

ENVIRONMENTAL IMPACT REPORT
FOR THE PROPOSED
SKY RANCH II RESIDENTIAL SUBDIVISION
IN UNINCORPORATED CONTRA COSTA COUNTY
PITTSBURG, CALIFORNIA

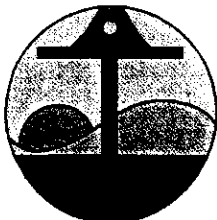
SCH #2004112092

Final EIR
September 2006

Draft EIR
December 2005

Draft EIR
Appendices

Prepared for:



City of Pittsburg
Planning Department
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THOMAS

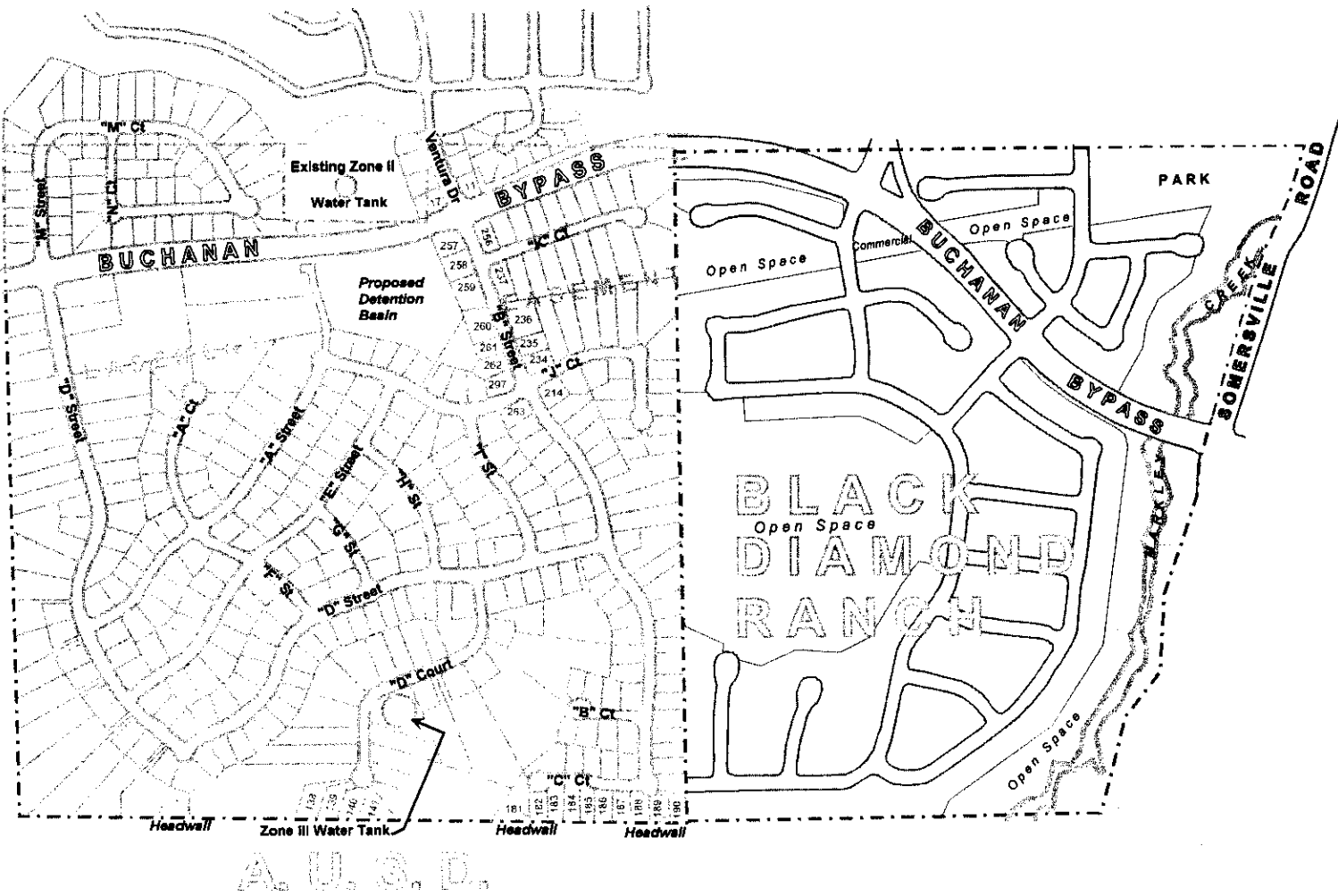


FIGURE 3
Proposed Sky Ranch II Subdivision
shown with Black Diamond Ranch

City of Pittsburg
 65 Civic Avenue
 Pittsburg, CA 94656

0 200 400 ft

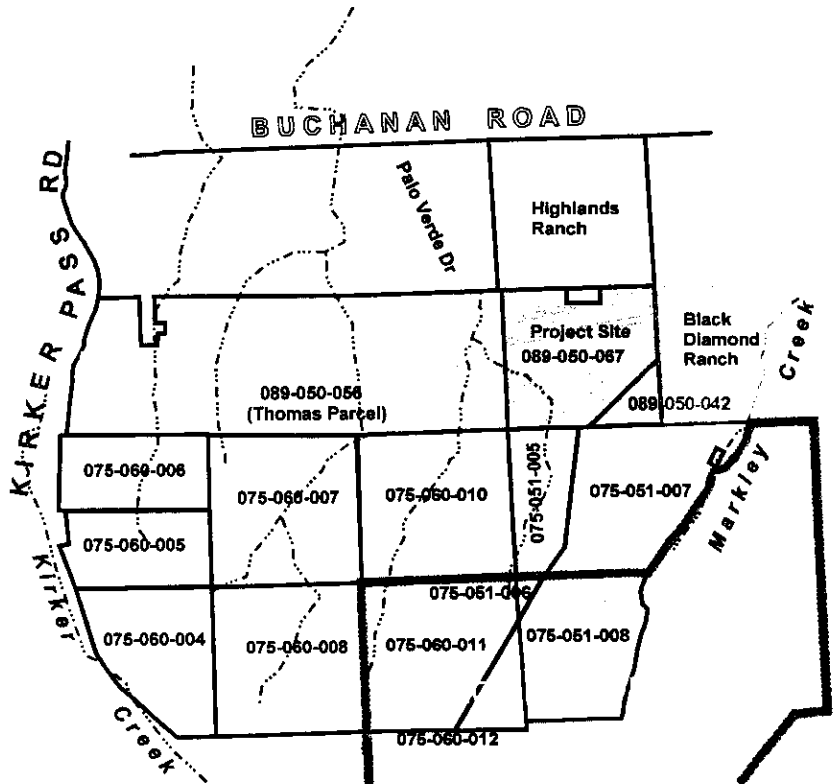


TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
V.A Biological Impacts			
IMPACT A1 California tiger salamander (CTS) Implementation of the proposed project would result in removal of 163 acres of aestivation and/or breeding habitat for the federally-listed threatened CTS. The CTS habitat on the project site currently is not designated or proposed by USFWS as CTS critical habitat. The footprint of the project as proposed encompasses the entire area of the project site; therefore, there is no opportunity for on-site mitigation for impacts to CTS habitat under the development plan as proposed. Development of the project as proposed would require a substantial off-site CTS mitigation proposal consisting of the purchase and preservation of up to 489 acres of occupied CTS habitat off-site or purchase of credits at an off-site agency-approved mitigation bank	Developer shall perform or retain a professional biologist to perform the following: <ul style="list-style-type: none"> • A CTS Mitigation Plan shall be developed in coordination with USFWS as part of the federal ESA Section 7 or Section 10 consultation. • Tentatively, the amount and kind of habitat compensation is 489 acres, calculated at a ratio of 3:1 for the 163 acres of on-site habitat. The habitat types to be mitigated are annual grassland, 0.11 acre of palustrine emergent seasonal wetland, and approximately 800 to 1,900 feet of riverine intermittent streambeds. • The CTS Mitigation Plan shall include provisions for relocation of CTS individuals from the project site, long-term conservation of the mitigation land, management activities to assure long-term protection of mitigation wetlands, and long-term maintenance of CTS breeding, refugial and dispersal habitats. • During construction, the applicant/developer shall employ qualified biological monitors during all construction or excavation activities associated with the project. The monitors shall hold appropriate permits from USFWS and would implement provisions of the CTS Mitigation Plan including CTS trap-and-relocate as-needed. • Prior to and during construction, the applicant/developer shall employ a qualified biologist to deploy barriers to keep CTS that may be present in adjacent off-site areas out of developed areas of the project. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	The City of Pittsburg will ensure that the CTS Mitigation Plan is approved by USFWS prior to issuance of a Site Development Permit. Habitat acquisition must occur at a suitably early time in the development process, before initiation of grading on the project site, to enable implementation of conservation measures on the mitigation parcels. USFWS during Section 7, or Section 10, consultation will confirm the amount and kind of habitat compensation, and will identify specific mitigation parcels, timing of habitat acquisition, monitoring requirements, performance standards and contingency measures.
IMPACT A2 California tiger salamander (CTS) Human activities and population within the project site can indirectly affect CTS. These effects include water and light pollution, human disturbance, increased numbers of domestic predators (e.g., dogs and cats), increased vehicle-related disturbance, and increased risk of wildfire. Amphibians are susceptible to herbicides and pesticides. On breeding migrations, up to 15 to 20 CTS individuals per mile of road can be killed.	Developer shall construct, perform, or implement the following: <ul style="list-style-type: none"> • A permanent barrier that would keep CTS, which may be present on the adjacent Thomas and AUSD-owned parcels, out of the developed area. • Low-light measures for the outer perimeter of the project site, especially the site's southern boundary, and off-site water reservoir service road. • An information kiosk in the southern portion of the project site to foster resident and visitor awareness of wildlife needs. If a mini-park is constructed in the area south of "C" Court, as recommend in Chapter V.G, this mini-park would be an ideal location for a public information kiosk. • Access-restricting barriers to the off-site water reservoir and service road, and other EVA roads, to minimize wildlife disturbance and road kill. The recommended CTS barriers are intended to prevent CTS from entering the developed area. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	It is suggested that the CTS barrier be constructed along the southern and western boundaries during the grading phase. After buildout, Homeowners' Association will be responsible for long-term maintenance of the barrier and kiosk.
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT A3 San Joaquin kit fox (SJKF) Implementation of the proposed project would result in removal of 163 acres of annual grassland at the northern limit of the range of the federally-listed endangered and California-listed threatened SJKF. The CTS habitat on the project site is not designated or proposed as critical habitat of SJKF; nevertheless it adjoins the SJKF movement corridors acknowledged in the Draft HCP.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> • The CTS Mitigation Plan shall provide for long-term conservation and management and of approximately 489 acres of annual grassland habitat. This will compensate the same kind of habitat used by the SJKF. • During Section 7, or Section 10, consultation, the developer in coordination with USFWS/CDFG shall consider mitigation parcel locations that are within the range of the SJKF or adjoin its movement corridors. Residual effect after mitigation: LTS	Project Proponent	
IMPACT A4 California red-legged frog (CRLF) The project site was found not to contain permanent water habitat suitable for CRLF. USFWS has deleted by Final Rule previously proposed CRLF critical habitat which included extensive area south of the project site and included the southwestern corner of the project site.	None is warranted as there is no impact to CRLF species or its critical habitat. Residual effect after mitigation: LTS	none	
IMPACT A5 Loggerhead Shrike Loggerhead shrikes are resident in the area, and nesting season wildlife surveys conducted in April and June of 2004 detected loggerhead shrike foraging at both the northern and southern edges of the project site, indicating that the species may nest off-site in the project area. Preferred nesting habitat for loggerhead shrike (<i>i.e.</i> , trees or shrubs with thick foliage) is limited to the few trees present on the project site. It is, therefore, unlikely that loggerhead shrikes nest on site.	Developer shall provide for the following professional service: <ul style="list-style-type: none"> • Retain a qualified biologist to perform pre-construction surveys necessary to be certain that the species is not nesting on-site during grading and construction. If nests of this species are found, biologist shall devise a construction plan that would allow successful nesting. Residual effect after mitigation: LTS	Project Proponent	
IMPACT A6 California Horned Lark California horned larks were present at the site during winter surveys, the species was not detected on the site during surveys conducted during the spring and summer, indicating that although the species winters at the site, it apparently does not nest.	Developer shall provide for the following professional service: <ul style="list-style-type: none"> • Retain a qualified biologist to perform pre-construction surveys necessary to be certain that the species is not nesting on-site during grading and construction. If nests of this species are found, biologist shall devise a construction plan that would allow successful nesting. Residual effect after mitigation: LTS	Project Proponent	
IMPACT A7 Burrowing owl Burrowing owl habitat was assessed not to be present at the time of surveys in view of the lack of ground squirrel burrows. Such conditions can change over time and are subject to various influences.	Developer shall provide for the following professional service: <ul style="list-style-type: none"> • Retain a qualified biologist to perform pre-construction surveys necessary to be certain that the species is not nesting on-site during grading and construction. If nests of this species are found, biologist shall devise a construction plan that would allow successful nesting. Residual effect after mitigation: LTS	Project Proponent	
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Impact	Mitigation Measures	Action by	Notes
IMPACT A8 Relation with New Road and Increased Traffic The proposed Buchanan bypass would be a new road in the HCP/NCCP inventory area and the predicted increase in local population also would increase vehicle traffic on roads generally in the HCP/NCCP inventory area. San Joaquin kit fox, covered birds, reptiles, and amphibians may be killed or disturbed by increased vehicular traffic.	<ul style="list-style-type: none"> Developer shall prepare CC&Rs which shall include specific prohibitions to off-road travel around the site's perimeter and upland areas and prohibitions to travel on the service road. Developer shall install street signs approved by City Public Works Department, indicating such prohibitions. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
IMPACT A9 Increased Human Presence The proposed project could increase visitation at Black Diamond Mines Regional Preserve and off-site walking on the reservoir service road, resulting in potential indirect impacts on biological resources from collection and harassment, introduction of nonnative species, predation by pets or feral cats, and increased frequency of wildfire ignitions. Pets and feral cats pose a serious threat to native birds, especially those that nest on or near the ground, as well as to native amphibians and reptiles. Ornamental plants may spread to adjacent protected areas and out-compete native plant species.	<p>Developer shall provide for, perform, or implement the following:</p> <ul style="list-style-type: none"> Kiosk (see IMPACT A2, above) literature shall include pamphlets about prohibited activities including collecting or harassing protected species. Kiosk (see IMPACT A2, above) literature shall include pamphlets on designated walking trails in the area, restrictions on pets use of trails or non-designated areas off of designated trails. Restrictions, if any apply, to hiking/walking on the reservoir service road shall be posted in accordance with requirements of CDFG and the City. CC&Rs for this project shall include a list of invasive species of plant and shall prohibit planting of listed invasive species. Landscape plans shall be subject to the City Landscaping Ordinance. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
IMPACT A10 Relation with an Approved Open Space Pocket The proposed project would bound an island, or "pocket," of open space dedicated within Black Diamond Ranch. The proposed open space, Parcel A, on Black Diamond Ranch will be surrounded on three sides by streets, residential lots and houses, and will not be connected to nearby open space along Markley Creek. Parcel A is not a connection in any migratory corridor and is not an uplands refugial connected with wetlands on the project site.	<p>None warranted in view of less-than significant effect. Avoidance of the western side of Parcel A, therefore, would not remedy any biological impact associated with the isolation of this open space parcel.</p> <p align="right">Residual effect after mitigation: LTS</p>	None	Not applicable
IMPACT A11 Increased Pollution in Urban Runoff The proposed project potentially could result in increased runoff of urban pollutants such as grease, oil, and lawn pesticides into local streams. Amphibians are particularly sensitive to pesticides and herbicides in urban runoff.	<ul style="list-style-type: none"> City maintenance shall practice limited weed abatement on the service road and reservoir area, using only mechanical methods or approved pre-emergents. Herbicides shall not be applied. Fire break maintenance shall be performed by HOA or individual owners generally within the project's limits and never off-site. <p align="right">Residual effect after mitigation: LTS</p>	City HOA	
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Impact	Mitigation Measures	Action by	Notes
<p>IMPACT A12 Wetlands and other Waters of the U.S. Implementation of the proposed project would result in removal of 1) an ephemeral stream reach of 163 lineal feet having defined bed and bank, which Albion Environmental further characterized as a wetland, 2) a west-east trending ephemeral stream and its south-north tributaries (945 to 1,484 lineal feet having defined bed and bank), and, 3) a south-north trending, disjunct, intermittent stream (394 lineal feet having defined bed and bank) in the southwest portion of the site. Because the footprint of the project encompasses the entire area of the project site, there is no opportunity for on-site mitigation for impacts to wetlands and other jurisdictional waters, under the proposed development plan.</p> <p>The required ratio of replacement acreage to impacted acreage will be decided by regulatory agencies on a site-specific basis, based on the functions and values present on the project site.</p>	<p>Developer shall prepare, apply and obtain the following maps and permits:</p> <ul style="list-style-type: none"> • Prepare and submit the final wetlands delineation report for verification by the U.S. Army Corps of Engineers (USACE). For impacts to wetlands and other waters of the U.S., or waters of the state, authorization from USACE and RWQCB will be required. Appropriate wetland mitigation will be required by USACE and RWQCB to compensate for on-site impacts to waters under federal or state jurisdiction. • Prepare, in coordination with USACE, a compensatory Wetland Mitigation Plan. Jurisdictional areas must be replaced at a <u>minimum</u> 1:1 ratio through wetland compensation off-site, or wetland protection and creation on-site, to ensure that no net loss of acreage or functions and values to these areas occurs. • Apply for and obtain a Section 404 individual permit from USACE and a 1601 Streambed Alteration Agreement from CDFG. • Apply for and obtain the Section 401 water quality certification, or waiver, from the San Francisco Bay Regional Water Quality Control Board. • Apply for and obtain a 1601 Streambed Alteration Agreement from CDFG. <p align="right">Residual effect after mitigation: LTS</p>	<p>Project Proponent</p>	<p>USACE, CDFG, and RWQCB have permitting authority. The City of Pittsburg shall not issue any grading permit or building permit in advance of the Project Proponent's receiving these other permits.</p>
<p>IMPACT A13 General Plan Goal 9-G-1 and Policy 9-P-1 require that assessments be conducted prior to development approval within habitat areas of special status species such as the California tiger salamander (CTS). <i>Biological Assessment for Sky Ranch II</i> (Huffman Broadway Group, June 2005) satisfies this requirement.</p>	<p>None warranted.</p> <p align="right">Residual effect after mitigation: LTS</p>	<p>none</p>	
<p>IMPACT A14 The creekways and wetlands policies of the City of Pittsburg (General Plan Policies 9-P-9, -10, -11, and -12) could be applicable to 1) perennial streams, having defined bed and bank, and also having riparian habitat, functional or aesthetic values or 2) wetlands having substantial habitat, functional, or aesthetic values. Stream reaches on the project site are seasonal, not perennial, and do not have riparian habitat value. An intermittent stream reach in the southwestern portion of the project site has 394 lineal feet with defined bed and bank; its adjacent reaches have a broad swale topography without defined bed or bank and function as overland drainages. A seasonal wetland having an area of about 0.02 acre was identified in the southeastern corner of the project site. In view of their insubstantial habitat and functional values and size, the seasonal stream reaches and wetland on the project site would not be inconsistent with any of the following policies: 9-P-9 (requires a 100 to 300 foot wide buffer for creekways), 9-P-10 (requires no development within creek buffers), 9-P-11 (encourages, but does not require, re-establishment of creeks in the design of new development), and 9-P-12 (requires protection and restoration of wetlands).</p>	<p>In view of the proposed grading and filling, creekways and wetlands preservation would not be possible without modifications to the proposed subdivision and grading plan. In view of the occurrence of CTS and jurisdictional waters on site, on-site mitigation measures, off-site compensatory mitigation measures, and alternatives to the proposed project have been assessed herein (see also Draft EIR, Appendix C, All Practicable Alternatives Analysis).</p> <p align="right">Residual effect after mitigation: LTS.</p> <p><i>NOTE: Stream and wetland loss could be mitigated by means of off-site compensatory mitigation, without application of General Plan policies 9-P-9 through 9-P-12.</i></p>	<p>none</p>	
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Impact	Mitigation Measures	Action by	Notes
IMPACT A15 General Plan Goal 9-P-19 calls for protection or replacement of mature trees through Zoning Ordinance regulations. The project site contains some scattered buckeye trees, most located generally in the southwestern portion of the site.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> Retain an arborist prior to grading to mark and map trees classified as mature trees under the City's prevailing regulations at the time of application for grading permit or else, in the absence of a regulation, by applying a trunk diameter standard of 12 inches or greater. Replace an equal number of trees in the immediate vicinity of the reservoir site, reservoir service road, and headwall areas. Tree species and siting shall be determined by the arborist. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
IMPACT A16 Draft HCP/NCCP The Draft HCP/NCCP is a future plan that has not concluded environmental review, USFWS/CDFG approval, or implementation. In view of the regional importance of the Draft HCP/NCCP, however, a consistency assessment is provided herein (see Draft EIR, Chapter V.A, Biology & Wetlands, "Future Policies," page V-80). Based on this consistency assessment, it is concluded that unspecified land in HCP/NCCP Sub-Zone 1d, located directly south of the project site, is likely to be acquired to create a 300-foot wide urban-wildland buffer. The reservoir and service road potentially could be located in this future buffer. Off-site compensatory mitigation required for the proposed project (489 acres) exceeds the initial acquisition target of 406 acres in Sub-Zone 1d.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> Design and construct the off-site reservoir and service road so that they meet requirements of the USFWS/CDFG and do not become impediments to habitat functions used by covered species or barriers to the movement of covered species. Perform pre-construction survey and construction monitoring in regard to development of the recommended off-site utility and service road. The HCP Implementing Entity may, or may not, have to increase the land acquisition in Sub-Zone 1d above the proposed 25 percent, depending on where compensatory mitigation land is provided for the proposed project. This action, if necessary, is outside the jurisdiction of the City of Pittsburgh. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent Project Proponent JPA	
IMPACT A17 San Joaquin kit fox The annual grasslands on the project site are illustrated in as being located on the outer edge of core kit fox habitat. The project's impact to the kit fox, therefore, could be considered to be potentially significant. The proposed project, however, would not remove land from any of the identified key SJKF movement corridors.	<ul style="list-style-type: none"> Developer shall implement a CTS Mitigation Plan which addresses mitigation for the loss of SJKF annual grassland habitat in conjunction with compensatory mitigation for CTS. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
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<p align="right"><i>(Continued)</i></p>			

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Impact	Mitigation Measures	Action by	Notes
V.B Geological Impacts			
IMPACT B1 Seismically-induced ground shaking at the project site could have peak horizontal acceleration up to 0.6g, based on current regional mapping by USGS. This is not unique in the San Francisco Bay area, but is a higher peak horizontal acceleration than reported in ENGEO's geotechnical report dated January 2001 and revised February 2002. Ground shaking caused by earthquakes along the known active faults or fault zones near the site, including Concord-Green Valley fault, Pittsburg/Kirby fault, Antioch fault, Mount Diablo thrust fault zone, and Greenville fault, could place people and structures at risk.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • Before issuance of grading permits, a Seismic Analysis Update shall be prepared by a Certified Engineering Geologist retained by the developer, which presents peak horizontal ground acceleration based on current knowledge. All recommendations of ENGEO incorporated in its geotechnical report dated February 2002 shall also be confirmed or else modified based on the Seismic Analysis Update. • The City Engineer independently, or acting upon the recommendation of an independent Certified Engineering Geologist, shall review, approve, or reject for modification, the seismic Analysis Update and recommendations. (NOTE: The cost of independent third-party review shall be paid by the developer.) <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	The City of Pittsburg's General Plan policies 10-P-9 and 10-P-10 require study of geologic hazards and independent review before development approval.
IMPACT B2 The project site is located in a zone of seismic-induced ground shaking having peak horizontal acceleration up to 0.6g. Potential adverse impacts of ground shaking on development infrastructure, structures and people can be reduced to acceptable levels by completing the project seismic design and construction in accordance with current best standards for earthquake-resistant construction in accordance with the 2001 California Building Standards Code and City of Pittsburg Municipal Code Chapter 15.88 Grading, Erosion, and Sediment Control.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> • Design proposed housing in accordance with provisions of the Building Code in effect at the future time of application for Building Permits • Geotechnical and Civil Engineer shall assign the appropriate "seismic design criteria" for the design of utilities including on-site and off-site water reservoirs. • Geotechnical and Civil Engineer in cooperation with PG&E shall assign and review seismic design criteria for cut and fill slopes that encroach within the PG&E easement or near power transmission towers. • Prepare and submit all final design and engineering plans to the City for review, approval, or rejection for modification by the City Engineer. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	The City Building Division and City Engineer shall review and approve o all designs in regard to housing and utilities on the project site, before issuing a Grading Permit or Building Permits.
IMPACT B3 Seismic-induced ground shaking and extensive grading cuts and fill to stabilize unstable slopes may in general have other indirect effects including ground lurching, liquefaction, densification, and lateral spreading. These risks were assessed and determined to be LTS effects owing to the nature of on-site soils, proposed grading concept and recommendations of the site-specific <i>Geotechnical Exploration for Sky Ranch II</i> .	None warranted as potential for ground lurching, liquefaction, and lateral spreading on the project site are LTS effects.	none	Not applicable
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<i>(Continued)</i>			

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Impact	Mitigation Measures	Action by	Notes
IMPACT B4 Many locations on the project site are susceptible to landslides and others are underlain by compressible colluvial deposits.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> • Sub-excavate compressible colluvium and landslide deposits to bedrock, where feasible, and then backfill with engineered buttress fills, to allow for development of the proposed improvements without exposure of persons or property to avoidable risk of debris flow, compressible soils, and differential settlement. • Construct sub-surface keyways and benches as shown conceptually in Figure 12, through disrupted landslide materials and shear planes into underlying competent materials. • Install sub-drains, as shown conceptually in Figure 12, to drain water from engineered buttress fills. • Size and then construct debris benches or other intervening undeveloped spaces to provide sufficient run-out areas for unmitigated landslides located upslope of the proposed houses, roads, and other improvements • Construct the surface drainage facilities as determined by the developer's Civil Engineer to collect and control storm water runoff. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
IMPACT B5 To ensure that landslide areas are properly repaired, site-specific designs will have to be developed and incorporated into the final design plans attached to the Vesting Tentative Map & Grading Plan for approval by the City.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • A complete design-level final geotechnical report and associated field work shall be completed by a Certified Engineering Geologist. The analysis presented in the geotechnical report shall conform to the California Geological Survey's recommendations presented in the "Guidelines for Evaluating Seismic Hazards in California." • Analysis and recommendations in the geotechnical report shall be incorporated into the project's final engineering and design plans and submitted to the City Engineer for review and approval. • The report shall identify building techniques appropriate for minimizing seismic damage. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	The City of Pittsburg's General Plan policies 10-P-9, 10-P-10, and 10-P-17 apply.
IMPACT B6 Portions of Landslide areas #1, 2, 17, 18, 25 and 26 upslope of the proposed project would not be sub-excavated to bedrock and backfilled with engineered fill. In the event of a landslide, debris flow from these areas could run out over the perimeter lots and proposed headwalls on the project site.	Developer shall provide for, perform, or implement the following: <ul style="list-style-type: none"> • Size the width of the debris bench upslope of proposed Lots 95-106 to provide sufficient run-out area to protect Lots 95-106. • Perform additional test pits and/or bores, as recommended in its reports, to enable the actual design dimensions and depth of bedrock east of previous Test Pits TP-37 and TP-38. Additional cross-sections for the area beneath and upslope of Lots 95-106 shall be prepared and submitted with the Final Grading Plan. • Prepare and submit additional cross-sections (e.g., see Draft EIR, Chapter V.B, Geology & Seismicity, section line E-E' in Figure 11) to address the debris volume and run-out area for the mapped landslides beneath and upslope of the eastern headwalls, Lots 181-183, and Lots 188-190. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
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<p>IMPACT B7 Unstable slopes, landslide and colluvial deposits can be repaired and structures can be protected from off-site debris flows. However, debris benches, headwalls and storm water diversion pipelines, v-ditches, and re-graded slopes on the project site would warrant long-term monitoring, maintenance, and repair or supplementation to ensure their continuing function.</p>	<p>Developer shall provide for, pay the costs of, perform or implement the following:</p> <ul style="list-style-type: none"> • Prepare and submit a Slope Management Plan to the City Engineer for review and approval prior to the approval of a revised Vesting Tentative Map or Final Subdivision Map. (1) The Slope Management Plan shall identify the kinds of hazards found on the site and areas subject to continuing monitoring, maintenance, repair or supplementation, including areas in private and public ownership. (2) Improvements (e.g., structures, roads, and storm water collection and systems) shall be designed to divert excessive storm water runoff water from on-site slopes and avoid excessive irrigation water on on-site slopes. (3) The Slope Management Plan shall include provisions for periodic inspection and long-term maintenance, episodic repair, and as-needed supplementation of the identified re-graded slopes, repaired landslides, debris benches, v-ditches and storm water diversion headwalls and pipelines. (4) The Slope Management Plan shall identify its purpose, implementing entity which is suggested to be a Hazard Abatement District, funding mechanism, and administration by the Homeowners Association (HOA), or by another mechanism approved by the City. (5) The Slope Management Plan shall be developed by a Registered Geotechnical Engineer or Certified Engineering Geologist, who shall be responsible for identification re-graded slopes, built structures, or other built or natural features essential for the long-term stability of the fills and cuts. (6) The Program shall include provisions for maintenance and timely remediation of any identified problems within the purview of the Plan, which shall be implemented and funded through the responsible entities. • The Slope Management Plan shall be consistent with the Natural Grassland Element (see Chapters V. D and V.G, pp. V-180 and V-234 & -235). The Natural Grassland Element will designate where 1) introduced species landscaped areas will be allowed and 2) where natural grassland areas are to be maintained. The undeveloped slopes in the southern portion of the project site, generally above 390 feet msl, will be designated for maintenance as natural grassland in the Natural Grassland Element. Both the Slope Management Plan and Natural Grassland Element shall be incorporated into the Codes, Covenants & Restrictions (CC&Rs). • Deed restrictions, easements, or other appropriate legal instruments shall be placed on all re-graded slopes to allow monitoring, maintenance, and remedial activities, and to require the property owners to maintain appropriate landscaping and irrigation procedures. <p align="right">Residual impact after mitigation: LTS</p>	<p>Project Proponent</p>	<p>City Engineer shall review and approve the Slope Management Plan, before approving a Final Subdivision Map.</p>

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Impact	Mitigation Measures	Action by	Notes
IMPACT B8 Approximately 107 proposed lots, and additional areas of proposed roads, are underlain by colluvium. ENGEO identified potential for "excessive total and differential settlement" at the project site from consolidation of compressible colluvial deposits in the swales where fill will be placed and from settlement of foundations where supported over compressible colluvial and alluvial deposits. ENGEO recommended complete removal and replacement with engineered fill.	<ul style="list-style-type: none"> • Same as above. See Mitigation Measure for IMPACT B4. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT B9 ENGEO also recommended supplemental exploration to characterize the compressibility of soil in the southwestern valley. The purpose of ENGEO's recommendation was to allow for partial removal of compressible landslide or colluvial deposits, if subsequent supplemental exploration and engineering findings demonstrate partial removal could be effective.	Developer shall provide for, pays the costs of, perform or implement the following: <ul style="list-style-type: none"> • Complete removal of landslide or colluvial deposits within the limits of the project site shall be performed during the remedial grading, unless subsequent supplemental exploration is performed and demonstrates that partial removal would be effective. • Final detailed geotechnical design documents shall be subject to review and approval of the City or independent Certified Engineering Geologist retained by the City, the cost of whose services are reimbursed by the Project Proponent. • Engineering solutions that should be included in the final geotechnical report include the following: <ol style="list-style-type: none"> (1) Complete removal (over-excavation) of the landslide deposits, colluvium and unengineered fill material, or else settlement estimates, engineering measures, and/or structural siting guidelines for lots on which underlying compressible materials are left in-place (2) Slope stabilization measures for potentially unstable landforms that are located upslope of proposed building pads (cross section D-D') (3) Calculations of upslope debris volumes and engineering backup for placement and size of debris benches for unrepaired off-site landslides (see Figures 9 or 11) (4) Cost-benefit analysis for re-construction of off-site unstable slope areas (5) Structural siting guidelines for lots located downslope from slopes that could remain unstable (avoidance). <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
IMPACT B10 Post-grading settlement of "deeper" fills and underlying compressible colluvial deposits may result over a long period after grading. Post-grading settlement and differential settlement have the general potential to cause gradual damage to roads, utilities, and occupied structures if not properly designed and constructed.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • See IMPACT B8 and mitigation measures above. • During project construction, mass grading and remedial over-excavation of landslide and colluvium shall be conducted under the supervision of a Registered Geotechnical Engineer or Certified Engineering Geologist and any design modifications necessitated by changes in field conditions shall be reviewed and approved by the City. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
<p>IMPACT B11 Soils on the project site are moderately to highly expansive, having a PI that ranges from 22 to 46. Soils underlying portions of the project site have moderate to high shrink/swell potential. Foundation damage, warping, and cracking of roads and sidewalks, and rupture of utility lines could potentially occur if on-site expansive soils, and the quality of engineered fill, is not considered during design and construction of improvements.</p>	<p>Developer shall provide for, pay the costs of, perform or implement the following:</p> <ul style="list-style-type: none"> • In locations underlain by expansive soils and/or non-engineered fill, the design of proposed building foundations and other improvements (including sidewalks, roads, and utilities) shall reflect expansive soil conditions. • Design-level geotechnical work (for example, as required by Mitigation Measures for IMPACTS B5 and B6) shall include provisions to ensure that potential damage related to expansive soils and non-uniformly compacted fill are corrected. The potential effects of expansive soil conditions may be mitigated by removal of high Plasticity Index (PI) soils and replacement with lower PI soils, and also by design and construction of improvements to withstand the forces exerted during the expected shrink-swell cycles and settlements. • On lots, driveways and streets having both cut and fill, or cut without fill, foundation subgrade and road/driveway subgrade shall be prepared by undercutting and backfilling with a suitable depth of select base material. Undercutting shall extend outward a suitable distance from the road, driveway or foundation foot print. • All mitigation measures, design criteria, performance standards and specifications set forth in the geotechnical and soils report required by Mitigation Measure shall be implemented. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
<p>IMPACT B12 Increased erosion and sedimentation during the grading phase potentially could result from cut and fill operations, drainage pattern alteration, and general construction operations. Cut slopes and fill slopes have a general potential for erosion and sedimentation, especially if grading occurs during the rainy season. Long-term erosion and sedimentation can occur if grading and drainage systems are improperly constructed and landscaping is not adequately installed or maintained on slopes. Short-term and long-term erosion and sedimentation can be significantly reduced by developing and implementing a project-specific erosion and sediment control plan, by appropriate construction techniques, landscaping, and maintenance of graded slopes and subsurface drainage systems.</p>	<p>Developer shall provide for, pay the costs of, perform or implement the following:</p> <ul style="list-style-type: none"> • The applicant shall prepare Storm Water Pollution Prevention Plan (SWPPP) to be submitted to the City for review and approved by the City prior to issuance of a grading permit. The following measures shall be considered and incorporated into the SWPPP as necessary to decrease erosion and sedimentation: • Grading activities shall be performed generally in the "dry season" except as grading in the rainy season (October 15 – April 15) may be allowed in the Grading Permit subject to the City's approval. • Interim controls, such as water bars, mulching of exposed slopes, installation of temporary culverts, rock slope protection, sediment traps, silt fences and/or straw wattles consistent with the Association of Bay Area Governments <i>Manual of Standards for Erosion and Sedimentation Control Measures</i> or the San Francisco Bay Region Regional Water Quality Control Board <i>Erosion and Sediment Control Field Manual</i> shall be implemented. • Before grading is concluded, a positive gradient away from the slopes must be established to carry the runoff away from the slopes to areas where erosion and sedimentation can be controlled. <p align="right">Residual effect after mitigation: LTS</p>	Project Proponent	
<p>LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service</p>			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
V.C Hydrology & Water Quality Impacts			
IMPACT C1 The proposed project would result in some loss of ground water recharge capability by filling of segments of unnamed intermittent and ephemeral stream channels. On-site infiltration basins and infiltration in the detention basin were considered but were assessed to be infeasible in view of the depth to groundwater and on-site soil conditions. Alternative recharge at the proposed detention basin, for example, by a groundwater recharge well, is not a current Best Management Practice (BMP). In view of the LTS nature of the ground water recharge effect, mitigation is not required.	None required.	none	
IMPACT C2 Though the City of Pittsburg's two municipal wells could supply on an interim basis, the permanent water supply assumed in the <i>City of Pittsburg 2000 Urban Water Management Plan</i> is purchased water from CCWD. Inclusion of the project site in the Central Valley Project (CVP) is necessary to avoid potential overdraft of ground water from the two municipal wells.	<ul style="list-style-type: none"> Developer shall provide all necessary documentation as shall be required by CCWD for its application for inclusion of the project site in the CVP. -City shall not issue grading or building permits pending receipt of a "Will Serve" letter from CCWD. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT C3 The proposed grading and construction of headwalls would necessitate permanent access for the purpose of periodic inspection and maintenance. The proposed alteration of natural drainageways creates potential for clogging of the bypass piping with debris and back-up of water on the Antioch Unified School District-owned parcel.	<ul style="list-style-type: none"> Developer shall include provisions for permanent easements to enable access to drainage structures including headwalls, catchment basins, and outfalls. See also mitigation measures for IMPACT C4. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT C4 The proposed grading and filling of segments of intermittent and ephemeral streams requires construction of graded slopes, concrete-lined V-ditches, headwalls, bypass pipe and two outfalls. After construction, potential siltation caused by erosion of the proposed detention basin's 3:1 sloped side walls, sloped headwall areas, and outfalls would remain a possibility and would require periodic monitoring and recurring maintenance for the life of the project. The drainage alteration, therefore, has the potential to result in long-term erosion and siltation of off-site receiving waters and man-made conveyance or detention systems.	Developer shall provide for, pay the costs of, or implement the following: <ul style="list-style-type: none"> Headwalls will not be designed or constructed to act as detention basins. Headwall areas shall be graded, restored, and then maintained in a manner as to provide natural filtration of the area around each headwall. The headwall and the outfall will be designed with appropriate settlement, filtration and energy dissipation features. A trash rack at the headwall would prevent trash and larger debris from entering the pipelines. Dissipaters and plantings at the headwalls and outfall will minimize erosion and provide natural filtration and settling. Gabion dissipaters at the outfall will reduce velocity and minimize erosion. At the three proposed headwalls along the southern boundary of the project site, rip rap or gravel beds to reduce flow velocity and allow settling could be effective. A vegetated buffer area upslope of the headwall also will be required to assist filtration and settling. <p align="right">(Continued)</p>	Project Proponent	
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT C4 (Continued)	<ul style="list-style-type: none"> A perpetual funding source shall be established for maintenance of the proposed on-site detention basin, headwalls and outfalls. Establishment of the latter fund is suggested prior to the City's issuance of a grading permit for construction of the headwalls, outfalls and, on-site detention basin. Therefore, the fund will be supported initially by the developer (e.g., through deposits to a Maintenance Assessment District account), which later may be assumed by a HOA or GHAD and supported through HOA dues or special assessments. Developer shall prepare detailed plans for headwalls, outfalls and dissipaters to. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	The CCCFCWCD and City Engineer shall review and approve the detailed plans. City shall not issue grading or building permits pending completion of review and approval by CCCFCWCD and establishment of the above fund.
IMPACT C5 Off-site, in Markley Creek, there is some potential that increased duration of storm water discharges could potentially contribute to stream bank erosion and turbidity. Storm water discharges from proposed Sub-area 6 and the upstream tributary area would not be detained. Tributary area, addition of impervious surface, and slope of the man-made conveyance systems are accounted for in <i>Drainage and Sewer Study, Addendum #1</i> . Incremental rates of runoff in comparison to pre-project levels would not be substantial for 2-, 5-, 10-, 25-, 50-, and 100-year storms. For the 10-year, 24-hour recurrence storm, the peak flow (Q ₁₀) would increase to 16 cfs from 13 cfs.	None required as these effects are LTS.	none	
IMPACT C6 Grading has an acknowledged potential to induce erosion and sedimentation owing to cut and fill, removal of native grasses, and creation of slopes without vegetative cover.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> Prepare a SWPPP will address specific grading activities on the project site, construction of headwalls, outfalls and dissipaters, and restoration of native grass cover on graded slopes. Implement BMPs for erosion control as set forth in the SWPPP, including but not necessarily limited to application of soil stabilizers such as hydro-seeding, netting, erosion control mats, and rock slope protection. Grading shall be performed generally in the "dry season" except as grading in the rainy season (October 15 – April 15) may be allowed in the SWPPP and Grading Permit subject to the City's approval. Prior to re-establishment of vegetative cover, the developer shall use such temporary measures as fiber rolls along slopes, and silt fences at the boundaries of the construction site adjoining drainageways, as necessary. To prevent tracking of mud onto adjacent roads and airborne dust, developer shall construct temporary areas of aggregate "mats" over bare soil to create stable areas for off-road vehicles and construction employee vehicles. Construction entrances and exits shall be equipped with water and temporary collection of rinse water for tire rinsing to remove mud as needed. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT C7 The rate of storm water runoff from the project site and Highlands Ranch would remain below the allowable pre-development peak rate (235 cfs) owing to the existing and proposed detention systems. On-site detention will limit critical flows from the proposed detention basin in Sky Ranch II to 15 cfs. Off-site detention will limit critical flows from the existing detention basin in Highlands Ranch to 79 cfs. The effect, therefore, is LTS.	None required.	none	
IMPACT C8 The amount of storm water runoff from the project site would increase above the pre-development volume owing to the addition of impervious surfaces such as roof tops, walkways, and road pavement. The proposed on-site detention basin in Sky Ranch II has been sized to accommodate the critical storage volume and avoid down stream flooding. The on-site storage volume adequate to detain runoff for the critical storm is 7 acre-feet at water surface elevation 244.5 feet above msl. The estimated available storage capacity in the proposed detention basin is 14 acre-feet.	• Developer shall submit to the City Engineering Department final detention basin design detail with 14-acre feet of storage, assuming 3:1 graded slopes, and 250-foot msl maximum surface water elevation. • Developer shall submit to the City Engineering Department final HEC-1 hydrological routing calculations for the 100-year, 12-hour, 6-hour, and 3-hour storms.	Project Proponent	
Residual impact after mitigation: LTS			
IMPACT C9 Storm water runoff from the project site would add to the pre-development volume detained in the Highlands Ranch detention basin. The existing detention basin in Highlands Ranch has been sized to accommodate the critical storage volume and avoid down stream flooding. For the critical storm, the off-site storage volume adequate to detain combined inflow from various tributary sub-areas upstream of the Highlands Ranch detention basin is 16 acre-feet. The estimated available storage capacity in the existing detention basin is 21 acre-feet at water surface elevation 117 feet above msl. This potential effect, therefore, is LTS.	None required.	none	
IMPACT C10 Storm water runoff from the project site, Highlands Ranch, and other tributary sub-areas would add to the pre-project volume detained in the CCWD detention basin north of Buchanan Road. For the critical storm, the storage volume adequate to detain combined inflow from various upstream tributary sub-areas is 4 acre-feet at a water surface elevation 88.3 feet above msl. The estimated available storage capacity in the existing detention basin is 6 acre-feet at water surface elevation 90.0 feet above msl. The potential effect on the CCWD-owned detention basin is LTS.	None required.	none	
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT C11 Storm water runoff from the project site, Highlands Ranch, and other tributary sub-areas would add to the pre-project flows conveyed in off-site pipeline north of Buchanan Road. Capital improvement project SD-18 consists of 1,000 lineal feet of upsized storm sewer pipeline from Contra Costa Canal north to Los Medanos Community College has no committed funding sources.	<ul style="list-style-type: none"> • The applicant will pay the DA 70 drainage deficiency fund (\$5,000 per gross acre) for development on the land within APN 089-050-067 which is located within DA 70. The fees paid would be used for design and construction of off-site drainage improvements in the Kirker Creek watershed. • The applicant will pay the Kirker Creek Impervious Surface Drainage Fee to the City of Pittsburg for the portion of the project site located within the Kirker Creek watershed. The Kirker Creek Impervious Surface Drainage Fee will be collected during the development process, prior to filing the Final Map, and will be used to fund Capital Improvements for drainage within the Kirker Creek watershed. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT C12 Grading and construction have an acknowledged potential to present a risk of unauthorized discharge of hazardous materials to storm sewers and natural drainageways. -Developer shall prepare a Spill Prevention and Contingency Plan (SPCP) which will be submitted to the City at the time of application for Grading Permit.	<ul style="list-style-type: none"> • Developer shall implement BMPs and provisions for emergency notification procedures and response contingencies, spill clean up kits, secure storage of hazardous materials, designated sanitary waste bins. • Developer agrees to use commercial equipment refueling on the project site and further agrees not to store diesel fuel or gasoline on-site. • Developer shall notify contractors and provide copies of the SWPPP and SPCP for all contractors. • Developer shall provide guidelines for contractor handling of waste paints, waste adhesives, and other hazardous materials. Such materials generally shall not be stored on the project site, or if stored, said storage shall be inside secure, covered storage structure and limited to compatible materials. Storage of hazardous materials above exempt quantities requires permit and Hazardous Materials Business Plan from Contra Costa County Department of Environmental Health. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT C13 Funding sources and the responsible parties are necessary for long-term monitoring, implementation of current BMPs and public awareness programs, and maintenance of constructed on-site drainage systems.	<p>To provide for long-term maintenance and operation of proposed constructed drainage systems, developer shall provide for and pay the costs of establishing the following:</p> <ul style="list-style-type: none"> • A perpetual funding source for periodic maintenance of the proposed detention basin, headwalls, and outfalls will be created through agreement between the developer and City of Pittsburg. • An Operation and Maintenance Manual for periodic monitoring and maintenance of the detention basin, headwalls, open channel and outfalls. The manual should be written clearly so it could function as a complete guide for any commercial or Public Works maintenance entity. • BMPs and public awareness to limit or reduce such potential pollution and prevent some from entering the drainage system. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	Project Engineer shall prepare and submit the O&M Manual to the City Engineer. Before construction of the detention basin, headwalls, and outfalls, the funding source (for long-term monitoring, implementation of BMPs and public awareness programs, and maintenance of passive treatment BMPs) will be established. The fund will be supported initially by the developer (e.g., through deposits to a Maintenance Assessment District account), which later may be assumed by a HOA or GHAD.
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service (Continued)			

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
V.D Visual Resources			
IMPACT D1 Light-colored, reflective stucco and reddish clay tile architectural design elements could potentially degrade the visual character and quality of adjacent southern hills. Light-colored stucco and reddish roof tones tend to contrast with the natural setting and hence, could potentially distract from key focal elements of the existing scenic vista (i.e., existing annual grassland and adjoining hills).	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • Modify the roof color-palette to substitute natural, terrain-neutral color and restrict terra cotta or clay roof tiles on certain lots including Proposed Lots 126-136, 206, 268, 300-309, 344-346, and all other lots generally above 350 feet msl. Also, the palette for proposed lots north of the Buchanan Bypass should be consistent with Highlands Ranch. Require Codes, Covenants & Restrictions that prohibit or limit roofing color changes by future owners. • Modify the stucco and exterior trim color-palette to substitute more saturated terrain-neutral exterior colors and restrict white or light reflective exterior colors on certain lots. The palette for proposed lots north of the Buchanan Bypass should be consistent with Highlands Ranch. Require Codes, Covenants & Restrictions that prohibit or limit stucco or exterior paint color changes by future owners. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT D2 Through landscaping and introduction of non-native landscape species, the project could potentially degrade the natural setting and draw focal attention away from existing trees that accent the adjoining hills above 500 feet (msl). Policy 4-P-82 of the General Plan suggests new development be responsive to natural elements and maintain a sense of connection to surrounding uses.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • Prepare a design supplement, herein called a "Natural Grassland Element," to illustrate 1) where landscaped areas will be allowed and 2) where natural grassland areas are to be maintained as shown, for example, on Figure 19. Incorporate a Natural Grassland Element into the Codes, Covenants & Restrictions (CC&Rs) that prohibit introduced species on designated graded slopes and other designated as natural grassland areas. • Codes, Covenants & Restrictions shall control landscaping of slopes on specific lots (such as, for example, Lots 127-137, Lots 307, 308 and 379-381, and other undeveloped slopes in the southern portion of the project site generally above 390 feet msl) to achieve a sense of connection with the adjoining open grassy hills and ravines. To maintain an open quality, prohibition of introduced species such as ivy, ice plant, shrubs and trees on the slopes on these specific lots, could mitigate potential degradation of the existing quality of the view of the adjacent southern hills above 500 feet (msl). • Codes, Covenants & Restrictions shall control fences on the slopes on specific lots (such as, for example, Lots 127-137 and Lots 307, 308 and 379-381) to maintain an open look of continuous, uninterrupted grassy contours. To maintain an open quality, prohibition of opaque fences on the slopes on these specific lots, could mitigate potential degradation of existing visual character and quality. Transparent fences such as unfinished corral or open "iron bar" (not chain link) would be consistent with General Plan Policy 4-P-7. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	City Planning Director shall review during Design Review and shall assure CC&Rs are consistent with the stated mitigation measures and design requirements established in Design Review.
IMPACT D3 Reflective glare could potentially detract from the natural scenic vista of the southern hills and cumulatively could contribute to urban night glow. The houses on Lots 128-132 have specific potential to direct reflective glare from rear-facing windows toward the north near sunset (April-September).	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • Rear elevations of proposed houses on Lots 128-132 shall incorporate reduced window area to assure consistency of proposed window area on rear elevations with the design objective of avoiding a new source of substantial glare. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT D4 Street lights on "A" Court, "D" Court, and other proposed streets, and home and backyard illumination have a general potential to add the light levels on the site. Street luminaires, flood lights, landscape lighting, and interior lighting have a potential to add multiple new visible light sources which could detract from the natural scenic vista of the southern hills and cumulatively could contribute to urban night glow.	Developer shall provide for, pay the costs of, perform or implement the following: <ul style="list-style-type: none"> • Use full cutoff street luminaires to direct light downward. "Full cutoff" luminaire means a luminaire that allows no direct light emissions above a horizontal plane through the luminaire's lowest light-emitting part. • Prepare a plan which shows the proposed height, location, and intensity of street lights on-site. The plan shall comply with minimum standards for roadway lighting, and shall be reviewed and approved by the City Planning and Public Works Department. • Codes, Covenants & Restrictions (CC&Rs) shall control flood lighting and landscape lighting on the slopes and yards of specific lots (such as, for example, Lots 127-137 and Lots 307, 308 and 379-381) to avoid light "trespass" or "spill" and excessive illumination levels. • CC&Rs shall prohibit continuous all-night exterior lighting throughout the project. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	City Planning and Public Works Departments will review street lighting plan and proposed CC&Rs and will consider allowing minimum street lighting illumination levels throughout the project site as the proposed subdivision is located on the urban edge in the foreground of the southern hills.
V.E Land Use & Planning			
IMPACT E1 Without retaining connected open space as common area under common ownership by a Homeowners' Association, or without using a single-loaded street design, there is relatively less opportunity for orientation of future homes toward open space. The design of the houses, proposed streets, sidewalks, lighting, and fencing will have considerable influence over the ultimate suburban atmosphere or rural atmosphere experienced within the project.	Developer shall provide for, pay the costs of, perform or implement the following design modifications to the extent that any such modifications are required during Design Review including, for example, the following: <ul style="list-style-type: none"> • Options such as modified front elevations to de-emphasize garage doors. • Staggered building setbacks in the southern portion of the project site. • Alternative street cross sections for the southern portions of "B" Street and "D" Street and for the entire length of "B" Court, "C" Court and "D" Court. Alternative street sections may not have conventional curbs and sidewalks in favor of a more rustic design with extra tree planting width. • A Fencing and Natural Grassland strategy to avoid visual interruption of prominent south facing slopes visible from Buchanan Road. • Reduced lighting requirements for the southern area of the site along the southern portions of "B" Street and "D" Street and for the entire length of "B" Court, "C" Court and "D" Court. <p align="right">Residual impact after mitigation: LTS.</p>	Project Proponent	City shall consider design measures and options during Design Review.
IMPACT E2 The proposed project lacks connection to Black Diamond Ranch.	<ul style="list-style-type: none"> • The City shall consider requiring additional connections by means of pedestrian paths, which the developer shall build if required. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	City Planning and Public Works shall consider before approval of a Final Map.
IMPACT E3 The applicant proposes filling of identified stream channels and wetlands without on-site conservation. Stream and wetlands alteration could be mitigated by means of off-site compensatory mitigation. <i>General Plan</i> goals or policies 9-P-9 through -11 encourage, but do not require, restoration or re-establishment of creeks in the design of new	The same mitigation measures apply as for IMPACT A12. Avoidance alternatives are discussed in Chapter VI. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT E3 (Continued) development. Policy 9-P-12 requires protection and restoration of wetlands. General Plan policies 9-P-9 through -12 are intended for 1) conservation of perennial creeks, having defined bed and bank, and also having riparian habitat, functional, or aesthetic values, as opposed to intermittent or ephemeral creeks lacking these values, or for 2) conservation of wetlands having substantial habitat, functional, or aesthetic values.	The same mitigation measures apply as for IMPACT A12. Avoidance alternatives are discussed in Chapter VI. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
V.E Land Use & Planning (Continued)			
IMPACT E4 The proposed project includes no open space; therefore, the land preservation calculation in the HCP/NCCP, which is based on about 80 developed acres rather than 160 developed acres on the project site, needs to be revised.	<ul style="list-style-type: none"> The City shall coordinate during finalization of the HCP/NCCP and shall provide the revised developed acreage for the project site so that preservation goals and targets in the HCP/NCCP can be increased as necessary. <p align="right">Residual impact after mitigation: LTS.</p>	City	The City shall coordinate with JPA.
V.F Population, Housing, and Employment			
IMPACT F1 With lateral connections from the Buchanan Subarea Loop II this water transmission mitigation measure could serve planned land development in the Buchanan Planning Subarea as planned in the City's adopted <i>General Plan</i> , including, for example, the Thomas Ranch and Montreux parcels. Though the proposed project could not directly induce housing development or population growth, in conjunction with this water conveyance mitigation measure, provision of water to the project site indirectly could induce development on the nearby parcels by alleviating a current water-pressure constraint.	None is warranted. Such housing development in the Buchanan Planning Subarea and the associated population growth there have been considered as part of the General Plan adoption process. The <i>2000 Water System Master Plan</i> and capacity of this water transmission pipeline are based on development assumptions consistent with the adopted General plan land uses. The proposed annexation of the project site into the Central Valley Project would not extend annexation or a will-serve commitment from the Contra Costa Water District to adjoining or nearby parcels. <p align="right">Residual impact after mitigation: Less-than-significant</p>	none	
V.G Community Services & Utilities			
IMPACT G1 Development of the project could lead to increased use of the nearest neighborhood parks including Highlands-Buchanan Road Park, Highlands Park, Marchetti Park.	<ul style="list-style-type: none"> Developer will provide an on-site mini-park with swings and other play apparatus, and tennis courts. For reasons discussed in Chapter V. K, Public Health & Safety, a preferred location for on-site park facilities is the vicinity proposed Lots 181-190. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT G2 Development of the project is expected to increase visitation at Black Diamond Mines Regional Preserve (BDMRP) and also increase the use of Buchanan Park, Contra Loma Regional Park, and Stoneman Park.	<ul style="list-style-type: none"> Developer will pay an <i>in lieu</i> park fee, or dedicate park land, or perform a combination of both, equivalent to 5.89 acres (1.42 acres per 100 dwelling units). In the event that open space is dedicated under one of the alternatives to the proposed project, such dedication of open space shall not be counted as park land dedication. Developer will protect right-of-way across the entire 110-foot width of the combined PG&E and Kinder Morgan Energy Partners easements, for future development of an east-west trail connection with BDMRP. Protection of the trail right-of-way may be counted in the future as part of the developer's park land dedication requirement, only at that time when trail improvements are made, and only for that portion of the right-of-way on which trail improvements are actually made. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT G3 On-site park land dedication, or trail right-of-way protection on the project site, would have the same impact on wildlife species and their habitat as described for the proposed project in Chapter V.A, Biology & Wetlands. Coverage of any portion of the site with tot lots or tennis court, for example, would remove grassland habitat and introduce human presence.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Perform compensatory mitigation measures as described in Chapter V.A, Biology & Wetlands. • Construct appropriate permanent barriers around all on-site park areas, to prevent movement of terrestrial wildlife across these areas. • Retain a qualified biologist to perform appropriate pre-construction or nesting surveys before constructing on-site park or trail improvements. Residual impact after mitigation: Less-than-significant after off-site compensatory mitigation	Project Proponent	
IMPACT G4 Off-site trenching for construction of 9,600 lineal feet of 20-inch diameter water transmission pipe and 12,400 lineal feet of 16-inch diameter water transmission pipe will generate temporary diesel exhaust fumes, dust and noise along the construction corridor. Temporary traffic diversion potentially could result from construction detours or drivers changing routes to avoid the construction zone could cause temporary traffic intrusion, dust and in neighborhoods adjoining the construction corridor such as, for example, Ventura Drive north of Buchanan Road.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Implement hours of construction to avoid nighttime construction through residential neighborhoods. • Use trench cover plates to maintain open lanes of travel on Buchanan Road during the peak commute hours. • Implement dust control and street cleaning measures to control fugitive dust. Residual impact after mitigation: Unavoidable	City	
IMPACT G5 Construction of the City-recommended Zone II/III water reservoir would impact approximately 1 acre of native annual grasslands, all within the acknowledged range of the SJKF, foraging habitat potentially used by protected species of bird, and proposed critical habitat of the CRLF.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Retain a qualified biologist to perform appropriate pre-construction or nesting surveys before constructing the on-site Zone II/III water reservoir. • Perform compensatory mitigation measures, as described in Chapter V.A, Biology & Wetlands. Residual impact after mitigation: LTS	Project Proponent	
IMPACT G6 Construction and operation of the City-recommended Zone IV water reservoir would impact approximately 2.5 acres of native annual grasslands, all within the acknowledged range of the SJKF, foraging habitat potentially used by protected species of bird, and proposed critical habitat of the CRLF.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Retain a qualified biologist to perform appropriate pre-construction or nesting surveys before constructing the off-site Zone IV water reservoir and service road improvements. • Perform compensatory mitigation measures, as described in Chapter V.A, Biology & Wetlands, for additional acreage estimated in the amount of 2.5 acres, or three times the acreage used for the reservoir and service road, whichever is less. Residual impact after mitigation: LTS	Project Proponent	
IMPACT G7 Operation of a public-dedicated sanitary sewer lift station has the potential to cause impact from pump noise or emergency back-up power generator noise, and odor from upset conditions. The pump station would require periodic maintenance and could result in temporary noise associated with maintenance or replacement activities.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Provide sanitary connections on Lots 162-204 to connect to a lateral that has gravity flow to the collection system in Black Diamond Ranch. Residual impact after mitigation: LTS	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT G8 Construction of the approximately 4-acre detention basin would have the same impact on wildlife species and their habitat as described for the proposed project in Chapter V.A, Biology & Wetlands. Excavation and filling in and around the basin, and proposed sound wall and lot fencing would remove grassland habitat and introduce human presence.	Developer shall provide for, pay the costs of, and perform the following: <ul style="list-style-type: none"> • Perform compensatory mitigation measures as described in Chapter V.A, Biology & Wetlands. • Construct appropriate permanent barriers around all on-site park areas, to prevent movement of terrestrial wildlife across these areas. • Retain a qualified biologist to perform appropriate pre-construction or nesting surveys before constructing on-site park or trail improvements. Residual impact after mitigation: LTS	Project Proponent	
IMPACT G9 Construction and operation of new junior high and elementary schools could result in adverse impacts, which are dependent on school siting. The locations of the new schools are unknown; hence, the particular nature and extent of adverse effects are speculative and the potential impacts are not discussed further.	None	None	
IMPACT G10 Off-site construction of Station 85 will generate temporary diesel exhaust fumes, dust and noise in the vicinity of the station. construction site.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Implement hours of construction to avoid nighttime construction. • Implement dust control and street cleaning measures to control fugitive dust. Residual impact after mitigation: LTS	City	
IMPACT G11 Construction of the Buchanan Bypass or Buchanan Road widening each could generate temporary diesel exhaust fumes, dust and noise along the construction corridor.	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Implement hours of construction to avoid nighttime construction. • Implement dust control and street cleaning measures to control fugitive dust. Residual impact after mitigation: LTS	City	
IMPACT G12 Operation of the Buchanan Bypass or a widened Buchanan Road each could generate long-term noise at sensitive receptors (see Chapter V.I, Community Noise).	Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Construct or pay for the off-site improvements described in Chapter V.I, Community Noise. Residual impact after mitigation: LTS except along Ventura Drive in Highlands Ranch. Without the bypass, outdoor noise in the front yards of houses along Ventura Drive, between Rangewood Drive and Glen Canyon Circle/Drive, cannot be practically mitigated.	Project Proponent	
IMPACT G13 The project site would require annexation into the U.S. Bureau of Reclamation's CVP and a Will-Serve letter from CCWD. The annexation request cannot be processed by CCWD until CCWD has evidence of Section 7 or Section 10 consultation with USFWS and verification of wetlands delineation by USACE. Therefore, assurance of the water supply for this site is pending Section 7, or Section 10, consultation and annexation actions.	<ul style="list-style-type: none"> • Provide evidence of satisfactory completion of Section 7 or Section 10 consultation. Residual impact after mitigation: LTS	Project Proponent	No Building Permit shall be issued by the City pending CCWD's annexation of the site into the CVP.
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT G14 The proposed project could contribute incrementally to a future need for new or expanded water treatment facilities, the construction of which potentially could cause significant environmental effects.	Section 375 (b) of the California Water Code authorizes the City to require, in connection with its water conservation program, the installation of water-saving devices that are designed to reduce water consumption. Developer shall provide for, pay the costs of, and implement the following: <ul style="list-style-type: none"> • Provide hot-water-pipe insulation and installation of a hot-water-recirculation device or other device or design to provide hot water to tap within 15 seconds. • Install 1.6 gallons-per-flush, ultra-low-flow toilets. This cuts the amount of water that goes down the drain with each flush by 50 percent or more.-Developer shall install water-saving showerheads using 2.5 gallons per minute or less. • Prepare a design supplement, herein called a "Natural Grassland Element," to illustrate 1) where landscaped areas will be allowed and 2) where natural grassland areas are to be maintained. Incorporate a Natural Grassland Element into the Codes, Covenants & Restrictions (CC&Rs) that prohibit introduced species on designated graded slopes and other designated as natural grassland areas. • Prepare CC&Rs to address landscape guidelines that feature water-conserving concepts and a list of drought-tolerant, low water use plants (see Draft EIR, Appendix F). <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT G15 The proposed project could contribute an upset discharge of raw wastewater after construction, owing to construction debris or failure to remove temporary sewer plugs after construction.	<ul style="list-style-type: none"> • Developer shall isolate sewers under construction with sewer plugs or temporary grates left in-place until new sewers are fully cleaned and accepted by the City. • Developer shall register sewer plugs and ropes with the City prior to construction. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
V.H Traffic & Circulation			
IMPACT H1 Intersection #1 (California Avenue/SR 4 WB ramps) would be expected to operate at LOS E during the p.m. peak with the project but LOS D after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.</i>	<ul style="list-style-type: none"> • Developer shall pay a fair share for modification of the eastbound California Avenue approach to provide an additional through lane. • Developer shall pay a fair share for provision of right-turn overlap phasing for the northbound right-turn movement. <p><i>NOTE: These are the same mitigation measures as would be required at this intersection without the proposed project.</i></p> <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H2 Intersection #2 (Loveridge Road/SR 4 EB Ramps) would be expected to operate at LOS E with the project but LOS C after mitigation. It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.	<ul style="list-style-type: none"> • Developer shall pay a fair share for modification of the northbound Loveridge Road approach at the ramps for provision of a separate right-turn lane. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> <p align="right">Residual impact after mitigation: LTS</p>		
IMPACT H3 Intersection #8 (Loveridge Road/Buchanan Road) would be expected to operate at LOS E during the a.m. peak hour with the project but LOS D after mitigation. <i>NOTE: This intersection would be expected to operate acceptably in the LOS B range after completion of the Buchan Road Bypass.</i>	<ul style="list-style-type: none"> • Developer shall pay for provision of an additional southbound left-turn lane and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane. Optionally, the developer shall pay for provision of additional through-travel lanes, for a total of two eastbound and two westbound. In implementing this mitigation measure, the City shall preserve existing bicycle lanes. • Alternatively, the developer shall limit the subdivision to no more than 207 units until the opening of the Buchanan Bypass for through-traffic connection. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT H4 Intersection #9 (Buchanan Road/Ventura Drive) would be expected to operate at LOS E with the project but LOS A after mitigation. It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario. It should be noted also that this intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Road Bypass.	<ul style="list-style-type: none"> Developer shall pay a fair share towards the following improvements: the eastbound approach should be re-stripped to accommodate two through lanes from west of Ventura Avenue to east of Meadows Drive followed by a merge back to one lane. This should fit within the existing pavement through the use of narrower travel lanes and a narrower bike lane that nevertheless conform to City standards. In implementing this measure, the City shall preserve the existing bicycle lanes. This striping should be considered permanent until the bypass is opened. <p><i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i></p> <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H5 Intersection #10 (Buchanan Road/Meadows Avenue) would be expected to operate at LOS F with the project but LOS A after mitigation. It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario. <i>NOTE: This intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Road Bypass.</i>	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H4 above. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H6 Intersection #11 (Somerville Road/Buchanan Road) would be expected to operate at LOS F with the project but LOS D after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.</i>	<ul style="list-style-type: none"> Developer shall pay a fair share for modification of the northbound Somerville Road approach and eastbound Buchanan Road approach for provision of an additional left-turn lane on each approach. <p><i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project</i></p> <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H7 The proposed project is expected to increase traffic volumes on the local street portion of Ventura Drive in Highlands Ranch beyond the City's local street carrying capacity of 5,000 vpd. Existing traffic on the block immediately south of Buchanan Road, is approximately 3,600 vpd. On the section of Ventura Drive with fronting houses, existing traffic is estimated at 2,500 vpd. It is estimated that the project would increase traffic volumes on Ventura Drive, between Meadows Avenue and Jensen Drive, by a range of 2,580 to 3,300 vehicles per day (which translates to 65 to 83 percent of the project traffic). Assuming the mid-point, that the project sends approximately 74 percent of its traffic on Ventura Drive, traffic will increase to 5,440 vehicles per day (vpd) from 2,500 vpd on the residential portion of the street. After the opening of the Buchanan Bypass, traffic would decrease below the 5,000 vpd level.	<ul style="list-style-type: none"> Prior to opening of the Buchanan Bypass, developer shall not construct more than 353 units, unless an alternative access to Buchanan Road from the Buchanan Bypass is provided via Standard Oil Avenue. Before additional building permits above 353 permits are issued, the developer shall construct the future Standard Oil Avenue between Buchanan Road and the Buchanan Bypass to the City's Minor Arterial Street Standards for four lanes with turn lanes. To discourage use of Ventura Drive, the developer shall construct a Neighborhood Diverter on Ventura Drive near the mouth of Buchanan Bypass. The design shall be approved by the City of Pittsburgh. City shall not issue building permits for more than 353 units unless it is shown through professional traffic counting that the AADT on Ventura Drive, between Jensen/Rangewood and Meadows Avenue, will not exceed 5,000 vpd. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	City shall monitor issuance of building permits. Timing of the diverter shall be timed to coincide with construction and opening of Standard Oil Avenue.
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT H8 The project may increase traffic volumes on Ventura Drive north of Buchanan Road. This section of Ventura Drive is residential and any increase in traffic from outside of the neighborhood may result in undesirable volume levels and safety issues given the alignment of the street.	<ul style="list-style-type: none"> Developer shall pay up to 100 percent of the cost, or a fair share if other future projects could have a similar effect, for a Neighborhood Diverter which meets the City of Pittsburg's criteria, to discourage through traffic on Ventura Drive north of Buchanan Road. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H9 Intersection #9 (Buchanan Road/Ventura Drive) has 100 feet of available stacking in the northbound left-turn lane on Ventura Drive. The proposed project would increase left-turn queuing to approximately 200 to 250 feet.	<ul style="list-style-type: none"> Developer shall pay for modification of the northbound left-turn on the Ventura Drive approach at Buchanan Road for provision of 250 feet of stacking, appropriate deceleration length, and transitions. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H10 Intersection #10 (Buchanan Road/Meadows Avenue) has 100 feet of available stacking in the westbound left-turn lane on Buchanan Road. The proposed project would increase left-turn queuing to approximately 200 to 250 feet.	<ul style="list-style-type: none"> Developer shall pay for modification of the westbound left-turn on the Buchanan Road approach at Meadows Avenue for provision of 250 feet of stacking, appropriate deceleration length, and transitions. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H11 The proposed project lacks connections to the adjoining Black Diamond Ranch residential subdivision. CCCFPD recommends provision of a 20-foot wide EVA through proposed Lot 191 to Markley Creek Drive.	<ul style="list-style-type: none"> Developer shall construct a suitable EVA across Lot 191 as recommended by CCCFPD. This EVA shall be accessible to emergency vehicles only and shall not be accessible to any other on road or off-road vehicular traffic. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H12 Intersection #1 (California Avenue/SR 4 WB Ramps) would be expected to operate at LOS F with the project but LOS D after mitigation. <i>NOTE: The California Avenue approaches to SR 4 WB ramps are planned to be widened by 2025. The intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.</i>	<ul style="list-style-type: none"> See Mitigation Measures for IMPACT H1. <p><i>NOTE: These are the same mitigation measures as would be required at this intersection without the proposed project.</i></p> <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H13 Intersection #2 (Loveridge Road/SR 4 EB Ramps) would be expected to operate at LOS E with the project but LOS C after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.</i>	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H2. <p><i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i></p> <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H14 Intersection #3 (Loveridge Road/Leland Road) would be expected to operate at LOS F with the project but LOS D after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.</i>	<ul style="list-style-type: none"> Developer shall pay a fair share for modification of the northbound Loveridge Road approach to Leland Road for provision of a separate left-turn lane. <p align="right">Residual impact after mitigation: LTS</p>		
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT H15 Intersection #6 (Railroad Avenue/Buchanan Road) would be expected to operate at LOS F with the project but LOS D after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.</i>	<ul style="list-style-type: none"> Developer shall pay a fair share for modification of the northbound Railroad Avenue approach at Buchanan Road for provision of two northbound right-turn lanes with overlap phasing. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H16 Intersection #7 (Harbor Street/Buchanan Road) would be expected to operate at LOS F with the project but LOS B after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario. This intersection would be expected to operate acceptably in the LOS A range after completion of the Buchanan Bypass.</i>	<ul style="list-style-type: none"> Developer shall pay a fair share for provision of two travel lanes in each of the eastbound and westbound directions. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H17 Intersection #8 (Loveridge Road/Buchanan Road) would be expected to operate at LOS E with the project but LOS D after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario. This intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Bypass</i>	<ul style="list-style-type: none"> Developer shall pay for provision of two southbound left-turn lanes and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane. As an alternative to this mitigation, the developer can limit the subdivision to no more than 207 units until the opening of the Buchanan Bypass. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H18 Intersection #10 (Buchanan Road/Meadows Avenue) would be expected to operate at LOS E with the project but LOS A after mitigation.	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H5. Residual impact after mitigation: LTS	Project Proponent	
IMPACT H19 Intersection #11 (Somerville Road/Buchanan Road) would be expected to operate at LOS F with the project but LOS C after mitigation. <i>NOTE: This intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.</i>	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H6. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H20 At the intersection of the Buchanan Road Bypass with "M" Street and "D" Street, traffic movements would be limited by a raised median to right-turn in/right-turn out. If full access (no median) is provided in the early phase before future opening of the bypass for through-traffic connection, residents of project may object if a median later is constructed.	<ul style="list-style-type: none"> Developer shall construct the Buchanan Bypass with the median in place even in the early phase before future opening of the bypass for through-traffic connection. The section of the bypass built within the project should include provisions for U-turns west of "M" Street-"D" Street. Residual impact after mitigation: LTS	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service (Continued)			

