

Appendix I
High School No. 5 Alternative Site Analysis

Appendices

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HIGH SCHOOL #5 ALTERNATIVE SITE

As part of the 2012 Modified Project, a 2,600 student high school is proposed to be located in the northwest corner of District 5 along Irvine Boulevard, and constructed in accordance with the terms of a School Mitigation Agreement between IUSD and the applicant. In response to public discussion regarding the proposed location of IUSD's future High School #5, analysis of an additional option is being added to the FSSEIR for planning purposes. This option does not reduce or eliminate any significant impacts associated with the 2012 Modified Project, and therefore does not meet the requirements for an Alternative as defined in CEQA Guideline Section 15126.6(a), but it does respond to comments and concerns that have been expressed in the public process. In addition, selection of a different high school site than the one provided for in the Mitigation Agreement between the applicant and IUSD would require the approval of IUSD and other developer parties, and the City has no control over that decision. As such, it is not feasible for the City as lead agency to implement this option as a project alternative. Nonetheless, this analysis provides information to the decision makers.

The analysis in this section compares the potential impacts of the proposed site of High School #5 to an approximately 40-acre site located within the Orange County Great Park (OCGP), just south of District 1 South and east of "O" Street, designated as Site B2 on Figure 7-1. The high school would be within the boundaries of the IUSD, and IUSD would operate the school. Approval of this option would require the consent of IUSD and further agreement between the Applicant and IUSD and IUSD and the other developer that has a mitigation agreement with them. The high school has not yet been designed; however, the Mitigation Agreement provides for a facility that would comprise roughly 210,000 square feet of building area.

This alternative assumes all the same characteristics of the 2012 Modified Project other than the location of the high school. That is, this alternative assumes the same total residential units and density bonus units, non-residential development, and distribution of development among Districts, etc. However, the density would be redistributed throughout the Planning Area as follows:

District 5:

- TAZ 851 - Remove High School (2,600 Students)
- Add 360 Multi-Family Residential Units
- Add 3.6 Acres Neighborhood Park

District 6:

- TAZ 610 - Reduce Multi- Family Residential by 180 Units
- Reduce Neighborhood Park by 1.8 Acres
- TAZ 611 - Reduce Multi- Family Residential by 180 Units
- Reduce Neighborhood Park by 1.8 Acres

Orange County Great Park (OCGP):

- TAZ 991 - Add High School (2,600 Students)

The currently proposed High School site within District 5 is zoned 8.1 Trails and Transit Oriented Development, although no additional intensity would be granted. In addition, this alternative would incorporate the already-imposed mitigation measures from the 2011 Certified EIR, and all mitigation measures recommended for the 2012 Modified Project would similarly be recommended for this alternative.

The current zoning for the High School #5 Alternative Site is 1.9 Orange County Great Park, which does not allow public schools. However, since the IUSD would be the Lead Agency for the project, they would not be subject to the City of Irvine General Plan or Zoning regulations. The Western Sector Development Plan for the OCGP currently proposes a variety of recreational uses at this location, including the Western Picnic Area, Community Ice Facility, and the Festival Site. These proposed uses would have to be relocated or eliminated in order to implement this alternative.

It is assumed in this alternative that the overall district boundaries of IUSD and Saddleback Valley Unified School District would remain in their current locations.

Aesthetics

Under this alternative, 40 acres of recreational uses would be replaced by a 2,600 student high school. Daytime or nighttime glare impacts from the school are not expected, as the exteriors of public school buildings are constructed of low-glare materials.

With regard to scenic vistas, as none are present on-site, no significant impacts would occur under this alternative.

Overall, the localized aesthetic impacts associated with this alternative would be similar as compared to the 2012 Modified Project.

Agricultural Resources

The 2011 Certified EIR, which analyzed the impacts of the 2011 Approved Project, concluded that the 2011 Approved Project would not result in an impact to agricultural resources; consequently this alternative also would not result in an impact to agricultural resources. Although the 2012 Modified Project would rezone 13 acres in District 6 currently zoned 1.1 Exclusive Agriculture to 1.4 Preservation to allow for the development of the Relocated Wildlife Corridor Feature, the analysis included in Section 5.2, *Agricultural Resources* of this DSSEIR demonstrates that the conversion of this farmland would result in a less than significant impact on agricultural resources and would not conflict with the proposed zoning or surrounding agricultural uses. As such, neither this alternative nor the 2012 Modified Project would result in a significant impact on agricultural resources.

