VII. Conclusion

This traffic impact study addresses the capacity, geometric, and control requirements associated with the re-development entitled The Crest at Woodmen. The proposed mixed use development is located south of the Woodmen Road and Vincent Drive intersection in Colorado Springs, Colorado.

The study area to be examined in this analysis encompasses the Woodmen Road intersections with Vincent Drive, the existing 3/4 movement access east of Vincent Drive, and the intersection of Vincent Drive and Dublin Boulevard.

Land for the development accommodates an existing warehouse and office development known as Current, Inc. Processing Center. The proposed re-development is understood to entail the construction of approximately 133,000 square feet of office space, 278,000 square feet of shopping center area, and 103,000 square feet of department store with associated on-site parking and landscaped areas. It is also understood that the existing office building and a portion of the warehouse area will remain upon site re-development. Primary development access is provided by the existing Woodman Boulevard intersections of Vincent Drive and 3/4 access, the Vincent Drive and Dublin Boulevard intersection, and site access proposed along the realigned segment of Vincent Drive.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2017 and Year 2035 background traffic conditions, and Year 2017 and Year 2035 total traffic conditions.

Analysis of existing traffic conditions indicate that the signalized intersection of Woodmen Road and Vincent Drive operates overall at LOS C during both the AM and PM Peak Hour. The signalized intersection of Dublin Boulevard and Vincent Drive operates at LOS B or better in peak traffic hours. The unsignalized turn movements at Woodmen Road and site access (East Access) operates at LOS C or better during each traffic peak hour. The westbound left turn movement at East Access is shown to experience a LOS E operation during only the afternoon peak hour. The LOS E operation experienced for the particular left turn movement is attributed to the volume of through traffic on Woodmen Road and the stop-controlled nature of the intersection.

Background traffic analysis for Year 2017 indicates that Woodmen Road and Vincent Drive has an overall operation of LOS C in the AM and PM Peak Hour. The intersection of Dublin Boulevard and Vincent Drive operates at LOS B and better in the peak hours. The unsignalized intersection of Woodmen Road and East Access is expected to operate at LOS E and better during the morning and afternoon peak hour, similar to existing conditions.

With the proposed re-development, Year 2035 background traffic analysis projects that the signalized intersection of Woodmen Road and Vincent Drive operates at LOS D in the AM peak hour and LOS F during the PM peak hour. The LOS F and corresponding intersection delay is attributed to the high volume of through traffic traveling on Woodmen Road. No reasonable mitigation appears available for the LOS F operation beyond potential signal timing and signal coordination adjustments made by City Staff. Peak hour turn movement operations at the stop-controlled, 3/4 movement (no left turn egress) intersection of East Access and Woodmen Road are projected to expect operation at LOS A and LOS C during the morning peak hour, and LOS E and LOS F in the afternoon peak hour. Again, the LOS E and

Figure 5 - Traffic Study Conclusions

LOS F operation is mainly due to the volume of through traffic on Woodmen Road. As explained in this study, it is not uncommon for unsignalized movements to or from an arterial or collector roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two Way Stop Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Woodmen Road at Vincent Drive will tend to create additional gaps in the eastbound traffic stream for turning movements at East Access. The Dublin Boulevard intersection with Vincent Drive is expected to experience a long-term, overall, peak hour LOS B operation.

Analysis of future traffic conditions indicate that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadways. With all conservative assumptions defined in this study, study intersections are projected to operate at future levels of service comparable to background traffic conditions.

It is not recommended that development access on Woodmen Road or Dublin Boulevard be more limited than that analyzed in this study. Limited access will interfere with the development's ability to equally distribute traffic within the site and out to the available roadways, thus impacting existing and future traffic in the surrounding area and potentially cause the adjacent roadway network to be used in a manner not intended.

Figure 5 - Traffic Study Conclusions