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT H21 Intersection #1 (California Avenue/SR 4 WB Ramps) would be expected to operate at LOS F with the project but LOS D after mitigation. <i>NOTE: The California Avenue approaches to SR 4 WB ramps are planned to be widened by 2025. The intersection also would operate deficiently without the project under the Cumulative 2025, With Bypass scenario.</i>	<ul style="list-style-type: none"> See Mitigation Measures for IMPACT H1. <i>NOTE: These are the same mitigation measures as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H22 Intersection #2 (Loveridge Road/SR EB Ramps) would be expected to operate at LOS E with the project but LOS D after mitigation. It should be noted that LOS standards also would not be met without the project under the Cumulative 2025, With Bypass scenario.	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H2. <i>NOTE: This is the same mitigation measure as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H23 Intersection #3 (Loveridge Road/Leland Road) would be expected to operate at LOS E with the project but LOS D after mitigation.	<ul style="list-style-type: none"> See Mitigation Measures for IMPACT H3. <i>NOTE: These are the same mitigation measures as would be required at this intersection without the proposed project.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H24 Intersection #15 (Kirkner Pass Road/Buchanan Road Bypass) may have the potential to operate at LOS E (v/c=1.00) with the project.	<ul style="list-style-type: none"> Intersection design as part of the bypass should ensure that the intersection would operate with acceptable levels of service. <i>NOTE: Future operations would depend on the design. Designs are available to maintain LOS E which is acceptable on the Kirkner Pass Road corridor.</i> Residual impact after mitigation: LTS	Project Proponent	
IMPACT H25 Project-related traffic added to the residential portion of Ventura Drive, between Meadows Avenue and Rangewood Drive, would create speed and volume impacts.	<ul style="list-style-type: none"> The developer shall construct traffic-calming features on the five block section. Traffic-calming features shall be consistent with the measures listed in the City's Traffic-Calming Policy and their design shall be approved by the City Engineer. Residual impact after mitigation: LTS	Project Proponent	
IMPACT H26 The steepness of the grade and horizontal straightness of "B" Street will encourage excessive speeds that would be considered undesirable for streets having residential frontage with curb cuts.	Developer shall not construct curb cuts for driveways along the frontage of "B" Street between the Buchanan Bypass and "J" Court/"A" Street or along Ventura Drive within 300 feet of the Buchanan Bypass. This means that proposed Lots 11-17 and proposed Lots 235 and 236, proposed Lots 257-262, and proposed Lot 297 may not be developed as shown on the Vesting Tentative Map, unless either 1) alternative access is provided, for example, by way of modified flag lot designs with shared driveways on "J" Court, "A" Street, or Canyon Oaks Court, or 2) "B" Street is re-designed for traffic calming.	Project Proponent	
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT H26 (Continued)	<ul style="list-style-type: none"> Developer's redesign of "B" Street and Ventura Drive, and their related intersections at "K" Court, "J" Court, and the Buchanan Bypass, if one is submitted, may be considered at the discretion of the City within the "B" Street Traffic-Calming Design Zone (see Draft EIR, Chapter V.H, Traffic & Circulation, Figure 26). Developer's redesign for purpose of recovering land area for developable lots may be considered by the City only if redesign provides grade reduction below 14 percent, safety advantages, or other environmental benefits. Developer shall pave "B" Street between the Buchanan Bypass and "J" Court/"A" Street with a scored concrete all-weather surface, with section details and scoring pattern and depth subject to the approval of the City Engineer. Developer shall construct and sign all-way stops at the intersections of "B" Street with "A" Street/"J" Court and "K" Court. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H27 Placement of curb cuts for driveways and on-street parking on "B" Street, "D" Street, "M" Street, and Ventura Drive, near the mouth with the Buchanan Bypass, would create vehicle conflicts and potential safety hazards. Curb cuts and on-street parking would interfere with queuing on approaches to the bypass.	<ul style="list-style-type: none"> Developer shall not 1) construct any driveway curb cuts within 150 feet, or 300 feet in the case of "B" Street, from the edge of curb of the Buchanan Bypass or 2) allow any on-street parking within 150-feet of the edge of curb of the Buchanan Bypass, on "B" Street, "D" Street, "M" Street, and Ventura Drive. This would result in elimination of proposed Lots 11, 17, 18, 72, 73, 257, and 381 and review or adjustment of driveway locations for proposed Lots 12, 16, 19, 71, 74, 258, and 380. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H28 Depending on the location of crosswalk, stop limit line, the proposed sound wall at Lot 257, privacy fencing, and landscaping, the sight distance from "B" Street to the outside eastbound travel lane of the bypass may be limited. Turnouts for the right-turns from Buchanan Bypass into "B" Street and Ventura Drive are not shown on the Vesting Tentative Map. Such turnouts are recommended for deceleration and to avoid a conflict with bicyclists continuing on the bypass across the intersection.	<ul style="list-style-type: none"> Developer shall adjust the lot lines of proposed Lots 257, 258, and 259, to accommodate provisions for the "B" Street/Buchanan Bypass intersection as stated above. Developer shall adjust proposed Lot 11, to accommodate additional right-of-way width for a right-turn turnout from the Buchanan Bypass into Ventura Drive. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT H29 Intersection #11 (Somerville Road/Buchanan Road) would be expected to operate at LOS D with the project but LOS B after mitigation	<ul style="list-style-type: none"> See Mitigation Measure for IMPACT H6. <p><i>NOTE: This is the same mitigation measures as would be required at this intersection without the proposed project.</i></p> <p align="right">Residual impact after mitigation: LTS</p>		
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT 14 Receptor Location 5 At the east end of Silver Saddle Drive, the back yards of houses at 529 and 531 Silver Saddle Drive are partially shielded from Buchanan Road noise by the wall and a wooden "return" fence along the back yards. There is not a masonry return segment extending south from the masonry wall along the eastern property boundary. Houses at 9 Saddlehorn Court and 511, 529 and 531 Silver Saddle Drive have second story exposures, where the outdoor Ldn currently is estimated to be 65 dBA. The future outdoor Ldn at the second-stories would increase by approximately +0.4 dBA with the proposed project. Existing and future sound levels, therefore, would exceed the <i>General Plan's</i> normally acceptable level of 60 Ldn.	Developer shall provide for, pay the costs of, and implement the following off-site mitigation measure: • Developer shall construct an improved backyard return segment, either a matching masonry return wall or an improved fence. Residual impact with mitigation: The backyard outdoor Ldn at 529 Silver Saddle Drive and 531 Silver Saddle Drive could be reduced by -3 dBA with such an improvement. LTS	Project Proponent	Mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits for the proposed project. Homeowners' agreement to fence and retrofit is voluntary and can be waived.
IMPACT 15 Receptor Location 6 Receptor 6 is a mobile home park without shielding by a sound wall. There is a chain link fence with privacy slats, which provides negligible traffic noise reduction. The estimated outdoor Ldn currently is 73 dBA, and the future Ldn will increase by approximately +0.3 dBA with the proposed project and approved projects. This outdoor noise level is the level for the northernmost row of mobile homes along the fence and Buchanan Road. Existing and future sound levels, therefore, would exceed the <i>General Plan's</i> normally acceptable level of 60 Ldn.	Developer shall provide for, pay the costs of, and implement the following off-site mitigation measure: • An off-site sound wall along Buchanan Road in the vicinity of the mobile home park could be effective; however, construction of a sound wall would require funding by the City of Antioch through impact assessment, the redevelopment plan, or a benefit assessment district. The project's share of the cumulative impact is +0.3 dBA. Residual impact with mitigation: Measure is outside the jurisdiction of the City of Pittsburg.	City of Antioch	Measure is outside the jurisdiction of the City of Pittsburg.
IMPACT 16 Receptor Location 6 (Chateau Mobile Park) The portion of the mobile home park within approximately 100 feet of Buchanan Road is noise impacted with an existing Ldn in the range normally unacceptable for residential uses. The increase caused by the proposed project is forecast to be 0.3 dBA. Opening of the Buchanan Bypass would reduce the Ldn to 73 dBA, the pre-development level, but not below 70 dBA.	The proposed project's impact is less-than-significant based upon its projected sound impact (+0.3 dBA). An off-site sound wall along Buchanan Road in the vicinity of the mobile home park could be effective; however, construction of a sound wall would require funding by the City of Antioch through impact assessment, the redevelopment plan, or by collection from members of a benefit assessment district. Project impact without sound wall: LTS Sound wall construction is outside the jurisdiction of the City of Pittsburg.	City of Antioch	Measure is outside the jurisdiction of the City of Pittsburg.
IMPACT 17 Receptor Location 4 Located along Ventura Drive in Highlands Ranch, 1707 and 1711 Ventura Drive, and five additional houses between Rangewood Road and Glen Canyon Circle or Drive, would experience a permanent increase of +3 dBA in day-night average noise level from the Sky Ranch II project. With the proposed Sky Ranch II project, the predicted Ldn at Receptor Location 4 would increase to 63 dBA from 60 Ldn.	Developer shall provide for, pay the costs of, and implement the following off-site mitigation measure for outdoor noise: • Outdoor noise in the front yards of houses along Ventura Drive, between Rangewood Drive and Glen Canyon Circle/Drive, cannot be practically mitigated. Interior noise, hypothetically if the Ldn were above 45 dBA, could potentially be mitigated by retrofitting windows having a line-of-sight to Ventura Drive. Residual impact with mitigation: Unavoidable increase.	none	See next page.
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT 17 Receptor Location 4 (Continued)	<p>Developer shall provide for, pay the costs of, and implement the following off-site mitigation measure for indoor noise:</p> <ul style="list-style-type: none"> Developer shall install acoustic-rated windows or sliding glass doors on exposed first-story and second-story elevations, if necessary to assure interior sound levels would be less than 45 dBA, as determined by professional measurement by a practicing INCE acoustical engineer. <p align="center">Residual impact with mitigation: LTS. The interior Ldn could meet the 45 dBA interior standard.</p>	Project Proponent	Mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits for the proposed project. Homeowners' agreement to window retrofits is voluntary and can be waived.
IMPACT 18 <p>Temporary noise increases will occur during construction. During construction the project will generate noise of variable loudness depending on the location, presence of receptors, and nature of construction. Construction at the boundary of existing neighborhoods could potentially affect the adjacent residents living off-site. The noisiest construction activities could potentially generate maximum noise levels ranging from 84 to 89 dBA at a distance of 50 feet from the noisiest equipment or machinery. Construction noise levels would decrease to 64 -69 dBA at a distance of 300 feet, 61-66 dBA at a distance of 400 feet, and 54-59 at a distance of 800 feet.</p> <p>Whether or not construction hours are limited, temporary construction noise generated by on-site equipment potentially could 1) expose sensitive on-site and off-site residential receptors to noise levels in excess of the applicable noise standards, 2) cause noticeable increases of 2-3 dBA over ambient noise levels, and 3) induce noise complaints owing to increases of 5-10 dBA over ambient levels. Such potential increases generally warrant mitigation to minimize noise disturbance.</p>	<p>Developer shall provide for, pay the costs of, and implement the following on-site mitigation measure:</p> <ul style="list-style-type: none"> The Project Applicant shall prepare Construction Specifications that will become part of contractor documents and which could be enforced by the City of Pittsburgh Building Division on an as-needed basis. The Construction Specifications will require that the Contractor to perform the following tasks: <ol style="list-style-type: none"> Limit construction activities to the hours between 7:30 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 6:00 p.m. on Saturdays and Sundays. No construction shall take place on federal holidays Locate fixed construction equipment such as compressors and generators as far as feasibly possible from sensitive receptors (<i>i.e.</i>, existing houses). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power construction equipment. <p align="center">Residual impact with mitigation below: LTS</p>	Project Proponent	Mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of a grading permit or building permits for the proposed project.
IMPACT 19 Receptor Location 4 With development of approved projects, the proposed Sky Ranch II project, and opening of the Buchanan Bypass, the cumulative predicted Ldn in the front yards of seven (7) houses facing Ventura Drive between Rangewood Drive and Glen Canyon Circle or Drive would increase by +6 dBA to 66 dBA from 60 Ldn. Future cumulative sound levels, therefore, would exceed the <i>General Plan's</i> normally acceptable level of 60 Ldn.	<p>Developer shall provide for, pay the costs of, and implement the following off-site mitigation measure:</p> <ul style="list-style-type: none"> Outdoor noise in the front yards of houses along Ventura Drive, between Rangewood Drive and Glen Canyon Circle/Drive, cannot be practically mitigated. Developer shall retrofit windows having a line-of-sight to Ventura Drive with acoustic-rated sound-insulating windows if necessary to maintain an interior Ldn below 45 dBA, as determined by professional measurement by a practicing INCE acoustical engineer. <p align="center">Residual impact with mitigation: Unavoidable increase outdoors. The interior Ldn could meet the 45 dBA interior standard.</p>	Project Proponent	See above note.
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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT I10 Receptor Locations 7, 8, and 9A Receptor Location 7 means proposed Lots 5, 6, and 7. Receptor Location 8 means proposed Lots 29-37 and similar lots on the south side of the bypass. Receptor Location 9A means proposed Lots 236 & 260 (and generally Lots 234-237, 256, 259- 262, and 297), along proposed "B" Street. On-site locations could have exposures to outdoor day-night average noise level (Ldn) in excess of 60 dBA resulting from implementation of the planned long-range transportation improvement, namely, the Buchanan Bypass. With the proposed 6-foot tall wall and opening of the Buchanan Bypass, the forecast Ldn is 59-65 dBA at the first-stories and 62-70 dBA at second-stories at Receptor Locations 7 and 8. At Receptor Location 9A, traffic on "B" Street is the principal noise source, and the height of the proposed sound wall along the Buchanan Bypass would not matter. The front yard Ldn at Receptor Location 9A is forecast to be approximately 62 dBA; however, backyard noise levels are forecast to be 60 dBA owing to the partial shielding provided by the houses and side yard fences. Therefore, mitigation measures would be warranted in the Buchanan Bypass corridor and along "B" Street in anticipation of implementation of the long-range transportation plan.	<p>Developer shall provide for, pay the costs of, and implement the following on-site mitigation measure for outdoor noise:</p> <ul style="list-style-type: none"> Developer shall construct a taller sound wall than proposed, at least 8 feet in height. <p>Residual impact with mitigation at Receptor Location 7: An 8-foot tall sound wall could reduce the forecast noise at second stories by -9.5 dBA (-2 dBA incremental reduction compared to the proposed 6-foot wall), resulting in an outdoor Ldn of 56-60 dBA for first- and second-stories.</p> <p>Residual impact with mitigation at Receptor Location 8: An 8-foot tall sound wall could reduce the forecast noise at second stories by -4.8 dBA (compared to no reduction provided by the proposed 6-foot tall wall), and could reduce forecast noise at the first-stories by -9.1 dBA (-2 dBA incremental reduction compared to the proposed 6-foot wall). The resulting Ldn would be of 61-65 dBA for first- and second-stories.</p> <p>Developer shall provide for, pay the costs of, and implement the following on-site mitigation measure for indoor noise:</p> <ul style="list-style-type: none"> Developer will install acoustic-rated windows, sliding glass doors or entryway doors, adequate to provide an interior noise level of 45 dBA, or lower. <p align="center">Residual impact with mitigation: LTS</p>	Project Proponent	<p>Wall mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits.</p> <p>Acoustical analysis of proposed windows and doors in units on Lots 18, 29-37, 72, 234-237, 256, 259-262, and 297, shall be prepared by a qualified professional and shall be submitted at the time of application for Building Permit. Mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits for the proposed project. Acoustical engineer shall be paid by developer funds and report to the City.</p>
IMPACT I11 Receptor Location 8 (Lots 18, 29-37, and 72) Located along the Buchanan Bypass corridor, Lots 18, 29-37, and 72 would experience an increase in day-night average noise level (Ldn) of +10 to +17 dBA with opening of the bypass. The Ldn would be 53 dBA before the opening, and after opening of the bypass the Ldn would be approximately 70 dBA (second-story) and 63 dBA (first-story). These forecasts are for the second-story and account for the presence of the proposed 6-foot tall sound wall. At the first-story level, the proposed sound wall would be relatively more effective and, after opening of the bypass, the Ldn would be 63 dBA.	<p>On-site mitigation measure for outdoor noise:</p> <ul style="list-style-type: none"> Developer will increase the sound wall height to 8-feet. An 8-foot tall sound wall will reduce noise at the second-story level by approximately -4.8 dBA; therefore, increasing the wall height to 8 feet could provide an Ldn of 65 dBA at the second-story level and 61 dBA at the first-story level. <p>Residual impact with mitigation: Outdoor Ldn would exceed the 60 dBA compatibility criterion by 1-5 dBA. LTS</p> <p>On-site mitigation measure for indoor noise:</p> <ul style="list-style-type: none"> The developer will disclose the noise forecast. For the specified lots, the developer will either 1) offer housing models having no second-story rear elevation exposures to the bypass, or else 2) provide acoustic-rated windows adequate to attain an interior Ldn of 45 dBA, or lower, for models having second-story rear elevation exposures. <p>Residual impact with mitigation: An interior Ldn of 45 dBA, or lower, will be achieved. LTS</p>	Project Proponent	<p>Wall mitigation measure shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits.</p> <p>Disclosures and floor plans/elevations shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits.</p>
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TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT I12 Lots 257 and 258 The siting of these two lots is problematic in terms of proximity to the proposed bypass and "B" Street, and the discontinuity of the proposed sound walls at the intersection of the bypass and "B" Street. Increasing the proposed wall height to 8-feet would provide a relatively minor incremental noise reduction compared to the reduction provided by the proposed 6-foot tall wall. The noise wall offset at "B" Street and grades of the proposed Buchanan Bypass in relation to pad elevations are constraining factors. With opening of the Buchanan Bypass, Lot 257 would experience an increase in average noise level (Ldn) of approximately +11 dBA, to 71 dBA (first-story). Lot 258 would experience an increase in average noise level (Ldn) of approximately +5 dBA, to 66 dBA (first-story). These are substantial increases, above the normally acceptable 60 dBA, but within the City of Pittsburgh's conditionally acceptable range. This cumulative forecast accounts for the presence of proposed 6-foot tall sound walls east and west of "B" Street. Mitigation measures would be warranted specifically for Lots 257 and 258.	<p>Developer shall provide for, pay the costs of, and implement the following on-site mitigation measure for outdoor noise:</p> <ul style="list-style-type: none"> The developer shall re-design proposed Lots 257 and 258 for location farther south from the proposed Buchanan Bypass and to extend a return wall segment south along "B" Street. Driver line-of-sight toward the west along the bypass could be maintained by realigning the proposed sound wall (western) with a taper from "B" Street to a suitable point in Parcel "A." Eastern and western ends of the two return walls then would match on opposite sides of "B" Street. <p>Residual impact with mitigation: An Ldn of 60-65 dBA could be achieved, depending on details of the re-design.</p> <p>Developer shall provide for, pay the costs of, and implement the following on-site mitigation measure for indoor noise:</p> <ul style="list-style-type: none"> Developer will install windows, sliding glass doors or entryway doors upgraded with acoustic-ratings adequate to provide an interior Ldn of 45 dBA, or lower, for the first- and second-stories of houses on Lots 257 and 258. <p align="right">Residual impact with mitigation: LTS</p>	Project Proponent	Acoustical analysis of proposed return wall segment, and windows and doors in units on Lots 257 and 258 shall be prepared by a qualified professional and shall be submitted at the time of application for Building Permit. Design elements (e.g., return wall segment, acoustic-rated windows and doors) shall be implemented by project proponent and confirmed by the Building Division prior to City's issuance of building permits for houses on Lots 257 and 258.
IMPACT I13 Receptor Location 9A (Lots 236, 237, 259 and 260) Located next to "B" Street, and within the influence of noise from the Buchanan Bypass corridor, Sky Ranch II Lots 236, 237, 259, and 260 would experience an increase in day-night average noise level of +1 dBA with opening of the bypass. The Ldn would be 60 dBA before the opening of the Buchanan Bypass. After opening of the bypass, the Ldn would be approximately 61 dBA. This increase is a LTS effect.	None warranted.	None	None
IMPACT I14 Receptor Location 10 Located off-site along Westridge Court in Black Diamond Ranch, Receptor Location 10 would experience a permanent increase of +2 dBA in day-night average noise level (Ldn) would result with the Sky Ranch II project. With approved development, the proposed Sky Ranch II project, and opening of the Buchanan Bypass, the predicted Ldn at Receptor Location 10 would increase to 64 dBA (first-story) from 55 dBA without the bypass and from 53 dBA without the proposed project. At the second-story level, the forecast noise levels could be expected to be approximately 67 dBA after opening of the bypass.	<p>Off-site mitigation measures:</p> <ul style="list-style-type: none"> A 6-foot tall sound wall or fence of overlapping boards shall be constructed generally at Lots 127-138 in Black Diamond Ranch. At noise-exposed second stories, install acoustic-rated windows. <p>Residual impact with mitigation: With a wall or fence constructed adequately of overlapping boards, the noise reduction at the first-story level could readily be reduced to 60 dBA, or below, from 62 dBA without a fence. Installation of acoustic-rated windows could assure interior sound levels would be less than 45 dBA. LTS</p>	Project Proponent	The mitigation measures described above are outside the jurisdiction of the City of Pittsburgh. However, the cities could cooperatively monitor implementation by the project proponent which is also the developer of Black Diamond Ranch.
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
V.J Air Quality			
IMPACT J1 Proposed project operations may include wood-burning which generates PM10 and PM2.5 emissions. Such emissions may cumulatively contribute to violation of the State of California ambient PM10 standard and federal ambient PM2.5 standard.	<ul style="list-style-type: none"> Developer shall install natural gas-fired aesthetic fireplaces. City shall prohibit or severely restrict wood-burning in EPA-certified Phase II fireplace inserts, other EPA-certified Phase II appliances, or EPA-exempt pelletized-wood stoves. This restriction would be consistent with the City of Pittsburg's <i>General Plan</i> Policy 9-P-33. Residual impact after mitigation: LTS	Project Proponent	
IMPACT J2 During construction the proposed project will generate PM10 and PM2.5 emissions, and at times the areas of active grading will be close to existing or future houses in Black Diamond Ranch and Highlands Ranch. The following mitigation measures would reduce grading dust (PM10) by approximately 80 percent, but would not necessarily avoid dust nuisance under adverse conditions such as winds from the south or west.	<ul style="list-style-type: none"> Developer shall perform active grading operations with watering at least 3 times per day including watering of any unpaved roads. Developer shall limit off-road speeds to 15 mph on the project site. Developer shall pave roads before deliveries of concrete or other construction materials are made to the lots. Hydroseed or apply (non-toxic) soil stabilizer to inactive construction areas (previously graded areas inactive for ten days or more) or apply water daily. Developer shall enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (soil, sand, cement, or aggregate materials.) Developer shall install sandbags or other erosion control measures to prevent silt runoff to public roadways. Developer shall replant suitable grassland vegetation in disturbed areas as soon as feasible. In addition, the developer shall implement all measures listed for IMPACT J3. Residual impact after mitigation: LTS.	Project Proponent	
IMPACT J3 Even with the above mitigation measures, PM10 and PM2.5 emissions could create a dust nuisance if active grading is located within 500 feet of existing residences.	<ul style="list-style-type: none"> Developer shall perform grading operations with more frequent watering than three time daily watering, including watering on demand to keep surface soil moist or crusted at all times. Developer shall install and operate a temporary wind vane and anemometer during the grading. Developer shall suspend grading operations if adverse winds over 25 mph are blowing dust to any occupied residence. Developer shall provide perimeter dust monitoring for grading operations within 500 feet of an occupied dwelling. Monitoring reports shall be prepared and submitted daily to the City's Engineering Department. Residual impact after mitigation: LTS	Project Proponent	
IMPACT J4 Even with the above mitigation measures, PM10 and PM2.5 diesel exhaust emissions would be emitted from the grading equipment at the annualized rate of 2.6 tons per year in the year of maximum cut and fill volume. Diesel soot is considered to be a Toxic Air Contaminant. The following additional mitigation measure, in conjunction with those measures listed above, would reduce diesel exhaust PM10 by approximately 2 tons per year in the year of maximum cut and fill volume.	<ul style="list-style-type: none"> Developer shall require particle filters on diesel earthmoving equipment including excavators, earthmovers, and compactors. Residual impact after mitigation: LTS	Project Proponent	
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Impact	Mitigation Measures	Action by	Notes
IMPACT J5 Proposed project grading will include deep excavations to bedrock. Though serpentine, or other forms of naturally-occurring asbestos are not known to be present on the project site, application for exemption from the BAAQMD or compliance with dust control provisions of Section 93105 is required. The State of California Code of Regulations, Title 17, Section 93105, is an Asbestos Air Toxic Control Measures (ATCMs) to minimize or avoid naturally-occurring asbestos in grading dust.	<ul style="list-style-type: none"> Developer shall comply with Asbestos ATCMs or exemption from the BAAQMD. When applying for a general exemption from the ATCM via a geologic exemption, the developer shall contact the BAAQMD prior to submitting an exemption application. By doing so, the developer and the District will be able to discuss all of the information the District needs to consider the exemption request and ensure that a complete application is submitted. Failure to contact the District prior to submitting an exemption application may result in delays in processing the exemption request. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT J6 The proposed project will generate ROG that cumulatively, with other residential development and industrial sources, may contribute to a violation of the federal 8-hour and State of California 1-hour ambient ozone standards. The majority of the project's ROG emissions would originate from vehicular exhaust, area sources (e.g., space heating) in winter, and temporary construction sources in summer. Mitigation measures focus on reduction of ROG emissions from sources emitting ROG during the summer and fall ozone season.	<ul style="list-style-type: none"> Developer shall design and construct garages with electrical hookups for recharging electric-powered or hybrid vehicles. Assure compliance at the time of Design Review, Plan Check, and Building Inspection. Developer shall require and employ architectural coatings with reduced-VOC (5 percent reduction in emission of ROG from painting). Assure this at the time of Design Review, Plan Check, and Building Inspection. Developer shall include as mandatory provisions of the CC&Rs restrictions to reduce on-site handling of gasoline. City shall require this as a condition of approval. Developer shall encourage homebuyers to use push-reel or electric-powered lawn mowers through dissemination of air/water pollution information pamphlets. CC&Rs shall prohibit on-site refueling of vehicles or storage of gasoline in excess of 1-gallon. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
V.K Public Health & Safety			
IMPACT K1 The proposed project potentially could expose residents and houses on "D" Street, "D" Court, and "C" Court to wildland fire risk on the Urban Wildland Interface.	<ul style="list-style-type: none"> Developer shall include emergency service provisions on the recommended Zone III/IV reservoir service road. Such provisions include suitable driving surface, grade and turnaround for fire engines and hydrants. Developer shall provide access to open space at the site's perimeter. To accommodate this access the developer shall provide additional EVAs at locations to be selected by the Contra Costa County Fire Protection District and City Engineering. One EVA location selected by CCCFPD is Lot 191 connecting to Markley Creek Drive in Black Diamond Ranch. Developer shall disclose the Natural Hazard Disclosure (Fire) Map to home buyers, along with public information including PRC 4291 and/or landscape, defensible space, and fuel break requirements equivalent in content. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
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(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT K2 Proposed lot sizes and locations of Lots 89, 91, 104, 138-141, and 181-190 could place the future owners of these particular lots in a position of depending on adjoining land owners (currently, AUSD and Thomas) to comply with PRC 4291 on the "other side" of their property lines. If AUSD and Thomas failed to provide fuel breaks, the defensible spaces on proposed Lots 89, 91, 104, 138-141, and 181-190 would be limited to the distances from backs of houses to the backs property lines.	<ul style="list-style-type: none"> Developer avoid siting the smallest-sized lots along the UWI. In place of "C" Court, which is proposed as a double-loaded street, re-design "C" Court as a single-load street with Lots 176-180 along its north side and tennis courts, picnic area, or a tot park on its south side. The concept eliminates proposed Lots 181-190. With or without re-design and realignment of "C" Court, the available park space would be approximately 1.2 to 2.0 acres depending on the design and alignment. If "C" Court is re-designed or realigned, the size of Lots 176-180 could be increased. Residual impact after mitigation: LTS	Project Proponent	
IMPACT K3 The proposed project potentially could expose residents and houses to additional fire risk as response distance and time from the nearest CCCFPD fire stations exceeds 1.5 miles or 5 minutes.	<ul style="list-style-type: none"> Developer shall construct all residences with residential fire sprinklers. Installation shall be as per NFPA #13D with the addition of sprinklers in the attics, garages, bathrooms, and closets. A four (4) head hydraulic calculation shall be used. Developer shall construct all roofs with Class A rated roof assemblies. Residual impact after mitigation: LTS	Project Proponent	
IMPACT K4 The proposed project could expose residents of the project site to EMF locally near the existing power transmission lines.	<ul style="list-style-type: none"> Developer shall avoid new development within the 2 milli-Gauss (mG) radius of influence. This will be accomplished by building setbacks. The 2 mG radius of influence shall be determined based upon modeling or measurement, or a combination of the two. In no case shall horizontal setbacks less than 100 feet from the easement centerline be approved by the City. Residual impact after mitigation: LTS	Project Proponent	
IMPACT K5 Proposed Lot 76, proposed Lot 304-306, and proposed Lot 228-233 may have fill or fill slopes that encroach horizontally and vertically into PG&E's easement. This could be acceptable only if the 30-foot ground clearance standard is met.	<ul style="list-style-type: none"> Developer shall comply with General Order 95 (30-foot ground clearance) by performing grading in a manner that preserves continuously a minimum of 30 feet from the ground to the power lines. Residual impact after mitigation: LTS	Project Proponent	
IMPACT K6 The easternmost power transmission towers in the back of proposed Lots 229 and 244 potentially could be rendered inaccessible.	<ul style="list-style-type: none"> Developer shall provided access from "B" Street and avoid cross-fencing of the easement to permit unimpeded service access at all times. Residual impact after mitigation: LTS	Project Proponent	
IMPACT K7 Physical and visual access to the petroleum product pipeline easement potentially could be impaired by introduction of fences, dwellings, and landscaping. Physical and visual access are necessary for routine inspection, emergency response, and overall public safety.	<ul style="list-style-type: none"> Developer shall modify lot lines of proposed Lot 77 and proposed Lots 228-233, 236, 260, 305-306, 309, 342-343, and 378, to avoid cross-fencing of the petroleum pipeline easement and preserve unimpaired physical and visual access. Developer shall identify a relocation site for the relocated Zone II water reservoir near the end of "A" Court, in such a manner as to preserve physical and visual access to the petroleum product pipeline. Residual impact after mitigation: LTS	Project Proponent	
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service			

(Continued)

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

Impact	Mitigation Measures	Action by	Notes
IMPACT K8 The petroleum product pipeline is a multi-purpose pipeline that may at times carry diesel, jet fuel, or gasoline. Upset conditions involving leakage and rupture by inadvertent act of a contractor or private landowner are reasonably foreseeable upset conditions. The pipeline easement and downslope area adjoining the pipeline easement would be best preserved as a buffer, outside of private back yards.	<ul style="list-style-type: none"> Developer shall preserve the PG&E and Kinder Morgan Energy Partners easements outside of private lots. Infrastructure that overlaps the easements, such as the detention basin, water reservoir, "B" Street and "D" Street, common or parking areas, or a future trail, could be acceptable within the easement provided such infrastructure does not impair physical and visual access to the pipeline. Developer shall provide suitable disclosures of the presence of the petroleum product pipeline to future buyers of lots within a specified distance of the pipeline, including all lots located downslope of the pipeline and additional lots to be determined by City staff. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
IMPACT K9 Construction grading on the proposed project could expose nearby off-site residents to Toxic Air Contaminants including diesel exhaust.	<ul style="list-style-type: none"> Developer shall require diesel exhaust particle filters on heavy grading equipment as described in Chapter V. J. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
V.L. Cultural Resources			
IMPACT L1 The project site is in a low sensitivity zone and the potential for encountering archaeological resources is considered low. In the event any cultural materials are encountered during subsurface grading, the following measure will be implemented by the developer.	<ul style="list-style-type: none"> Upon discovery the grading contractor shall halt grading within a radius of 50 feet of the find and will call the Chief of Planning, a qualified archaeologist and the Native American Heritage Commission (or local California Indian). Developer shall notify the Chief of Planning and Native American heritage Commission within 24 hours if any potentially significant cultural materials are encountered by the archaeologist. Following examination of the find, the archaeologist will examine the find and make appropriate recommendations regarding the significance of the find and the appropriate mitigation. Recommendations could include collection, recordation and analysis of any significant cultural materials. A Report of Findings prepared by the archaeologist, documenting any data recovered during his/her monitoring, would be submitted to the City Planning Department on a monthly basis. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	Implementation of these procedures by Project Proponent shall be assured by the City as a condition of project approval and of the Grading Permit.
IMPACT L2 The project site is in a low sensitivity zone and the potential for encountering human skeletal remains is considered low. In the event any human skeletal remains are encountered during subsurface grading, the following measure will be implemented.	<ul style="list-style-type: none"> In the event that human skeletal remains are encountered, the contractor shall immediately halt excavation or disturbance of the burial site or any nearby area reasonably suspected to overlie adjacent human remains and notify the County Coroner and Director of Planning. Excavation or disturbance shall remain suspended until the investigation of the County Coroner has been completed and recommendations of the coroner have been completely implemented including the conditional procedures outlined on the following page. 	Project Proponent	Implementation of these procedures by Project Proponent shall be assured by the City as a condition of project approval and of the Grading Permit
LTS = Less-than-significant S = Significant SU = Significant unavoidable HOA = Homeowners' Association JPA = Joint Powers Authority LOS = Level of Service (Continued)			

TABLE 2. SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES FOR THE SKY RANCH II RESIDENTIAL DEVELOPMENT

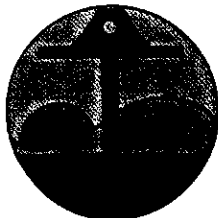
Impact	Mitigation Measures	Action by	Notes
V.L Cultural Resources			
IMPACT L2 (Continued)	<ul style="list-style-type: none"> • Upon determination by the County Coroner that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to subdivision (c) of section 7050.5 of the Health and Safety Code and the County Coordinator of Indian Affairs. No further disturbance of the site may be made except as authorized by the County Coordinator of Indian Affairs in accordance with the provisions of State law and the Health and Safety Code. • The developer shall provide recommendations and appropriate mitigation measures prepared by a qualified archaeologist to the Director of Planning. The Director of Planning will ensure that a mitigation program, in conformance with measures recommended by the archaeologist, will be implemented during construction. <p align="right">Residual impact after mitigation: LTS</p>	Project Proponent	
<p>NOTES:</p> <p>LTS Less-Than-Significant</p> <p>S = Significant</p> <p>SU = Significant Unavoidable</p> <p>JPA = Joint Powers Authority</p> <p>HOA = Homeowners' Association</p>			

FINAL ENVIRONMENTAL IMPACT REPORT
FOR THE PROPOSED
SKY RANCH II RESIDENTIAL SUBDIVISION
IN UNINCORPORATED CONTRA COSTA COUNTY
PITTSBURG, CALIFORNIA

SCH #2004112092

Final EIR
September 2006

Prepared for:



City of Pittsburg
Planning Department
65 Civic Avenue
Pittsburg, CA 94565



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ACRONYMS AND ABBREVIATIONS

AADT – annual average daily traffic volume
ABAG – Association of Bay Area Governments
ABWF – average base wastewater flow
AFY – acre-feet per year
ATCM – Air Toxic Control Measures
AUSD – Antioch Unified School District
BAAQMD – Bay Area Air Quality Management District
BDMRP – Black Diamond Mines Regional Preserve
Caltrans – State of California Department of Transportation
CAP – Clean Air Plan
CBC – California Building Code
CCCFCWCD – Contra Costa County Flood Control
and Water Conservation District
CCCFPD – Contra Costa County Fire Protection District
CC&Rs – covenants, codes, and restrictions
CCRCD – Contra Costa Resource Conservation District
CCTA – Contra Costa Transportation Authority
CCWD – Contra Costa Water District
CDF – California Department of Forestry and Fire Protection
CDFG – California Department of Fish and Game
CESA – California Endangered Species Act
CEQA – California Environmental Quality Act
cfs – cubic feet per second
CO – carbon monoxide
CoIWMP – County Integrated Waste Management Plan
CNDDDB – California Natural Diversity Data Base
CPUC – California Public Utilities Commission
CRLF – California red-legged frog
CTS – California tiger salamander
CWA – Clean Water Act
dBA – A-weighted decibel
DDSD – Delta Diablo Sanitation District
DTSC – California Department of Toxic Substances Control
du – number of dwelling units
du/acre – number of dwelling units per acre of land
ECCC – East Contra Costa County
EBRPD – East Bay Regional Park District



EIR – Environmental Impact Report
EMF – Electromagnetic field
ESA – Endangered Species Act, federal unless annotated as “California ESA,” or CESA
EVA – Emergency Vehicle Access
FEMA – Federal Emergency Management Agency
FHWA – Federal Highway Administration
FIRM – Flood Insurance Rate Map
GDI – groundwater dependent infiltration
GHAD – (pronounced “Gadd”) Geologic Hazard Abatement District
GIS – Geographical Information System
gpad – gallons per acre per day
gpd/DU – gallons per day per dwelling unit
HCD – California Department of Housing and Community Development
HCP/NCCP – Habitat Conservation Plan/Natural Communities Conservation Plan
HEC – Hydrologic Engineering Center of the U.S. Army Corps of Engineers
HOA – Homeowners’ Association
HPD – Hillside Planned District
Hz – hertz
ISO – National Insurance Service Office
JPA – Joint Powers Authority
L_{dn} – daytime-nighttime weighted 24-hour average community noise level
LOS – level of service
LAFCO – Local Agency Formation Commission
MCE – maximum credible earthquake
mgd – million gallons per day
mG – milli-Gauss, a unit of magnetic field strength
MMI – modified Mercalli intensity
msl – mean sea level
NAAQS – National Ambient Air Quality Standards
NEPA – National Environmental Policy Act
NOC – Notice of Completion
NOA – Notice of Availability
NOP – Notice of Preparation
NO_x – oxides of nitrogen
NPDES – National Pollutant Discharge Elimination System
O₃ – ozone



OS – Open Space
PG&E – Pacific Gas & Electric Company
PI – Plasticity Index
PM₁₀ – particulate matter
pphm – part per hundred million by volume
ppm – part per million by volume
PRC – Public Resources Code
PUSD – Pittsburg Unified School District
PDWF – Peak Dry Weather Flow, in regard to wastewater
PWWF – Peak Wet Weather Flow, in regard to wastewater
RDI – rainfall dependent infiltration
ROG – Reactive Organic Gases
RS – single-family residential zoning
RWF – Recycled Water Facility
RWQCB – State of California Regional Water Quality Control Board
SFM – State Fire Marshal or Office of the State Fire Marshal
SRA – State Responsibility Area
SR4 – State Highway 4
SRRE – Source Reduction and Recycling
SWPPP – Storm Water Pollution Prevention Plan
SJKF – San Joaquin kit fox
SOI – sphere of influence
TAC – toxic air contaminant
TNM – Traffic Noise Model
UBC – Uniform Building Code
ULL – urban limit line
URBEMIS – Urban Emissions, an air pollution emission model
USACE – U.S. Army Corps of Engineers
U.S. EPA – United States Environmental Protection Agency
USDA – U.S. Department of Agriculture
USFWS – U.S. Fish & Wildlife Service
USGS – U.S. Geological Survey
UWI – Urban Wildland Interface
v/c – volume-to-capacity ratio
vpd – vehicles per day
vph – vehicles per hour
VOC – Volatile Organic Compound



I INTRODUCTION

BACKGROUND

The Sky Ranch II Residential Subdivision Project is a single-family development consisting of 415 residential units proposed on 163 acres adjoining Highlands Ranch south of Buchanan Road, in unincorporated Contra Costa County. Proposed residential units are a mixture of one- and two-story single-family houses. The site acreage includes approximately 156 acres plus 7 acres at the southern edge of Highlands Ranch that would be re-subdivided.

An Initial Study and Notice of Preparation (NOP) were prepared and circulated during November and December 2004. In December 2005, the City of Pittsburg circulated for public review a Draft Environmental Impact Report (Draft EIR), State Clearinghouse Number 2004112092, on the proposed project and alternatives. The noticed comment period was beginning December 28, 2005, and continuing through February 15, 2006, 5:00 p.m. On January 24, 2006, at 7:00 p.m., the Pittsburg Planning Commission also met to hear oral comments on the Draft EIR at a public meeting held in the Council Chamber at the Civic Center located at 65 Civic Avenue in Pittsburg.

Informing the public of the potential environmental effects of development is at the heart of CEQA. Public involvement in the CEQA is to ensure that the public's concerns about environmental issues and the potential effect of development on the physical environment are addressed prior to project approval. The Draft and Final EIR, therefore, are first and foremost are informational, disclosure documents. They are prepared and circulated by the City of Pittsburg for the consideration of City decision-makers, responsible agencies, and the public at-large, before any decision has been made about approval of the proposed project or one of the alternatives. Before approving or denying the Sky Ranch II Residential Subdivision Project, or alternatives, the City of Pittsburg will consider all the information presented in the Draft and Final EIR.

The City of Pittsburg has used its best efforts to understand each comment and to respond in good faith. The responsibilities of the City of Pittsburg, as lead agency, in preparing responses to comments are outlined in the CEQA Guidelines, Section 15088. Section 15088 states:

The Lead Agency shall evaluate comments on environmental issues received from persons who reviewed the Draft EIR and shall prepare a written response. The Lead Agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments.



The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position varies from recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.

CEQA Guidelines, Section 15132[d], state:

The Final EIR shall consist of, among other things, the responses of the Lead Agency to significant environmental points raised in the review and consultation process.

It is not necessary for the City of Pittsburgh, as Lead Agency, to respond to unsupported opinions, speculative forecasts, or items that have been identified and addressed as matters of City or regional policies, which have been created and adopted, after environmental review, as mitigation measures to mitigate specified impacts of urban growth. A basis for disclosure and reasoned analysis, that a potential impact has been addressed, for example, includes citation and reference to local or regional plans or policy measures that were adopted to mitigate specified impacts of a like-class of project.

The adequacy or inadequacy of an EIR is assessed in the light of factors such as the magnitude of the project at issue, its geographic scope, the severity of its likely environmental effects, and limitations of analysis, and cannot be absolute. Analysis of mitigation measures and alternatives to reduce or avoid likely impacts is necessarily limited to what is reasonably feasible. CEQA or its Guidelines do not require a Lead Agency to conduct every test or perform all research, study, and experimentation demanded by commenters. When responding to comments, a Lead Agency is obligated to respond to potentially significant environmental impacts and mitigation measures,--those impacts that have a substantive basis in fact and those measures, changes to the project or alternatives that are feasible,--but is not required to provide all information requested by reviewers or to respond to unsupported assertions and claims. A good faith effort at full disclosure is the mandate of CEQA.

Clear focus in the review of Draft EIRs and the responses to review comments also is directed in the CEQA Guidelines, Section 15204, which state:

(a) In reviewing Draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the



possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated.

(c) Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence.

CONTENT & ORGANIZATION OF THE FINAL EIR

California Environmental Quality Act (CEQA) Guidelines, Section 15132, specify that the Final EIR shall consist of the following:

- (a) The Draft EIR or a revision of the draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The responses of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the lead agency.

The Final EIR for the Sky Ranch II Residential Subdivision Project contains information in response to concerns raised during the noticed comment period. *Chapter II* contains comment letters received during the comment period and the responses to each comment. *Chapter III* contains text changes to the Draft EIR, reflecting necessary additions, corrections, and clarifications to the Draft EIR.



OVERVIEW OF RESPONSES TO COMMENTS

The comments were wide-ranging and addressed particular jurisdictional concerns and regional concerns about traffic, infrastructure, and parks.

A main regional concern expressed by staff of the City of Antioch, City of Concord, and TRANSPLAN Committee is the potential influence of project-related traffic on existing stressed transportation corridors. Though the proposed project is less than the CEQA 15206(b) (2) (a) 500-unit threshold for a project of area-wide significance, it is located near other city jurisdictions, and near the TRANSPLAN and TRANSPAC common regional transportation planning boundary.

Traffic impacts are discussed in the Draft EIR, Chapter V.H, Traffic & Circulation. Analysis of impacts applies two different methods: 1) near-term and 2) future year-2025. Near-term analysis included analysis of existing, existing plus approved development traffic, and existing plus approved development traffic and, in addition, project-generated traffic. Analysis of near-term traffic effects applied the “list method” including a list of over 20 approved developments. Future year-2025 analysis was based on CCTA regional modeling, with and without a possible future facility called the Buchanan Road Bypass, and with and without the proposed project.

That the analysis shows increased congestion along the Buchanan Road corridor, before the bypass is completed and opened should not be a surprise, as this corridor provides the main east-west off-highway connection to the project site. The main traffic impacts of the proposed project are concentrated in the Buchanan Road corridor and extend outward to Buchanan/Somersville in Antioch and the Railroad/SR 4 EB Ramp and Railroad/California-SR 4 WB Ramp intersections in Pittsburg. Outside this zone of impact, the proposed project generally would add fewer than about 50 vehicles per hour.

By 2025 the Buchanan Road corridor, without the parallel bypass, is shown to have severe traffic congestion even without the proposed project. The timing of the bypass is uncertain, probably before General Plan build-out, and drivers in the Buchanan Road corridor in the interim can be expected to experience increasing delays in peak hours.

There were no technical comments on the biological assessment. The status of the Contra Costa County HCP is such that mitigation of project wildlife impacts are subject to the conventional ESA Section 7 or 10 consultation and permitting by U.S. Fish and Wildlife Service and wetlands impacts are subject to Section 404 delineation verification and potential jurisdiction of the U.S. Army Corps of Engineers.



OVERVIEW OF TEXT CLARIFICATIONS

Several updates are reflected in the text changes to provide current information about rules or recent court decisions. At this time, there are no portions of the project site having proposed critical habitat or designated critical habitat for a protected species. The previously proposed critical habitat areas for CRLF and CTS both have been excluded by Final Rule by USFWS.

Applicability of General Plan polices 9-P-9 through 9-P-12 is clarified by better defining the particular qualities of streams or wetlands that are subject to conservation goals and implementing policies of the City of Pittsburgh's *General Plan*. Applicability tests are: 1) perennial streams, having defined bed and bank, and also having riparian habitat, functional or aesthetic values or 2) wetlands having substantial habitat, functional, or aesthetic values.

Significant unavoidable adverse impacts of the proposed project are clarified better to distinguish these from other impacts which may not be entirely avoidable on the project site under the proposed project alternative or other build alternatives, but which nevertheless could be reduced to less-than-significant effects by means of compensatory mitigation at an off-site location.

Jurisdictional Waters

Filling of wetlands or streambeds on the project site cannot be entirely avoided under proposed project or conservation alternatives considered; however, the potential loss of on-site wetlands or streambeds could be mitigated by means of off-site compensatory mitigation. With off-site compensatory mitigation, loss of on-site wetland/streambed habitat could be mitigated by providing like-kind habitat on another site, resulting in "no net loss." "No net loss" would constitute a less-than-significant effect. Text clarifications of "less-than-significant effects" for IMPACTS A12/A14 and E3, based on the implementation of compensatory mitigation in consultation with the responsible resource agencies, have been incorporated into Chapter III of the Final EIR.

Natural Grasslands and Special Status Species. Natural grasslands are habitat for two special status species, the San Joaquin kit fox (SJKF) and California tiger salamander (CTS). Natural grassland on the project site is no longer proposed as critical habitat for CTS or California red-legged frog (CRLF), and was never designated or proposed as critical for SJKF. Conversion of natural grasslands to urban uses was considered in the Draft EIR, Chapter IX, as a potential unavoidable impact of the proposed project. However, implementation of on-site mitigation measures—for example, permanent CTS barriers—and like-kind compensatory mitigation at an off-site location could reduce potential impacts to natural grasslands and species to less-than-significant effects. Text clarifications of "less-than-significant effects" for IMPACTS G3 and G8, based on provision of off-site compensatory



mitigation in consultation with the responsible resource agencies, have been incorporated into Chapter III of the Final EIR.

Urban Encroachment Upon Open Space and Wildlife Habitat. New houses, landscaping, human presence, pets, and street lighting create a potential for disturbance to nesting birds and other wildlife. Encroachment of urban land use is considered in the Draft EIR, Chapter IX, as a potential unavoidable impact of the proposed project. However, implementation of the recommended on-site mitigation measures—including, for example, the mitigation measures for IMPACTS A8, A9, G3, G5, G6, and G8—could reduce the potential impacts to less-than-significant effects. The City's General Plan land use designation and/or pre-zoning of the adjoining AUD-owned parcel for Open Space are protective of this future buffer land, so that buffer protection on the project site is not necessary. As noted above, text clarifications of "less-than-significant effects" for IMPACTS G3 and G8 have been incorporated into the Final EIR, Chapter III.

Exposure to Off-Site Landslide Hazard. Off-site landslides #1, 2, 3, 17, 18, 25 and 26 would not be repaired under the proposed Preliminary Grading Plan. Off-site landslide hazard is considered in the Draft EIR, Chapter IX, as a potential unavoidable impact; however, implementation of the recommended mitigation measures—including, the mitigation measures for IMPACTS B4, B5, and B6—could reduce the potential impact to a less-than-significant effect. Recommended mitigation measures include potential adjustments to debris bench sizes based on refined engineering. After mitigation, a potential residual effect is episodic debris run-out onto the debris benches and/or into the storm water diversion pipeline headwall areas. Periodic maintenance would be funded through a permanent funding mechanism.

Exposure to Wildland Fire Hazard. Defensible spaces on proposed Lots 89, 91, 104, 138-141, and 181-190 would be limited to the distances from backs of houses to the back yard property lines. Exposure to wildland fire hazard is considered in the Draft EIR, Chapter IX, as a potential unavoidable impact of the proposed project. However, implementation of the recommended mitigation measures—including the mitigation measures for IMPACTS K2 and K3—could reduce the potential impacts to less-than-significant effects.

Dust Nuisance for Black Diamond Ranch and Highlands Ranch. During construction, the proposed project would generate PM10 and PM2.5 emissions. At times the areas of active grading would be close to existing or future houses in Highlands Ranch or Black Diamond Ranch. Dust nuisance is characterized in the Draft EIR, Chapter IX, as a potential unavoidable impact of the proposed project; however, the



Final EIR clarifies that implementation of all the recommended mitigation measures listed for IMPACTS J2 and J3 could reduce this impact to a less-than-significant effect.

Additional Traffic on Ventura Drive through Highlands Ranch.

Before opening of the Buchanan Bypass, traffic could increase to 5,440 vehicles per day (vpd) from the existing volume of 2,500 vpd on Ventura Drive. Though added traffic on Ventura Drive in Highlands Ranch is considered in the Draft EIR, Chapter IX, as a potential unavoidable impact of the proposed project, implementation of the recommended mitigation measures could reduce the maintain the potential through-traffic volume at 5,000 vpd. Recommended mitigation measures for IMPACT H7 include professional traffic volume monitoring and a possible limitation on the number of building permits issued before opening of the Buchanan Bypass.

Significant unavoidable adverse impacts of the proposed project include 1) permanent noise increase at several front yards along a segment of Ventura Drive in Highlands Ranch and 2) construction dust, noise, and traffic diversion around the water transmission pipeline construction corridor (see Chart, next page). Any of the conservation alternatives could have the same significant unavoidable adverse impacts.

Agency consultations with USACE, RWQCB, USFWS, CDFG, would be required to develop an acceptable mitigation plan for 1) on-site mitigation and 2) off-site compensatory mitigation for the on-site habitat resources that would be filled, graded, or covered and converted permanently to urban uses for the proposed project. A project could not be constructed before completion of required agency consultations, CTS Mitigation Plan, and issuance of permits, including the Incidental Take Permit, Section 404 wetlands, Section 401 certificate or waiver, and 1601 Streambed Alteration Agreement.

Potential growth-inducing impacts of the proposed project were considered in Chapter IX of the Draft EIR. The proposed project would not have a growth-inducing impact based on clarification in the Final EIR. IMPACT F1 is a less-than significant effect because the *2000 Water System Master Plan* and capacity of the recommended water transmission pipeline are based on development assumptions consistent with the adopted *General Plan* land uses. The transmission pipeline's capacity would be sufficient to serve only a level of development and location of development at topographic elevations consistent with the adopted *General Plan*. The adjoining parcels west and south of the project site would have to be annexed into BLM's Central Valley Project before CCWD could issue Will-Serve letters.



Significant Unavoidable Adverse Impacts of the Proposed Sky Ranch II Residential Subdivision

CHAPTER IX	CHAPTERS I, V, VI, AND XIII
Permanent Noise Increase	Cross-reference: IMPACTS I7 and I9
1707 and 1711 Ventura Drive, and five additional houses between Rangewood Road and Glen Canyon Circle or Drive, could experience a permanent increase of +3.4 dBA in day-night average noise level from the Sky Ranch II project and an additional +1.4 dBA increase from opening of the Buchanan Bypass. These locations have an existing Ldn of 60 dBA. With approved development, the proposed Sky Ranch II project, and opening of the Buchanan Bypass, the predicted Ldn could increase by +6 dBA to 66 dBA from 60 Ldn.	IMPACT I7 and I9 acknowledge the permanent noise increase outdoors in the front yards of these seven houses is unavoidable. The proposed project's impact is individually significant and cumulatively considerable as future 2025 cumulative sound level would exceed the General Plan's normally acceptable level of 60 Ldn by 6 dBA.
Temporary Construction Dust and Construction Noise	Cross-reference: IMPACT G4^a
Off-site trenching for construction of 9,600 lineal feet of 20-inch diameter water transmission pipe and 12,400 lineal feet of 16-inch diameter water transmission pipe will generate temporary diesel exhaust fumes, dust and noise along the construction corridor. Temporary traffic diversion potentially could result from construction detours or drivers changing routes to avoid the construction zone could cause temporary traffic intrusion, dust and in neighborhoods adjoining the construction corridor such as, for example, Ventura Drive north of Buchanan Road.	IMPACT G4 acknowledges significant unavoidable construction impacts including dust, noise, and traffic diversion around 22,000 lineal feet of 16-inch diameter and 20-inch diameter water transmission pipeline. The water transmission pipeline is needed to upgrade existing service and provide sufficient pressure to fill the proposed on-site and off-site reservoirs.
NOTES: ^a For IMPACTS G3 and G8, the residual effect after on-site mitigation measures and off-site compensatory mitigation has been revised to "less-than-significant," as consistent with the analysis of residual effects for IMPACTS G5 and G6.	



II COMMENTS AND RESPONSES

FORMAT OF RESPONSES

Chapter II contains comment letters received during the comment period and the responses to each comment. Each comment is labeled with a letter and number in the margin. Responses to comments in a given comment letter are presented immediately after the comment letter. Each response follows the same format:

- Alpha-numeric label corresponding to the label in the margin of the comment letter
- Subject of the comment in the heading after the label
- Brief paraphrasing of the comment
- Response

LIST OF COMMENTING PERSONS & AGENCIES

The index on the following page provides the names of commenting entities, mailing addresses, and contact names, for all written comments received on the Draft EIR for the Sky Ranch II Residential Subdivision Project.

- City of Antioch
- East Bay Regional Park District
- California Department of Transportation (Caltrans)
- California Department of Toxic Substances Control (DTSC)
- Contra Costa County Public Works
- Delta Diablo Sanitation District (DDSD)
- City of Concord
- TRANSPLAN Committee
- Discovery Builders (Applicant)
- Save Mount Diablo



Written Comments on the Draft EIR

Margin Label	Agency/Address	Contact	Date Received
A	City of Antioch PO Box 5007 Antioch, CA 94509	Nina Oshinsky (925) 779-6120	February 15, 2006
B	East Bay Regional Park District 2950 Peralta Oaks Court P.O. Box 5381 Oakland CA 94605-0381	Brad Olson (510) 544-2622	February 14, 2006
C	Department of Transportation 111 Grand Avenue PO Box 23660 Oakland, CA 94623-0660	Christian Bushong (510) 286-5606	February 8, 2006
D	DTSC 700 Heinz Avenue, Suite 200 Berkeley, CA 94710-2721	Bill Brown (510) 540-3841	February 8, 2006
E	Contra Costa County Public Works 255 Glacier Drive Martinez, CA 94553	Jocelyn LaRocque (925) 313-2315 or Tim Jensen (925) 313-2396	February 15, 2006
F	DDSD 2500 Pittsburg-Antioch Highway Antioch, CA 94509-1373	Patricia Chapman (925) 756-1939	February 15, 2006
G	City of Concord 1455 Gasoline Alley Concord, CA 94520-4805	John Templeton (925) 671-3129	February 15, 2006
H	TRANSPLAN Committee ECCTA 651 Pine Street, N. Wing – 4 th Floor Martinez, CA 94553	John Greitzer (925) 335-1201	February 8, 2006
I	Discovery Builders (Applicant) 4061 Port Chicago Highway Concord, CA 94520	Albert Seeno III (925) 682-6419	February 15, 2006
J	Save Mount Diablo 1901 Olympic Blvd. #220 Walnut Creek, CA 94596	Seth Adams (925) 947-3535	February 15, 2006
Source: City of Pittsburg, February 17, 2006			



A. CITY OF ANTIOCH

Comments: A1—A11

Responses: A1—A11

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures: none

References to Draft EIR Tables:

Tables 21 and 22, Table H-1 (Appendix H)



February 10, 2006

RECEIVED
FEB 15 2006

Mr. Kenneth W. Stralo
Associate Planner
City of Pittsburg
Planning Department
65 Civic Avenue
Pittsburg, CA 94565

PLANNING DIVISION
PLANNING AND BUILDING DEPT
CITY OF PITTSBURG

Dear Mr. Stralo:

Thank you for the opportunity to comment on the proposed Sky Ranch II Residential Subdivision Environmental Impact Report. The City of Antioch has the following comments to offer regarding this document:

- **Impact E2:** The applicant should be required to connect both Sky Ranch II in Pittsburg and Black Diamond Ranch in Antioch since they are constructed under the same developer and are adjoining projects. A1
- **Impact G1:** The proposed project does not adequately mitigate the impact to parks by requiring the construction of a mini park. The Markley Creek Park in the Black Diamond Ranch Subdivision in Antioch will see a significant increase in use due to the construction of this project as it is closer than parks in Pittsburg. The project should mitigate park impacts by increasing on-site park acreage. A2
- **Impact H11:** The City of Antioch recommends that "C" Court and Markley Creek Drive be connected as depicted on the approved Vesting Tentative Map for the Sky Ranch 1 (Black Diamond Ranch Subdivision) in Antioch. This street connection between the two projects needs to be made to provide emergency access between the two developments as well as providing pedestrian and bicycle access. A3
- **Impacts I5 and I6:** Since the project is generating an impact, the developer should work with the City of Antioch to fund and mitigate the impact. It is not the City of Antioch's responsibility to mitigate this project's impact. A4

Building Services Phone (925)779-7033 - Fax (925)779-7034
Planning Services Phone (925)779-7035 - Fax (925)779-7034
Capital Improvement Phone (925)779-7030 - Fax (925)779-7003
Neighborhood Improvement Phone (925)779-7042 - Fax (925)779-7034
Land Development/Engineering Phone (925)779-7035 - Fax (925)779-7034

- Impact K1: The City of Antioch has worked with the applicant to provide a street connection between Black Diamond Ranch and Sky Ranch 2. As such the City of Antioch will expect that this connection will be made as stated under item E2. This street would also serve as an emergency exit for Black Diamond Ranch and Sky Ranch 2 residents. A5
- Traffic generated from this project has been looked at using two scenarios, with and without the Buchanan Road Bypass. Because the construction of the Buchanan Road Bypass in the near future, or ever, is highly unlikely, our comments focus on mitigating the "without the Buchanan Road Bypass" option. In the absence of the Buchanan Road Bypass, AM and PM circulation would most likely be as follows:
 - o AM: The majority of AM trips originating from the project would be trying to head west. The most likely route to the west would be Ventura Drive or Meadows Avenue to the north and to Buchanan Road to the west. Westbound Buchanan Road traffic can then either take Loveridge to the north or Railroad Avenue/Kirker Pass Road to the south. Currently, as the EIR states, AM demand on Buchanan Road is exceeding capacity. This can be mitigated by adding a second westbound lane on Buchanan Road from Ventura Drive to Loveridge Road or to Railroad Avenue/Kirker Pass. As an AM mitigation, the EIR recommends adding a second northbound left turn lane from Somersville Road onto Buchanan Road. This does not appear to be a logical mitigation since trips generated from the project will not likely even use or impact this movement. A6
 - o PM: Project PM traffic will most likely be traveling East on Hwy-4 exiting at Loveridge Road or Somersville Road. Vehicles exiting at Loveridge Road and heading south will most likely make a left at Buchanan Road to head east. Staff agrees with the proposed mitigation to add a second southbound left turn lane for this movement. The project will also add more eastbound trips on Buchanan Road, which is already overcapacity. It is our recommendation to stripe a second eastbound through lane to accommodate the additional traffic. For those trips on eastbound Highway-4 exiting at Somersville Road will most likely travel south and turn right on Buchanan Road. We are in agreement with the recommended EIR mitigation to add a right turn lane for this movement. A8
- Page III-50 Access to the Proposed Site: States that the Buchanan Bypass would be closed by barricades at both ends until the completion and opening of the Bypass between Somersville Road and Kirker Pass Road. The City of Antioch is opposed to this proposal and recommends the Buchanan Bypass constructed by this project be connected to the existing west terminus of the Buchanan Bypass completed in the City of Antioch. This will provide better access between the two developments and provide access by emergency vehicles, pedestrians and bicycles. A9
- Page III-50 Access to the Proposed Site: States that the Buchanan Bypass would be closed by barricades at both ends until the completion and opening of the Bypass between Somersville Road and Kirker Pass Road. The City of Antioch is opposed to this proposal and recommends the Buchanan Bypass constructed by this project be connected to the existing west terminus of the Buchanan Bypass completed in the City of Antioch. This will provide better access between the two developments and provide access by emergency vehicles, pedestrians and bicycles. A10

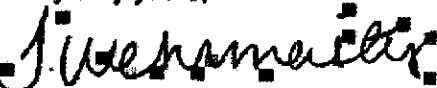
Mr. Kenneth W. Strela
Associate Planner
City of Pittsburg
Planning Department
February 15, 2008
Page 2

Additionally, regarding traffic, the Pittsburg City Engineer has informed the Transplan Board that Pittsburg intends to implement metering of AM westbound traffic on Buchanan Road at Meadows Avenue in mid 2008. The goal is to encourage Antioch and Brentwood residents to utilize the new Highway 4 widening that will begin at the westbound Loveridge onramp. If this metering plan works as designed, it will reduce westbound AM volumes at Buchanan Road and Ventura Drive by approximately 10% and improve the level of service from Ventura Drive to Kirker Pass Road. A recommendation is to restripe existing westbound Buchanan Road and to extend the westbound rightturn lane along the shopping center frontage at Loveridge Road thereby encouraging more drivers to travel north to the new highway onramp at Loveridge Road.

A11

Please feel free to contact me at 925-779-6120 or by email at noshinsky@ci.antioch.ca.us should you have any questions concerning this letter.

Very truly yours,


for Nina Oshinsky
Senior Planner

NO:tl

cc: Joe Brandt, Comm. Dev. Dir./City Engineer
Tina Wehmeister, Deputy Dir. of Comm. Dev.
Ron Bernal, Asst. City Engineer



A1. CONNECTION BETWEEN SKY RANCH II AND THE ADJACENT BLACK DIAMOND ESTATES

The City of Antioch commented that the two subdivisions should be connected by surface streets.

Response

The City of Pittsburg Planning Department staff concurs in general in regard to connections between neighborhoods. The two subdivisions will be connected via the Buchanan Bypass and also at "C" Court/Markley Creek Drive. The former connection will enable a future 4-lane artery with provisions for pedestrians and bicyclists.

The City of Pittsburg staff differs specifically in regard to the timing of the opening of Buchanan Bypass to "through-traffic," meaning traffic having origins or destinations outside of the Sky Ranch II project site. Under the proposed plan, temporary barricades would prevent through-traffic circulation until that time when Buchanan Bypass is opened for travel between Somersville Road on the east and Kirker Pass Road (or, optionally, another north-south road connecting the Bypass with Buchanan Road) on the west.

A concern for the City of Pittsburg staff is traffic volume control on Ventura Drive. Pending construction and opening of Standard Oil Avenue or another north-south road connecting a future western segment of the Bypass with Buchanan Road, Ventura Drive in the vicinity of Black Diamond Estates and the proposed Sky Ranch II subdivisions is the most attractive, least-time route to Buchanan Road. The City of Pittsburg staff proposes to limit the traffic on Ventura Drive, between Jensen/Rangewood and Meadows Avenue, to 5,000 vehicles per day (vpd), if necessary by limiting the number of built units in Sky Ranch II to 353 units pending completion of an alternative north-south collector between the Bypass with Buchanan Road. In the absence of the temporary barricades and the 353 housing unit limit, the projected traffic volume on the segment of Ventura Drive through Highlands ranch could exceed 5,000 vehicles per day (vpd). Ventura Drive through Highlands Ranch is a residential street and was not designed or intended to carry over 5,000 vpd.

A similar concern applies to connection of "C" Court with Markley Creek Drive. Pending completion of Standard Oil Avenue between Buchanan Road and the Bypass, the City of Pittsburg staff favors a restricted connection for pedestrian and EVA access only, but does not favor unrestricted vehicle connection.



In conjunction with the City of Pittsburg staff's recommended mitigation measures (Draft EIR, p. V-256 and 257), temporary barricades at the shared terminus of the Buchanan Bypass could assure volume control on Ventura Drive. The temporary barricades do not preclude future opening of the Buchanan Bypass.

A2. PARK MITIGATION

The City of Antioch commented that the mitigation measure that requires the Sky Ranch II developer to build a mini-park in the vicinity of "C" Court is inadequate to mitigate the project's impact on parks. The City of Antioch stated that future residents of Sky Ranch II would increase visitation at Markley Creek Park in the Black Diamond Estates.

Response

The City of Pittsburg Planning Commission and City Council will consider the mitigation measure of requiring on-site park development within the Sky Ranch II subdivision. Additionally, the Sky Ranch II developer will be required to pay the City of Pittsburg's in-lieu park fee, which is based on the proposed number of residential units.

As part of the Highland's Ranch subdivision, the City of Pittsburg conditioned that project's approval on dedication and improvement of several acres of park space near Ventura Drive and Buchanan Road. The City of Pittsburg's policy is to collect the in lieu park fee for acquisition and development of park land. In the Southeast Hills, current implementation of that policy favors improvements of community and regional parks such as Buchanan Park and Stoneman Park that serve a broader geographic area.

In conjunction with the on-site mini park, the in lieu park fee collected from the developer of Sky Ranch II would be used by the City of Pittsburg for park development at locations in Pittsburg suitable for the Southeast Hills residents.

Spillover visitation by future Sky Ranch II residents at the future Markley Creek Park is a possibility. It would be speculative, however, to assume that future unknown improvements or "attractions" within Markley Creek Park would draw future Sky Ranch II residents to the future Markley Creek Park over the proposed on-site mini park, Buchanan or Stoneman Parks. The future visitation at the various local parks is unknown and unpredictable.

Based on location alone, mini park visitation by future Sky Ranch II residents would be preferred over alternative visitation at Markley Creek Park. Based on



location alone, equal cross-over visitation could be expected to occur from Black Diamond Ranch and Sky Ranch II, or Highlands Ranch.

Cross-over visitation by future Black Diamond Estates residents at the on-site mini park is a possibility especially in view of the City of Pittsburg staff's recommended requirement for pedestrian and EVA access at "C" Court/Markley Creek Drive. Spillover visitation between cities at Buchanan Park and Stoneman Park also are possibilities.

Both cities can and should assume some level of park visitation by out-of-town visitors. Whether there is a net visitor influx to Pittsburg parks from Antioch over the number of visitors to Antioch parks from Pittsburg is a matter that could be substantiated by surveys, for example. In the absence of substantiating surveys, the discussion is speculative and well beyond the scope of the Draft EIR for Sky Ranch II Residential Subdivision.

On the particular point of whether future Sky Ranch II residents sometimes would use the future Markley Creek Park, the City of Pittsburg staff concurs and notes that it would expect cross-over visitation by Black Diamond Estates residents at the future mini-park to be located in the proposed Sky Ranch II residential subdivision.

A3. "C" COURT AND MARKLEY CREEK DRIVE

The City of Antioch commented that "C" Court and Markley Creek Drive should be connected, in order to provide emergency vehicle access (EVA) and also pedestrian and bicyclist access between the adjoining Black Diamond Estates and Sky Ranch II subdivisions.

Response

The City of Pittsburg staff concurs and will require the stated connection as a Condition of Approval, if the City approves the proposed project. The particular connection through proposed Lot 191 is identified as a mitigation measure in the Draft EIR, in both Chapter V.H, Traffic & Circulation (p. V-259) and Chapter V.K, Public Health & Safety (p. V-316).



A4. COMMUNITY NOISE IMPACTS ON CHATEAU MOBILE HOME PARK

The City of Antioch commented that the Sky Ranch II project would generate a community noise impact on the mobile home park that is located along Buchanan Road in the City of Antioch. The City further commented that the Sky Ranch II developer should work with the City of Antioch to fund and mitigate the impact.

Response

Mitigation of the community noise at Chateau Mobile Home Park will not be required of the Sky Ranch II applicant because the project's effect is not individually substantial or cumulatively considerable and there is not a nexus between the proposed Sky Ranch II project and the existing Ldn noise level in Chateau Mobile Home Park. Requiring the Sky Ranch II applicant to fund improvements such as, for example, a sound wall, to reduce noise levels in Chateau Mobile Home Park to levels below the existing Ldn noise level, therefore, would be inappropriate.

The Draft EIR, Chapter V.I, Community Noise (p. V-280), and Chapter VII, Cumulative Effects (p. VII-367), identifies a cumulative impact of the proposed project, approved projects, and past projects. The cumulative effect is noise in the Buchanan Road corridor. In the portion of the mobile home park nearest Buchanan Road, the estimated existing community noise (Ldn) exceeds 70 dBA. The measured peak-hour Leq there is approximately 71 dBA (Table H-1, p. XIII-651).

The Draft EIR evaluates the project's contribution to the cumulative noise in Chateau Mobile Home Park and believes the project's impact is properly characterized as individually less-than-significant and not cumulatively considerable. The proposed Sky Ranch II project's share would be +0.3 dBA.

The Draft EIR includes the following evaluation (pp. VII-369 & 370):

The incremental [+0.3 dBA] increase caused by the proposed project is not substantial; however, the cumulative noise increases caused by the proposed project in conjunction with past development, approved development, and other future foreseeable development in the Buchanan Road corridor is cumulatively significant. Opening of the Buchanan Bypass would shift traffic onto the bypass and north-south roads connected to the bypass. Noise effects of opening the bypass to through traffic include 1) restoration of community noise levels along Buchanan Road to noise levels near the existing condition and 2) cumulative increases in community noise along the bypass corridor.



Based on the traffic evaluation in the Draft EIR, implementation of the long-range plan for the Buchanan Bypass could shift traffic volume from Buchanan Road onto the bypass and could restore the Ldn at the Chateau Mobile Home Park to nearly the same or a slightly lower noise level as the existing Ldn.

The Sky Ranch II applicant has constructed the segment of the Buchanan Bypass in Black Diamond Estates in Antioch, and it will be required to construct an additional segment of the Buchanan Bypass within the Sky Ranch II project limits. Once additional segments are completed west of Sky Ranch II, opening of the future bypass to through-traffic would shift traffic off Buchanan Road and, thereby, would restore future noise levels in the Buchanan Road corridor to levels that are nearly the same as the existing levels, or slightly improved compared to the existing noise levels.

As part of the proposed project, the Sky Ranch II applicant will be required to dedicate right-of-way and construct a segment of the future Buchanan Bypass. The additional segment would be contiguous with an existing segment of the Buchanan Bypass in Black Diamond Estates.

A5. CONNECTION BETWEEN BLACK DIAMOND ESTATES AND SKY RANCH II

The City of Antioch commented again on the need for a street connection between the two subdivisions. In its second comment, the City of Antioch cited the need for emergency egress from Black Diamond Estates.

Response

The City of Pittsburg staff generally concurs and will recommend the stated connection at "C" Court/Markley Creek Court as a Condition of Approval, if the City approves the proposed project. The connection through proposed Lot 191 is identified as a mitigation measure in the Draft EIR, Chapter V.K, Public Health & Safety, p. V-316.

The City of Pittsburg staff specifically expects to require the EVA through Lot 191 and to restrict its function to use for emergency vehicle access or emergency egress. For the reasons cited previously, the connection at "C" Court/Markley Creek Drive would not be allowed as an unrestricted surface street.



A6. SOMERSVILLE/BUCHANAN ROAD AM OPERATION

The City of Antioch staff commented that the traffic mitigation measure proposed for Somersville/Buchanan Road does not make sense. The City of Antioch notes that traffic inbound to or outbound from the proposed Sky Ranch II project site during the AM hour of peak traffic volume would not be expected to make the left-turn from Somersville northbound onto westbound Buchanan Road.

The City of Antioch staff further notes that outbound project traffic in the AM would add to the current westbound travel demand on Buchanan Road. The City of Antioch staff, therefore, favors adding a second westbound through-travel lane on Buchanan Road from Ventura Drive to Loveridge Road or beyond.

Response

The City of Pittsburg's Engineering Department staff has reviewed the Sky Ranch II traffic analysis and concurs that the second westbound through-travel lane is an option. See responses to Comments A8 and A9.

Sky Ranch II project-related traffic would not be expected to make the left-turn from the southern approach of Somersville Road onto westbound Buchanan Road; however, the recommended mitigation measure would address a critical turning movement that influences the intersection's operation.

Another critical turning movement at this intersection in the AM hour of peak traffic volume is the left-turn from the western approach of Buchanan Road onto northbound Somersville Road. Adding left-turn capacity on the western leg of Somersville/Buchanan Road was included in the mitigated LOS calculation but inadvertently was not described in the text of the mitigation measure. The Draft EIR text for mitigation of IMPACT H6 is modified as follows:

IMPACT H6: Intersection #11 (Somersville Road/Buchanan Road)

Mitigation measure:

- Developer shall pay a fair share for modifications of the northbound Somersville Road approach *and the eastbound Buchanan Road approach* for provision of an additional left-turn lane *on each approach*.

In the AM hour of peak traffic volume, one of the critical turning movements at intersection #11 is the left-turn from the south onto westbound Buchanan Road. Adding left-turn capacity on the southern leg of Somersville/Buchanan Road would be effective. The effectiveness of the mitigation measure is demonstrated by means of LOS calculations for the scenarios with and without the Buchanan Bypass. The City of Antioch's stated primary concern is the scenario "without the Buchanan Bypass."



CHART A1

Cumulative Future 2025

Intersection Operations without the Buchanan Bypass

Intersection	Future (2025) without Project			Future (2025) with Project		
	AM LOS		PM LOS	AM LOS		PM LOS
	Before Mitigation	After Mitigation		Before Mitigation	After Mitigation	
#11 Somerville/Buchanan Road	1.07/F	See below	0.84/D	1.13/F	See below	0.88/D
Mitigation: A second left-turn lane on each of the northbound approach (south leg) and eastbound approach (west leg).		0.78/C	0.70/B		0.82/D	0.73/C
#7 Harbor/Buchanan Road	0.92/E	See below	1.04/F	0.97/E	See below	1.10/F
Mitigation: Additional through-lanes eastbound and westbound (4-lane section)		0.55/A	0.58/A		0.58/A	0.61/B
#8 Loveridge/Buchanan Road	0.91/E	See below	0.83/D	0.97/E	See below	0.90/D
Mitigation: additional through-lanes eastbound and westbound (4-lane section)		0.71/C	0.68/B		0.75/C	0.74/C
Optional Mitigation: an additional left-turn lane on Loveridge (dual left) with 2-lane depart on Buchanan Road		0.81/D	0.78/C		0.86/D	0.83/D
SOURCE: W-Trans, September 2006						

With or without the Buchanan Bypass, the projected future (2025) AM peak left-turn volume from northbound Somerville Road onto westbound Buchanan Road would be 598 vph. The projected future (2025) AM peak left-turn volume also would be 598 vph with or without the proposed project. Pending construction of Standard Oil Avenue between the Buchanan Bypass and Buchanan Road, one generator of morning traffic making this left-turn movement from northbound Somerville Road onto westbound Buchanan Road is expected to be Black Diamond Estates.

On the same southern leg of Somerville/Buchanan Road, the projected future (2025) AM peak through-traffic volume would be 636 vph without the Bypass and 736 vph with the Bypass. Morning traffic making this through-movement is independent of the proposed Sky Ranch II project. The through-traffic volume added with opening of the Buchanan Bypass to through-traffic, 100 vph, would not be added to a critical movement.



A7. SOMERSVILLE/BUCHANAN ROAD PM OPERATION

The City of Antioch commented that it agrees with the recommended traffic mitigation measure that proposes to add a right-turn lane from the northern leg of Somersville/Buchanan Road onto westbound Buchanan Road.

Response

The comment warrants clarification that an additional right-turn lane is not recommended. The Draft EIR (p. V-257) states “southbound right-turn overlap phasing,” which is a traffic signalization measure and is not the same as adding an additional right-turn lane.

A8. LOVERIDGE/BUCHANAN OPERATIONS

The City of Antioch commented that it agrees with the recommended traffic mitigation measure that proposes to add a second left-turn lane on the northern leg of Loveridge/ Buchanan Road for left-turns onto eastbound Buchanan Road.

Response

The mitigation measure is described in the Draft EIR, Chapter V.H, Traffic & Circulation (pp. V-256 and V-261). The comment warrants clarification that the mitigation measure is one of two options that could mitigate future year-2025 operation of Loveridge/Buchanan, without the Buchanan Bypass, to “mid-D” or better.

Before mitigation, future year-2025 PM operations at Loveridge/Buchanan Road, without the Buchanan Bypass, are forecast to be LOS D, $v/c=0.83$ without the proposed Sky Ranch II project and $v/c=0.90$ with the proposed Sky Ranch II project. Before mitigation, future year-2025 AM operations at Loveridge/Buchanan Road, without the Buchanan Bypass, are forecast to be LOS D, $v/c=0.91$ without the proposed Sky Ranch II project and $v/c=0.97$ with the proposed Sky Ranch II project.

Of the two options, addition of through-travel lanes eastbound and westbound on Buchanan Road is relatively more effective assuming no parallel capacity on the future Buchanan bypass. Addition of a second left-turn lane on southbound Loveridge Road nearly achieves mid-D, the service level standard. Adding through-lane capacity on Buchanan Road could be effective in both AM and PM hours of peak traffic volume. Adding through-lane capacity could provide an advantage in the future year-2025 scenario without the Buchanan Road Bypass (see Chart A1, page 21).

In the AM and PM hours of peak traffic volume, critical turning movements at Loveridge/Buchanan Road include the left-turn from the north onto eastbound Buchanan Road, the left-turn from the west onto northbound Loveridge Road, and the opposing through-movement westbound on Buchanan Road. The



proposed project would add 65 vph to the critical left-turn movement on the northern leg and 55 vph to the critical westbound through-travel movement on the eastern leg.

A9. LOVERIDGE/BUCHANAN ROAD PM OPERATION

The City of Antioch elaborated that it believes a second through-travel lane should be striped on eastbound Buchanan Road east of Loveridge Road, to accommodate the expected traffic volume traveling east on Buchanan Road after exiting State Highway 4 at Loveridge Road in the PM.

Response

Clarification of the mitigation measure is warranted. With the Buchanan Bypass, addition of through-travel lanes on Buchanan Road would not be necessary, with or without the proposed Sky Ranch II project. For the year-2025 scenario, without the Buchanan Bypass, additional through-travel lanes eastbound and westbound are recommended for Harbor Street/Buchanan Road. Additional through-travel lanes also are optionally recommended for Loveridge/Buchanan Road. These additional travel lanes would not be warranted with the Buchanan Bypass, as shown in the summary of future year-2025 intersection operations (Draft EIR, Table 22, p. V-253).

Re-striping limits generally are described in the Draft EIR. If implemented, the second eastbound through-travel lane on Buchanan Road should be striped from west of the intersection with Harbor Street to a merge east of Meadows Avenue. The second westbound through-travel lane on Buchanan Road should be re-striped within similar limits

Related near-term mitigation measures described in the Draft EIR, Chapter V.H, Traffic & Circulation (p. V-256), include lane re-striping on Buchanan Road, to accommodate a dual left-turn lane on the Loveridge Road southbound approach to Loveridge/Buchanan Road, followed by a merge to one eastbound lane east of Meadows Avenue. This measure could mitigate a near-term traffic impact (Existing + Approved + Sky Ranch II Project) in the AM and PM peak hours. The near-term measure described in the Draft EIR for IMPACT H3 could mitigate Loveridge/Buchanan Road intersection operation to LOS D ($v/c=0.88$) in the AM peak hour and LOS C ($v/c=0.78$) in the PM peak hour.

The mitigation measure as described for near-term and future year-2025 conditions in the Draft EIR (p. V-256 and -261) does not include re-striping for a second through-travel lane westbound on Buchanan Road. An additional westbound through-travel lane on Buchanan Road could be effective (see also response to Comment A8).



Intersection operations analysis of Loveridge/Buchanan Road shows that without the Buchanan Bypass and without the proposed Sky Ranch II project, year-2025 traffic in the AM could warrant an additional through-travel lane. An additional westbound through-travel lane could restore the AM LOS to C ($v/c=0.71$) from LOS E ($v/c=0.91$). Without the Buchanan Bypass and with the proposed Sky Ranch II project, the intersection operations analysis indicates an additional westbound through-travel lane could restore the AM LOS to C ($v/c=0.75$) from LOS E ($v/c=0.97$).

A10. BUCHANAN BYPASS BARRICADES

The City of Antioch commented that the two contiguous segments of the Buchanan Bypass should be connected, in order to provide better access between the adjoining Black Diamond Estates and proposed Sky Ranch II subdivision, emergency vehicle access (EVA), pedestrian and bicyclist access. The City of Antioch opposes the proposal wherein the Buchanan Bypass would be closed to through-traffic by means of temporary barricades between the adjoining subdivisions until bypass completion between Kirker Pass Road and Somersville Road and opening of the bypass.

Response

The City of Pittsburg staff disagrees with the comment and refers the reviewer to the response to comment A1. The temporary barricades are intended to prevent a spillover traffic volume impact on Ventura Drive in the adjoining Highlands Ranch subdivision (see previous response).

In conjunction with the City of Pittsburg staff's recommended volume-control mitigation measures (Draft EIR, p. V-256 and 257), temporary barricades at the termini of the Buchanan Bypass on the Sky Ranch II project site could assure volume control on Ventura Drive. The temporary barricades do not preclude future opening of the Buchanan Bypass to through-traffic.

The temporary barricades would prevent vehicular access but would not preclude EVA, pedestrian or bicyclist access. Requiring connection at "C" Court/Markley Creek Court as a Condition of Approval, if the City of Pittsburg approves the proposed Sky Ranch II project, also could provide EVA, pedestrian, and bicyclist access at the south end of the proposed project. The connection through proposed Lot 191 is identified as a mitigation measure in the Draft EIR, Chapter V.K, Public Health & Safety, p. V-316.



A11. PROPOSED METERING ON WESTBOUND BUCHANAN ROAD

The City of Antioch commented that the City of Pittsburg intends to initiate traffic control metering at Buchanan Road/Meadows Avenue in mid-2006. The City of Antioch further characterized the goal of metering as encouraging Antioch and Brentwood residents to use the widened Highway 4 (SR 4) that begins at the Loveridge Road on-ramp. The City of Antioch recommends re-striping Buchanan Road in the westbound direction and extending the right-turn lane from westbound Buchanan Road onto northbound Loveridge Road in front of the shopping center.

Response

Clarifications are necessary in view of the City of Antioch's comments regarding 1) control point metering, 2) re-striping of westbound Buchanan Road between Ventura Drive and Loveridge Road, and 3) extending the right-turn lane on the eastern leg of Loveridge/Buchanan Road along the shopping center frontage. Of the actions described by the City of Antioch, only the re-striping of Buchanan Road for a second through-travel lane in the westbound direction is a potential mitigation measure for a near-term traffic impact of the proposed Sky Ranch II project on Buchanan Road Corridor operations. Other mitigation measures are listed on the following page.

The City of Pittsburg Engineering Department has initiated inquiries with CCTA and TRANSPLAN regarding implementation of an existing plan known as the East-Central Traffic Management Study. Traffic metering at Kirker Pass Road/Nortonville Road was an element of the "Principles for Implementation and Operation," which resulted directly from the ECTMS and were approved by all affected jurisdictions in September 2002. Recent communications by the City of Pittsburg staff were not specifically in the context of mitigation measures for the proposed Sky Ranch II project.

The purpose of traffic control metering on Buchanan Road at this time is to encourage commuters to use mainline Highway 4 (SR 4) instead of Buchanan Road and Kirker Pass Road. The City of Pittsburg Engineering Department staff suggested to CCTA and TRANSPLAN that the completion of the SR 4 widening east to Loveridge Road presents an opportunity to begin control point metering now to help encourage commuters to use the freeway rather than Kirker Pass Road. The goal of metering is not specifically directed at Antioch and Brentwood residents, as many residents of the City of Pittsburg who have shifted onto parallel routes during SR 4 widening also would be encouraged to return to a pattern of freeway use for their commute.

Metering at this time affects only the two peak hours of the morning commute. Metering is expected staff to reduce traffic on Buchanan Road by 5 to 10 percent, which is equivalent to approximately 80 to 160 vph, based on a hypothetical directional through-traffic volume of approximately 1,600 vph.



CHART A2

Near-Term Intersection Operations Without the Buchanan Bypass

Intersection	Existing Conditions		Existing Plus Approved Projects		Existing Plus Approved Plus Project	
	AM	PM	AM	PM	AM	PM
6. Railroad Avenue/Buchanan Road	0.53/A	0.62/B	0.61/B	0.76/C	0.62/B	0.80/C
7. Harbor Street/Buchanan Road	0.67/B	0.64/B	0.81/D	0.81/D	0.86/D	0.87/D
	0.62/B	0.63/B	0.76/C	0.80/C	0.81/D	0.85/D
8. Loveridge Road/Buchanan Road	0.70/B	0.62/B	0.87/D	0.81/D	0.93/E	0.90/D
9. Buchanan Road/Ventura Drive	0.69/B	0.77/C	0.82/D	0.95/E	0.87/D	0.96/E
10. Buchanan Road/Meadows Av	0.67/B	0.77/C	0.79/C	0.92/E	0.84/D	1.01/F
11. Somersville Road/Buchanan Rd	0.87/D	0.73/C	1.01/F	0.86/D	1.07/F	0.94/E

NOTES: Gray shading indicates that LOS exceeds the mid-D standard. ***Bold italic*** indicates revisions to Draft EIR, Table 21.
SOURCE: W-Trans, September 2006

Chart A2 presents near-term traffic impacts expected at intersections in the Buchanan Road Corridor. Mitigation measures for near-term traffic impacts of the proposed project include the following:

IMPACT H3: Intersection #8 (Loveridge Road/Buchanan Road)

- Developer shall pay for provision of ***an additional two*** southbound left-turn lanes and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane (Draft EIR, Chapter V.H, p. V-256).
- ***Optionally, the developer shall pay for provision of additional through-travel lanes, for a total of two eastbound and two westbound.***

IMPACT H4: Intersection #9 (Buchanan Road/Ventura Drive)

- Developer shall pay a fair share towards the following improvements: the eastbound approach should be re-striped to accommodate two through lanes from west of Ventura Avenue to east of Meadows Drive followed by a merge back to one lane. This should fit within the existing pavement through the use of narrower travel lanes and a narrower bike lane. This striping should be considered permanent until the bypass is opened. (Draft EIR, Chapter V.H, p. V-256)

IMPACT H6: Intersection #11 (Somersville Road/Buchanan Road)

- Developer shall pay a fair share for modifications of the northbound Somersville Road approach and the eastbound Buchanan Road approach for provision of an additional left-turn lane on each approach. (Draft EIR, Chapter V.H, p. V-257)



TRANSPAC Agenda and Meeting Minutes, Item 6, December 8, 2005

TRANSPAC initiated the East-Central Traffic Management Study ("ECTMS") in cooperation with TRANSPLAN, all the respective member jurisdictions, and CCTA. One purpose of the ECTMS was to evaluate establishing additional traffic control points and other traffic management strategies in East County. Current traffic control points in Central County are Oak Grove Road in Walnut Creek and Kirker Pass Road/Myrtle in Concord. At the time of ECTMS during 1999-2001, the only traffic control point was Oak Grove Road. Another purpose of the ECTMS was to integrate existing, planned, and proposed transportation projects and programs in an East-Central Traffic Management Plan.

The ECTMS Final Report was published in 2001. Subsequently, in 2002, "Principles for Implementation and Operation" of the ECTMS were drafted. TRANSPAC approved the "Principles for Implementation and Operation," but not the entire plan, in September 2002. According to the meeting minutes:

1. Metering at Kirker Pass Road/Nortonville Road may have been proposed as an interim location in the absence of Buchanan Road Bypass.
2. Preferred traffic flow was intended for Buchanan Road Bypass over Kirker Pass Road and one committee member mentioned a "flyover connection" between Kirker Pass Road and the bypass.

In November 2005, the City of Pittsburg sent letters to CCTA and TRANSPLAN requesting project development, funding and implementation of traffic control metering at Buchanan Road/Meadows Avenue and Kirker Pass Road/Nortonville Road, as recommended in the ECTMS.

The City of Pittsburg has suggested that the completion of the SR 4 widening to Loveridge Road presents an opportunity to begin control point metering. Metering would help encourage commuters now using alternate routes to shift their travel back onto the freeway rather than Kirker Pass Road.

Traffic management on the Ygnacio Valley Road and Kirker Pass Road corridors is an element in TRANSPAC's Action Plan and the ongoing goal of effectively managing freeway and arterial capacity in this corridor. Staff and the TAC will monitor project activities for the East County segment of the corridor and will advise TRANSPAC of any opportunities to be of assistance to East County jurisdictions and TRANSPLAN in moving the project to implementation.

The City Council of the City of Pittsburg on February 21, 2006, adopted the City's Priority Work Plan for Fiscal 2005-2007. Included among the Capital Projects/Issues are the Buchanan Road Bypass construction and traffic signal systems.



B. EAST BAY REGIONAL PARK DISTRICT

Comments: B1—B14

Responses: B1—B14

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures:

Figures 1,18, 22, and 24

References to Draft EIR Tables:

Table 5

EAST BAY REGIONAL PARK DISTRICT



RECEIVED
FEB 15 2006

February 14, 2006

Mr. Ken Strelo
City of Pittsburgh
Community Development Department
65 Civic Avenue
Pittsburg, CA 94565

PLANNING DIVISION
PLANNING AND BUILDING DEPT
CITY OF PITTSBURGH

Subject: Scoping Comments for Sky Ranch II DEIR - Subdivision 8475
Black Diamond Mines Regional Preserve

Dear Mr. Strelo:

Thank you for notifying the East Bay Regional Park District ("District") regarding the availability of the Draft Environmental Impact Report for the proposed Sky Ranch II subdivision in Pittsburg. Herewith please find our scoping comments on this project, along with copies of previous correspondence on this project.

The DEIR identifies impacts to Black Diamond Mines (Impact A9) from increased park usage resulting from this development; however, the mitigation measures proposed on page V-97 and V-223 do not actually mitigate impacts at Black Diamond Mines (or Contra Loma Park). The DEIR proposes to collect an "in lieu park fee", but there is no proposal or mechanism to provide any of this fee to the District to offset its increased operational costs. Absent such funding, this project will result significant and unmitigated impacts to District parklands.