Because no areas within the Proposed Project Site are zoned for forest land, timberland, or timberland production, neither this alternative nor the 2012 Modified Project would create any impact on these resources. Both this alternative and the 2012 Modified Project propose to develop the same forest land areas, and both incorporate Mitigation Measure Bio-4 from the 2011 Certified EIR and associated MMRP, which requires a tree survey by an arborist; trees greater than six inches in diameter at chest height and trees designated significant by the arborist would be protected under the City's Urban Forestry Ordinance. Therefore, both this alternative and the 2012 Modified Project would result in the same conversion of forest land to non-forest land use. Neither this alternative nor the 2012 Modified Project would result in any other impacts to agricultural resources.

Air Quality

This alternative would develop the same number of residential units (9,500 units, or 10,700 units with the optional conversion) as the 2012 Modified Project, and the same amount of non-residential square footage.

Since the same amount of development would be proposed, construction emissions of this alternative would be similar to those of the 2012 Modified Project. Construction emissions for the 2012 Modified Project were determined to be significant for VOC, NO_x, CO, PM_{2.5}, and PM₁₀. As with the 2012 Modified Project, this alternative's construction impacts would be significant and unavoidable.

The operational emissions would also be similar for all the source categories since the amount of development would not change. Therefore, like the 2012 Modified Project's operational emissions of criteria pollutants, this alternative's impacts would be significant and unavoidable.

Because this alternative has the same number of residential units and non-residential square footage, this alternative would be consistent with the 2012 AQMP, like the 2012 Modified Project.

Local CO emissions, and PM¹⁰ and PM^{2.5} diesel particulate emissions at the Alternative School Site are likely to be higher due to its location near the SR-133 and closer to the rail line.

Overall, construction- and operation-related air quality impacts associated with this alternative would generally be the same, compared to the 2012 Modified Project; both impacts would remain significant and unavoidable. However, local air quality at the Alternative High School Site would be worse due to proximity to SR-133 and the rail line. Therefore, this alternative would not reduce or avoid the 2012 Modified Project's significant and unavoidable air quality impacts.

Biological Resources

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, impacts to the Southern tarplant, a federal species of concern, were identified in the 2011 Certified EIR as less than significant after implementation of Mitigation Measure Bio-1, which is incorporated into both this alternative and the 2012 Modified Project. The 2012 Modified Project would not develop any areas that were not previously identified for development in the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. Development of the 11 acres would not impact any such species since it has been previously graded and consists of non-native grasses. Therefore, the 2012 Modified Project and this alternative would have the same less than significant biological impacts on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

The 2011 Certified EIR found that coastal sage scrub is considered sensitive in regards to the habitat it provides for the California gnatcatcher, but that, due to the large amount of land designated for habitat preserve and protected in perpetuity, no significant impact would occur as a result of the development of the 2011 Approved Project. It further found that small portions of the NCCP Reserve have been or may be conveyed to other agencies for non-habitat uses, but that the City did not have any control over those transfers. The 2012 Modified Project would not develop any areas that were not previously identified for development in the 2011 Approved Project or that are not otherwise disturbed. Therefore, both the 2012 Modified Project and this alternative would have the same less than significant biological impacts on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impacts to federally protected wetlands were evaluated in the 2011 Certified EIR and determined to be less than significant with incorporation of Mitigation Measure BIO-2, which is incorporated in the 2012 Modified Project. The 2012 Modified Project would not develop any areas containing wetlands that were not previously identified for development in the 2011 Approved Project. Therefore, both the 2012 Modified Project and this alternative would result in the same less than significant impacts to federally protected wetlands.

All of the areas proposed for development on the Proposed Project Site under the 2012 Modified Project were already proposed for development under the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. Both the 2011 Approved Project and the 2012 Modified Project include a wildlife corridor and drainage corridors. Therefore, both this alternative and the 2012 Modified Project would result in the same less than significant impacts related to wildlife corridors or movement of species.

Impacts to tree resources were evaluated in the 2011 Certified EIR and identified as less than significant after implementation of Mitigation Measure Bio-4, which requires a tree survey by an arborist; this mitigation measure has been incorporated into the 2012 Modified Project. Trees greater than six inches in diameter at chest height, and trees designated significant by the arborist, would be protected under the City's Urban Forestry Ordinance. The 2012 Modified Project would not develop any areas containing tree resources that were not previously identified for development in the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard which do not contain tree resources. Therefore, both this alternative and the 2012 Modified Project would be consistent with local policies and ordinances protecting biological resources, and result in the same less than significant impacts.

