or by email at Brian.Armstrong@faa.gov.

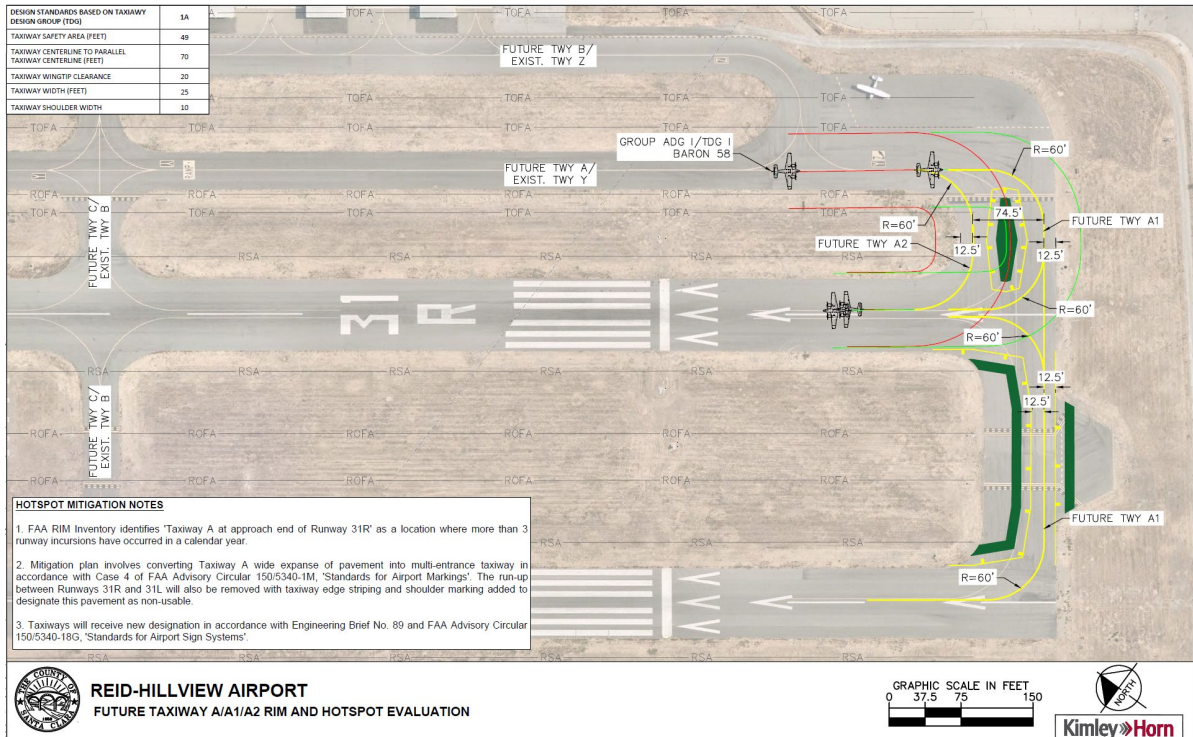
Sincerely,

Brian Q. Armstrong
Manager, Airport Safety and Standards Branch

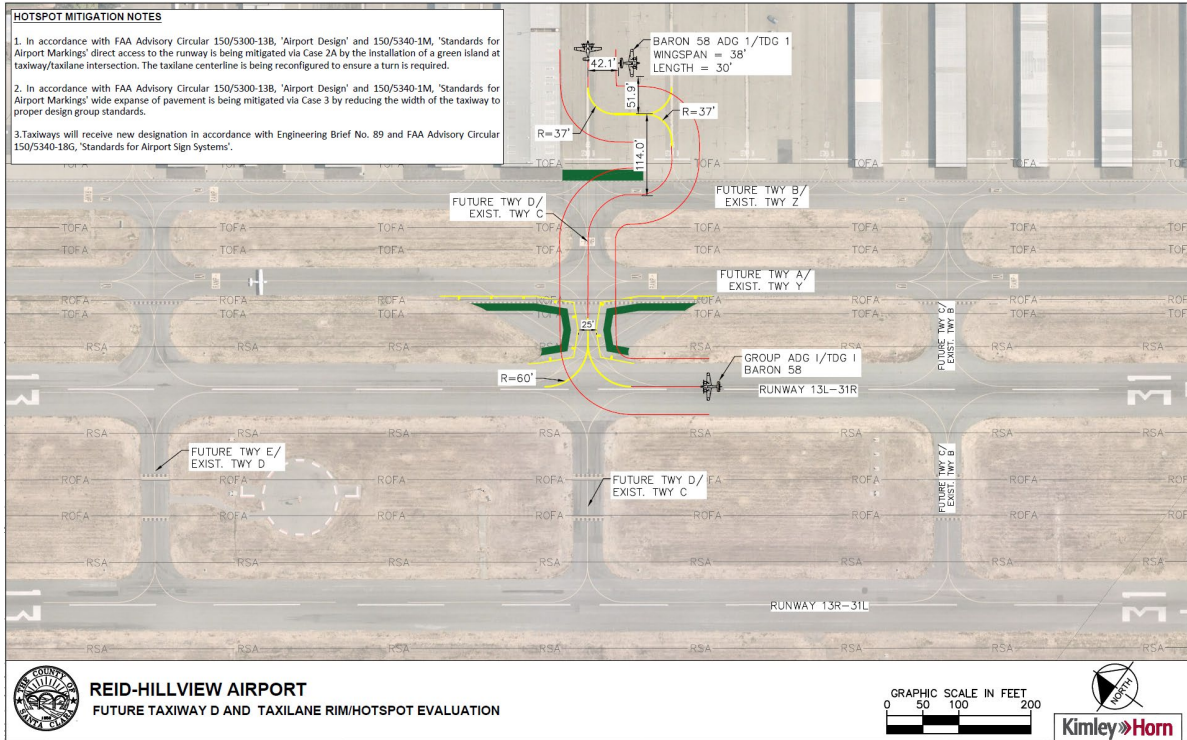
Enclosure 1 – County Proposals



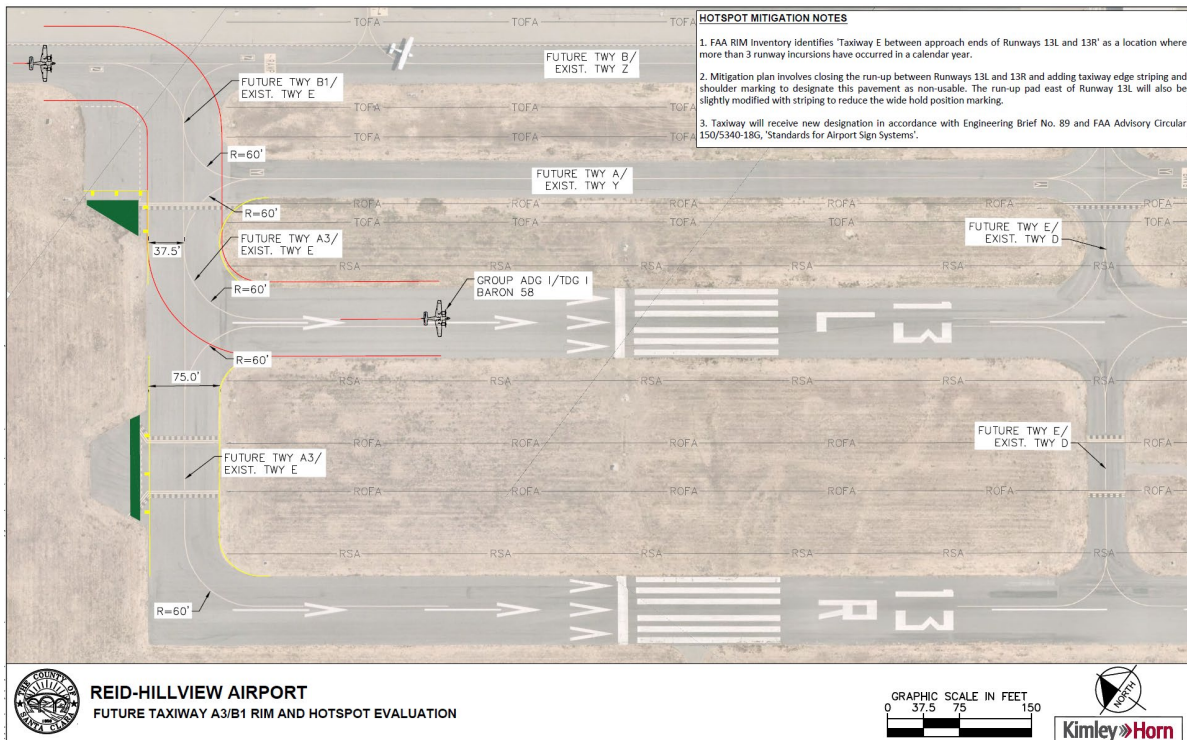
Page 1



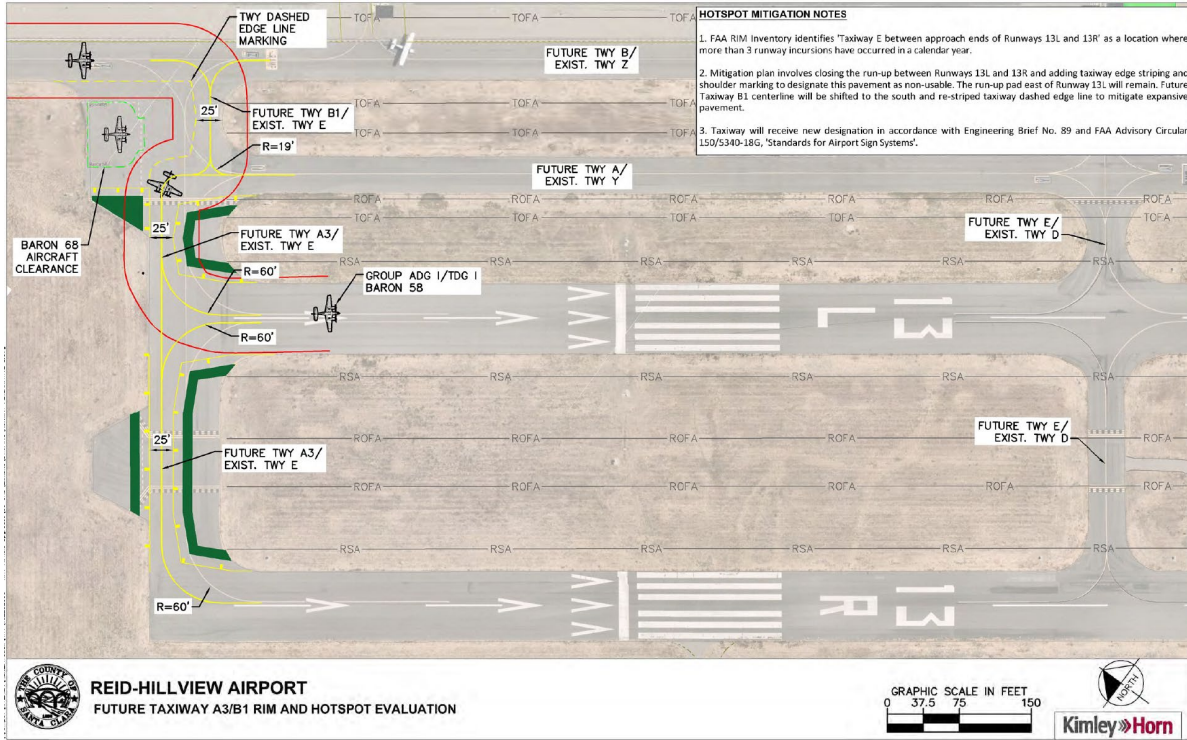
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Enclosure 2 - FAA's comments and recommendations

Runway Incursion Program (RIM) and Hotspot Mitigation

Our letter of June 16, 2022 indicated that it is appropriate for the County to propose how it plans to address the RIM and the hot spot locations as part of the signage project currently planned by the County. RHV continues to experience a high number of runway incursions and surface events, particularly at those locations. The majority of the past events occurred at the intersections of existing Taxiway Y, Taxiway A, and Runway 31R (south east end of the movement area) and at the intersections of existing Taxiway Y, Taxiway E, and the approach ends of both Runways 13L and 13R (north end of the movement area).