B1
B2

The EIR should provide some type of assessment to fund increased District operating and habitat management costs as a result of this proposed project. The District has worked with a number of municipalities to establish a "Zone of Benefit" to fund impacts to parklands and open space resulting from residential developments. The EIR should consider this proposal and other options to mitigate project impacts to parkland through assessments and development fees.

B3

The DEIR proposes the installation of smaller windows in lots 182 through 132 to mitigate the visual impacts of development (Impact D3). This does not appear to be an adequate mitigation measure, because they will still be reflected light from these windows. Another, more effective mitigation measure would be to remove these housing units from the proposed development or replace them with high-density housing units further north, as described in Alternative 1B.

B4

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In our December 10, 2004 scoping letter, the District specifically requested that the DEIR contain a visual impact simulation of the proposed development as viewed from Black Diamond Mines. We could find no such simulation in the DEIR. Therefore, there is no way to determine the significance of such an impact or to formulate appropriate mitigation measures. The EIR should consider visual impacts to Black Diamond Mines from the Lougher Ridge and Arata Overlook Trails. Creation of a visual buffer by eliminating proposed units along the southern boundary of the development may mitigate some of this impact. Such mitigation may be accomplished through Alternative 1B or the No Project Alternative.

B5

An informational kiosk will do little to prevent inappropriate uses of any dedicated open space or trails. A home owners association lacks policing authority to enforce use restrictions or perform effective management. The DEIR should provide funding for City policing services to enforce use restrictions.

B6

Under Public Health and Safety, the DEIR identifies significant impacts to residents on "D" Street, "C" court and "D" court. The proposed mitigation measures are to restrict uses in the adjacent open space. Such restrictions are not practically enforceable and will not be successful in mitigating these impacts. A much more effective mitigation measure would be to eliminate housing units in this area of the proposed project.

B7

The DEIR does not adequately mitigate impacts to open space, scenic vistas or biological resources. The proposed project would fully develop the existing open space on the project site and not leave any areas suitable for wildlife. The Clean Water and Endangered Species Acts call for a "sequencing" of mitigation measures. Such measures start with avoidance of impacts, then minimization of impacts, on-site conservation/restoration, and finally off-site mitigation. Even though such measures are described on page V-82 of the DEIR, the proposed project bypasses the first three mitigation options and focuses on off-site mitigation for these impacts.

B8

B9

This lack of adequate consideration of impact avoidance may be based, in-part, on an assumption that the adjacent Moller (AUSD) property may eventually be developed. Currently, there are no development entitlements on the Moller property. Accordingly, the DEIR for the subject project should consider the Moller property in its present conditions. Connectivity of open space between Sky Ranch II through the Moller property to Black Diamond Mines should be considered a viable corridor of open space and habitat until such time as land uses on the Moller property change to some other use. Given the controversy over developing the Moller property and its inclusion in preserve area 1d of the East Contra Costa Habitat Conservation Plan, there is an equally likely scenario that it could be acquired for conservation purposes. Thus, the connectivity of open space between Sky Ranch II and Black Diamond Mines would be assured. Therefore, the EIR should identify and fully consider project alternatives that preserve open space and habitat in the project area.

B10

The EIR should consider a smaller project alternative that still accomplishes the stated purposes of the project. Such an alternative could mitigate some of the significant

B11

impacts to open space and scenic ridgelines, and could reduce the impacts to biological resources. The DEIR identifies an Alternative 1B which would provide for 406 of the 415 units (i.e. 98%) proposed. This alternative would reduce the project impact by 37 acres, which is about a 23% reduction in the project footprint. This alternative clearly satisfies the project objectives and partially mitigates impacts on-site through avoidance.

The primary entrance into Black Diamond Mines is via Somersville Road. There is currently a three-way intersection at the park entrance, which will experience a significant increase in traffic volume with the construction of the proposed project, and a significant increase in traffic speed, which will result from connection with the Buchanan Road Bypass. Both of these are potentially significant impacts that should be fully addressed and mitigated by the proposed project.

B12

Currently, motorists accessing Black Diamond Mines via Somersville Road enjoy a relatively unconstrained access during weekday non-commute periods and on weekends. With the addition of 1,274 new residents at the park entrance, traffic volumes will increase greatly during park operating hours, both on weekdays and weekends. With the completion of the Buchanan Road Bypass, traffic volumes and traffic speeds will increase even further. The new bypass will effectively function as a high-speed expressway, paralleling Highway 4. We anticipate that during AM and PM peak commute periods the accessibility and desirability of visiting Black Diamond Mines at its Somersville entrance will be greatly diminished. Will the proposed project be providing signalized turning pockets from the bypass into the Somersville Road to Black Diamond Mines?

B13

For bicyclists, equestrians and walkers, the impact will be even greater. It's likely given the higher speeds and increased traffic volumes that equestrians will forego accessing the park via Somersville road, due to the noise and high speeds of traffic on the approach roads frightening their horses. For similar reasons, walkers and bicycle riders may choose to forego accessing the park. It is important that the proposed project provide Class I grade separated trails along the proposed bypass so that there is some degree of protection for trail users. In addition, the proposed project should provide for pedestrian activated signals where Somersville Road intersects the new bypass.

B14

Please call me at (510) 544-2622 if you have any questions regarding our letter.

Sincerely,



Brad Olson
Environmental Programs Manager



B1. INCREASED PARK VISITATION AT BLACK DIAMOND MINES REGIONAL PRESERVE

The East Bay Regional Park District (EBRPD) commented that the proposed Sky Ranch II residential subdivision would increase park visitation. According to the comment, the Draft EIR recommends the City collect an *in lieu* park fee, but there is no proposal or mechanism to provide any of this fee to the EBRPD to offset its increased operational costs. Without such funding, the proposed Sky Ranch II project could result in a significant and unmitigated impact to EBRPD-owned parklands.

Response

The Draft EIR, Chapter V.G, Community Services & Utilities (pp. V-222 and 223), identifies potential indirect environmental impacts of the proposed project. Indirect environmental impacts include, for example, traffic, vehicular noise and exhaust, resulting from travel for visitation at off-site parks. Such indirect impacts could result from visitation by future Sky Ranch II residents at three neighborhood parks (Highlands-Buchanan Road Park, Highlands Park, and Marchetti Park), two community parks (Buchanan Park and Stoneman Park), and two regional parks (Contra Loma Regional Park and Black Diamond Mines Regional Preserve).

Mitigation measures included in the Draft EIR are: (1) developer dedication and improvement of on-site land for a mini-park, (2) developer payment of an *in lieu* park fee, and (3) developer protection of the right-of-way for a future trail connection to Black Diamond Mines Regional Preserve. Remainder parcels, to be created on-site along a pair of existing utilities easements, would be protected for the future trail connection. To the extent that the developer dedicates park and trail land, improves the mini-park, and improves the trail right-of-way with trail amenities, the developer could be granted offset credit against the *in lieu* park fee.

All three of these mitigation measures could be considered as effective for reducing indirect environmental consequences of travel for off-site recreation. Mitigation measures (1) and (3) could provide for on-site recreational facilities. Mitigation measure (3) also could create a trail segment for future pedestrian connection to Black Diamond Mines Regional Preserve. Mitigation measure (2), the *in lieu* park fee, could be used by the city for improvements or augmentation of the future Highlands Ranch-Buchanan Road as well as the city's community parks.

The City of Pittsburg's General Plan and Subdivision Ordinance provide for creation of parkland as consistent with the city's growth and population. The *in*



lieu park fee is itself intended for capital funding for the creation of parkland, and improvements thereon, as opposed to operations funding for maintenance. Maintenance of parklands is funded through the General Fund.

The City of Pittsburg Planning Department staff concurs that some unknown level of off-site park visitation by future Sky Ranch II residents could result from project implementation. Indirect environmental consequences of off-site park visitation are adequately mitigated as described above. Discussion of this project's fiscal impact on EBRPD's operations and maintenance budget is speculative and well beyond the scope of the Draft EIR.

B2. PARK MITIGATION

The East Bay Regional Park District staff commented that the mitigation measure that requires the Sky Ranch II developer to build a mini-park in the vicinity of "C" Court (proposed Lots 181-190) is inadequate to mitigate the project's potential impact on Contra Loma Regional Park and Black Diamond Mines Regional Preserve.

Response

The City of Pittsburg will require on-site park development within the Sky Ranch II subdivision. Additionally, the Sky Ranch II developer will be required to pay the City of Pittsburg's *in-lieu* park fee, which is based on the proposed number of residential units.

As part of the Highland's Ranch subdivision, the City of Pittsburg conditioned that project's approval on dedication and improvement of several acres of park space near Ventura Drive and Buchanan Road. The City of Pittsburg's policy is to collect the *in lieu* park fee for acquisition and development of parkland. In the Southeast Hills, current implementation of that policy favors improvements to existing community and regional parks, such as Buchanan Park and Stoneman Park, which serve a broader geographic area.

In conjunction with the on-site mini park, the *in lieu* park fee collected from the developer of Sky Ranch II would be used by the City of Pittsburg for park development or augmentation at locations in Pittsburg suitable for the Southeast Hills residents.

B3. "ZONE OF BENEFIT" ASSESSMENT

EBRPD continued its comment noting that some kind of assessment, to fund increased District operating and habitat management costs resulting from the proposed project, would be needed. In the comment, EBRPD staff state the



District has worked with a number of municipalities to establish a “Zone of Benefit” to fund impacts to parklands and open space resulting from residential developments. Staff continues that the Draft EIR should consider an assessment within a “Zone of Benefit,” and other options, to mitigate project impacts to parklands through assessments and developer fees.

Response

The City of Pittsburg Planning Department staff acknowledges that voters have approved a parcel tax in portions of Western Contra Costa and Alameda Counties, a tax that is used by EBRPD for its specific programs there. City Planning Department staff concurs that some unknown level of off-site park visitation at neighborhood, community, and regional parks could potentially result from the proposed Sky Ranch II project. Indirect environmental consequences of this potential off-site park visitation are adequately mitigated.

There may be a general nexus between the visitation at Contra Loma Regional Park and the general populations of Pittsburg, Antioch, Oakley and Brentwood; however, there is not a specific nexus between the proposed Sky Ranch II project and visitation at any of EBRPD’s individual regional parks. The City does have an established Subdivision Ordinance, which it will enforce in order to collect the *in lieu* park fee for local park land acquisition. Enforcement of its ordinance is a mechanism for mitigating spillover visitation at neighborhood and community parks located outside the City of Pittsburg. The City of Pittsburg does not have any mechanism or authority to create a Zone of Benefit or to assess a parcel tax or its equivalent.

Based on previous experience, the EBRPD staff probably realize the zone of benefit for Black Diamond Mines Regional Preserve and Contra Loma Regional Park covers extensive territory, both inside and outside the City of Pittsburg. Park visitation and zone of benefit are economic issues and are not environmental consequences of the proposed Sky Ranch II project. EBRPD’s need for operations and maintenance funds either for (1) its specific parks or (2) for its aggregate parkland and trail holdings, much of it acquired during 1988-1998, is a subject well beyond the scope of the Draft EIR.

EBRPD staff’s comment about “working with a number of municipalities” may be a reference to Measure CC, on the November 2004 ballot and approved by a 2/3-majority of the voters, which is a parcel tax measure conceived by EBRPD on a sub-regional scale to assist with operations and maintenance of its parks within “Zone 1.” Zone 1 consisted largely of portions of Western Contra Costa and Alameda Counties, including the San Francisco Bay shoreline. As resolved by the EBRPD Board of Directors, proposed uses of the parcel tax funds include enhancements for public safety (police patrol and wildfire protection);



improvements for public access to shoreline, hillside, and urban parks and trails; and environmental maintenance within Zone 1 of the EBRPD. The owner of a single-unit residential parcel pays \$12.00 per year. The owner of a multi-unit residential parcel pays \$8.28 per unit per year. Non-residential parcels are not subject to the tax. There is a built-in 15 year sunset, upon which the tax is subject to renewal by 2/3 of the voters. State law requires that funds from the parcel tax collected from owners within a zone of benefit only be used to fund projects within that defined zone.

In November 2004, Measure CC was approved by 67 percent (just over two-thirds of those voting upon this measure). This voter-approved measure provided the District with authorization to levy the above-described parcel tax to fund operations and maintenance of parks and trails in Zone 1, pursuant to Public Resources Code, Section 5566; Government Code, Sections 50077 and 53724, California Constitution Article XIII C, Section 2(d), and Elections Code, Section 9342.

In November, 1998, Measure W, a predecessor to Measure CC, failed to pass by a narrow margin. Measure W garnered approximately 64 percent of the vote. Measure W was a similar parcel tax that proposed \$9.50 per single-family parcel and \$8.10 per multi-family unit (in 1998 dollars). Measure W was proposed for the entire territory of the EBRPD and did not define a Zone of Benefit.

In 1988, approximately 68 percent of voters in the East Bay Regional Park District (EBRPD) approved Measure AA, a \$225 million bond initiative. Funds were earmarked according to the EBRPD Master Plan for protection of open space, wildlife, shoreline, and the expansion of park properties and trails for use by the general public.

Bond issues, in increments of \$45 million each at three-year intervals, began in 1989. The final issue will be in 2001. Each bond has a lifetime of 25 years. (A taxpayer with property assessed at \$200,000 currently pays \$16.20 per year for the Measure AA bonds.)

Measure AA monies were invested and leveraged by EBRPD during 1988-1998 to acquire 22,000 acres of additional park land and over 100 miles of additional trails throughout Alameda and Contra Costa counties. These acquisitions increased the number of EBRPD-owned parks to 55 parks from 48 parks, and encompassed a grand total of 88,000 acres of parks and 1,000 miles of trails.



B4. REMOVAL OF LOTS 132 THROUGH 182

EBRPD staff commented that removal of proposed Lots 132 through 182 would be a more effective mitigation measure for the project's potential reflected light, reflection or glare being back onto viewing locations in Black Diamond Ranch Regional Preserve.

Response

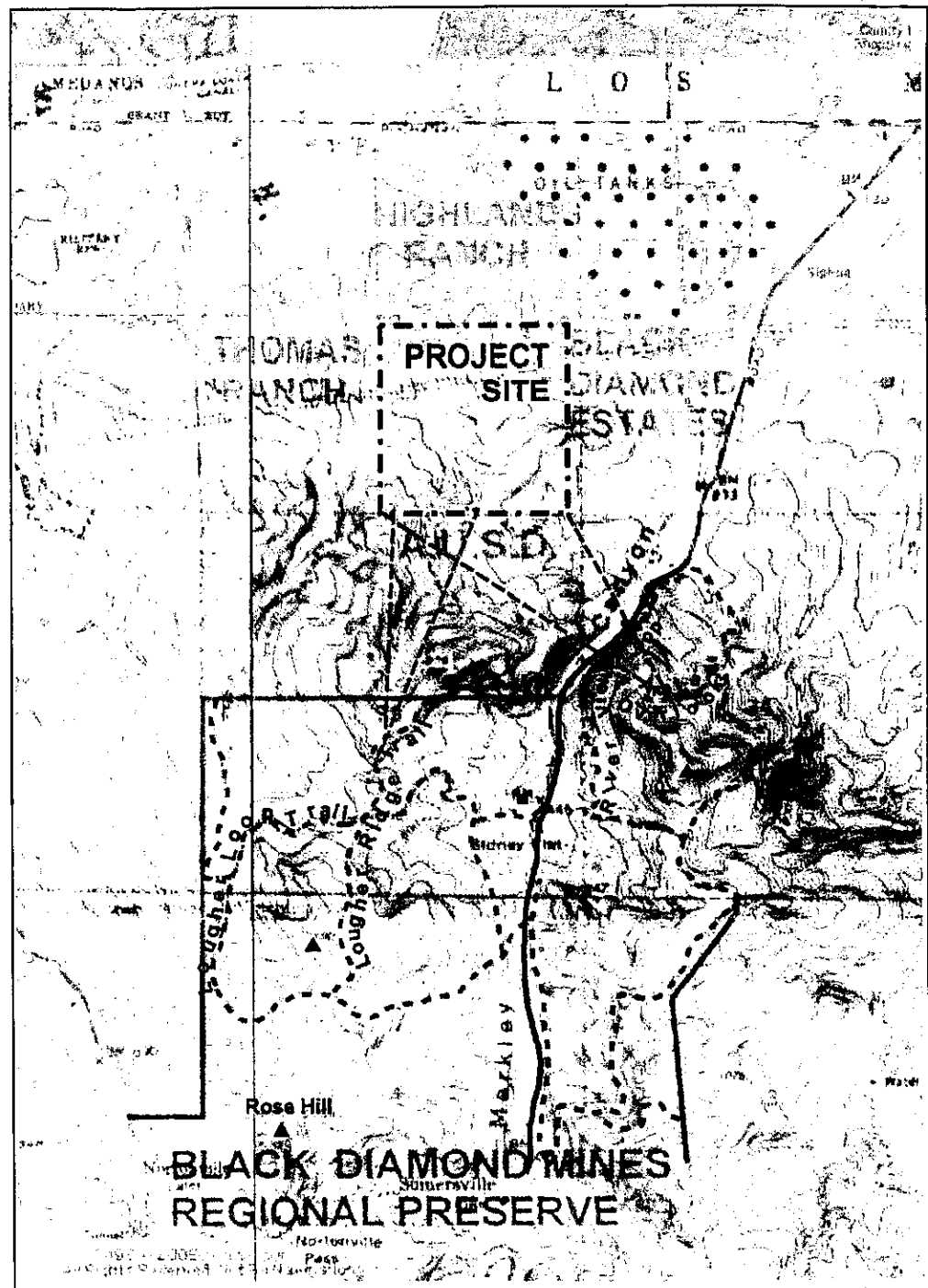
The City of Pittsburg Planning Department staff has considered potential reflected light (or, "glare") and the potential impact on public views caused by the proposed project.

The Draft EIR, Chapter V.D, Visual Resources (pp. V-178 through 181), discusses impacts of the proposed project in terms of its potential effect on scenic vistas, potential effect on the visual quality of the project site, and man-made illumination and reflected light. Visual simulation is used to portray a future public view of the project site from a lower elevation, namely, from the public right-of-way on Ventura Drive just north of Buchanan Road. From this and similar lower elevation viewing locations, the proposed project could affect the visual character of the project site. Mitigation measures to retain the existing open look of hillside grasslands and avoid opaque fencing on selected hillsides are recommended.

The Draft EIR does not discuss general or specific views from elevations higher than 465 feet above sea level datum or the particular views from Black Diamond Mines Regional Preserve. Owing to the elevation difference between the project site and the Black Diamond Mines Regional Preserve, the proposed project could not possibly obstruct views.

The Black Diamond Mines Regional Preserve is located approximately 2,600 feet from the southern boundary of the Sky Ranch II site. In the visual simulation (see Draft EIR, Figure 18, p. V-174), the distance of the viewing location on Ventura Drive from the Sky Ranch II site is similar, approximately 2,600 feet. Views from Black Diamond Mines Regional Preserve to the Sky Ranch II project site, and over the project site, are from higher elevations (700-800 feet).

Plan View B1 illustrates two viewing locations from Black Diamond Mines Regional Preserve on a topographic base map. As shown in Plan View B1, parts of the Arata Overlook Trail or Lougher Ridge Trail, at the 700 foot or 800 foot elevation, would have views of all or part of the Sky Ranch II.



PLAN VIEW B1
VIEWS OF THE SKY RANCH II SITE
FROM BLACK DIAMOND MINES REGIONAL PRESERVE



From Arata Overlook (elev. 700 feet), most of the Sky Ranch II site is visible. From Lougher Ridge Trail (elev. 800 feet) portions on the western side of the Sky Ranch II site are visible. At the highest point, the elevation in the southwest corner of the project site is approximately 500 feet above sea level datum. So all views from the park would be looking “over” the Sky Ranch II project site.

Proposed houses in Sky Ranch II would be visible from specific viewing locations within Black Diamond Mines Regional Preserve, namely the from the northern segment of Lougher Ridge Trail and the western segment of Arata Overlook Trail. Views of the Sky Ranch II site from these trail vantage points would be similar to existing views of Highlands Ranch. Panoramic views of the Suisun Bay and City of Pittsburg would not be obstructed.

Owing to this elevation difference, there could not be a glare impact upon views from Black Diamond Mines Regional Preserve. Windows of houses on specific lots, Lots 132 to 182, could not reflect light upward to elevation 700-800 feet from elevation 311-463 feet above mean sea level. Removal of proposed Lots 132-182 would not have the stated benefit of avoiding reflected glare cast toward Black Diamond Mines Regional Preserve, because such glare is not expected to be a possible consequence of the proposed project.

B5. VISUAL SIMULATION

EBRPD staff commented that staff had requested a visual simulation of the proposed project as viewed from Black Diamond Mines Regional Preserve.

Response

The City of Pittsburg Planning Department staff considered the request for a visual simulation of the Sky Ranch II project site as viewed from Black Diamond Ranch Regional Preserve. Planning Department staff reviewed and considered view impacts of principal concern, including:

- those having a substantial adverse effect on a scenic vista;
- those resulting from substantial damage to a scenic resource such as, for example, trees or rock outcrops; and,
- those considered to be significantly degrading to the existing visual quality of the site or its surroundings.

Relevant visual resources that could be affected by the proposed project include the southern hills as viewed from vantages in the City of Pittsburg. Both the



Suisun Bay/Sacramento River Delta and the southern hills are acknowledged in the City's *General Plan*. Excerpt:

"From the flatland areas of Pittsburg, views of the southern hills are prominent... These southern hills lend Pittsburg residents a sense of identity... Views of the hills to the south and Suisun Bay to the north create an identifiable entryway for the City. Views from the southern hills include vistas of the cityscape and Suisun Bay beyond."

After careful evaluation of the existing visual resources, Planning Department staff determined that visual simulation of the existing vistas or panoramic views of the Suisun Bay/Sacramento River Delta, as viewed from Black Diamond Ranch Regional Preserve could not be affected by the proposed project. These vistas would remain intact, uninterrupted by any of the proposed houses on the project site. Because the scenic vista could not be affected by the project, a visual simulation from one of the Black Diamond Mines Regional Preserve's trails would not assist the evaluation of potentially significant visual impacts of the project.

B6. INAPPROPRIATE USES OF OPEN SPACE

EBRPD staff commented that the information kiosk that is recommended as a mitigation measure in the Draft EIR would be inadequate to prevent inappropriate uses of open space resulting from the project.

Response

The City of Pittsburg Planning Department staff clarifies the impacts that are the subject of the recommended informational kiosk. The Draft EIR, Chapter V.A, Biology and Wetlands (p. V-93), identifies a potential environmental impact of the proposed project on California tiger salamander (CTS). Human activities and population within the project site can indirectly affect CTS. The primary mitigation measure proposed to reduce this effect is as follows:

- *For the long-term, developer shall design and construct a permanent barrier that would keep CTS, which may be present on the adjacent Thomas and AUSD-owned parcels, out of the developed area. It is suggested that this barrier be constructed along the southern and western boundaries during the grading phase. (Draft EIR, p. V-93)*

An additional secondary mitigation measure, also recommended in the Draft EIR, states:

:



- *Developer shall design, construct, and maintain an information kiosk in the southern portion of the project site to foster resident and visitor awareness of wildlife needs. If a mini-park is constructed in the area south of "C" Court, as recommend in Chapter V.G, this mini-park would be an ideal location for a public information kiosk.*

The latter measure is consistent with goals and policies to be adopted in the East Contra Costa County Habitat Conservation Plan (ECCCHCP) for the urban-wildland interface, to minimize the indirect impacts of development on the adjacent preserve (see Draft EIR, Table 5, p. V-84). Kiosks are intended primarily for public education as opposed to policing or access restriction.

The Antioch Unified School District-owned land (see Figure 1) is located between the project site and Black Diamond Mines Regional Preserve. The land owned by A.U.S.D. is part of the candidate habitat preserve acquisition land identified in the ECCCHCP. It is considered foreseeable that the current A.U.S.D. land could become either (1) a part of Black Diamond Mines Regional Preserve or else (2) a part of the ECCCHCP Acquired Preserve Land. The project site, therefore, is interpreted as being located at the urban-wildland interface.

The Draft EIR (p. V-96 & 97) addresses the general subjects of increased human presence at the urban-wildland interface and potential for species harassment. The proposed project could potentially increase off-site walking on the reservoir service road, resulting in potential indirect impacts on biological resources from collection and harassment, introduction of nonnative species, predation by pets or feral cats, and increased frequency of wildfire ignitions. The informational kiosk is listed again (Draft EIR, p. V-98) as a mitigation measure that is consistent with conservation policies in the ECCCHCP.

A compatible transitional use between the urban edge and wildlife habitat is discussed in the Draft EIR (Chapter IX, Unavoidable Adverse Impacts and Growth-Inducing Impacts (p. V-375):

The transitional use recommended in the ECCCHCP is the "Zone 1d buffer." Buffer land constitutes a strip of sufficient width, recommended in the Draft Plan to be 500 feet, to protect habitat value of proposed preserve lands. The Zone 1d buffer is located outside the previous ULL (2000) but partially within the recent voter-approved ULL (2005), and within Pittsburg's Planning Area, in the Black Diamond Planning Subarea. The City's General Plan land use designation and/or pre-zoning for Open Space are protective of this future buffer land, so that buffer protection on the project site [for



example, by elimination of some proposed lots along the southern boundary of the project site] is not necessary and could be superfluous.

B7. UNMITIGATED PUBLIC SAFETY RISKS

EBRPD staff commented that the Draft EIR identifies significant public safety impacts to residents and houses on “D” Street, “D” Court, and “C” Court. EBRPD staff’s comment continues that the proposed mitigation measures are to restrict uses in the adjacent open space.

Response

The City of Pittsburgh Planning Department staff clarifies that the Draft EIR, in Chapter V.K, Public Health & Safety, pp. V-316 through V-319, presents several mitigation measures that would not be properly characterized as “restrictive of uses in the adjacent open space.” For example, to mitigate potential exposure of future residents and houses on “D” Street, “D” Court, and “C” Court to wildland fire risk, the mitigation measures require the developer to avoid siting of small-sized lots along the site’s southern and western boundaries and also to eliminate proposed Lots 181-190. In the area of proposed lots 181-190 the developer would be required to construct a mini-park.

The above-described mitigation measures can be implemented entirely within the boundaries of the project site. The measures are enforceable and could be effective by eliminating small-sized parcels along the Urban Wildland Interface.

B8. OPEN SPACE

EBRPD staff commented that the proposed project would fully develop the existing open space on the project site and would not leave any areas suitable for wildlife.

Response

The City of Pittsburgh Planning Department staff acknowledges that the Proposed Project (Alternative 2) would result in removal of 163 acres of aestivation and/or breeding habitat of the federally-listed threatened CTS, which also is annual grassland at the northern limit of the range of the federally-listed endangered and California-listed threatened SJKF. The habitat on the project site currently is not designated or proposed by USFWS as critical habitat for CTS or SJKF.

No Project (Alternative 3) was found to be the environmentally superior alternative. As required by CEQA, when the environmentally superior



alternative is No Project, the City of Pittsburg Planning Department determined and the Draft EIR acknowledges (pp. I-7 and VI-351) that the least-damaging action alternative is Alternative 1b (On-Site Conservation with Density Transfer).

The City of Pittsburg Planning Department staff clarifies that none of the land on the project site is designated in the City's *General Plan* for Open Space use. The Draft EIR, in Chapter V.E, Land Use and Planning, pp. V-185 and V-186, states:

"The project is located in the Buchanan Planning Subarea and is subject to policies of the City of Pittsburg's General Plan, including the Land Use Element, Growth Management Element, and Urban Design Element. The adopted General Plan land use designation for the project site is Low Density Residential (1-7 dwelling units/gross acre), and the land use designation of the adjoining Thomas parcel is Low Density Residential and Open Space. Adjoining the project site on the south, the Black Diamond Planning Subarea is designated for Open Space and Park land uses. The City's General Plan does not designate any part of the project site for Hillside Low Density Residential (less than 5 du/gross acre), Open Space, or Park. Hillside Development policies do not apply as the site's elevation is generally lower than 500 feet above msl." (Draft EIR, P. V-185 & 186)

The proposed project, therefore, could not have any direct impact on open space. In further regard to the issue of open space, some of the apparent misunderstanding may have originated with outdated assumptions and outdated graphical portrayals in the Hearing Draft (August 2001) City of Pittsburg general Plan and also in the Draft East Contra Costa County Habitat Conservation Plan (ECCCHCP). Figure 2-1, Land Use Designation Types, in Draft ECCCHCP portrays an area of open space on the project site. Figure 2-2, General Plan Diagram, in the Hearing Draft General Plan (August 2001), portrays an area of open space on the project site. However, the entire project site was designated for Low Density Residential (1-7 dwelling units per acre) in the City Council's approved General Plan, as adopted on November 16, 2001.



B9. OFF-SITE COMPENSATORY MITIGATION

EBRPD staff commented that the Clean Water Act and Endangered Species Act call for a sequencing of mitigation measures, starting first with avoidance of impacts, continuing next with minimization of impacts by means of on-site conservation or restoration, and ending finally with off-site compensatory mitigation. Even though conservation measures are acknowledged in the Draft EIR on p. V-82, EBRPD staff holds the opinion that the Draft EIR appears to focus on off-site compensatory mitigation.

Response

The City of Pittsburg Planning Department staff clarifies that alternatives to the proposed project are addressed in Chapter VI, Alternatives Analysis, and Chapter XIII, Appendix C, of the Draft EIR. In Chapter V.A, Biology and Wetlands, the Draft EIR discusses impacts of the applicant's proposed project.

B10. ON-SITE CONSERVATION ALTERNATIVES

EBRPD staff commented that under the East Contra Costa County Habitat Conservation Plan the Moller parcel (also known as the Antioch Unified School District-owned parcel) could be acquired as part of the Preserve System. If so, the connectivity of open space between the Sky Ranch II and Black Diamond Mines Regional Preserve would be assured. The Draft EIR, therefore, should identify and consider project alternatives that preserve open space and habitat in the project area.

Response

The City of Pittsburg Planning Department staff clarifies that alternatives to the proposed project are addressed in Chapter VI, Alternatives Analysis, and Chapter XIII, Appendix C, of the Draft EIR. Conservation Alternatives would preserve undeveloped land on the project site.

B11. ALTERNATIVE 1b

EBRPD staff commented that the Draft EIR should consider a smaller project alternative that still accomplishes the stated purposes of the project. Such an alternative could mitigate some of the significant impacts to open space and scenic ridgelines and could reduce the impacts to biological resources. EBRPD staff's comment continues that the Draft EIR identifies Alternative 1b, which would provide for 406 of the 415 units proposed. Alternative 1b would reduce the project impact by 37 acres, which is about a 23 percent reduction in the project footprint. According to EBRPD staff's comment, Alternative 1b clearly



satisfies the project objectives and partially mitigates on-site impacts through avoidance.

Response

The City of Pittsburg Planning Department determined, and the Draft EIR acknowledges (on pp. I-7 and VI-351), that the least-damaging action alternative is Alternative 1b (On-Site Conservation with Density Transfer). As stated in the response to Comment B8, the Proposed Project (Alternative 2) and Alternative 1b would not have a direct impact on open space as none of the project site is designated in the city's General Plan as Open Space. Compared to the proposed Project Alternative, Alternative 1b could reduce the area of grassland habitat, which is habitat useful for two threatened or endangered species, namely CTS and SJKF, that would be removed for development of proposed housing on the project site. Under Alternative 1b, 406 houses consisting 115 attached townhouses and 291 detached single-family houses would be built. In comparison, the proposed project is a subdivision for 415 detached single-family units. No further response is warranted.

B12. SOMERSVILLE ROAD

EBRPD staff noted that the primary entrance into Black Diamond Mines Regional Preserve is via Somersville Road. EBRPD staff asserts that the park entrance could experience a significant increase in traffic volume and speed with the construction of the proposed project and connection of the Buchanan Bypass to Somersville Road. These potentially significant impacts should be addressed and mitigated in the Draft EIR.

Response

The Draft EIR, Chapter V.H, Traffic & Circulation, Figure 22 (p. V-242) and Chapter XIII, Appendix G, includes information on traffic volumes on Somersville Road. With future opening of the Buchanan Bypass to through-traffic, traffic volumes on Somersville Road are expected to change, generally on the segment between James Donlon Boulevard and Buchanan Road. The changes tend to be overall reductions in traffic in the AM and PM commute hours.

North of James Donlon Boulevard, the existing AM peak hour volume on Somersville Road is approximately 980 vehicles per hour (vph) northbound and 1,120 vph two-way. In the AM commute hours, about 50 percent (461 vph) of the volume northbound on Somersville Road turns left onto Buchanan Road and approximately 50 percent (482 vph) of the northbound traffic continues through on Somerville Road northbound.



With opening of the Buchanan Bypass, and with the proposed project, the AM peak hour volume on Somersville Road north of James Donlon Boulevard is expected to be approximately 720 vph northbound and 1,230 vph two-way. The forecast travel on Somerville Road in the AM commute hours, therefore, represents 1) a reduction in northbound travel and 2) nearly the same volume as the existing two-way volume on Somersville Road. The reason is that some outbound traffic from housing developments connected to James Donlon Boulevard would use the bypass instead of Buchanan Road or Highway 4 for travel to destinations west of Somersville Road.

The existing PM peak volume on Somersville Road north of James Donlon Boulevard is approximately 960 vph southbound and 1,300 vph two-way. In the PM commute hours, approximately 60 percent (607 vph) of the southbound traffic turns right from westbound Buchanan Road onto Somersville Road southbound, and about 30 percent (319 vph) of the southbound traffic continues through on Somersville Road southbound.

With opening of the Buchanan Bypass, and with the proposed project, the PM peak hour volume on Somersville Road north of James Donlon Boulevard is expected to be approximately 520 vph southbound and 1,190 vph two-way. Forecast travel on Somerville Road in the PM commute hours, therefore, represents 1) a reduction in southbound travel and 2) a reduction in two-way travel on Somerville Road. The reason is that some inbound traffic to housing developments connected to James Donlon Boulevard would use the bypass instead of Buchanan Road or Highway 4 for travel home, and some outbound traffic from these same housing developments would use the bypass for travel to destinations west of Somersville Road.

With opening of the Buchanan Bypass, substantial traffic volumes would shift off Somersville Road and Buchanan Road onto the bypass. This will result in traffic relief on the segment of Somersville Road between James Donlon Boulevard and Buchanan Road. South of James Donlon Boulevard, future year (2025) traffic volumes on Somersville Road will not change substantially over the existing volumes.

Future (2025) peak hour volumes on Somersville Road south of James Donlon Boulevard are:

- In the AM peak hour, 440 vehicles per hour (vph) northbound and 580 vph two-way; and,
- In the PM peak hour, 240 vehicles per hour (vph) southbound and 470 vph two-way.



Only 20 vph from the bypass in the AM and PM peak hours would turn right and travel on south on Somersville Road inbound to Black Diamond Mines Regional Preserve.

B13. SIGNALIZATION AT BUCHANAN BYPASS/SOMERSVILLE ROAD

EBRPD staff noted that the Buchanan Bypass will function as high-speed expressway paralleling Highway 4. During AM and PM peak commute periods, accessibility to Black Diamond Mines Regional Preserve (BDMRP) via its Somersville Road entrance could potentially be diminished owing to traffic congestion at the BDMRP's Somersville Road entrance. Additionally, EBRPD staff asked about signalization at the Buchanan Bypass/Somersville Road intersection.

Response

The City of Pittsburg Planning Department staff clarifies that the Buchanan Bypass would be constructed as a 4-lane arterial road with a median divider within the project limits. It would remain closed to through-traffic at the eastern and western termini of the project site until completion of the entire bypass west to Kirker Pass Road or an alternative north-south connection.

The intersection at Somersville Road and James Donlon Boulevard intersection currently is signalized. This intersection, the signal, and the segment of the Buchanan Bypass located east of the project site, are all owned by the City of Antioch. The future signal is assumed to be an 8-phase signal. Eight-phase refers generally to a fully-actuated traffic signal at a 4-way controlled intersection, with separate loop detectors and green time for four (4) left-turn lanes and four (4) through-travel lanes.

The Draft EIR describes the Buchanan Bypass as an element included in the project description (Chapter III, Description of the Proposed Project, p. III-49).

"The project includes construction of the Buchanan Bypass within the limits of the project site. Goal 2-G-25 and Policy 2-P-73 of the General Plan call for construction of the Buchanan Bypass as an alternative route for commuters traveling from Kirker Pass Road to destinations east of Pittsburg. The Buchanan Bypass is identified in Pittsburg 2020: A Vision for the 21st Century and 1997 Traffic Mitigation Fee Study as a planned transportation facility to be funded by traffic mitigation fees. It is also identified as Project ST-4 and ST-36 in the City's current Five-Year Capital Improvement Plan. In the Five-Year Capital Improvement Plan the Buchanan Bypass is indicated as a 2-lane artery with a estimated design and construction cost of \$56 million.



The proposed segment of the Buchanan Bypass within the boundaries of the project site would be constructed as a 4-lane artery with a median divider. It would remain closed to through-traffic at the eastern and western termini until completion of the entire bypass is completed west to Kirker Pass Road. In the interim, project-related traffic would use Ventura Drive through Highlands Ranch to Buchanan Road."

Before opening of the bypass for through-traffic connection, the forecast cumulative operations at Somersville/Buchanan Road are LOS "F" in the morning and LOS "D" ($v/c=0.88$) in the evening. Mitigation measures are identified in the Draft EIR, Chapter V.H, Traffic & Circulation, p. V-257, V-261 and V-262), to restore operations to LOS "D" in the AM and LOS "C" in the PM.

With opening of the bypass for through-traffic connection, Somersville/James Donlon/Buchanan Bypass is projected to operate at LOS "D" ($v/c=0.84$) in the AM and LOS "C" ($v/c=0.80$) in the PM. This is year 2025 forecast for the cumulative scenario, which includes the proposed project and other development. As stated in response to Comment B12, opening of the Buchanan Bypass to through-traffic would result in overall reductions in traffic on the segment of Somersville Road between James Donlon Boulevard and Buchanan Road.

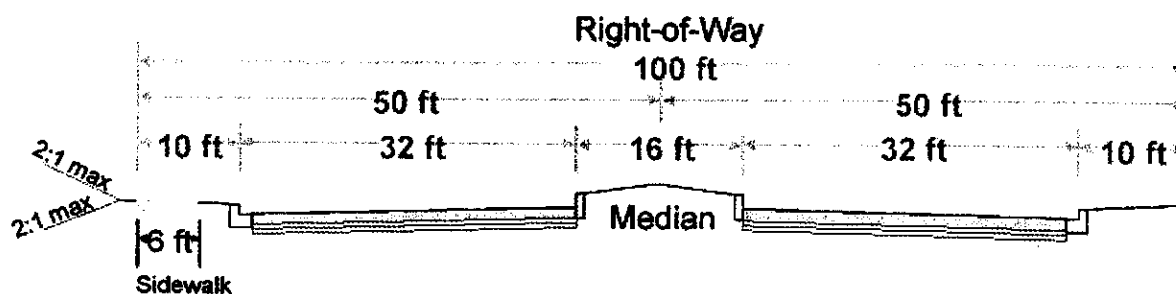
B14. TRAIL MITIGATION MEASURES

EBRPD staff commented that the proposed project should provide Class I grade-separated trails along the proposed Buchanan Bypass so that there is some degree of protection for trail users from increased traffic induced by the bypass. In addition, EBRPD staff stated that the proposed project should provide for pedestrian activated signals at Buchanan Bypass/Somersville Road.

Response

The City of Pittsburg Planning Department staff clarifies that the Buchanan Bypass would remain closed to through-traffic at the eastern and western termini of the project site until the entire bypass is completed west to Kirker Pass Road or to an alternative north-south connection. The intersection at Somersville Road and James Donlon Boulevard are all owned by the City of Antioch.

Potential bicyclists and hikers from Black Diamond Estates and Sky Ranch II, who are returning from Black Diamond Mines Regional Preserve (BDMRP), would need to Somersville Road at James Donlon Boulevard. The Draft EIR, Chapter V.H, Traffic & Circulation, Figure 24, p. V-247, illustrates the Buchanan Bypass cross-section. A 6-foot wide sidewalk is included. Adequate



City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94656

FIGURE 24

Buchanan Bypass Cross-Section

paved width (32-feet) is provided for ultimate striping of two 13-foot wide lanes and a 6-foot wide bicycle lane. EIR, Chapter V.G, Community Services & Utilities, p. V-223, additionally recommends protection of the existing utility easements for a future east-west trail.

Developer will protect right-of-way across the entire 110-foot width of the combined PG&E and Kinder Morgan Energy Partners easements, for future development of an east-west trail connection with BDMRP. Protection of the trail right-of-way may be counted in the future as part of the developer's park land dedication requirement, only at that time when trail improvements are made, and only for that portion of the right-of-way on which trail improvements are actually made.



C. CALTRANS

Comments: C1—C8

Responses: C1—C8

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures:

Figures 13, 14, and 20-22

References to Draft EIR Tables:

Tables 10, 21, and 22

DEPARTMENT OF TRANSPORTATION

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PLANNING DEPARTMENT
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February 6, 2006

CC004804
CC-4-26.01
SCH2004112092

Mr. Ken Strelow
Planning and Building Department
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Dear Mr. Strelow:

Sky Ranch II – Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the Sky Ranch II Residential Subdivision 8475. The comments presented below are based on the review of Draft Environmental Impact Report for the Sky Ranch II project.

Signal Operations

The following intersections necessitate a traffic analysis:

C1

- Loveridge Avenue and California Avenue
- Sommersville Road and Mahogany Way/Century Boulevard
- Sommersville Road and State Route 4 (SR 4) eastbound ramps
- Sommersville Road and State Route 4 (SR 4) westbound ramps
- Sommersville Road and Delta Fair Boulevard
- Sommersville Road and Sycamore Drive
- Railroad Avenue and Power Avenue
- Railroad Avenue and SR 4 eastbound ramps
- Railroad Avenue and California Avenue/SR 4 westbound ramp
- Railroad Avenue and Bliss Avenue/Frontage Road

A traffic simulation (i.e. Synchro, Sim Traffic) should be used to investigate queuing on each lane direction, and how one intersection affects others (e.g. queues that spill to the other

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intersection). The mitigation measures for Impact 1 on page V-255, do not show the intersection Level of Service (LOS) for the queue on the State Route 4 (SR 4) westbound off-ramp. A traffic simulation analysis needs to be conducted to investigate queuing for each of the following "impact" intersections: Impact H1 and H2 on page I-28, Impact H21 and H22 on page I-32, Impact 2 on page V-255, and impact 21 and 22 on page V-262. In addition, we could not locate Figure 22 that is referred to on page V-241.

C2

Hydraulics

Per the Sky Ranch II project, nearly 85% of the project site falls within the East Kirker Creek (Old Kirker Creek) watershed. This watershed, downstream of the proposed Sky Ranch II subdivision, has a history of flooding due to downstream improvements that have not kept pace with upstream development. In particular, the Old Kirker Creek culvert at SR 4 is undersized for current conditions. There is a project underway that will upgrade the culvert to pass a 25-year storm event. However, even with the SR 4 culvert upgrade, the situation at Old Kirker Creek will not improve until additional downstream improvements are made by the City of Pittsburg. Therefore, it is unacceptable to increase flows to Old Kirker Creek. Post construction flows must be metered to pre-construction flows or less.

C3

C4

Table 10 on sheet V-148 indicates that post construction flows have been metered well below pre-construction flows. It appears though, that Area 1 is considered twice in pre-construction flows. Also, do both pre- and post-construction flows take into account the existing Highlands Ranch detention basin?

C5

Impact 11 on page V-161 states that "runoff from the project site, Highlands Ranch, and other tributary sub-areas would add to the pre-project flows conveyed in off-site pipelines north of Buchanan Road." If flows will be metered as shown in Table 10, how will flows increase north of Buchanan Road? The pipe from the Highland Ranch basin connects to a system north of Buchanan Road and outlets to the lake at Los Medanos Community College. The Contra Costa Transportation Authority with the City of Pittsburg is considering increasing the capacity of the lake in an effort to reduce the peak flows at the SR 4 culvert and further downstream. Will this development increase flow to the lake?

C6

Advance Planning

Page V-248 Table 20 needs to specify the project trip generation as weekday, weekday AM peak hour and weekday PM peak hour.

C7

Impacts to SR 4 should be clearly identified. The project's fair share contribution, financing, scheduling, implementation, responsibilities for this project should be clearly identified. Methods for calculating the project's equitable mitigation are detailed in Appendix B of the Department's "Guide for the Preparation of Traffic Impact Studies", which should be reviewed during preparation of environmental documents. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/development/operationalsystems/reports/tisguide.pdf>

C8

Mr. Ken Sando
February 6, 2006
Page 3

Should you have any questions regarding this letter, please call Christian Bushong of my staff at (510) 286-5606.

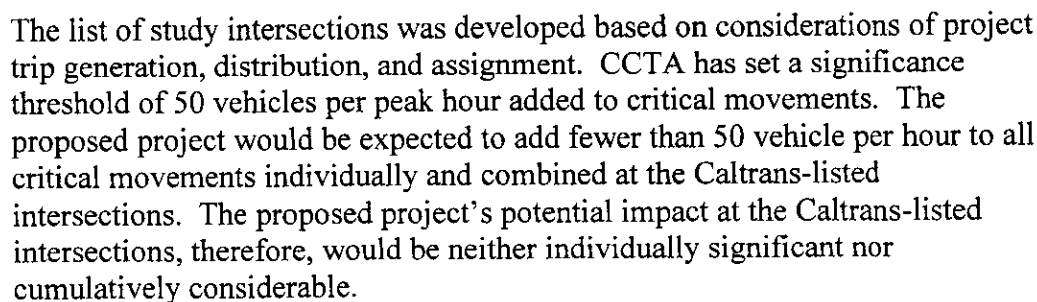
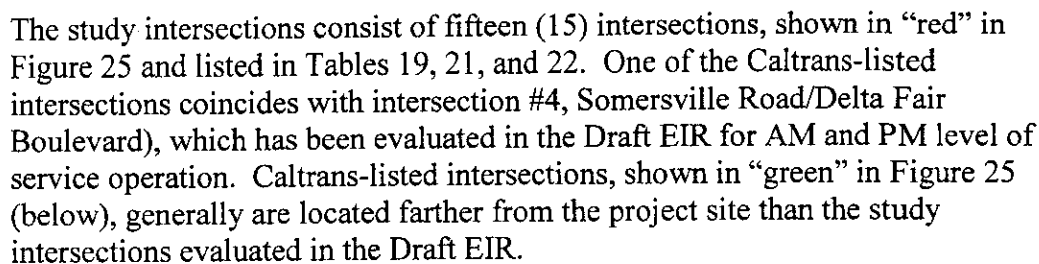
Sincerely,



TIMOTHY C. VABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

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C1. INTERSECTION OPERATIONS

Caltrans requested operations analysis for a list of additional intersections (see below). Caltrans also requested a queuing simulation for the pair: California Avenue/SR4 WB Ramps and Loveridge Road/SR 4 EB Ramps.

- #4 Somersville Road/Delta Fair Boulevard
- #16 Railroad Avenue/Power Avenue
- #17 Railroad Avenue/SR4 eastbound ramps
- #18 Railroad Avenue/California Avenue/SR4 westbound ramp
- #19 Railroad Avenue/Bliss Avenue/Frontage Road
- #20 Somersville Road/Mahogany Way/Century Boulevard
- #21 Somersville Road/State Route 4 (SR4) eastbound ramps
- #22 Somersville Road/SR4 westbound ramps
- #23 Somersville Road/Sycamore Drive
- #24 Loveridge Avenue/California Avenue

According to Caltrans staff comment, a traffic simulation (*i.e.*, Synchro, SimTraffic) should be used to investigate queuing on each lane direction and how one intersection affects others (*e.g.*, queues that spill to the upstream intersection).

Response

In response to Caltrans' comment, project-added traffic volumes at the more distant Caltrans-listed intersections are presented in Chart C1. The total number project trips added to the Caltrans-listed intersections, and the number of project trips added to critical movements, were estimated based on the same project trip generation, distribution and assignment assumptions as were applied to develop the list of study intersections.

CHART C1

Project-Added Traffic at Caltrans-Listed Intersections

ID	Intersection Name	Total Added		Critical Added	
		AM	PM	AM	PM
16	Railroad Avenue/Power Avenue	16	21	4	13
17	Railroad Avenue/SR4 eastbound ramps	41	54	37	41
18	Railroad Ave/California Ave/SR4 westbound ramp	35	33	19	8
19	Railroad Avenue/Bliss Ave/Frontage Road	41	54	31	20
20	Somersville Rd/Mahogany Wy/Century Blvd	9	13	2	8
21	Somersville Road/SR4 eastbound ramps	65	88	23	5
22	Somersville Road/SR4 westbound ramps	23	61	2	8
24	Loveridge Avenue/California Avenue	52	41	43	41
NOTES: Identification (ID) numbers refer to the identification numbers in Figure 25. SOURCE: W-Trans, September 2006					



Operations analysis of the study intersections was performed in accordance with CCTA technical procedures to assess the proposed project's impact on AM and PM peak hour Level of Service (LOS). Results of operations analysis are presented in Draft EIR, Tables 19, 21 and 22.

Minor revisions have been incorporated into Tables 19, 21 and 22, to adjust for current lane configurations at two of the study intersections, namely, Loveridge Road/Leland Road and Harbor Street/Buchanan Road. Adjustments result in minor improvements in LOS, and volume-to-capacity ratio (v/c), compared to the LOS and v/c results presented in the Draft EIR version of Tables 19, 21 and 22. Revisions are indicated with yellow highlight and ***bold italic*** font.

TABLE 19
Existing Intersection Levels of Service

INTERSECTION	EXISTING LEVEL OF SERVICE	
	AM	PM
1. California Ave/SR 4 WB Ramps	0.66/B	0.86/D
2. Loveridge Rd/SR 4 EB Ramps	0.50/A	0.74/C
3. Loveridge Rd/Leland Rd	<i>0.68/B</i> 0.70/B	<i>0.66/B</i> 0.71/C
4. Delta Fair Blvd/Somersville Rd	0.46/A	0.67/B
5. Loveridge Rd/Ventura Dr	0.43/A	0.37/A
6. Railroad Ave/Buchanan Rd	0.53/A	0.62/B
7. Harbor St/Buchanan Rd	<i>0.62/B</i> 0.67/B	<i>0.63/B</i> 0.64/B
8. Loveridge Rd/Buchanan Rd	0.70/B	0.62/B
9. Buchanan Rd/Ventura Dr	0.69/B	0.77/C
10. Buchanan Rd/Meadows Ave	0.67/B	0.77/C
11. Somersville Rd/Buchanan Rd	0.87/D	0.73/C
12. Somersville Rd/Buchanan Road Bypass-James Donlon Boulevard	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A
14. "M" St-"D" St/Buchanan Bypass	N/A	N/A
15. Kirker Pass/Buchanan Bypass	N/A	N/A
NOTES: CCTA		
SOURCE: W-Trans, September 2006		



TABLE 21
Predicted Near-Term Traffic Impacts

Intersection	Existing Conditions		Existing Plus Approved Projects		Existing Plus Approved Plus Project	
	CCTA		CCTA		CCTA	
	AM	PM	AM	PM	AM	PM
1. California Avenue/SR 4 WB Ramps	0.66/B	0.86/D	0.66/B	0.94/E	0.67/B	0.95/E
2. Loveridge Road/SR 4 EB Ramps	0.50/A	0.74/C	0.68/B	0.91/E	0.70/B	0.95/E
3. Loveridge Road/Leland Road	0.68/B	0.66/C	0.81/D	0.76/C	0.82/D	0.77/C
	0.70/B	0.71/C	0.84/D	0.82/D	0.86/D	0.84/D
4. Delta Fair Blvd/Somersville Road	0.46/A	0.67/B	0.53/A	0.72/C	0.53/A	0.73/C
5. Loveridge Road/Ventura Drive	0.43/A	0.37/A	0.47/A	0.42/A	0.48/A	0.44/A
6. Railroad Avenue/Buchanan Road	0.53/A	0.62/B	0.61/B	0.76/C	0.62/B	0.80/C
7. Harbor Street/Buchanan Road	0.62/B	0.63/B	0.76/C	0.80/C	0.81/D	0.85/D
	0.67/B	0.64/B	0.81/D	0.81/D	0.86/D	0.87/D
8. Loveridge Road/Buchanan Road	0.70/B	0.62/B	0.87/D	0.71/C	0.93/E	0.80/C
9. Buchanan Road/Ventura Drive	0.69/B	0.77/C	0.82/D	0.95/E	0.87/D	0.96/E
10. Buchanan Road/Meadows Avenue	0.67/B	0.77/C	0.79/C	0.92/E	0.84/D	1.01/F
11. Somersville Road/Buchanan Road	0.87/D	0.73/C	1.01/F	0.86/D	1.07/F	0.94/E
12. Somersville Rd/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
14. "M" St-"D" Street/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
15. Kirker Pass Road/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: LOS means Level of Service Shaded areas show deficient Level of Service relative to adopted LOS standards.						
SOURCE: Whitlock & Weinberger Transportation, Inc., September 2006						



TABLE 22
Predicted Year 2025 Cumulative Traffic Impacts

Intersection	NO PROJECT				PROJECT			
	Without Bypass CCTA		With Bypass CCTA		Without Bypass CCTA		With Bypass CCTA	
	AM	PM	AM	PM	AM	PM	AM	PM
1. California/SR4 WB Ramp	1.07/F	0.95/E	1.07/F	0.94/E	1.07/F	0.94/E*	1.07/F	0.93/E*
2. Loveridge/SR4 EB Ramp	0.66/B	0.93/E	0.61/B	0.88/D	0.68/B	0.96/E	0.64/B	0.93/E
3. Loveridge Rd/Leland Rd	1.02/F	0.85/D	0.90/D	0.76/C	1.02/F	0.87/D	0.91/E	0.77/C
	1.02/F	0.95/E	0.90/D	0.86/D	1.02/F	0.96/E	0.91/E	0.87/D
4. Delta Fair Bld/Somersville	0.80/C	0.77/C	0.81/D	0.77/C	0.81/D	0.77/C	0.82/D	0.78/C
5. Loveridge Rd/Ventura Dr	0.59/A	0.70/B	0.47/A	0.63/B	0.60/A	0.71/C	0.48/A	0.64/B
6. Railroad Av/Buchanan Rd	0.80/C	1.09/F	0.41/A	0.55/A	0.80/C	1.11/F	0.42/A	0.56/A
7. Harbor St/Buchanan Rd	0.92/E	1.04/F	0.50/A	0.52/A	0.98/E	1.10/F	0.52/A	0.55/A
	0.97/E	1.05/F	0.55/A	0.54/A	1.03/F	1.11/F	0.57/A	0.56/A
8. Loveridge/Buchanan Rd	0.91/E	0.83/D	0.61/B	0.54/A	0.97/E	0.90/D	0.64/B	0.60/A
9. Buchanan Rd/Ventura Dr	0.73/C	0.80/C	0.62/B	0.62/B	0.74/C	0.81/D	0.63/B	0.63/B
10. Buchanan Rd/Meadows	0.72/C	0.87/D	0.55/A	0.59/A	0.77/C	0.96/E	0.59/A	0.65/B
11. Somersville/Buchanan	1.07/F	0.84/D	0.85/D	0.75/C	1.13/F	0.88/D	0.89/D	0.75/C
12. Somersville Rd/Bypass	N/A	N/A	0.84/D	0.79/C	N/A	N/A	0.84/D	0.80/C
13. Ventura -"B" St/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.67/B	0.91/E
14. "M" St-"D" Street/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.64/B	0.81/D
15. Kirker Pass Rd/Bypass	N/A	N/A	0.99/E	0.82/D	N/A	N/A	1.00/E	0.85/D

NOTES:

Without Bypass means without opening of the Buchanan Bypass for through-traffic connection.

LOS means Level of Service.

Shaded areas show deficient Level of Service relative to adopted LOS standards.

* Notes that v/c ratio decreases from No Project condition due to increased NB right-turn on red volume reduction as a result of increased volume in WB left-turn lane.

SOURCE: Whitlock & Weinberger Transportation, Inc., September 2006



C2. FIGURES

The California Department of Transportation (Caltrans) commented that Figure 22 was not available or could not be found.

Response

Figure 20 illustrates study area intersections, and Figure 21 illustrates existing peak hourly and daily traffic volumes. Figure 20, p. V-240 (correctly labeled as Figure 21), and Figure 21, p. V-242 (correctly labeled as Figure 22), have been appropriately re-labeled and are included in the Final EIR, Chapter V.H, Traffic & Circulation, for clarification.

C3. HIGHWAY 4 CULVERT UPGRADE

Caltrans commented that nearly 85 percent of the project site lies within the East Kirker Creek (Old Kirker Creek) watershed. Downstream of the proposed Sky Ranch II subdivision, this watershed has a history of flooding because downstream improvements have not kept pace with upstream development. In particular, Caltrans staff noted that the Old Kirker Creek culvert at Highway 4 (SR4) is undersized for current conditions. There is a Caltrans project to upgrade the culvert to pass a 25-year storm event; however, even with the SR4 culvert upgrade, the situation at Old Kirker Creek will not improve until additional downstream improvements, that is, improvements downstream of the SR4 culvert, are made by the City of Pittsburg.

Response

City staff acknowledges the technical comments and believes the flood setting is adequately described in the Draft EIR. The location of the Caltrans-owned culvert beneath SR4 is illustrated as feature #6 in Figure 13 (Draft EIR, p. V-138). The flooding issue is documented in detail in the Draft EIR, Chapter V.C, Hydrology & Water Quality, p. V-140, V-142 and V-143. Excerpt:

"North of the Contra Costa Canal, East Kirker Creek flows in a channel between Los Medanos Community College and Loveridge Road. East Kirker Creek continues to a culverted crossing of State Highway 4 located approximately 820 feet east of the highway interchange with Loveridge Road. North of Highway 4, East Kirker Creek flows in channels into West Kirker Creek near the Pittsburg-Antioch Highway.

Downstream of the project vicinity East Kirker Creek has flooded during major storms. A 1999 study conducted by Camp Dresser & McKee indicated that downstream constrictions in East Kirker Creek, north of State Highway 4, contribute to this flooding. The critical



constriction limits storm flows to 390 cubic feet per second (cfs).

East Kirker Creek is not part of the City's current improvement program, although planning studies are under way. Upgraded culverts at Buchanan Road or State Highway 4 would not alleviate flood water from the downstream constriction. The City of Pittsburg is currently evaluating alternatives to address the downstream constraints in East Kirker Creek north of the State Highway 4 interchange with Loveridge Road." (Draft EIR, p. V-140)

As noted in the Draft EIR, critical constrictions in East Kirker Creek downstream of the SR4 culvert limit storm flows passable through the constricted channel to 390 cfs. The source of this information is the *Environmental Assessment/Initial Study for the State Route 4 (East) Widening Project, Loveridge Road to State Route 160*, page 2-71.

Some of the constrictions are located on private land owned by Praxair, Inc. Until these constrictions are alleviated, flooding will occur when the combined flow from the tributary area upstream of the constrictions exceeds 390 cfs. Stage 1, 2 and 3 projects to alleviate the constrictions in East Kirker Creek are listed in the Draft EIR, Chapter V.C, Hydrology & Water Quality, pp. V-142 and V-143.

C4. STORM WATER RUNOFF LIMITATION

Pending completion of downstream improvements, Caltrans staff stated its opinion that it would be unacceptable to increase flows to Old Kirker Creek. According to Caltrans staff, post-project flows should be metered to pre-project flows, or lower flows.

Response

City of Pittsburg Planning Department and Engineering Department staff clarify that the City has an established policy intended to reduce flooding in the downstream area pending completion of certain flood relief projects. Under the Pittsburg Municipal Code (Chapter 15.104 – *Storm Water Management Plan for Kirker Creek Watershed Drainage Area*), construction of on-site detention facilities is required to prevent any increase in storm water runoff above the pre-development condition. The applicable portion of the City's Municipal Code is cited in the Draft EIR (p. V-142)

For the recent (2001) *Sky Ranch II Subdivision 8475 Drainage Study*, a tributary area was defined, consisting of Highlands Ranch (HR01, B-1, and B-2), Sky Ranch II (SK2), undeveloped area HR02, future developed area HR03,



developed or undeveloped land north of Buchanan Road (BD-1). The area has two existing detention basins, one in Highlands Ranch and another on the CCWD-owned parcel north of Buchanan Road. A third detention basin is proposed on-site as part of the project description for the proposed Sky Ranch II project.

Allowable peak storm water discharge rates for the existing Highlands Ranch detention basin are 140 cfs (Q_{10} , 12-hour) or 235 cfs (Q_{100} , 12-hour). These are the pre-development rates for the portion of the tributary area upstream of the Highlands Ranch detention basin, which includes Highlands Ranch, Sky Ranch II, HR02 and HR03. The drainage study includes HEC-1 routing calculations with the three detention basins (HR, SK2, and BD-1). The pre-development storm water runoff rates were calculated assuming "agricultural," cattle grazing, land use in a previous 1998 study titled, *Highlands Ranch Subdivision 7217 Drainage Study* (July 1998). Both the recent (2001) drainage study and the previous 1998 drainage study were prepared by Isakson & Associates, Inc., Civil Engineers.

The 2001 drainage study concludes that existing and proposed detention basins have been designed to limit the peak storm water flows to 123 cfs for the 10-year, 12-hour storm, and 153 cfs for the 100-year, 12-hour storm. These rates are lower than the pre-development rates.

C5. DRAINAGE SUBAREA 1

Caltrans staff noted that Table 10 indicates that post-project storm water flows would be metered well below pre-project storm flows. Caltrans further commented that it appears in Table 10 that Drainage Subarea 1 is considered twice in pre-construction storm water flows. Caltrans staff asked if the calculation of pre- and post-project storm water flows account for the existing Highlands Ranch detention basin.

Response

City of Pittsburg Planning Department staff clarifies that post-project, peak storm water flow rates are based on routing through detention basins, including two existing detention basins and one proposed detention basin. The two existing detention basins are the basins in Highlands Ranch and on the CCWD-owned parcel north of Buchanan Road. The third detention basin is an on-site basin proposed as part of the Sky Ranch II project.

Pre-project Drainage Subarea 1 consists of 87 acres, and post-project Drainage Subarea 1 consists of 80 acres. Pre-project storm water flows from Drainage Subarea 1 were not counted twice, though the acreage is shown twice in Table



10 (Draft EIR, p. V-148) because it currently drains to the Highlands Ranch detention basin but in the future would drain to the proposed on-site detention basin on the Sky Ranch II project site. Pre-project, there is no on-site detention on Sky Ranch II site. Pre-project, all 87 acres drain to the existing Highlands Ranch detention basin.

Figure 14 in the Draft EIR, Chapter V.C, Hydrology & Water Quality (p. V-147), illustrates pre-project and post-project drainage sub-areas. Currently, the 87-acre pre-project Drainage Subarea 1 drains to a temporary inlet connected to the Highlands Ranch drainage system. The Highlands Ranch drainage system includes an existing detention basin located near Buchanan Road and Meadows Avenue.

Table 10 in the Draft EIR, Chapter V.C, Hydrology & Water Quality (p. V-148), presents drainage sub-area acreages and pre-project and post-project runoff rates. Pre-project land area in Drainage Subarea 1 is 87 acres. All of these 87 acres, and additional developed and undeveloped land, currently drains to the Highlands Ranch detention basin. If the proposed Sky Ranch II project is implemented, 80 acres of Subarea 1 would drain to the future on-site detention basin to be built on the Sky Ranch II site.

Table 10 presents the pre-project runoff rate (70 cfs) and post-project runoff rate (124 cfs) for Subarea 1, which are both peak flow rates calculated for the 100-year, 12-hour storm. The peak rates above apply to the runoff from the land tributary to the proposed on-site detention basin on the Sky Ranch II project site. The post-project peak flow rate (124 cfs) reflects the effect of added impervious surfaces (*e.g.*, pavement, roof tops, and walkways).

With the proposed on-site detention, the peak discharge rate from the proposed detention basin would be approximately 15 cubic feet per second (cfs). As noted by Caltrans staff, the post-project storm water flow rate (15 cfs) would be metered well below the pre-development rate (70 cfs).

After development of Sky Ranch II, storm water runoff from the 80-acre post-project Drainage Subarea 1 first would drain to the Sky Ranch II on-site detention basin. Storm water runoff then would be metered from the on-site basin to the existing storm sewer beneath Ventura Drive for secondary detention in the Highlands Ranch detention system. Combined discharge from the Highlands Ranch detention basin would be metered to approximately 79 cfs, which is the peak rate (Q_{100}) calculated for the 100-year, 12-hour storm.

Storm water runoff from Highlands Ranch, after detention, currently is conveyed via storm sewer piping to a detention basin north of Buchanan Road



on CCWD-owned property. From detention basin BD-1, which is the basin located on the CCWD-owned property, the combined peak discharge rate (Q_{100}) would be 101 cfs, for the critical 100-year, 12-hour storm.

The combined peak discharge rate into the pond at Los Medanos Community College would be 176 cfs, for the critical 100-year 12-hour storm. This is the cumulative discharge into the pond with Sky Ranch II, Highlands Ranch, and other existing or proposed development included. The combined peak discharge rate is less than the “pre-development” (*i.e.*, before Highlands Ranch and Sky Ranch II) discharge rate of 235 cfs.

C6. STORM WATER FLOWS NORTH OF BUCHANAN ROAD

Caltrans staff asked how post-project storm water flows could add to the pre-project storm water flows north of Buchanan Road, in view of the existing and proposed uses of on-site detention basins that would meter discharges of storm water.

The pipe from the Highland Ranch basin connects to a system north of Buchanan Road having outlets to the pond at Los Medanos Community College. The Contra Costa Transportation Authority, with the City of Pittsburg, is considering increasing the capacity of the pond at Los Medanos Community College, to reduce the peak storm water flows at the SR4 culvert and downstream. Caltrans staff asked if the proposed Sky Ranch II development would increase storm water flow to the pond at Los Medanos Community College.

Response

Detention would modify the time of concentration, or lag time between peak rainfall and arrival of peak storm water runoff at a given downstream location. Detention would not alter flow volumes.

With the proposed Sky Ranch II project, which includes on-site detention, the future peak storm water inflow into the pond at Los Medanos Community College was calculated to be 176 cfs, for the critical 100-year 12-hour storm. This is the cumulative discharge into the pond with Sky Ranch II, Highlands Ranch, and other existing or proposed development in the tributary area. The combined peak discharge rate is less than the “pre-development” (*i.e.*, before Highlands Ranch and Sky Ranch II) discharge rate of 235 cfs. That the peak discharge rate into the pond would be less than the pre-development rate (*i.e.*, before development of Highland Ranch and Sky Ranch II) is not the same statement as the statement that the proposed Sky Ranch II project would not increase storm water flow to the pond compared to No Project.



TABLE 10
On-Site Storm Water Runoff
Pre-Development and Post-Development

Drainage Area Identification	Drainage Sub-area	Land Area (Acres)		Proposed Destination and Conveyance of Storm Water Runoff	Will the discharge be detained?	Runoff Rates (cfs)	
		Pre-Project	Post-Project			Pre-Project	Post-Project
West to Kirker Creek	#2	13	9.2	To East Kirker Creek via off-site discharge west to an unnamed intermittent creek and the diversion at Palo Verde Drive	N		6
	#3	37	15.5		N		11
	SUM	50	25		N	27 ^(c)	18 ^(c)
Sky Ranch/ Highlands Ranch	#1	87	80	To East Kirker Creek via the proposed on-site detention basin, connection to the storm sewer at Ventura Drive, and secondary detention in the Highlands Ranch detention basin	Y	70	124 ^(d) 15 ⁽²⁾
Highlands Ranch	HR	144	142	To East Kirker Creek via off-site storm sewer (Ventura Drive or Black Diamond Ranch) and detention in Highlands Ranch, without initial detention in the proposed Sky Ranch II detention basin	Y ^(b)		
	#1	87	0		NA		
	#4/5	0 ^(a)	39		Y ^(b)		
	BDL	27	27		Y ^(b)		
	HRP2	29	25		Y ^(b)		
	SUM	287	233		Y ^(b)	205	362 ^(e) 79 ⁽²⁾
East to Markley Creek	#6	24	22	To Markley Creek via off-site discharge east to the collection system in Black Diamond Ranch	N	13 ^(c)	16 ^(c)

NOTES:

- (a) Before development, this area is included in Sub-area 1 or Sub-area BDL.
- (b) Storm water from this sub-area is or will be detained in the existing detention basin on Highlands Ranch and not in the proposed detention basin on Sky Ranch II.
- (c) Q₁₀, 24-hour
- (d) Q₁₀₀, 12-hour, (1) inflow into the proposed detention basin on the Sky Ranch II site and (2) discharge from the basin.
- (e) Q₁₀₀, 12-hour, (1) inflow into the existing detention basin on the Highlands Ranch site and (2) discharge from the detention basin. Inflow and discharge include the additional runoff conveyed from the tributary sub-areas and the Sky Ranch II detention basin.

SOURCE: Isakson and Associates, March 22, 2005.



The design criterion is the pre-development peak flow rate (235 cfs). If upsizing the Caltrans SR4 culvert east of Loveridge Road could increase peak flow rates in the downstream drainage facilities, the upsized culvert should be kept gated closed or constricted until a future time. The same interim procedure was followed for box culverts installed in 1998.

*"In 1998, Caltrans installed double 8- by 10-foot box culverts under State Highway 4 and California Avenue to supplement the 6-foot pipe culvert at Kirker Creek. The new Caltrans box culverts remained gated closed until **December 2004**, when the City of Pittsburg completed the downstream work to prevent the additional water from flooding the neighborhood north of California Avenue."* (Draft EIR, p. V-143)

C7. PROJECT TRIP GENERATION

Caltrans staff noted that Table 20 of the Draft EIR, p. V-248, presents weekday traffic rates and volumes, as opposed to weekend rates and volumes.

Response

City Planning Department staff has added the additional labels in Table 20.

TABLE 20
Project Weekday Trip Generation

Number Dwelling Units (du)	Weekday Daily		Weekday AM Peak Hour				Weekday PM Peak Hour			
	Trip Rate /du	Total Trips (vpd)	Trip Rate /du	AM Trips (vph)	Trips In	Trips Out	Trip Rate /du	PM Trips (vph)	Trips In	Trips Out
415	9.57	3,972	0.75	311	78	233	1.01	419	264	155
NOTES: All trips are one-way, as opposed to round trips, and may either begin or end at the project site. "Trips in" means trips inbound into the project site. "Trips out" means outbound trips leaving the project site.										



C8. FAIR SHARE CONTRIBUTION

Caltrans staff noted that the project's fair share contribution, funding, schedule, and implementation responsibilities for all required mitigation measures should be clearly identified. Caltrans staff provided a web link, <http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf>, which is a guidance document titled *Guide for the Preparation of Traffic Impact Studies*, prepared by Caltrans, dated December 2002.

Response

City of Pittsburg Planning Department clarifies that mitigation funding, schedule, implementation, and monitoring responsibilities for all required mitigation measures will be identified in the Mitigation Monitoring or Reporting Plan. In further response, Tables 35 and 36 herein are summaries of equitable shares for the proposed project's traffic impacts.

Requirements for Mitigation Monitoring or Reporting are described in Section 15097 of the CEQA Guidelines. When an EIR has been prepared, a lead agency shall not approve a project as proposed, if the agency finds any feasible alternatives or mitigation measures within its power that would substantially reduce or avoid any significant effect of the project on the environment, unless the lead agency adopts those alternatives or mitigation measures.

The timing for the City's adoption of a Mitigation Monitoring or Reporting Program is upon certification of the Final EIR, when the City will approve findings. The City of Pittsburg at that time will adopt a Mitigation Monitoring and Reporting Program for all mitigation measures it will require, subject to its regulatory authority.

For a mainline highway or ramp, Appendix B of *Guide for the Preparation of Traffic Impact Studies* suggests a formula:

$$P_{\text{mainline}} = T_{\text{project}} / (T_{\text{Future Buildout}} - T_{\text{Existing+Approved}})$$

where

P_{mainline} = The equitable share of the proposed project's traffic impact;

T_{project} = The number of vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph;

$T_{\text{Future Buildout}}$ = The forecast future traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 2025 year model), vph; and,

$T_{\text{Existing+Approved}}$ = The combined existing traffic plus traffic from other approved projects that have yet to be constructed or opened, vph.



Based on the above method, similar formulae have been applied to determine the equitable shares of the proposed Sky Ranch II project's traffic impacts at various intersections. The formulae are:

Near-Term:

$$P_{\text{Int}} = \sum T_{\text{Project crit}} / (\sum T_{\text{Existing+Approved+Project crit}} - \sum T_{\text{Existing crit}})$$

Long-Term:

$$P_{\text{Int}} = \sum T_{\text{Project crit}} / (\sum T_{\text{Future 2025 crit}} - \sum T_{\text{Existing+Approved crit}})$$

where

P_{Int} = The equitable share of the proposed project's traffic impact on an intersection;

$T_{\text{Project crit}}$ = The vehicle trips added by the proposed project to one critical movement, during the weekday AM peak hour or weekday PM peak hour traffic, vph;

$\sum T_{\text{Project crit}}$ = The sum of proposed project-related trips added to all critical movements at an intersection, during the weekday AM peak hour or weekday PM peak hour traffic, vph;

$T_{\text{Existing crit}}$ = A traffic volume making a critical turning movement under existing conditions, vph;

$\sum T_{\text{Existing crit}}$ = The sum of all traffic volumes making critical turning movements at an intersection under existing conditions, vph;

$T_{\text{Existing+Approved crit}}$ = The traffic volume making a critical turning movement under the Existing +Approved Projects scenario, vph.

$T_{\text{Future crit}}$ = The forecast future (2025) traffic volume making a critical turning movement at an intersection, during the weekday AM peak hour or weekday PM peak hour of traffic, vph;



TABLE 35

Developer's Equitable Shares for Near-Term Traffic Mitigation

IMPACT ID	DESCRIPTION OF MITIGATION MEASURE	Project Share	NOTES
Near-Term Impacts and Mitigation Measures			
H1	California Avenue/SR4 WB ramps: Intersection modifications for separate left-turn on eastbound California and provision of right-turn overlap phasing northbound.	7%	Based on PM peak hour traffic
H2	Loveridge Road/SR4 EB ramps: Separate right-turn lane on northbound Loveridge	14%	Based on PM peak hour traffic
H3	Loveridge/Buchanan Road: 1) Re-striping for a 4-lane section or 2) dual southbound left-turn lane and lane striping on Buchanan Road	25%	Based on AM peak hour traffic
H4	Buchanan Road/Ventura: Re-striping for two through-lanes eastbound on Buchanan Road at	37%	Based on AM peak (See also H5 below)
H5	Buchanan Road/Meadows: Same mitigation as for H4	39%	Base on PM peak hour traffic
H6	Somersville/Buchanan Road: Modification to northbound approach	40%	Based on PM peak hour traffic
H7	Ventura Drive between Rangewood Drive and the Bypass: Limit Sky Ranch II building permits to 353 or conduct professional traffic count study to assess whether additional units may be allowed.	All	Includes cost of study
H8	Ventura Drive north of Buchanan Road: Neighborhood traffic diverter	Up to 100%	Fair share depends on potential cut-through volume by other future projects, if any.
H9	Ventura Drive/Buchanan Road: Add northbound left-turn stacking capacity.	All	
H10	Meadows Avenue/Buchanan Road: Add westbound left-turn stacking capacity.	All	
H11	Markley Creek Drive: EVA through Lot 191 with design to allow bicyclist movement	All	
NOTES: Calculations are based on Caltrans methods.. LOS calculations and turning movement volume information were provided by W-Trans. SOURCE: W-Trans, September 2006			



TABLE 36

**Developer's Equitable Shares for Long-Term Traffic Mitigation
With or Without Buchanan Bypass**

IMPACT ID	DESCRIPTION OF MITIGATION MEASURE	Project Share	NOTES
Year 2025 Impacts and Mitigation Measures, without Buchanan Bypass			
H12	California Avenue/SR4 WB ramps: Same mitigation as for Impact H1.	7%	See Table 35
H13	Loveridge Road/SR4 EB ramps: Same mitigation as for Impact H2.	1%	See Table 35
H14	Loveridge/East Leland Road: Separate right-turn lane for northbound Loveridge Road and right-turn overlap for all approaches.	15%	Based on PM peak hour traffic
H15	Railroad Avenue/Buchanan Road: Provide two separate northbound right-turn lanes northbound with overlap phasing	4%	Based on PM peak hour traffic
H16	Harbor Street/Buchanan Road: Two through-travel lanes in each of the eastbound and westbound directions.	20%	Based on PM peak hour traffic
H17	Loveridge Road/Buchanan Road: 1) 4-lane section on Buchanan Road or 2) dual southbound left-turn lane and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane.	63%	Based on AM peak hour traffic
H18	Meadows/Buchanan Road: Same mitigation as for H4/H5.	37%	See Table 35
H19	Somersville/Buchanan Road: Same mitigation as for IMPACT H6	40%	See Table 35
H20	Buchanan Bypass within Project Limits: Construct the Bypass with the median in place even in the early phase before future opening of the bypass for through-traffic connection.	100%	
Year 2025 Impacts and Mitigation Measures, with Buchanan Bypass			
H21	California Avenue/SR4 WB ramps: Same mitigation as for IMPACT H1/H12	0%	Based on peak hour traffic
H22	Loveridge Road/SR4 EB ramps: Same mitigation as for IMPACT H2/H13	4%	Based on PM peak hour traffic
H23	Loveridge/East Leland Road: Same mitigation as for IMPACT H14	2%	Based on PM peak hour traffic
H24	Bypass/Kirker Pass Road: Intersection design as part of the bypass should ensure that the intersection would operate with acceptable levels of service.	2%	Based on AM peak hour traffic
H25 - H28	"B" Street: Traffic-calming measures. Scored concrete all-weather surface, with section details and scoring pattern and depth. Re-design to reduce grade. Design and construction of curb cuts for driveways and on-street parking subject to restrictions and City approval. On-site adjustments to lots/lot lines.	100%	Includes 100% of design and construction costs
NOTES: Calculations are based on Caltrans methods. LOS calculations and turning movement volume information were provided by W-Trans. SOURCE: W-Trans, September 2006			



D. CALIFORNIA DTSC

Comments: D1—D3

Responses: D1—D3

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures: Figure 10

References to Draft EIR Tables:
none



Alan C. Lloyd, Ph.D.
Agency Secretary
CalEPA



Department of Toxic Substances Control

700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721



Arnold Schwarzenegger
Governor

February 7, 2006

RECEIVED

FEB 9 - 2006

CITY OF PITTSBURG
PLANNING DEPARTMENT
65 CIVIC AVE PITTSBURG 94565

Mr. Ken Strolo
City of Pittsburg
65 Civic Avenue
Pittsburg, California 94565

Dear Mr. Strolo:

Thank you for the opportunity to comment on the *Draft Environmental Impact Report (EIR) for the Sky Ranch II Residential Subdivision*, SCH# 2004112092. As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a Responsible Agency, DTSC is submitting comments to ensure that the environmental documentation prepared for this project to address the California Environmental Quality Act (CEQA) adequately addresses any required remediation activities which may be required to address any hazardous substances release.

The draft EIR indicates that there is a proposed change in land use. The project includes the development of 415 single-family units on a 166.5-acre site previously used for grazing livestock. Please be aware that properties that were once agricultural, commercial, or industrial could potentially be contaminated with hazardous substances from past activities. For example, pesticides may have been used to control pests on livestock or on the grazing land itself. DTSC recommends that you include a more detailed description of the property's past use in the EIR to determine whether hazardous substances may have been released at the site. Based on the historical assessment, we strongly recommend that sampling be conducted to determine whether hazardous substances are present at levels which would need to be addressed as part of any development of the property.


If hazardous substances have been released, they will need to be addressed as part of this project. For example, if the remediation activities include the need for soil excavation, the CEQA document should include: (1) an assessment of air impacts and health impacts associated with the excavation activities; (2) identification of any applicable local standards which may be exceeded by the excavation activities, including dust levels and noise; (3) transportation impacts from the removal or remedial activities; and (4) risk of upset should there be an accident at the Site.

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Mr. Ken Strela
February 7, 2006
Page 2

If you have any questions regarding this letter, please contact Bill Brown of my staff at (510) 540-3841. Thank you in advance for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. M. Toth', with a horizontal line extending from the 'K'.

Karen M. Toth, P.E., Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
P. O. Box 3044
Sacramento, CA 95812-3044

Mr. Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806



D1. JURISDICTION

The California Department of Toxic Substances (DTSC) Unit Chief identified its jurisdiction as a Responsible Agency. DTSC oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code pursuant to the California Health and Safety Code Division 20, Chapter 6.8. As a Responsible Agency, DTSC is submitting comments to ensure that the EIR adequately addresses any required remedial activities related to hazardous substance releases.

Response

The City of Pittsburg Planning Department staff appreciates DTSC review of the Draft EIR.

The applicant has applied to develop approximately 163 acres with a Low-Density Residential subdivision. As owner of the project site, the applicant is responsible for reporting any knowledge of released hazardous substance to agencies having jurisdiction. During the application and subsequent CEQA process, the owner has not disclosed to the City of Pittsburg staff any knowledge of such a release.

The City of Pittsburg's EIR consultant independently interviewed knowledgeable parties and reviewed available historical information about the project site. The EIR consultant is a California Registered Environmental Assessor, and he concluded that there is no indication of any past or current release of a hazardous substance on the project site. Therefore, remedial activities for hazardous substances are not expected to be necessary based upon the available information.

Findings from the assessor's review of historical aerial photographs, reports in regard to hazardous waste sites, and other information about the nearest active or inactive landfills are presented in the Draft EIR, Chapter V. M, Effects Determined To Be Less-Than-Significant, pp. V-329 through V-331. Storage tanks and hazardous waste sites were considered and determined not likely to have been present on the project site; however, former above-ground storage tanks clearly were evident on the land located east and north of the project site.