No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR. Approximately 974 acres offsite, have been designated as habitat preserve in accordance with the Orange County Central-Coastal NCCP. The habitat preserve was conveyed to the Federal Bureau of Investigation ("FBI") in January, 2013. The 2012 Modified Project would not develop any areas designated as habitat preserve in the 2011 Approved Project, or on the Proposed Project Site. Therefore, neither this alternative nor the 2012 Modified Project would conflict with an NCCP or Habitat Conservation Plan, and both would result in a less than significant impact.

Cultural Resources

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, impacts to historical resources were identified as less than significant in the 2011 Certified EIR for the 2011 Approved Project. The 2012 Modified Project would not develop any areas that were not part of the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. The 11 acres do not contain any historical resources. Therefore, neither this alternative nor the 2012 Modified Project would result in any impact to historic resources.

Impacts to archaeological resources were evaluated in the 2011 Certified EIR and determined to be less than significant after implementation of Mitigation Measures Cult-1 through Cult-4, which are incorporated into both the 2011 Approved Project and the 2012 Modified Project. The 2012 Modified Project would not develop any areas that were not part of the 2011 Approved Project, with the exception of the 11 acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. The incorporation of Mitigation Measures Cult-1 through Cult-3 from the 2011 Certified EIR and associated MMRP into the 2012 Modified Project, including the

abovementioned 11 acres, would reduce any potential impacts of the 2012 Modified Project on archeological resources to a less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to archaeological resources.

As discussed in the 2011 Certified EIR, there are no unique geological features within the Approved Project Site. The majority of the Proposed Project Site, including the 11 acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard, has little topographic relief, with 1.5 to 2.5-percent-grade slope to the west and southwest, and a gently sloping to steep hillside area at the eastern section of the Proposed Project Site. The 2011 Certified EIR found that the 2011 Approved Project's impacts to paleontological resources would be less than significant after mitigation. Mitigation Measure P-1 from the 2011 Certified EIR and associated MMRP is incorporated into the 2012 Modified Project, and would reduce any potential impact of the 2012 Modified Project on paleontological resources to a less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to paleontological resources.

The 2011 Certified EIR found that the 2011 Approved Project's impacts to cultural resources, including human remains, would be less than significant with incorporation of Mitigation Measure Cult-4. The 2012 Modified Project also incorporates Mitigation Measure Cult-4 to reduce impacts to human remains to a less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to cultural resources, including human remains.

Geology and Soils

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, both this alternative and the 2012 Modified Project would result in less than significant impacts from exposure of persons or structures to the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure, including liquefaction, and landslides. No earthquake faults have been identified within the Proposed Project Site or the Approved Project Site, and, therefore, the risk of surface rupture of a fault affecting either this alternative or the 2012 Modified Project is extremely low. In addition, the 2011 Certified EIR concluded that hazards arising from strong ground shaking would be less than significant after implementation of Mitigation Measures GS-1 through GS-3, which are incorporated into both the 2011 Approved Project and the 2012 Modified Project; therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to ground shaking with mitigation. Further, the 2011 Certified EIR concluded that, with implementation of one or more measures and current code-prescribed design methodology, based on development type and local ground conditions as determined by site-specific geological investigations prior to grading and construction of individual projects in accordance with the City's Grading Ordinance, the potential liquefaction impacts of both this alternative and the 2012 Modified Project would be reduced to less than significant. Finally, the 2011 Certified EIR concluded that hazards related to landslides would be less than significant after implementation of Mitigation Measure GS-2, which has already been imposed and is incorporated in the 2011 Approved Project, and conformance with the City's Grading Ordinance, both of which are applicable to the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to landslides.

Soil erosion impacts were determined in the 2011 Certified EIR to be less than significant for the 2011 Approved Project after implementation of Mitigation Measures GS-2 and GS-4. Mitigation Measures GS-2 and GS-4 are also incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to soil erosion and loss of topsoil.

As stated in the 2011 Certified EIR, most soils on the Proposed Project Site are considered well suited for grading and construction. Potential impacts related to soil instability were identified to be less than

significant in the 2011 Certified EIR for the 2011 Approved Project. Specifically, it was determined that Mitigation Measure GS-2 and corrective grading would reduce potential impacts due to landslide, lateral spreading, potential liquefaction, and subsidence hazards. These measures are also incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to unstable soils.