The FAA identified the intersections in the previous paragraph as RIM locations due to the number of runway incursions and the non-standard and/or problematic airfield geometry in those locations. 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 design standards. For these reasons, it is appropriate for the County to consider geometry, signage, and marking changes in these areas to bring the areas into compliance with current FAA standards and to mitigate runway incursion risks.

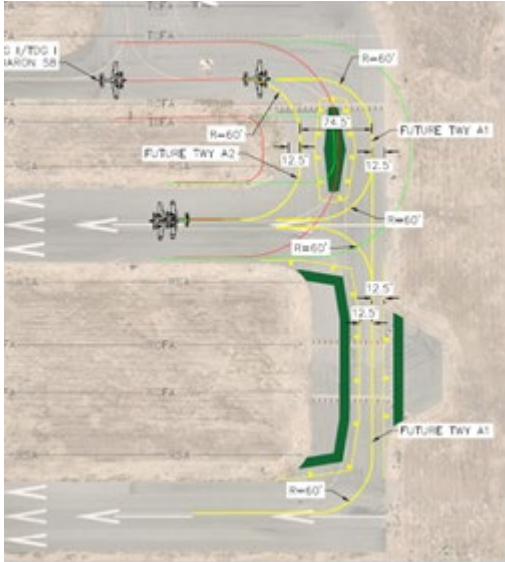
Applicable FAA design standards include, but not limited to:

- Advisory Circular (AC) 150/5300-13B, *Airport Design*;
- AC 150-5340-1M, *Airport Markings*; and,
- AC 150/5340-18G, *Standards for Airport Signs*.

In developing our comments and recommendations, we have presumed that the FAA's B-I Small Aircraft Approach Category and Airplane Design Group apply to RHV. Likewise, we assumed the application of the 1A Taxiway Design Group.

The County's proposed taxiway geometry seem to make these areas more consistent with FAA standards as compared to the existing conditions. The County's proposed changes also facilitates the placement of signs and markings in locations consistent with FAA standards. Nevertheless, the FAA offers the following recommendations for the County's consideration:

- Page 2 of the email attachment depicts the splitting of the wide expanse of taxiway pavement at the intersection of exiting Taxiway Y, Taxiway A, and the approach end of Runway 31R into two separate taxiways. This is accomplished by the placement of a "no-taxi" island. The County identifies the narrowed taxiway and the new taxiway as Taxiways A1 and A2 in its proposal. Both taxiways meet the applicable width standard of 25 feet, and attain a separation of 74.5 feet, which exceeds the applicable minimum Taxiway Centerline to Taxiway Centerline standard of 70 feet.



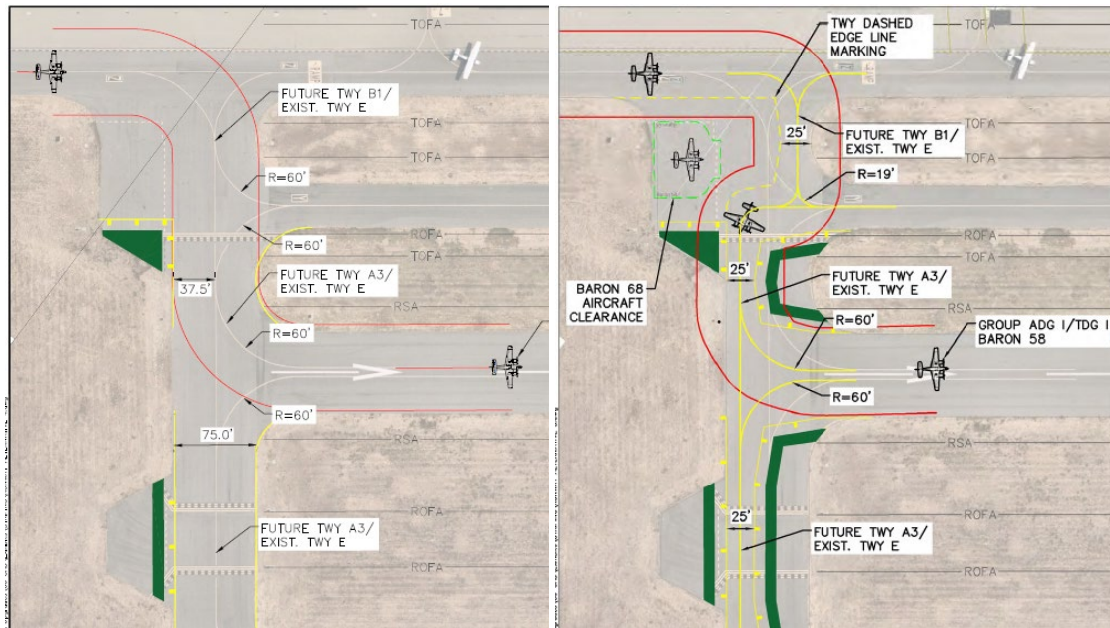
The County's proposal narrows the associated segment of the taxiway located between the two runways to the standard width of 25 feet. This eliminates the holding area between the thresholds of Runways 31L and 31R. It also provides for the standard placement of holding position signs on the pilot's side of the taxiway. Eliminating the holding area between the runways removes that portion of the existing hold lines that are closer to the runway than the standard 125 feet. The FAA takes no issue with these proposed standard geometry changes and associated signage changes.