The Los Medanos Tank Farm was visible off-site, north of the project site, in 1949 (USGS, 1949). Aerial photographs were reviewed for 1949, 1966, 1973, 1974, 1981, 1993, and 2003. Historical topographic maps were reviewed for 1916, 1953, 1968, and 1973. In this review of the historical aerial photographs and historical topographic maps, there were no signs of past use of the project site for landfilling, oil tank farms, auto wrecking, industrial or automotive repair uses. There were no signs in the aerial photographs of past use of the project site for a row crops, vineyard, orchard, dairy, or other agricultural operations that would be expected to have potential for past applications of persistent chlorinated pesticides such as DDT, for example.

In the City of Pittsburg and in other local city jurisdictions in Contra Costa County, surface soil sampling for persistent pesticide residues is not routinely performed on land having a history of use as fallow ground or pasture. The nearest dairy operation was located west of the project site on the adjoining Thomas Ranch. The nearest above-ground oil storage tanks were located off-site to the north and east of the project site.

Artificial fill has been placed on the project site, some fill engineered and other fill not engineered. The fill locations are illustrated in the Draft EIR, Chapter V.B, Geology & Seismicity, Figure 10, p. V-116. Some of the unengineered fill is located in or around the streambed of the intermittent stream shown on USGS topographic maps. Other of the unengineered fill is located in the northeastern portion of the project site, some being located in or around the utility easements and transmission towers. ENGEO Incorporated, which performed the geotechnical investigations of the project site, did not identify any materials in test trenches or borings that could be indicative of a past use of the project site for importation of fill or land disposal of hazardous waste. The unengineered fill appears to have originated from the project site itself.

The project site is traversed by Pacific Gas & Electric (PG&E) power transmission lines and also by the Kinder Morgan Energy Partners LLC petroleum product line. Knowledgeable staff of Kinder Morgan Energy Partners LLC were interviewed during preparation of Draft EIR in regard to the pipeline. Past or current releases of petroleum products were not disclosed in the interviews or written correspondence received from Kinder Morgan Energy Partners LLC. Past or current releases of any hazardous substances also were not disclosed by the owner of the project site.

Extensive grading is proposed as part of the development of the Sky Ranch II residential subdivisions. From a geotechnical perspective, some of the proposed excavation and backfilling is termed "remedial." In the Draft EIR, Chapter V.B, Geology & Seismicity, pp. V-118, V-122, V-124, V-127, V-128,



V-131, and V-133, the term “remedial excavation” refers to grading to alleviate or avoid potential differential settlement, stabilize landslide or colluvial deposits on slopes, or avoid debris flows from existing landslides. The term remedial excavation in the Draft EIR generally has not been used in any context of hazardous waste remediation.

D2. SOIL OR GROUND WATER SAMPLING

DTSC staff recommends that a detailed description of the project site’s past use be included in the Draft EIR. Based on the historical assessment, DTSC staff recommends that soil sampling be conducted to determine whether hazardous substances are present at levels that would need to be addressed as part of any development of the project site.

Response

Based upon the statement of DTSC’s jurisdiction, City staff believes that DTSC’s comment is advisory. In other words, the comment appears to be “Depending on the outcome of a detailed historical assessment, DTSC would recommend soil or ground water sampling be performed if the assessment concludes there are obvious indications of potential release(s) of hazardous substances into the soil or ground water of the project site.”

City of Pittsburg staff has reviewed the Initial Study and Draft EIR for information relevant to past uses of the project site. Review of historical aerial photographs, reports in regard to hazardous waste sites, and other information about the nearest active or inactive landfills are presented in the Draft EIR, Chapter V. M, Effects Determined To Be Less-Than-Significant, pp. V-329 through V-331. See also response to DTSC staff’s Comment D1.

Based on the historical assessment, interviews of knowledgeable parties at Kinder Morgan Energy Partners LLP, reconnaissance of the project site and its neighbor parcels, and geotechnical investigations conducted by ENGEO Incorporated, City staff finds there are no indications of past releases of hazardous substances into the soil or ground water of the project site.

Therefore, in the absence of a likely presence of hazardous substances from past uses of the project site, City staff concludes that there is not an environmental effect. Based on the available information, soil or ground water sampling is not necessary for the City’s decisions in regard to the proposed project, the alternatives, or certification of the Draft EIR.

If any as-yet unknown hazardous substances or hazardous waste were encountered during grading, pipeline relocation, or construction, reporting



would be the responsibility of the developer as owner. Any related remedial activities or sampling for the purpose of characterizing, delineating, or remediating as-yet unknown releases of hazardous substances or petroleum products also would be the responsibility of the developer.

D3. ENVIRONMENTAL EFFECTS OF REMEDIAL ACTIVITIES

DTSC staff commented that if hazardous substances have been released into the soil or ground water on the project site, then those releases would have to be addressed as part of the proposed Sky Ranch II project. DTSC staff then gave an example.

If remedial activities include soil excavation to remove a released hazardous substance, for example, the Draft EIR then should include an air quality assessment, in comparison to any applicable standards, and an air toxics health risk assessment. Exposures to dust, noise, and truck traffic are among the potential environmental effects of a remedial hazardous waste operation. Risk of upset also is among the list of potential environmental effects during a remedial hazardous waste operation.

Response

City staff acknowledges the technical comments and believes the DTSC comments are advisory. DTSC staff describes a path of analysis conditional upon a premise. "If there were a likelihood or expectation that hazardous substances may have been released into the soil or ground water of the project site, then certain evaluations would be advisable." In the absence of a reasonable expectation or likelihood that any hazardous substance(s) have been released onto the project site, soil or ground water sampling would not be warranted. In the absence of confirmatory laboratory test data confirming the presence and location of any hazardous substance(s), remedial excavation is speculative and any subsequent air quality and human health risk assessments of same would not be possible.



E. CONTRA COSTA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Comments: E1—E4

Responses: E1—E4

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures: Figure 14

References to Draft EIR Tables: none

DRAFT – February 15, 2006

Ken Strolo
City of Pittsburg
Planning Department
65 Civic Avenue
Pittsburg, CA 94565

Our Files: 1002-8475, 97-55, and 97-70

Dear Mr. Strelitz:

We received the Notice of Availability for and reviewed the Draft Environmental Impact Report (EIR) for Subdivision 8475, Sky Ranch II, located at Buchanan Road Bypass and Hilltop Drive (APN 089-050-042 and 089-050-067). We received the notice on January 18, 2006, and submit the following comments:

1. We commented on the Notice of Preparation for the EIR in our December 9, 2004 letter to the City and have no additional comments on the EIR. E1
2. Please forward the draft final map and lot closure calculations, when available, so we may determine the Drainage Area \$5 fee obligation for the portion of this project that is within APN 089-050-042. The City of Pittsburg (City) will need to collect this fee during the development process, prior to recording the final map, and forward it to the Contra Costa County Flood Control and Water Conservation District (District). E2
3. The EIR stated that the developer will contribute to the County deficiency fund for Kirker Creek watershed as mitigation for lots within APN 084-050-067 (within Drainage Area 70). The fee is based on \$5,000 per acre of the project and will be used to improve Kirker Creek. The City should also collect this fee during the development process, prior to recording the final map, and forward it to the District. E3
4. The District is interested and available to provide technical comments on the proposed basin regarding the design calculations, construction plans, and Operation and Maintenance Manual under our Fee for Service program. E4

We appreciate the opportunity to comment on the Draft BIR and welcome continued coordination. If you should have any questions, please call me at (925) 313-2315 or Tim Jensen (925) 313-2396.

Very truly yours,

Jacelyn LaRoque
Staff Engineer
Flood Control Engineering

G:\Cap Data\4417\Ch01\rev\CTH\K\Planning\Sub 8\731 Sky Reach III\Solo 8475 Draft 8/18.doc

c: Greg Cunningham, Fiscal Control
 Rob Fournier, Fiscal Control
 Tim Jensen, Fiscal Control



E1. PREVIOUS COMMENTS

The Contra Costa County Flood Control & Water Conservation District (CCCFCWCD, or the "District") states the District commented on the Notice of Preparation in December 2004.

Response

The City of Pittsburg Planning Department staff appreciates the District's previous comment and trusts the Draft EIR acknowledges the District's programs and is responsive to the District's concerns.

E2. DRAINAGE AREA 55 FEE OBLIGATION

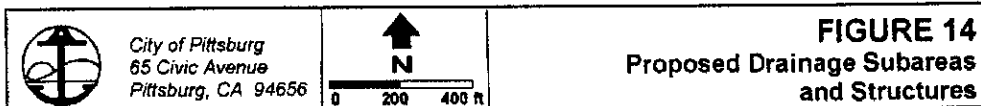
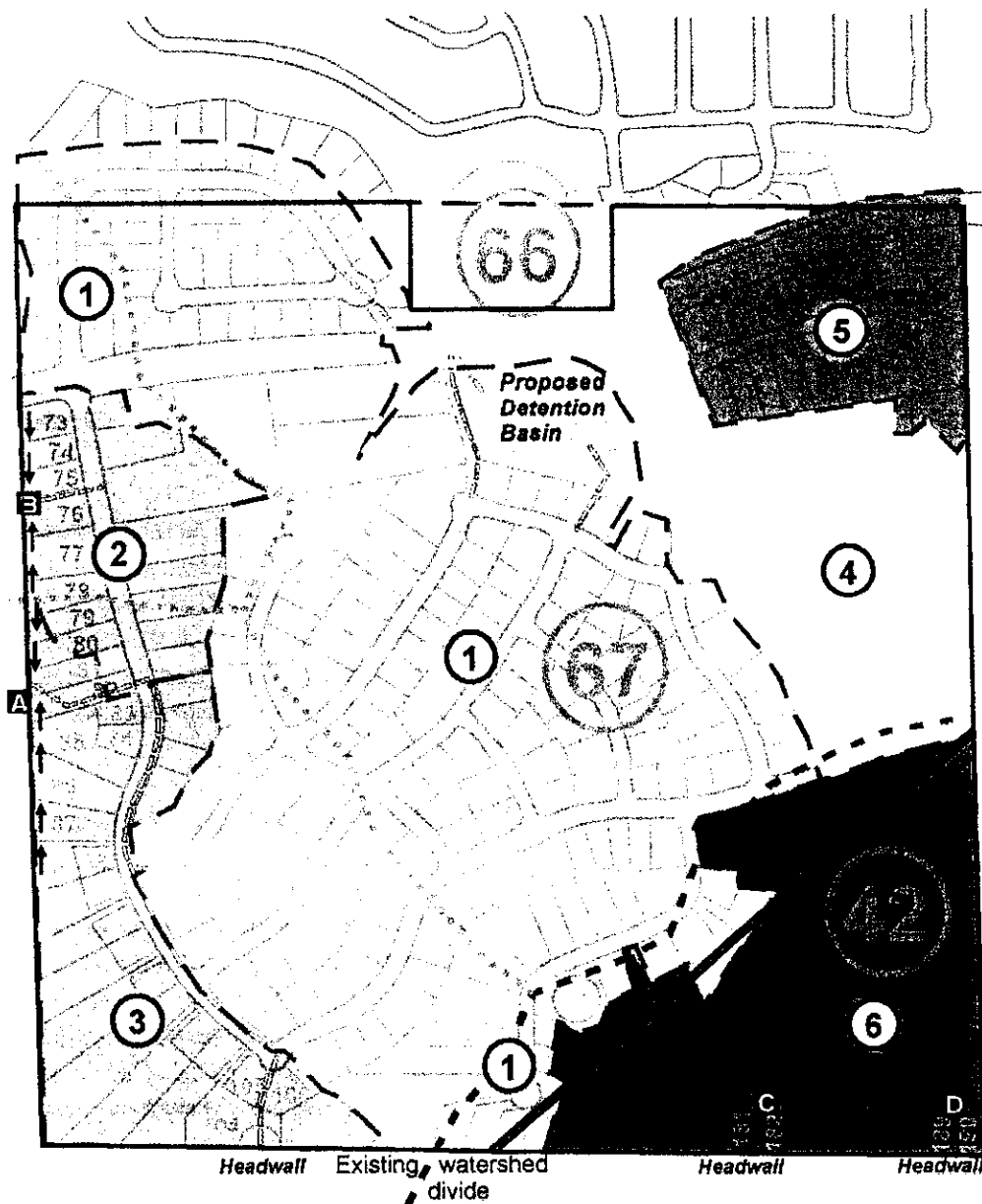
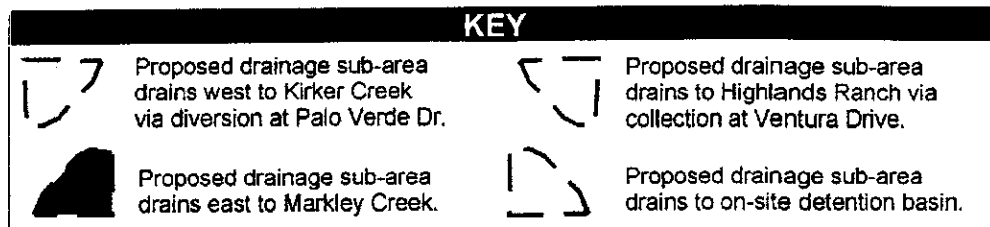
District staff requests a copy of the draft final subdivision map so that the District may determine the Drainage Area 55 fee obligation for the portion of the project site located within Assessor Parcel Number (APN) 089-050-042. According to the District's comment, the City of Pittsburg will need to collect this fee during the development process, before recording of the final map, and forward the fee collected to the District.

Response

The City of Pittsburg Engineering Department staff notes that the City cannot collect the Drainage Area 55 fee on behalf of the District.

The entire 19.28-acre parcel, APN 089-050-042, is outlined in red in Figure 14 (next page). APN 089-050-042 is located within the southeastern corner of the project site. This portion of the project site, which drains east to Markley Creek, is included in the watershed known as the West Antioch Creek watershed.

The parcel contains all or portions of approximately 53 proposed lots. Ten of these proposed Lots 181-190 may be eliminated by requirement of the City of Pittsburg to be used instead as parkland, so that a mini-park can be developed on the project site.



Sky Ranch II Residential Subdivision Final EIR

II. Comments and Responses

E. Contra Costa County Flood Control & Water Conservation District



E3. DRAINAGE AREA 70 FEE OBLIGATION

District staff commented that the Draft EIR discusses other mitigation fees for lots within APN 089-050-067. According to District staff's comment, the DA 70 fee is \$5,000 per gross acre, applicable to the portion of the project site that is located with Drainage Area 70. The fee is used for improvements to Kirker Creek.

According to District staff's comment, the City of Pittsburg should collect this fee during the development process, before recording of the final map, and forward the fee collected to the District.

Response

The City of Pittsburg Engineering Department staff notes that the City cannot collect the Drainage Area 70 fee on behalf of the District. The entire 136.85-acre parcel, APN 089-050-067, is outlined in green in Figure 14 (previous page). The "notch" at the north end of APN 089-050-067 is APN 089-050-066, which is a City-owned parcel consisting of 3.87 acres improved with a water reservoir.

Most of APN 089-050-067 is located in the watershed known as the East Kirker Creek watershed. As apparent in Figure 14, the existing watershed divide between the East Kirker Creek watershed and the West Antioch Creek watershed falls generally within APN 089-050-067, near its southeastern limit. The proposed project grading would alter the existing watershed divide, slightly reducing the area tributary to the West Antioch Creek watershed to 22 acres in drainage sub-area 6 (see Figure 14).

The Draft EIR, Chapter V.C, Hydrology & Water Quality, p. V-161, states as follows:

***"IMPACT 11:** Storm water runoff from the project site, Highlands Ranch, and other tributary sub-areas would add to the pre-project flows conveyed in off-site pipeline north of Buchanan Road. Capital improvement project SD-18 consists of 1,000 lineal feet of upsized storm sewer pipeline from Contra Costa Canal north to Los Medanos Community College has no committed funding sources.*

Mitigation Measures:

- *The applicant will pay the DA 70 drainage deficiency fund (\$5,000 per gross acre) for development on the land within APN 089-050-067 which is located within DA 70. The fees paid*



would be used for design and construction of off-site drainage improvements in the Kirker Creek watershed.

- *The applicant will pay the Kirker Creek Impervious Surface Drainage Fee to the City of Pittsburg for the portion of the project site located within the Kirker Creek watershed. The Kirker Creek Impervious Surface Drainage Fee will be collected during the development process, prior to filing the Final Map, and will be used to fund Capital Improvements for drainage within the Kirker Creek watershed.” (Draft EIR, p. V-161)*

E4. FEE FOR SERVICE PROGRAM

District staff commented that the District is interested and available to provide technical support for review of the proposed detention basin design, design calculations, construction plans, and Operations & Maintenance Manual. The District offers these support services as part of its Fee for Service Program.

Response

The City of Pittsburg Planning Department staff appreciates the District's interest. City staff acknowledges the technical support available through the Contra Costa County Flood Control & Water Conservation District.



F. DELTA DIABLO SANITATION DISTRICT

Comments: F1—F6

Responses: F1—F6

**Cross-References to Related Agency
Comments:** none

References to Draft EIR Figures: none

References to Draft EIR Tables:
none



Delta Diablo Sanitation District

OFFICE AND TREATMENT PLANT: 2500 PITTSBURGH-ANTIOCH HIGHWAY, ANTIOCH, CA 94509-1573
 TEL: (925) 758-1000 ADMIN. FAX: (925) 758-1961 MAINT. FAX: (925) 758-1963 OPER. FAX: (925) 758-1982 TECH. SVCS. FAX: (925) 758-1000
 www.ddsd.org

February 15, 2006

Mr. Kenneth Strelo, Associate Planner
 Planning and Building Department
 City of Pittsburg
 65 Civic Avenue
 Pittsburg, CA 94565-3814

RECEIVED
 FEB 15 2006

PLANNING DIVISION
 PLANNING AND BUILDING DEPT
 CITY OF PITTSBURG

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT, SKY RANCH II RESIDENTIAL SUBDIVISION NO. 8475, PITTSBURG, CA

Dear Mr. Strelo:

Thank you for the Notice of Availability for the Sky Ranch II Residential Subdivision Draft Environmental Impact Report, DEIR. The following summarizes our comments/concerns related to recycled water, wastewater conveyance, and wastewater treatment:

Recycled Water

Page V-208 "Recycled Water"

No additional comments.

F1

Wastewater Treatment and Conveyance

Page V-215 Pittsburg-Antioch Interceptor.

The DEIR correctly notes that minimum pipeline capacity for the Pittsburg-Antioch Interceptor is 2.3 mgd¹. The District's February 10, 2004 Conveyance System Master Plan Update lists that PWWF as well as the PDWF at buildout as 2.0 mgd² rather than the 2.05 mgd listed in the DEIR. The Pittsburg-Antioch interceptor is a trunk sewer line and design capacity is rated at 100% of pipe capacity.

F2

Page V-229 Raw Wastewater Conveyance

The DEIR indicates that the incremental flow increase since the time of the District's most recent wastewater increase is only 70 dwelling units with an associated 0.04 mgd increase in PWWF. However, the DEIR does not document adequately how these numbers were derived. The City of Pittsburg's 2002 Wastewater Collection System Master Plan (WCSMP) estimated flows from

F3,
 F4

¹ Source: DDSD Conveyance System Master Plan Update -Technical Memorandum C-4, Table 4-1. Conveyance System Piping Facilities Summary. Prepared by HDR Engineers, Revised date: February 10, 2004.

² Source: DDSD Conveyance System Master Plan Update -Technical Memorandum C-4, Figure 5-4 Flow Collection Point Schematic and Tables 5-6 / 5-7 Pittsburg-Antioch Interceptor flow data. Prepared by HDR Engineers, Revised date: February 10, 2004.

Mr. Kenneth Strolo, Associate Planner
February 15, 2006
COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT,
SKY RANCH II RESIDENTIAL SUBDIVISION NO. 8475, PITTSBURG, CA
Page 2

Sky Ranch as 283 single family homes. The 415-single family homes are 132 additional dwelling units and not 70 additional dwelling units.

The DEIR includes a mitigation measure that the developer provides a gravity flow sewer connection to the Black Diamond Ranch rather than pumped flow for 43 houses. The Black Diamond Ranch development is located in the City of Antioch. It should be noted that the City of Antioch will need to authorize this connection to their city-owned collection system. Since both the Sky Ranch II and the Black Diamond Ranch developments route to the District-owned Pittsburg-Antioch Interceptor, no special approvals are needed from the District for this mitigation measure.

F5

Page V-235 "Project could, or could not, cause or contribute to violations of wastewater treatment requirements of the applicable Regional Water Quality Control Board" While we concur that the District has an excellent historical record of meeting discharge standards at its wastewater treatment plant, there has been at least one recent incidence where offsite construction activities caused a conveyance system overflow. Construction activities result in temporary increased risk to conveyance system overflows. It is requested that the following mitigation measures be included to reduce this potentially significant impact:

F6

Mitigation Measures: City shall implement construction controls to reduce conveyance system overflow potential that include requiring the construction contractor to:

- isolate sewers under construction with sewer plugs/temporary grates until new sewers are fully cleaned and accepted, and
- register sewer plugs/ropes with the City prior to construction.

We appreciate this opportunity to comment on the Draft Environmental Impact Report. If you have questions, please feel free to contact me at (925) 756-1939.

Sincerely,



Patricia E. Chapman
Associate Engineer

PEC:bjm

cc: Gregory G. Bastrup, Technical Services Manager
File No. DEV.02.DEVDOC-495
Chron File

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F1. RECYCLED WATER

The Delta Diablo Sanitation District (DDSD, or the “District”) states the District has no comment on the information provided about recycled water in the Draft EIR, Chapter V.G, Community Services & Utilities, p. V-208.

Response

No response is necessary.

F2. PITTSBURG-ANTIOCH INTERCEPTOR

DDSD staff’s comment is that the forecast year 2025 peak wet weather flow (PWWF) in the Pittsburg-Antioch interceptor is 2.0 million gallons per day (mgd), which will approach, but will not exceed, the Pittsburg-Antioch interceptor’s current capacity limit of 2.3 mgd. District staff further comments that the Draft EIR, Chapter V.G, Community Services & Utilities, p. V-215, provides the correct pipeline capacity of 2.3 mgd for the Pittsburg-Antioch Interceptor.

Response

City of Pittsburg Planning Department staff acknowledges the correction of forecast year 2025 PWWF in the Pittsburg-Antioch interceptor. The corrected flow of 2.0 mgd, as compared to 2.05 mgd, applies to the Draft EIR, Chapter V.G, Community Services & Utilities, pp. V-215 (3rd paragraph) and V-229 (top of page). The Pittsburg-Antioch interceptor in 2005 conveyed a PWWF estimated by DDSD to be 1.1 million gallons per day (mgd), which is the combined flow from the portions of Pittsburg and Antioch served by the interceptor.

F3. INCREMENTAL DEVELOPMENT

District staff’s comment is that the Draft EIR, Chapter V.G, Community Services & Utilities, p. V-229, estimates incremental raw wastewater flow from 415 units in the proposed Sky Ranch II Project as compared to an earlier version of the Sky Ranch II residential subdivision which would have had 283 units. According to the District staff’s comment on the Draft EIR and response to the Notice of Preparation, the incremental number of proposed housing units in Sky Ranch II is, therefore, 132 units, based on comparison of 415 units currently in the proposed project with 283 units previously at the time of Pittsburg’s *2002 Wastewater Collection System Master Plan*. District staff asks for an explanation for the statement in the Draft EIR that the incremental number of dwelling units is only 70 dwelling units.



Response

The Draft EIR acknowledges the District's original comment letter dated December 21, 2004, in response to the Notice of Preparation. Introduction, page iii, of the Draft EIR states the District's concern that: *"The proposed project apparently would generate additional flow from 132 houses more than assumed in the available 2002 projections, which considered 283 units rather than the proposed 415 units."*

However, statements of actual and contemplated incremental development depend on the version of the Sky Ranch II Vesting Tentative Map and other assumptions. During 2001, Sky Ranch II Subdivision 8475, as shown on the Vesting Tentative Map dated January 17, 2001, had 353 lots. Highlands Ranch Subdivision 7217, as approved by the Planning Commission on May 12, 1998, had 590 lots. During preparation of the Draft EIR for Sky Ranch II, the City of Pittsburg was considering a request for 21 lots on a portion of the previously designated school and park site on Highlands Ranch.

The 415 lots proposed in Sky Ranch II, as shown in the current Vesting Tentative Map dated March 16, 2004, include approximately 20 lots re-subdivided in the Highlands Ranch residential subdivision (Tract 7217). Based upon comparison of the re-subdivided area shown on the Sky Ranch II Vesting Tentative Map dated March 16, 2004, with the same area in the Planning Commission approved Highlands Ranch tentative map, the net increase in the number of lots in the re-subdivided area is approximately 10 lots. This increase results from the fact that an area, which is shown in the Planning Commission approved Highlands Ranch tentative map as having several larger sized lots, graded 3:1 slopes, and a 20-foot wide debris bench, would be re-subdivided with smaller-sized lots and without graded slopes or a debris bench.

The current number of existing or proposed lots for the Highlands Ranch and Sky Ranch II sites combined is approximately 1,016 lots ($= 590 - 10 + 21 + 415$). The previous number of existing or proposed lots at January 2001 was 943 lots ($= 353 + 590$). With the recent request for 21 additional lots in Highlands Ranch, the total incremental number of dwelling units is 73 units, relative to the baseline number at January 2001.



F4. FORECAST INCREMENTAL RAW WASTEWATER FLOW

District staff asks for supporting documentation for the incremental raw wastewater flow added to the Pittsburg-Antioch Interceptor, as stated in the Draft EIR, Chapter V.G, Community Services & Utilities, p. V-229.

Response

If the increment were assumed hypothetically to be 132 units, the forecast incremental raw wastewater flow would be approximately 0.08 mgd. The combined flow conveyed to the Pittsburg-Antioch Interceptor (= baseline forecast + increment) would be approximately 2.08 mgd (= 2.0 + 0.08 mgd), which is approaching 91 percent of capacity. See response to Comment F2 for clarification of the baseline flow (2.0 mgd) in the interceptor.

Wastewater flows generated by Sky Ranch II and Highlands Ranch subdivisions were assessed in *Sewer Study for Sky Ranch II Subdivision 8475*, April 2001, prepared by Isakson & Associates, Inc. This report assesses both Highlands Ranch and Sky Ranch II, based on the project descriptions as known at the time of the 2001 sewer study.

Assumptions based on year 2001 project descriptions were adjusted to assumptions based on year 2004 project descriptions. Chart F1 presents the assumptions based on project characteristics.

CHART F1
Project Description Elements

Subdivision	Project Element	Assumptions	
		2001 ⁽¹⁾	2004 ⁽²⁾
Highlands Ranch	Tributary acreage	137	137
	Single-family houses	590	598
	School students	720	None
Sky Ranch II	Tributary acreage	141	156
	Single-family houses	353	415
Combined Site Acreage		278	293
Combined Number of Dwelling Units		943	1,013
SOURCE:			
1. Isakson & Associates, April 2001. <i>Sewer Study for Sky Ranch II Subdivision 8475</i> .			
2. City of Pittsburg, 2004.			



The method applied by Isakson & Associates, Inc., in 2001, for calculating design flow (PWWF) was conservative. Design flow was calculated as the greater of the following:

$$\text{PWWF} = \text{ABWF} + \text{GWI} + \text{RDI} \quad (\text{Equation 1})$$

OR,

$$\text{PWWF} = \text{Pk} \times \text{ABWF} + \text{GWI} \quad (\text{Equation 2})$$

where PWWF is the peak wet weather flow or “design flow,” ABWF is the average base wastewater flow, Pk is a peaking factor, GWI is groundwater dependent infiltration, and RDI is rainfall dependent infiltration

In the 2001 study, the following assumptions were applied:

- Peaking factor was between 2.77 and 3.00
- ABWF was calculated using 220 gallons per day per dwelling unit (gpd/du)
- GWI was 250 gallons per acre per day (gpad)
- RDI was 2,100 gpad

In the 2001 study, Equation 1 dominated Equation 2. The 2001 study reported 0.87 mgd (1.34 cfs), the total raw wastewater flow from Highlands Ranch and Sky Ranch II, based on the project description elements applicable at the time of the 2001 study (see Chart F1).

For newer construction, GWI may be closer to 40 gpad and RDI may be closer to 400 gpad. In this case, Equation 2 dominates Equation 1. A modified forecast method based on Equation 2, therefore, was applied as follows:

$$\text{PWWF} = 2.77 \times \text{ABWF} + \text{GWI}$$

where $\text{ABWF} = 220 \text{ gpd/du} \times \text{the number of dwelling units}$ and $\text{GWI} = 40 \text{ gpad} \times \text{the tributary acreage}$.

Contributions of raw wastewater flow to the Pittsburg-Antioch Interceptor were re-calculated based on the modified forecast method and project description elements. The contribution of Sky Ranch II to the Pittsburg-Antioch Interceptor was calculated to be 0.26 mgd (equivalent to 0.40 cfs), the contribution of Highlands Ranch to the interceptor was calculated to be 0.37 mgd (equivalent to 0.57 cfs), and the total wastewater flow was calculated to be 0.63 mgd (equivalent to 0.97 cfs).



Compared to the 2001 baseline (see Chart F1), approximately 70 du and 15 acres were not included in the 2001 Sewer Study by Isakson & Associates. The incremental flow from 70 du and 15 acres is approximately 0.04 mgd, which is equivalent to approximately 0.07 cfs.

F5. GRAVITY FLOW SANITARY SEWER CONNECTION

District staff commented that the City of Antioch would have to authorize any sanitary sewer connection to the Black Diamond Ranch system. No special approvals are needed from the District to make this connection to the Black Diamond Ranch sanitary sewer collection system.

Response

The City of Pittsburg Planning Department staff acknowledges the District's observation that the City of Antioch's authorization is necessary before making a sanitary sewer connection to the Antioch city-owned system beneath Markley Creek Drive in the City of Antioch.

Pumped flow for 43 dwelling units in the proposed Sky Ranch II project is not desirable because it potentially could cause indirect environmental impacts. Pump failure would be possible owing to power outage or mechanical failure. Such a failure could potentially result in raw wastewater overflow through the proposed manhole at "C" Court/"B" Street onto the street and subsequently into the storm sewer. In the event of an upset, the storm sewer that could be affected is the one that drains the southeastern portion (Drainage Sub-area 6) of the project site and discharges to Markley Creek.

The 43 lots that are subject to the developer's proposed 4-inch diameter force sewer main and lift station are proposed Lots 162 through 204. These proposed lots all are located along "B" Street or along "C" Court and "B" Court. The lift station is proposed to pump raw wastewater up in elevation to the sewer pipe and manhole at the intersection of "B" Street and "D" Street. The maximum elevation difference, measured from Lot 190 to the "B" Street/"D" Street intersection, is approximately 35 feet.



F6. DISTRICT STAFF-RECOMMENDED MITIGATION

District staff recommended an additional mitigation measure to avoid potential conveyance system overflows after construction.

Response

The City of Pittsburg Planning Department staff acknowledges the District staff's comment, dated February 15, 2006, and its response letter, dated December 21, 2004, which was sent in response to the City's Notice of Preparation.

District staff recommended temporary isolation of sewers under construction with sewer plugs/temporary grates until new sewers are fully cleaned and accepted. The recommendation is intended to avoid potential sanitary sewer overflows caused by construction debris.

The District's previous response also is cited in the Draft EIR, Introduction, page iii. That the recommendation was not included as a mitigation measure in Chapter V.G, Community Services & Utilities, p. V-229, was inadvertent. The impact and mitigation measures are:

IMPACT G15/15: *The proposed project could contribute an upset discharge of raw wastewater after construction, owing to construction debris or failure to remove temporary sewer plugs after construction.*

Mitigation Measures:

- *Developer shall isolate sewers under construction with sewer plugs or temporary grates left in-place until new sewers are fully cleaned and accepted by the City.*
- *Developer shall register sewer plugs and ropes with the City prior to construction.*



G. CITY OF CONCORD

Comments: G1—G5

Responses: G1—G5

Cross-References to Related Agency

Comments: none

References to Draft EIR Figures:

Appendix G (Figures 3, 5 and 6)

References to Draft EIR Tables:

none

City of Concord
1435 Gasoline Alley
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Public Works
Qamar Khan, Director

Telephone: (925) 671-3129



CITY COUNCIL
Susan A. Bonilla, Mayor
Mark A. Peterson, Vice Mayor
Heidi M. Allen
Laura M. Hoffmeister
William D. Shinn

Mary Rae Lehman, City Clerk
Thomas Wenzling, City Treasurer

Lydia E. Du Borg, City Manager

February 15, 2006

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FEB 15 2006

Ken Strelow
City of Pittsburg
Pittsburg City Hall
65 Civic Avenue
Pittsburg, CA 94565

PLANNING DIVISION
PLANNING AND BUILDING DEPT
CITY OF PITTSBURG

RE: City of Concord's Comments on the Draft Environmental Impact Report for the Sky Ranch II Residential Subdivision

Dear Mr. Strelow:

The City of Concord has received the above referenced Draft Environmental Impact Report (DEIR) for the Sky Ranch II residential subdivision located on unincorporated land in the southeastern portion of the City of Pittsburg's Sphere of Influence. The proposed project consists of the development of 415 single-family housing units on an approximate 163 acre site.

The City of Concord sent a letter on the Notice of Preparation of an Environmental Impact Report for the subject project to the City of Pittsburg on December 22, 2004 expressing concerns about potential traffic impacts generated by this project along with the construction of the Buchanan Road Bypass. The letter stated, "The DEIR needs to evaluate the traffic operations on Kirker Pass Road at the intersections of Concord Boulevard and Clayton Road for both morning and afternoon peak periods. The DEIR should also evaluate the project impacts on the Kirker Pass Road/Ygnacio Valley Road Traffic Management Plan and the East-Central Traffic Management Plan." G1
G2

None of the City of Concord concerns were evaluated as requested in the DEIR. In the Appendix to the DEIR, serious traffic impacts are shown in Section G: Traffic Impact Study when comparing Figure 5, "Cumulative 2025 without Buchanan Road Bypass Traffic Volumes" with Figure 6, "Cumulative 2025 with Buchanan Road Bypass Traffic Volumes." In Figure 5, the pm peak hour traffic volumes on Kirker Pass Road are found by totaling the northbound traffic movements on G3

Sky Ranch II-DEIR 02-13-06.doc

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Kirker Pass Road at Buchanan Road. This volume is 2,417 vehicles. In Figure 6, the northbound Kirker Pass Road pm peak hour volumes are found by totaling the northbound traffic movements on Kirker Pass Road at the Buchanan Road Bypass. This volume is 3,600 vehicles. With the construction of the Buchanan Road Bypass, an additional 1,183 vehicles are attracted to Kirker Pass Road. As a comparison, the project description for Railroad Avenue-Kirker Pass Road states on page V-240 that the existing peak hour traffic is 1,800 vehicles. This means the pm peak hour traffic is expected to double by 2025 with the construction of the Buchanan Road Bypass. The Ygnacio Valley Road/Kirker Pass Road corridor is already heavily congested in the pm peak hour. The Sky Ranch II project along with the Buchanan Road Bypass will make it considerably worse. The traffic impacts need to be evaluated.

G4

G5

Thank you for the opportunity to review and comment on the DEIR. If you have any questions regarding these comments, or would like to discuss them further, please contact me at 925-671-3129.

Very truly yours,



John Templeton
Transportation Manager

Attachment: City of Concord letter on the Notice of Preparation

cc: Mayor and Members of the Concord City Council
Lydia E. Du Borg, City Manager, City of Concord
Mark G. Deven, Assistant City Manager, City of Concord
Qamar Khan, Director of Public Works, City of Concord
Jim Forsberg, Director of Planning and Economic Development, City of Concord
Deborah Raines, Planning Manager, City of Concord
Phillip Woods, Senior Planner, City of Concord
Janet Abelson, Chair of the Contra Costa Transportation Authority
TRANSPAC
File

Sky Ranch II-DEIR 02-43-06.doc

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Susan Bonilla, Vice Mayor
Heidi M. Allen
Mark A. Pearson
William Shira

Mary Rae Lehman, City Clerk
Thomas Wendling, City Treasurer

Edward R. James, City Manager

December 22, 2004

Ken Strelo
City of Pittsburgh
Pittsburgh City Hall
65 Civic Avenue
Pittsburg CA 94565

RE: City of Concord's Comments on the Notice of Preparation of an Environmental Impact Report for the Sky Ranch II Residential Subdivision (RZ-02-21, SUBD 8475, DR-02-48)

Dear Mr. Strelo:

The City of Concord has received the above referenced Notice of Preparation (NOP) and Initial Environmental Impact Analysis (IEIA) for the Sky Ranch II residential subdivision located on unincorporated land in the southeastern portion of the City of Pittsburgh's Sphere of Influence. The proposed project consists of the development of 415 single-family housing units on an approximate 163 acres site.

We are providing comments only pertaining to potential traffic impacts that the proposed Sky Ranch II project would have on the City of Concord. The IEIA has not identified any intersections or roadway segments in Concord to be studied in the Draft Environmental Impact Report (DEIR). Prior traffic analysis entitled "Sky Ranch II Traffic Study (July 2002)" and "Preliminary Traffic Impact Assessment for the Buchanan Road Bypass (September 2002)" assigned several trips to the Kirker Pass Road/Ygnacio Valley Road corridor.

The DEIR needs to evaluate the traffic operations on Kirker Pass Road at the intersections of Concord Boulevard and Clayton Road for both morning and afternoon peak periods. The DEIR should also evaluate the project impacts on the Kirker Pass Road/Ygnacio Valley Road Traffic Management Plan and the East-Central Traffic Management Plan.

It appears that a considerable amount of traffic generated by this project will be served by the Buchanan Road Bypass. The City of Concord would be opposed to the construction of the Buchanan Road Bypass because the project would encourage the use of the Kirker Pass Road/Ygnacio Valley Road corridor rather than the freeway system.

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The Sky Ranch II project requires foresight on a regional level and cooperation between jurisdictions to resolve transportation issues. It is our expectation that these issues and concerns that we have identified with the proposal be addressed in the DEIR document. The DEIR should identify feasible mitigation measures that are within the power of the City of Pittsburg to impose with respect to the traffic impacts. The mitigation measures identified for traffic/transportation in the DEIR need to adequately address our concerns or reduce those impacts to less-than-significant levels.

Thank you for the opportunity to review and comment on the NOP and IEIA. We look forward to receiving the DEIR, including responses to our comments. If you have any questions regarding these comments, or would like to discuss them further, please contact me at 925-671-3129.

Very truly yours,



John Templeton
Transportation Manager

cc: Mayor and Members of the Concord City Council
Edward R. James, City Manager, City of Concord
Lydia Du Borg, Assistant City Manager, City of Concord
Mark Deven, Assistant City Manager, City of Concord
Gamar Khan, Director of Public Works - Maintenance Services, City of Concord
Jim Forsberg, Director of Planning and Economic Development, City of Concord
Deborah Raines, Planning Manager, City of Concord
Phillip Woods, Senior Planner, City of Concord
TRANSPAC
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G1. NOTICE OF PREPARATION

The City of Concord states that it responded to the City of Pittsburg's Notice of Preparation (NOP) of an Environmental Impact Report on December 22, 2004.

Response

The City of Pittsburg acknowledges receipt of the response to the NOP. No further response is necessary.

G2. PROJECT'S IMPACT ON KIRKER PASS ROAD

Among its comments in the response to the NOP of the Sky Ranch II Residential Subdivision EIR, the City of Concord wrote that traffic operations impacts on Kirker Pass Road at its intersections with Concord Boulevard and Clayton Road should be evaluated.

Response

The proposed project would add fewer than 50 vehicles per hour (vph) to Kirker Pass Road in each of the AM and PM hours of peak traffic volume. The 50 vph is CCTA's threshold of significance.

The following analysis is provided which corroborates the conclusion that the proposed project's impact on Kirker Pass Road traffic operations would be less than significant in the AM and PM peak hours.

The impacts of the proposed project to roadways in the City of Concord were evaluated at two locations:

- *at the intersection of Kirker Pass Road-Ygnacio Valley Road/Clayton Road*
- *on Kirker Pass Road between Clayton Road and Concord Boulevard*

Based on counts obtained from the CCTA, which were taken in April 2005, the intersection of Clayton Road/Ygnacio Valley Road-Kirker Pass Road is operating at LOS A with a volume-to-capacity ratio of 0.41 during the AM peak hour and 0.57 during the PM peak hour. It was determined that the proposed project would generate approximately 37 AM peak hour trips and 50 PM peak hour trips that would be expected to travel into the City of Concord via Kirker Pass Road. With the addition of these project trips, the intersection of Ygnacio Valley Road-Kirker Pass Road/Clayton Road would continue



to operate at LOS A with no increase in volume-to-capacity ratio during the AM peak hour and an increase of 0.01 during the PM peak hour.

Existing volumes for Kirker Pass Road between Clayton Road and Concord Boulevard were obtained from the Traffic Service Objective Monitoring Report, Kimley-Horn & Associates, Inc., December 12, 2004. The current 2004 AM peak hour v/c and LOS are 0.17/A northbound (eastward) and 0.44/B southbound (westward). The current 2004 PM peak hour volume-to-capacity ratio (v/c) and LOS are 0.57/C northbound (eastward) and 0.17/A southbound (westward). With the addition of project trips, it was determined that the volume-to-capacity ratio would increase by 0.01 in the southbound (westward) direction during the AM peak hour, and by 0.01 in the northbound (eastward) direction during the PM peak hour.

Based on this supplemental evaluation, the proposed project would have a less-than-significant impact on traffic operations at these locations in the City of Concord.

G3. BUCHANAN ROAD BYPASS IMPACT ON KIRKER PASS ROAD

The City of Concord staff evaluated future year-2025 traffic volumes on Kirker Pass Road using Figures 5 and 6 in the Appendix G of the Draft EIR. These figures show future turning movements at Kirker Pass Road/Buchanan Road and/or the future Kirker Pass Road/ Buchanan Bypass. City of Concord staff described its method and conclusions that:

- The existing 2005 directional volume northbound on Kirker Pass Road near Buchanan Road is about 1,800 vph in the PM peak hour.
- The future 2025 directional volume northbound on Kirker Pass Road near Buchanan Road without the Buchanan Road Bypass is projected to be about 2,400 vph in the PM peak hour.
- With the Buchanan Road Bypass, the future 2025 directional volume northbound on Kirker Pass Road just south of the Kirker Pass Road/bypass intersection is projected to be about 3,600 vph in the PM peak hour.

Response

The City of Pittsburgh staff concurs with the assessment of directional northbound (eastbound) traffic volumes in the PM peak hour. Discrepancies arising from use of two different cut-lines are minor.

Two-way volumes and volumes on the cross streets, such as Clayton Road and Concord Boulevard, will affect future traffic operations in the Ygnacio Valley



CHART G1 TRAFFIC VOLUMES KIRKER PASS ROAD NEAR BUCHANAN ROAD

TRAFFIC VOLUME	2005 Existing	FUTURE 2025	
		Without Bypass	With Bypass
Directional Volumes			
southbound (westward)			
AM Peak Hour	1250	1794	2880
PM Peak Hour	607	1497	1280
northbound (eastward)			
AM Peak Hour	627	1304	1400
PM Peak Hour	1844	2417	3600
2-Way Volumes			
AM Peak Hour	1877	3098	4280
PM Peak Hour	2451	3914	4880
SOURCE: Sky Ranch II Draft EIR, Appendix G, Figures 3, 5 and 6.			

Road-Kirker Pass Road corridor. Examination of Chart G1 shows that in the future the Buchanan Road Bypass could induce a 25 percent increase (+966 vph) in the 2-way traffic volume in the PM peak hour and a 38 percent increase (+1182 vph) in the AM peak hour. It would be an exaggeration to attribute more than these induced traffic percentages to construction of the bypass. Future growth (*i.e.*, land development, job and population growth) and in Concord, Pittsburg, Antioch, and other East County communities would contribute, in aggregate, approximately 62 to 75 percent of the increase in 2-way traffic from 2005 to 2025.

G4. EXISTING PM PEAK HOUR TRAFFIC CONGESTION

The City of Concord staff comment is that the Ygnacio Valley Road-Kirker Pass Road corridor is already heavily congested in the PM peak hour.

Response

Based on counts obtained from the CCTA, which were taken in April 2005, the Clayton Road/Ygnacio Valley Road-Kirker Pass Road intersection is operating at LOS A with a volume-to-capacity ratio (v/c) of 0.41 during the AM peak hour and a v/c of 0.57 during the PM peak hour.

In terms of the segment operations, the Kirker Pass Road segment east of Concord Boulevard operated at LOC C (v/c = 0.57) in the northbound (eastward) direction in the PM peak hour. The Kirker Pass Road segment east of Concord Boulevard operated at LOC B (v/c = 0.44) in the southbound (westward) direction in the AM peak hour.



G5. IMPACT ON KIRKER PASS ROAD CORRIDOR OPERATIONS

The City of Concord staff comment is that the Sky Ranch II project along with the Buchanan Road Bypass will make the PM peak hour congestion along the Ygnacio Valley Road-Kirker Pass Road corridor considerably worse.

Response

The City of Pittsburg Engineering Department staff acknowledges that additional traffic induced by opening of the Buchanan Road Bypass could increase the volume-to-capacity (v/c) ratio in the southbound direction, in the AM peak hour, to 0.92 from 0.60. Additional traffic induced by opening of the Buchanan Road Bypass could increase the v/c ratio in the northbound direction, in the PM peak hour, to 1.09 from 0.74 (see Chart G2). The proposed project's impact would be neither individually significant nor cumulatively considerable. See also response to Comment G2.

CCTA's operational analysis method, as described in *Highway Capacity Manual*, Chapter 8 or 21 (2000 edition), is used to assess LOS on rural highways. According to CCTA, this method addresses a driver's ability to pass slower vehicles, terrain, directional traffic distribution, and the percent of no passing zones. For the subject segment of Kirker Pass Road, two lanes are present with each lane having an assumed capacity of 1,700 vph.

CHART G2

**GROWTH & INDUCED TRAFFIC VOLUMES
ON KIRKER PASS ROAD EAST OF CONCORD BOULEVARD**

Kirker Pass Road east of Concord Boulevard	TRAFFIC VOLUMES			Volume-to-Capacity (LOS)		
	Base 2004	Base Plus Projected Growth Traffic	Base + Growth + Bypass- Induced Traffic	Base 2004	Base Plus Projected Growth Traffic	Base + Growth + Bypass- Induced Traffic
southbound (westward)						
AM Peak Hour	1501	2045	3140	0.44 (B)	0.60 (C)	0.92 (E)
PM Peak Hour	572	1462	1462	0.17 (A)	0.43 (B)	0.43 (B)
northbound (eastward)						
AM Peak Hour	583	1260	1356	0.17 (A)	0.37 (B)	0.40 (B)
PM Peak Hour	1937	2510	3693	0.57 (C)	0.74 (D)	1.09 (F)
NOTES:						
0.00 – 0.26 LOS A 0.45 – 0.60 LOS C 0.77 – 0.99 LOS E						
0.27 – 0.44 LOS B 0.61 – 0.76 LOS D 1.00 + LOS F						



H. TRANSPLAN COMMITTEE

Comments: H1—H8

Responses: H1—H8

**Cross-References to Related Agency
Comments:**
A11, C8

References to Draft EIR Figures: Figure 24

References to Draft EIR Tables:
Tables 21 and 22

TRANSPLAN Committee
East Contra Costa Transportation Planning
Antioch • Brentwood • Oakley • Pittsburg • Contra Costa County

February 7, 2006

Ken Strelo
City of Pittsburg
Planning Department
Civic Center
65 Civic Avenue
Pittsburg, CA 94565

Dear Mr. Strelo:

Thank you for the notice of availability regarding the draft environmental impact report for the Sky Ranch II development in an unincorporated area south of Buchanan Road.

I have reviewed Section H, "Traffic & Circulation," in the Draft EIR. Based on my review, I offer the following comments on behalf of TRANSPLAN, which is the regional transportation planning committee for East County.

- 1. The analysis should reflect East County's regional traffic standards in addition to the City of Pittsburg's standards.** In the discussion of level-of-service standards on page V-246, the City's traffic standards are mentioned, but not those established in the East County Action Plan for Routes of Regional Significance, developed by TRANSPLAN. The City's LOS standards appear to be identical or nearly identical to those of TRANSPLAN, but it would be helpful, in view of statistics and charts later in the section, to note there are regional traffic standards that apply (known as "traffic service objectives" or TSOs). H1
- 2. A mistaken reference to TRANSPLAN on page V-247 should be corrected.** On page V-247, the last sentence of the second paragraph erroneously indicates TRANSPLAN oversees the Regional Traffic Mitigation Fee program. This regional fee program is overseen by the East Contra Costa Regional Fee & Financing Authority. H2
- 3. Clarification is needed on whether the Buchanan Bypass will be two or four lanes in the project area and whether it will be two or four lanes outside the project area.** The last paragraph on page III-49 states the proposed segment of the Buchanan Bypass within the project area would be built as a four-lane road. However, the fourth paragraph on page V-247 states the "current proposal includes . . . striping for two travel lanes, one in each direction . . ." H3

-- continued --

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4. There are additional forecasted level-of-service violations beyond those mentioned in the text. The East County Action Plan for Routes of Regional Significance establishes a level-of-service standard of "mid-D" (meaning traffic should not exceed 85 percent of capacity) for intersections along designated Suburban Arterial Routes. These routes include Delta Fair Boulevard, Buchanan Road, Railroad Avenue and Somersville Road. Table 21 ("Predicted Near-Term Impacts") on page V-252 shows the LOS forecasts for selected intersections and highlights those where a violation is forecasted. There are violations of the Action Plan standards that are not highlighted, but should be, in this table. In the "existing plus approved plus project" column in the table, the Harbor Street/Buchanan Road intersection is forecasted to operate at .86 in the morning and .87 in the evening, and the Buchanan Road/Ventura Drive intersection is forecasted to operate at .87 in the morning. All of these are violations of the .85 "mid-D" standard established in the East County Action Plan for Routes of Regional Significance. In addition, the Buchanan Road/Meadows Avenue intersection is forecasted to operate at .84 in the morning, which is not a violation but is close enough to warrant some attention or discussion. H4

The same comment applies to Table 22 on the next page (page V-253) which shows "Predicted Year 2025 Cumulative Traffic Impacts." In addition to the violations that are highlighted in the table, the column showing cumulative impacts with the Buchanan Bypass also should have highlighted as violations the Somersville Road/Buchanan Road intersection which is forecasted at .89 in the morning. Under the column showing cumulative impacts of the project without the Buchanan Bypass, there should be highlighting of violations at Loveridge Road/Buchanan Road and Somersville Road/Buchanan Road, both in the evening.

5. Delay index should have been calculated with and without the project. In addition to level-of-service standards, the East County Action Plan for Routes of Regional Significance also sets delay index standards for designated Suburban Arterial Routes. As mentioned earlier, these routes include Delta Fair Boulevard, Buchanan Road, Somersville Road and Railroad Avenue. The delay index standard for all of these routes is "less than 2.0". This means the travel time along these routes during the peak period should be less than 2.0 times as long as the off-peak travel time on these routes. More information is available in the Action Plan. I can provide you with a copy, or you may be able to obtain a copy from Paul Reinders of City staff. H5

6. "Fair share" contributions to mitigations should be explained. Several of the mitigations state the developer "shall pay a fair share" for intersection modifications, including new turn lanes, ramp approach changes, and striping and signalization improvements. The "fair share" concept should be defined so the reviewer can understand how the fair share will be determined, who will determine it, and how it will be translated into cost-sharing. The other projects or agencies involved in the "fair share" arrangements also should be identified if known. H6

-- continued --

-letter to Ken Strela
-February 7, 2006
-page three

7. The timeframe for opening the Buchanan Bypass should be discussed in both the background and mitigation sections. There are numerous references indicating the project will only build the Bypass within the project site, and this road will not be opened to through traffic until the entire Bypass is completed from Somersville Road to Kirker Pass Road. In some cases, mitigations call for restrictions on the number of units the developer can build until the entire Bypass is open to traffic. However, I could not find any discussion of the timeframe indicating when the entire Bypass would be built. Perhaps this discussion is in the document and I missed it.

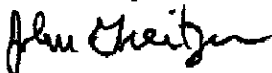
H7

8. Applicability of the planned Buchanan Road metering system should be discussed. The City is preparing to implement traffic metering on morning westbound traffic along Buchanan Road at Meadows Avenue, which appears to be immediately adjacent to the project site. The TRANSPLAN Technical Advisory Committee has been working with City staff on the details of the metering system. Some discussion should be included as to the impacts of the project on the metering program, and vice versa. It is unclear from the document whether or not the forecasted traffic impacts and mitigations include assumptions of metering at Buchanan/Meadows. If opening the Buchanan Bypass will mitigate traffic sufficiently on existing Buchanan Road, perhaps the City will no longer need to meter traffic on Buchanan. Clarification of this point would be helpful.

H8

Please contact me if you have questions about these comments.

Sincerely,



John Greitzer
TRANSPLAN staff

C: TRANSPLAN Committee
TRANSPLAN Technical Advisory Committee
Paul Reinders, City of Pittsburgh



H1. EAST COUNTY ACTION

The TRANSPLAN Committee staff's comment is that the City's traffic service objectives (TSOs) or standard appear to be the same as those established for the *East County Action Plan for Routes of Regional Significance*. For clarity, however, the East County Action Plan TSOs should be expressly identified and included in the Draft EIR (p. V-249) with the standards.

Response

The City of Pittsburg acknowledges that the regional standards in the East County Action Plan do provide a basis for considering the significance of project and cumulative impacts. The comment is acknowledged and the clarification is provided in the Final EIR, Chapter III, Revisions and Errata.

There are various kinds of TSOs including intersection level of service (LOS), road segment LOS, and the Delay Index for routes of regional significance such as, for example, Buchanan Road, Railroad Avenue-Kirker Pass Road Somersville Road, Leland-Road-Delta Fair Boulevard, and (see Charts H1 and H2).

Routes of regional significance should have a Delay Index (DI) of 2.0, or lower, in hours of peak traffic, except Highway 4 may have a DI of 2.5. Signalized intersections along those routes should operate at a level of service (LOS) mid-point D, or better, which may be represented by a volume-to-capacity ratio (v/c) of 0.85, except

- Bailey Road (between Leland Road and Willow Pass Road) whose signalized intersections may operate at LOS E, or better, and
- Kirker Pass Road (between the City limit and TRANSPAC/TRANSPLAN limit) which may operate at LOS E as a segment.

Monitoring of the achievement of the traffic service objectives (TSOs) adopted in the various sub-county Action Plans for routes of regional significance is performed in accordance with a TSO Monitoring Plan approved by the Contra Costa Transportation Authority (CCTA). The most recent TSO monitoring report is December 12, 2004. The TSOs were first incorporated into the 1995 Countywide Comprehensive Transportation Plan and were also contained in both the 2000 and 2004 Updates.

TSO monitoring is a requirement of Measure C, which was passed by the voters of Contra Costa County in 1988. Measure C established a sales tax to be used to fund transportation improvements in Contra Costa, a growth management program, and requirements CCTA develop a comprehensive transportation plan and periodic updates, the most recent being the 2004 update.



CHART H1

TSOs FOR HIGHWAY 4 AND OTHER ROUTES OF REGIONAL SIGNIFICANCE

ROAD	LIMITS		TSOs	
	from	to	LOS ¹	Delay Index Or Other TSO
STATE ROUTE 4	TRANSPAC/ TRANSPLAN limit	Main St-SR-160	na (freeway)	DI < 2.5 VOR > 1.2 in AM peak hour 25% increase in transit ridership (2000 - 2010) DI < 2.0
Buchanan Road	Railroad Avenue	Somersville Rd	Mid-D, v/c < 0.85 (intersection)	DI < 2.0
Somersville Rd	Pittsburg-Antioch Hwy/10th St	James Donlon Blvd	Mid-D, v/c < 0.85 (intersection)	DI < 2.0
Delta Fair Blvd	Pittsburg/Antioch city limit	Somersville Rd	Mid-D, v/c < 0.85 (intersection)	DI < 2.0
Kirker Pass Road	Pittsburg city limit	TRANSPLAN/ TRANSPAC limit	LOS E (road segment)	DI < 2.0
Kirker Pass Road	Clayton Road	TRANSPLAN/ TRANSPAC limit	none	DI < 2.0 Peak Hour avg speed > 15 mph VOR = 1.2 persons per vehicle in peak hours DI < 2.0
James Donlon Blvd	Somersville Rd	Lone Tree Way	Mid-D, v/c < 0.85 (intersection)	DI < 2.0
NOTES: <ol style="list-style-type: none"> 1. LOS means the level of service at a signalized intersection or along a road segment. 2. DI, Delay Index, means the route travel time in a peak hour divided by the travel time in the off-peak hours 3. VOR, vehicle occupancy ratio, means the number of occupants in a vehicle. SOURCE: CCTA, 2004				



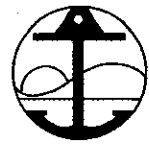
CHART H2

INTERSECTION TSOs AND 2003/2004 MONITORING RESULTS

CCTA ID	Primary Street	Cross-Street	Juris- diction	TSO	AM Peak Hour		PM Peak Hour		Count Date
					L O S	V/C	L O S	V/C	
E69/E1	Railroad Av	WB SR-4 on ramp- California Avenue	Pittsburg	D	D	0.82	A	0.49	04/03/03
E70/E2	Railroad Av	EB SR-4 on-off ramps	Pittsburg	D	A	0.49	C	0.75	04/03/03
E71	Railroad Av	Leland Road	Pittsburg	D	B	0.62	C	0.78	04/03/03
E72/E3	Railroad Av	Buchanan Road	Pittsburg	D	A	0.41	A	0.58	11/10/04
E89	Leland Road	Loveridge Road	Pittsburg	D	B	0.64	D	0.81	03/26/02
E90	Buchanan Road	Loveridge Road	Pittsburg	D	B	0.68	B	0.62	03/26/02
E73	Somersville Rd	WB SR-4 on-off ramps	Antioch/ Pittsburg	D	A	0.50	B	0.69	10/31/02
E74	Somersville Rd	EB SR-4 on-off ramps	Antioch/ Pittsburg	D	A	0.30	A	0.60	03/20/03
E75	Somersville Rd	Delta Fair Boulevard	Antioch	D	A	0.39	A	0.54	03/20/03
E76	Somersville Rd	Buchanan Road	Antioch	D	B	0.70	B	0.65	03/20/03
na/C22	Ygnacio Valley Rd	Clayton Road	Concord	E	A	0.54	B	0.66	04/29/03

NOTES: Monitoring results for previous years may not match LOS reported in the Draft EIR.

SOURCES: CCTA, December 12, 2004



To receive a share of the sales tax generated by Measure C, local jurisdictions must adhere to the level of service (LOS) standards for local roads and intersections. These standards are applied to those streets and roads for which the local jurisdictions are responsible. Each jurisdiction must take appropriate action to ensure that those LOS standards are met.

H2. REFERENCE TO TRANSPLAN

The comment is that the Draft EIR (p. V-247) would be correct to note that the East Contra Costa Regional Fee & Financing Authority (ECCRFFA) oversees the Regional Traffic Mitigation Fee program. TRANSPLAN does not collect or oversee the RTMF.

Response

The comment is acknowledged and the correction is shown in the Final EIR, Chapter III, Revisions and Errata.

H3. BUCHANAN ROAD BYPASS CROSS-SECTION

The TRANSPLAN Committee staff asked for clarification of the number of lanes on the segment of the Buchanan Road Bypass proposed within the project site limits.

Response

The striping is correctly described in the Draft EIR (p. V-247). Before completion and opening of the bypass to through traffic, the striping necessary would be striping for one lane in each direction. Figure 24, Buchanan Bypass Cross-Section, p. V-247, shows that adequate pavement width would be constructed to accommodate two travel lanes in each direction. Therefore, the proposed segment within the project site limits would be built as a four-lane road but initially striped for two lanes.

H4. FORECAST PEAK HOUR TRAFFIC CONGESTION

The TRANSPLAN Committee's comments are that certain intersections listed in Tables 21 and 22 would have future levels of service (LOS) above a volume-to-capacity ratio of 0.85, that is, worse than the mid-D LOS in the adopted East County Action Plan for Routes of Regional Significance. Some of the intersections predicted to have worse than mid-D LOS were not correctly indicated by gray shading in the versions of Tables 21 and 22 presented in the Draft EIR

**Response**

Tables 21 and 22 have been revised to highlight with gray shading intersections that would operate at worse than mid-D in an hour of peak traffic. Generally, in the predicted near-term, these are the Buchanan Road intersections at Loveridge, Ventura, Meadows, and Somersville Road; California Avenue/SR 4 WB ramps; and Loveridge Road/SR 4 EB ramps.

For year-2025 cumulative scenario, in addition to the above intersections, operations could be worse than mid-D at Buchanan/Railroad, Buchanan/Harbor, and Loveridge/Leland in one or both of the AM and PM hours of peak traffic, without the Buchanan Bypass.

Completion and opening of the Buchanan Bypass could alleviate some of the forecast congestion at Buchanan Road intersections and restore LOS to mid-D or better. At Buchanan Road/Somersville Road, California Avenue/SR 4 WB ramps, and Loveridge Road/SR 4 EB ramps, and Loveridge/Leland, however, peak hour operations could remain worse than mid -D even with completion and opening of the bypass for through traffic connection.

H5. DELAY INDEX

The TRANSPLAN Committee staff's comment is that the Delay Index (DI) is another of the TSOs for routes of regional significance in the adopted East County Action Plan. Routes having an adopted DI include: Buchanan Road, Kirker Pass Road, Railroad Avenue, Leland-Delta Fair Boulevard, and Somervsville Road. Staff additionally requested that the DI be calculated for future conditions with and without the proposed project.

Response

The comment is acknowledged and the clarification to standards presented in the Draft EIR (p. V-249) is provided in the Final EIR, Chapter III, Revisions and Errata. See also response to Comment H1.

The DI is empirically measured and reported in CCTA's TSO Monitoring Reports. Chart H3 is an excerpt from the most recent TSO Monitoring Reports presents existing measured DIs.

Though calculation of the DI would probably not be reliable, especially for a relatively uninterrupted segment like the Kirker Pass Road segment, the forecast volumes and intersection LOS do provide a general indication of effect on the DI for routes of regional significance.



Buchanan Road Corridor—The proposed project would have a measurable impact on the volume-to-capacity ratios (v/c) of Buchanan Road intersections. In conjunction with approved development traffic, existing PM operations at LOS B and C ($v/c = 0.62$ to 0.77) could deteriorate to LOS C, D and E ($v/c = 0.71$ to 0.95). Proposed and approved project traffic on Buchanan Road could cause the existing DI (1.4 to 1.5) on in the PM peak hour to exceed 2.0 . See Table 21 for predicted intersection LOS.

Mitigation measures recommended in the Draft EIR could restore intersection operations in the Buchanan Road corridor to LOS A-C, except at Buchanan/Somersville where operations are forecast to be LOS D ($v/c = 0.82$) after mitigation. Based on inspection of Tables 21 and 22, completion and opening of the Buchanan Bypass to through traffic could restore the DI on Buchanan Road to the existing DI.

Kirker Pass Road Segment—The proposed project would add fewer than 50 vph in a peak hour and would have less-than-significant effect on the DI. However, cumulative growth and bypass-induced traffic on Kirker Pass Road could cause the existing DI (1.4) in the northbound direction in the PM peak hour to exceed 2.0 . See Chart H4 for predicted 2025 traffic volumes.

Somersville Road Corridor—Most of the proposed project's impact to DI for the Somersville Road corridor would occur at the Somersville Road/Buchanan Road intersection. Near-term operations there are forecast to decline to LOS F from LOS D ($v/c = 0.87$) in the AM peak hour and to LOS E ($v/c = 0.94$) from LOS C ($v/c = 0.73$) in the PM peak hour. The corridor currently has a reported DI of 3.8 southbound in the PM peak hour, a DI of 1.1 southbound in the AM (counterflow), and a DI near 1.0 northbound in the AM and PM. The proposed project, therefore, could exacerbate an existing deficiency (DI of 3.8 southbound in the PM peak hour).

Leland Road and Delta Fair Boulevard Corridor—Inspection of Chart H3 shows that the slow section of this corridor is Railroad Avenue to Somersville Road, on which segment the DI eastbound is near 2.0 in the PM peak hour. Leland/Loveridge intersection operations would reduce to LOS F in the AM peak hour and LOS D in the PM peak hour, in the future 2025 without Buchanan Bypass scenario. This reduction in operation could increase the DI. Inspection of Table 22 shows that the proposed project's contribution to this impact is less-than-significant. Completion and opening of the Buchanan Bypass would partially reduce but not eliminate the impact to the DI along Leland Road-Delta Fair Boulevard.



CHART H3 EXISTING PEAK HOUR TRAVEL SPEEDS AND DELAY INDEX

Route	Average Speed AM (PM)		Delay Index AM (PM)		
	NB or EB	SB or WB	TSO	NB or EB	SB or WB
Delta Fair Blvd (Pittsburg limit to Somersville Rd) + Leland Rd (Woodhill Dr to Pittsburg limit)					
Leland Rd (Woodhill Dr to Bailey Rd)	22 (23)	31 (31)	<2.0	1.3 (1.3)	1.0 (1.0)
Leland Rd (Bailey Rd to Railroad Ave)	30 (19)	32 (34)	<2.0	1.0 (1.6)	1.0 (0.9)
Leland Rd (Railroad Ave to city limit)	27 (14)	25 (20)	<2.0	1.1 (2.1)	1.2 (1.5)
Delta Fair Blvd (city limit to Somersville Rd)	18 (16)	18 (25)	<2.0	1.6 (1.9)	1.7 (1.2)
TOTAL	24 (18)	26 (27)	<2.0	1.2 (1.8)	1.2 (1.1)
Buchanan Road (Railroad Avenue to Somersville Road)					
TOTAL	32 (17)	18 (28)	<2.0	1.2 (2.2)	2.2 (1.4)
Kirker Pass Road (Clayton Road to Pittsburg limit) + Railroad Avenue (Pittsburg limit to SR-4)					
Kirker Pass Rd (Clayton Rd to TRANSPAC/TRANSPLAN boundary)	32 (42)	19 (28)	<2.0	1.3 (1.0)	2.1 (1.4)
Kirker Pass Road TRANSPAC/TRANSPLAN boundary to Pittsburg city limit)	57 (54)	57 (55)	<2.0	0.7 (0.7)	0.7 (0.7)
Railroad Avenue (Pittsburg city limit to Pheasant Drive)	54 (47)	53 (55)	<2.0	0.8 (0.9)	0.8 (0.8)
Railroad Av (Pheasant Dr to Buchanan Rd)	18 (29)	30 (34)	<2.0	2.3 (1.4)	1.3 (1.2)
Railroad Av (Buchanan Rd to Leland Road)	15 (14)	26 (22)	<2.0	2.8 (3.0)	1.6 (1.8)
Railroad Avenue (Leland Road to SR-4)	15 (10)	17 (13)	<2.0	2.8 (3.9)	2.4 (3.1)
TOTAL	32 (33)	34 (34)	<2.0	1.4 (1.4)	1.3 (1.2)
Somersville Road (W. 10th Street to James Donlon Boulevard)					
Somersville Road (W. 10th Street to SR-4 (WB ramps)	23 (28)	23 (19)	<2.0	1.1 (0.9)	1.1 (1.3)
Somersville Road (SR-4 (WB ramps) to Delta Fair Boulevard)	34 (15)	32 (3)	<2.0	0.7 (1.6)	0.8 (7.4)
Somersville Road (Delta Fair Boulevard to Buchanan Road)	24 (14)	12 (4)	<2.0	1.0 (1.7)	2.1 (6.4)
Somersville Road (Buchanan Road to James Donlon Boulevard)	36 (30)	38 (13)	<2.0	0.7 (0.8)	0.7 (3.6)
TOTAL	29 (22)	26 (7)	<2.0	0.9 (1.1)	1.1 (3.8)
NOTE: Monitoring results are from TSO Monitoring Report , TABLE A-6/7.					
SOURCE: CCTA, December 12, 2004					



CHART H4

GROWTH & INDUCED TRAFFIC VOLUMES ON KIRKER PASS ROAD EAST OF CONCORD BOULEVARD

Kirker Pass Road east of Concord Boulevard	TRAFFIC VOLUMES			Volume-to-Capacity (LOS)		
	Base 2004	Plus Projected Growth Traffic	Plus Bypass- Induced Traffic	Base 2004	Plus Projected Growth Traffic	Plus Bypass- Induced Traffic
southbound (westward)						
AM Peak Hour	1501	2045	3140	0.44 (B)	0.60 (C)	0.92 (E)
PM Peak Hour	572	1462	1462	0.17 (A)	0.43 (B)	0.43 (B)
northbound (eastward)						
AM Peak Hour	583	1260	1356	0.17 (A)	0.37 (B)	0.40 (B)
PM Peak Hour	1937	2510	3693	0.57 (C)	0.74 (D)	1.09 (F)
NOTES:						
0.00 – 0.26 LOS A 0.45 – 0.60 LOS C 0.77 – 0.99 LOS E						
0.27 – 0.44 LOS B 0.61 – 0.76 LOS D 1.00 + LOS F						

H6. FAIR SHARE CONTRIBUTION

The TRANSPLAN Committee staff asks about the proposed project's fair share contribution, how the fair share will be determined and who will determine it.

Response

City of Pittsburgh Planning Department clarifies that mitigation funding, schedule, implementation, and monitoring responsibilities for all required mitigation measures will be identified in the Mitigation Monitoring or Reporting Plan. In further response, Tables 35 and 36 herein are summaries of equitable shares for the proposed project's traffic impacts. The method of calculating fair share contributions is described in the response to Comment C8 by Caltrans.

H7. TIMING OF BUCHANAN BYPASS

The TRANSPLAN Committee staff asks about the timing of the opening of the future Buchanan Road Bypass.

Response

City of Pittsburgh Engineering Department clarifies that the timing of the completion and opening of the future Buchanan Road Bypass for through-traffic connection between Somersville Road and Kirker Pass Road is expected before General Plan buildout but is not more precisely known. The Buchanan



Bypass appears in the City of Pittsburgh's *Five-Year Capital Improvement Plan 2003/4-2008/9*, Projects ST-4 (Preliminary Engineering) and ST-36 (Design & Construction). The bypass project design and construction are not fully funded.

H8. BUCHANAN ROAD METERING

The TRANSPLAN Committee staff asks about the Buchanan Road metering.

Response

City of Pittsburgh Engineering Department clarifies that control point metering on Buchanan Road at Meadows Avenue, and at other locations in the East-Central region, was a subject of the *East-Central Traffic Management Study* (DKS, August 10, 2001). Alternative C included metering at the Buchanan/Meadows intersection and was selected by the Policy Advisory Committee (PAC) as the Preferred Alternative. The study was unanimously approved by all participants.

Metering on westbound Buchanan Road at Meadows Avenue is one element of the East-Central region's plan to manage arterial and freeway traffic operations and avoid traffic diversion onto neighborhood streets. Many other elements studied in the ECTMS remain to be implemented and fine-tuned in the ultimate management system presented in Alternative C.

The current control point metering on westbound Buchanan Road, in the AM peak hours only, has a measurable impact on traffic. According to the City of Pittsburgh Engineering Department, the current metering rate reduces traffic on Buchanan Road by 5 to 10 percent, which today is equivalent to approximately 40 to 80 vehicles per hour. The current metering rate is substantially less than the rate approved in the *East-Central Traffic Management Study*. The purpose of traffic control metering on Buchanan Road at this time is to encourage commuters to use mainline Highway 4 (SR 4) instead of Buchanan Road and Kirker Pass Road. Metering at this time affects only the two hours of the morning commute. See also response to Comment A11.

In addition, completion and opening of the Buchanan Bypass could provide substantial traffic relief on Buchanan Road relative to the future case without the bypass. Without the bypass, metering could not achieve the same magnitude of traffic operations relief on Buchanan Road.



I. DISCOVERY BUILDERS INC.

Comments by Discovery Builders Inc. are labeled in the letter margin as “I()”. Parenthetical labels match the labels in the letter submitted by Discovery Builders Inc., dated February 15, 2006. Labels in the Discovery Builders letter refer to either 1) IMPACTS identified in the Draft EIR, Table 2, Summary of Potential Impacts and Mitigation Measures, or else 2) page numbers in the Draft EIR. For example, in the letter submitted by Discovery Builders Inc., “A2” refers to IMPACT A2 in Table 2 of the Draft EIR, and “III-49” refers to page III-49 of the Draft EIR.

Comments: I(A1), I(A2-7), I(A16), I(A17), I(B7), I(B12), I(C6), I(C8), I(C11), I(G1), I(G2), I(G3-5-6), I(G7), I(G8), I(G10-11), I(G12), I(H3), I(H7), I(H8), I(H17), I(H23), I(H26-27), I(I1-14), I(I8), I(J2), I(K3), I(K4), I(III-49), I(IV-55), I(V-105), I(V-201)

Responses: All as listed above

Cross-References to Public Agency Comments:
C8, E3, and F5

References to Draft EIR Figures:
Figures 10, 14, and 26

References to Draft EIR Tables:
Tables 2, 5, and 24



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February 15, 2006

Ken Strolo
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

**RE: Sky Ranch II Residential Subdivision Draft Environmental Impact Report –
SCH # 2004112092 (December 2005)**

Dear Mr. Strolo:

We have reviewed above-referenced the Draft Environmental Impact Report (DEIR) and submit the following comments. Please be advised that it is our position that the DEIR provides a comprehensive, detailed examination of the environmental impacts associated with the Sky Ranch II project. However, in our review of the DEIR, we have determined that there are several areas therein in which minor clarifications to the text or revisions to the mitigation measures are recommended to complete the document.

Our comments, which refer to the specific Impacts and Mitigation Measures in Table 2 on Page 1-9, also apply to the same items in Chapter V and elsewhere in the DEIR. Please be advised that our comments are intended to request clarification of certain items in the DEIR and/or suggest that certain mitigation measures be revised to more appropriately mitigate identified project impacts.

Impact and Mitigation Measures

A1 (Page 1-9) As noted in the DEIR, the project developer shall be required to consult with the appropriate state and federal agencies with respect to potential impacts to certain species and/or their habitats on the project site. Therefore, the only necessary mitigation measures in the DEIR should be to require the project developer to obtain all necessary permits from State and Federal Agencies related to potential impacts to habitat and endangered species of animals and plants. This approach has been commonly used by the City on past projects. By including other measures, the DEIR is attempting to anticipate what permits will be necessary and what mitigations such permits will require.

II(A1)

A2 through A7 (Pages 1-9 and 1-10) See A1 comments.	I(A2-7)
A16 (Page 1-13) The DEIR appears to be attempting to apply the Draft HCP/NCCP to the Project. It would be more appropriate to confirm that the Project be required to obtain any necessary approvals and permits from State and Federal Agencies for possible impacts on habitat and endangered species of plants and animals and comply with the HCP/NCCP as appropriate when it is fully approved and in effect. This comment applies also to all references to the Draft HCP/NCCP throughout the DEIR.	I(A16)
A17 (Page 1-13) See A16 comment above. Furthermore, the Mitigation Measure refers to CTS whereas the Impact refers to SJKE.	I(A17)
B7 (Page 1-16) The Slope Management Plan should be required prior to approval of the Final Grading Plan and Final Map for the Project, rather than the Tentative Map.	I(B7)
B12 (Page 1-18) This mitigation measure should be revised to allow grading activities during the rainy season if Best Management Practices (BMP's) are in place as permitted by the Regional Water Quality Control and are in accordance with the approved Project SWPPP.	I(B12)
C6 (Page 1-20) See comment on B12 above.	I(C6)
C8 (Page 1-21) The specific design parameters of the Project detention basin should be subject to adjustment based on final approval by the City Engineering Department.	I(C8)
C11 (Page 1-22) Drainage Area DA 70 is not a formed district according to Contra Costa County Flood Control and there is currently no adopted fee. The Mitigation Measure should require the Project to pay drainage fees in effect as of the Project vesting date.	I(C11)
G1 (Page 1-25) We do not believe the requirement to provide an on-site mini-park should be a DEIR Mitigation Measure. Rather, it should be a decision made during the project review by the City Planning Commission and City Council, if they determine it to be appropriate.	I(G1)
G2 (Page 1-25) The DEIR should not specify the dedication requirements and credits to be granted for park and open space dedication, but should rather refer to the City Ordinance in that regard. The DEIR should acknowledge that grading and uses within the PG&E and Kinder Morgan easements will be subject to the provisions of those easements and may be modified subject to the approval of the easement holders.	I(G2)
G3, G5 and G6 (Page 1-26) See comment A1 above.	I(G3-5-6)
G7 (Page 1-26) The method of sewerage Lots 162 204 will be subject to approval of the Engineering Departments of the Cities of Pittsburg and Antioch and may be suggested, but should not be specified in the DEIR.	I(G7)
G8 (Page 1-27) See A1 comments above.	I(G8)

- G10 and G11 (Page 1-27)** The City Engineering Department should make the final decision if nighttime construction will be permitted for Station 85 and the Buchanan Road Bypass. **I(G10-11)**
- G12 (Page 1-27)** The Project should be required to pay only its fair share of the cost of implementing offsite improvements described in Chapter V.I. Community Noise. See further specific comments under Items I1 through I14 below. **I(G12)**
- H3 (Page 1-28)** The Developer should be required to pay only its fair share for a second southbound left turn lane at Loveridge and Buchanan Roads. The number of homes in the Project should not be restricted if projects to the east of the City are allowed to continue to develop without restriction. Furthermore, the City's proposed traffic metering program at Buchanan Road and Meadows Drive will provide relief which will offset the impact of the Project on Buchanan Road and other Pittsburg streets. **I(H3)**
- H7 (Page 1-29)** The limitation to 353 units should be required only if the traffic counting referred to in the fourth bullet item indicates more than 5,000 vehicles per day in the segment of Ventura Drive in question. We believe that the assumed numbers of vehicle trips on Ventura and Meadows Drives may not be accurate because Project residents will find it more convenient to use Meadows Drive to access the large shopping areas to the Northeast on Somersville Road and Century Boulevard. **I(H7)**
- H8 (Page 1-30)** Bypass traffic on Ventura Drive north of Buchanan Road currently exists. The Project should pay only its fair share of the cost of a traffic diverter, if it is installed by the City. The fair share should include existing and future development subject to a traffic study. **I(H8)**
- I117 (Page 1-31)** This appears to be the same as I13 and those same comments apply. **I(H17)**
- H23 (Page 1-32)** See comments on H3 above. **I(H23)**
- H26 and H27 (Page 1-33)** The Mitigation Measures should allow that redesign of the lots in question may be considered by the City Engineer if it is shown that they will have safe means of ingress and egress. This could include mitigations such as additional traffic calming on the adjacent streets or driveway designs which preclude the need to back out onto the streets. **I(H26-27)**
- I1 through I14 (Pages 1-34 through 1-38)** Table 24 on page V-274 indicates that even without the Project, exterior noise levels at the Receptor locations 1 and 6 are or will be over the acceptable level of 65 dBA. With the Project, only Receptor location 2 will experience an increase in noise level from 65 to 66 dBA. On page V-275, "Off-Site Noise Levels," it is stated that the Project's contribution to the increase in noise levels in the Buchanan Road Corridor is an imperceptible increase. The Project should at most be required to pay its fair share of any noise mitigation needed at Receptor location 2. Furthermore, the Project should not be required to mitigate for future Buchanan Road Bypass noise which will be generated by traffic to and from the areas east of the City of Pittsburg. **I(I1-14)**

I8 (Page 1-36) Hours of work should be subject to adjustment by the City Engineering Department where work will be far from existing homes or be of a type which creates limited exterior noise. I(I8)

I2 (Page 1-39) The frequency of watering for dust control should be allowed to be adjusted depending on weather conditions and should not be required "at least 3 times per day" at all times. I(J2)

K3 (Page 1-41) It should be added that the requirement for fire sprinklers will no longer apply if a new fire station is constructed in the future which will decrease the response time to 5 minutes or less. I(K3)

K4 (Page 1-41) The proposed minimum horizontal setback of 100 feet of homes from the existing transmission lines seems arbitrary. Justification should be provided since this setback was not required in the Highlands Ranch Project or in the recently approved Vista Del Mar Project. I(K4)

DEIR Text

Page III-49 (Water Utilities) The reference to one 2 million gallon reservoir should be revised to indicate two reservoirs as described on Page V-210 under Water Storage. I(III-49)

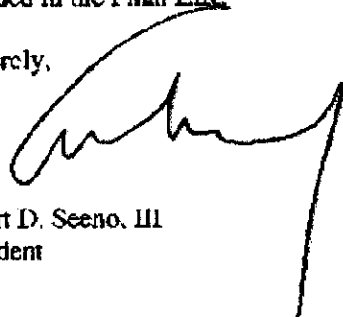
Page IV-55 (Contra Costa NPDES Permit) It should be clarified that the C3 provisions of the County Clean Water Program do not apply to the Project, the application for which was deemed complete prior to February 2005. I(IV-55)

Page V-105 (References) It should be clarified that the Contra Costa County Clean Water Program, January 2005 including the Stormwater C3 Guidebook referenced, does not apply to the Project which was vested prior to February 2005. I(V-105)

Page V-201 (Water & Sewer) Paragraph 4 indicates the two water reservoirs would serve only the Project. It should be clarified that the Zone II reservoir at elevation 381 will serve the existing homes in Highlands Ranch and only a small portion of the Project. I(V-201)

We appreciate the opportunity to review and comment on the DEIR. We look forward to the responses to our comments and for the appropriate revisions and clarifications being included in the Final EIR.

Sincerely,


Albert D. Seeno, III
President



I(A1). OBTAINING NECESSARY PERMITS

In regard to impacts to resources for which State of California or federal agencies are stewards, the first part of the comment is that the only necessary mitigation measures in the Draft EIR, Chapter V.A, Biology & Wetlands, should be the requirements that the developer obtain all necessary permits from those agencies having jurisdiction over biological and wetlands resources. The second part of the comment continues that the Draft EIR, by including mitigation measures, is “attempting to anticipate what permits will be necessary and what mitigation measures such permits will require.”