The 2011 Certified EIR concluded that hazards arising from expansive soils would be less than significant for the 2011 Approved Project after implementation of Mitigation Measure GS-2, which has already been imposed and is incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to expansive soils.

Neither this alternative nor the 2012 Modified Project includes the use of septic tanks or alternative wastewater disposal systems; therefore, neither would result in impacts related to the use of septic tanks.

Greenhouse Gas Emissions

As discussed in Section 5.4, *Greenhouse Gas Emissions*, of this DSSEIR, the 2012 Modified Project would generate 162,406 metric tons (“MTons”) of greenhouse gas (“GHG”) emissions (CO₂e) per year without the optional conversion, and 164,152 MTons of CO₂e per year with the optional conversion, both of which include one-time amortized emissions from construction activities and one-time amortized carbon sequestration from vegetation changes. Although slight changes in traffic distribution would occur with this alternative, overall greenhouse gas emissions are expected to be similar. Therefore, both this alternative and the 2012 Modified Project would result in a less than significant impact on GHG emissions.

Hazards and Hazardous Materials

Under this Alternative, the high school would be located in close proximity to IRP Site 24, consisting of contaminated groundwater. However, it is not expected that construction of a high school would require penetration of the groundwater table, which is greater than 70 feet below the ground surface, and no significant impacts are expected with this Alternative.

Operation of a school involves use of only small amounts of hazardous materials for cleaning and maintenance purposes. Existing regulatory requirements pertaining to the handling, storage, use, transportation and disposal of these materials apply to either scenario. This alternative would also cause portions of PA 51 containing existing structures to be developed, resulting in the need to demolish existing structures that may contain ACMs and/or LBP. Development under this alternative would also occur in the same areas containing remediation sites. However, as with the 2012 Modified Project, demolition and development activities under this alternative would be required to adhere to the regulations, already-imposed mitigation measures from the Certified EIR and PPPs outlined in Section 5.5, *Hazards and Hazardous Materials*, of this DSSEIR.

In addition to compliance with the regulations mentioned above, the IUSD would be required to obtain clearance from the Department of Toxic Substances Control (“DTSC”) before the California Department of Education (“CDE”) would approve expenditure of State funds for construction of a public school at either location.

Wildfire hazard impacts of this alternative are expected to be the same as those of the 2012 Modified Project, namely, less than significant.

Overall, the hazards and hazardous materials impacts associated with this alternative would be similar to those of the 2012 Modified Project, therefore, impacts would be less than significant in both of these scenarios.

Hydrology and Water Quality

Implementation of this alternative would have similar hydrology and water quality impacts to those of the 2012 Modified Project, discussed in Section 5.6, *Hydrology/Water Quality*, of this DSSEIR, all of which would be less than significant like those of the 2012 Modified Project. Under this alternative, there would be similar drainage patterns and peak flows as compared to the 2012 Modified Project.

Similar to the 2012 Modified Project, development of the high school under this alternative would be required to adhere to existing procedures governing water quality, many of which have already been met for the 2011 Approved Project, which would result in less than significant impacts. See Section 5.6., *Hydrology/Water Quality*, for the analysis of the 2011 Approved Project's compliance with regulatory requirements and the already-imposed mitigation measures from the 2011 Certified EIR and associated MMRP. In terms of water quality, this alternative would have less than significant impacts on water quality, like the 2012 Modified Project.

Current Irvine development standards and Zoning Code requirements prohibit the construction of any structure within a 100 year Flood Hazard Area. Per the Zoning Code and previously-adopted Mitigation Measure H/WQ-4 from the 2011 Certified EIR and associated MMRP, which is necessarily incorporated into both this alternative and the 2012 Modified Project, a Letter of Map Revision (LOMR) must be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the flood control improvements required to contain or redirect the 100-year flood hazard. This would ensure that impacts from flooding under this alternative would be similar to the 2012 Modified Project.

This alternative's proposed uses would be developed on essentially the same site as the 2012 Modified Project, although the high school site would be moved from District 5 to a location within the Orange County Great Park, and therefore for the same reasons identified for the 2012 Modified Project, it would also have less than-significant impacts resulting from exposure to flooding as a result of a levee or dam, or effects of seiche, tsunami, or mudflow.