This notwithstanding, the FAA Air Traffic Control Tower (ATCT) is concerned about the elimination of the holding area between the runways. The concern is that the elimination of this area may negatively impact their ability to queue aircraft for Instrument Flight Rules (IFR) departures on Runway 31L. As a result, the FAA recommends the County consider paving an additional standard taxiway segment between the runways (spanning the entire distance from Runway 31L to Runway 31R). The FAA recommends this new segment aligns with the proposed Taxiway identified as A2 in the County's proposal. This provides two standard taxiway entrances and exits from Runway 13R-31L and would provide a way to queue multiple aircraft simultaneously while maintaining consistency with FAA standards.

The ATCT has similar concerns about the proposed loss of the holding area on the north side of the airport, between the threshold of Runway 13L and 13R. However, we note that there is currently no published IFR departure procedures for departures on those runways. The County may investigate the additional standard taxiway upon their own determination.

- Pages 4 and 5 of the County's proposal depict two different options for the reconfiguration of existing Taxiway E. The FAA does not concur with the proposal on Page 4 (below left) as it does not narrow the width from the current 75 feet width. The FAA recommends the applicable standard taxiway width of 25 feet.

Page 5 (below right) depicts the narrowing of the subject taxiway segments to standard 25 feet and includes a realignment of the centerline of the taxiway between existing Taxiways Y and Z. As proposed, the realigned Taxiway segment requires a unique taxiway name, shown as Future Taxiway B1.



As an alternative, the FAA recommends consideration be given to narrowing this taxiway segment to the north, in alignment with the remainder of future Taxiway A3 as identified in the County's illustrations above. If this option is chosen, a no-taxi island will need to be installed between existing Taxiway Z and the adjacent parking apron. This no-taxi island eliminates the direct access from the ramp/parking area and the runway. Aircraft exiting the ramp through the remaining exits would then have to make at least two 90 degree turns before reaching the runway hold position for Runway 13L-31R. The placement of such an island eliminates or requires relocation of at least two tie down locations. Note that a similar no-taxi island is proposed for the intersection of Taxiway M and Existing Taxiway Z.

Taxiway Designations

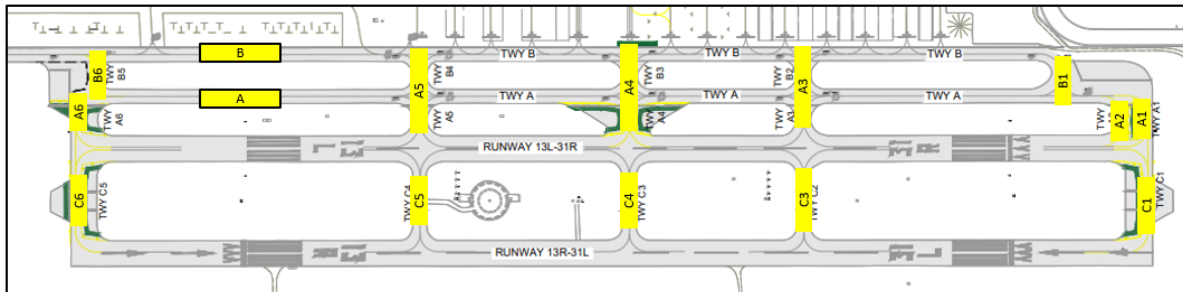
Additionally, our letter of June 16, 2022 indicated that the current taxiway designations at RHV are not consistent with the taxiway designation guidelines and standards set forth in Advisory Circular 150/5340-18G, *Standards for Airport Signs*. FAA Engineering Brief 89A, Taxiway Nomenclature Convention provides supplemental guidance. The FAA recommends using the guidelines and standards in this AC when developing or revising an airport signage plan as is currently being done by the County for RHV.