Response

Part 1—Overview: The City of Pittsburg Planning Department staff concur that the Draft EIR evaluates potential impacts of the proposed project on protected species and protected environmental resources. Some of the species and resources evaluated in the Draft EIR are, in fact, protected under the federal Endangered Species Act, federal Clean Water Act, California Endangered Species Act (Fish and Game Code Sections 2050-2098), and Fish and Game Code Section 1603). The Draft EIR forecasts, to the extent possible, the expected adverse impacts of the proposed project based on evaluation of facts, other scientifically collected data, expert assessments, input received from the project applicant and Responsible Agencies.

Experts may differ in opinion, and this is specifically acknowledged in CEQA. The Draft EIR has identified certain differences among the experts and has made definitive statements of environmental effects of the proposed project based on a reasoned analysis. For example, potential USACE jurisdiction over certain drainageways is stated in the Draft EIR based on the reasoning that these drainageways are not isolated but instead seasonally discharge waters to Kirker Creek or Markley Creek.

In addition to protections afforded under federal and state law, the Draft EIR identifies City and local policies including, for example, the City’s own General Plan policies. A function of the Draft EIR, though not its only function, is to reconcile project impacts relative to the City’s own policies that are protective of its natural resources.



Part 2—Disclosure: The City of Pittsburg is obligated under CEQA to evaluate and disclose environmental impacts of the proposed project. Statements that permits shall be obtained would not explain to City decision-makers or an apprehensive public how its environment is being protected, a basic purpose of Environmental Impact Reports (EIRs).

The City is obligated to disclose environmental effects and to consider the various possibilities for mitigating adverse environmental effects. None of the state or federal agencies alluded to in the comment, not CDFG, USFWS, or USACE, is Lead Agency. None of these responsible agencies has the basic charge for preparing the EIR for Sky Ranch II, or any other proposed land development action in the City, a responsibility that rests squarely with the City of Pittsburg. None of these agencies, therefore, can weigh the whole of the action, inform the citizens of the City of Pittsburg how their environment is being protected, or enable them to determine the environmental and economic values of their elected and appointed officials.

In the CEQA Guidelines, Section 15003 states the following policies to be implicit in CEQA:

- (b) The EIR serves not only to protect the environment but also to demonstrate to the public that it is being protected. (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795.)
- (c) The EIR is to inform other governmental agencies and the public generally of the environmental impact of a proposed project. (*No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68.)
- (d) The EIR is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. (*People ex rel. Department of Public Works v. Bosio*, 47 Cal. App. 3d 495.)
- (e) The EIR process will enable the public to determine the environmental and economic values of their elected and appointed officials thus allowing for appropriate action come election day should a majority of the voters disagree. (*People v. County of Kern*, 39 Cal. App. 3d 830.)

In the CEQA Guidelines, Section 15121 states as follows:

- (a) An EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.
- (b) While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091 and if necessary by making a statement of overriding consideration under Section 15093.



The Draft EIR for Sky Ranch II discloses the potential environmental impacts of the proposed project and alternatives. Disclosures in the Draft EIR are necessary for the purpose and intent of CEQA.

Part 3—Reasoned Analysis: The Draft EIR evaluates available facts and other scientifically collected data, such as expert survey data, and outlines a reasoned analysis of the potential environmental impacts of the proposed project. The process does entail a degree of forecasting of environmental effects. Without forecasting, decision-makers would have nothing to weigh and the public could have no disclosure of potential environmental effects. There clearly may be differing expert opinions and those can be accommodated within the CEQA process

In regard to the two expert wetland delineations prepared by Wetlands Research Associates and Albion Environmental, there are differing expert opinions about inclusion or exclusion of potential isolated wetlands. The Draft EIR considers all the information and documents the position that the ephemeral drainageways and intermittent creek are potentially within the jurisdiction of USACE, or not necessarily “isolated” and, hence, non-jurisdictional, because they discharge to Markley Creek or Kirker Creek (Draft EIR, p. V-62).

The Draft EIR additionally states the position, based on a reasoned analysis of factual evidence, that there was an intermittent creek and seasonal pond in the southwestern portion of the project site. Both have been illustrated on USGS topographic maps for many years. One of the two wetland delineations indicates identifiable bed and bank along a 394-foot long segment of this intermittent creek. A geotechnical study performed by ENGEO Incorporated further identifies and illustrates unengineered fill in the intermittent creek trace (see Draft EIR, Figure 10, p. V-92). Huffman-Broadway Group observed that off-site, west of the project site, intermittent flow resumes in a channel having a defined bed and bank (see Draft EIR, p. V-65). Taken together, this information, which is from a variety of different sources, supports the stated position.

During preparation of the Draft EIR, the City of Pittsburg advised the project applicant that the U.S. Army Corps of Engineers (USACE or, the “Corps”) could be consulted in order to obtain a verification of either of the two separate wetland delineations. This submittal and request for Corps verification falls within the realm of responsibilities of the project applicant, Discovery Builders Inc. During preparation of the Draft EIR, a verified wetland delineation was not provided by the applicant; therefore, the positions stated in the Draft EIR have not been verified by the Corps but are based on a reasoned analysis of factual evidence.



Part 3— Mitigation Measures: Mitigation measures presented in the Draft EIR were developed after site-specific assessments by experts. Under existing laws, either a project applicant or a local lead agency may have the responsibility of consulting with public regulatory agencies on matters relating to project impacts on wetlands and rare or endangered species. During preparation of the Draft EIR for the Sky Ranch II Residential Subdivision, City Planning Department staff consulted with appropriate state and federal resources agencies informally but did not itself apply for any of the state or federal permits from necessary for the proposed project. Verification of the wetlands delineation was not requested by the applicant and, hence, verification was not provided by the U.S. Army Corps of Engineers.

Various kinds of mitigation have been disclosed in the Draft EIR for the Sky Ranch II Residential Subdivision, including off-site compensatory mitigation and on-site conservation, for example. A preference for one kind of mitigation over another is not stated or implied in the Draft and Final EIR. A preference for one alternative over another is not stated or implied in the Draft and Final EIR. Choices are left to the work of decision-makers.

In CEQA Guidelines, Section 15370 identifies generally the various kinds of mitigation that may be available for avoiding, reducing, or compensating for environmental impacts:

- (a) Avoid the impact altogether by not taking a certain action.
- (b) Minimize impacts by limiting the degree or magnitude of the action.
- (c) Rectify the impact by repairing, rehabilitating or restoring the impacted environment.
- (d) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the project.
- (e) Compensate for the impact by replacing or providing substitute resources or environments.

For the proposed Sky Ranch II residential development, permit applications and/or consultations with federal and State of California agencies are necessary, by law, and permits issued by those agencies would have to be obtained to permit filling of wetlands, streambed alteration, and incidental take of protected species. Certainty about the ultimate mitigation requirements of USFWS and USACE is not necessary for the purpose of disclosure or decision-making by the City of Pittsburgh.

Mitigation ratios assumed in the Draft EIR are typical for the kinds of habitat and protected status of the affected species. The acres of off-site compensatory mitigation land identified in the Draft EIR are founded on current practice of the permitting agencies.



Agencies having jurisdiction over natural resources and protected species were consulted by the City of Pittsburgh during preparation of the Draft EIR. The protected status of certain resources and species was identified, as were a range of mitigation measures and alternatives consistent with the biological resources.

Part 4—General Plan: To consider the fate of biological resources within the Urban Limit Line, the City of Pittsburgh as a governing agency is responsible for considering not only the effects of particular land development proposals at a project-specific level but also collectively the effects of many past actions and foreseeable future actions. At the planning-level, through the adoption of its General Plan, the City has considered natural resources in relation to its past and future land uses, by designating certain land uses on a General Plan Land Use Map and also by adopting certain goals and policies.

The General Plan designates the project site for Low Density Residential use. Areas of Open Space are not designated on the project site, but off-site in the Buchanan, Black Diamond Mines, and Woodlands planning sub-areas, Open Space is designated in the General Plan. General Plan Goal 9-G-1 and Policy 9-P-1 require that assessments be conducted prior to development approval within habitat areas of special status species such as the California tiger salamander (CTS). *Biological Assessment for Sky Ranch II* (Huffman Broadway Group, June 2005) satisfies this requirement. The creekways and wetlands policies of the City of Pittsburgh (General Plan Policies 9-P-9, -10, -11, and -12) could be applicable in general but probably are intended to apply to 1) perennial streams, having defined bed and bank, and also having riparian habitat, functional, or aesthetic values and 2) wetlands having habitat, functional, or aesthetic values.

Stream reaches on the project site are seasonal, not perennial, and do not have riparian habitat value. An intermittent stream reach in the southwestern portion of the project site has 394 lineal feet with defined bed and bank; its adjacent reaches have a broad swale topography without defined bed or bank and function as overland-flow drainages. A seasonal wetland having an area of about 0.02 acre was identified in the southeastern corner of the project site. In view of their insubstantial habitat and functional values and size, the seasonal stream reaches and wetland on the project site would not be subject to any of the above policies.

Mitigation measures are recommended in the Draft EIR, therefore, primarily to alleviate potential impacts to environmental resources, not to implement General Plan policies 9-P-9 through -12. General Plan policies were intended at the planning-level to balance the effect of past and future land development actions with the City's interest in preserving the quality of its natural environment.



I(A2-7). MITIGATION MEASURES FOR IMPACTS TO BIOLOGICAL RESOURCES

The comment is that the only necessary mitigation measures in the Draft EIR, Chapter V.A, Biology & Wetlands, should be the requirements that the developer obtain all necessary permits from those agencies having jurisdiction over biological and wetlands resources.

Response

City of Pittsburg Planning Department staff has responded above. On the particular matter of mitigation ratios, the staff's response clarifies that mitigation ratios in the Draft EIR are typical for the kinds of habitat and protected status of the affected species. The acres of mitigation land identified in the Draft EIR are founded on the current practice of the permit agencies.

- *"The applicant shall develop a CTS Mitigation Plan to address the potential impact to the California tiger salamander which includes compensatory mitigation for a loss of 163 acres of combined CTS breeding and aestivation habitat. The CTS Mitigation Plan shall be developed in coordination with USFWS as part of the federal ESA Section 7 or Section 10 consultation.*

Tentatively, the amount and kind of habitat compensation is 489 acres, calculated at a ratio of 3:1 for the 163 acres of on-site habitat. The habitat types to be mitigated are annual grassland, 0.11 acre of palustrine emergent seasonal wetland, and approximately 800 to 1,900 feet of riverine intermittent streambeds". (Draft EIR, pp. I-19, V-92)

The crux of mitigation of the biological impacts stated in the Draft EIR is the CTS Mitigation Plan. In the event that a permit agency requires a different amount of mitigation land, for example, less than stated in the Draft EIR, it would not be the intent of the City of Pittsburg to alter the responsible agency's decision. The City's estimate of the mitigation obligation for the proposed project is clearly labeled as "tentative" based on 163 acres of on-site habitat mitigated at 3:1 (off-site compensatory habitat: on-site habitat depletion).

I(A16). DRAFT HCP/NCCP

The comment is that the Draft EIR appears to be attempting to apply the Draft HCP/NCCP to the proposed project. The comment continues that it would be more appropriate for the Draft EIR to confirm that the proposed project will be required to obtain any necessary approvals and permits from the state and federal agencies having jurisdiction over protected species and wetlands.



Response

The City of Pittsburg Planning Department staff has included in the Draft EIR information about the Draft HCP/NCCP. The information is provided generally for the purpose of disclosure, so that the public is informed. The Draft HCP/NCCP is a regionally significant conservation plan that is being created, but is not currently approved or in effect.

The Draft EIR, Chapter V.A, Biology & Wetlands, p. V-81, explains the aim of the Draft HCP/NCCP is to establish an integrated process for permitting and mitigating the incidental take of endangered species, as an alternative to the current project-by-project approach. Project proponents whose projects lie within the permit area would receive an endangered species permit after paying a fee to the JPA. Fees collected by the JPA then would be used to purchase the identified conservation lands or easements from willing sellers, monitoring, and habitat enhancement or management activities.

Mitigation required under the Draft HCP/NCCP would be neither more nor less stringent than currently required. If approved, the Draft HCP would provide for compensation, avoidance, and minimization of impacts for covered species. The Draft HCP may facilitate applications for development within the permit area by establishing a regionally applicable procedure for accepting protection, enhancement, and restoration of higher-quality habitat in a "Preserve System," which is located outside the urban areas, in exchange for allowance of development on lower-quality habitat located inside urban limits.

The proposed project would not preclude implementation of the Draft HCP/NCCP. None of the project site is located within a proposed acquisition parcel designated within the Draft HCP/NCCP for a buffer zone and other part of the Preserve System.

Information provided in the Draft EIR is necessary for 1) disclosing to the public the various protections that would be afforded under the Draft HCP/NCCP, if approved, and 2) assuring that none of the actions entailed by approval of the proposed project, an alternative project, or the related mitigation measures would preclude future implementation of the Draft HCP/NCCP.

I(A17). MITIGATION MEASURES FOR SAN JOAQUIN KIT FOX

The comment is that the only necessary mitigation measures for the San Joaquin kit fox (SJKF) in the Draft EIR, Chapter V.A, Biology & Wetlands, should be the requirements that the developer obtain all necessary permits from U.S. Fish & Wildlife Service (USFWS) and California Department of Fish and Game (CDFG).



Response

City of Pittsburgh Planning Department staff has responded generally above in responses to Comments A1 and A2-7. In consultation with CDFG staff, the City's Planning Department has confirmed that a CTS Mitigation Plan that addresses on-site mitigation measures on and off-site compensatory mitigation for the California Tiger Salamander (CTS) could also mitigate the potential impact to the San Joaquin kit fox (SJKF). The annual grasslands comprising the project site is a habitat shared by both species. Therefore, mitigation effective for CTS is mitigation also effective for SJKF. According to the mitigation measure as stated in the Draft EIR, Chapter V.A, Biology & Wetlands, p. V-102:

- *“Developer shall implement a CTS Mitigation Plan which addresses mitigation for the loss of SJKF annual grassland habitat in conjunction with compensatory mitigation for CTS.”*

See also the City Planning Department staff's response to Comment I(A1).

I(B7). SLOPE MANAGEMENT PLAN

The comment is that the Slope Management Plan should be required prior to approval of the Final Grading Plan and Final Map, rather than prior to the Tentative Map.

Response

City of Pittsburgh Planning Department staff concurs and clarifies that the recommended timing is stated correctly in the Draft EIR, Chapter, V.B, Geology & Seismicity, p. V-130.

- *“Developer/applicant shall prepare and submit a Slope Management Plan to the City Engineer for review and approval prior to the approval of a Final Map.” (Draft EIR, p. V-130)*

The Draft EIR, Chapter I, Summary, Table 2, p. I-16, states: *“The City Engineer shall review and approve the Slope Management Plan, before approving a Final Subdivision Map.”*



I(B12). RAINY SEASON GRADING

The comment states that Mitigation Measure B12 should be revised to allow grading activities during the rainy season if BMPs are followed in accordance with the Storm Water Pollution Prevention Plan (SWPPP) as permitted by the California Regional Water Quality Control Board (RWQCB).

Response

City of Pittsburg Planning Department staff concurs. However, rainy season (October 15 – April 15) grading could be acceptable only if it is additionally allowed pursuant to the City's Grading Ordinance.

I(C6). GRADING

The comment is the same as the Comment I(B12).

Response

See response to Comment I(B12). Suggested modification applicable to the Draft EIR, pp. I-18, I-20, V-134 and V-158:

Grading shall be performed generally in the "dry season" except as grading in the rainy season (October 15 – April 15) may be allowed in the Grading Permit subject to the City's approval.

I(C8). DETENTION BASIN DESIGN PARAMETERS

The comment is that the specific design parameters for the proposed on-site detention basin should be subject to adjustment "based on final approval by the City of Pittsburg Engineering Department."

Response

The City of Pittsburg Planning Department and Engineering Department have received the report *Drainage and Sewer Study Addendum #1*, prepared by Isakson & Associates Inc. The Vesting Tentative Map does not show the same detention basin footprint or grading as the preliminary design shown in *Drainage and Sewer Study Addendum #1*.

- *"Developer shall submit, for review and approval by the City Engineer, the revised detention basin design with 14-acre feet of storage, assuming 3:1 graded slopes, and 250 foot msl maximum surface water elevation." (Draft EIR, p. V-160)*



I(C11). DRAINAGE AREA DA 70

The comment is that Drainage Area DA 70 is not a formed district and there is no adopted fee.

Response

The City of Pittsburg Planning Department finds that this comment is inconsistent with the District's Comment E3 about DA 70 (see page 80). According to District staff's comment, the DA 70 fee is \$5,000 per gross acre, applicable to the portion of the project site that is located with Drainage Area 70. The fee is used for improvements to Kirker Creek. The entire 136.85-acre parcel, APN 089-050-067, outlined in green in Figure 14 (page 213), is located within DA 70.

I(G1). ON-SITE PARK MITIGATION MEASURE

The comment is that an on-site park should not be required as a mitigation measure. Instead, the project applicant believes the stated mini-park should be a discretionary decision made during project review by the City Planning Commission and City Council, if they determine it to be appropriate.

Response

All of the mitigation measures in the Draft EIR are subject to review, discussion, and deliberation by Planning Commission and Council. If mini-park were not identified in the Draft EIR as a mitigation measure to alleviate defensible space/fire hazard, traffic intrusion, and park space impacts of the proposed project, the Planning Commission and Council would not necessarily be aware of the potential impacts or the available mitigation measure. A purpose of the Draft EIR is to make these disclosures to decision-makers and the public.

I(G2). PARK DEDICATION REQUIREMENTS

The comment is that park dedication requirements and potential credits to be granted for park or open space dedication should not be "specified" in the Draft EIR. Instead, the applicant suggests dedication requirements and potential credits should refer to the City Ordinance. Further, the comment observes that any future grading or potential public trail uses within the utility easements could be subject to approvals by the easement holders, PG&E and Kinder Morgan Energy Partners, LLC.



Response

The Draft EIR, Chapter V.G, Community Services & Utilities, p. V-206, does refer to the Subdivision Ordinance.

"The City of Pittsburgh has adopted provisions for collection from developers involved in residential subdivision, of either an in lieu fee or land dedication, or a combination of both, for park and recreational purposes. Chapter 17.32.020 of the Subdivision Ordinance sets forth the park land standard of 1.42 acres per 100 dwelling units (based on single family residential use less than 15 du/net acre)." (Draft EIR, p. V-206)

The mini-park has separate utility from other potential open space or trail uses on the project site. The reason for so-called "specifications" in the Draft EIR, p. V-223, is to disclose the mini-park's separate function or utility:

1. The mini-park location needs to be within the project site to avoid pedestrian and spillover traffic impacts. Furthermore, the mini-park is recommended to be located on proposed Lots 181-190 to alleviate a wildland fire hazard owing to the small size of these lots and location of these lots on the Urban Wildland Interface.
2. Dedication of passive open space cannot fulfill the purpose or need for the mini-park or other active recreational land uses; therefore, any dedication of on-site or off-site open space shall not be counted as park land dedication.
3. Protection and dedication of trail right-of-way in the utility easements could provide a kind of usable recreational area, but could not serve the purpose or need of a mini-park with swings, slides, or tennis courts for example. Protection and dedication of trail right-of-way, therefore, would be in addition to acreage in the mini-park and counted toward park dedication required under Chapter 17.32.020, but would not be counted as a substitute for acreage in the mini-park.

I(G3-5-6). PARK DEDICATION REQUIREMENTS

The comment is cross-referenced to Comment I(A1), as applies to Impacts G3, G5, and G6, and the corresponding mitigation measures, in the Draft EIR, Chapter I, Summary, Table 2, p. I-26.

Response

The subject impacts would occur on portions of the project site, or off-site land, which could be developed with non-residential facilities necessary to serve the proposed project or mitigate one of its impacts. The purpose of stating the impacts and mitigation measures is to disclose that uses of habitat for water



reservoirs, park, or trail could have the same impacts as proposed residential uses. As clarified in the Final EIR, Chapter III, the potential biological resource impact could be reduced to a less-than-significant effect with the recommended mitigation measures.

I(G7). GRAVITY SEWER

The comment is that the method of sewerage proposed for Lots 162-204 will be subject to approvals by the Engineering Departments of the Cities of Pittsburg and Antioch. The comment further expresses an opinion that the gravity sewer method should not be specified in the Draft EIR.

Response

The City of Pittsburg Engineering Department staff determined that pumped flow for 43 dwelling units in the proposed Sky Ranch II project is not desirable. Pumped flow potentially could cause an indirect environmental impact during power outage or mechanical failure. Power outage or a mechanical failure could potentially cause raw wastewater to overflow through the proposed manhole at "C" Court/"B" Street onto the street and subsequently into the storm sewer, which drains the southeastern portion of the project site and discharges to Markley Creek.

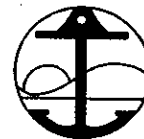
Specification of the gravity sewer method in the Draft EIR is necessary to mitigate a potential adverse environmental impact of the proposed project. See also the response to Comment F5 (page 89).

I(G8). ON-SITE DETENTION BASIN

The comment is cross-referenced to Comment I(A1), as applies to Impact G8, and the corresponding mitigation measures, in the Draft EIR, Chapter I, Summary, Table 2, p. I-27.

Response

The subject impacts would occur on the 4-acre site of the on-site detention basin, which is an element of the proposed project. The on-site detention basin is a proposed facility on which no buildings would be developed. There would be an outfall structure, an access road, and graded 3:1 slopes. The purpose of stating the impact and mitigation measures is to disclose that uses of habitat for the proposed detention basin could have the same impacts as proposed residential uses. Therefore, the proposed use of the 4-acre portion of the project site is subject to mitigation. As clarified in the Final EIR, Chapter III, the potential biological resource impact could be reduced to a less-than-significant effect with the recommended mitigation measures.



I(G10). NIGHTTIME CONSTRUCTION

The comment is that the City of Pittsburgh Engineering Department should determine if nighttime construction will be allowed for Fire Station 85 and the Buchanan Road Bypass. These potential impacts (G10 and G11), and the corresponding mitigation measures, are discussed in the Draft EIR, Chapter V.G, Community Services & Utilities, pp. V-231 and 232).

Response

The mitigation measures (Draft EIR, pp. I-27, V-231, and V-232) are intended to mitigate noise and dust at off-site sensitive receptors. The City of Pittsburgh Engineering Department may determine if proximate off-site sensitive receptors are present that could be disturbed by nighttime construction noise. If such proximate sensitive receptors are present, hours of construction would be limited to avoid nighttime noise during 10 p.m. to 7 a.m. See also the response to Comment I(I8).

I(G12). FAIR SHARE OF OFF-SITE NOISE MITIGATION

The comment is that the applicant should be required to pay only its fair share of the cost of implementing off-site improvements described in Chapter V.I, Community Noise, to mitigate off-site noise impacts. Comment I(G12) is cross-referenced to Comments I(I1), I(I2), I(I3), and I(I4).

Response

City policy in regard to mitigation of off-site adverse noise effects is to require mitigation at the time of impact. See also the response to Comments I(I1), I(I2), I(I3) and I(I4).

I(H3). FAIR SHARE FOR LOVERIDGE/BUCHANAN ROAD IMPACT

The comment is that the applicant should be required to pay only its fair share of the cost of the required mitigation consisting of a 4-lane sections or a second left-turn lane from Loveridge Road onto eastbound Buchanan Road and lane re-striping on the Loveridge/Buchanan Road eastbound depart.

Response

City staff has calculated the proposed project's equitable shares of traffic impacts. In the near-term, the equitable shares were assessed to be 25 percent for the additional left-turn lane and 37-39 percent for the Buchanan Road eastbound depart lane re-striping (Loveridge Road to Meadows Avenue). For the long-term, year-2025, the equitable shares for a 4-lane section on Buchanan Road range from 10 percent at Buchanan/Meadows up to 63 percent at



Loveridge/Buchanan. The year-2025 fair shares are 20 percent at Harbor Street/Buchanan and 25 percent at Buchanan Ventura Drive. See also the response to Comment C8 on pages 65 through 68.

I(H7). 353 DWELLING UNITS LIMIT

The comment is that the applicant believes the 353 dwelling unit limit should be imposed only if the professional traffic counting shows that the average weekday traffic volume on Ventura Drive through Highlands Ranch exceed 5,000 vehicles per day (vpd). The comment continues with an opinion that the project volume of traffic on Ventura Drive may be an over-estimate. As asserted in the comment, Sky Ranch II and Highlands Ranch residents will find it more convenient to use Meadows Avenue to access Buchanan Road and Somersville Road for travel to/from East County Mall, a large commercial shopping center northeast of the project site.

Response

City of Pittsburg Engineering Department staff has written the mitigation measure so that the 353 dwelling unit limit shall apply unless average weekday traffic volume less than 5,000 vpd is demonstrated, to the satisfaction of the City Engineer, by means of a professional traffic count study. The study could be conducted at an intermediate stage of project development, but the study timing also shall be to the satisfaction of the City Engineer. The study timing is to minimize unnecessary forecasting and assure a representative period and duration of counting.

- *City shall not issue building permits for more than 353 units unless it is shown through professional traffic counting that the AADT on Ventura Drive, between Jensen/Rangewood and Meadows Avenue, will not exceed 5,000 vpd. (Draft EIR, p. V-258)*

I(H8). FAIR SHARE FOR A TRAFFIC DIVERTER AT VENTURA DRIVE ON THE NORTH SIDE OF BUCHANAN ROAD

The comment is that the applicant should be required to pay only its fair share of the cost of the traffic diverter and only if such a diverter is actually installed by the City. The comment continues with an opinion about policy that the fair share should reflect the proposed project's equitable share in relation to existing and other future development.

Response

City Engineering Department staff clarifies that the City has already implemented a measure to minimize right-turns onto Ventura Drive



northbound. The function of the subject traffic diverter in this mitigation measure is to minimize the through-travel movement. All of the through-travel trips on Ventura Drive northbound, crossing Buchanan Road, would have an origin in either the existing Highlands Ranch residential subdivision or else the proposed Sky Ranch II residential subdivision. The equitable share of a mitigation to minimize this northbound through movement, therefore, could reasonably be assigned as up to 100 percent, which is the combined share for Highlands Ranch and the proposed project. Refer also response to Comment C8 on pages 65 through 68.

I(H17). FAIR SHARE FOR LOVERIDGE/BUCHANAN TRAFFIC MITIGATION

The comment cross-references Comment I(H3) and reiterates that the applicant's belief that applicant should be required to pay only its fair share of the cost of the stated mitigation measure.

Response

City Engineering Department staff assessed that the proposed project's equitable share of impact at Loveridge/Buchanan is at least 25 percent (near-term) and up to 63 percent (year-2025). The proposed project's equitable share for a 4-lane section on Buchanan Road involves the adjacent intersections from Buchanan/Meadows to Harbor Street Buchanan. The proposed project's near-term equitable share for re-striping or paving of Buchanan Road for a 4-lane section at adjacent intersections are 37 percent (Buchanan/Meadows, near-term, PM peak hour) and 39 percent (Buchanan/Ventura, near-term, AM peak hour). For the year-2025, without the Buchanan Bypass, the proposed project's equitable shares are 10 percent at Buchanan/Meadows, 25 percent at Buchanan/Ventura, 63 percent at Loveridge Buchanan, and 20 percent at Harbor Street/Buchanan. See also the response to Comment C8 on pages 65 through 68.

I(H23). FAIR SHARE FOR SEPARATE RIGHT-TURN LANE ON LOVERIDGE NORTHBOUND AT LELAND ROAD

The comment cross-references Comment I(H3) and reiterates that the applicant's belief that applicant should be required to pay only its fair share of the cost of the stated mitigation measure.

Response

City of Pittsburg Engineering Department staff clarifies that the mitigation measures required for IMPACT H23 should be the same mitigation measures as



required for IMPACT 14. The subject of the mitigation measures is traffic operations at Intersection #3 (Loveridge Road/Leland Road).

City staff has calculated the proposed project's equitable share of the traffic operations impact is 11 percent (near-term, AM peak hour) and 22 percent (near-term, PM peak hour). Mitigation includes a right-turn lane and right-turn overlaps on all approaches. See also the response to Comment C8 on pages 65 through 68.

I(H26-27). "B" STREET

The comment is a statement of the applicant's position that the mitigation measures for "B" Street should allow flexibility for redesign of the lots in question if the redesign of the lots provides safe ingress and egress to the satisfaction of the City Engineer.

Response

City of Pittsburgh Engineering Department staff clarifies that redesign of the lots is not the primary objective of the mitigation measures for IMPACT H26. The objective of the mitigation measures is accurately characterized as redesign of "B" Street for traffic calming, including grade reduction and speed control.

Engineering Department staff has reviewed the Vesting Tentative Map and created these mitigation measures after its consideration of the collector function of "B" Street and the 14 percent grade of "B" Street, between "K" Street and "J" Court. Figure 26 (Draft EIR, p. V-264) provides a plan view of the segment of "B" Street that is the subject of the mitigation measures, and Figure 26 shows the lots adjoining "B" Street.

According to the mitigation measures, if "B" Street were re-designed to provide for grade reduction below 14 percent, safety advantages, or other environmental benefits, the City would then consider the resulting re-plottage of lots. Proposed Lots 11-17, 235-236, 257-262, and 297 may not be developed as shown on the Vesting Tentative Map, unless either 1) alternative access is provided, for example, by way of modified flag lot designs with shared driveways on "J" Court, "A" Street, or Canyon Oaks Court, or 2) "B" Street is re-designed for traffic calming.



I(11). OFF-SITE NOISE MITIGATION FOR AUTUMNWIND COURT

The comment is that the applicant should be required to pay only its fair share of the cost of implementing off-site improvements described in Chapter V.I, Community Noise, p. V-278, to mitigate off-site noise impacts at 1457, 1473, and 1485 Autumnwind Court (Receptor 1).

Response

City policy in regard to mitigation of off-site adverse noise effects is to require mitigation at the time of impact. Based upon interpretation of Table 24 (Draft EIR, p. V-274), no additional projects, other than the proposed project, would have to be constructed before the sound level at Receptor 1 would increase above 65 dBA. At an Ldn of 65 dBA, the concern is that single-pane windows may not adequately insulate the interior to achieve an interior sound level that is 45 dBA, or lower.

If these houses on Autumnwind Court were proposed houses, the City could permit construction after noise mitigation were considered and included in the design. Because the subject houses are existing houses, the general subject of the mitigation measures is retrofitting.

An equitable share is at least 50 percent, based on Table 24. As stated in the Draft EIR (p. V-278), the window retrofit is limited to noise-exposed windows to achieve an interior Ldn of 45 dBA, as determined by a practicing acoustical engineer.

I(12). OFF-SITE NOISE MITIGATION FOR 1555 VENTURA DRIVE

The comment is that the applicant should be required to pay only its fair share of the cost of implementing off-site improvements described in Chapter V.I, Community Noise, p. V-279, to mitigate off-site noise impacts at 1555 Ventura Drive (Receptor 2).

Response

City policy in regard to mitigation of off-site adverse noise effects is to require mitigation at the time of impact. Based upon interpretation of Table 24 (Draft EIR, p. V-274), no additional projects, other than the proposed project, would have to be constructed before the sound level at Receptor 2 would increase above 65 dBA. At an Ldn of 65 dBA, the concern is that single-pane windows may not adequately insulate the interior to achieve an interior sound level that is 45 dBA, or lower.

If the house at 1555 Ventura Drive were a proposed house, the City could permit construction after noise mitigation were considered and included in the



design. Because the subject house is an existing house, the general subject of the mitigation measures is retrofitting.

An equitable share is at least 75 percent, based on Table 24. As stated in the Draft EIR (p. V-279), the retrofit is limited to noise-exposed windows to achieve an interior Ldn of 45 dBA, as determined by a practicing acoustical engineer.

I(13). OFF-SITE NOISE MITIGATION FOR VENTURA DRIVE IN HIGHLANDS RANCH

The comment is that the applicant should be required to pay only its fair share of the cost of implementing off-site improvements described in Chapter V.I, Community Noise, p. V-279, to mitigate off-site noise impacts along Ventura Drive in Highlands Ranch. There are houses facing Ventura Drive, between Rangewood Drive and Glen Canyon Circle/Drive, and other houses having frontages along Ventura Drive in Highlands Ranch (Receptor 4).

Response

City policy in regard to mitigation of off-site adverse noise effects is to require mitigation at the time of impact. Based upon interpretation of Table 24 (Draft EIR, p. V-274), the proposed project could increase the front yard Ldn sound level by 3.4 dBA above 60 dBA. At the predicted Ldn of 64 dBA, the concern is that the existing windows may or may not adequately insulate the interiors to achieve interior sound levels that are 45 dBA, or lower.

If the houses fronting on Ventura Drive were proposed houses, the City could permit construction after noise mitigation were considered and included in the design. Because the subject houses are existing houses, the general subject of the mitigation measure is retrofitting.

An equitable share is 100 percent. Based on Table 24, 80 percent of the predicted noise increase is caused by Sky Ranch II-related traffic and 20 percent from the traffic generated by the remainder of development in Highlands Ranch. As stated in the Draft EIR (p. V-279), the retrofit is limited to noise-exposed windows and is contingent on a determination by a practicing acoustical engineer that retrofit sound insulating windows are necessary to achieve an interior Ldn of 45 dBA.



I(14). OFF-SITE NOISE MITIGATION FOR SILVER SADDLE DRIVE

The comment is that the applicant should be required to pay only its fair share of the cost of implementing off-site improvements described in Chapter V.I, Community Noise, p. V-280, to mitigate off-site noise impacts at 529 and 531 Silver Saddle Drive (Receptor 5).

Response

City policy in regard to mitigation of off-site adverse noise effects is to require mitigation at the time of impact. Based upon interpretation of Table 24 (Draft EIR, p. V-274), no additional projects, other than the proposed project, would have to be constructed before the sound level at Receptor 5 would increase to 60 dBA. The concerns are to maintain outdoor Ldn of 60 dBA, or lower, in the back yards, and indoor Ldn sound levels of 45 dBA, or lower.

There is a sound wall along Buchanan Road, but no return segment along the eastern back yard property lines. The general subject of the mitigation measure is a return wall segment of masonry construction or improved wood construction.

The Draft EIR, p. V-280, did not list window retrofits for the second-story windows having line-of-sight to Buchanan Road. This omission was not intentional. The concern is that the existing second-story windows of houses at 9 Saddlehorn Court and 511, 529 and 531 Silver Saddle Drive having exposures to Buchanan Road noise may or may not adequately insulate the interiors to achieve interior sound levels of 45 dBA, or lower.

An equitable share is at least 33 percent, based on Table 24. As stated in the Draft EIR (p. V-280), the return wall segment is limited to the back yard property lines of 529 and 531 Silver Saddle Drive. As stated in the Draft EIR (p. V-279), the intended window retrofit is limited to noise-exposed windows in houses at 9 Saddlehorn Court and 511, 529 and 531 Silver Saddle and is contingent on a determination by a practicing acoustical engineer that retrofit sound-insulating windows are necessary to achieve an interior Ldn of 45 dBA.

I(18). HOURS OF WORK

The comment is an opinion regarding the policy or discretionary authority of the City of Pittsburgh Engineering Department to adjust or limit daytime hours of construction. Comment suggests that the City of Pittsburgh Engineering Department can adjust the allowable period of daytime construction depending on 1) proximity of construction zone to a residential area, 2) the nature of the construction, or 3) both of the above.

Response



The hours recommend in the Draft EIR are the recommendations of the City of Pittsburgh Engineering Department. The recommendations are made in view of the general proximity of the Highlands Ranch residential subdivision to the project site. The recommendations are at least as stringent as the City of Pittsburgh Municipal Code, Title 9, Chapter 9.44, Noise, which prohibits nighttime use of certain construction equipment after 10 p.m. or before 7 a.m.

If earlier construction than 7:30 a.m. or later construction than 7 p.m., on weekdays, is desired by the developer, that may be conditionally accommodated, subject to the above-stated prohibitions, if approved by the City of Pittsburgh Engineering Department. The City of Pittsburgh Engineering Department may require, subject to its discretion, sound level monitoring to demonstrate absence of any disturbance of the nearest neighbors.

I(J2). FREQUENCY OF WATERING FOR DUST CONTROL

The comment is that the frequency of watering for dust control should not be specified in the Draft EIR.

Response

The minimum acceptable watering frequency for dust control is three times daily. Construction PM₁₀ particle emissions calculated for the air quality impact assessment in the Draft EIR were calculated assuming a minimum level of watering for dust control as *at least* three times daily. Watering on-demand will be required if the grading activity is located within 500 feet of an occupied residence. In this event, the following mitigation measures shall apply:

- *“Developer shall perform grading operations with more frequent watering than three time daily watering, including watering on demand to keep surface soil moist or crusted at all times.*
- *Developer shall install and operate a temporary wind vane and anemometer during the grading. Developer shall suspend grading operations if adverse winds over 25 mph are blowing dust to any occupied residence.*
- *Developer shall provide perimeter dust monitoring for grading operations within 500 feet of an occupied dwelling. Monitoring reports shall be prepared and submitted daily to the City’s Engineering Department.” (Draft EIR, p. V-302 and V-303).*



I(K3). RESIDENTIAL FIRE SPRINKLERS

The comment is that if a new fire station is built, which is located closer to the project site, the requirement for sprinklered houses would not longer apply.

Response

The issue is addressed in the Draft EIR, Chapter V.K, Public Health & Safety (p. V-317). City of Pittsburg Planning Department staff concurs with the comment; however, staff notes the decision would be a decision of the Fire Department.

I(K4). RESIDENTIAL SETBACKS FROM POWER LINES

The comment is that the required building setback of 100-feet (minimum) seems arbitrary.

Response

The EMF issue is addressed in the Draft EIR, Chapter V.K, Public Health & Safety (pp. V-315, V-317 and V-318). The City of Pittsburg as early as 1992 required a 100-foot minimum setback from power transmission lines. In the San Marco Subdivision 7362, Unit 1, the 100-foot power line setback was required as part of the Planned Development zoning (Ordinance No. 93-1057, Condition No. 23). Condition of Approval No. 23 of Ordinance No. 93-1057, states as follows:

No residential structure shall be located within 100 feet of the centerline of either of the 230 kV or 115 kV transmission line easements.

For a 100-foot wide easement, the required setback to a residential structure, therefore, was 100 feet (= 50 foot easement half-width + 50 feet from edge of easement to house) in San Marco Subdivision 7362 in 1992. In other instances, less restrictive requirements have been applied by the City of Pittsburg. This information was published in the Minutes of the Regular Meeting of the Pittsburg Planning Commission, February 13, 2001. California Department of Health Services in June 2002 published "*An Evaluation of the Possible Risks From Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations and Appliances*" and "*Policy Options in the Face of Possible Risk from Power Frequency EMF.*" The findings of the California DHS studies published in 2002 are reason not to adopt a less restrictive position than in 1992, which was one year before the California Public Utilities Commission mandated DHS to begin a scientific review of EMF research in 1993.



The Draft EIR, Chapter V.K, Public Health & Safety, pp. V-317 and V-318, states the mitigation measure as follows:

- *“Developer shall avoid new development within the 2 milli-Gauss (mG) radius of influence. This will be accomplished by building setbacks. The 2 mG radius of influence shall be determined based upon modeling or measurement, or a combination of the two. In no case shall horizontal setbacks less than 100 feet from the easement centerline be approved by the City.”* (Draft EIR, pp. V-317 and V-318)

I(III-49). WATER RESERVOIRS

The comment is that discussion of a 2-million gallon reservoir in the Draft EIR, Chapter III (p. III-49) should be revised to indicate two reservoirs as described elsewhere in the Draft EIR, in Chapter V.K, Community Services & Utilities, p. V-210.

Response

Description of the Proposed Project (Alternative 2), Chapter III, includes only those aspects of the project that are proposed by the applicant and shown on the Vesting Tentative Map. The stated revision, therefore, would not be appropriate in Chapter III.

The water pressure on the Sky Ranch II site that would be available from the existing water reservoir, which is the reservoir located on the City-owned parcel between Sky Ranch II and Highlands Ranch, is subject to a mitigation measure. To provide adequate water pressure to the proposed houses, a new on-site water reservoir will be required by the City of Pittsburgh. The new on-site reservoir would be constructed by the developer on the Sky Ranch II site near the end of “A” Court.

The proposed water reservoir shown on the Vesting tentative map at elevation 465 feet above mean sea level (msl) would be eliminated, because it cannot provide adequate pressure to the proposed Lots 127-153, which are located at elevations 407 to 463 feet above msl. Instead, the second water reservoir is another mitigation measure that will be required by the City of Pittsburgh in place of the proposed water reservoir on the Sky Ranch II site, shown on the Vesting Tentative Map at elevation 465 feet above msl. The second water reservoir would be located at a higher elevation, off-site, south of the Sky Ranch II site.



I(IV-55). C3 PROVISIONS OF CLEAN WATER PROGRAM

The comment is that the new Provision “C.3” of the National Pollutant Discharge Elimination System (NPDES) permit does not apply to the proposed project, because the proposed project application was complete before February 15, 2005.

Response

The comment is noted. According to the Contra Costa Clean Water Program, it is true that project applications deemed complete by February 15, 2005, are not subject to the new NPDES Permit Provision “C.3.” According to the Contra Costa Clean Water Program, Fact Sheet (updated June 2005), the new Provision C.3 applies to projects whose applications for planning and zoning approval were “deemed complete” after February 15, 2005.

Permit Provision “C.3” is part of the National Pollutant Discharge Elimination System (NPDES) permit governing discharges of storm water from the municipal storm drain systems of Contra Costa County, its cities and towns. Amendments to NPDES Permit (Order No. R2-2004-0061; Permit No. CAS002912) were adopted by RWQCB on July 21, 2004. The new permit Provision “C.3” is being phased in during 2004 –2006. The Clean Water Program’s Fact Sheet titled *Stormwater Quality Control for Development Projects* and *Stormwater C.3 Guidebook* are available on the Program’s website at <http://www.cccleanwater.org>.

I(IV-105). REFERENCES

The comment is that *Stormwater Quality Requirements for Development Applications*, *Stormwater C.3 Guidebook* in the list of references at the end of Chapter V.B, Biology & Wetlands, p. V-105, does not apply to the proposed project.

Response

The above-stated reference appears in Chapter V.A, Biology & Wetlands, p. V-105, in the context of the Draft Contra Costa County Habitat Conservation Plan/Natural Communities Conservation Plan. In Chapter V.A, Biology & Wetlands, the new NPDES Permit Provision “C.3” treatment criteria and other aspects of the Provision “C.3” amendment are cited within the context of required conservation measures and implementing policies of the Draft Contra Costa County HCP/NCCP. The goal is to avoid adverse effect on downstream fisheries and to avoid take of fish listed under the ESA or California ESA caused by new development permitted under the HCP/NCCP.

Storm water treatment criteria of the new Provision C.3 are identified in Conservation Measure 1.1.3 and its related implementing policies (Draft EIR,



Table 5, p. V-84). One of the proposed implementing policies is to treat storm water runoff based on the criteria provided in NPDES Permit Provision C.3. The implementing policies for Conservation Measure 1.1.3 are listed from Table 5 as follow:

- *“Develop stormwater treatment controls such as detention basins sized, at a minimum, to treat runoff based on the criteria provided in the C.3 Provisions.*
- *Implement a verification program for treatment controls to ensure that all installed controls are being appropriately operated and maintained.*
- *Control peak runoff flows and volumes via creation and implementation of a Hydrograph Modification Management Plan subject to the C.3 Provisions.*
- *Provide compensatory mitigation for projects where meeting C.3 Provisions are physically impractical.*
- *Limit the use of stormwater controls that function primarily as infiltration devices (to protect groundwater quality and local stream hydrograph).”*
(Draft EIR, p. V-84)

Treatment criteria and other aspects of the adopted NPDES Permit Provision C.3 have been incorporated by JPA into its Draft HCP/NCCP.

I(V-201). WATER & SEWER

The comment is a clarification that the on-site water reservoir, to be re-sited near the end of “A” Court at an approximate elevation 381 feet above msl, would serve a portion of Highlands Ranch.

Response

The City of Pittsburgh Planning Department generally concurs with the comment. The re-situated reservoir would provide water service to those houses located at an approximate elevation of 280 feet msl, or lower. The number of houses in the proposed project that would be served is approximately 100 houses. The served houses would be those on proposed Lots 1-17, 18-72, 237-262, and 307-308. In addition, water service to Highlands Ranch would be improved with the location of the two new reservoirs as recommended by the City’s Engineering Department. See also the response to Comment I(III-49), page 139.



J. SAVE MOUNT DIABLO

Comments by Save Mount Diablo are labeled in the letter margin as “J” followed by a hyphenated number. Numbers that follow the hyphen match the numbers in the letter submitted by Save Mount Diablo, dated February 15, 2006.

Comments: J1—J13, J14-1 to -22,
J15-1 & -2, J16-1 to -3, J17-1 to -8, J18-1 to -3,
J19, J20-1 to -4, J21, and J22-1 to -4

Responses: All as listed above

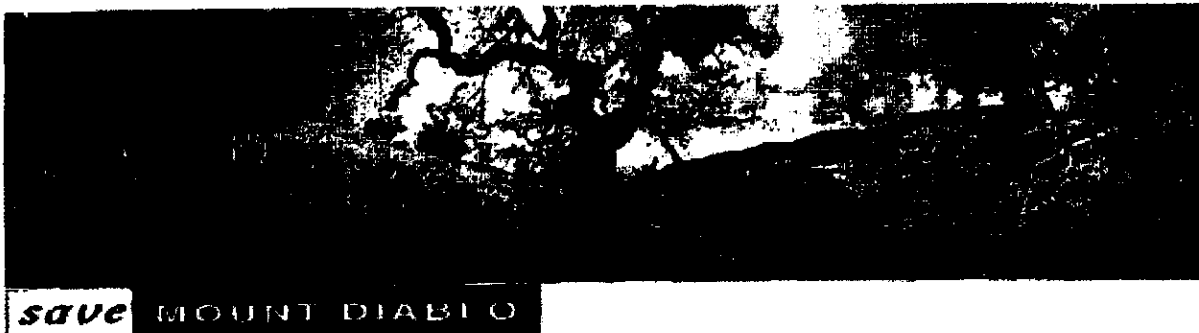
Cross-References to Public Agency

Comments: B1, B4, B5, B9, B12, and C8

References to Draft EIR Figures:

2-13, 15, 19-21, 24-26, 28, 29-32

References to Draft EIR Tables: none



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February 15, 2006

Ken Strelo, Associate Planner
Community Development Department
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

VIA Fax: FAX 925 252-4814

re: comments, draft EIR, Sky Ranch II SCH #2004112092

Dear Mr. Strelo,

Save Mount Diablo (SMD) is a 7000 member non-profit conservation organization which acquires land, for addition to parks on and around Mt. Diablo, and monitors land use planning which might affect those parks.

Save Mount Diablo made comments on this project on August 12, 2002, but was not given notice of the availability of the draft EIR on which the city is currently seeking comment. As a result we have had a limited period to review the document. We request that the city extend the comment period to allow for greater analysis.

The project site is a beautiful sloped bowl in the foothills of Black Diamond Mines, a horse shoe of ridges overlooking Pittsburg and visible for miles, with a creek in the southwestern corner. 100% of the site is endangered species habitat and it's one property away from Black Diamond Mines Regional Preserve. The property is crossed by power line easements, an oil and jet fuel pipeline, and the proposed Duchanan Bypass. There's no mention of the nearby coal mines in the dEIR but the area's steep hills are subject to dramatic land slides, slumps and debris flows.

With this number of constraints, any proposed project should be especially sensitive. Instead, the proposal is for a massive project, 415 units and two water reservoirs on 163 acres (and on an adjacent parcel, undefined as to location), including 3.3 million cubic yards of grading, 190,000 cubic yards of which would be exported from the site with impacts on neighbors. The entire site would be graded, and almost every square foot covered with a cookie cutter development. No amenities such as parks, trails or open space are proposed. The ridges which would be cut, filled and ignored by the project design.

That the document proposes purchase and preservation of 482 acres as mitigation for stream and endangered species impacts, is an admirable step in the project history. However, as the

Seeth Adams, Save Mount Diablo, February 15, 2006 comments, draft EIR, Sky Ranch II SCH #2004112092

RECEIVED

FEB 15 2006

BUILDING DIVISION

J1

J2

J3

J4

East Bay Regional Park District's (EBRPD) Feb. 15, 2006 letter suggests, "The Clean Water and Endangered Species Acts call for a "sequencing" of mitigation measures. Such measures start with avoidance of impacts, then minimization of impacts, on-site conservation/ restoration, and finally off-site mitigation."

J5

Visual analysis is inadequate - The project site is visible for miles, and the project would include 4:5 units, dramatic cuts, fills, and retaining walls. Views from neighboring protected lands are not considered and the single visual simulation provided is unclear and too small to be of much use.

J6

The alternatives are inadequate. CEQA Guidelines (Section 15126.6(a) and (e)(2)) require that an EIR's analysis of alternatives identify the "environmentally superior alternative" among all of those considered. In addition, if the No Project Alternative is identified as environmentally superior, then the EIR also must identify the environmentally superior alternative among the other alternatives.

J7

An environmentally superior alternative would limit visual impacts by preserving the ridges, minimize grading and cut & fill, buffer the urban limit line, surrounding agricultural lands and upper elevations, and protect the creek and drainage in the southwestern corner of the property. A true environmentally superior alternative should be designed and its impacts analyzed.

SMD supports the EBRPD's Feb. 15, 2006 letter, which discusses the dEIR's failure to address impacts on Black Diamond Mines Regional Preserve, and to include adequate mitigations.

J8

The document fails to include adequate mitigations in many instances. The California Environmental Quality Act (CEQA) requires that the EIR identify all potentially significant Project impacts and identify and impose feasible mitigation measures to reduce those impacts to a less than significant level.

J9

CEQA requires that mitigation measures be adequate, timely, and resolved by the lead agency. The environment review must identify mitigation measures for each significant impact. (CEQA Guidelines § 15126.4(a)(1)(A).) The mitigation conditions must be fully enforceable through permit conditions, agreements, or other legally binding instruments. (CEQA Guidelines § 15126.4(a)(2).)

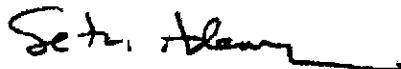
J10

A lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727-728 [270 Cal.Rptr. 650]) This approach helps "insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug." (*Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 41.3d 929, 935 [231 Cal.Rptr. 748].)

I've provided detailed comments below.

Thank you for your consideration. Please inform SMD of future actions, the availability of documents, and public hearings.

Sincerely,



Seth Adams
Director of Land Programs

Seth Adams, Save Mount Diablo, February 15, 2006 comments, draft EIR, Sky Ranch II SC11 02004112092

Detailed comments:General:

- 1) Has the city reviewed the comments that were made in 2002 by SMD, East Bay Regional Park District, the International Brotherhood of Electrical Workers, etc. and analyzed the impacts and prepared mitigations for the those issues discussed in those comment letters? We include those letters by reference in our comments (SMD, August 12, 2002 *comments, proposed mitigated Negative Declaration, Sky Ranch II, Sub 8475*; EBRPD July 25, 2002, *Black Diamond Mines Regional Preserve, Sky Ranch II - Subdivision 8475 and Initial Study/Mitigated Negative Declaration*; and the IBEW Local 302, August 12, 2002, *Initial Study and Negative Declaration for the Sky Ranch II Development*.) J11-1
- 2) Pg. I-47, The project and regional maps fail to show the boundaries of Black Diamond Mines Regional Preserve; impacts from this project on the preserve are not adequately considered and could be significant, especially given the mining hazards associated with the preserve's historic coal mining activities. J12-2
- 3) In addition, maps and figures don't show features such as the PG&E lines and other easements which may have an impact on project design. J13-3

Biology & Wetlands:

- 1) Has the applicant agreed to full mitigation at 3:1 for California Tiger Salamander (CTS), etc.? (I-9) J14-1
- 2) The proposed mitigations for Impact A8, A9 do not address the impact—of increased traffic and human presence on listed species. (I-11) J14-2
- 3) Impact A10 isolation of the adjacent Black Diamond Ranch development open space conflicts with discussion about California Tiger Salamander use of the entire property; If this is true then CTS probably use neighboring grasslands as well. What evidence was considered to conclude that Black Diamond's Parcel A is not part of a migratory corridor or upland habitat. Will there be any connection to the nearby regional park, other habitat or wildlife corridors? (I-11) J14-3
- 4) Neither Impact A14 nor its mitigation are clear or effective. (I-12) J14-4
- 5) The Huffman-Broadway group's biological assessment is not provided in the application materials available online. In the interests of providing the means for a complete evaluation of the project, this information should be included. (V-61) J14-5
- 6) When evaluating whether there was potential habitat for red-legged frog, was migratory and transitional habitat included along with permanent habitat? (I-10) J14-6
- 7) The cEIR suggests that there is no potential for California Red Legged Frog (CRLF) to occur onsite because there is no breeding habitat, yet habitat along Markley creek was preserved for the CRLF less than a half mile away, well within the migratory distance of the frog. The frog is also confirmed in numerous locations in Black Diamond Mines Regional Preserve. What is the potential impact on other CRLF populations in the area, by the development? Regardless, CTS and CRLF have overlapping but separate habitat requirements. How will impacts on the frog be mitigated. (V-70) J14-7
- 8) The mitigation for Impact A-4 on the frog is not adequate, timely, or resolved by the lead agency. The mitigation conditions must be fully enforceable through permit conditions, agreements, or other legally binding instruments. (I-10) J14-8
- 9) Was there any peer review of the biotic analysis or wetlands determination? (V-62) J14-9
- 10) A seasonal pond is listed as previously occurring onsite; it recently disappeared (2000) after being present for decades. The dEIR states "the fact that both the intermittent stream channel with defined bed and bank and seasonal pond are no longer present on the project site, after continuous presence during 1953-2000, suggests an abrupt change." The Seeno companies have been implicated at other projects in pond and other resource impacts prior to environmental analysis— was the pond removed? Has the company admitted to removing the pond? It was listed as a possible tiger salamander breeding pond. Is there any data on whether the pond's disappearance is temporary? (V-63) J14-10

Sen Adams, San Mount Diablo, February 15, 2006 comments, draft EIR, Sky Ranch II SCH #2004112092

- 11) Were any regulations by the Dept of Fish & Game, U.S. Fish & Wildlife Service, Regional Water Quality Control Board, or Army Corps of Engineers violated by the removal of this pond? (V-63) J14-11
- 12) Future storm water flows will be collected from a tributary and conveyed, via a storm pipe, into Kirk Creek. What are the impacts of this runoff in terms of fertilizers, no-point source runoff and wastewater, etc. (V-65) J14-12
- 13) Is the California Natural Diversity database the main instrument for determining Kit Fox corridors and habitat, in the report? The East County HCP (EC HCP) has conducted extensive resource analysis of the area, and the East Bay Regional Park District tracks more recent listed species confirmations. Did the biotic consultant seek information from the EBRPD? (V-71) J14-13
- 14) Is there potential for the project to violate Section 401 of the clean water act, where dredge and fill material is dumped in a fill area? (V-78) J14-14
- 15) The east county HCP/NCCP mentions the goal of preserving wildlife corridors and connections along with creating barriers between development and open space. Does this project do either of those? Does isolating the Black Diamond Ranch open space violate any principals? (V-80) J14-15
- 16) Where will mitigation lands be located? The draft EC HCP lists several desirable areas for San Joaquin Kit Fox. Included in this is the Concord Naval weapons station and Black Diamond Minors Regional Preserve. Will the mitigation land help provide a bridge between these two open space corridors? (V-83) J14-16
- 17) Does this project conform to the overall HCP plan of encouraging infill and preventing sprawl? Does this project lay the groundwork for future expansion in the area? (V-84) J14-17
- 18) The construction of a kiosk to educate residents of the Tiger Salamander will be placed in a mini-park that may or may not be constructed. If the mini-park is not put forward, where will the information kiosk be placed? (V-93) J14-18
- 19) The California Horned Lark winters at the site. Is their mitigation for the loss of habitat for the species? (V-95) J14-19
- 20) If Loggerhead Shrike/Burrowing Owl/Horned Lark is/are found, what actions will the biologist take to allow for successful nesting? J14-20
- 21) The construction of Sky Ranch II cuts the BDR development land off from any major pocket of wild land and would seem to reduce its value immensely. Why was the impact declared less-than significant? (V-97) J14-21
- 22) The dEIR makes assumptions about mitigations including buffer lands in the area and HCP zone adjacent to the project, and where a water tank and access road might be located—what arrangements have been with the neighboring property owners to carry out the water tank's location or the buffer? How does the proposed project and water tank conflict with the HCP's goals? (V-101) J14-22

Geology & Seismicity

- 1) This is a Massive project including 3.3 million cubic yards of grading, 190,000 cubic yards of which would be exported from the site. Where would it be taken, and why isn't balanced cut and fill proposed. What are the construction related impacts of this grading—how long would grading last and what areas would be affected by truck trips carrying the exported soil? J15-1
- 2) I didn't see any mention of the Mt. Diablo coal fields in the dEIR. What are the impacts of the project relative to the nearby coal mines; wastewater, geology, cultural artifacts, etc? J15-2

Hydrology & Water Quality

- 1) Increased runoff into Markley Creek is considered less than significant, although sections of the creek are being preserved for California red-legged frog. How was the LTS conclusion reached, and based on what evidence and analysis? The increased erosion discussed could well render the creek less viable habitat for CRLF. The dEIR fails to support the conclusion that no mitigation is required for this offsite impact. J16-1

Sarah Adams, Save Mount Diablo, February 15, 2006 comments, draft EIR, Sky Ranch II SCH #2004112092

- 2) All of the property currently drains East Kirker Creek? Is there potential to overwhelm this drainage corridor and increase flood potential? (V-139) J16-2
- 3) The West Antioch Creek has recently experienced large gains in storm water runoff. Some parts of the Sky Ranch II property drain into the basin. Does the increase of storm water runoff provided by the new development significantly effect water in the drainage? (V-141) J16-3

Visual Resources:

- 1) Retaining walls and fencing can have a significant visual impact on steep or highly visible projects. What are the impacts of these features, and how will they be mitigated? J17-1
- 2) Paragraph 3, last line, page V-166 is unclear—"vast majority of existing _____ are located above the 500 feet elevation." Trees? J17-2
- 3) Figure 19 and visual analysis in general is inadequate. Aerial photos aren't shown but can be accessed on Google Earth or the city's public works database. SMD supports EBRPD's comment that the visual analysis is inadequate without visual simulation of views from the nearby Regional Preserve. J17-3
- 4) Why is the future view of the project only available for one for the four existing view spots? (V-174) The analysis that is provided is inadequate since only one simulation is provided. The "after" visual isn't even shown with the "before" photo and both are printed too small to get a sense of the impacts. J17-4
- 5) In 2002 plans for the water tank reportedly were not available for review and as a result geological analysis was deferred and visual analysis not even contemplated. The water tank siting and appearance were and are potentially significant impacts, yet in 2006 the plans for the upper water reservoir still haven't been defined. As a result, consideration of the visual impacts of this project or of the proposed water tanks is inadequate. The project and tank will be clearly visible from surrounding areas, including from Black Diamond Mines Regional Preserve. This is a significant impact which has not been mitigated, despite program level analysis in the City General Plan. Visual impacts must be analyzed. J17-5
- 6) Suggestion is made that water reservoirs will be "cut and cover," but grading cuts can be quite prominent as well. There should be a special focus on the visual impacts of reservoirs, since they're often the highest project feature. J17-6
- 7) None of the maps show the location of the third, highest reservoir—why? It should be included—and aerial photo maps could easily be included with features such as the reservoirs. J17-7
- 8) Figure 19-Visually Prominent Slopes is inaccurate – a casual look at Google Earth shows that the property is a bowl with a horseshoe shaped ridge encircling the property, the ridges crowned with fire roads—Is the assumption that grading has already taken place and these are the "Visually Prominent Slopes" that are left? The analysis should show the "before" condition. (V-175) J17-8

Land Use:

- 1) The study fails to adequately consider impacts on Williamson Act and other agricultural lands. This project is adjacent to and the proposed Buchanan Road Bypass would cross other agricultural lands, some in Williamson Act, and would be growth inducing on those areas. How will these impacts be mitigated? J18-1
- 2) What are the impacts of new residents and urban uses on neighboring agricultural areas, and how will they be mitigated? J18-2
- 3) How does this project rely on the AUD land to the south, and what agreements have been reached with the AUD? The highest water reservoir, for example. J18-3

Community Services & Utilities

- 1) No parks, open space or trails—indeed no amenities of any kind—are proposed. Therefore new residents would further impact existing city and regional park facilities. A trail in the PG&E easement is discussed; shouldn't the developer pay for its construction as well as protect the right-of-way? Will the utility easement allow this use? Does Pittsburg have a Trails Master J19-1

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Plan" Is a dirt or crushed gravel trail proposed along the Buchanan Bypass? What recreational corridors are contemplated for cyclists and equestrians?

Traffic and Circulation:

- 1) In the summary section H3, the proposed unit limit for the project before the opening of the Buchanan bypass is listed as 207. In section H7 the unit limit is listed as 353 before the bypass opens. Are these figures correct? J20-1
- 2) In several sections of the summary, the mitigation for traffic improvements dictates the developer should pay his "fair share" of the costs? The formula for determining this share should be explained. What is the developer's "fair share" and what mitigations will it fund? J20-2
- 3) In summary section H8, a neighborhood diverter is proposed to alleviate through traffic on Ventura drive. How will this diverter increase traffic flows and potential congestion on other roads in the city? J20-3
- 4) The consequences in regards to traffic volume are based on a model for 2025. Sky Ranch II may be complete or nearly complete before that time. Will there be any short-term impacts that cannot be predicted or have not been planned for? (V-251) J20-4

Public Health & Safety

- 1) The EIR suggests that Thomas and the AUSD are somehow responsible for creating fuel breaks but fires are most likely to start within developed areas. How will fuel breaks be provided on the project site? (I-41) J21-1

Cumulative Effects; and Unavoidable and Growth Inducing Impacts

- 1) What is the projected cumulative impact of the project? Does the construction of Sky Ranch II lay the infrastructure and create a precedent to expand further into the Black Diamond/Southern Hills or towards the west/Thomas property? There is serious potential for development to expand west through the Thomas property, cutting off wildlife corridors and having much more serious implications for biotic impacts. How will these impacts be mitigated? J22-1
- 2) The Buchanan Bypass planning effort has been ongoing for years; what level of CEQA analysis has been completed for the Bypass? This project will include a section of the Bypass and make it more likely that the Bypass will be completed; simultaneously, the traffic from this project will undermine the traffic relief the Bypass is supposed to provide. J22-2
- 3) Cumulative impacts of this project and others are not adequately analyzed. Impacts of other approved or contemplated projects in Pittsburg and the area such as the Buchanan Bypass, Sky Ranch I, Highland Ranch, San Marco, San Marco Meadows, Alves, Bailey Estates, Montreaux, Antioch's FUA#1 Sand Creek Specific Plan, Roddy ranch, Ginochio Ranch, etc. must be considered, as well as recent changes in the Urban Limit Line in both Pittsburg & Antioch. The relationship of all these projects, must be considered in order to adequately consider impacts at Sky Ranch II. J22-3
- 4) There is almost no discussion of the phasing of this or other nearby projects—in Pittsburg and beyond—of their mitigations, or of potential conflicts among them. Impacts on schools, on traffic, on circulation, on water service, on storm water runoff and detention, etc. could all be significant if mitigations are years away, delayed, or in some other way fail to address impacts. J22-4

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Seth Adams, Save Mount Diablo, February 15, 2006 comments, draft EIR, Sky Ranch II SCH #2004112092



COVER LETTER

J1 Comment Period

The comment is a request to extend the comment period.

Response

The federal Notice of Availability performs the same function as the State Notice of Completion. Both noticing processes offer opportunity for responsible agencies and the public to comment on the environmental document. CEQA requires public notice to be published in a local newspaper or otherwise provided locally. The Notice of Completion/Notice of Availability was published December 28, 2005.

J2 Site Constraints

The comment is that the project site has a large number of constraints; therefore, the comment concludes that any proposed use of the project site should be sensitive to the site's habitat, its use by protected species, streams or other wetlands, topography, and landslides

Response

The resources of the project site, protected species, on-site wetlands and downstream receiving waters, on-site and off-site landslides, on-site and off-site topography, and utility easements are documented in the Draft EIR. Many of these aspects are illustrated in plan view figures as follows:

6	California Tiger Salamander & California Red-Legged Frog	V-69
7	San Joaquin Kit Fox Range	V-47
8	Fault Zones	V-110
9	Areas of Mapped Landslides	V-115
10	Areas of Mapped Colluvium and Fill	V-116
11	Existing Topography, Grading Cuts & Fills, and Off-Site Landslides ..	V-119
13	Creeks, Detention Basins and Other Hydrologic Features	V-138

J3 Coal Mines

The comment is that there is no mention of nearby coal mines.

Response

The former coal mines are located at least one mile south of the project site in the Black Diamond Mines Regional Preserve. "Black Diamonds" is a reference to coal. The location of Black Diamond Mines Regional Preserve is illustrated in the Draft EIR, in Figures 2, 5, 6, 13, 15, 20, 21, 25, 28, and 32.



J4 Water Reservoir Location

The comment characterizes the off-site water reservoir location as undefined.

Response

The off-site reservoir's location is illustrated in Figure 11 of the Draft EIR, Chapter V.C, Geology & Seismicity, p. V-119.

J5 Sequencing of Mitigations Measures

The comment is that alleviation of impacts should begin with avoidance, followed by on-site mitigation and, lastly, should be followed by off-site compensatory mitigation.

Response

The Draft EIR, in Chapter VI, Alternatives Analysis, presents and evaluates a number of alternatives that could conserve on-site habitat of the project site. Please refer to response to EBRPD's Comment B9, page 43.

J6 Visual Analysis

The comment is that the visual analysis is inadequate. The comment continues that the proposed project would have dramatic cuts, fills, and retaining walls and would be visible for miles.

Response

The City of Pittsburg Planning Department staff considered visual impacts of the proposed project based on CEQA standards of significance and its previous planning effort to identify and protect visual resources and quality. The key panoramic vistas in Pittsburg are those formed 1) by the southern hills and larger tree-blanketed mountains of Black Diamond Mines Regional Preserve and 2) the Suisun Bay/Sacramento River Delta. The City's General Plan, *Pittsburg 2020: A Vision for the 21st Century*, identifies these two features as important to the visual quality of the community.

City staff considered, in particular, this project's potential for causing an adverse effect upon on these vistas. Of the two defining vistas in the City of Pittsburg, the proposed project could potentially impact the vista of the southern hills as viewed from the flatlands. The proposed project's location extends from the Highlands Ranch base elevation, near elevation 181 feet msl (Lot 1) upward to elevation 463 feet msl (Lots 133, 134, and 145). Therefore, the City staff had an architectural firm produce a



computer-aided photo-simulation of a future view of the southern hills after development of the proposed project.

The vista formed by the southern hills is viewable generally from vantages located north, northwest, or northeast of the project site, that is, from the flatlands looking south toward the southern hills. Four existing views are shown in the Draft EIR, Chapter V.D, Visual Resources, on pages V-169 and V-170. One of these was developed into a computer-aided photo-simulation after the proposed development.

Refer also to the response to Comment B4 on page 36-38.

J7 Alternative Analysis

The comment is that the alternative analysis is inadequate. The comment continues that CEQA Guidelines Section 15126.6(a) and 15126.6(e)(2) require that an EIR identify the environmentally superior alternative among all of those alternatives considered.

Response

The City of Pittsburgh Planning Department staff considered alternatives to the Proposed Project (Alternative 2). In accordance with CEQA Guidelines, Section 15126.6(a), the Draft EIR, Chapter IV, Alternatives Analysis, describes a range of reasonable alternatives to the Proposed Project and to the location of the Proposed Project. The Draft EIR presents alternatives that could feasibly attain most of the basic objectives of the Proposed Project while avoiding or substantially lessening the significant effects of the Proposed Project. Even those alternatives that would “impede to some degree attainment of the project objectives,” or that would be more expensive, are considered.

The Draft EIR identifies the environmentally superior alternative as No Project (Draft EIR, p. VI-363). However, Section 15126.6(e)(2) of the CEQA Guidelines states that “if the environmentally superior alternative is the No Project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” The Draft EIR states (p. VI-363):

“Of the action alternatives, the environmentally superior alternative is the Conservation Alternative with Density Transfer (Alternative 1b). Alternative 1b preserves an opportunity for streambed rehabilitation, reduces but does not entirely avoid on-site CTS habitat loss, reduces but does not entirely avoid exposure to landslide hazard, and can achieve most of the proposed project’s objective of providing



415 dwelling units. To accomplish this, Alternative 1b would protect approximately 28 acres and build 115 units (of a total 406 units) as attached single-family townhouses.” (Draft EIR, p. VI-363)

J8 Impacts to Black Diamond Mines Regional Preserve

The comment refers to the comment letter provided by East Bay Regional Park District (EBRPD) regarding potential impacts of the proposed project to Black Diamond Mines Regional Preserve.

Response

The City of Pittsburg Planning Department staff refers the reader to the responses to comments of the EBRPD in Section B of the Final EIR. In furtherance of a response to Save Mount Diablo, the City of Pittsburg Planning Department staff observes that the proposed project could have only potential indirect environmental effects on Black Diamond Mines Regional Preserve (BDMRP). The project site and Black Diamond Mines Regional Preserve are located in two different planning subareas of the City. The Black Diamond Planning Subarea is designated for Open Space and Park land uses. The City’s *General Plan* does not designate any part of the project site for Hillside Low Density Residential (less than 5 du/gross acre), Open Space, or Park. Hillside Development policies do not apply as the site’s elevation is generally lower than 500 feet above msl. The project site and BDMRP are separated in distance by approximately 2,600 feet (Draft EIR, Chapter V.E, Land Use and Planning, p. V-185). The project site is hydrologically downgradient of BDMRP. The prevailing wind direction is westerly, that is, winds generally blow from west to east (Draft EIR, Chapter V.J, Air Quality, p. V-289). The project site is located at a substantially lower elevation (181 to 500 feet msl) than viewing vantages on Lougher Loop Trail and Arata Outlook Trail (700 to 800 feet msl).

Potential indirect environmental effects of the proposed project are generally the result of potential increased visitation at BDMRP and potential increased traffic on Somersville Road. For a discussion of these potential indirect environmental effects and mitigation of these effects, the reader is directed to the responses to Comments B1 and B12 (Final EIR, pages 32-33 and 44-46).



J9 Adequacy of Mitigation Measures

The comment is generally that mitigation measures are inadequate in many instances. The detailed comments of Save Mount Diablo list those specific instances. The comment also cites Section 15126.4(a) (1)(A) and 15126.4(a)(2) of the CEQA Guidelines in regard to mitigation measures.

Response

The City of Pittsburgh Planning Department staff refers the reader to the responses to detailed comments of Save Mount Diablo.

J10 Adequacy of Mitigation Measures

The comment generally is that mitigation measures are inadequate in many instances. The detailed comments list those specific instances.

Response

The City of Pittsburgh Planning Department staff refers the reader to the responses to detailed comments of Save Mount Diablo.

DETAILED COMMENTS

J11-1 Previous Comments on Another Project

The comment is a question asking whether the City of Pittsburgh reviewed the previous comments made in 2002 on a different project.

Response

The City of Pittsburgh Planning Department staff reviewed the previous comments made in 2002; however, the proposed project is subject to a separate CEQA process initiated with a CEQA Initial Study and Notice of Preparation in 2004. The Initial Study and response to the Notice of Preparation are included in the Draft EIR, Chapter XIII, Appendix, Appendices A and B.

J12-2 Black Diamond Mines Regional Preserve (BDMRP)

The comment suggests the following: 1) graphical figures in the Draft EIR do not show the boundaries of BDMRP, 2) historical coal mining activities conducted in the past on BDMRP could pose hazards for the proposed project, and 3) impacts of the proposed project on BDMRP are not adequately considered in the Draft EIR.

Response

The reader is referred to the responses to Comments J4 and J8.



J13-3 Utility Easements

The comment suggests the graphical figures in the Draft EIR do not show the utility easements on the project site.

Response

The on-site utility easements are shown in the Draft EIR, in Figures 2, 3, 6 11, 13, 15, 19, 21, 26, 28, 29, 30, and 31.

BIOLOGY & WETLANDS

J14-1 Applicant's Agreement

The comment is a question whether the applicant has agreed to 3:1 mitigation for CTS and SJKF habitat compensatory mitigation.

Response

No, the applicant has neither agreed nor disagreed. The City of Pittsburgh will require mitigation as consistent with its overall General Plan goals and policies and the requirements of USACE, USFWS, and CDFG. The City of Pittsburgh Planning Department staff's understanding of the required compensatory mitigation acreage is based on a *Biological Assessment for Sky Ranch II* and consultation with the Responsible Agencies. Compensatory mitigation at a ratio of 3:1 (off-site compensatory habitat acreage: on-site depleted habitat acreage) is the current practice. The City's forecast of the habitat mitigation requirement is labeled as "tentative" in the Draft EIR. See also the response to Comment I(A2-7), page 123.

J14-2 Mitigation Measures for Impacts A8 and A9

The comment states that the mitigation measures for Biological Impacts A8 and A9 would not alleviate the stated impacts.

Response

The City of Pittsburgh Planning Department staff and Engineering Department staff have considered the potential direct and indirect impacts, and mitigation measures, as summarized in the Draft EIR, Chapter I, Summary. In presenting the potential direct and indirect impacts of, and mitigation measures for, the proposed project, City staff considered the whole of the action. Several mitigation measures for direct impacts also will be effective, or partially effective, for lessening potential indirect impacts of the proposed project. Where City staff could not make this conclusion, it has supplemented the on-site mitigation measures and off-site compensatory mitigation measures with other measures that address



indirect impacts of the proposed action or foreseeable future actions at the urban edge.

IMPACT A8: Introduction of a new road, the Buchanan Bypass, would attract traffic in the proposed HCP/NCCP inventory area, thereby, creating potential for disturbance or road kill of protected species in the area.

IMPACT A9: The proposed project could increase visitation at Black Diamond Mines Regional Preserve and off-site walking on the reservoir service road, resulting in potential indirect impacts on biological resources from collection and harassment, introduction of nonnative species, or predation by pets.

The location of the proposed segment of the Buchanan Bypass would be situated within the proposed HCP/NCCP inventory area and within the proposed project limits. The proposed segment within the project site would not be situated within any land designated in the proposed HCP/NCCP for acquisition as part of the Preserve System; however, future segments of the bypass would be situated on the land called Acquisition Zone 1 or 1d. Completion of the new road after construction of additional missing segments of the bypass is considered in the Draft EIR as a foreseeable future action.

The subject of IMPACT A8 is a potential effect caused by attraction of traffic to a new arterial road when it is eventually completed and opened to through traffic. Pending completion and opening of the Buchanan Bypass to through-traffic, the bypass would serve a limited volume of traffic generated within the proposed Sky Ranch II site only. Access to developed or undeveloped areas from the Buchanan Bypass would be barricaded at the project limits pending its completion.

Staff observes that a CTS Mitigation Plan and permanent CTS barriers within project limits are mitigation measures for direct impacts of the proposed project (IMPACTS A1 and A2). Mitigation measures for IMPACTS A8 and A9 would be supplemental to other permanent mitigation measures designed to alleviate adverse impacts of the proposed uses of the project site and off-site land for a water reservoir.

The subjects of IMPACT A9 are indirect effects caused by increased human presence at the urban edge, on trails in adjacent the undeveloped areas, or in Black Diamond Mines regional Preserve. Mitigation measures for impacts at the urban edge are addressed in this Draft EIR and also in



Draft Environmental Impact Statement/Environmental Impact Report for the East Contra Costa County Habitat Conservation Plan and Natural Communities Conservation Plan, prepared by Jones & Stokes, June 2005. Conservation Measure 1.9 would apply to future preserves that are situated next to the urban limit or developed areas. Conservation Measure 1.9 includes design elements such as, for example, buffers, roads with permanent wildlife barriers, and access restrictions. Conservation Measure 1.8 includes buffer zones between developed areas and the preserves.

Land acquisition in Zone 1d is intended in the East Contra Costa HCP/NCCP to provide a buffer zone (see Draft EIR, Chapter V.A, Biology & Wetlands, Figure 5, p. V-59). Other conservation elements include such elements as education and kiosks to increase public awareness and signage to restrict access.

Signage and education are among the kinds of mitigation measures generally available to reduce the stated indirect impacts of the proposed project on protected species through off-site trespass, human presence, and harassment. Minimizing the number of residential lots along the urban wildland interface, as could be accomplished by the conversion of proposed Lots 181-190, also is recommend for IMPACTS G1 and K2 (Draft EIR, pp. I-25 and I-41). Potential direct biological impacts of the proposed project on protected species could be reduced or compensated through other permanent measures recommended elsewhere in the Draft EIR.

J14-3 Isolated Open Space (IMPACT A10)

The comment is a question how “Parcel A,” Open Space on the Black Diamond Mines residential subdivision in the City of Antioch was determined to be isolated.

Response

The City of Pittsburg Planning Department staff has considered the location of “Parcel A” at the western edge of the Black Diamond Ranch residential subdivision. “Parcel A” is separated from Markley Creek open space by a looped road and lots. Owing to this layout, there is no connection between “Parcel A” and other open space (see Draft EIR, Chapter III, Description of the Proposed Project, Figure 4, p. III-51).



J14-4 General Plan Policies (IMPACT A14)

The comment is that the statement of IMPACT A14, and its mitigation, is unclear.

Response

The City of Pittsburg Planning Department staff has considered potential impacts of the proposed project on intermittent creeks or ephemeral drainageways. In addition to protections of delineated wetlands under the Clean Water Act and other protections of streambeds under Section 1603 of the State of California Fish & Game Code, the City of Pittsburg has goals and policies for creek protection in its adopted General Plan.

Policy 9-P-9 requires a 100 to 300 foot wide buffer for creekways. Policy 9-P-10 requires no development within creek buffers. Policy 9-P-11 encourages, but does not require, re-establishment of creeks in the design of new development. Policy 9-P-12 requires protection and restoration of jurisdictional wetlands, that is, waters under federal jurisdiction as administered by the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers.

In view of the location of ephemeral drainageways, past and current intermittent stream, and potential jurisdictional waters on the project site, City staff has considered on-site mitigation measures, off-site compensatory mitigation measures, and conservation alternatives to the Proposed Project Alternative. In addition to creekway protection, conservation alternatives could have various benefits to CTS and SJKF, by reducing the acreage of CTS and SJKF grasslands habitat covered by the development footprint. The reader is directed to look elsewhere in the Draft EIR for discussion of these items. Conservation Alternatives (1a, 1b, 1c and 1d) are illustrated in the Draft EIR, Chapter VI, Alternatives Analysis, Figures 29, 30, and 31, pp. V-344 through V-346).

J14-5 Biological Assessment

The comment is that the Biological Assessment should be provided.

Response

Biological Assessment of Sky Ranch II Pittsburg, California, prepared by The Huffman-Broadway Group, Inc., dated June 2005, is available at the City Hall and Main Library.



J14-6 California Red-Legged Frog (CRLF) Habitat

The comment is a question whether CRLF transitional and migratory habitat were included in the assessment.

Response

Results of Habitat Assessment on the Sky Ranch Proposed Project Site, Contra Costa County, Pittsburg, California, for California tiger salamanders and California red-legged frogs, dated June 13, 2004, was prepared by Rana Resources for The Huffman-Broadway Group. For brevity, the habitat assessment document will be called here simply “*CTS/CRLF Habitat Assessment*.” *CTS/CRLF Habitat Assessment* followed current U.S. Fish & Wildlife Service protocol for habitat assessments for CRLF and CTS.

The City of Pittsburg Planning Department staff also directs the reader to Draft EIR, Chapter V.A, Biology and Wetlands, Figure 6, p. V-69. Figure 6 illustrates proposed CRLF critical habitat as proposed by the USFWS in November 2005; however, the USFWS-proposed CRLF critical habitat, which includes the southwestern corner of the project site, was deleted by Final Rule in April 2006.

J14-7 CRLF Populations

The comment is a continuation of Comment J14-6 and asks what impact the proposed project could have on CRLF populations in the area, including Black Diamond Mines Regional Preserve.

Response

The proposed project would have a less-than-significant impact on CRLF. The California Natural Diversity Database (CNDDB) has a July 2002 report of CRLF in an area of Markley Creek described as aestivation habitat, approximately 0.75 mile northeast of the project site. CNDDB lists a breeding site in Sydney Flat approximately 0.7 mile south of the project site. The California Department of Fish and Game (CDFG) required creekside habitat conservation for CRLF as part of the adjacent Black Diamond Ranch residential subdivision. No aquatic sites exist between the breeding site in Sydney Flat and the project site or between Markley Creek and the project site.

A conclusion of *Biological Assessment of Sky Ranch II Pittsburg, California* and *CTS/CRLF Habitat Assessment* is that there is no potential for CRLF to occur at the Sky Ranch II project site. The reasoning stated in the assessments is that there is a lack of breeding habitat within credible dispersal distance for CRLF individuals and there is also a lack of any aquatic habitats between the project site and nearest breeding site that could be used by dispersing frogs. See also the response to Comment J14-6.



J14-8 CRLF Mitigation Measure (IMPACT A4)

The comment is that the mitigation measure for CRLF is unresolved.

Response

The USFWS issued a Proposed Rule published in the Federal Register on November 3, 2005 (Federal Register / Vol. 70, No. 212 / Thursday, November 3, 2005 / Proposed Rules, page 66906), which proposed certain CRLF critical habitat. On April 13, 2006, the USFWS published in the Federal Register the CRLF Critical Habitat Final Rule. The Final Rule excluded several areas of proposed CRLF critical habitat, including the area within the East Contra Costa County HCP/NCCP. All of proposed CRLF Critical Habitat Unit CCS-1B was excluded in the Final Rule. In Figure 5, the territory contained within (generally south of) the turquoise line was excluded on April 13, 2006. Refer also to the response to Comment J14-6.