Overall hydrology and water quality impacts of this alternative would be less than significant with incorporation of the PPPs and mitigation measures, like those of the 2012 Modified Project.

Land Use and Planning

Under this alternative, development on the Proposed Project Site would be almost identical to development under the 2012 Modified Project. The only difference in this alternative would be moving the high school from District 5 to a location within the OCGP.

The CEC prohibits development of public schools on sites where zoning of surrounding land could create a substantial hazard for persons on the school site. This prohibition applies to zoning for land uses that emit hazardous air emissions, such as some industrial uses and agricultural uses. The 2012 Modified Project does not propose zoning for industrial uses or agricultural uses within the Proposed Project Site; thus, development of the school is not expected to conflict with local land use regulations. However, the alternative high school site could potentially be located adjacent to retail uses in District 1 South and a regional, and possibly national, sports park, which could present potential land use conflicts. In addition,

this Alternative would locate the high school in close proximity to an existing SCE substation, potentially resulting in increased EMF exposure to students.

A review was conducted to determine if the proximity of the High School #5 Site to the Musick Facility was unusual and created safety concerns. As shown on Figure 7-1, the currently proposed location of High School #5 is approximately 0.7 miles from the Musick Facility. However, this is not unique or even unusual. Many Orange County schools are located within one mile of county jails and even more are located within one-mile of municipal jails. The EIR prepared for the James A. Musick Facility expansions provided discussions concerning public safety for informational purposes to address public comments and determined that while the public may express fears regarding a jail or prison facility, actual crime data analysis did not support those fears. The EIR indicated that there is no correlation between the crime incidents and recently released inmates. The likely reasons being that inmates are typically met by family and friends and transported out of the area, and after having been released, inmates desire to distance themselves from the jail facility. The EIR prepared for the Theo Lacy Facility expansion also had the same conclusion that a jail does not present any fact-based issues for public safety. Therefore, the alternative site is not expected to be any safer than the proposed location within the 2012 Modified Project.

The current zoning for the High School #5 Alternative Site is 1.9 Orange County Great Park, which does not allow public schools. However, since the IUSD would be the Lead Agency for the project, they would not be subject to the City of Irvine General Plan or Zoning regulations.

Overall, the land use impacts under this alternative would be similar to the 2012 Modified Project, although the impacts of both this alternative and the 2012 Modified Project would be less than significant.

Noise

The High School #5 Alternative Site results in a shift of 2,574 daily vehicle trip ends from District 6 to District 5, as residential units are repositioned from District 6 to the area previously occupied by the high school in District 5. The High School Location Alternative also results in a shift of 12 daily vehicle trip ends from District 6 to District 5, as Neighborhood Park acres are repositioned from District 6 to the area previously occupied by the high school in District 5. Location of the high school within the OCGP Sports Park also moves 3,224 daily vehicle trip ends out of District 5 and into the OCGP Sports Park.

As discussed in Section 5.7, *Noise*, of this DSEIR, the 2012 Modified Project would result in less than significant construction noise and vibration impacts on nearby off-site and on-site sensitive receptors, the closest of which would be located approximately 100 feet from the construction boundary. Construction noise and vibration impacts of this alternative could be slightly greater than those of the 2012 Modified Project due to its adjacency to the OCGP; however, construction noise and vibration impacts of this alternative are expected to be less than significant, like those of the 2012 Modified Project.

Placement of on-site noise-sensitive land uses proximate to high-volume roadways was identified as a significant impact for the 2012 Modified Project in this DSEIR. However, that impact was reduced to less than significant with mitigation. This alternative could also result in a significant impact due to the alternative site's location near the SR-133 Freeway and the rail line south of the site. Therefore, this alternative would have greater impacts to on-site sensitive receptors, although mitigation measures would likely reduce potential impacts to a less than significant level.

This alternative would create localized noise impacts from school events on the OCGP and adjacent development. The noise level impacts expected from the alternative site will likely include those from sources such as school bells, increased on-site traffic before and shortly after school. A focused noise

impact analysis would be required to identify the specific high school noise level impacts and mitigation that would be required to satisfy the City of Irvine noise standards. Although this alternative would move the stationary noise level impacts from District 5 to the OCGP, based on impacts of other proposed schools, school-generated noise impacts would be reduced to less than significant within several hundred feet of the school site and would not impact a large part of the Proposed Project Site or surrounding land.