FAA offers the following for the County's consideration:

- Using the same taxiway designation for the runway entrance taxiways on both sides of RWY 13L/31R creates a risk for pilot loss of situational awareness due to similar location identifications. To establish positive location identification, we request the end taxiway connector segments between the runways be given unique alphabetic designations.

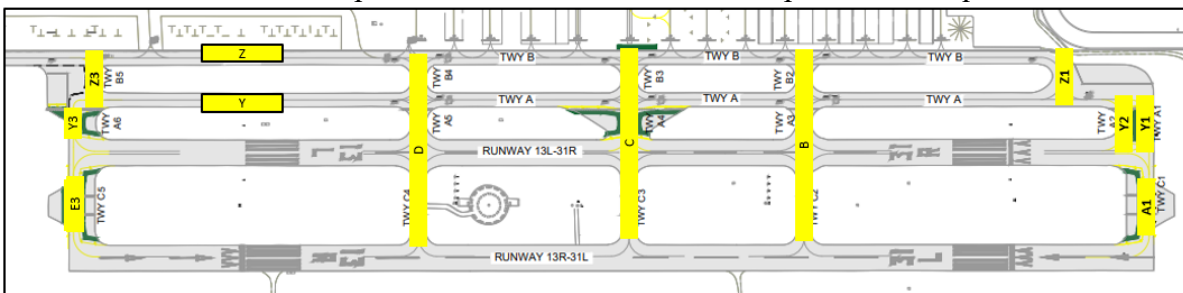
Applying unique identifiers differentiates those taxiways that fall between the runways on the west side of Runway 13L-31R, from those on the east side of Runway 13L-31R. These taxiways are the busiest runway entry and exit points on the airport and these intersections have experienced the highest volume of runway incursions.

This illustration shows an option that could be used to accomplish this.



- The FAA Air Traffic Control Tower manager has demonstrated to our office that current taxiways TWY C, TWY D and TWY E are primarily exit taxiways with a high frequency of crossing traffic. FAA does not object to these three taxiways retaining their current designation as this is consistent with FAA standards.
- The FAA's Air Traffic Control Tower manager asked that consideration be given to leaving the parallel taxiways designated as Taxiways Y and Z instead of re-designating them as Taxiway A and B respectively. The rationale for this is to avoid possible confusion with current taxilane and apron area designations (Row Alpha for example). It would also allow for the crossing Taxiways B, C, and D to remain named as is, reducing the learning curve for ATCT personnel and regular airport users. Although retaining the existing TWY Y and TWY Z designations is inconsistent with FAA standards, the FAA believe this inconsistency is of a minor nature and poses little to no risk for loss of situation awareness.

This illustration shows an option that could be used to accomplish these requests.



- If the taxiway segment, identified as future Taxiway B1, is shifted to the south as shown on Page 5 to prevent direct access from an apron to the runway, this taxiway segment will need a unique taxiway identifier as is shown in the County proposal and in the illustrations above. The County's plan currently designates that segment as Taxiway B1. If this taxiway is shifted to the north to align with the new centerline proposed for Taxiway A3, (see our related comment above) then single alpha-numeric designation, may be used for that entire segment east of Runway 13L.
- The FAA recommends that you discuss these recommendations with the local Air Traffic Control Tower Manager and airport users. There may be other options available to re-designate certain non-movement areas to avoid possible confusion. There may also be options available to maintain the current designations of Taxiways Y and Z still bring the airport into compliance with current FAA standards.