Independent of the USFWS Final Rule or illustration of the former proposed critical habitat area, the project site was assessed and found not to contain CRLF habitat. The nearest CRLF sightings have occurred in the upper or lower reaches of Markley Creek, approximately 0.7 mile south or 0.75 mile northeast of the project site. Refer see also to the response to Comment J15-7.

The City of Pittsburg Planning Department staff has coordinated with CDFG and USFWS in regard to mitigation requirements. Despite the tentative designation of CRLF critical habitat in the Proposed Rule, the regulatory framework allows for site-specific determination of actual species habitat presence or absence. Mitigation requirements in the Draft EIR are founded on the relevant habitats that have been identified through professional habitat assessments. These habitat assessments have found that the on-site grasslands are habitat of CTS and SJKF, but not CRLF.

J14-9 Peer Reviews

The comment is a question whether there were any peer reviews of the biotic and wetlands assessments.

Response

Wetlands assessments were reviewed independently The Huffman-Broadway Group, Inc. Two different wetland delineations were reviewed:

- Albion Environmental, Inc. July 2004. *Delineation of Wetlands and Other Waters of U.S. Jurisdiction under Section 404 of the Clean Water Act, Sky Ranch Project Site, Pittsburg, Contra Costa County, California.*



- Wetland Research Associates, Inc. December 2001. *Delineation of Potential Jurisdictional Wetlands Under Section 404 of the Clean Water Act, Sky Ranch Project Site, Pittsburg, California.*

These wetlands delineations both were prepared for the applicant. Peer review was prepared for the City of Pittsburg.

Biological Assessment of Sky Ranch II Pittsburg, California was prepared for the City of Pittsburg independently by The Huffman-Broadway Group, Inc. The Biological Assessment includes other independently prepared habitat assessments and species surveys conducted by specialists who were subcontractors working for The Huffman-Broadway Group, Inc.

J14-10 Seasonal Pond

The comment is a question about the seasonal pond, and if it is known whether it was deliberately destroyed or is temporarily dry or breached.

Response

The City of Pittsburg Planning Department staff and Engineering Department staff has considered this question. City staff understands that neither of the above-cited wetlands delineations prepared in 2001 and 2004 identified a seasonal pond (see the response to Comment J14-9, for a list of the two references). City staff members do not have actual knowledge a past seasonal pond on the project site, and Discovery Builders, Inc., staff members have not stated actual knowledge of a past seasonal pond on the project site.

During preparation of the Draft EIR, a timeline was created which places the pond's disappearance certainly between May 2000 and December 2001, or possibly between May 2000 and November 2000. Possible causes such as, for example, natural breach by erosion, trampling by cattle, deliberate grading or filling, and landslide or debris flow, were considered. Causal factors for the seasonal pond's disappearance remain speculative.

The seasonal pond and intermittent creek are mapped by U.S. Department of the Interior, Geological Survey, (USGS), Antioch South 7.5-minute quadrangle, topographic series map dated 1980. The seasonal pond is shown on a historical aerial photograph dated May 2000.

Figure 9 of the Draft EIR illustrates a large deep-seated landslide along the west side of the USGS-mapped intermittent creek. Areas of mapped landslide deposits, colluvial deposits, or unengineered fill are known from a geotechnical investigation titled *Geotechnical Exploration for Sky Ranch*



II, Pittsburg, California, prepared by ENGEO Incorporated, and dated February 14, 2002. ENGEO's exploratory test pits and bore holes were conducted October 17, 2000, through November 8, 2000. Figure 10 illustrates areas of unengineered fill and colluvium generally following or adjoining the trace of the USGS-mapped intermittent creek, northwest of the cattle-watering trough (Draft EIR, Chapter V.B, Geology & Seismicity, pp. V-115 and V-116).

Both wetland delineations cite the presence of a cattle-watering trough generally upslope from the USGS-mapped seasonal pond. The area of a USGS-mapped seasonal pond is described in the December 2001 wetlands delineation as "a wide swale" and states that "water is probably conveyed by sheet flow through this area until it reaches the [project site's] west boundary."

J14-11 Violations of Regulations

The comment is a question whether regulations of CDFG, U.S. Army Corps of Engineers, or other regulations were violated.

Response

Please refer to the response to Comment J14-10.

J14-12 Project's Stormwater Discharge to Kirker Creek

The comment is a question about the water quality in storm water collected and then conveyed in piping to outfalls along the project site's western boundary.

Response

Future storm water flows will be diverted from a headwall at the southern project site and routed piping to an outfall at the project site's western boundary. Storm water runoff from Drainage Subareas 2 and 3 will be collected and discharged at outfalls along the project site's western boundary. The post-project runoff rate (18 cfs) will be lower than pre-project rate (27 cfs) owing to the post-project reduction in acreage of Drainage Subareas 2 and 3 compared to the pre-project acreage.

Quality of the runoff is subject to several temporary and permanent mitigation measures described in the Draft EIR. Permanent mitigation measures including Best Management Practices (BMPs) are discussed in the Draft EIR, Chapter V.C, Hydrology & Water Quality, p. V-163).



J14-13 San Joaquin Kit Fox (SJKF)

The comment is a question about information sources used for discussion of the SJKF.

Response

The City of Pittsburg Planning Department staff consulted with Ms. Janice Gan, CDFG, in regard to SJKF. Information about the SJKF's regional range and occurrence records is from California State University, Stanislaus. <http://esrpweb.csustan.edu/gis/maps/sjkfrange.png> The CNDDDB was neither the sole nor main source of information for the SJKF.

J14-14 Section 401

The comment is a question whether there is potential for the proposed project to violate Section 401 of the Clean Water Act.

Response

City of Pittsburg Planning Department staff clarifies that Section 401 certification is performed by the California Water Quality Control Board (RWQCB). For the proposed Sky Ranch II project, application for a Section 401 certification would be to the RWQCB.

Under federal Clean Water Act (CWA), Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain a State Water Quality Certification that the proposed activity will comply with state water quality standards. Section 401 Certifications frequently are issued in conjunction with U.S. Army Corps of Engineers (USACE) Section 404 permits for dredge and fill discharges. A Section 401 Water Quality Certification must be issued before USACE will issue a final Section 404 permit.

Determinations of jurisdiction over waters of the U.S. are made by USACE. Determinations of jurisdiction over non-federal jurisdictional waters are made by the State Water Resources Control Boards or Regional Water Quality Control Boards (RWQCBs). The RWQCBs regulate discharges to isolated waters in much the same way as they do for federal-jurisdictional waters, using Porter-Cologne Act rather than CWA authority. Under current federal and State of California law, water quality agencies must consider the quality of water needed to maintain natural habitats dependent on water bodies.

CDFG administers Section 1603, California Fish and Game Code, for Streambed Alteration, and is consulted by the RWQCBs in regard to



species impacts. Application to RWQCB for 401 Certification would trigger consultation with CDFG.

J14-15 Wildlife Corridors & Buffers

The comments are several questions about creating barriers between development and open space and whether the proposed project would accomplish any of the objectives of the Draft East Contra Costa County HCP/NCCP. The comment suggests creating barriers and connections to wildlife corridors are among preserve design principles in the Draft East Contra Costa County HCP/NCCP.

Response

City of Pittsburg Planning Department staff clarifies that among the many preserve design principles stated in the proposed HCP/NCCP is the principle of creating a buffer at the urban-wildland interface or urban edge. The proposed HCP/NCCP, Chapter 5, Conservation Strategy, recommends this the urban-wildland interface be as short as possible and as near straight-line as possible.

Linking or interconnecting the preserves in the Preserve System is recommended as another preserve design principle in the proposed HCP/NCCP. Certain portions or Acquisition Parcels are identified as being relatively important for preserving existing SJKF migration corridors. "Linking" as expressed in Chapter 5, Conservation Strategy, has the stated advantages of creating a larger contiguous Preserve System, facilitating movement between the preserves, reducing the management costs, and reducing the length of the edge shared with urban land uses. The proposed project can be consistent or inconsistent with the preserve design principles; however, the proposed project by itself cannot accomplish preserve design principles, a conservation strategy or conservation goals.

Based on the analysis in *Draft EIR for the Sky Ranch II Residential Subdivision*, the proposed Sky Ranch II project would not preclude the achievement of conservation goals or implementation of the preserve design principles in Zone 1d or elsewhere in the preserve. The proposed project, therefore, could be consistent with the conservation goals and preserve design principles in Chapter 5 of the proposed HCP/NCCP.



J14-16 Location of Mitigation Lands

The comment is a question where the mitigation lands will be located.

Response

The nearest parcels having similar grassland habitat are located south or southwest of the project site in Acquisition Zone 1 of the proposed HCP/NCCP. Availability of any of these parcels is unknown. Negotiating and purchasing conservation easements may be a feasible means of enabling continued ownership and agricultural uses by the owner, while assuring no urban land development.

CHART J1
Nearest Parcels Having Similar Grassland Habitat
as the Project Site

Parcel Number	Owner Name	Acreage	Owner Mailing Address	Deed Doc. No. (transfer date)
089-050-056	Thomas	470	4723 Suzanne Drive Pittsburg, CA 94565	13464295 (5/26/1987)
075-051-007	A.U.S.D.	145	P.O. Box 768 Antioch, CA 94509	96014735 (1/26/1996)
075-051-005	A.U.S.D.	60	P.O. Box 768 Antioch, CA 94509	96014735 (1/26/1996)
075-060-010	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	6116113 (4/28/1970)
075-060-007	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	6116113 (4/28/1970)
075-060-006	unknown	79	5770 Nortonville Rd Pittsburg, CA 94565	94051678 (2/23/1994)
075-060-005	unknown	79	5780 Nortonville Rd Pittsburg, CA 94565	95169970 (10/9/1995)
075-060-011	unknown	132	P.O. Box 5381 Oakland, CA 94605	8438900 (7/28/1977)
075-060-008	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	7506943 (5/15/1975)
075-060-004	unknown	110	96 Edgewater Place Pittsburg, CA 94565	97102771 (6/16/1997)



J14-17 Project Consistency with Proposed HCP

The comment is a question about conformity of the proposed project to the proposed HCP/NCCP and asks whether the proposed project lays the groundwork for future expansion [of urban development] in the area.

Response

In regard to the proposed project's consistency or inconsistency with the proposed HCP/NCCP, please refer to the response to Comment J14-15. Potential growth-inducing impacts of the proposed project are discussed in the Draft EIR, Chapter IX, Unavoidable Adverse Impacts & Growth-Inducing Impacts, p. IX-378. Planning Department staff clarifies that the off-site reservoir mitigation measure itself would not be growth-inducing. If sited as recommended by Engineering Department staff at elevation 565 feet msl, the off-site tank would not be capable of gravity service to houses above 500 feet msl.

J14-18 Mini-Park and Kiosk

The comment is a question about a contingency: Where would the wildlife and natural resource awareness kiosk be placed if the mini-park were not developed?

Response

City of Pittsburg Planning Department staff clarifies that the mini-park is a required mitigation measure. Hypothetically, if the City staff's recommendation were overturned, City staff would recommend the kiosk be placed prominently at a roadside location along "D" Court near the entry to the reservoir service road.

J14-19 California Horned Lark

The comment asks if there will be mitigation for the California horned lark's wintering use of the project site.

Response

City of Pittsburg Planning Department staff clarifies that California horned lark individuals were observed by WRA in wintering flocks over the grassland within the project site in December 2001; however, California horned larks were not observed during the recent April and June 2004 surveys conducted by HBG biologists during the nesting season. The mitigation measure that will be required by the City, therefore, is pre-construction survey (Draft EIR, Chapter V.A, Biology and Wetlands, pp. V-75 and V-95).



J14-20 Loggerhead Shrike & Burrowing Owl

The comment asks what actions will be taken if loggerhead shrike, burrowing owl, or California horned lark nesting activity is found during the pre-construction surveys.

Response

City of Pittsburgh Planning Department staff clarifies that if nests of this species are found before grading or before other construction, the biologist shall devise a construction plan that would allow successful nesting. Supplemental or subsequent measures, if any, would depend on the nature of the situation and recommendation of the biologist. Nesting seasons surveys conducted for protected bird species in 2004 did not find nesting or habitat suitable for habitat.

J14-21 Black Diamond Ranch Open Space Parcel "A"

The comment expresses an opinion that the proposed Sky Ranch II residential subdivision would cut off the Black Diamond Ranch residential subdivision from any major pocket of wildland.

Response

City of Pittsburgh Planning Department staff clarifies and expands upon the subject addressed in the Draft EIR, Chapter V.A, Biology and Wetlands, (p. V-97). The subject concerns a specific off-site Open Space pocket called Parcel "A." Parcel "A" is not connected with Markley Creek.

Avoidance of the western side of Parcel A could not create a valuable connection to wetland or to other wildland area. Owing to its location, Parcel "A" could never provide the kind of buffer land sought in the proposed HCP/NCCP. Preserve design principles call for buffer land between the preserve system and urban development, having a straight boundary, with the least perimeter shared in common with urban development. Parcel "A" has none of these desirable characteristics.

J14-22 Off-Site Water Reservoir Site

The comment asks about the off-site water reservoir site and arrangements with the site's owner. The comment also asks how the proposed project may conflict with the goals of the proposed HCP/NCCP.

Response

City of Pittsburgh Planning Department staff clarifies that the location of the off-site water reservoir and service road is illustrated in Figure 11 of the Draft EIR, Chapter V.C, Geology & Seismicity, p. V-119. Currently,



City staff is not aware of any arrangement with the Antioch Unified School District for the City-recommended tank site. In regard to the proposed project's consistency or inconsistency with the proposed HCP/NCCP, please refer to the response to Comment J14-15.

GEOLOGY & SEISMICITY

J15-1 Grading

The comment inquires or states opinions in regard to the extent of grading, the grading volume, the balance or imbalance of cut and fill, the duration of grading, the impacts of grading, earth haul routes, and destination of excess earth.

Response

City of Pittsburg Engineering Department staff expects the grading to take between one season and two seasons, depending on the terms of the Grading Permit. The actual volume of export would depend on observed conditions and suitability of cut soil for reuse on site. If 190,000 in-place cubic yards were excavated and exported (Draft EIR, p. V-124), the equivalent weight of export soil would be approximately 316,000 tons. Each truck can haul about 21 tons.

The total number of earth haul truck trips would be approximately 30,000 trip ends. Over a 6-month period, the equivalent daily volume of earth haul truck traffic would be about 230 trips per day (115 inbound and 115 outbound). If the grading were conducted over two seasons, the earth haul traffic could be reduced to approximately 116 trips per day (58 inbound and 58 outbound).

There is a possibility that rainy season grading during October 15–April 15 could be allowed by the City. See also the responses to Comments I(B12) and I(C6), page 122. Even if additional time is added in the allowed grading season, City staff's opinion is that the daily truck traffic would approximately as stated above.

Ventura Drive in Highlands Ranch, Buchanan Road, Railroad Avenue, and Highway 4 will be used for the earth haul. Other off-highway routes will depend on the destination. The destination for excess soil is unknown at this time.



J15-2 Coal Fields

The comment asks what are the impacts of the proposed project to the nearby coal mines and [historical mining] artifacts.

Response

City of Pittsburgh Engineering Department staff expects there is no nexus between the proposed project and mining activities or artifacts in the area of historical coal mining. See also the response to Comment J3, page 145.

HYDROLOGY & WATER QUALITY

J16-1 Markley Creek and CRLF Habitat

The comment asks what are the impacts of the proposed project on Markley Creek in view of the conservation actions to preserve certain reaches of the creek and adjoining upland area for the CRLF.

Response

Future storm water flows from a 19-acre tributary area in the southeastern corner of the project site will be collected in the proposed storm water collection system and conveyed by the Black Diamond Ranch conveyance system to an outfall in Markley Creek (Draft EIR, p. V-65). Chapter 13.28 of the Pittsburgh Municipal Code prohibits discharges of soaps, paint, other household products, and other non-stormwater materials to the gutter or storm drain inlets. Public awareness programs can limit or reduce such potential pollution and prevent some from entering the drainage system. Code enforcement and mitigation measures recommended in the Draft EIR will provide assurance that discharges entering the Black Diamond Ranch storm sewer would not impact beneficial uses of Markley Creek.

- *"A perpetual funding source for periodic maintenance of the proposed detention basin, headwalls, and outfalls will be created through agreement between the developer and City of Pittsburgh. Establishment of this funding source will occur before construction of the detention basin, headwalls, and outfalls. Therefore, the fund will be supported initially by the developer (e.g., through deposits to a Maintenance Assessment District account), which later may be assumed by a HOA or GHAD and supported through HOA dues or special assessments.*
- *Developer's Project Engineer shall prepare and submit an Operation and Maintenance Manual for periodic monitoring and maintenance of the detention basin, headwalls, open channel and outfalls. The manual should be written clearly so it could function as a complete guide for any commercial or Public Works*



maintenance entity.

- *BMPs and public awareness can limit or reduce such potential pollution and prevent some from entering the drainage system. The funding source for long-term monitoring, implementation of BMPs and public awareness programs, and maintenance of passive treatment BMPs initially will be the developer and later will be the HOA or GHAD.” (Draft EIR, p. V-163).*

J16-2 Flood Potential

The comment is a question if the proposed project could cause or contribute to East Kirker Creek flooding.

Response

The proposed on-site detention basin in Sky Ranch II has been sized to accommodate the critical storage volume and avoid down stream flooding. The on-site storage volume adequate to detain runoff for the 100-year, 12-hour, critical storm is 7 acre-feet at water surface elevation 244.5 feet above msl. The estimated available storage capacity in the proposed detention basin, about 14 acre-feet, is twice the required volume. Final hydraulic designs will be subject to review and approval of the City of Pittsburgh Engineering Department.

VISUAL RESOURCES

J17-1 Fences & Retaining Walls

The comment is a question how the visual impacts of fences and retaining walls will be mitigated.

Response

Figure 19 illustrates visually prominent slopes (Draft EIR, Chapter V.D, Visual Resources, p. V-175). The City of Pittsburgh Planning Department staff has recommended several mitigation measures to mitigate the appearance of opaque fencing and introduced landscape species on these visually prominent slopes:

- *“Developer shall prepare a design supplement, herein called a ‘Natural Grassland Element,’ to illustrate 1) where landscaped areas will be allowed and 2) where natural grassland areas are to be maintained as shown, for example, on Figure 19. Incorporate a Natural Grassland Element into the Codes, Covenants & Restrictions (Restrictions (CC&Rs) that prohibit introduced species on designated graded slopes and other designated as natural grassland areas.*



- *Codes, Covenants & Restrictions shall control landscaping of slopes on specific lots (such as, for example, Lots 127-137, Lots 307, 308 and 379-381, and other undeveloped slopes in the southern portion of the project site generally above 390 feet msl) to achieve a sense of connection with the adjoining open grassy hills and ravines. To maintain an open quality, prohibition of introduced species such as ivy, ice plant, shrubs and trees on the slopes on these specific lots, could mitigate potential degradation of the existing quality of the view of the adjacent southern hills above 500 feet (msl).*
- *Codes, Covenants & Restrictions shall control fences on the slopes on specific lots (such as, for example, Lots 127-137 and Lots 307, 308 and 379-381) to maintain an open look of continuous, uninterrupted grassy contours. To maintain an open quality, prohibition of opaque fences on the slopes on these specific lots, could mitigate potential degradation of existing visual character and quality. Transparent fences such as unfinished corral or open "iron bar" (not chain link) would be consistent with General Plan Policy 4-P-7." (Draft EIR, p. V-180)*

J17-2 Trees

The comment is a request for clarification of the subject of a sentence on page V-166 of the Draft EIR.

Response

The sentence is missing the word "trees." With insertion of the missing word: *"In the vicinity of the project site the vast majority of existing trees are located above the 500 feet elevation."*

J17-3 Visual Analysis

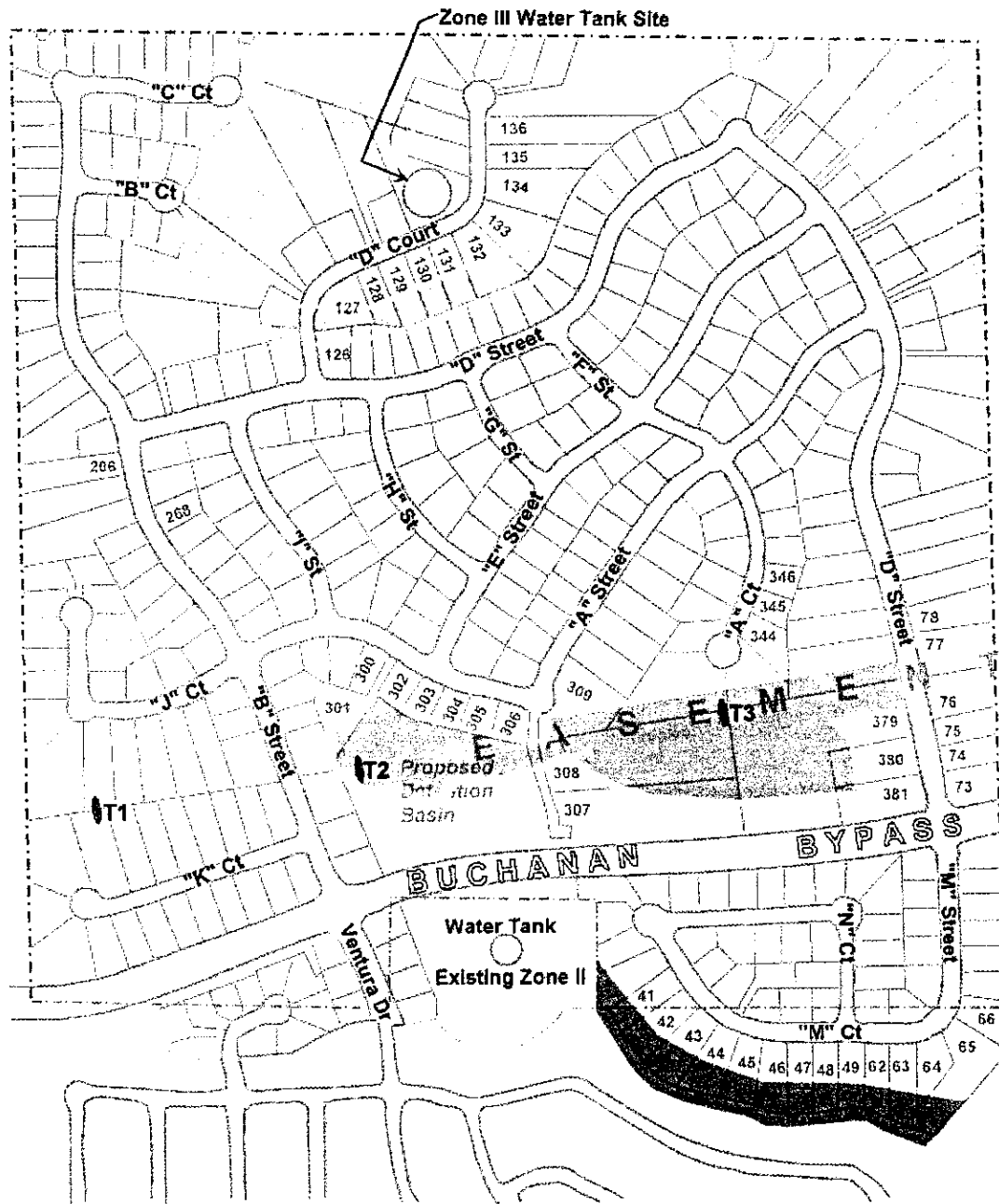
The comment expresses an opinion that Figure 19 and the visual analysis are inadequate.

Response

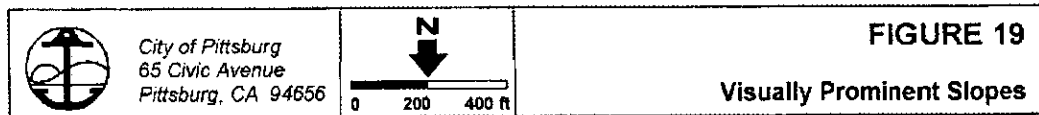
Figure 19 (on the following page) illustrates prominent slopes that would be subject to mitigation measures described in the response to Comment J17-1. Please refer also to the responses to Comments B4 and B5, pages 36-39.



A. U. S. D.



THOMAS



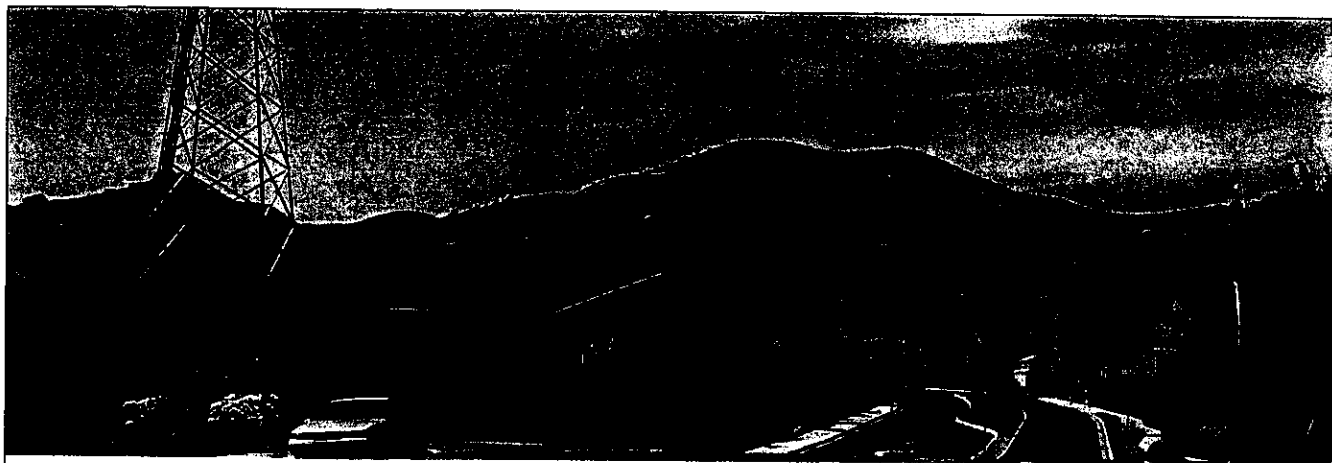


J17-4 Photo-Simulation

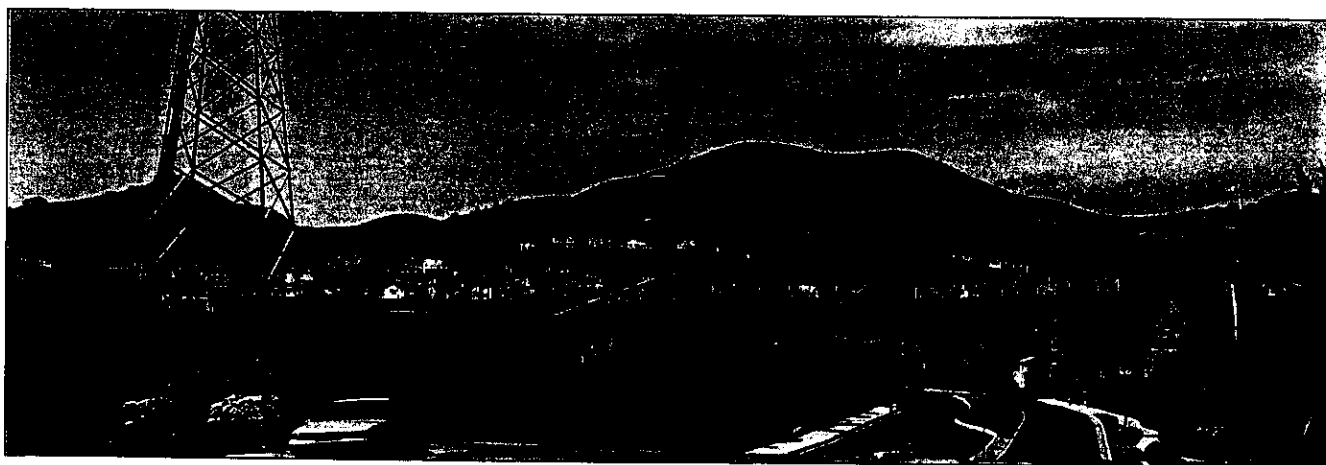
The comment is a question why the “post development” photo-simulation is not printed with the “pre-development” photograph. The comment also expresses several opinions about the visual analysis in the Draft EIR.

Response

Existing pre-development and post-development views are shown below:



VIEW 3: Ventura Street and Buchanan Road - Existing



VIEW 3: Ventura Street and Buchanan Road – Future Simulation



After careful evaluation of the existing visual resources, City of Pittsburg Planning Department staff determined that visual simulation of the existing vistas or panoramic views of the Suisun Bay/Sacramento River Delta, as viewed from Black Diamond Ranch Regional Preserve could not be affected by the proposed project. These vistas would remain intact, uninterrupted by any of the proposed houses on the project site. Refer also to the response to Comment B5 on pages 34-35.

J17-5 Visual Analysis of Off-Site Water Reservoir

The comment is that plans for the off-site reservoir have not been defined and potential visual impacts of the off-site water reservoir must be analyzed.

Response

The off-site reservoir is a mitigation measure conceived by the City of Pittsburg Engineering staff. Provision of adequate water pressure without pumping will necessitate off-site construction of a 1-million gallon Zone IV water reservoir and service road on the Antioch Unified School District-owned parcel (Draft EIR, p. V-226).

Design parameters have been established in terms of the footprint, base elevation, grading requirement, all-weather service road, and reservoir's underground design.

The base elevation is 565 feet msl. The reservoir capacity is 1-million gallons. The acreage is approximately 2.5 acres, which includes the service road. Limited access to the service road would be via a connection at the end of "D" Court. The tank must be underground. Policy of the City of Pittsburg is not to allow above-ground designs. In view of the underground design, the potential visual impact of the off-site reservoir is less-than-significant.

J17-6 Underground Water Reservoir

The comment is an assertion that even with the underground or "cut-and-cover" design of the off-site reservoir, the reservoir and access road could be visually prominent owing to the necessary grading.

Response

The City of Pittsburg Planning Department staff has considered the impact of the proposed project and off-site underground reservoir and surface access road. Planning Department staff disagrees with the comment that the reservoir could be visually prominent or in any way detract from panoramic view or vistas observed from Lougher Loop Trail and Arata



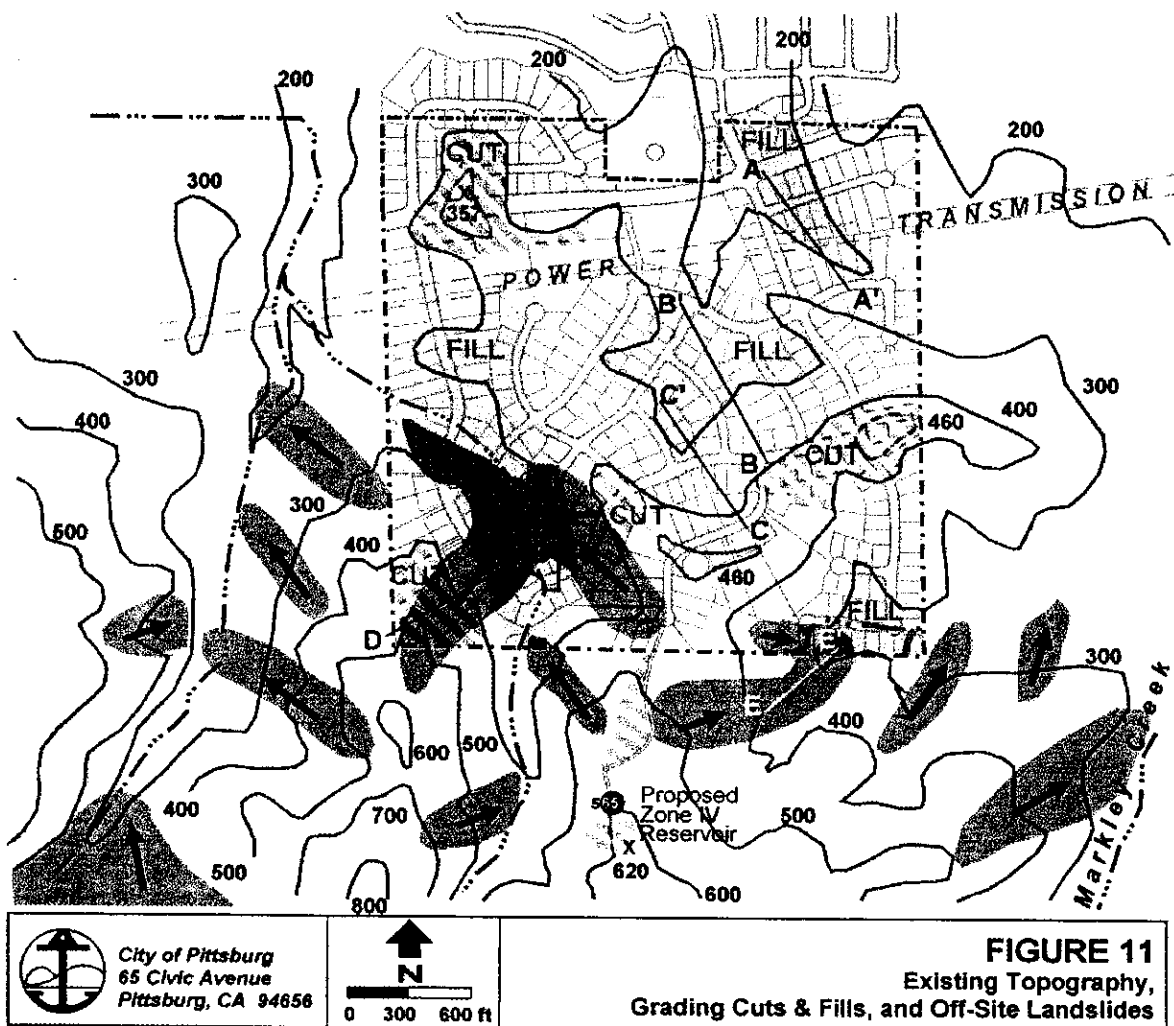
Overlook Trail. Mitigation measures are recommended to minimize nighttime lighting and maintain visually prominent slopes in their natural state.

J17-7 Location of Water Reservoir

The comment is that none of the graphics in the Draft EIR shows the location of the off-site 1-million gallon Zone IV water reservoir.

Response

Figure 11 (Draft EIR, p. V-119) shows the proposed Zone IV reservoir and shows generally, in a simple way, existing elevation contours and areas of proposed grading cuts and fills. The “horseshoe-shaped ridge” as described in Comment J17-8 is at elevation 400-460 feet msl. The “bowl” as described in Comment J17-8 would be filled as shown below.





J17-8 Figure 19

The comment is that Figure 19 is inaccurate.

Response

Figure 19 (Draft EIR, p. V-175) is intended to show visually prominent slopes after the proposed grading. The purpose of Figure 19 is to provide detail in regard to slopes that should be subject to mitigation measures described in the Draft EIR, p. V-180. These measures are intended to mitigate the appearance of opaque fencing and introduced landscape species on these visually prominent slopes.

LAND USE

J18-1 Williamson Act

The comment is that the Draft EIR fails to consider impacts to Williamson Act contracted lands and other agricultural lands.

Response

The City of Pittsburg Planning Department staff considered potential impacts of the proposed project on Williamson Act contracted lands and other agricultural lands. These considerations are explained relatively greater detail in the Initial Study (Draft EIR, Chapter XIII, Appendix A, p. 10).

J18-2 Adjacent Agricultural Area

The comment is a question about the potential impacts of new residents on the adjoining Thomas parcel (APN 089-050-056).

Response

The City of Pittsburg Planning Department staff has considered the land use compatibility issue and determined that the project would be consistent with continuation of cattle grazing on the adjacent Thomas parcel if suitable fencing is maintained along the boundary. There would be graded 2:1 slopes and v-ditches on the proposed project's side of the fence.

"The adjoining land to the west of the site has been designated in the General Plan for Low Density Residential and Open Space uses. A small portion of this particular land shown to be "Farmland of Local Importance" (Pittsburg General Plan Update: Existing Conditions Report, June 1998, p. 254) is not contiguous with the site. In the interim, before application for nonrenewal of Williamson Act contract and conversion, the adjoining land to the west could be used for cattle grazing. Mitigation measures are warranted to assure compatibility of uses along the shared western boundary.



The Buchanan Bypass segment west of the site, continuing toward Kirker Pass Road, would pass along the southern tip of the specific Farmland of Local Importance. Indirectly, therefore, the Black Diamond Ranch residential subdivision and project each would implement construction of segments of the Buchanan Bypass that in conjunction with the foreseeable through-connection of the bypass west to Kirker Pass Road, or to Buchanan Road via a another road, could eventually influence conversion of this Farmland of Local Importance. Its ultimate conversion, however, appears to have been considered in the General Plan, including the Buchanan Subarea, which shows a planned Low Density Residential use of this specific farmland.” (Draft EIR, Appendix A, Initial Study, page 10).

J18-3 A.U.S.D

The comment is a question about reliance on the parcels south of the project site (APN 075-051-005 and 075-051-007), which are owned by the Antioch Unified School District (A.U.S.D.).

Response

The City of Pittsburg Planning Department staff and Engineering Department staff has not initiated any arrangement. City staff also is not aware of any arrangement with the Antioch Unified School District for the reservoir site. See also the response to Comment J14-22 on page 162.

The off-site reservoir has to be located at a minimum elevation of 565 feet msl, to provide adequate water pressure to proposed houses at elevation 460 feet. The proposed elevation is lower than published in the *2000 Water System Master Plan, Amendment No. 2*, but completely adequate to serve the proposed project. As sited at elevation 565 feet msl, the off-site tank would be incapable of gravity service to houses above 500 feet msl.

COMMUNITY SERVICES & UTILITIES

J19-1 Parks, Open Space, and Trails

The comment observes that the proposed project includes no parks, open space, or trails. The comment continues with a series of questions regarding City trail policies, developer obligations to protect trail right-of-way and pay for trail construction, and provisions for bicyclists and equestrians.

Response

The City of Pittsburg Planning Department staff acknowledges the comment. In regard to the additional questions contained in the comment, Open Space is not a designated land use on the project site in the City's



General Plan. Open Space is designated in the City's General Plan in the adjoining Black Diamond Planning Subarea.

Park and trail mitigation measures are described in the Draft EIR, Chapter V.G, Community Services & Utilities, pages V-222, -223, and -224). General Plan Policy 8-P-17 states that the City shall cooperate with EBRPD to develop a "Bay to Black Diamond" trail through the City. The Buchanan Bypass will have adequate right-of-way for a walkway as shown in Figure 24, Buchanan Bypass Cross-Section Draft EIR, Chapter V.H, Traffic & Circulation, p. V-247).

TRAFFIC & CIRCULATION

J20-1 Unit Limits Before Opening of the Buchanan Bypass

The comment observes that the recommended limit to residential building permits issued to the developer varies in the Draft EIR.

Response

The limit is 353 dwelling units, before completion and opening of the Buchanan Bypass to through traffic. This limit is to avoid traffic intrusion on Ventura Drive in Highlands Ranch. The daily weekday volume on Ventura Drive could exceed 5,000 vehicles per day (vpd) without the limit. This limit would apply until 1) opening of the bypass for through travel or 2) demonstration by means of a professional traffic counting study that the average weekday traffic volume on Ventura Drive through Highlands Ranch does not exceed 5,000 vpd and would not exceed 5,000 vpd after the issuance of additional building permits above 353 in number.

The other limit, 207 dwelling units, is an option that could be substituted for a mitigation measure recommend by the City for the intersection of Loveridge Road/Buchanan Road.

- *"Developer shall pay for provision of two southbound left-turn lanes and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane. As an alternative to this mitigation, the developer can limit the subdivision to no more than 207 units until the opening of the Buchanan Bypass." (Draft EIR, p. V-261)*



J20-2 Fair Share

The comment is a question asking for an explanation of how the developer's fair share of the costs of various traffic mitigation measures will be assessed.

Response

Please refer to the response to Comment C8 on pages 60-64.

J20-3 Traffic Diverter at Ventura Drive/Buchanan Road

The comment is a question asking how a traffic diverter for traffic northbound on Ventura Drive, north of Buchanan Road, might increase traffic volumes and congestion on other roads.

Response

City of Pittsburg Engineering Department staff clarifies that the subject of the mitigation measure for IMPACT H8 is the through-travel movement northbound on Ventura Drive. Before completion and opening of the Buchanan Bypass for through traffic, all of the through-travel trips on Ventura Drive northbound, crossing Buchanan Road, would have an origin in either the existing Highlands Ranch residential subdivision or else the proposed Sky Ranch II residential subdivision. The current volumes, based on traffic counts, are 117 vehicles per hour (vph) in the AM hour of peak traffic volume and 40 vph in the PM hour of peak traffic volume.

For IMPACT H8, a "diverter" may be as simple as a sign "Left-Turn or Right-Turn Only" mounted on the signal mast. The purpose would be to prevent any additional project-related trips from using Ventura Drive north of Buchanan Road as a diversion route to Loveridge Road.

20-4 Short-Term Traffic Impacts

The comment is a question asking if there could be any short-term traffic impacts or could there be any short-term traffic impacts that cannot be predicted or mitigated.

Response

City of Pittsburg Engineering Department staff clarifies that potential short-term operations impacts of the proposed project and approved projects were evaluated in the Draft EIR. Predictable impacts have been mitigated as described in the Draft EIR and Final EIR.

The response to Comment J15-1 (page 163) addresses earth export haul traffic in terms of a daily volume. The daily earth export haul traffic volume would depend on suitability of cut soil for reuse on the project site and also on the period of grading (one season or two).



PUBLIC HEALTH & SAFETY

J21-1 Fuel Breaks

The comment is an opinion that the Draft EIR suggests the owners of the Thomas parcel and the A.U.S.D. parcels, which adjoin the project site, are responsible for creating fuel breaks. The comment continues with a question about the method of creating fuel breaks within the proposed project.

Response

The City of Pittsburg Planning Department staff clarifies that Contra Costa County Fire Protection District's abatement standards for parcels more than 5 acres in size require 30-foot wide firebreaks, with grass and weeds cut to 3-inch height, or lower, and disked. Firebreaks must be around tree clusters, stored combustibles, and both side of roads that traverse such parcels (Draft EIR, p. V-312)

Future residents who would own lots along the edge of the project site, contiguous with grasslands, would be subject to the maintenance requirements of Section 4291 of the Public Resources Code.

"Public Resources Code Section 4291 states that: "Any person who owns, leases, controls, operates, or maintains any occupied dwelling or occupied structure in, upon, or adjoining any mountainous area, forest-covered land, brush-covered land, grass-covered land, or any land that is covered with flammable material, shall at all times do all of the following:

(a) Maintain around and adjacent to the dwelling or structure a firebreak made by removing and clearing away, for a distance of not less than 100 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This paragraph does not apply to single specimens of trees, ornamental shrubbery, or similar plants that are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any dwelling or structure."

(Draft EIR, p. V-311)

Under Section 4291, a person is not required to maintain any clearing on land to which that person does not have the legal right of access for maintaining the clearing. Owing to the small parcel sizes of certain proposed lots at the southeastern edge of the project site, the City will not allow those proposed lots and instead will require a mini-park in the vicinity of "C" Court as a substitute.



CUMULATIVE EFFECTS

J22-1 Laying Infrastructure and Setting Precedent

The comment is a question whether the proposed project, by itself or in conjunction with other foreseeable developments, could lay the ground work for future expansion [of urban development] into the southern hills or into the Thomas parcel. The comment also is a question about whether the proposed project and other foreseeable projects could block wildlife corridors or create barriers between development and open space.

Response

Potential growth-inducing impacts of the proposed project are discussed in the Draft EIR, Chapter IX, Unavoidable Adverse Impacts & Growth-Inducing Impacts, page IX-378.

The City's General Plan designates future urban uses in the Buchanan Planning Subarea, adjoining the future Buchanan Bypass and on the Thomas parcel, in particular. The proposed project would not extend any service into an adjacent unserved or underserved area. Water service would not be developed beyond project needs or above a service elevation of 465 feet msl. Future connections to the segment of the bypass within project limits would not be allowed pending completion of additional segments of the bypass and connection of the bypass to Kirker Pass Road or another north-south connector road west of the project site.

City of Pittsburgh Planning Department has assigned staff who participated in the Draft East Contra County HCP/NCCP. The proposed HCP/NCCP includes provisions to create a buffer in Acquisition Zone 1d. The proposed project could not preclude that or induce development in Zone 1d. Planning department staff also directs the reader to the responses to Comments J14-15 and J14-17 on pages 159 and 161.

J22-2 Buchanan Bypass

The comment is a question about CEQA analysis of the bypass. The comment also provides opinions about the likelihood that the bypass will be completed and the project-related traffic that would use the bypass, if the proposed project were approved.

Response

City of Pittsburgh Planning Department staff responds that CEQA documentation has been performed for the General Plan including the proposed bypass concept and general bypass location; however, project-specific CEQA documentation not been performed for the bypass.



Planning Department staff directs the reader also to the response to Comment J21-1.

City of Pittsburg Engineering Department staff notes that the Preliminary Engineering for the Buchanan Bypass is an element, ST-4, page 100, of the City's Capital Improvement Plan. Project-level environmental documentation will be performed after a project study report to identify alternatives.

J22-3 Approved or Contemplated Projects

The comment states an opinion that cumulative effects are not adequately evaluated in the Draft EIR. The comment lists other projects including Highlands Ranch, Black Diamond Ranch, Alves Ranch, San Marco, San Marco Meadows, Bailey Estates, in Pittsburg, and Future Urban Area #1/ Sand Creek Specific Plan in Antioch. The comment also notes that the Urban Limit Line changed recently.

Response

City of Pittsburg Planning Department staff clarifies that the Draft EIR has considered impacts of the proposed project in conjunction with past projects, approved projects, and foreseeable future projects. A projects list for the traffic impact study is provided in the Draft EIR, on page V-250:

- *Los Medanos College, 4130 students/120 staff*
- *Highlands Ranch, 600 Residential Units*
- *Stanford Place, 100 Residential Units*
- *Buchanan Road Starbucks, 2,900 square feet of coffee restaurant*
- *Delta Gateway, 9,100 square feet of commercial/retail space*
- *Gomez Bros. Auto Center, 7,600 square feet of auto repair center*
- *Pittsburg Medical Center, 8,362 square feet of medical office*
- *Security Public Storage, 78,200 square feet of self-storage space*
- *Heritage Pointe, 125 Residential Units*
- *Lawlor Estates, 50 Residential Units*
- *Oak Hills South, 120 Residential Units*
- *San Marco, 1200 Residential Units*
- *Willow Heights, 120 Residential Units*
- *Presidio Village, 104 Senior Citizen Residential Units*
- *San Marco Development, 1526 Residential Units*
- *Empire Business Park I, 104,433 square feet of industrial park space*
- *Faith Worship Center, 17,500 square feet of church space*
- *Fire Station #84 with Administration Center, 10,942 square feet*
- *First Baptist Church, 26,400 square feet of church space*
- *Loveridge Commercial Center, 236,000 square feet space*
- *Mira Vista, 264 single-family residences*
- *Black Diamond Ranch, 289 single-family residences*



Planning Department staff further clarifies that the Urban Limit Line and pre-zoning changes in November 2005 are fully reflected in the Draft EIR. Hillside Planned District and Open Space District areas within the Prezoning Boundaries in the Woodlands and Buchanan Planning Subareas specifically are reflected in the Draft EIR. The ULL and prezoning changes affect the Thomas parcel (APN 089-050-056) and other parcels located generally west of Kirker Pass Road.

J22-4 Phasing

The comment states an opinion that the phasing of this or other projects is not discussed, or is not considered, in the Draft EIR. The comment continues with some speculation that if mitigation measures are delayed for years, or not implemented at all, then the cumulative effects on traffic, water service, stormwater management, all could be significant.

Response

City of Pittsburgh Planning Department staff clarifies that the Mitigation Monitoring or Reporting Plan will provide more specific detail in regard to timing and responsibilities for implementation of mitigation measures. In the Draft EIR, mitigation measures generally state the party responsible and also the timing relative to a benchmark. Examples of timing benchmarks are issuance of Building Permit, issuance of Grading Permit, during grading, or pre-construction.

In Chapter V.H, Traffic & Circulation, the timing and need for certain mitigation measures are divided generally as “Near-Term” and “Long-Term.” Near-term measures generally would be required concurrently with the development of the proposed project.

In Chapter V.I, Community Noise, the timing and need for certain off-site mitigation measures generally are assumed to be concurrent with development of the proposed project. Off-site measures to improve the performance of existing fences or sound walls or retrofit existing windows generally would be performed early during the development, before any proposed houses are occupied.

The City of Pittsburgh will adopt a Mitigation Monitoring or Reporting Plan to ensure that mitigation measures are complied with during implementation of the project. If changes are incorporated into the proposed project at the request of any of the agencies (*e.g.*, CDFG, RWQCB) having jurisdiction by law over natural resources affected by the project, the City of Pittsburgh will request that agency to prepare and submit a proposed reporting or monitoring program for the changes.



Section 21081.6 (b) of the Public Resources Code requires that mitigation measures be "fully enforceable through permit conditions, agreements, or other measures." Incorporating the mitigation measures into the conditions of approval applied to the proposed project would meet this requirement. Section 21081.6 (c) requires responsible agencies that have identified a significant impact during consultation on an EIR to provide either "complete and detailed performance objective" or else published "guidelines" that would be the functional equivalent.

The proposed project has a wide variety of on-site and off-site mitigation measures with variable timing depending on the nature and timing of the potential impacts. The Mitigation or Monitoring Plan, therefore, will clarify and provide more specific detail in regard to timing of the required mitigation measures. The required mitigation measures will be incorporated into conditions of approval, if the proposed project, a modified project, or an alternative project is approved by the City of Pittsburgh.



III REVISIONS AND ERRATA

TEXT REVISIONS AND ERRATA

Chapter III contains text revisions necessary to clarify or correct the Draft EIR. Each text revision is identified by page reference to the Draft EIR. New or added text is shown in **bold italic** typeface. Deleted text is shown with strikethrough.

pages I-10, V-95 IMPACT A4/4

Update the text for IMPACT A4/4 as follows:

California red-legged frog (CRLF) The project site was found not to contain permanent water habitat suitable for CRLF. ~~Even so, the~~ **USFWS has deleted by Final Rule previously** proposed CRLF critical habitat which included extensive area south of the project site and included the southwestern corner of the project site. ~~The USFWS proposed CRLF critical habitat is pending a Final Rule due November 2005.~~

Mitigation Measure: *None warranted as there is no impact to CRLF species or its critical habitat.*

- ~~• Pending the Section 7, or Section 10, consultation and Final Rule due in November 2005, the developer shall not take any action that could preclude reasonable and prudent alternatives, including the conservation alternative for of the southwestern corner of the project site.~~

Residual impact after mitigation: ~~Less than significant~~

pages I-12, V-100 IMPACT A14/14

Added text in **bold italic** font was not included in the Draft EIR, Chapter I, Table 2, or Chapter V.A, Biology and Wetlands:

Residual effect after mitigation: *Less-than-significant (LTS). Stream and wetland loss could be mitigated by means of off-site compensatory mitigation, without application of General Plan policies 9-P-9 through 9-P-12.*

(NOTE: Policies 9-P-9 through -11 do not require restoration or re-establishment of creeks in the design of new development. Policy 9-P-12 requires protection and restoration of wetlands. General Plan policies 9-P-9 through -12 are intended for 1) conservation of perennial streams, having defined bed and bank, and also having riparian habitat,



functional, or aesthetic values, as opposed to intermittent or ephemeral creeks lacking these values, or for 2) conservation of wetlands having substantial habitat, functional, or aesthetic values.)

pages I-18, V-134 IMPACT B12/12

- Grading activities shall be *performed generally in the “dry season” except as grading in the* ~~scheduled to avoid soil disturbance during the rainy season (October 15 – April 15)~~ *may be allowed in the Grading Permit subject to the City’s approval.*

page I-20, V-158 IMPACT C6/6

- Grading shall be performed *generally only* in the “dry season” *except as grading in the rainy season (October 15 – April 15) may be allowed in* ~~shall be defined in terms of the SWPPP and Grading Permit subject to~~ *the City’s approval.*

pages I-24, V-194 IMPACT E3/3

The revised text in ***bold italic*** and strikethrough font clarifies IMPACT E3/3 and the residual impact after mitigation:

IMPACT 3: The applicant proposes filling of identified stream channels *and wetlands without on-site conservation; therefore, if filling were allowed, setback policies would not be observed.* Stream *and wetlands* alteration could be mitigated by means of off-site compensatory mitigation. ~~but such mitigation could not accomplish the~~ General Plan goals or policies *9-P-9 through -11 encourage, but do not require, restoration or re-establishment of creeks in the design of new development. Policy 9-P-12 requires protection and restoration of wetlands. General Plan policies 9-P-9 through -12 are intended for 1) conservation of perennial creeks, having defined bed and bank, and also having riparian habitat, functional, or aesthetic values, as opposed to intermittent or ephemeral creeks lacking these values, or for 2) conservation of wetlands having substantial habitat, functional, or aesthetic values.*

Mitigation measures:

- *The same mitigation measures apply as for IMPACT A12/A14. Unavoidable impact.* ~~Avoidance alternatives are discussed in Chapter VI.~~

Residual effect after mitigation: *Less-than-significant (LTS).*



(NOTE: This revision clarifies that the General Plan policies are intended for 1) conservation of perennial creeks, having defined bed and bank, and also having riparian habitat, functional, or aesthetic values, as opposed to intermittent or ephemeral creeks lacking these values, or for 2) conservation of wetlands having substantial habitat, functional, or aesthetic values.)

pages I-25, V-202 IMPACT F1/1

The revised ***bold italic*** and strikethrough text for IMPACT F1/1 correctly characterizes the potential growth-inducing impact of the proposed project as a less-than-significant effect:

IMPACT 1: With lateral connections from the Buchanan Subarea Loop II this water transmission mitigation measure could ~~potentially serve~~ ***planned*** additional land development in the Buchanan Planning Subarea ***as planned in the City's adopted General Plan***, including, for example, the Thomas Ranch and Montreux parcels. Though the proposed project could not directly induce housing development or population growth, in conjunction with this water conveyance mitigation measure, provision of water to the project site indirectly could induce development on the nearby parcels ***by alleviating a current water-pressure constraint***. Such housing development in the Buchanan Planning Subarea, and the associated population growth there, have been considered as part of the General Plan adoption process. ***The 2000 Water System Master Plan and capacity of this water transmission pipeline are based on development assumptions consistent with the adopted General Plan land uses. The proposed annexation of the project site into the Central Valley Project would not extend annexation or a will-serve commitment from the Contra Costa Water District to adjoining or nearby parcels.***

Mitigation measures: None is ~~warranted~~ available.

Residual impact after mitigation: ***Less-than***-significant

(NOTE: This revision clarifies that the potential growth-inducing impact of the proposed project is less-than-significant. Although construction of the water transmission pipeline could alleviate a current water-pressure constraint, it would not extend annexation of any other site into BLM's Central Valley Project or secure will-serve status from CCWD for land other than the project site. The transmission pipeline's capacity would be sufficient to serve only a level of development and location of development at topographic elevations consistent with the adopted General Plan.)



pages I-26, V-224 IMPACT G3/3

Revised ***bold italic*** and strikethrough text corrects the residual impact for IMPACT G3/3 after compensatory mitigation:

Residual impact after mitigation: *Less-than-significant (LTS) after off-site compensatory mitigation.* ~~Unavoidable impact. Compensatory mitigation will be performed by the developer to compensate for depletion of on-site habitat.~~

pages I-27, V-230 IMPACT G8/8

The revised ***bold italic*** and strikethrough text corrects the residual impact for IMPACT G8/8 after compensatory mitigation:

Residual impact after mitigation: *Less-than-significant (LTS) after off-site compensatory mitigation.* ~~Unavoidable impact. Compensatory mitigation will be performed by the developer to compensate for depletion of on-site habitat.~~

pages I-28, V-229 IMPACT G15/15

The following impact and mitigation measures are added at the request of DDS:

IMPACT G15/15: The proposed project could contribute an upset discharge of raw wastewater after construction, owing to construction debris or failure to remove temporary sewer plugs after construction.

Mitigation Measures:

- Developer shall isolate sewers under construction with sewer plugs or temporary grates left in-place until new sewers are fully cleaned and accepted by the City.
- Developer shall register sewer plugs and ropes with the City prior to construction.

Residual impact after mitigation: Less-than-significant (LTS).

page I-28, I-30, V-255 IMPACTS H1/1 & H12/12

The text after “Mitigation measures” is revised as follows:

- Developer shall pay a fair share for modification of the eastbound California Avenue approach to provide ***an additional through lane.*** ~~separate left turn lane to eliminate the split phasing.~~



pages I-28 & 32, V-256 & 263 IMPACTS H3 & H23

The revised text shown in ***bold italic*** font clarifies the mitigation measures:

- Developer shall pay for provision of ***an additional two*** southbound left-turn lanes and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane. ***Optionally, the developer shall pay for provision of additional through-travel lanes, for a total of two eastbound and two westbound. In implementing this mitigation measure, the City shall preserve existing bicycle lanes.***

NOTE: Planning Commissioner Bruce Ohlson commented on the manner of lane re-striping to accommodate two left-turn lanes on the southbound Loveridge Road approach and two lanes on the eastbound Buchanan Road depart, which should preserve existing bicycle lanes.

pages I-29, V-256 & 257 IMPACTS H4 & H5

Added text in ***bold italic*** font clarifies the necessary preservation of bicycle lanes:

In implementing this mitigation measure, the City shall preserve the existing bicycle lane.

NOTE: Planning Commissioner Bruce Ohlson commented on the manner of lane striping to create two through-travel lanes on Buchanan Road, from west of Ventura Drive to east of Meadows Drive, which should preserve existing bicycle lanes.

pages I-29, V-257 IMPACT H6/6

The modified text shown in ***bold italic*** and strikethrough font clarifies the mitigation measure:

- Developer shall pay a fair share for modifications of the northbound Somersville Road approach ***and eastbound at Buchanan Road approach*** for provision of an additional left-turn lane ***on each approach.*** and southbound right-turn overlap phasing



pages I-30, V-260 IMPACT H14/14

The following mitigation measure is revised as shown in ***bold italic*** and strikethrough font:

Mitigation measure:

- Developer shall pay a fair share for modification of the northbound Loveridge Road approach to Leland Road for provision of a separate ~~right-turn lane~~ ***left-turn lane***. ~~Right-turn overlaps should also be provided on all approaches.~~

pages I-32, V-263 IMPACT H22/22

Impact before mitigation is explained further:

It should be noted that LOS standards also would not be met without the project under the Cumulative 2025, With Bypass scenario.

page I-32, V-263 IMPACT H23/23

The text after “Mitigation measures” is revised as follows:

See Mitigation Measures for IMPACT H14 H3.

pages I-33, V-263 IMPACT H24/24

The following text in ***bold italic*** and strikethrough font is revised or deleted:

IMPACT 24: Intersection #15 (Kirker Pass Road/Buchanan Road Bypass) ~~may have the potential~~ ***would be expected to operate at LOS E (v/c=1.00) with the project. It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, With Bypass, scenario.***

Mitigation measures:

- ***Intersection design as part of the bypass should ensure that the intersection would operate with acceptable levels of service.*** ~~Developer shall pay a fair share for re-construction of Kirker Pass Road to accommodate a new T-intersection with the future Buchanan Bypass. Reconstruction is recommended by the traffic engineer to assure that Buchanan Bypass and Kirker Pass Road (south) operate as the major legs and Kirker Pass Road (north to Buchanan Road) operates as the minor leg.~~



- ~~Developer shall pay a fair share for provision of two right-turn lanes with overlap phasing “westbound” (Bypass to Kirker Pass Road north).~~

~~**Residual impact after mitigation: Future operations would depend on the design. This modification would result in LOS E ($v/c=0.91$), which is acceptable on the Kirker Pass Road corridor. These are the same mitigation measures as would be required at this intersection without the proposed project.**~~

pages I-33, V-263 IMPACT H29/29

The following **bold italic** text is added to describe a mitigated traffic impact:

IMPACT 29: Intersection #11 (Somersville Road/Buchanan Road) would be expected to operate at LOS D with the project.

Mitigation measure:

- ***See Mitigation Measure for IMPACT 6.***

Residual impact after mitigation: This modification would result in LOS B. This is the same mitigation measure as would be required at this intersection without the proposed project.

pages I-39, V-303 IMPACT J2/2

The revised **bold italic** text clarifies the residual effect for IMPACT J2 after mitigation:

Residual effect after mitigation: Less-than-significant (LTS).

(NOTE: This revision clarifies that the residual effect for IMPACT J2/2, after mitigation, is less-than-significant based on adoption of the additional mitigation measures listed for IMPACT J3/3. Mitigation measures (*i.e.*, on-site wind vane and anemometer, dust monitoring, and suspension of grading under adverse weather conditions) for IMPACT J3 would also reduce IMPACT J2 to less-than-significant.)

pages I-41, V-317 and V-318 IMPACT K4/4

- Developer shall avoid new development within the 2 milli-Gauss (mG) radius of influence. This will be accomplished by building setbacks. The 2 mG radius of influence shall be determined based upon modeling or measurement, or a combination of the two. In no case shall horizontal setbacks less than 100 feet ***from the easement centerline*** be approved by the City.



page V-47

The adjoining petroleum product pipeline *easement* is 10 feet wide and includes the multipurpose underground fuel pipeline.

(NOTE: The word “easement” was inadvertently omitted.)

page V-92

The Draft EIR states that specific mitigation parcels will be confirmed during a Section 7, or Section 10, consultation process with USFWS.

Table 34 (p. 203) lists the nearest parcels having similar grassland habitat. Figure 33 (p. 216) is an additional graphic that shows these parcels.

page I-12, V-100 IMPACT A14/14

The augmented text in ***bold italic*** and strikethrough font qualifies the applicability of General Plan policies 9-P-9 through 9-P-12:

The creekways and wetlands policies of the City of Pittsburg (General Plan Policies 9-P-9, -10, -11, and -12) could be applicable to 1) ***perennial the intermittent and ephemeral streams, having defined bed and bank, and also having riparian habitat, functional or aesthetic values or 2) wetlands having substantial habitat, functional, or aesthetic values.*** Stream reaches on the project site ~~are seasonal, not perennial, and do not have riparian habitat value.~~ ***An intermittent stream reach in the southwestern portion of the project site has 394 lineal feet with defined bed and bank; its adjacent reaches have a broad swale topography without defined bed or bank and function as overland-flow drainages. A seasonal wetland having an area of about 0.02 acre was identified in the southeastern corner of the project site. In view of their insubstantial habitat and functional values and size, the seasonal stream reaches and wetland on the project site would not be subject to any of the following policies: The proposed project would be inconsistent with:***

(NOTE: On June 12, 2006, the U.S. Supreme Court issued its decision on the jurisdictional reach of the Clean Water Act. The four-justice plurality concluded: “Waters of the United States” are limited to “relatively permanent, standing or continuously flowing bodies of water” such as streams, oceans, rivers and lakes, and to wetlands with a continuous surface connection with these waters. Supreme Court Justice Anthony M. Kennedy concluded: Wetlands are within the



jurisdiction of the Clean Water Act if there is a “significant nexus” with navigable-in-fact waters. They “possess the requisite nexus,” Kennedy stated, “if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of receiving waters readily understood as navigable waters.” In contrast, wetlands are not within the jurisdiction of the Clean Water Act when their effects on water quality are “speculative or insubstantial.”)

page V-166

In the vicinity of the project site the vast majority of existing **trees** are located above the 500 feet elevation.

(NOTE: The word “trees” was inadvertently omitted.)

page V-210

The following text in ***bold italic*** and strikethrough font is added as an update:

Water Conveyance

The 2000 Water System Master Plan, Amendment No. 2, identifies water transmission main improvements necessary to serve projected water needs in the Southeast Hills area. This proposed water transmission pipeline project consists of 9,600 lineal feet of 20-inch diameter pipe from the water treatment plant (WTP) along Crestview Drive and Buchanan Road to Harbor Street, a 12,400 lineal feet of 16-inch diameter pipe from Harbor Street to Suzanne Drive, and a 16-inch diameter pipe for the “Buchanan Subarea Loop II,” from Buchanan Road along Suzanne Drive and Kingsly Drive to Highlands Ranch. According to ***water system studies prepared by an engineering consultant hired by the City, ~~City Engineering staff~~ any ***future additional incremental*** development in the Southeast Hills area exceeds the existing transmission system’s capacity. ~~and ability to fill proposed Zone III and IV water reservoirs without pumping~~ ***The developer has partially funded a special study to refine the assumptions and recommendations of the Water System Master Plan to account for the water conveyance and storage needs of the proposed project and to evaluate the financial responsibilities for funding the improvements necessary for the proposed project.******



page V-243

The following explanatory text in quotations is added:

“The Transportation Research Board officially replaced Circular 212 Planning Method in 1985 with the “Operations Method” which is currently contained in the 2000 Highway Capacity Manual (HCM). The 2000 HCM method evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay in seconds per vehicle is computed for the intersection as a whole, and is then related to a Level of Service.

The CCTA method and its software are fairly limited in terms of their ability to modify various elements of an intersection that affect its level of service; therefore, the 2000 HCM method was used in some cases where more flexibility was needed in identifying mitigation improvements.”

page V-247

The TRANSPLAN Committee clarified that the Regional Traffic Mitigation Fee is overseen by the East Contra Costa Regional Fee & Financing Authority. The text is modified, therefore, as follows:

The City of Pittsburg’s General Plan indicates that funding for the Buchanan Road Bypass will be funded by both the Pittsburg Traffic Mitigation Fee and the Regional Traffic Mitigation Fee *overseen by the East Contra Costa Regional Fee & Financing Authority.* (TRANSPLAN).

page V-247

So far, \$727,842 has been committed for either ST-4.

page V-249

The TRANSPLAN Committee requested that the applicable standards of the East County Action Plan for Routes of Regional Significance be added to the Draft EIR, Chapter V.H, Traffic & Circulation. The following text in quotations is added to “Standards of Significance,” item b:

“The East County Action Plan for Routes of Regional Significance establishes Traffic Service Objectives (TSOs). An LOS standard of “mid-D” (i.e., 85 percent of capacity) applies for signalized intersections along designated suburban arterial routes, except



Kirker Pass Road between the City limit and TRANSPAC-TRANSPLAN limit which may operate at LOS E as a segment. Another TSO called the Delay Index (DI) applies to Highway 4 and other routes of regional significance, including Buchanan Road, Railroad Avenue-Kirker Pass Road, Leland Road-Delta Fair Boulevard, and Somersville Road. A DI is the ratio of travel time in a peak commute hour to travel time in the off-peak. For routes of regional significance, the DI standard is 2.0, or lower, in hours of peak traffic, except Highway 4 may have a DI of 2.5, or lower.”

page V-254

The following text shown in ***bold italic*** font is added:

With opening of the bypass for through-traffic, the effect of the bypass again would be to restore LOS at some but not all of the affected intersections. With addition of project traffic to year 2025 baseline volumes, and with opening of the Buchanan Bypass for through-traffic connection, the following intersections would operate at deficient LOS during one or both of the AM and PM peak hours. The volume-to-capacity increase caused by the project is shown in (parentheses).

1. California Avenue/SR 4 WB Ramps (0.01)
2. Loveridge Road/SR 4 EB Ramps (0.05)
3. Loveridge Road/Leland Road (0.01)
- 11. Somersville Road/Buchanan Road (0.04)***
15. Kirker Pass Road/Bypass (0.01)

page V-254

The following text in quotations is added in response to a comment by the City of Concord:

“Impacts To Kirker Pass Road in the City of Concord

The impacts of the proposed project to roadways in the City of Concord were evaluated at two locations:

- Kirker Pass Road-Ygnacio Valley Road/Clayton Road
- Kirker Pass Road between Clayton Road and Concord Boulevard

Based on counts obtained from the CCTA, which were taken in April 2005, the intersection of Clayton Road/Ygnacio Valley Road-Kirker Pass Road is operating at LOS A with a volume to capacity ratio of 0.41 during the AM peak hour and 0.57 during the PM peak



hour. It was determined that the proposed project would generate approximately 37 AM peak hour trips and 50 PM peak hour trips that would be expected to travel into the City of Concord via Kirker Pass Road. With the addition of these project trips, the intersection of Ygnacio Valley Road-Kirker Pass Road/Clayton Road would continue to operate at LOS A with no increase in volume to capacity ratio during the AM peak hour and an increase of 0.01 during the PM peak hour.

Existing volumes for Kirker Pass Road between Clayton Road and Concord Boulevard were obtained from the Traffic Service Objective Monitoring Report, Kimley-Horn & Associates, Inc., December 12, 2004. The current 2004 PM peak hour volume-to-capacity ratio (v/c) and LOS are 0.57/C northbound (eastward) and 0.17/A southbound (westward). The current 2004 AM peak hour v/c and LOS are 0.17/A northbound (eastward) and 0.44/B southbound (westward). With the addition of project trips, it was determined that the v/c ratio would increase by 0.01 in the southbound (westward) direction during the AM peak hour, and by 0.01 in the northbound (eastward) direction during the PM peak hour.

Based on this evaluation, the proposed project would have a less-than-significant impact on traffic operations at these locations in the City of Concord.”

page V-254

The following text in quotations is added in response to a comment by the TRANSPLAN Committee:

“Delay Index

The “Delay Index” is the Traffic Service Objective (TSO) for Routes of Regional Significance in the East County region. The Delay Index is defined as the time it takes to drive a segment of road during peak-period congested conditions, as compared to the time it takes to drive the same segment during uncongested free-flow conditions. In East County, the goal is to achieve a Delay Index no greater than 2.0. Based on field surveys on Buchanan Road during off-peak conditions, the existing delay index on Buchanan Road from Somersville Road to Railroad Avenue is 1.16 EB and 1.17 WB during the AM peak hour and 1.22 EB and 1.34 WB during the PM peak hour. With the addition of the proposed project, these values would be expected to increase to 1.18 EB and 1.19 WB during the AM peak hour and 1.30 EB and 1.44 WB during the PM peak hour.



Future year-2025 conditions without the bypass, and without the proposed project, are expected to be 1.22 EB and 1.60 WB during the AM peak hour and 1.72 EB and 1.75 WB during the PM peak hour. With the addition of the project, these values would be expected to increase to 1.28 EB and 1.67 WB during the AM peak hour and 1.88 EB and 1.85 WB during the PM peak hour.”

page V-310

The following added ***bold italic*** text explains the acronym SRA:

In ***State Responsibility Areas*** (SRAs), that is, areas where PRC 4291 (as amended) applies, owners proposing to build or rebuild, must obtain certification from the local building official...

page V-315

The following added ***bold italic*** text explains adopted setbacks for specified school land use:

However, the State of California had adopted school siting guidelines and avoidance criteria for new power transmission line construction, but *has* not passed regulations requiring, for example, specific setback distances for new residential developments. ***For new school sites, the California Department of Education, in consultation with the State Department of Health Services (DHS) and electric power companies, has established the following limits for locating any part of a school site property near the edge of easements for high-voltage power transmission lines:***

1. 100 feet from the edge of an easement for a 50-133 kilovolts (kV) line
2. 150 feet from the edge of an easement for a 220-230 kV line
3. 350 feet from the edge of an easement for a 500-550 kV line

page VI-343

The revised ***bold italic*** and strikethrough text reflects recent deletion by USFWS of previously proposed critical habitat:

Alternative 1a, 1b, 1c and 1d (On-Site Conservation Alternatives)
Alternatives 1a, 1b, 1c, and 1d (collectively, Alternative 1) minimize development within ~~proposed critical~~ habitat of the California tiger salamander (CTS) and San Joaquin Kit Fox (SJKF) and filling of streambeds. Figures 29, 30, and 31 illustrate the On-Site Conservation Alternatives.



page VI-355

The revised ***bold italic*** and strikethrough text reflects recent exclusion of CRLF proposed critical habitat by Final Rule:

CRLF and CTS Habitat - ~~The alternative sites may have 100 percent coverage with proposed CRLF critical habitat over the entire site footprints.~~ On Alternative #4A, CTS individuals have been observed and those sightings recorded in the CNDDDB. Alternative #4B has coverage with CTS habitat, some of which had been proposed as critical habitat, but which in August 2005 was excluded by Final Rule. Neither alternative site has designated or proposed CRLF critical habitat as this also was excluded by Final Rule in 2006.

page VI-362

The revised ***bold italic*** text reflects recent exclusion of CRLF proposed critical habitat by Final Rule:

None of the ~~entire area~~ of Alternative Site #4A site is located within USFWS-proposed or designated critical habitat of the CRLF. Unit CCS-1B proposed critical habitat was excluded by Final Rule.



TABLE REVISIONS AND ERRATA

Chapter III contains revisions necessary to clarify or correct tables presented in the Draft EIR. Each revised table is identified by the same table number in the title as it appears in the Draft EIR and by page reference to the Draft EIR.

Table 10 (Draft EIR, page V-148)

The notes in revised Table 10 (p. 199), which presents storm water runoff rates, corrects the last note to “(e).”

Table 19 (Draft EIR, page V-246)

In Table 19 (p. 200) existing AM and PM levels of service (LOS) were modified for intersections #3 and #7, based on revised lane configurations.

Table 20 (Draft EIR, page V-248)

In revised Table 20 (p. 201) the word “Weekday” was added in front of “Daily,” “AM Peak Hour,” and “PM Peak Hour.”

Table 21 (Draft EIR, page V-252)

In Table 21 (p. 202) near-term future AM and PM levels of service (LOS) were modified for intersections #3 and #7, based on revised lane configurations.

Table 22 (Draft EIR, page V-253)

In Table 22 (p. 203) year-2025 cumulative AM and PM levels of service were modified for intersections #3 and #7, based on revised lane configurations.

Table 32 (Draft EIR, page V-365)

The column “Proposed CRLF Critical habitat Loss” is deleted in revised Table 32 (p. 204), because USFWS deleted proposed CRLF critical habitat on and near the project site in the Final Rule published in 2006.

Table 33 (Draft EIR, page IX-376)

Table 33 (p. 205) is modified to reflect the updated traffic analysis.

Table 34 (added table)

Table 34 (p. 206) is a new table presenting parcel numbers, acreage, and ownership of nearby grasslands parcels south or west of the project site.

Tables 35 and 36 (added tables)

Table 35 and 36 (pp. 207-208) are new tables presenting the proposed project’s equitable shares of near-term and cumulative year-2025 traffic impacts. Table 35 presents equitable shares for the future year-2025 without the Buchanan Bypass and with the Buchanan Bypass.



TABLE 10
On-Site Storm Water Runoff
Pre-Development and Post-Development

Drainage Area Identification	Drainage Sub-area	Land Area (Acres)		Proposed Destination and Conveyance of Storm Water Runoff	Will the discharge be detained?	Runoff Rates (cfs)	
		Pre-Project	Post-Project			Pre-Project	Post-Project
West to Kirker Creek	#2	13	9.2	To East Kirker Creek via off-site discharge west to an unnamed intermittent creek and the diversion at Palo Verde Drive	N		6
	#3	37	15.5		N		11
	SUM	50	25		N	27 ^(c)	18 ^(c)
Sky Ranch/ Highlands Ranch	#1	87	80	To East Kirker Creek via the proposed on-site detention basin, connection to the storm sewer at Ventura Drive, and secondary detention in the Highlands Ranch detention basin	Y	70	124 ^(d) 15 ⁽²⁾
Highlands Ranch	HR	144	142	To East Kirker Creek via off-site storm sewer (Ventura Drive or Black Diamond Ranch) and detention in Highlands Ranch, without initial detention in the proposed Sky Ranch II detention basin	Y ^(b)		
	#1	87	0		NA		
	#4/5	0 ^(a)	39		Y ^(b)		
	BDL	27	27		Y ^(b)		
	HRP2	29	25		Y ^(b)		
	SUM	287	233		Y ^(b)	205	362 ^(e) 79 ⁽²⁾
East to Markley Creek	#6	24	22	To Markley Creek via off-site discharge east to the collection system in Black Diamond Ranch	N	13 ^(c)	16 ^(c)
NOTES: ^(a) Before development, this area is included in Sub-area 1 or Sub-area BDL. ^(b) Storm water from this sub-area is or will be detained in the existing detention basin on Highlands Ranch and not in the proposed detention basin on Sky Ranch II. ^(c) Q ₁₀ , 24-hour ^(d) Q ₁₀₀ , 12-hour, (1) <u>inflow</u> into the proposed detention basin on the Sky Ranch II site and (2) discharge from the basin. ^(e) Q ₁₀₀ , 12-hour, (1) <u>inflow</u> into the existing detention basin on the Highlands Ranch site and (2) discharge from the detention basin. Inflow and discharge include the additional runoff conveyed from the tributary sub-areas and the Sky Ranch II detention basin. SOURCE: Isakson and Associates, March 22, 2005.							



TABLE 19
Existing Intersection Levels of Service

INTERSECTION	EXISTING LEVEL OF SERVICE	
	AM	PM
1. California Ave/SR 4 WB Ramps	0.66/B	0.86/D
2. Loveridge Rd/SR 4 EB Ramps	0.50/A	0.74/C
3. Loveridge Rd/Leland Rd	0.70/B 0.68/B	0.71/C 0/66/C
4. Delta Fair Blvd/Somersville Rd	0.46/A	0.67/B
5. Loveridge Rd/Ventura Dr	0.43/A	0.37/A
6. Railroad Ave/Buchanan Rd	0.53/A	0.62/B
7. Harbor St/Buchanan Rd	0.67/B 0.62/B	0.64/B 0.63/B
8. Loveridge Rd/Buchanan Rd	0.70/B	0.62/B
9. Buchanan Rd/Ventura Dr	0.69/B	0.77/C
10. Buchanan Rd/Meadows Ave	0.67/B	0.77/C
11. Somersville Rd/Buchanan Rd	0.87/D 0.81/D	0.73/C 0.57A
12. Somersville Rd/Buchanan Road Bypass-James Donlon Boulevard	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A
14. "M" St-"D" St/Buchanan Bypass	N/A	N/A
15. Kirker Pass/Buchanan Bypass	N/A	N/A
NOTES: CCTA		
SOURCE: W-Trans, September 2006.		



TABLE 20
Project Weekday Trip Generation

Number Dwelling Units (du)	Weekday Daily		Weekday AM Peak Hour				Weekday PM Peak Hour			
	Trip Rate /du	Total Trips (vpd)	Trip Rate /du	AM Trips (vph)	Trips In	Trips Out	Trip Rate /du	PM Trips (vph)	Trips In	Trips Out
415	9.57	3,972	0.75	311	78	233	1.01	419	264	155
NOTES: All trips are one-way, as opposed to round trips, and may either begin or end at the project site. "Trips in" means trips inbound into the project site. "Trips out" means outbound trips leaving the project site. SOURCE: W-Trans, September 2005; September S2006.										



TABLE 21
Predicted Near-Term Traffic Impacts

Intersection	Existing Conditions		Existing Plus Approved Projects		Existing Plus Approved Plus Project	
	AM	PM	AM	PM	AM	PM
1. California Avenue/SR 4 WB Ramps	0.66/B	0.86/D	0.66/B	0.94/E	0.67/B	0.95/E
2. Loveridge Road/SR 4 EB Ramps	0.50/A	0.74/C	0.68/B	0.91/E	0.70/B	0.95/E
3. Loveridge Road/Leland Road	0.70/B	0.71/C	0.84/D	0.82/D	0.86/D	0.84/D
	0.68/B	0.66/B	0.81/D	0.76/C	0.82/D	0.77/C
4. Delta Fair Blvd/Somersville Road	0.46/A	0.67/B	0.53/A	0.72/C	0.53/A	0.73/C
5. Loveridge Road/Ventura Drive	0.43/A	0.37/A	0.47/A	0.42/A	0.48/A	0.44/A
6. Railroad Avenue/Buchanan Road	0.53/A	0.62/B	0.61/B	0.76/C	0.62/B	0.80/C
7. Harbor Street/Buchanan Road	0.67/B	0.64/B	0.81/D	0.81/D	0.86/D	0.87/D
	0.62/B	0.63/B	0.76/C	0.80/C	0.81/D	0.85/D
8. Loveridge Road/Buchanan Road	0.70/B	0.62/B	0.87/D	0.71/C	0.93/E	0.80/C
9. Buchanan Road/Ventura Drive	0.69/B	0.77/C	0.82/D	0.95/E	0.87/D	0.96/E
10. Buchanan Road/Meadows Avenue	0.67/B	0.77/C	0.79/C	0.92/E	0.84/D	1.01/F
11. Somersville Road/Buchanan Road	0.87/D	0.73/C	1.01/F	0.86/D	1.07/F	0.94/E
12. Somersville Rd/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
14. "M" St-"D" Street/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
15. Kirker Pass Road/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
NOTES:						
LOS means Level of Service						
Gray-shaded areas show deficient Level of Service relative to adopted LOS standards.						
SOURCE: Whitlock & Weinberger Transportation, Inc., September 2006.						