Population and Housing

Section 5.9, Population and Housing, of this DSSEIR concludes that the 2012 Modified Project would create an additional 11,324 residents (14,274 residents with the optional conversion), an additional 1,062 jobs (or a decrease of 542 jobs with the optional conversion) and a jobs housing ratio of 1.85 (or 1.49 with the optional conversion). Based on these numbers, this DSSEIR concludes that the 2012 Modified Project would have a less than significant impact with respect to the jobs-housing ratio. This alternative assumes all proposed land uses remain the same. Therefore, this alternative would have a less than significant impact on population and housing, like the 2012 Modified Project.

Public Services

Under this alternative, development would occur throughout the Proposed Project Site as currently entitled, although the location of the high school would move from District 5 to a location within the OCGP. Impacts associated with fire protection, law enforcement, schools, and library services would be generally the same as for the 2012 Modified Project.

Overall, as in the 2012 Modified Project, impacts to public services for this alternative would be less than significant.

Recreation

Under this alternative, 40 acres within the OCGP would be used for a high school rather than recreational purposes. However, as is true for both this alternative and the 2012 Modified Project, residential development would be required to comply with City's park dedication requirements, and therefore, adequate park and recreation facilities would be provided to meet the needs of the anticipated population of both scenarios.

Therefore, as in the 2012 Modified Project, impacts to parkland and recreational facilities under this alternative would be less than significant, although land available for recreational purposes within the OCGP would be reduced by 40 acres.

Transportation and Traffic

A traffic evaluation of this alternative has been completed by Urban Crossroads and is included as Attachment 1. The High School #5 alternative site results in a shift of 2,574 daily vehicle trip ends from District 6 to District 5, as residential units are repositioned from District 6 to the area previously occupied by the high school in District 5. The High School Location Alternative also results in a shift of 12 daily vehicle trip ends from District 6 to District 5, as Neighborhood Park acres are repositioned from District 6 to the area previously occupied by the high school in District 5. Location of the high school within the OCGP Sports Park also moves 3,224 daily vehicle trip ends out of District 5 and into the OCGP Sports Park.

Traffic impacts of the High School #5 alternative site have been identified by analyzing the study area circulation system based on 2030 and Post-2030 future traffic conditions consistent with the phasing

assumptions of the high school analysis elsewhere in this DSSEIR. The 2011 Approved Project scenarios (baseline for 2030 and Post-2030) are compared to the Option 2 with this Alternative in order to identify the potential traffic impacts for conditions without and with pending projects. Cumulative future traffic conditions were evaluated using the Irvine Transportation Analysis Model, Version 8.4-10 (ITAM 8.4-10).

The results of the impact analysis are summarized in Table 29 of Attachment 1 for conditions without pending projects, and in Table 30 of Attachment 1 for conditions with pending projects.

Intersection lane configurations for project buildout (2030 and Post-2030) with the High School Location Alternative do not change in comparison to those shown on Exhibit 9-37 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012). The turn pocket storage lengths of intersections in proximity of the new high school location, as well as site access details, would need to be further evaluated in conjunction with site planning, if this alternative is advanced.

Table 31 of Attachment 1 summarizes the off-site improvements that would address impacts for this alternative. For each location, the table describes the relevant improvements..

Although the necessary traffic improvements would change under this alternative, all potential traffic impacts would be mitigated to a less than significant level, but like the 2012 Modified Project, would still result in significant and unavoidable impacts on affected intersections and roadway segments outside the jurisdiction of the City because implementation of certain mitigation measures for those impacts would be under the control of other cities, Orange County, or Caltrans.

Utilities and Service Systems

Under this alternative, development would occur throughout the Proposed Project Site as currently entitled, although the location of the high school would move from District 5 to a location within the OCGP. Overall, the residential and non-residential development associated with this alternative would result in the same demand for water, electricity, and natural gas services, and generation of wastewater and solid waste, as compared to the 2012 Modified Project. However, as with the 2012 Modified Project, the appropriate infrastructure and facilities for each service under this alternative would be available and/or built and the provider of each service would be able to effectively supply the necessary utilities and service systems. Furthermore, as with the 2012 Modified Project, development of this alternative would be required to adhere to the regulations, Certified EIR mitigation measures, and PPPs, outlined in Section 5.13, *Utilities and Service Systems*, of this DSSEIR.

Overall, as in the 2012 Modified Project, impacts to utilities and service systems would be less than significant.