TABLE 22
Predicted Year 2025 Cumulative Traffic Impacts

Intersection	NO PROJECT				PROJECT			
	Without Bypass CCTA		With Bypass CCTA		Without Bypass CCTA		With Bypass CCTA	
	AM	PM	AM	PM	AM	PM	AM	PM
1. California/SR4 WB Ramp	1.07/F	0.95/E	1.07/F	0.94/E	1.07/F	0.94/E*	1.07/F	0.93/E*
2. Loveridge/SR4 EB Ramp	0.66/B	0.93/E	0.61/B	0.88/D	0.68/B	0.96/E	0.64/B	0.93/E
3. Loveridge Rd/Leland Rd	1.02/F	0.85/D	0.90/D	0.76/C	1.02/F	0.87/D	0.91/E	0.77/C
	1.02/F	0.95/E	0.90/D	0.86/D	1.02/F	0.96/E	0.91/E	0.87/D
4. Delta Fair Blvd/Somersville	0.80/C	0.77/C	0.81/D	0.77/C	0.81/D	0.77/C	0.82/D	0.78/C
5. Loveridge Rd/Ventura Dr	0.59/A	0.70/B	0.47/A	0.63/B	0.60/A	0.71/C	0.48/A	0.64/B
6. Railroad Av/Buchanan Rd	0.80/C	1.09/F	0.41/A	0.55/A	0.80/C	1.11/F	0.42/A	0.56/A
7. Harbor St/Buchanan Rd	0.92/E	1.04/F	0.50/A	0.52/A	0.98/E	1.10/F	0.52/A	0.55/A
	0.97/E	1.05/F	0.55/A	0.54/A	1.03/F	1.11/F	0.57/A	0.56/A
8. Loveridge/Buchanan Rd	0.91/E	0.83/D	0.61/B	0.54/A	0.97/E	0.90/D	0.64/B	0.60/A
9. Buchanan Rd/Ventura Dr	0.73/C	0.80/C	0.62/B	0.62/B	0.74/C	0.81/D	0.63/B	0.63/B
10. Buchanan Rd/Meadows	0.72/C	0.87/D	0.55/A	0.59/A	0.77/C	0.96/E	0.59/A	0.65/B
11. Somersville/Buchanan	1.07/F	0.84/D	0.85/D	0.75/C	1.13/F	0.88/D	0.89/D	0.75/C
12. Somersville Rd/Bypass	N/A	N/A	0.84/D	0.79/C	N/A	N/A	0.84/D	0.80/C
13. Ventura -"B" St/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.67/B	0.91/E
14. "M" St-"D" Street/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.64/B	0.81/D
15. Kirker Pass Rd/Bypass	N/A	N/A	0.99/E	0.82/D	N/A	N/A	1.00/E	0.85/D

NOTES:

Without Bypass means without opening of the Buchanan Bypass for through-traffic connection.

LOS means Level of Service.

Shaded areas show deficient Level of Service relative to adopted LOS standards.

* Notes that v/c ratio decreases from No Project condition due to increased NB right-turn on red volume reduction as a result of increased volume in WB left-turn lane.

SOURCE: Whitlock & Weinberger Transportation, Inc., September 2006

TABLE 32
ALTERNATIVES ANALYSIS

Alternatives	Description			Conservation Impacts					Other Impacts			
	Improved Land Area ^d (Acres)	Number of Dwelling Units	Consistency with General Plan Land Use	Intermittent Stream Loss (Lineal feet)	Streambed Loss (Lineal feet)	Stream Rehabilitation Opportunity (Lin. feet)	CTS Habitat Loss (Acres)	Proposed-CRLF Critical Habitat Loss	Lots Exposed to Off- Site Landslides	Areas Exposed to Wildland Fire	PM Peak Hour Traffic (vph)	Community Noise & Air Quality
1a On-Site Conservation	128 ^a	349 ^c	Yes	0	1,484	1,686	136	23	7	Yes- reduced ^f	352	S
1b On-Site Conservation with Density Transfer	128 ^a	406 ^c	No	0	1,484	1,686	134	23	7	Yes- reduced ^f	356	S
1c Stream Buffer (500-ft)	127 ^{a,b}	339 ^c	Yes	0	1,484	1,686	134	24	7	Yes	342	S
1d Stream Buffer (150-ft)	135 ^{a,b}	360	Yes	0	1,484	1,686	142	34	7	Yes	364	S
2 Proposed Project	156 ^a	415 ^c	Yes	394	1,878	0	163	64	25	Yes	419	S
3 No Project	0	0	NA	0	0	1,686	0	0	0	No	0	LTS
4 Buchanan Planning Subarea A Site (101 acres)	66	165- 206	Yes	0	ND	3,000	66 ^d	66 ^d	ND	Yes- ND	167- 208	S
4 Woodlands Planning B Subarea Site (140 acres)	91 ^e	227- 284	Yes	0	ND	3,000	91 ^d	94 ^d	ND	Yes- ND	229- 286	S

NOTES:

NA Not Applicable ND Not Determined S Potential Significant Impact LTS Less-Than-Significant Impact

^a Excludes the contiguous 7.1-acre re-subdivided area in Highlands Ranch and on-site conservation area (if any).

^b Excludes the stream buffer area and 9.6 acres (500-foot buffer) to 15 acres (150-foot buffer) that would be isolated.

^c Includes 20 lots built on the contiguous 7.1-acre re-subdivided portion of Highlands Ranch.

^d Acreage excluding Open Space (OS) or conserved area.

^e Includes acreage in previous USFWS-proposed CTS critical habitat, which was deleted by Final Rule in August 2005.

^f Risk is slightly reduced, primarily along the portion of "D" Street shown as single-loaded without houses on the upslope side of the street.

SOURCE: Draft EIR for Sky Ranch II, 2005; Institute of Traffic Engineers, 1997. Trip Generation, 6th Edition, Volume 1.



TABLE 33

Buchanan Road Corridor Future PM Traffic Operations

Intersection	Existing Plus Approved Projects		Cumulative 2025 Without Buchanan Bypass		Cumulative 2025 With Buchanan Bypass	
	No Project	With Project	No Project	With Project	No Project	With Project
6. Railroad Avenue/Buchanan Rd	0.76/C	0.80/C	1.09/F	1.11/F	0.55/A	0.56/A
7. Harbor Street/Buchanan Rd	0.80/C 0.81/D	0.85/D 0.87/D	1.04/F 1.05/F	1.10/F 1.11/F	0.52/A 0.54/A	0.55/A 0.56/A
8. Loveridge Road/Buchanan Rd	0.71/C	0.80/C	0.83/D	0.90/D	0.54/A	0.60/A
9. Buchanan Road/Ventura Dr	0.95/E	0.96/E	0.80/C	0.81/D	0.62/B	0.63/B
10. Buchanan Road/ Meadows Ave	0.92/E	1.01/F	0.87/D	0.96/E	0.59/A	0.65/B
11. Somersville Rd/Buchanan Rd	0.86/D	0.94/E	0.84/D	0.88/D	0.75/C	0.75/C
SOURCE: W-Trans, September, 2006.						



TABLE 34
Nearest Parcels with Grassland Habitat

Parcel Number	Owner Name	Acreage	Owner Mailing Address	Deed Doc. No. (transfer date)
089-050-056	Thomas	470	4723 Suzanne Drive Pittsburg, CA 94565	13464295 (5/26/1987)
075-051-007	A.U.S.D.	145	P.O. Box 768 Antioch, CA 94509	96014735 (1/26/1996)
075-051-005	A.U.S.D.	60	P.O. Box 768 Antioch, CA 94509	96014735 (1/26/1996)
075-060-010	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	6116113 (4/28/1970)
075-060-007	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	6116113 (4/28/1970)
075-060-006	unknown	79	5770 Nortonville Rd Pittsburg, CA 94565	94051678 (2/23/1994)
075-060-005	unknown	79	5780 Nortonville Rd Pittsburg, CA 94565	95169970 (10/9/1995)
075-060-011	unknown	132	P.O. Box 5381 Oakland, CA 94605	8438900 (7/28/1977)
075-060-008	Thomas	160	4723 Suzanne Drive Pittsburg, CA 94565	7506943 (5/15/1975)
075-060-004	unknown	110	96 Edgewater Place Pittsburg, CA 94565	97102771 (6/16/1997)
NOTE: See Figure 33 (p. 219) for location.				
SOURCE: Contra Costa County, GIS, May 2006				



TABLE 35
Equitable Shares for Near-Term Traffic Mitigation

IMPACT ID	DESCRIPTION OF MITIGATION MEASURE	Project Share	NOTES
Near-Term Impacts and Mitigation Measures			
H1	California Avenue/SR4 WB ramps: Intersection modifications for separate left-turn on eastbound California and provision of right-turn overlap phasing northbound.	7%	Based on PM peak hour traffic
H2	Loveridge Road/SR4 EB ramps: Separate right-turn lane on northbound Loveridge	14%	Based on PM peak hour traffic
H3	Loveridge/Buchanan Road: 1) Re-striping for a 4-lane section or 2) dual southbound left-turn lane and lane striping on Buchanan Road	25%	Based on AM peak hour traffic
H4	Buchanan Road/Ventura: Re-striping for two through-lanes eastbound on Buchanan Road at	37%	Based on AM peak (See also H5 below)
H5	Buchanan Road/Meadows: Same mitigation as for H4	39%	Base on PM peak hour traffic
H6	Somersville/Buchanan Road: Modification to northbound approach	40%	Based on PM peak hour traffic
H7	Ventura Drive between Rangewood Drive and the Bypass: Limit Sky Ranch II building permits to 353 or conduct professional traffic count study to assess whether additional units may be allowed.	All	Includes cost of study
H8	Ventura Drive north of Buchanan Road: Neighborhood traffic diverter	Up to 100%	Fair share depends on potential cut-through volume by other future projects, if any.
H9	Ventura Drive/Buchanan Road: Add northbound left-turn stacking capacity.	All	
H10	Meadows Avenue/Buchanan Road: Add westbound left-turn stacking capacity.	All	
H11	Markley Creek Drive: EVA through Lot 191 with design to allow bicyclist movement	All	
NOTES: Calculations are based on Caltrans methods. LOS calculations and turning movement volume information were provided by W-Trans. SOURCE: W-Trans, September 2006			



TABLE 36

**Developer's Equitable Shares for Long-Term Traffic Mitigation
With or Without Buchanan Bypass**

IMPACT ID	DESCRIPTION OF MITIGATION MEASURE	Project Share	NOTES
Year 2025 Impacts and Mitigation Measures, without Buchanan Bypass			
H12	California Avenue/SR4 WB ramps: Same mitigation as for Impact H1.	7%	See Table 35
H13	Loveridge Road/SR4 EB ramps: Same mitigation as for Impact H2.	1%	See Table 35
H14	Loveridge/East Leland Road: Separate right-turn lane for northbound Loveridge Road and right-turn overlap for all approaches.	15%	Based on PM peak hour traffic
H15	Railroad Avenue/Buchanan Road: Provide two separate northbound right-turn lanes northbound with overlap phasing	4%	Based on PM peak hour traffic
H16	Harbor Street/Buchanan Road: Two through-travel lanes in each of the eastbound and westbound directions.	20%	Based on PM peak hour traffic
H17	Loveridge Road/Buchanan Road: 1) 4-lane section on Buchanan Road or 2) dual southbound left-turn lane and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane.	63%	Based on AM peak hour traffic
H18	Meadows/Buchanan Road: Same mitigation as for H4/H5.	37%	See Table 35
H19	Somersville/Buchanan Road: Same mitigation as for IMPACT H6	40%	See Table 35
H20	Buchanan Bypass within Project Limits: Construct the Bypass with the median in place even in the early phase before future opening of the bypass for through-traffic connection.	100%	
Year 2025 Impacts and Mitigation Measures, with Buchanan Bypass			
H21	California Avenue/SR4 WB ramps: Same mitigation as for IMPACT H1/H12	0%	Based on peak hour traffic
H22	Loveridge Road/SR4 EB ramps: Same mitigation as for IMPACT H2/H13	4%	Based on PM peak hour traffic
H23	Loveridge/East Leland Road: Same mitigation as for IMPACT H14	2%	Based on PM peak hour traffic
H24	Bypass/Kirker Pass Road: Intersection design as part of the bypass should ensure that the intersection would operate with acceptable levels of service.	2%	Based on AM peak hour traffic
H25 - H28	"B" Street: Traffic-calming measures. Scored concrete all-weather surface, with section details and scoring pattern and depth. Re-design to reduce grade. Design and construction of curb cuts for driveways and on-street parking subject to restrictions and City approval. On-site adjustments to lots/lot lines.	100%	Includes 100% of design and construction costs
NOTES: Calculations are based on Caltrans methods. LOS calculations and turning movement volume information were provided by W-Trans. SOURCE: W-Trans, September 2006			



GRAPHICS REVISIONS AND ERRATA

Chapter III also contains graphics revisions necessary to clarify or correct the Draft EIR. Each revised figure is identified by the same figure number in the title block as it appears in the Draft EIR and by page reference to the Draft EIR.

Figure 5 (Draft EIR, page V-59)

Figure 5 (p. 211) illustrates acquisition zones proposed under the East Contra Costa County HCP/NCCP. Figure 5 also illustrates areas of that were areas of proposed critical habitat of the CTS and CRLF. Areas of proposed critical habitat for both species have now been deleted by Final Rule.

On April 13, 2006, the USFWS published in the Federal Register the CRLF Critical Habitat Final Rule. The Final Rule excluded several areas of proposed CRLF critical habitat, including the area within the East Contra Costa County HCP/NCCP. All of proposed CRLF Critical Habitat Unit CCS-1B was excluded. In Figure 5 (p. 211), the territory contained within (generally south of) the turquoise line was excluded by Final Rule on April 13, 2006.

Figure 6 (Draft EIR, page V-69)

Figure 6 (p. 213) illustrates areas of that were areas of proposed critical habitat of the CTS and CRLF. Areas of proposed critical habitat for both species have now been deleted by Final Rule.

Figure 14 (Draft EIR, page V-147)

The entire 136.85-acre parcel, APN 089-050-067, outlined in green in Figure 14 (p. 214), is located within DA 70.

Figure 19 (Draft EIR, page V-175)

Figure 19 illustrates prominent slopes on the project site. Figure 19 (p. 215) as modified herein shows the prominent slopes in color.

Figure 20 (Draft EIR, page V-240)

Figure 21 illustrates study area intersections and is incorrectly numbered as Figure 20. It should be labeled "Figure 21" as herein (p. 216). The figure has been amended to show additional intersections identified by Caltrans.

Figure 21 (Draft EIR, page V-242)

Figure 22 illustrates existing peak hourly and daily traffic volumes and is incorrectly numbered as Figure 21. It should be labeled "Figure 22" as herein (p. 217).



Figure 25 (Draft EIR, page V-249)

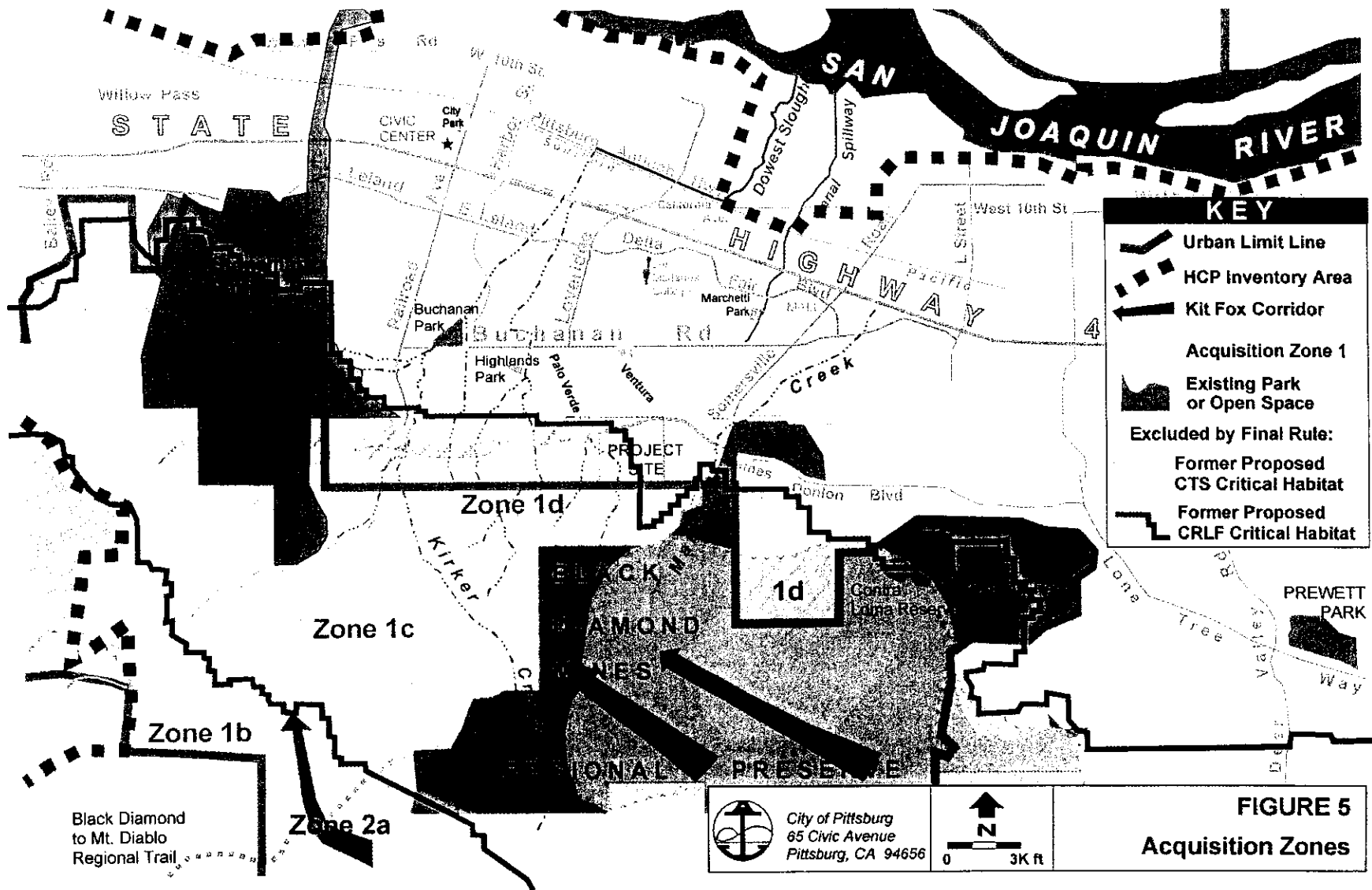
Figure 25 illustrates the distribution of project-generated traffic. Revised Figure 25 (p. 218) shows Caltrans-listed intersections and corrects the presentation of project traffic distribution on James Donlon Boulevard and Railroad Avenue.

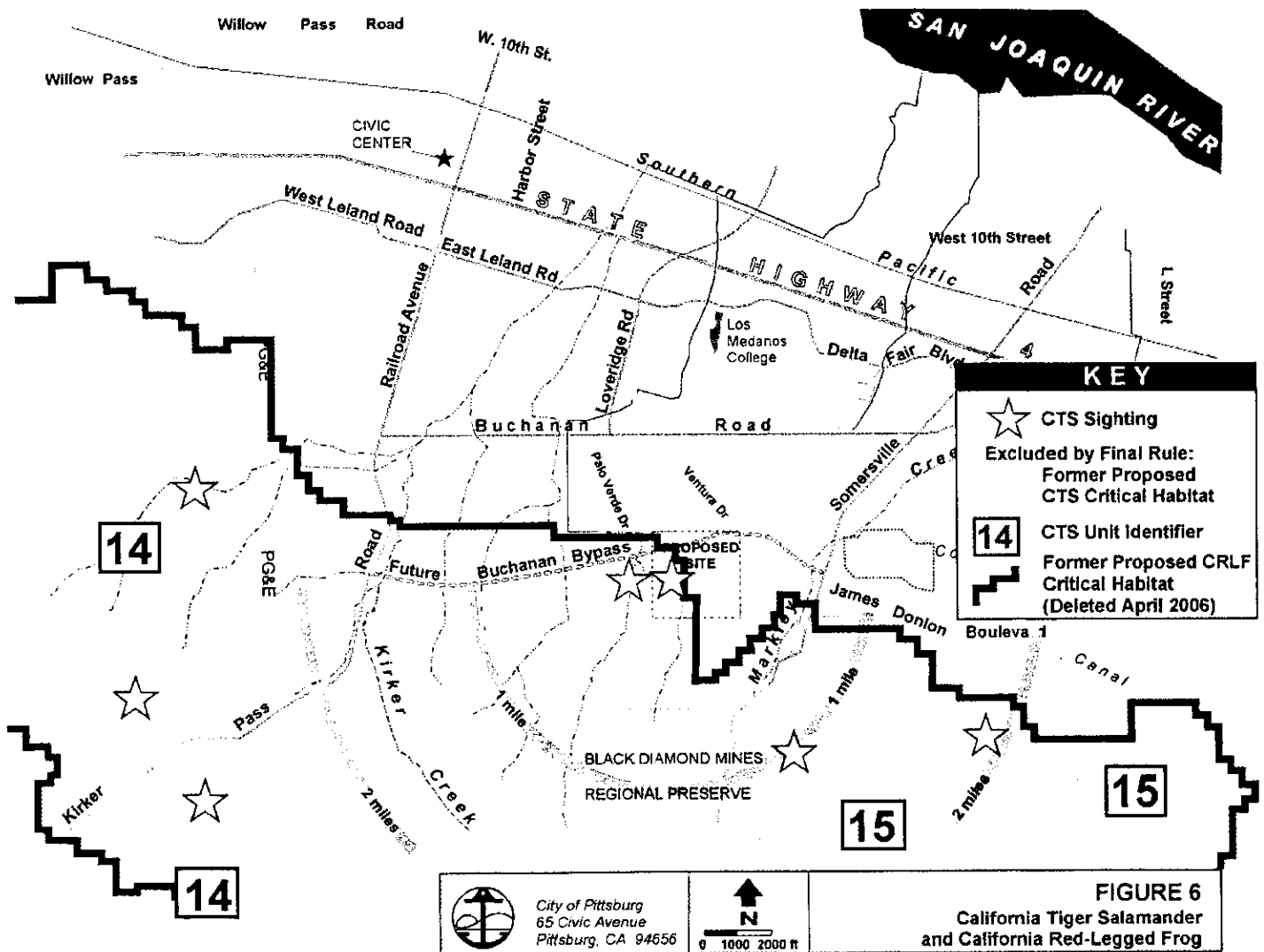
Figure 32 (Draft EIR, page VI-354)

Figure 32 illustrates alternative site locations. Revised Figure 32 (p. 219) notes the proposed CRLF critical habitat territory generally south of the turquoise line was excluded by Final Rule on April 13, 2006. This revision is consistent with the deletion of proposed areas of critical habitat by USFWS, as noted in Figures 5 and 6.

Figure 33 (added graphic)

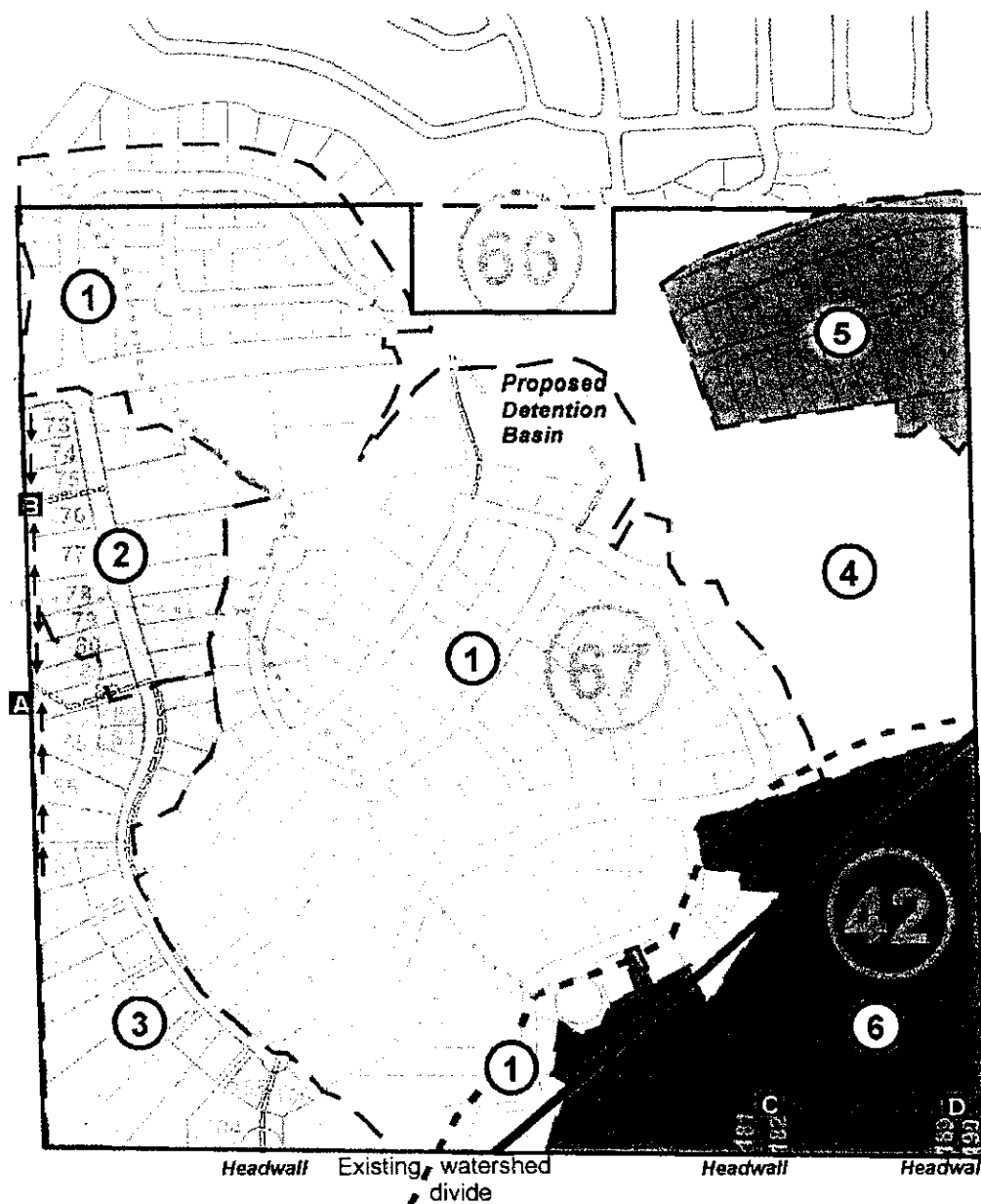
Figure 33 (p. 220) illustrates the parcels around the project site. Figure 33, in conjunction with Table 34 (p. 206), was added to provide enhanced detail about the existing parcelization of land in the neighborhood having similar grassland habitat as the proposed project.


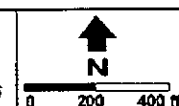






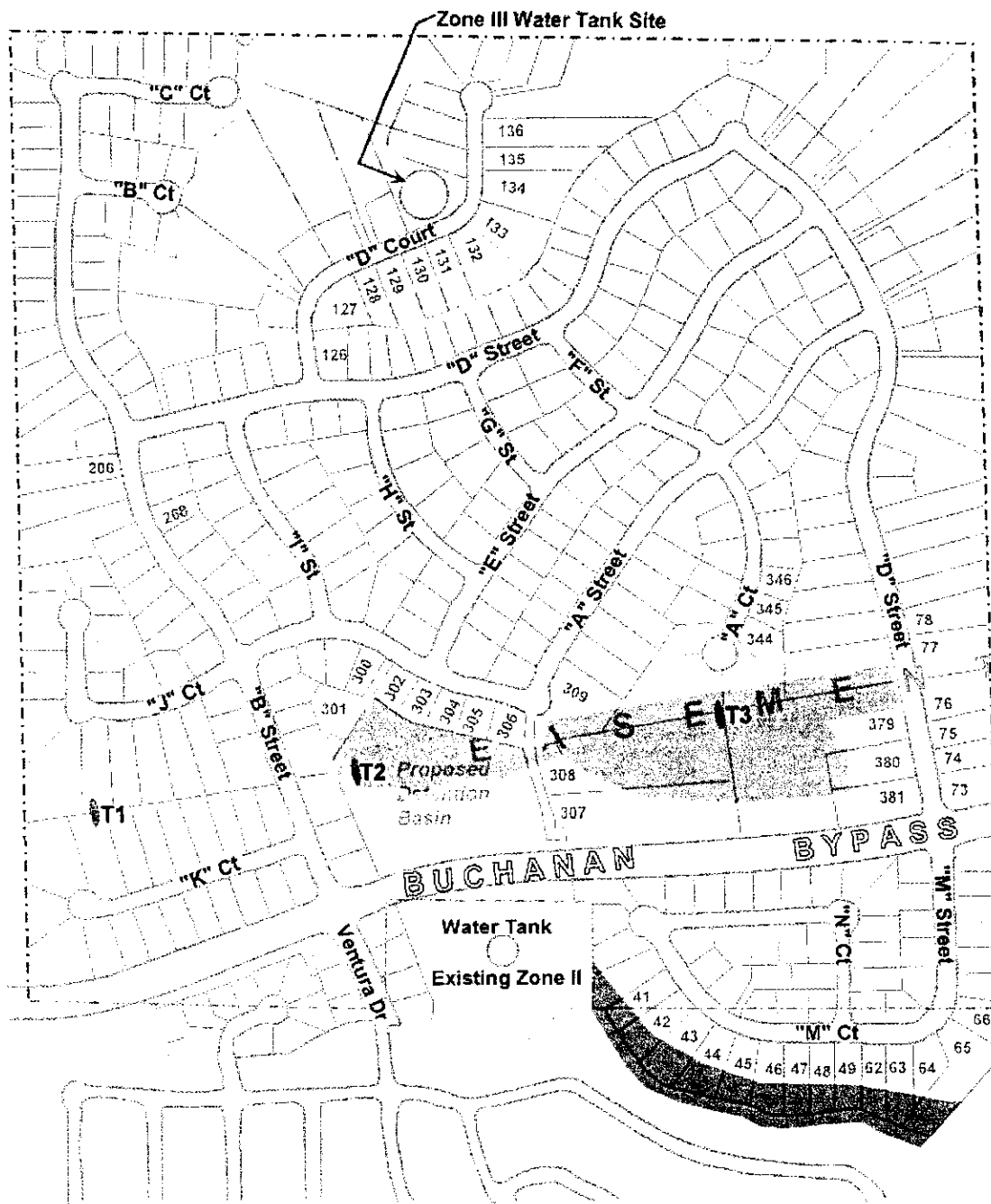
KEY			
	Proposed drainage sub-area drains west to Kirker Creek via diversion at Palo Verde Dr.		Proposed drainage sub-area drains to Highlands Ranch via collection at Ventura Drive.
	Proposed drainage sub-area drains east to Markley Creek.		Proposed drainage sub-area drains to on-site detention basin.



 <p>City of Pittsburg 65 Civic Avenue Pittsburg, CA 94656</p>	 <p>0 200 400 ft</p>	<p>FIGURE 14 Proposed Drainage Subareas and Structures</p>
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A. U. S. D.



THOMAS



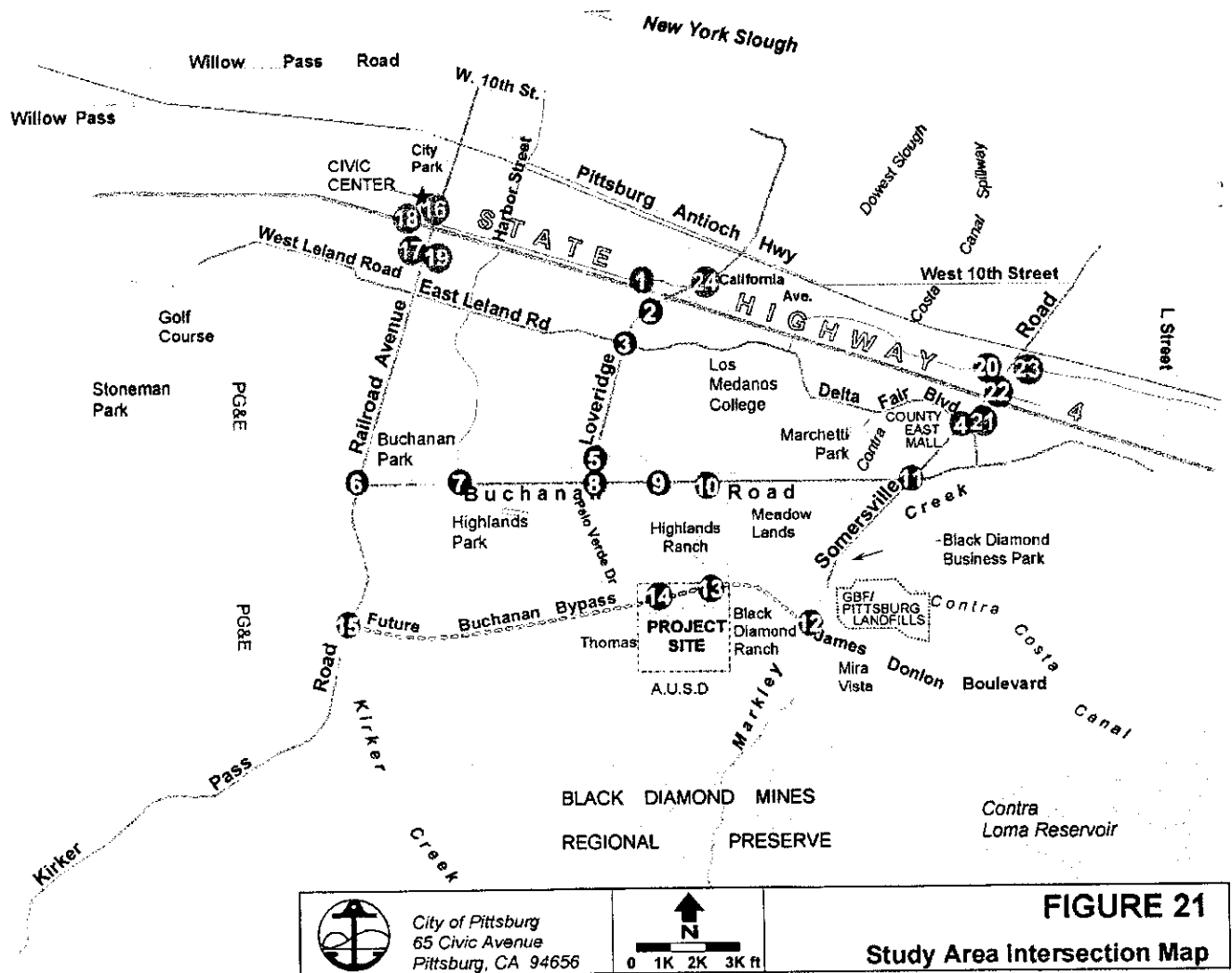


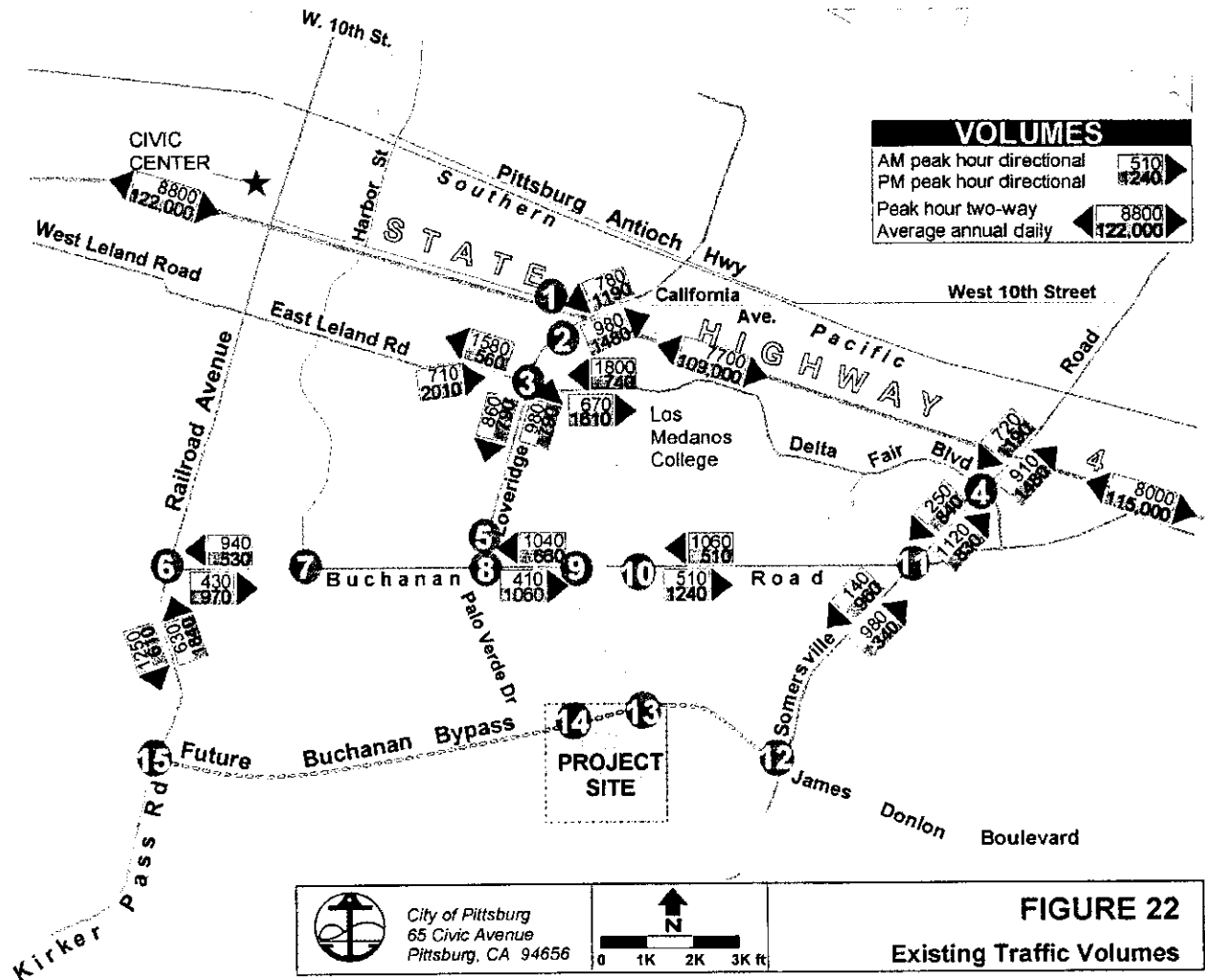
FIGURE 21

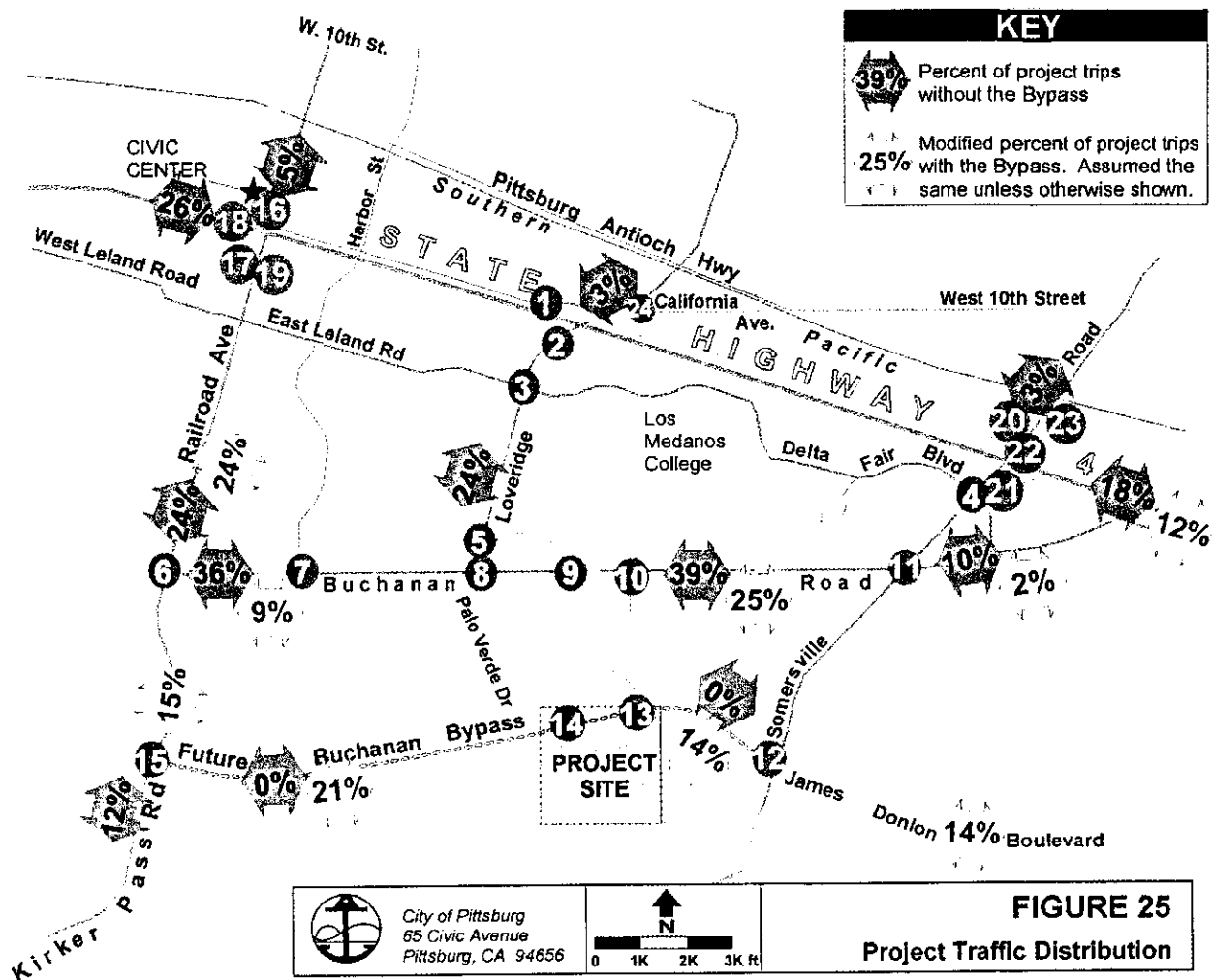
Study Area Intersection Map

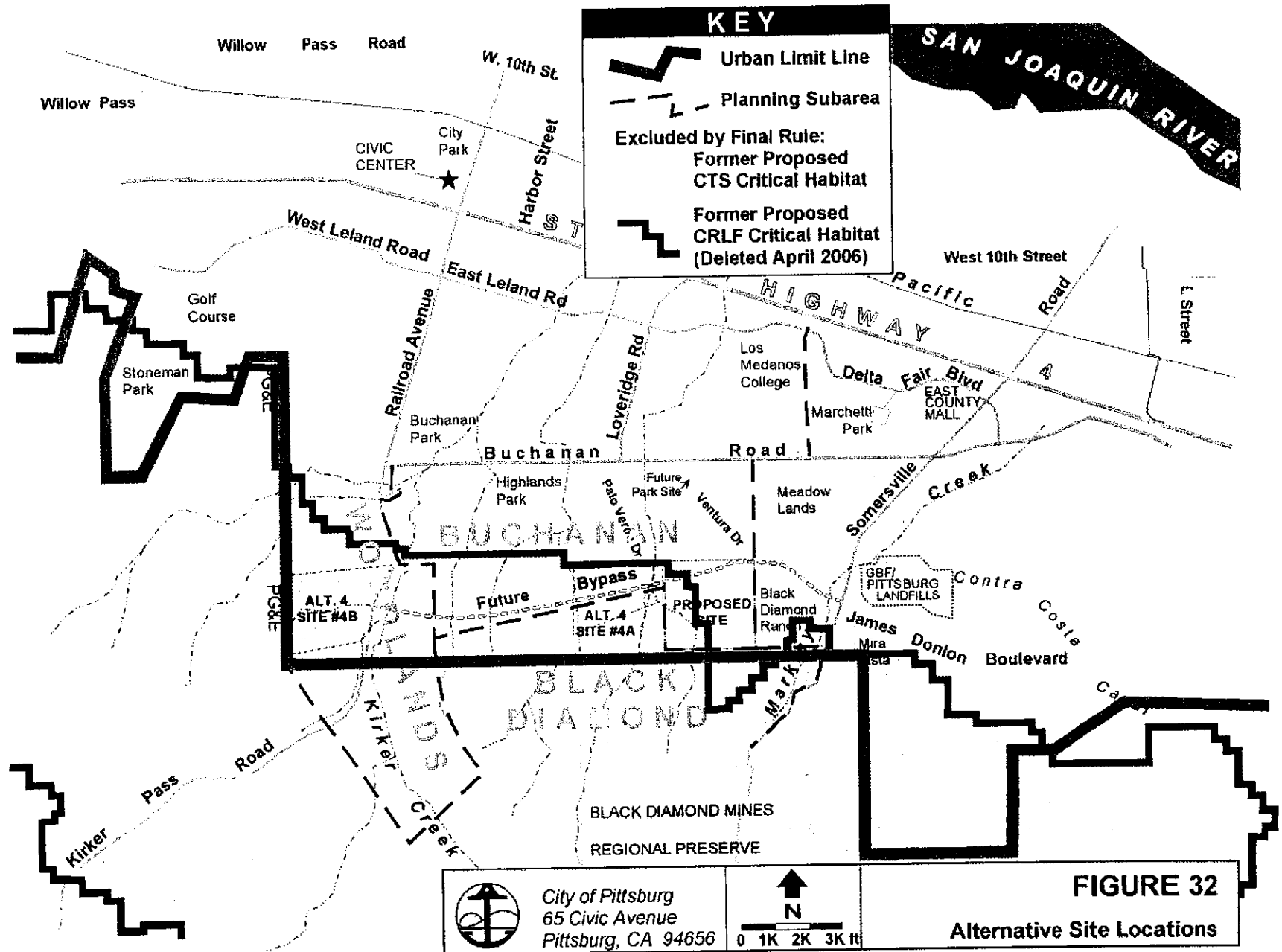


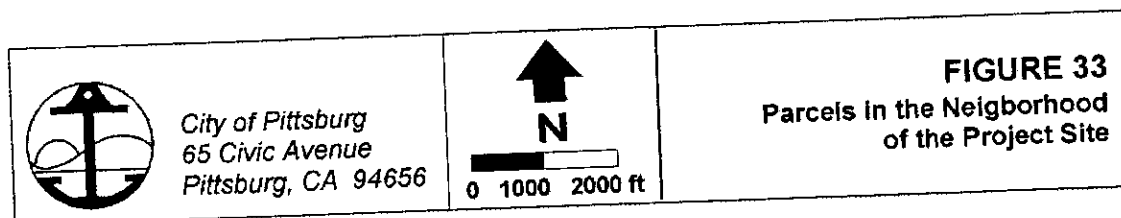
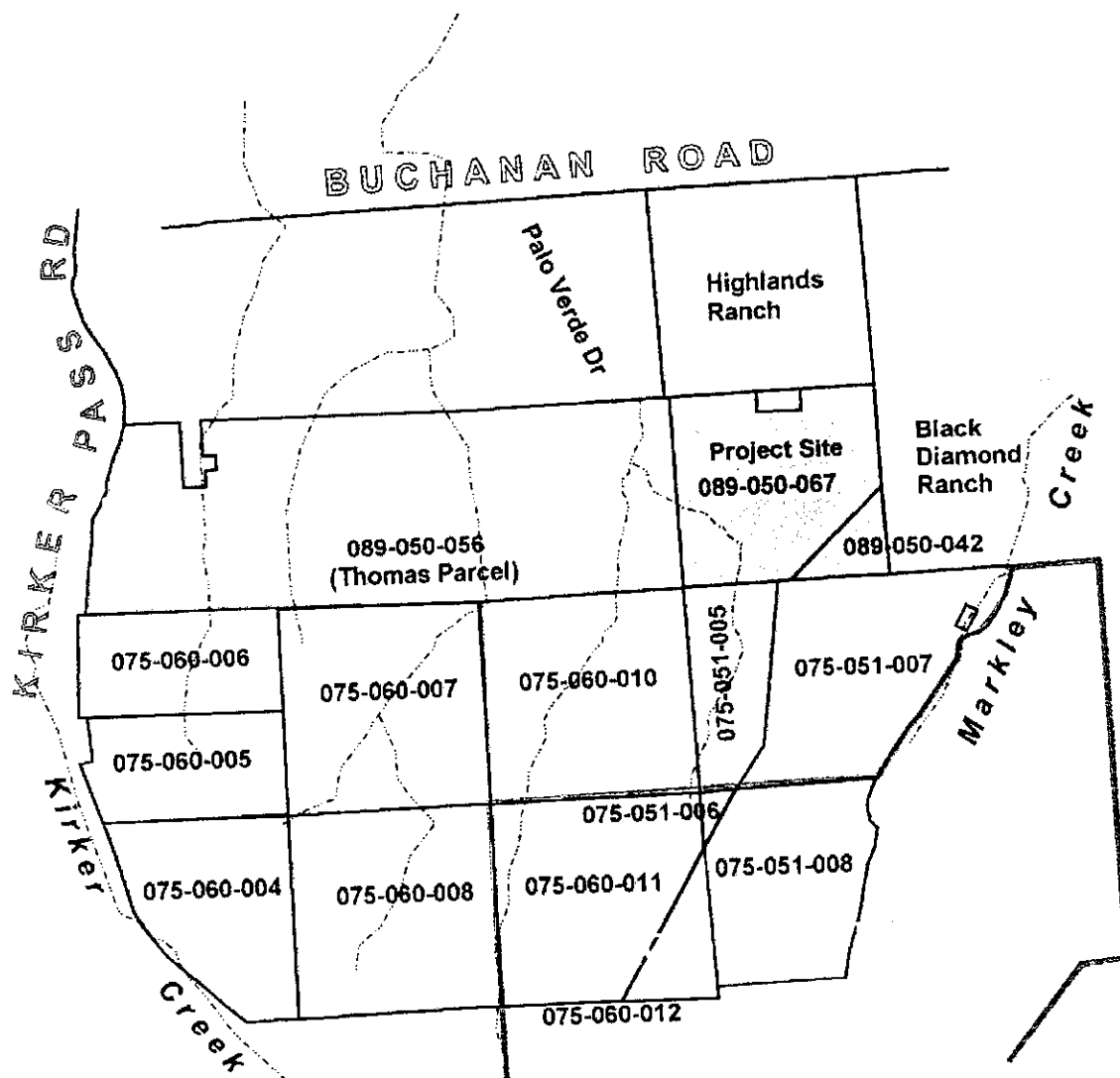
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94656













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ADDITIONAL REFERENCES

The following updated or supplemental references were researched during preparation of the Final EIR

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V APPENDICES

AIR QUALITY UPDATE.....	A-1
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AMENDED LOS CALCULATIONS.....	C-1



APPENDIX A

AIR QUALITY UPDATE



UPDATED AND REVISED AIR QUALITY INFORMATION

Ambient Air Quality Standards

On June 5, 2003, the California Office of Administrative Law approved the amendments to the regulations for the State Ambient Air Quality Standards for particulate matter (PM₁₀ and PM_{2.5}) and sulfates, at which date the new standards became effective. ARB staff recommendation for new, revised PM standards were adopted by the Board in June 2002, lowering the annual PM₁₀ standard from 30 $\mu\text{g}/\text{m}^3$ to 20 $\mu\text{g}/\text{m}^3$ and establishing a new annual standard for PM_{2.5} of 12 $\mu\text{g}/\text{m}^3$. Evaluation of health-based standards was a requirement of The Children's Environmental Health Protection Act (Senate Bill 25, Escutia, 1999).

On June 15, 2005, the national 1-hour ozone standard was revoked by the U.S. EPA, to focus on the more health protective 8-hour standard. The California ARB will continue to provide air quality statistics and information on the 1-hour standard as it has been and continues to be the focus of many State Implementation Plans (SIPs). New SIPs to address the state and national 8-hour ozone standards are due in 2007.

On April 17, 2006, the California Office of Administrative Law approved amendments to the regulations for the State Ambient Air Quality Standard for Ozone. The new standards became effective on May 17, 2006. California's ARB recommended the new ozone standard to protect the population from the adverse health effects. California's new 8-hour ozone standard, 0.070 parts per million (ppm), is the most stringent in the nation.

Area Designations

The entire 9-county Bay Area, including Contra Costa County, is designated non-attainment for the federal 1-hour and 8-hour ozone standards and the federal PM₁₀ standards, and is designated as unclassified/attainment for PM_{2.5} and CO.

The State of California also has area designations relative to its own ambient air quality standards. The entire 9-county Bay Area, including Contra Costa County, is designated non-attainment for the State's 1-hour and 8-hour ozone standards, the State's PM_{2.5} and PM₁₀ standards, and is designated as attainment for the State's CO standards. On January 20, 2005, the Air Resources Board adopted the State area designations for ozone, PM₁₀, PM_{2.5}, and carbon monoxide (CO), based on air quality data collected during 2001 through 2003. The State area designations have been approved by the California Office of Administrative Law, and they became effective on July 23, 2005.

Changes to the Environmental Setting

Changes include administrative additions or changes in the form of new or amended air quality standards, which in many instances in California are more stringent than the corresponding federal standards. Since the time of preparation of the Draft EIR or the technical air quality study, monitoring of ambient air quality in Pittsburg and Concord



has continued, resulting in additional accumulated monitoring data that could not have been reported until 2006. Tables 26, 27, and 28 have been updated to include the administrative and monitoring additions or changes. Added or amended information is shaded in pale yellow.

County-wide Emissions

County-wide emissions in Contra Costa County are presented in the Draft EIR, Chapter V.J, Air Quality, in Table 29. County-wide emissions presented in Table 29 represent a forecast for the year 2010, as published by the California Air Resources Board (ARB) in *The California Almanac of Emissions and Air Quality*, 2004 Edition. Since the time of preparation of the Draft EIR or the technical air quality study, ARB has modified its forecasts in its 2006 edition and also has developed new gridded emission estimation tool.

Current Year-2010 Emissions Forecast

The year-2010 forecast for Contra Costa County, as published by ARB in 2006, differs from the county-wide information presented in the Draft EIR in Table 29. The emissions forecast for the year-2010 has been revised downward by ARB for ROG and NOx, in accordance with new regulations and expected emission reductions, and upward for PM10.

**Air Pollutant Emissions Inventory and Forecasts
Contra Costa County, California (Tons Per Year)**

Air Pollutant	Draft EIR County-wide 2010 Emissions	Current ARB Emission Inventory or Forecasts				Difference between Draft EIR and Current Forecast 2010
		2005	2010	2015	2020	
ROG						
TOTAL	23,617	28,663	25,477	24,127	23,579	+1,860 (+8%)
MAN-MADE	na	24,502	21,316	19,966	19,418	na
NOx	36,413	34,587	30,076	26,390	24,747	-6,337 (-17%)
CO	101,152	126,472	102,602	84,826	74,168	+1,450 (+1.4%)
PM10	11,072	12,045	12,738	13,468	14,198	+1,666 (+15%)
PM2.5	na	5,647	5,913	6,168	6,460	na

Apportionment of County-wide Emissions to the Study Area

In the Draft EIR, forecast year-2010 county-wide emissions, except emissions from industrial sources, were apportioned to the Pittsburg-Antioch area using apportionment factors based on population. For the update, apportionment factors for each air pollutant (PM₁₀, CO, NOx) or ozone precursor (ROG) were developed from gridded air pollutant emissions in the Community Health Air Pollution Information System (CHAPIS).



TABLE 26
Partial List of Ambient Air Quality Standards
California

Air Pollutant	California	Federal	Notes
Ozone (O₃)	0.09 ppm (1-Hour) 0.07 ppm (8-Hour)	0.12 ppm (1-Hour) 0.08 ppm (8-Hour)	The national 1-hour ozone standard was revoked in June 2005, to focus on the more health protective 8-hour standard. California's new standard became effective in May 2006.
Carbon Monoxide	9.0 ppm (8 Hour)	9.0 ppm (8 Hour)	8-hour refers to the concentration measured continuously during eight consecutive hours. There are also 1-hour standards, which are 35 ppm (federal) and 20 ppm (California).
Respirable Particulate Matter (PM₁₀)	50 µg/m ³ (24 Hour) 30 µg/m ³ (Annual Geometric Mean)	150 µg/m ³ (24 Hour) 50 µg/m ³ (Annual Arithmetic Mean)	PM ₁₀ refers to particle sizes less than 10 microns in diameter. Ten microns equals 1 hundredth of one millimeter.
Fine Particulate Matter (PM_{2.5})	No Separate State Standard 12 µg/m ³ (Annual Arithmetic Mean)	65 µg/m ³ (24 Hour) 15 µg/m ³ (Annual Arithmetic Mean)	PM _{2.5} is a new standard recently promulgated by the U.S. EPA. PM _{2.5} refers to smaller particle sizes, less than 2.5 microns in diameter. One micron equals one thousandth of one millimeter.
Source: http://www.arb.ca.gov/aqs/aqs.htm http://www.arb.ca.gov/aqs/aaqs2.pdf			



TABLE 27
Air Quality Record for Pittsburg and Concord, California

Standards/Monitoring Site	2000	2001	2002	2003	2004	2005
Maximum Ozone (1-hour), pphm						
Pittsburg, 10 th Street	11	12	11	9.4	9.0	9.4
Concord, 2975 Treat Blvd	13.8	13.4	10.3	10.1	9.7	8.6
Maximum Ozone (8-hour), pphm						
Pittsburg, 10 th Street	8.0	9.2	9.6	8.0	8.1	7.8
Concord, 2975 Treat Blvd	9.4	8.7	8.9	8.5	8.3	7.7
Days Above 8-Hour Ozone Federal / 1-Hr Ozone State						
Pittsburg, 10 th Street	0 / 1	1 / 2	2 / 4	0 / 0	0/0	0/0
Concord, 2975 Treat Blvd	1 / 2	1 / 6	3 / 5	1 / 5	0/1	0/0
Maximum PM10^a (24-hr), µg/m3						
Pittsburg, 10 th Street	56 (na)	98 (83)	73 (77)	58 (59)	62 (64)	54 (57)
Concord, 2975 Treat Blvd	54 (56)	106 (112)	63 (66)	32 (34)	48 (51)	29 (31)
Annual PM10^a (AGM), µg/m3						
Pittsburg, 10 th Street	16.3 (na)	20.7 (na)	23.8 (24.5)	20.2 (na)	21.1 (21.7)	19.4 (20.1)
Concord, 2975 Treat Blvd	17.8 (18.5)	20.3 (21.5)	21.1 (21.7)	15.9 (16.4)	16.5 (na)	13.3 (na)
Days Above PM10^b (24-Hr) Federal / State						
Pittsburg, 10 th Street	0 / 0	0 / 1	0 / 3	0 / 1	0 / 1	0 / 1
Concord, 2975 Treat Blvd	0 / 2	0 / 3	0 / 3	0 / 0	0 / 1	0 / 0
Maximum Carbon Monoxide (1-hour), ppm						
Pittsburg, 10 th Street	4.9	5.2	6.2	3.4	4.1	3.3
Concord, 2975 Treat Blvd	4.5	4.4	3.5	3.2	2.7	2.2 ^c
Maximum Carbon Monoxide (8-hour), ppm						
Pittsburg, 10 th Street	2.4	2.4	2.5	1.7	1.9	1.7
Concord, 2975 Treat Blvd	2.7	2.7	2.3	2.0	2.0	1.5

NOTES:

µg/m³ means micrograms per cubic meter.

pphm means parts per hundred million.

ppm means parts per million.

na means insufficient data.

Table 27 does not address California's 8-hour ozone standard, which became effective on May 17, 2006.

^aResults shown are for the Federal monitoring method. Results in parentheses "()" are for the State's method.

^bPM10 is monitored on a 6-day cycle (or approximately 60 measurements per year). The number of calendar days in excess of the standard may be estimated by multiplying the columns at right by six, as suggested by the BAAQMD.

^cNo CO data after August 2005.

SOURCES:

<http://www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w/start>

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

A. Air Quality Update



TABLE 28
New PM_{2.5} Air Quality Monitoring Record for
Concord, California

PM _{2.5} Air Monitoring Station	Year	Concentrations (µg/m ³)		Completeness of Record
		High 24-Hr	Annual Average	
Concord, 2975 Treat Blvd.	2000	52.6	10.9	sufficient
	2001	68.2	10.2	sufficient
	2002	76.7	12.7	sufficient
	2003	49.7	9.7	sufficient
	2004	73.7	na	insufficient
	2005	48.7	na	insufficient
Notes: µg/m ³ means micrograms per cubic meter. na means insufficient data. Source: http://www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w/start				



TABLE 29
Air Pollutant Emissions Added by the Proposed Project
in Contra Costa County, California

Air Pollutant	Contra Costa County Year- 2010 Emissions	Pittsburg & Antioch Projected Baseline Emissions	Other Buildout Except Project (2010)	Pittsburg & Antioch Baseline + Other Buildout	Project Only (2010)	Total with Project (2010)	% Added by Project
ROG							
MAN-MADE	21,316	2,843	103	2,946	10	2,956	0.3
NATURAL	4,161	650	0	0	0	650	0.0
NOx	30,076	7,515	84	7,599	8.6	7,608	0.1
CO	102,602	15,764	659	16,423	70	16,493	0.4
PM10	12,738	1,782	70	1,852	7.4	1,859	0.4
<p>NOTES: Emissions have been expressed for consistency in tons per year. Assumptions for 2010 emissions include:</p> <ol style="list-style-type: none"> 1. EPA Phase II wood stoves (1% of dwellings) and natural gas-fired fireplaces with artificial logs. 2. No indirect source fugitive dust emissions. Fugitive dust from construction is tabulated separately in Table 30. 3. County-wide emissions are apportioned based upon CHAPIS emissions in a 13 km x 20 km area called herein the Pittsburg-Antioch area or study area. 4. Emissions from industrial facilities have been added back to CHAPIS-apportioned emissions. 5. NOx emissions from industrial facilities in the Pittsburg-Antioch area comprise approximately 63 percent of projected baseline NOx emission (column 3). <p>SOURCES: http://www.arb.ca.gov/gismo/chapis_v01_6_1_04/chapis_v02.asp Urbemis2002.</p>							



Pittsburg-Antioch year-2005 emissions were obtained for a 13 km x 20 km gridded area using ARB's CHAPIS. Contra Costa County year-2005 emissions were obtained for a 32 km x 52 km gridded area using CHAPIS.

Industrial source emissions in the Pittsburg-Antioch area and in Contra Costa County, also available from CHAPIS, were subtracted before calculating the apportionment factors. The apportionment factors for each pollutant were calculated as fractions of year-2005, man-made, non-industrial emissions in the Pittsburg-Antioch area divided by year-2005, man-made, non-industrial emissions in Contra Costa County.

Based on the updated approach enabled by CHAPIS, apportionment factors for the Pittsburg-Antioch area were found to range from 0.120 to 0.137 times the corresponding county-wide emissions. In comparison, the apportionment factor based on demographic considerations and represented in Table 29 in the Draft EIR, was about 0.20 times the corresponding county-wide emissions.

The updated apportionment factors then were applied to the ARB's current forecast of year-2010 emissions in Contra Costa County. Before applying the factors, industrial source emissions in the county, obtained from CHAPIS, were subtracted. The Pittsburg-Antioch area itself has substantial industrial sources in the 13 km x 20 km area, and these emissions were added back after apportioning county-wide, man-made, non-industrial emissions to the study area.

CHAPIS provided insight to the Pittsburg-Antioch area's industrial sources of air pollutant emissions. Industrial sources in 2005 emitted about 63 percent of the area's total annual NOx emission (8,060 tons per year), 18 percent of the area's total annual CO emission (18,800 tons per year), and only 5 percent of the area's total annual ROG emission (3,930 tons per year). Natural sources emitted about 16 percent of the area's total annual ROG emission. Natural ROG emission was apportioned based on area.

Project's Contribution to Study Area Emissions

The proposed project's contribution to study area emissions is updated in Table 29. Though ARB's CHAPIS emissions estimation tool and current emissions forecasts are new or revised, the conclusion of the analysis for the proposed project is similar.

The proposed project's contributions to air pollutant emissions in the study area would be 0.4 percent of PM10 and CO emissions, 0.3 percent of ROG emission, and 0.1 percent of NOx emission. The project contributions are similar to the contributions reported in the Draft EIR, Chapter V.J, Air Quality.

The proposed project's contributions of 0.4 percent of PM10 emission and 0.4 percent of CO emission in the study area is nearly the same as 0.3 percent, which was previously reported. The proposed project's contributions of 0.3 percent of ROG emission and 0.1 percent of NOx emission in the study area are exactly as previously reported in the Draft EIR.



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APPENDIX B

TRAFFIC & CIRCULATION



H. TRAFFIC & CIRCULATION

EXISTING SETTING

The location of the project site in relation to the study area intersections and roadways is shown in Figure 21.

State Highway 4 (SR 4)

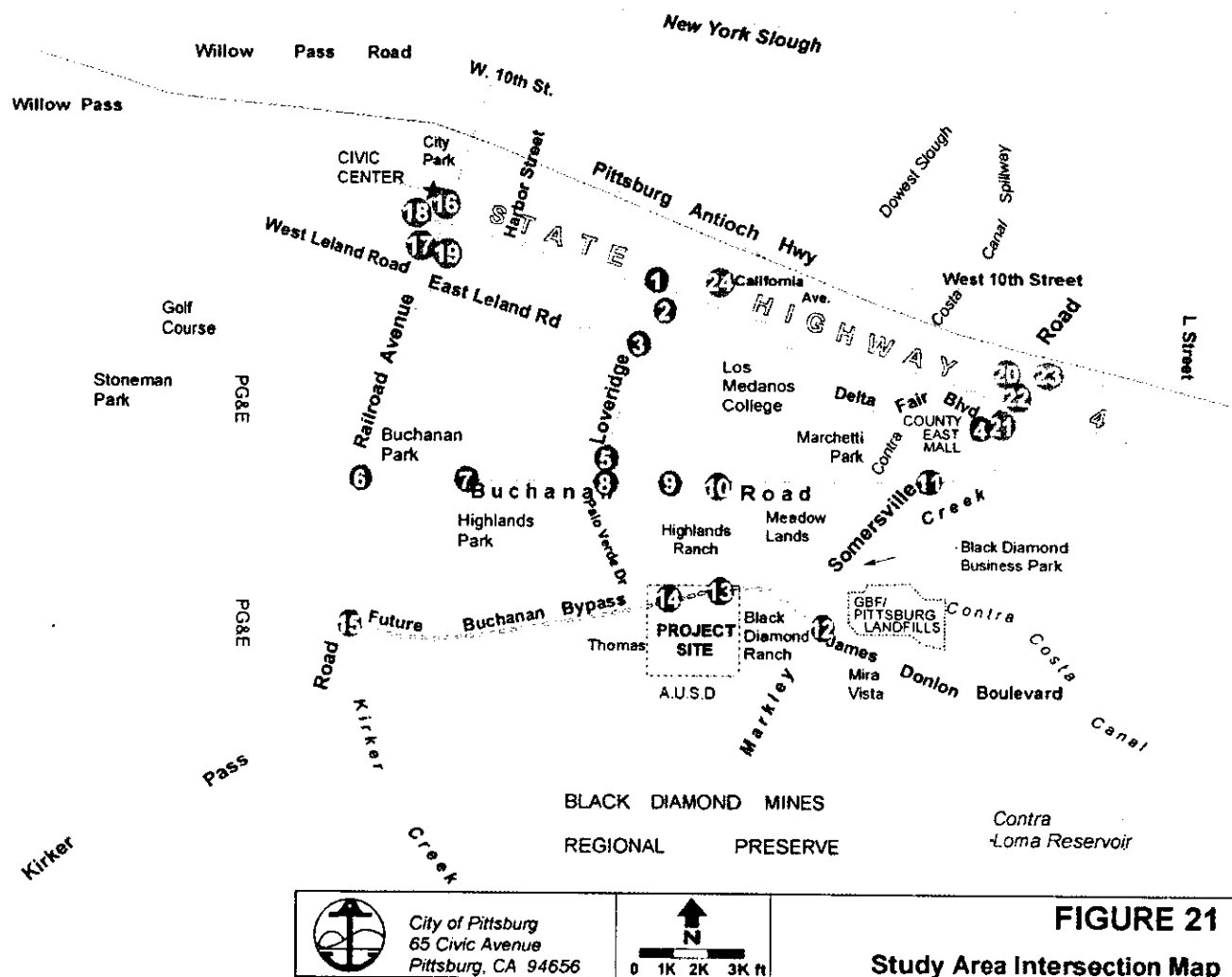
SR 4 between the Railroad Avenue and Bailey Road interchanges is being widened to eight lanes, four in each direction. In the westbound direction, following the construction zone west of Railroad Avenue, SR 4 was widened from two to three lanes and then to four lanes before the Bailey Road interchange. In the eastbound direction, SR 4 merges from four lanes to three lanes and then to two lanes east of the Bailey Road interchange, and traverses through the construction zone west of Railroad Avenue.

Widening of the segment of SR 4 between Railroad Avenue and Loveridge Road currently is under construction. Widening of this segment is scheduled to be completed in Spring 2006.

Caltrans and the Federal Highway Administration, in cooperation with the Contra Costa Transportation Authority (CCTA), propose to widen State Route 4 (SR 4), its interchanges and affected local roadways, from approximately 0.8 mile west of Loveridge Road in Pittsburg to approximately 0.7 mile east of Hillcrest Avenue in Antioch. The widening is intended to ease traffic congestion, accommodate future travel demand, and improve traffic operations along SR 4. The SR widening project (Loveridge Road to Highway 160) would include the following elements:

- Widen SR 4 from the existing four lanes to eight lanes consisting of one high occupancy vehicle (HOV) lane and three mixed-flow lanes in each direction.
- Preserve sufficient width in the SR 4 median through the Loveridge interchange to accommodate possible future public transit (e.g., BART) improvements.
- Reconstruct SR 4 interchanges at Loveridge Road, Somersville Road, Contra Loma Boulevard/L Street, Lone Tree Way/A Street, Hillcrest Avenue to accommodate the freeway widening.

SR 4 carries approximately 7,700 vph to 8,800 vph in the hours of peak traffic volumes, depending on the location on SR 4 in the study area. SR 4 carries approximately 109,000 to 122,000 vpd, the annual average daily volume (AADT) in the study area.



Buchanan Road is a 3-lane east-west “Route of Regional Significance” with one travel lane in each direction and center turn lanes. West of the intersection with Somersville Road, Buchanan Road opens to four lanes. In the vicinity of Ventura Drive, Buchanan Road carries an average of 1,600 vehicles per peak hour, and has an AADT of approximately 20,400 vehicles per day (vpd).

Railroad Avenue-Kirker Pass Road is a north-south “Route of Regional Significance” with two travel lanes in each direction. Railroad Avenue begins north of Buchanan Road and changes name to Kirker Pass Road to the south of Buchanan Road. Railroad Avenue-Kirker Pass Road carries an average of 1,800 vehicles per peak hour, and has an AADT of approximately 19,600 vpd.

Loveridge Road is a north-south “Basic Route” with two travel lanes in each direction. Loveridge Road carries an average of 915 vehicles per peak hour, and has an AADT of approximately 9,700 vpd in the vicinity of Buchanan Road.



Somersville Road is a north-south “Route of Regional Significance” with two travel lanes in each direction. Somersville Road carries an average of 3,000 vehicles per peak hour, and has an AADT of approximately 32,300 vpd in the vicinity of Buchanan Road.

Ventura Drive provides access to the existing residential neighborhood north of the proposed Sky Ranch II project. There are about 15 to 20 homes which front on Ventura Drive with driveway access. There are some sections of the street which have side facing residential units. Based on criteria contained in the Pittsburg General Plan, Ventura Drive classification would be a blend of a collector street and a local street since it provides circulation within the neighborhood (collector) and provides access to abutting properties (local). Table 7-1 of the General Plan suggests that collector streets carry a maximum of 15,000 vpd and local streets carry a maximum of 5,000 vpd. South of the intersection with Buchanan Road, Ventura Drive carries approximately 300 vehicles during the PM peak hour and has an AADT of approximately 3,600 vpd.

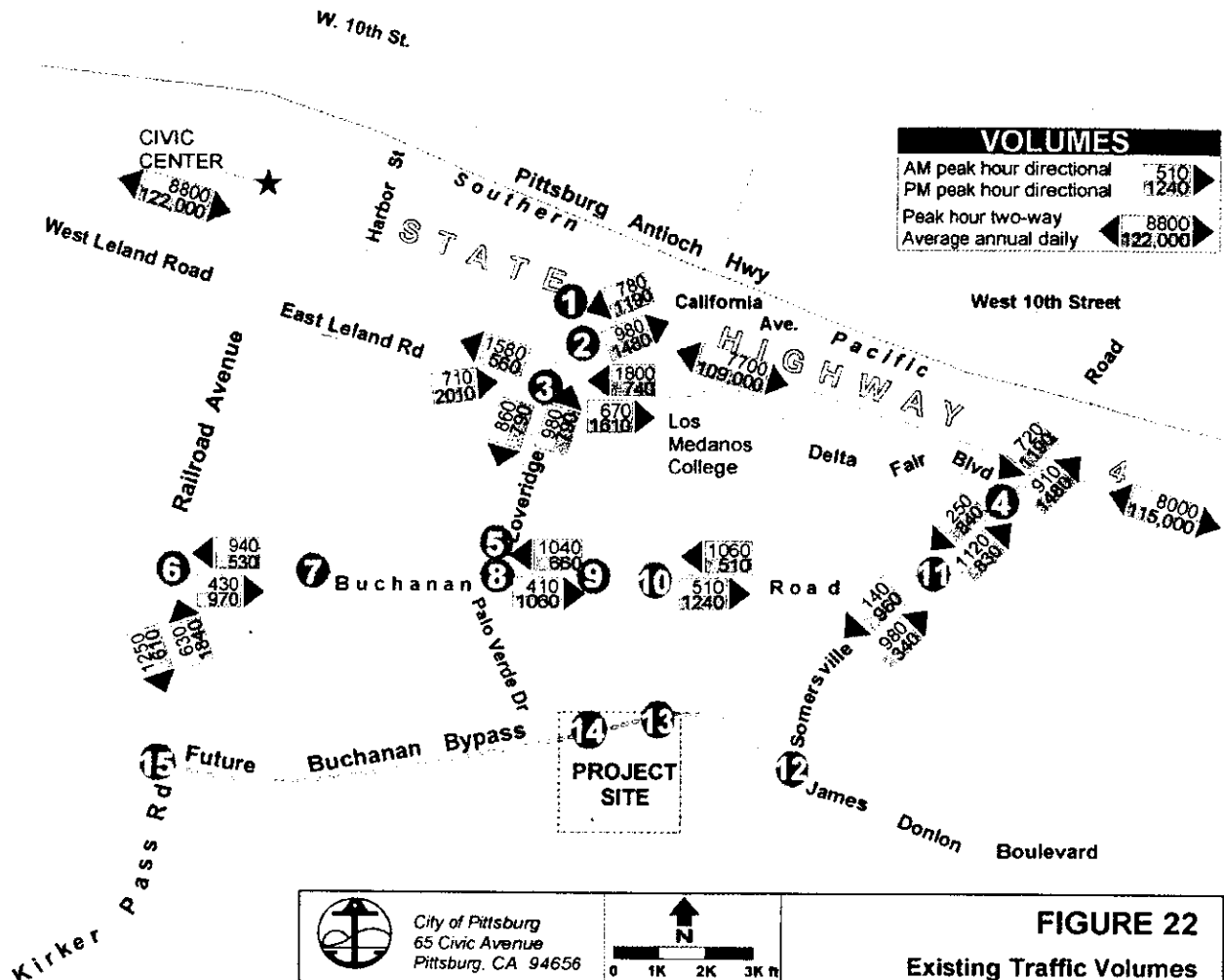
California Avenue extends in an east-west direction on the north side of SR 4, connecting Railroad Avenue to the west with Loveridge Road to the east. It provides one travel lane in each direction and has an AADT volume of approximately 12,000 vpd.

East Leland Road/Delta Fair Boulevard. East Leland Road extends in an east-west direction south of SR 4 through the City of Pittsburg, changing to Delta Fair Boulevard in the City of Antioch. It connects Bailey Road on the west with Somersville Road and Buchanan Road on the east. East Leland Road provides two travel lanes in each direction and has an AADT volume of approximately 25,000 vpd east of Railroad Avenue. It serves as an alternate parallel route to SR 4 when SR 4 is congested.

DIRECTIONAL TRAFFIC VOLUMES

Figure 22 illustrates morning and evening directional traffic volumes on local roads and two-way traffic volumes on SR 4. On SR 4 and several surface streets in the study area, the direction of predominant travel is pronounced in peak commute periods. During the morning peak hour, about 5,500 vehicles can be served on SR 4 in the westbound direction. During the evening peak hour, over 6,000 vehicles can be served in the eastbound direction. Peak-hour demand exceeding capacity causes congestion, generating queues of ‘stop-and-go’ vehicles and lowering freeway throughput.

Overflow demand, which includes all vehicles that would travel in the peak hour but cannot fit given capacity constraints, “spreads” into the adjacent hours. Overflow demand for SR 4 creates a congested westbound morning peak period of three to four hours and a congested eastbound evening peak period of three hours.



In the morning and evening commute hours, the predominant direction of travel on Buchanan Road, Kirker Pass Road and Railroad Avenue, East Leland and Delta Fair Boulevard is pronounced. On Buchanan Road over 1,000 vph travel westbound in the AM and eastbound in the PM. In the counterflow direction, that is, eastbound in the AM and westbound in the PM, the hourly volume is one-half the peak directional volume. A similar pattern prevails on Kirker Pass Road and Railroad Avenue, which has a direction of peak traffic flow northbound in the evening commute hours and southbound in the morning commute hours.

East Leland Road and Delta Fair Boulevard serves as a parallel route alternative to SR 4 when SR 4 is congested. As illustrated in Figure 22, the predominant direction of travel on East Leland Road and Delta Fair Boulevard is the same as on SR 4. In the AM, the hourly traffic volume westbound on East Leland Road and Delta Fair Boulevard is 1,580 to 1,800 vph. In the PM, the hourly traffic volume eastbound on



East Leland Road and Delta Fair Boulevard is 1,610 vph to 2,010 vph. In the counterflow direction, hourly volumes are less than one-half the volumes in the peak direction.

DESCRIPTIONS OF LEVELS OF SERVICE

Level of Service (LOS) refers to the operating characteristics of highways, ramps, roads, or intersections, typically during conditions of peak traffic volumes, such as the morning or afternoon commute hour. The latter conditions are termed AM Peak and PM Peak. Figure 23 illustrates the various conditions characteristic of each LOS, A through F.

Free flow or forced flow, vehicle stopped delay, and volume-to-capacity are all terms or measures used to characterize LOS. LOS is used to rank traffic operations on various kinds of facilities based on traffic volumes and road capacities using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions (see Figure 23).

In accordance with the Contra Costa Transportation Authority's (CCTA) *Technical Procedures*, the signalized intersections in the study area were evaluated using the CCTA Methodology, which is similar to the Circular 212 Planning Method except that the capacity for through movements has been increased from 1,500 vehicles per hour to 1,800 vehicles per hour. LOS is calculated by critical movement with lower capacities assumed for turning movements. The LOS service thresholds are stated in Table 18.

The Transportation Research Board officially replaced Circular 212 Planning Method in 1985 with the "Operations Method" which is currently contained in the 2000 Highway Capacity Manual (HCM). The 2000 HCM method evaluates delay for each approach based on turning movements, opposing and conflicting traffic volumes, and the number of lanes. Average vehicle delay in seconds per vehicle is computed for the intersection as a whole, and is then related to a Level of Service.

The CCTA method and its software are fairly limited in terms of their ability to modify various elements of an intersection that affect its level of service; therefore, the 2000 HCM method was used in some cases where more flexibility was needed in identifying mitigation improvements.

Existing Operations

Highway 4 -- Currently, in the morning, westbound, east of Loveridge Road, SR 4 operates at LOS F. In the evening, eastbound, east of Loveridge Road, SR 4 operates at LOS E or F.



During the morning peak hour, about 5,500 vph can be served in the westbound direction. During the evening peak hour, over 6,000 vph can be served in the eastbound direction.

Peak-hour demand exceeding capacity causes congestion, with queues of “stop-and-go” vehicles and reduced freeway throughput. Overflow demand, which includes all vehicles that would travel in the peak hour but cannot fit given capacity constraints, “spreads” into the adjacent hours. Overflow demand for SR 4 creates a congested westbound morning peak period of three to four hours duration and a congested eastbound evening peak period of three hours duration.

TABLE 18
Descriptions of Levels of Service for Intersections

LOS	Description of Vehicle Delay and Flow	Volume-to-Capacity (V/C ratio)
A	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.	0.60
B	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.	0.61-0.70
C	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.	0.71-0.80
D	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.	0.81-0.90
E	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.	0.91-1.00
F	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.	>1.01
SOURCES <i>Technical Procedures</i> , Contra Costa Transportation Authority <i>Highway Capacity Manual</i> , Transportation Research Board, 2000.		

Intersections—Currently, the 11 existing study intersections are all operating acceptably at LOS D or better during both peak periods evaluated. A summary of the level of service calculations is contained in Table 19.



FIGURE 23
LEVELS OF SERVICE PORTRAYED



Level of Service A *Insignificant delays.*



Level of Service D *Queues develop but dissipate rapidly.*



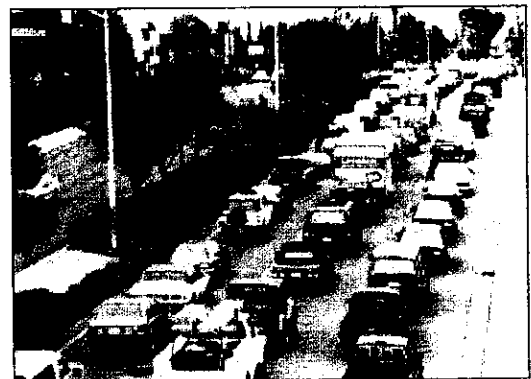
Level of Service B *Minimal delays.*



Level of Service E *Drivers wait through several signal cycles. Long queues.*



Level of Service C *Acceptable delays.*



Level of Service F *Represents jammed conditions.*



TABLE 19

Existing Intersection Levels of Service

Traffic LOS Standards

The City of Pittsburg *General Plan* identifies two primary route categories: Routes of Regional Significance and Basic Routes. Routes of Regional Significance located in the study area include State Route 4, Leland Road, Buchanan Road, Somersville Road, Railroad Avenue and Kirker Pass Road. All other roads within the study area are classified as Basic Routes.

As part of the City of Pittsburg's *General Plan*, the Level of Service (LOS) standards for intersections formed by one or more route of regional significance are as follows:

- LOS D or better at signalized intersections along non-freeway State Route 4.
- LOS E or better at unsignalized intersections along non-freeway State Route 4.
- LOS E or better on non-freeway State Route 4 from Balfour Road to the San Joaquin County line.
- LOS E or better (95% capacity) on Kirker Pass Road.
- LOS D or better (85% capacity) on intersections along major arterials, except for intersections along Bailey Road.
- LOS E or better at intersections along Bailey Road.

INTERSECTION	EXISTING LEVEL OF SERVICE	
	AM	PM
1. California Ave/SR 4 WB Ramps	0.66/B	0.86/D
2. Loveridge Rd/SR 4 EB Ramps	0.50/A	0.74/C
3. Loveridge Rd/Leland Rd	0.70/B 0.68/B	0.71/C 0.66/C
4. Delta Fair Blvd/Somersville Rd	0.46/A	0.67/B
5. Loveridge Rd/Ventura Dr	0.43/A	0.37/A
6. Railroad Ave/Buchanan Rd	0.53/A	0.62/B
7. Harbor St/Buchanan Rd	0.67/B 0.62/B	0.64/B 0.63/B
8. Loveridge Rd/Buchanan Rd	0.70/B	0.62/B
9. Buchanan Rd/Ventura Dr	0.69/B	0.77/C
10. Buchanan Rd/Meadows Ave	0.67/B	0.77/C
11. Somersville Rd/Buchanan Rd	0.87/D	0.73/C
12. Somersville Rd/Buchanan Road Bypass-James Donlon Boulevard	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A
14. "M" St-"D" St/Buchanan Bypass	N/A	N/A
15. Kirker Pass/Buchanan Bypass	N/A	N/A
NOTES: CCTA		
SOURCE: W-Trans, September 2005; September 2006.		



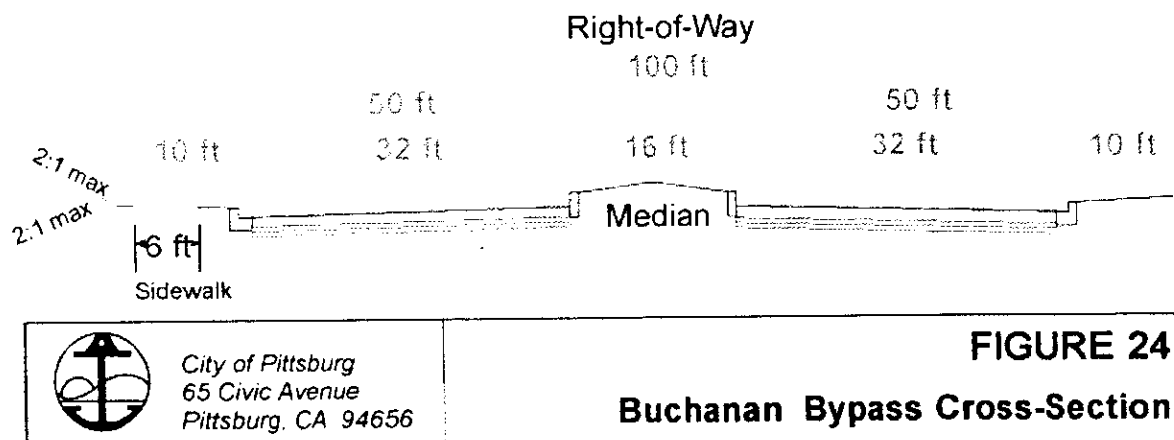
Planned Buchanan Road Bypass

As shown on Figures 21 and 22, the proposed Buchanan Road Bypass is proposed to extend from Railroad Avenue-Kirker Pass Road, or from another north-south connection east of Railroad Avenue, to the intersection of Somersville Road/James Donlon Boulevard. As shown in the figures the future Buchanan Bypass would be oriented generally east-west as is Buchanan Road.

The 2004 Update to the Contra Costa Countywide Comprehensive Transportation Plan, May 19, 2004, indicates that implementation of the Buchanan Road Bypass is an adopted action for East County. The City of Pittsburg's General Plan indicates that funding for the Buchanan Road Bypass will be funded by both the Pittsburg Traffic Mitigation Fee and the Regional Traffic Mitigation Fee overseen by the East Contra Costa Regional Fee & Financing Authority.

Historically, the proposed Buchanan Bypass has been shown as a 2-lane artery (1995 CCTA Countywide Comprehensive Transportation Plan & East County Action Plan, Regional Traffic Mitigation Fee) or as a 4-lane artery (1997 Pittsburg Traffic Mitigation Fee Study). The Buchanan Bypass appears in the City of Pittsburg's Five-Year Capital Improvement Plan 2003/4-2008/9, Projects ST-4 (Preliminary Engineering) and ST-36 (Design & Construction). A combination of Regional Transportation Development Impact Mitigation (RTDIM) fees and Local Traffic Mitigation Fees (TMF) would pay for ST-4, and a combination of RTDIM fees, local TMF, Regional TMF, developer contributions, Measure J funds, and transportation grant funds would pay for ST-36. So far, \$727,842 has been committed for ST-4.

The current proposal includes constructing pavement, curb, gutters, sidewalks, median and landscaped area, and striping for two travel lanes, one in each direction, all within a 100-foot wide right-of-way. Temporary barricades would be constructed at the project's eastern and western limits to restrict use of the bypass segment to local project traffic. At its western end, access would be provided to enable the left-turn out from "M" Street, which provides access to the area north of the Buchanan Bypass. Figure 24 shows the cross-section.





TRAFFIC IMPACT ASSESSMENT

PROJECT EVALUATED

The proposed project includes 415 single-family lots and construction of the segment of the Buchanan Bypass within the limits of the Proposed Site.

PROJECT TRIP GENERATION

The proposed project would generate traffic from 415 single-family residences during the lifetime of the project (Table 20).

TABLE 20
Project Trip Generation

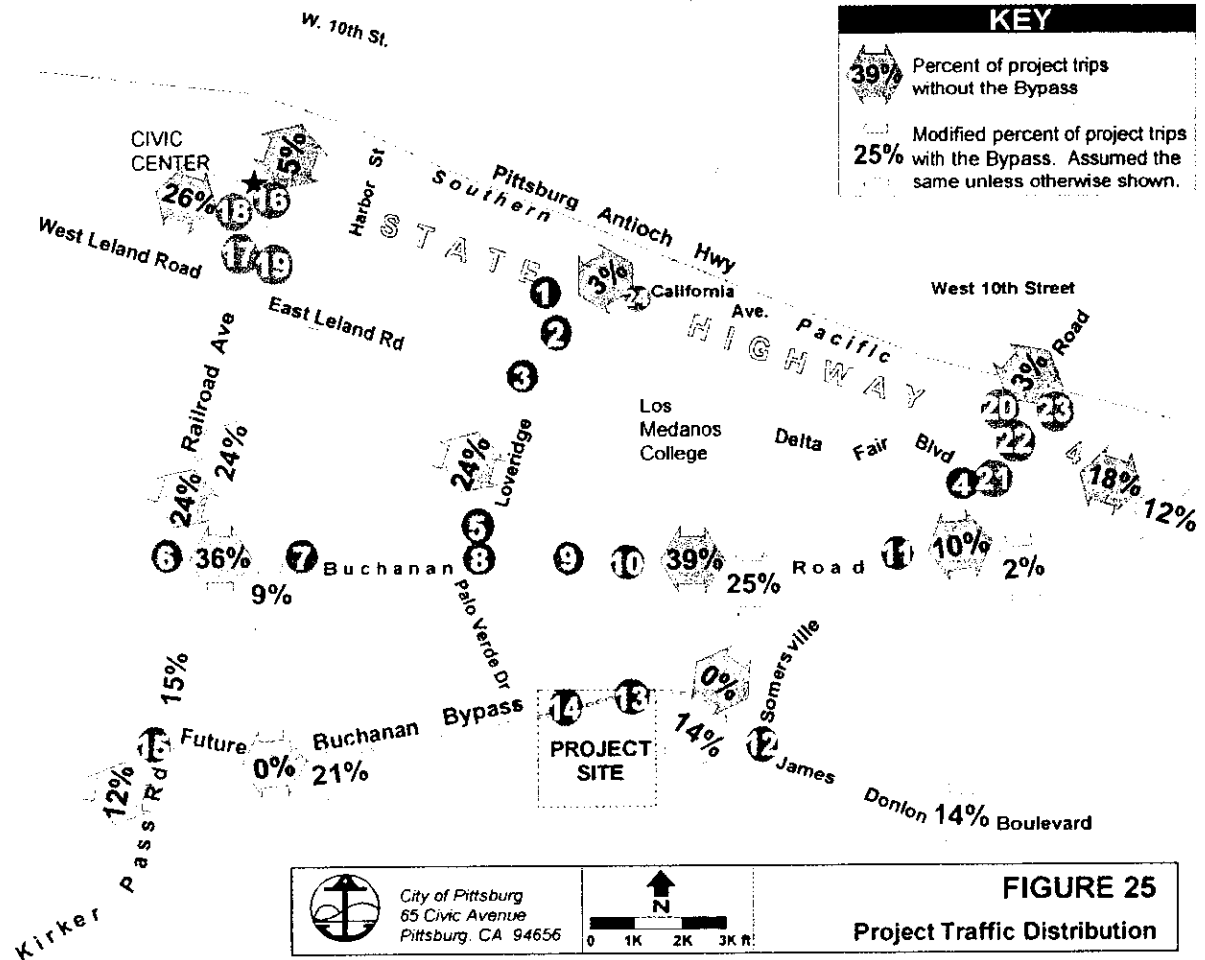
Number Dwelling Units (du)	Weekday Daily		Weekday AM Peak Hour				Weekday PM Peak Hour			
	Trip Rate /du	Total Trips (vpd)	Trip Rate /du	AM Trips (vph)	Trips In	Trips Out	Trip Rate /du	PM Trips (vph)	Trips In	Trips Out
415	9.57	3,972	0.75	311	78	233	1.01	419	264	155

NOTES:
All trips are one-way, as opposed to round trips, and may either begin or end at the project site. "Trips in" means trips inbound into the project site. "Trips out" means outbound trips leaving the project site.

PROJECT TRIP DISTRIBUTION

Figure 25 illustrates the assumed pattern of project-related travel; otherwise known as the trip distribution. The distribution of project-generated vehicle trips traveling to and from the proposed site was based on current turning movement counts at the study area intersections. Approximately 60 percent of the project-related traffic, the portion having origins or destinations from/to the east, was assumed to use Meadows Avenue rather than Ventura Drive to access Buchanan Road. For the cumulative 2025 scenario, two distributions were assumed, one without the Buchanan Bypass and one with the Buchanan Bypass. With the "Buchanan Bypass" means with the opening of the bypass for through-connection between Somersville Road and Kirker Pass Road.

After opening of the bypass, there would be some modification of preferred routes. A shift from Buchanan Road to/from the east (39 percent) decreasing to 25 percent with the remaining 14 percent shifting to the bypass, Somersville Road (8 percent), and James Donlon Boulevard (6 percent) is assumed. One part of this change to the distribution is a shift in traffic from SR 4 to/from the east (18 percent) decreasing to 12 percent with the remaining 6 percent shifting to the alternate route that consists of the bypass and James Donlon Boulevard. Another change is a shift in traffic from Buchanan Road to/from the west (26 percent) decreasing to 5 percent with the remaining 21 percent shifting to the bypass and Railroad Avenue.



The potential impact of the proposed project was evaluated in terms of the California Environmental Quality Act significance criteria listed below:

- a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (*i.e.*, result in a substantial increase in the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. The *East County Action Plan for Routes of Regional Significance* establishes Traffic Service Objectives (TSOs). An LOS standard of “mid-D” (*i.e.*, 85 percent of capacity) applies for signalized intersections along designated suburban arterial routes, except Kirker Pass Road between the City limit and TRANSPAC/TRANSPLAN limit which may operate at LOS E as a segment. Another TSO called the Delay Index (DI) applies to Highway 4 and other routes of regional significance,



including Buchanan Road, Railroad Avenue-Kirker Pass Road, Leland Road-Delta Fair Boulevard, and Somersville Road. A DI is the ratio of travel time in a peak commute hour to travel time in the off-peak. For routes of regional significance, the DI standard is 2.0, or lower, in hours of peak traffic, except Highway 4 may have a DI of 2.5, or lower.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- d) Substantially increase hazards due to a design feature (*e.g.*, sharp curves or dangerous intersections) or incompatible uses (*e.g.*, farm equipment);
- e) Result in inadequate emergency access;
- f) Result in inadequate parking capacity; and,
- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (*e.g.*, bus turnouts, bicycle racks).

EVALUATIONS

Approved Projects

This two-fold evaluation assesses consequences to traffic operations of traffic added by approved projects in combination with existing traffic. Table 21 summarizes these consequences in terms of LOS. The evaluation is two-fold, meaning that it is performed with approved project traffic added, but without the proposed project's traffic, and then is repeated with the addition of project-related traffic. For this evaluation, it was assumed that the Buchanan Road Bypass would not be open for through-traffic connection. This scenario also assumes that State Route 4 widening through the City of Pittsburg is not completed. The following list shows the approved projects that were incorporated into the traffic analysis. This list represents projects, or the portions thereof, which were not generating traffic at the time of the traffic counts in mid-2004.

- Los Medanos College, 4130 students/120 staff
- Highlands Ranch, 600 Residential Units
- Stanford Place, 100 Residential Units
- Buchanan Road Starbucks, 2,900 square feet of coffee restaurant
- Delta Gateway, 9,100 square feet of commercial/retail space
- Gomez Bros. Auto Center, 7,600 square feet of auto repair center
- Pittsburg Medical Center, 8,362 square feet of medical office
- Security Public Storage, 78,200 square feet of self-storage space
- Heritage Pointe, 125 Residential Units
- Lawlor Estates, 50 Residential Units
- Oak Hills South, 120 Residential Units
- San Marco, 1200 Residential Units
- Willow Heights, 120 Residential Units
- Presidio Village, 104 Senior Citizen Residential Units



- San Marco Development, 1526 Residential Units
- Empire Business Park I, 104,433 square feet of industrial park space
- Faith Worship Center, 17,500 square feet of church space
- Fire Station #84 with Administration Center, 10,942 square feet
- First Baptist Church, 26,400 square feet of church space
- Loveridge Commercial Center, 236,000 square feet of commercial space
- Mira Vista, 264 single-family residences
- Black Diamond Ranch, 289 single-family residences

Details of the Approved Projects trip generation, distribution and assignment are included in the technical appendix. All level of service calculations are also included in the technical appendix.

With the addition of approved project traffic and the proposed project-related trips to existing traffic volumes, the following study intersections will operate with deficient levels of service during one or both peak periods evaluated. The volume-to-capacity increase caused by the project is shown in (parentheses).

1. California Avenue/SR 4 WB Ramps (0.01)
2. Loveridge Road/SR 4 EB Ramps (0.04)
8. Loveridge Road/Buchanan Road (0.06)
9. Buchanan Road/Ventura Drive (am=0.05, pm=0.01)
10. Buchanan Road/Meadows Avenue (0.09)
11. Somersville Road/Buchanan Road (am=0.06, pm=0.08)

Cumulative Year 2025 Traffic Conditions

This four-fold evaluation assesses consequences to traffic operations of cumulative land development. It is based on year 2025 traffic volumes predicted by the County's Year 2025 regional traffic model. Traffic projections from the County's traffic model were adjusted to account for differences between existing traffic counts and existing base traffic projected by the model. Also, year 2025 projections assume that the State Route 4 freeway widening through Pittsburg is complete, therefore, traffic conditions on parallel routes, such as Buchanan Road, for example, are slightly better under year 2025 conditions (without the Buchanan Bypass) compared to Existing plus Approved conditions (without the Buchanan Bypass). Table 22 summarizes these consequences in terms of LOS. The evaluation is four-fold meaning that it is performed using the year 2025 forecast volumes with and without the Buchanan Bypass, and then is repeated with the addition of project-related traffic, again with and without the Buchanan Bypass. Level of service calculations are included in the technical appendix.

Under projected year 2025 baseline conditions, without the Buchanan Bypass, and also without the Project, the following study intersections would operate with deficient levels of service during one or both peak periods evaluated.

1. California Avenue/SR 4 WB Ramps



2. Loveridge Road/SR 4 EB Ramps
3. Loveridge Road /Leland Road
6. Railroad Avenue/Buchanan Road
7. Harbor Street/Buchanan Road
8. Loveridge Road/Buchanan Road
10. Buchanan/Meadows
11. Somersville Road/Buchanan Road

An effect of the future opening of the Buchanan Bypass for through-traffic connection would be to shift traffic (including project-related and other non-project traffic) onto alternate routes consisting of the bypass and Railroad Avenue, the bypass and Somersville Road, or the bypass and James Donlon Boulevard. Without the project, but with the Buchanan Bypass, study area intersections generally would not operate with deficient levels of service, with the three ~~two~~ exceptions of Kirker Pass Road/Buchanan Bypass, Loveridge/Leland Road, and California Avenue/SR4 westbound ramps.

Addition of the proposed project's traffic to the year 2025 baseline, without the Buchanan Bypass, essentially would result in the same deficiencies as listed above. ~~but with the addition of the Buchanan Road/Meadows Avenue.~~ The following intersections would operate at deficient LOS during one or both of the AM and PM peak hours:

1. California Avenue/SR 4 WB Ramps
2. Loveridge Road/SR 4 EB Ramps
3. Loveridge Road/Leland Road
6. Railroad Avenue/Buchanan Road
7. Harbor Street/Buchanan Road
8. Loveridge Road/Buchanan Road
10. Buchanan Road/Meadows Avenue
11. Somersville Road/Buchanan Road

With opening of the bypass for through-traffic, the effect of the bypass again would be to restore LOS at some but not all of the affected intersections. With addition of project traffic to year 2025 baseline volumes, and with opening of the Buchanan Bypass for through-traffic connection, the following intersections would operate at deficient LOS during one or both of the AM and PM peak hours. The volume-to-capacity increase caused by the project is shown in (parentheses).

1. California Avenue/SR 4 WB Ramps (0.01)
2. Loveridge Road/SR 4 EB Ramps (0.05)
3. Loveridge Road/Leland Road (0.01)
11. Somersville Road/Buchanan Road (0.04)
15. Kirker Pass Road/Bypass (0.01)



TABLE 21
Predicted Near-Term Traffic Impacts

Intersection	Existing Conditions		Existing Plus Approved Projects		Existing Plus Approved Plus Project	
	AM	PM	AM	PM	AM	PM
1. California Avenue/SR 4 WB Ramps	0.66/B	0.86/D	0.66/B	0.94/E	0.67/B	0.95/E
2. Loveridge Road/SR 4 EB Ramps	0.50/A	0.74/C	0.68/B	0.91/E	0.70/B	0.95/E
3. Loveridge Road/Leland Road	0.70/B	0.71/C	0.84/D	0.82/D	0.86/D	0.84/D
	0.68/B	0.66/B	0.81/D	0.76/C	0.82/D	0.77/C
4. Delta Fair Blvd/Somersville Road	0.46/A	0.67/B	0.53/A	0.72/C	0.53/A	0.73/C
5. Loveridge Road/Ventura Drive	0.43/A	0.37/A	0.47/A	0.42/A	0.48/A	0.44/A
6. Railroad Avenue/Buchanan Road	0.53/A	0.62/B	0.61/B	0.76/C	0.62/B	0.80/C
7. Harbor Street/Buchanan Road	0.67/B	0.64/B	0.81/D	0.81/D	0.86/D	0.87/D
	0.62/B	0.63/B	0.76/C	0.80/C	0.81/D	0.85/D
8. Loveridge Road/Buchanan Road	0.70/B	0.62/B	0.87/D	0.71/C	0.93/E	0.80/C
9. Buchanan Road/Ventura Drive	0.69/B	0.77/C	0.82/D	0.95/E	0.87/D	0.96/E
10. Buchanan Road/Meadows Avenue	0.67/B	0.77/C	0.79/C	0.92/E	0.84/D	1.01/F
11. Somersville Road/Buchanan Road	0.87/D	0.73/C	1.01/F	0.86/D	1.07/F	0.94/E
12. Somersville Rd/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
13. Ventura Dr-"B" St/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
14. "M" St-"D" Street/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
15. Kirker Pass Road/Buchanan Bypass	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: LOS means Level of Service Gray-shaded areas show deficient Level of Service relative to adopted LOS standards.						
SOURCE: Whitlock & Weinberger Transportation, Inc., September 2005; September 2006.						



TABLE 22
Predicted Year 2025 Cumulative Traffic Impacts

Intersection	NO PROJECT				PROJECT			
	Without Bypass		With Bypass		Without Bypass		With Bypass	
	AM	PM	AM	PM	AM	PM	AM	PM
1. California/SR4 WB Ramp	1.07/F	0.95/E	1.07/F	0.94/E	1.07/F	0.94/E*	1.07/F	0.93/E*
2. Loveridge/SR4 EB Ramp	0.66/B	0.93/E	0.61/B	0.88/D	0.68/B	0.96/E	0.64/B	0.93/E
3. Loveridge Rd/Leland Rd	1.02/F	0.85/D	0.90/D	0.76/C	1.02/F	0.87/D	0.91/E	0.77/C
	1.02/F	0.95/E	0.90/D	0.86/D	1.02/F	0.96/E	0.91/E	0.87/D
4. Delta Fair Blvd/Somersville	0.80/C	0.77/C	0.81/D	0.77/C	0.81/D	0.77/C	0.82/D	0.78/C
5. Loveridge Rd/Ventura Dr	0.59/A	0.70/B	0.47/A	0.63/B	0.60/A	0.71/C	0.48/A	0.64/B
6. Railroad Av/Buchanan Rd	0.80/C	1.09/F	0.41/A	0.55/A	0.80/C	1.11/F	0.42/A	0.56/A
7. Harbor St/Buchanan Rd	0.92/E	1.04/F	0.48/A	0.52/A	0.97/E	1.10/F	0.50/A	0.55/A
	0.97/E	1.05/F	0.55/A	0.54/A	1.03/F	1.11/F	0.57/A	0.56/A
8. Loveridge/Buchanan Rd	0.91/E	0.83/D	0.61/B	0.54/A	0.97/E	0.90/D	0.64/B	0.60/A
9. Buchanan Rd/Ventura Dr	0.73/C	0.80/C	0.62/B	0.62/B	0.74/C	0.81/D	0.63/B	0.63/B
10. Buchanan Rd/Meadows	0.72/C	0.87/D	0.55/A	0.59/A	0.77/C	0.96/E	0.59/A	0.65/B
11. Somersville/Buchanan	1.07/F	0.84/D	0.85/D	0.75/C	1.13/F	0.88/D	0.89/D"	0.75/C
12. Somersville Rd/Bypass	N/A	N/A	0.84/D	0.79/C	N/A	N/A	0.84/D	0.80/C
13. Ventura -"B" St/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.67/B	0.91/E^
14. "M" St-"D" Street/Bypass	N/A	N/A	N/A	N/A	N/A	N/A	0.64/B	0.81/D
15. Kirker Pass Rd/Bypass	N/A	N/A	0.99/E	0.82/D	N/A	N/A	1.00/E	0.85/D
NOTES: Without Bypass means without opening of the Buchanan Bypass for through-traffic connection. LOS means Level of Service. Shaded areas show deficient Level of Service relative to adopted LOS standards. * Notes that v/c ratio decreases from No Project condition due to increased NB right-turn on red volume owing to increased volume in WB left-turn lane. " This intersection would be mitigated under short term and pre-bypass conditions. With the addition of the mitigation, this intersection would operate acceptably. ^ Since this intersection has not yet been designed, the LOS conditions are noted and not considered a significant impact.								
SOURCE: Whitlock & Weinberger Transportation, Inc., September 2005; September 2006.								



Impacts To Kirker Pass Road in the City of Concord

The impacts of the proposed project to roadways in the City of Concord were evaluated at two locations:

- Kirker Pass Road-Ygnacio Valley Road/Clayton Road intersection
- Kirker Pass Road between Clayton Road and Concord Boulevard

Based on counts obtained from the CCTA, which were taken in April 2005, the intersection of Clayton Road/Ygnacio Valley Road-Kirker Pass Road is operating at LOS A with a volume to capacity ratio of 0.41 during the AM peak hour and 0.57 during the PM peak hour. It was determined that the proposed project would generate approximately 37 AM peak hour trips and 50 PM peak hour trips that would be expected to travel into the City of Concord via Kirker Pass Road. With the addition of these project trips, the intersection of Ygnacio Valley Road-Kirker Pass Road/Clayton Road would continue to operate at LOS A with no increase in volume to capacity ratio during the AM peak hour and an increase of 0.01 during the PM peak hour.

Existing volumes for Kirker Pass Road between Clayton Road and Concord Boulevard were obtained from the *Traffic Service Objective Monitoring Report*, Kimley-Horn & Associates, Inc., December 12, 2004. The current 2004 PM peak hour volume-to-capacity ratio (v/c) and LOS are 0.57/C northbound (eastward) and 0.17/A southbound (westward). The current 2004 AM peak hour v/c and LOS are 0.17/A northbound (eastward) and 0.44/B southbound (westward). With the addition of project trips, it was determined that the v/c ratio would increase by 0.01 in the southbound (westward) direction during the AM peak hour, and by 0.01 in the northbound (eastward) direction during the PM peak hour.

Based on this evaluation, the proposed project would have a less-than-significant impact on traffic operations at these locations in the City of Concord.

Delay Index

The “Delay Index” is the Traffic Service Objective (TSO) for Routes of Regional Significance in the East County region. The Delay Index is defined as the time it takes to drive a segment of road during peak-period congested conditions, as compared to the time it takes to drive the same segment during uncongested free-flow conditions. In East County, the goal is to achieve a Delay Index no greater than 2.0. Based on field surveys on Buchanan Road during off-peak conditions, the existing delay index on Buchanan Road, from Somersville Road to Railroad Avenue, is 1.16 EB and 1.17 WB during the AM peak hour and 1.22 EB and 1.34 WB during the PM peak hour. With the addition of the proposed project, these values would be expected to increase to 1.18 EB and 1.19 WB during the AM peak hour and 1.30 EB



and 1.44 WB during the PM peak hour. Future year-2025 conditions without the bypass, and without the proposed project, are expected to be 1.22 EB and 1.60 WB during the AM peak hour and 1.72 EB and 1.75 WB during the PM peak hour. With the addition of the proposed project, these values would be expected to increase to 1.28 EB and 1.67 WB during the AM peak hour and 1.88 EB and 1.85 WB during the PM peak hour.

IMPACTS AND MITIGATION MEASURES

The following specific mitigation measures for the impacts described herein generally can be enforced by the City of Pittsburgh. In some limited number of instances cases (see, for example, Impact 6), off-site mitigation measures are outside the jurisdiction of the City of Pittsburgh.

Near-Term Impacts and Mitigation Measures for Adopted LOS Standards

IMPACT 1: Intersection #1 (California Avenue/SR 4 WB ramps) would be expected to operate at LOS E during the PM peak with the project. *It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.*

Mitigation measures:

- Developer shall pay a fair share for modification of the eastbound California Avenue approach to provide an additional through lane. ~~separate left turn lane to eliminate the split phasing.~~
- Developer shall pay a fair share for provision of right-turn overlap phasing for the northbound right-turn movement.

Residual impact after mitigation: These modifications would result in LOS D. *These are the same mitigation measures as would be required at this intersection without the proposed project.*

IMPACT 2: Intersection #2 (Loveridge Road/SR 4 EB Ramps) would be expected to operate at LOS E with the project. *It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.*

Mitigation measure:

- Developer shall pay a fair share for modification of the northbound Loveridge Road approach at the ramps for provision of a separate right-turn lane.



Residual impact after mitigation: This modification would result in LOS C. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 3: Intersection #8 (Loveridge Road/Buchanan Road) would be expected to operate at LOS E during the AM peak hour with the project. It should be noted that this intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Road Bypass.

Mitigation measure:

- Developer shall pay for provision of an additional ~~two~~ southbound left-turn lanes and lane striping on the east leg to accommodate the two left-turn lanes followed by a merge to one lane. Optionally, the developer shall pay for provision of additional through-travel lanes, for a total of two eastbound and two westbound. In implementing this mitigation measure, the City shall preserve existing bicycle lanes.
- As an alternative to this mitigation, the developer shall limit the subdivision to no more than 207 units until the opening of the Buchanan Bypass for through-traffic connection.

Residual impact after mitigation: This modification would result in LOS D.

IMPACT 4: Intersection #9 (Buchanan Road/Ventura Drive) would be expected to operate at LOS E with the project. *It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.* It should be noted also that this intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Road Bypass.

Mitigation measure:

- Developer shall pay a fair share towards the following improvements: the eastbound approach should be re-striped to accommodate two through lanes from west of Ventura Avenue to east of Meadows Drive followed by a merge back to one lane. This should fit within the existing pavement through the use of narrower travel lanes and a narrower bike lane that nevertheless conform to City standards. In implementing this mitigation measure, the City shall preserve the existing bicycle lane. This striping should be considered permanent until the bypass is opened.

Residual impact after mitigation: This modification would result in LOS C. *This is the same mitigation measure as would be required at this intersection without the proposed project.*



IMPACT 5: Intersection #10 (Buchanan Road/Meadows Avenue) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Existing Plus Approved Projects scenario.* It should be noted also that this intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Road Bypass.

Mitigation measure:

- See Mitigation Measure for IMPACT 4 above.

Residual impact after mitigation: This modification would result in LOS A.

IMPACT 6: Intersection #11 (Somersville Road/Buchanan Road) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Existing and Existing Plus Approved Projects scenario. This impact would occur in the City of Antioch; therefore, provisions and arrangements will be made between the cities regarding fair share payment to enable implementation of the mitigation measure.*

Mitigation measure:

- Developer shall pay a fair share for modifications of the northbound Somersville Road approach and eastbound at Buchanan Road approach for provision of an additional left-turn lane on each approach. ~~and southbound right turn overlap phasing~~

Residual impact after mitigation: This modification would result in LOS D. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

Near-Term Impacts and Mitigation Measures for Local Street Volume Standard

IMPACT 7: The proposed project is expected to increase traffic volumes on the local street portion of Ventura Drive in Highlands Ranch beyond the City's local street carrying capacity of 5,000 vpd. Existing traffic on the block immediately south of Buchanan Road, is approximately 3,600 vpd. On the section of Ventura Drive with fronting houses, existing traffic is estimated at 2,500 vpd. It is estimated that the project would increase traffic volumes on Ventura Drive, between Meadows Avenue and Jensen Drive, by a range of 2,580 to 3,300 vehicles per day (which translates to 65 to 83 percent of the project traffic). Assuming the mid-point, that the project sends approximately 74 percent of its traffic on Ventura Drive, traffic will increase to 5,440 vehicles per day (vpd) from 2,500 vpd on the residential portion of the street. After the opening of the Buchanan Bypass, traffic would decrease below 5,000 vpd.



Mitigation measures:

- Prior to opening of the Buchanan Bypass, developer shall not construct more than 353 units, unless an alternative access to Buchanan Road from the Buchanan Bypass is provided via Standard Oil Avenue. This measure also requires elimination of the barricade on the project site at the eastern terminus of the bypass.
- Before additional building permits above 353 permits are issued, the developer shall construct the future Standard Oil Avenue between Buchanan Road and the Buchanan Bypass to the City's Minor Arterial Street Standards for four lanes with turn lanes.
- To discourage use of Ventura Drive (or to encourage preferential use of Standard Oil Avenue), the developer shall construct a Neighborhood Diverter on Ventura Drive near the mouth of Buchanan Bypass. The design shall be approved by the City of Pittsburgh. This volume-control measure shall be timed to coincide with construction and opening of Standard Oil Avenue.
- City shall not issue building permits for more than 353 units unless it is shown through professional traffic counting that the AADT on Ventura Drive, between Jensen/Rangewood and Meadows Avenue, will not exceed 5,000 vpd.

Residual impact after mitigation: Less-than-significant.

IMPACT 8: The project may increase traffic volumes on Ventura Drive north of Buchanan Road. This section of Ventura Drive is residential and any increase in traffic from outside of the neighborhood may result in undesirable volume levels and safety issues given the alignment of the street.

Mitigation measure:

- Developer shall pay up to 100 percent of the cost, or a fair share if other future projects could have a similar effect, for a Neighborhood Diverter which meets the City of Pittsburgh's criteria, to discourage through traffic on Ventura Drive north of Buchanan Road.

Residual impact after mitigation: Less-than-significant.

Near-Term Impacts and Mitigation Measures for Stacking/Rear-End Collision Hazard

IMPACT 9: Intersection #9 (Buchanan Road/Ventura Drive) has 100 feet of available stacking in the northbound left-turn lane on Ventura Drive. The proposed project would increase left-turn queuing to approximately 200 to 250 feet.



Mitigation measure:

- Developer shall pay for modification of the northbound left-turn on the Ventura Drive approach at Buchanan Road for provision of 250 feet of stacking, appropriate deceleration length, and transitions.

Residual impact after mitigation: Less-than-significant.

IMPACT 10: Intersection #10 (Buchanan Road/Meadows Avenue) has 100 feet of available stacking in the westbound left-turn lane on Buchanan Road. The proposed project would increase left-turn queuing to approximately 200 to 250 feet.

Mitigation measure:

- Developer shall pay for modification of the westbound left-turn on the Buchanan Road approach at Meadows Avenue for provision of 250 feet of stacking, appropriate deceleration length, and transitions.

Residual impact after mitigation: Less-than-significant.

Near-Term Impacts and Mitigation Measures for Inadequate Emergency Vehicle Access (EVA)

IMPACT 11: The proposed project lacks connections to the adjoining Black Diamond Ranch residential subdivision. CCCFPD recommends provision of a 20-foot wide EVA through proposed Lot 191 to Markley Creek Drive.

Mitigation measure:

- Developer shall construct a suitable EVA across Lot 191 as recommended by CCCFPD.
- This EVA shall be accessible to emergency vehicles only and shall not be accessible to any other on road or off-road vehicular traffic.

Residual impact after mitigation: Less-than-significant.

Cumulative Year 2025, Without Buchanan Bypass, Impacts and Mitigation Measures for Adopted LOS Standards

IMPACT 12: Intersection #1 (California Avenue/SR 4 WB Ramps) would be expected to operate at LOS F with the project. *It should be noted that the California Avenue approaches to SR 4 WB ramps are planned to be widened by 2025. The intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.*



Mitigation measure:

- See Mitigation Measures for IMPACT 1.

Residual impact after mitigation: These modifications would result in LOS D. *These are the same mitigation measures as would be required at this intersection without the proposed project.*

IMPACT 13: Intersection #2 (Loveridge Road/SR 4 EB Ramps) would be expected to operate at LOS E with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.*

Mitigation measure:

- See Mitigation Measure for IMPACT 2.

Residual impact after mitigation: This modification would result in LOS C. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 14: Intersection #3 (Loveridge Road/Leland Road) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.*

Mitigation measure:

- Developer shall pay a fair share for modification of the northbound Loveridge Road approach to Leland Road for provision of a separate right-turn lane left-turn lane. ~~Right-turn overlaps should also be provided on all approaches.~~

Residual impact after mitigation: This modification would result in LOS D.

IMPACT 15: Intersection #6 (Railroad Avenue/Buchanan Road) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.*

Mitigation measure:

- Developer shall pay a fair share for modification of the northbound Railroad Avenue approach at Buchanan Road for provision of two northbound right-turn lanes with overlap phasing.



Residual impact after mitigation: These modifications would result in LOS D. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 16: Intersection #7 (Harbor Street/Buchanan Road) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario. This intersection would be expected to operate acceptably in the LOS A range after completion of the Buchanan Bypass.*

Mitigation measure:

- Developer shall pay a fair share for provision of two travel lanes in each of the eastbound and westbound directions.

Residual impact after mitigation: These modifications would result in LOS B. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 17: Intersection #8 (Loveridge Road/Buchanan Road) would be expected to operate at LOS E with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario. This intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Bypass.*

Mitigation measure:

- See Mitigation Measure for IMPACT 3.

Residual impact after mitigation: These modifications would result in LOS D. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 18: Intersection #10 (Buchanan Road/Meadows Avenue) would be expected to operate at LOS E with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario. This intersection would be expected to operate acceptably in the LOS B range after completion of the Buchanan Bypass.*

Mitigation measure:

- See Mitigation Measure for IMPACT 5.

Residual impact after mitigation: This modification would result in LOS A.



IMPACT 19: Intersection #11 (Somersville Road/Buchanan Road) would be expected to operate at LOS F with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, Without Bypass, scenario.*

Mitigation measure:

- See Mitigation Measure for IMPACT 6.

Residual impact after mitigation: This modification would result in LOS D. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

Cumulative Year 2025, without Buchanan Bypass, Impact and Mitigation Measure for Limited-Access Design Objective

IMPACT 20: At the intersection of the Buchanan Road Bypass with “M” Street and “D” Street, traffic movements would be limited by a raised median to right-turn in/right-turn out. If full access (no median) is provided in the early phase before future opening of the bypass for through-traffic connection, residents of project may object if a median later is constructed.

Mitigation measure:

- Developer shall construct the Buchanan Bypass with the median in place even in the early phase before future opening of the bypass for through-traffic connection. The section of the bypass built within the project should include provisions for U-turns west of “M” Street-“D” Street.

Residual impact after mitigation: Less-than-significant.

Cumulative Year 2025, with Buchanan Bypass, Impacts and Mitigation Measures for Adopted LOS Standards

IMPACT 21: Intersection #1 (California Avenue/SR 4 WB Ramps) would be expected to operate at LOS F with the project. *It should be noted that the California Avenue approaches to SR 4 WB ramps are planned to be widened by 2025. The intersection also would operate deficiently without the project under the Cumulative 2025, With Bypass, scenario.*

Mitigation measure:

- See Mitigation Measures for IMPACT 1.

Residual impact after mitigation: These modifications would result in LOS D. *These are the same mitigation measures as would be required at this intersection without the proposed project.*



IMPACT 22: Intersection #2 (Loveridge Road/SR 4 EB Ramps) would be expected to operate at LOS E with the project. *It should be noted that LOS standards would not be met without the project under the Cumulative 2025, With Bypass scenario.*

Mitigation measure:

- See Mitigation Measure for IMPACT 2.

Residual impact after mitigation: This modification would result in LOS D. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 23: Intersection #3 (Loveridge Road/Leland Road) would be expected to operate at LOS E with the project. *It should be noted that LOS standards would not be met without the project under the Cumulative 2025, With Bypass scenario.*

Mitigation measure:

- See Mitigation Measure for IMPACT 14 3.

Residual impact after mitigation: This modification would result in LOS D.

IMPACT 29: Intersection #11 (Somerville Road/Buchanan Road) would be expected to operate at LOS D with the project. *It should be noted that the intersection would operate deficiently both with and without the project under near-term and pre-bypass conditions.*

Mitigation measure:

- See Mitigation Measure for IMPACT 6.

Residual impact after mitigation: This modification would result in LOS B. *This is the same mitigation measure as would be required at this intersection without the proposed project.*

IMPACT 24: Intersection #15 (Kirker Pass Road/Buchanan Road Bypass) may have the potential would be expected to operate at LOS E ($v/c=1.00$) with the project. *It should be noted that the intersection also would operate deficiently without the project under the Cumulative 2025, With Bypass, scenario.*

Mitigation measures:

- Intersection design as part of the bypass should ensure that the intersection would operate with acceptable levels of service. Developer shall pay a fair share for re-construction of Kirker Pass Road to accommodate a new T-intersection with the future Buchanan Bypass. Reconstruction is recommended by the traffic engineer to assure that



Buchanan Bypass and Kirker Pass Road (south) operate as the major legs and Kirker Pass Road (north to Buchanan Road) operates as the minor leg.

- Developer shall pay a fair share for provision of two right turn lanes with overlap phasing "westbound" (Bypass to Kirker Pass Road north).

Residual impact after mitigation: Future operations would depend on the design. This modification would result in LOS E ($v/c=0.91$), which is acceptable on the Kirker Pass Road corridor. ~~These are the same mitigation measures as would be required at this intersection without the proposed project.~~

Near-Term Impacts and Mitigation Measures for Substantial Increases in Hazards due to Design Features (e.g., Limited Sight Distance, Speed, and Bicyclist Hazards)

IMPACT 25: Project-related traffic added to the residential portion of Ventura Drive, between Meadows Avenue and Rangewood Drive, would create speed and volume impacts.

Mitigation measure:

- The developer shall construct traffic-calming features on the five block section. Traffic-calming features shall be consistent with the measures listed in the City's Traffic-Calming Policy and their design shall be approved by the City Engineer.

Residual impact after mitigation: Less-than-significant.

IMPACT 26: The steepness of the grade and horizontal straightness of "B" Street will encourage excessive speeds that would be considered undesirable for streets having residential frontage with curb cuts.

Mitigation measures:

- Developer shall not construct curb cuts for driveways along the frontage of "B" Street between the Buchanan Bypass and "J" Court/"A" Street or along Ventura Drive within 300 feet of the Buchanan Bypass. This means that proposed Lots 11-17 and proposed Lots 235 and 236, proposed Lots 257-262, and proposed Lot 297 may not be developed as shown on the Vesting Tentative Map, unless either 1) alternative access is provided, for example, by way of modified flag lot designs with shared driveways on "J" Court, "A" Street, or Canyon Oaks Court, or 2) "B" Street is re-designed for traffic calming.
- Redesign of "B" Street and Ventura Drive, and their related intersections at "K" Court, "J" Court, and the Buchanan Bypass, may be

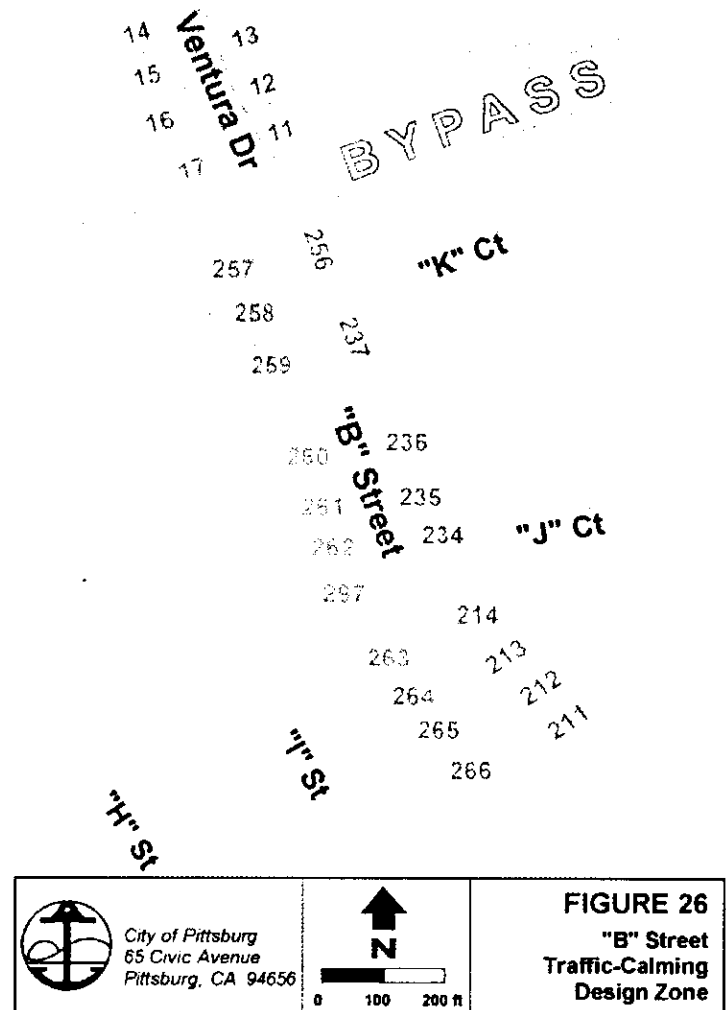


considered at the discretion of the City within the "B" Street Traffic-Calming Design Zone (see Figure 26).

Redesign for purpose of recovering land area for developable lots may be considered by the City only if redesign provides grade reduction below 14 percent, safety advantages, or other environmental benefits.

- Developer shall pave "B" Street between the Buchanan Bypass and "J" Court/"A" Street with a scored concrete all-weather surface, with section details and scoring pattern and depth subject to the approval of the City Engineer.
- Developer shall construct and sign all-way stops at the intersections of "B" Street with "A" Street/"J" Court and "K" Court.

Residual impact after mitigation: Less-than-significant.





IMPACT 27: Placement of curb cuts for driveways and on-street parking on “B” Street, “D” Street, “M” Street, and Ventura Drive, near the mouth with the Buchanan Bypass, would create vehicle conflicts and potential safety hazards. Curb cuts and on-street parking would interfere with queuing on approaches to the bypass.

Mitigation measures:

- Developer shall not 1) construct any driveway curb cuts within 150 feet, or 300 feet in the case of “B” Street,” from the edge of curb of the Buchanan Bypass or 2) allow any on-street parking within 150-feet of the edge of curb of the Buchanan Bypass, on “B” Street, “D” Street, “M” Street, and Ventura Drive. This would result in elimination of proposed Lots 11, 17, 18, 72, 73, 257, and 381 and review or adjustment of driveway locations for proposed Lots 12, 16, 19, 71, 74, 258, and 380.

Residual impact after mitigation: Less-than-significant.

Cumulative Year 2025, with Buchanan Bypass, Impacts and Mitigation Measures for Substantial Increases in Hazards due to Design Features (e.g., Limited Sight Distance, Speed, and Bicyclist Hazards)

IMPACT 28: Depending on the location of crosswalk, stop limit line, the proposed sound wall at Lot 257, privacy fencing, and landscaping, the sight distance from “B” Street to the outside eastbound travel lane of the bypass may be limited. Turnouts for the right-turns from Buchanan Bypass into “B” Street and Ventura Drive are not shown on the Vesting Tentative Map. Such turnouts are recommended for deceleration and to avoid a conflict with bicyclists continuing on the bypass across the intersection.

Mitigation measures:

- Developer shall adjust the lot lines of proposed Lots 257, 258, and 259, to accommodate provisions for the “B” Street/Buchanan Bypass intersection as stated above.
- Developer shall adjust proposed Lot 11, to accommodate additional right-of-way width for a right-turn turnout from the Buchanan Bypass into Ventura Drive.

Residual impact after mitigation: Less-than-significant.



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Contra Costa County Transportation Authority (CCTA), January 27, 2005. *Contra Costa Congestion Management Program 2003 CMP Level-of-Service Standards Monitoring Report.*

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LSA, February 2004. "Los Medanos College Traffic Impact Analysis."

Pittsburg, City of, November 2001. *Pittsburg 2020 A Vision for the 21st Century* (General Plan).

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Transportation Research Board, 2000. *Highway Capacity Manual 2000.*

Whitlock & Weinberger Transportation, Inc., (W-Trans), revised July 2006. *Traffic Impact Study for Sky Ranch II, Pittsburg, California.*

W-Trans, September 2006. *Traffic Impact Study for Sky Ranch II, Pittsburg, California.*



APPENDIX C

AMENDED LOS CALCULATIONS

Condition: AM Existing 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

56 35 58
 | | |
 ^ | |
 | | |
 LEFT 91 --- 1.0 1.1 1.1 1.0 1.0 --- 27 RIGHT Split? N
 THRU 415 ---> 1.1 (NO. OF LANES) 1.0<--- 722 THRU STREET NAME:
 RIGHT 11 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT Buchanan Road
 | | |
 <--- ^ --->
 | | |
 N | | |
 W + E 83 114 2
 S LEFT THRU RIGHT Split? Y
 SIG WARRANTS:
 Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	56	56	1650	0.0339	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	58	58	1650	0.0352	
T + R		91	1650	0.0552	0.0552
EB RIGHT (R)	11	11	1650	0.0067	
THRU (T)	415	415	1650	0.2515	
LEFT (L)	91	91	1650	0.0552	0.0552
T + R		426	1650	0.2582	
WB RIGHT (R)	27	0 *	1650	0.0000	
THRU (T)	722	722	1650	0.4376	0.4376
LEFT (L)	1	1	1650	0.0006	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.62	
INTERSECTION LEVEL OF SERVICE:				B	

* ADJUSTED FOR RIGHT TURN ON RED
 INT=EXISTING, INT, VOL=EXISTING, AMV, CAP=

Condition: PM Existing 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

33 97 72
 | | |
 ^ | |
 | | |
 LEFT 55 --- 1.0 1.1 1.1 1.0 1.0 --- 49 RIGHT Split? N
 THRU 808 ---> 1.1 (NO. OF LANES) 1.0<--- 426 THRU STREET NAME:
 RIGHT 36 --- 1.1 1.0 1.1 1.1 1.0 --- 12 LEFT Buchanan Road
 | | |
 <--- ^ --->
 | | |
 N | | |
 W + E 19 58 1
 S LEFT THRU RIGHT Split? Y
 SIG WARRANTS:
 Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	33	33	1650	0.0200	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	72	72	1650	0.0436	
T + R		130	1650	0.0788	0.0788
EB RIGHT (R)	36	36	1650	0.0218	
THRU (T)	808	808	1650	0.4897	
LEFT (L)	55	55	1650	0.0333	
T + R		844	1650	0.5115	0.5115
WB RIGHT (R)	49	0 *	1650	0.0000	
THRU (T)	426	426	1650	0.2582	
LEFT (L)	12	12	1650	0.0073	0.0073
TOTAL VOLUME-TO-CAPACITY RATIO:				0.63	
INTERSECTION LEVEL OF SERVICE:				B	

* ADJUSTED FOR RIGHT TURN ON RED
 INT=EXISTING, INT, VOL=EXISTING, PMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Existing plus Approved 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
262 512 502
LEFT 222 --- 2.0 1.0 2.0 2.0 1.0 --- 541 RIGHT
THRU 608 ---> 2.0 (NO. OF LANES) 2.0<--- 1138 THRU E. Leland Road
RIGHT 203 --- 1.0 1.0 2.0 1.0 2.0 --- 240 LEFT
N
W + E 267 736 110
S LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	110	0 *	1650	0.0000	
THRU (T)	736	736	3300	0.2230	0.2230
LEFT (L)	267	267	1650	0.1618	
SB RIGHT (R)	262	140 *	1650	0.0848	
THRU (T)	512	512	3300	0.1552	
LEFT (L)	502	502	3000	0.1673	0.1673
EB RIGHT (R)	203	0 *	1650	0.0000	
THRU (T)	608	608	3300	0.1842	
LEFT (L)	222	222	3000	0.0740	0.0740
WB RIGHT (R)	541	265 *	1650	0.1606	
THRU (T)	1138	1138	3300	0.3448	0.3448
LEFT (L)	240	240	3000	0.0800	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.81	
INTERSECTION LEVEL OF SERVICE:				D	

* ADJUSTED FOR RIGHT TURN ON RED
INT=EXISTING.INT,VOL=EXISTING.AMV+CUMULATI.AMV,CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Existing plus Approved 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
170 513 312
LEFT 654 --- 2.0 1.0 2.0 2.0 1.0 --- 418 RIGHT
THRU 1296 ---> 2.0 (NO. OF LANES) 2.0<--- 571 THRU E. Leland Road
RIGHT 217 --- 1.0 1.0 2.0 1.0 2.0 --- 243 LEFT
N
W + E 127 609 205
S LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	205	71 *	1650	0.0430	
THRU (T)	609	609	3300	0.1845	0.1845
LEFT (L)	127	127	1650	0.0770	
SB RIGHT (R)	170	0 *	1650	0.0000	
THRU (T)	513	513	3300	0.1555	
LEFT (L)	312	312	3000	0.1040	0.1040
EB RIGHT (R)	217	90 *	1650	0.0545	
THRU (T)	1296	1296	3300	0.3927	0.3927
LEFT (L)	654	654	3000	0.2180	
WB RIGHT (R)	418	246 *	1650	0.1491	
THRU (T)	571	571	3300	0.1730	
LEFT (L)	243	243	3000	0.0810	0.0810
TOTAL VOLUME-TO-CAPACITY RATIO:				0.76	
INTERSECTION LEVEL OF SERVICE:				C	

* ADJUSTED FOR RIGHT TURN ON RED
INT=EXISTING.INT,VOL=EXISTING.PMV+CUMULATI.PMV,CAP=

Condition: AM Existing plus Approved

09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
 Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
 ----- 61 35 65

LEFT 116 --- 1.0 <--- v ---> Split? N
 THRU 539 ---> 1.1 (NO. OF LANES) 1.0<--- 921 THRU STREET NAME:
 RIGHT 11 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT Buchanan Road
 N
 W + E 83 114 2
 S LEFT THRU RIGHT Split? Y

SIG WARRANTS:
 Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	61	61	1650	0.0370	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	65	65	1650	0.0394	
T + R		96	1650	0.0582	0.0582
EB RIGHT (R)	11	11	1650	0.0067	
THRU (T)	539	539	1650	0.3267	
LEFT (L)	116	116	1650	0.0703	0.0703
T + R		550	1650	0.3333	
WB RIGHT (R)	31	0 *	1650	0.0000	
THRU (T)	921	921	1650	0.5582	0.5582
LEFT (L)	1	1	1650	0.0006	

TOTAL VOLUME-TO-CAPACITY RATIO:
 INTERSECTION LEVEL OF SERVICE:

0.76
 C

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING. INT, VOL=EXISTING. AMV+CUMULATI. AMV, CAP=

Condition: PM Existing plus Approved

09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
 Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
 ----- 52 97 77

LEFT 61 --- 1.0 <--- v ---> Split? N
 THRU 1057 ---> 1.1 (NO. OF LANES) 1.0<--- 616 THRU STREET NAME:
 RIGHT 36 --- 1.1 1.0 1.1 1.1 1.0 --- 12 LEFT Buchanan Road
 N
 W + E 19 58 1
 S LEFT THRU RIGHT Split? Y

SIG WARRANTS:
 Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	52	52	1650	0.0315	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	77	77	1650	0.0467	
T + R		149	1650	0.0903	0.0903
EB RIGHT (R)	36	36	1650	0.0218	
THRU (T)	1057	1057	1650	0.6406	
LEFT (L)	61	61	1650	0.0370	
T + R		1093	1650	0.6624	0.6624
WB RIGHT (R)	56	0 *	1650	0.0000	
THRU (T)	616	616	1650	0.3733	
LEFT (L)	12	12	1650	0.0073	0.0073

TOTAL VOLUME-TO-CAPACITY RATIO:
 INTERSECTION LEVEL OF SERVICE:

0.80
 C

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING. INT, VOL=EXISTING. PMV+CUMULATI. PMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Existing plus Project plus Approved 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
262 529 502
LEFT 222 --- 2.0 1.0 2.0 2.0 1.0 --- 541 RIGHT
THRU 608 ---> 2.0 (NO. OF LANES) 2.0<--- 1138 THRU E. Leland Road
RIGHT 203 --- 1.0 1.0 2.0 1.0 2.0 --- 242 LEFT
N
W + E
S
LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	117	0 *	1650	0.0000	
THRU (T)	786	786	3300	0.2382	0.2382
LEFT (L)	267	267	1650	0.1618	
SB RIGHT (R)	262	140 *	1650	0.0848	
THRU (T)	529	529	3300	0.1603	
LEFT (L)	502	502	3000	0.1673	0.1673
EB RIGHT (R)	203	0 *	1650	0.0000	
THRU (T)	608	608	3300	0.1842	
LEFT (L)	222	222	3000	0.0740	0.0740
WB RIGHT (R)	541	265 *	1650	0.1606	
THRU (T)	1138	1138	3300	0.3448	0.3448
LEFT (L)	242	242	3000	0.0807	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.82	
INTERSECTION LEVEL OF SERVICE:				D	

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING, INT, VOL=EXISTING, AMV+CUMULATI, AMV+PROJECT, AMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Existing plus Project plus Approved 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
170 570 312
LEFT 654 --- 2.0 1.0 2.0 2.0 1.0 --- 418 RIGHT
THRU 1296 ---> 2.0 (NO. OF LANES) 2.0<--- 571 THRU E. Leland Road
RIGHT 217 --- 1.0 1.0 2.0 1.0 2.0 --- 251 LEFT
N
W + E
S
LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	210	72 *	1650	0.0436	
THRU (T)	642	642	3300	0.1945	0.1945
LEFT (L)	127	127	1650	0.0770	
SB RIGHT (R)	170	0 *	1650	0.0000	
THRU (T)	570	570	3300	0.1727	
LEFT (L)	312	312	3000	0.1040	0.1040
EB RIGHT (R)	217	90 *	1650	0.0545	
THRU (T)	1296	1296	3300	0.3927	0.3927
LEFT (L)	654	654	3000	0.2180	
WB RIGHT (R)	418	246 *	1650	0.1491	
THRU (T)	571	571	3300	0.1730	
LEFT (L)	251	251	3000	0.0837	0.0837
TOTAL VOLUME-TO-CAPACITY RATIO:				0.77	
INTERSECTION LEVEL OF SERVICE:				C	

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING, INT, VOL=EXISTING, PMV+CUMULATI, PMV+PROJECT, PMV, CAP=

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

Condition: AM Existing plus Project plus Approved 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

61 35 65
 | | |
 ^ | | ^
 | | |
 <--- v ---> | Split? N
 LEFT 116 --- 1.0 1.1 1.1 1.0 1.0 --- 31 RIGHT
 THRU 567 ---> 1.1 (NO. OF LANES) 1.0<--- 1006 THRU STREET NAME:
 Buchanan Road
 RIGHT 11 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT
 | | | |
 <--- ^ ---> |
 | | |
 v | | v
 N | | |
 W + E 83 114 2
 S LEFT THRU RIGHT Split? Y

SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	61	61	1650	0.0370	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	65	65	1650	0.0394	
T + R		96	1650	0.0582	0.0582
EB RIGHT (R)	11	11	1650	0.0067	
THRU (T)	567	567	1650	0.3436	
LEFT (L)	116	116	1650	0.0703	0.0703
T + R		578	1650	0.3503	
WB RIGHT (R)	31	0 *	1650	0.0000	
THRU (T)	1006	1006	1650	0.6097	0.6097
LEFT (L)	1	1	1650	0.0006	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.81	
INTERSECTION LEVEL OF SERVICE:				D	

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING.INT,VOL=EXISTING.AMV+CUMULATI.AMV+PROJECT.AMV,CAP=

Condition: PM Existing plus Project plus Approved 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

52 97 77
 | | |
 ^ | | ^
 | | |
 <--- v ---> | Split? N
 LEFT 61 --- 1.0 1.1 1.1 1.0 1.0 --- 56 RIGHT
 THRU 1154 ---> 1.1 (NO. OF LANES) 1.0<--- 671 THRU STREET NAME:
 Buchanan Road
 RIGHT 36 --- 1.1 1.0 1.1 1.1 1.0 --- 12 LEFT
 | | | |
 <--- ^ ---> |
 | | |
 v | | v
 N | | |
 W + E 19 58 1
 S LEFT THRU RIGHT Split? Y

SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	52	52	1650	0.0315	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	77	77	1650	0.0467	
T + R		149	1650	0.0903	0.0903
EB RIGHT (R)	36	36	1650	0.0218	
THRU (T)	1154	1154	1650	0.6994	
LEFT (L)	61	61	1650	0.0370	
T + R		1190	1650	0.7212	0.7212
WB RIGHT (R)	56	0 *	1650	0.0000	
THRU (T)	671	671	1650	0.4067	
LEFT (L)	12	12	1650	0.0073	0.0073
TOTAL VOLUME-TO-CAPACITY RATIO:				0.85	
INTERSECTION LEVEL OF SERVICE:				D	

* ADJUSTED FOR RIGHT TURN ON RED

INT=EXISTING.INT,VOL=EXISTING.PMV+CUMULATI.PMV+PROJECT.PMV,CAP=

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

Condition: AM Future without Bypass 09/05/06

```

CCTA METHOD          RIGHT THRU LEFT          6-PHASE SIGNAL
-----
                        450 1113 394
                        |   |   |
                        |   |   |
                        ^       ^
                        |       |
LEFT  247 --- 2.0    <--- v --->    | Split? N
                        1.0 2.0 2.0    1.0 --- 641 RIGHT

STREET NAME:
THRU  347 ---> 2.0 (NO. OF LANES)    2.0<--- 1339 THRU
E. Leland Road

RIGHT 323 --- 1.0    1.0 2.0 1.0    2.0 --- 379 LEFT
                        |       |
                        <--- ^ --->    |
                        |       |
                        |       |
                        |       |
N      |       |       |
W + E  |       |       |
S      |       |       |
      321 808 62

LEFT THRU RIGHT Split? N

SIG WARRANTS:
  Urb=Y, Rur=Y

```

MOVEMENT		ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	62	0 *	1650	0.0000	
	THRU (T)	808	808	3300	0.2448	
	LEFT (L)	321	321	1650	0.1945	0.1945
SB	RIGHT (R)	450	314 *	1650	0.1903	
	THRU (T)	1113	1113	3300	0.3373	0.3373
	LEFT (L)	394	394	3000	0.1313	
EB	RIGHT (R)	323	2 *	1650	0.0012	
	THRU (T)	347	347	3300	0.1052	
	LEFT (L)	247	247	3000	0.0523	0.0823
WB	RIGHT (R)	641	424 *	1650	0.2570	
	THRU (T)	1339	1339	3300	0.4058	0.4058
	LEFT (L)	379	379	3000	0.1263	
TOTAL VOLUME-TO-CAPACITY RATIO:						1.02
INTERSECTION LEVEL OF SERVICE:						F

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

Condition: PM Future without Bypass 09/05/06

CCTA METHOD		RIGHT THRU LEFT				6-PHASE SIGNAL	
-----		230	766	355			
	^					^	
		<---	v	---			Split? N
LEFT	631 --- 2.0	1.0	2.0	2.0	1.0 --- 195	RIGHT	
THRU	1278 ---> 2.0	(NO. OF LANES)			2.0<---	423 THRU	STREET NAME:
							E. Leland Road
RIGHT	282 --- 1.0	1.0	2.0	1.0	2.0 --- 280	LEFT	
		<---	^	---			
	v					v	
N							SIG WARRANTS:
W + E		232	810	332			Urb=Y, Rur=Y
S		LEFT THRU RIGHT			Split? N		

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	332	178 *	1650	0.1079	
THRU (T)	810	810	3300	0.2455	
LEFT (L)	232	232	1650	0.1406	0.1406
SB RIGHT (R)	230	0 *	1650	0.0000	
THRU (T)	766	766	3300	0.2321	0.2321
LEFT (L)	355	355	3000	0.1183	
EB RIGHT (R)	282	50 *	1650	0.0303	
THRU (T)	1278	1278	3300	0.3873	0.3873
LEFT (L)	631	631	3000	0.2103	
WB RIGHT (R)	195	0 *	1650	0.0000	
THRU (T)	423	423	3300	0.1282	
LEFT (L)	280	280	3000	0.0933	0.0933
TOTAL VOLUME-TO-CAPACITY RATIO:					0.85
INTERSECTION LEVEL OF SERVICE:					D

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CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Future without Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

56 35 61
LEFT 91 --- 1.0 1.1 1.1 1.0 1.0 --- 29 RIGHT
THRU 719 ---> 1.1 (NO. OF LANES) 1.0<--- 1227 THRU
RIGHT 15 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT
N
W + E
S
LEFT THRU RIGHT Split? Y
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	56	56	1650	0.0339	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	61	61	1650	0.0370	
T + R		91	1650	0.0552	0.0552
EB RIGHT (R)	15	15	1650	0.0091	
THRU (T)	719	719	1650	0.4358	
LEFT (L)	91	91	1650	0.0552	0.0552
T + R		734	1650	0.4448	
WB RIGHT (R)	29	0 *	1650	0.0000	
THRU (T)	1227	1227	1650	0.7436	0.7436
LEFT (L)	1	1	1650	0.0006	

TOTAL VOLUME-TO-CAPACITY RATIO: 0.92
INTERSECTION LEVEL OF SERVICE: E

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE.INT, VOL=FUTURE-P.AMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Future without Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL

37 97 72
LEFT 55 --- 1.0 1.1 1.1 1.0 1.0 --- 49 RIGHT
THRU 1447 ---> 1.1 (NO. OF LANES) 1.0<--- 915 THRU
RIGHT 53 --- 1.1 1.0 1.1 1.1 1.0 --- 18 LEFT
N
W + E
S
LEFT THRU RIGHT Split? Y
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	37	37	1650	0.0224	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	72	72	1650	0.0436	
T + R		134	1650	0.0812	0.0812
EB RIGHT (R)	53	53	1650	0.0321	
THRU (T)	1447	1447	1650	0.8770	
LEFT (L)	55	55	1650	0.0333	
T + R		1500	1650	0.9091 **	0.9091
WB RIGHT (R)	49	0 *	1650	0.0000	
THRU (T)	915	915	1650	0.5545	
LEFT (L)	18	18	1650	0.0109	0.0109

TOTAL VOLUME-TO-CAPACITY RATIO: 1.04
INTERSECTION LEVEL OF SERVICE: F

* ADJUSTED FOR RIGHT TURN ON RED ** APPROACHING OR EXCEEDING CAPACITY
INT=FUTURE.INT, VOL=FUTURE-P.PMV, CAP=

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants
 Condition: AM Future with Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
 Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
 450 723 394
 ^ | | ^
 | | |
 <--- v ---> | Split? N
 LEFT 247 --- 2.0 1.0 2.0 2.0 1.0 --- 641 RIGHT
 THRU 347 ---> 2.0 (NO. OF LANES) 2.0<--- 1339 THRU E. Leland Road
 RIGHT 323 --- 1.0 1.0 2.0 1.0 2.0 --- 381 LEFT
 | | |
 <--- ^ ---> |
 | | |
 N 321 603 69
 W + E
 S LEFT THRU RIGHT Split? N
 SIG WARRANTS:
 Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	69	0 *	1650	0.0000	
THRU (T)	603	603	3300	0.1827	
LEFT (L)	321	321	1650	0.1945	0.1945
SB RIGHT (R)	450	314 *	1650	0.1903	
THRU (T)	723	723	3300	0.2191	0.2191
LEFT (L)	394	394	3000	0.1313	
EB RIGHT (R)	323	2 *	1650	0.0012	
THRU (T)	347	347	3300	0.1052	
LEFT (L)	247	247	3000	0.0823	0.0823
WB RIGHT (R)	641	424 *	1650	0.2570	
THRU (T)	1339	1339	3300	0.4058	0.4058
LEFT (L)	381	381	3000	0.1270	

TOTAL VOLUME-TO-CAPACITY RATIO: 0.90
 INTERSECTION LEVEL OF SERVICE: D

* ADJUSTED FOR RIGHT TURN ON RED
 INT=FUTURE, INT, VOL=WITHBYPN, AMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants
 Condition: PM Future with Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
 Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
 230 266 355
 ^ | | ^
 | | |
 <--- v ---> | Split? N
 LEFT 631 --- 2.0 1.0 2.0 2.0 1.0 --- 195 RIGHT
 THRU 1278 ---> 2.0 (NO. OF LANES) 2.0<--- 423 THRU E. Leland Road
 RIGHT 282 --- 1.0 1.0 2.0 1.0 2.0 --- 288 LEFT
 | | |
 <--- ^ ---> |
 | | |
 N 232 510 337
 W + E
 S LEFT THRU RIGHT Split? N
 SIG WARRANTS:
 Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	337	179 *	1650	0.1085	
THRU (T)	510	510	3300	0.1545	0.1545
LEFT (L)	232	232	1650	0.1406	
SB RIGHT (R)	230	0 *	1650	0.0000	
THRU (T)	266	266	3300	0.0806	
LEFT (L)	355	355	3000	0.1183	0.1183
EB RIGHT (R)	282	50 *	1650	0.0303	
THRU (T)	1278	1278	3300	0.3873	0.3873
LEFT (L)	631	631	3000	0.2103	
WB RIGHT (R)	195	0 *	1650	0.0000	
THRU (T)	423	423	3300	0.1282	
LEFT (L)	288	288	3000	0.0960	0.0960

TOTAL VOLUME-TO-CAPACITY RATIO: 0.76
 INTERSECTION LEVEL OF SERVICE: C

* ADJUSTED FOR RIGHT TURN ON RED
 INT=FUTURE, INT, VOL=WITHBYPN, PMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Future with Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
56 35 61

LEFT 91 --- 1.0 1.1 1.1 1.0 1.0 --- 29 RIGHT
THRU 369 ---> 1.1 (NO. OF LANES) 1.0<--- 527 THRU
RIGHT 15 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT

N
W + E
S

83 114 2
LEFT THRU RIGHT Split? Y

SIG WARRANTS:
Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	56	56	1650	0.0339	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	61	61	1650	0.0370	
T + R		91	1650	0.0552	0.0552
EB RIGHT (R)	15	15	1650	0.0091	
THRU (T)	369	369	1650	0.2236	
LEFT (L)	91	91	1650	0.0552	0.0552
T + R		384	1650	0.2327	
WB RIGHT (R)	29	0 *	1650	0.0000	
THRU (T)	527	527	1650	0.3194	0.3194
LEFT (L)	1	1	1650	0.0006	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.50	
INTERSECTION LEVEL OF SERVICE:				A	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE.INT,VOL=WITHBYPN.AMV,CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Future with Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
37 97 72

LEFT 55 --- 1.0 1.1 1.1 1.0 1.0 --- 49 RIGHT
THRU 600 ---> 1.1 (NO. OF LANES) 1.0<--- 115 THRU
RIGHT 53 --- 1.1 1.0 1.1 1.1 1.0 --- 18 LEFT

N
W + E
S

19 58 1
LEFT THRU RIGHT Split? Y

SIG WARRANTS:
Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	37	37	1650	0.0224	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	72	72	1650	0.0436	
T + R		134	1650	0.0812	0.0812
EB RIGHT (R)	53	53	1650	0.0321	
THRU (T)	600	600	1650	0.3636	
LEFT (L)	55	55	1650	0.0333	
T + R		653	1650	0.3958	0.3958
WB RIGHT (R)	49	0 *	1650	0.0000	
THRU (T)	115	115	1650	0.0697	
LEFT (L)	18	18	1650	0.0109	0.0109
TOTAL VOLUME-TO-CAPACITY RATIO:				0.52	
INTERSECTION LEVEL OF SERVICE:				A	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE.INT,VOL=WITHBYPN.PMV,CAP=

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Future plus Project without Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
450 1130 394
LEFT 247 --- 2.0 1.0 2.0 2.0 1.0 --- 641 RIGHT
THRU 347 ---> 2.0 (NO. OF LANES) 2.0<--- 1339 THRU E. Leland Road
RIGHT 323 --- 1.0 1.0 2.0 1.0 2.0 --- 381 LEFT
N
W + E 321 858 69
S LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	69	0 *	1650	0.0000	
THRU (T)	858	858	3300	0.2600	
LEFT (L)	321	321	1650	0.1945	0.1945
SB RIGHT (R)	450	314 *	1650	0.1903	
THRU (T)	1130	1130	3300	0.3424	0.3424
LEFT (L)	394	394	3000	0.1313	
EB RIGHT (R)	323	2 *	1650	0.0012	
THRU (T)	347	347	3300	0.1052	
LEFT (L)	247	247	3000	0.0823	0.0823
WB RIGHT (R)	641	424 *	1650	0.2570	
THRU (T)	1339	1339	3300	0.4058	0.4058
LEFT (L)	381	381	3000	0.1270	

TOTAL VOLUME-TO-CAPACITY RATIO: 1.02
INTERSECTION LEVEL OF SERVICE: F

* ADJUSTED FOR RIGHT TURN ON RED

INT=FUTURE.INT, VOL=FUTURE-P.AMV+PROJECT.AMV, CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Future plus Project without Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburg
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
230 823 355
LEFT 631 --- 2.0 1.0 2.0 2.0 1.0 --- 195 RIGHT
THRU 1278 ---> 2.0 (NO. OF LANES) 2.0<--- 423 THRU E. Leland Road
RIGHT 282 --- 1.0 1.0 2.0 1.0 2.0 --- 288 LEFT
N
W + E 232 843 337
S LEFT THRU RIGHT Split? N
SIG WARRANTS:
Urb=Y, Rur=Y

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	337	179 *	1650	0.1085	
THRU (T)	843	843	3300	0.2555	
LEFT (L)	232	232	1650	0.1406	0.1406
SB RIGHT (R)	230	0 *	1650	0.0000	
THRU (T)	823	823	3300	0.2494	0.2494
LEFT (L)	355	355	3000	0.1183	
EB RIGHT (R)	282	50 *	1650	0.0303	
THRU (T)	1278	1278	3300	0.3873	0.3873
LEFT (L)	631	631	3000	0.2103	
WB RIGHT (R)	195	0 *	1650	0.0000	
THRU (T)	423	423	3300	0.1282	
LEFT (L)	288	288	3000	0.0960	0.0960

TOTAL VOLUME-TO-CAPACITY RATIO: 0.87
INTERSECTION LEVEL OF SERVICE: D

* ADJUSTED FOR RIGHT TURN ON RED

INT=FUTURE.INT, VOL=FUTURE-P.PMV+PROJECT.PMV, CAP=

Sky Ranch II Residential Subdivision Final EIR

V. Appendices

C. Revised LOS Calculations

Condition: AM Future plus Project without Bypass 09/05/06

INTERSECTION	7 Harbor Street/Buchanan Road	City of Pittsburgh
Count Date	Time	Peak Hour

----- 56 35 61

-----v----- Split? N

THRU 747 -> 1-1 (NO OF LANES) 1-0600-1313 THRU STREET NAME:
Buckner Road

RIGHT 15 --- 1.1 1.0 1.1 1.1 1.0 --- 1 LEFT

	V				V	
N						SIC WARRANTS.

S LEFT THRU RIGHT Split? Y

STREET NAME: Harbor Street

MOVEMENT	VOLUME	VOLUME*	CAPACITY	RATIO	V/C
----------	--------	---------	----------	-------	-----

RIGHT (R)	2	2	1650	0.0012
THRU (T)	114	114	1650	0.0691

T + R	116	1650	0.0703	0.0703
-------	-----	------	--------	--------

THRU (T)	35	35	1650	0.0212
----------	----	----	------	--------

T + R	91	1650	0.0552	0.0552
-------	----	------	--------	--------

THRU (T)	747	747	1650	0.4527	
LEFT (L)	81	81	1650	0.0553	0.0553

THRU (T)	1312	1312	1650	0.7952	0.7952
LEFT (L)	1	1	1650	0.0006	

TOTAL VOLUME-TO-CAPACITY RATIO: 0.98

* ADJUSTED FOR RIGHT TURN ON RED

21. What is the purpose of the study?

V. Appendices

=====
Condition: PM Future plus Project without Bypass 09/05/06

INTERSECTION	7 Harbor Street/Buchanan Road	City of Pittsburgh
Count Date	Time	Peak Hour

Count Date	Harbor Street/Buchanan Road	City of Pittsburg
	Time	Peak Hour

----- 37 97 72

-----> v -----> Split? N

THRU 1544 -> 1 1 (NO. OF LANES) 1 01000 070 THRU STREET NAME: Buchanan Road

RIGHT 53 --- 1.1 1.0 1.1 1.1 1.0 --- 18 LEFT

N	V				V	SIC WARRANTS.
---	---	--	--	--	---	---------------

S LEFT THRU RIGHT Split? Y

STREET NAME: Harbor Street

MOVEMENT	VOLUME	VOLUME*	CAPACITY	RATIO	V/C
----------	--------	---------	----------	-------	-----

RE RIGHT (R)	1	1	1650	0.0008
THRU (T)	58	58	1650	0.0352

T + R	59	1650	0.0358	0.0358
-------	----	------	--------	--------

THRU (T)	97	97	1650	0.0588
LEFT (L)	70	80	1650	0.0125

17R	134	1650	0.0812	0.0812
-----	-----	------	--------	--------

THRU (T)	1544	1544	1650	0.9358 **
LEFT (L)	55	55	1650	0.0333

THRU (T)	970	970	1650	0.5879	
LEFT (L)	18	18	1650	0.0109	0.0109

TOTAL VOLUME-TO-CAPACITY RATIO:	1.10
INTERSECTION LEVEL OF SERVICE:	

* ADJUSTED FOR RIGHT TURN ON RED ** APPROACHING OR EXCEEDING CAPACITY

[illegible]

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CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Future plus Project with Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
450 744 394
LEFT 247 --- 2.0 1.0 2.0 2.0 1.0 --- 641 RIGHT
THRU 347 ---> 2.0 (NO. OF LANES) 2.0<--- 1339 THRU
RIGHT 323 --- 1.0 1.0 2.0 1.0 2.0 --- 383 LEFT
N
W + E
S
STREET NAME: E. Leland Road
SIG WARRANTS: Urb=Y, Rur=Y
LEFT THRU RIGHT Split? N

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	76	0 *	1650	0.0000	
THRU (T)	666	666	3300	0.2018	
LEFT (L)	321	321	1650	0.1945	0.1945
SB RIGHT (R)	450	314 *	1650	0.1903	
THRU (T)	744	744	3300	0.2255	0.2255
LEFT (L)	394	394	3000	0.1313	
EB RIGHT (R)	323	2 *	1650	0.0012	
THRU (T)	347	347	3300	0.1052	
LEFT (L)	247	247	3000	0.0823	0.0823
WB RIGHT (R)	641	424 *	1650	0.2570	
THRU (T)	1339	1339	3300	0.4058	0.4058
LEFT (L)	383	383	3000	0.1277	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.91	
INTERSECTION LEVEL OF SERVICE:				E	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE,INT,VOL=WITHBYPN.AMV+BYSPRON.AMV,CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Future plus Project with Bypass 09/05/06

INTERSECTION 3 Loveridge Road/E. Leland Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 6-PHASE SIGNAL
230 338 355
LEFT 631 --- 2.0 1.0 2.0 2.0 1.0 --- 195 RIGHT
THRU 1278 ---> 2.0 (NO. OF LANES) 2.0<--- 423 THRU
RIGHT 282 --- 1.0 1.0 2.0 1.0 2.0 --- 296 LEFT
N
W + E
S
STREET NAME: E. Leland Road
SIG WARRANTS: Urb=Y, Rur=Y
LEFT THRU RIGHT Split? N

STREET NAME: Loveridge Road

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	342	179 *	1650	0.1085	
THRU (T)	551	551	3300	0.1670	0.1670
LEFT (L)	232	232	1650	0.1406	
SB RIGHT (R)	230	0 *	1650	0.0000	
THRU (T)	338	338	3300	0.1024	
LEFT (L)	355	355	3000	0.1183	0.1183
EB RIGHT (R)	282	50 *	1650	0.0303	
THRU (T)	1278	1278	3300	0.3873	0.3873
LEFT (L)	631	631	3000	0.2103	
WB RIGHT (R)	195	0 *	1650	0.0000	
THRU (T)	423	423	3300	0.1282	
LEFT (L)	296	296	3000	0.0987	0.0987
TOTAL VOLUME-TO-CAPACITY RATIO:				0.77	
INTERSECTION LEVEL OF SERVICE:				C	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE,INT,VOL=WITHBYPN.PMV+BYSPRON.PMV,CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: AM Future plus Project with Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
56 35 61
LEFT 91 1.0 1.1 1.1 1.0 1.0 29 RIGHT
THRU 380 1.1 (NO. OF LANES) 1.0 560 THRU
RIGHT 15 1.1 1.0 1.1 1.1 1.0 1 LEFT
N
W + E
S
83 114 2
LEFT THRU RIGHT Split? Y
SIG WARRANTS:
Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	2	2	1650	0.0012	
THRU (T)	114	114	1650	0.0691	
LEFT (L)	83	83	1650	0.0503	
T + R		116	1650	0.0703	0.0703
SB RIGHT (R)	56	56	1650	0.0339	
THRU (T)	35	35	1650	0.0212	
LEFT (L)	61	61	1650	0.0370	
T + R		91	1650	0.0552	0.0552
EB RIGHT (R)	15	15	1650	0.0091	
THRU (T)	380	380	1650	0.2303	
LEFT (L)	91	91	1650	0.0552	0.0552
T + R		395	1650	0.2394	
WB RIGHT (R)	29	0 *	1650	0.0000	
THRU (T)	560	560	1650	0.3394	0.3394
LEFT (L)	1	1	1650	0.0006	
TOTAL VOLUME-TO-CAPACITY RATIO:				0.52	
INTERSECTION LEVEL OF SERVICE:				A	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE.INT,VOL=WITHBYPN.AMV+BYSPRON.AMV,CAP=

CCTALOS Software ver. 2.35 by TJKM Transportation Consultants

Condition: PM Future plus Project with Bypass 09/05/06

INTERSECTION 7 Harbor Street/Buchanan Road City of Pittsburgh
Count Date Time Peak Hour

CCTA METHOD RIGHT THRU LEFT 4-PHASE SIGNAL
37 97 72
LEFT 55 1.0 1.1 1.1 1.0 1.0 49 RIGHT
THRU 637 1.1 (NO. OF LANES) 1.0 136 THRU
RIGHT 53 1.1 1.0 1.1 1.1 1.0 18 LEFT
N
W + E
S
19 58 1
LEFT THRU RIGHT Split? Y
SIG WARRANTS:
Urb=N, Rur=Y

STREET NAME: Harbor Street

MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB RIGHT (R)	1	1	1650	0.0006	
THRU (T)	58	58	1650	0.0352	
LEFT (L)	19	19	1650	0.0115	
T + R		59	1650	0.0358	0.0358
SB RIGHT (R)	37	37	1650	0.0224	
THRU (T)	97	97	1650	0.0588	
LEFT (L)	72	72	1650	0.0436	
T + R		134	1650	0.0812	0.0812
EB RIGHT (R)	53	53	1650	0.0321	
THRU (T)	637	637	1650	0.3861	
LEFT (L)	55	55	1650	0.0333	
T + R		690	1650	0.4182	0.4182
WB RIGHT (R)	49	0 *	1650	0.0000	
THRU (T)	136	136	1650	0.0824	
LEFT (L)	18	18	1650	0.0109	0.0109
TOTAL VOLUME-TO-CAPACITY RATIO:				0.55	
INTERSECTION LEVEL OF SERVICE:				A	

* ADJUSTED FOR RIGHT TURN ON RED
INT=FUTURE.INT,VOL=WITHBYPN.PMV+BYSPRON.PMV,CAP=