VESTING TENTATIVE TRACT NO. 68724 (stamped map dated July 11, 2013)

HEARING DATE: June 16, 2015

PLANNING DEPARTMENT STAFF REPORT

PURSUANT TO ORDINANCE 164,845, IF A CERTIFICATE OF POSTING HAS NOT BEEN SUBMITTED BEFORE THE DATE OF THE PUBLIC HEARING, IT MUST BE PRESENTED AT THE HEARING, OR THE CASE MUST BE CONTINUED.

REQUEST

Demolition of an existing single-family dwelling, accessory building, barn, corral and equestrian facility for the phased construction of a gated residential community, on a total 285-acre site, to be developed as follows: 188 single-family residential lots (25 of which will be Equine Keeping, Residential Lots), to be constructed with two-story, 35 feet in height homes, on 140-acres; a public park to include baseball/softball fields, basketball courts, a children's playground and walking trails and paths, community room, restrooms and parking for 100 vehicles, on 19 acres; replacement and relocation of the existing Equestrian Center, accommodating up to 100 horse stalls, 30 trailer storage stalls, two arenas, a dog walker, three wash racks, a caretaker residence, a manager residence and an employee residence and 30 parking spaces, on 15 acres; a total of two (2) miles of horse trails will be developed within the property; and 123 acres of preserved Open Space, restricted and dedicated in perpetuity to the City of Los Angeles as open space and maintained by the Hidden Creeks Estates Homeowners' Association (the "HOA").

NOTE: All acreage amounts rounded and approximate.

APPLICANT/REPRESENTATIVE

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RELEVANT CASES

ON-SITE:

- Case No. CPC 2005-6656-AD-GPA-ZC-DA; ENV-2005-6657-EIR, 12100 Browns Canyon Road: On November 21, 2013, the City Planning Commission (1) approved and recommended that the City Council adopt pre-annexation General Plan Amendments to the Chatsworth-Porter Ranch Community Plan, the General Plan Framework Element, and the Transportation Element of the General Plan, to become effective when the annexation becomes effective; (2) approved and recommended that the City Council adopt pre-annexation zoning of unincorporated territory of Los Angeles County to City of Los Angeles OS-1 (Open Space), [T][Q]A1-1XL (Agricultural), [T][Q]RA-1-K (Suburban) and [T][Q]RE11-1-H (Residential Estate – Hillside) to become effective when the annexation becomes effective; (3) pre-annexation Equinekeeping "K" Supplemental Use District within the 36-acre, RA-1 Zone portion of the site, to become effective when the annexation becomes effective; (4) approved and recommended that the City Council adopt pre-annexation Development Agreement by and between the City of Los Angeles and Forestar (USA) Real Estate Group, Inc., dated 11-01-2013 to become effective when the annexation becomes effective; (5) incorporated and recommended that the City Council approve the recommendation of the City Council's Boundary Adjustment Board, as detailed in the Chief Administrative Officer's Report, be included as a condition of the pre-annexation zone change and the pre-annexation Development Agreement; (6) approved and recommended that the City Council certify Environmental Impact Report No. ENV-2005-6657-EIR and adopt the Environmental Mitigation Monitoring Program.

- In October, 2011 the City's Boundary Adjustment Review Board, comprised of the City's Chief Legislative Analyst, Planning Director, Chief Administrative Officer and the Councilmember of the District to which the proposed annexed property will be located, Councilman Mitchell Englander, commissioned Parsons-Brinckerhoff, an independent third party to analyze the fiscal impact to the City arising from the annexation. On March 19, 2012, amended June 11, 2012, Parsons-Brinckerhoff issued a Fiscal Economic Impact Report which projected a short term deficit to the City. In September, 2012, the Board voted unanimously to recommend annexation to the City Council, subject to the Subdivider executing a Letter Agreement, later executed and dated July 9, 2013 (attached), whereby the Subdivider would fund this short-term deficit and that the Letter Agreement be included as an exhibit to the project's Development Agreement. The Chief Administrative Officer staff report concluded that Hidden Creeks would create, "no fiscal impact to the general fund."

OFF-SITE:

- CPC-2006-8999-GPA-ZC-SP-DA (Council File No. 07-3660); 19701 Rinaldi Street: On July 22, 2008, the City Council adopted the findings of the City Planning Commission and approved two Ordinances as follows: (1) An Ordinance amending the Porter Ranch Specific Plan, as modified in PLUM Committee; and (2) An Ordinance authorizing execution of an amendment to the First Amended and Restated Development Agreement dated May 29, 2001, by and among the City of Los Angeles and the Porter Ranch Development Company.

- CPC 2002-5138-SP-CA (Council File No. 03-1443): On November 4, 2003, the City Council adopted the findings of the City Planning Commission and approved two ordinances as follows: (1) Amends Section 7.A.2(c) and amends Section 7.B.1(c), (f), and (g) of the Porter Ranch Land Use / Transportation Specific Plan and (2) Amends Section 17.05 H.10 of the Municipal Code to delete the Subdivision which specifies minimum lot width and lot area subdivision requirements for the Porter Ranch Specific Plan.

- CPC-1998-288-SPE; 19701 W. Rinaldi Street: On January 12, 1999, the City Planning Commission approved Specific Plan Exception to develop commercial uses within the portion of Subarea 3 included in Tract No. 52154.

- CPC-1998-287-ZC; 19701 W. Rinaldi Street: On January 15, 1999, the City Planning Commission approved a zone change from (T)RD2-2D to (T)C4-2D and from (T)C4-2D to (T) RD2-2D on identical areas of land within the Porter Ranch Specific Plan Area to effectuate an exchange to better accommodate compatibility of land uses and provide for a more reasonable pattern of development.

- CPC-1997-281-ZC; 20101 Sesnon Boulevard: On August 25, 1998, the City Planning Commission approved a zone change from A1-1, (T)RE20-1-H to (T)RE11-1-H Zone for 457 single-family homes.

- Vesting Tentative Tract Map No. 50505, 20700 Sesnon Boulevard: On February 11, 1994, the Deputy Advisory Agency approved the subdivision. On June 3, 2014, the project was modified under Map No. 50505-M1, for 309 single family lots including 40 horse-keeping lots and 7 common area lots.

- Vesting Tentative Tract Map No. 50506, 20900 Sesnon Boulevard: On February 11, 1994, the project was approved for 76 single family lots.

- Vesting Tentative Tract Map No. 50507, 20700 Sesnon Boulevard: On February 11, 1994, the Advisory Agency approved 210 single family lots, 13 open space lots and one mineral lot.

PUBLIC RESPONSES

No letters have been received from the public. Staff has received a few interested parties wanting to be included in the mailing list for this project and review of the documents.

GENERAL COMMENTS

Located north of the current City boundary in unincorporated territory of Los Angeles County, and southern edge of the Santa Susana Mountains, bounded by the 1,120 acre Porter Ranch Specific Plan area to the southeast, and the 2,326-acre Michael D. Antonovich Regional Park to the west, the subject property consists of 285 acres of mostly undeveloped land. The site generally slopes downward from north to south, with elevations ranging from approximately 2,145 feet above mean sea level to approximately1,350 feet. Property topographic elevations are almost equally divided among three slope bands: 34% with slopes less than 25%; 32.3% with slopes between 25% to 50%; and 33.7% with slopes greater than 50%. The higher elevations occur along

the north and west edges of the site, with central and southern portions consisting mainly of a relatively flat, non-native grassland plateau, developed with several buildings associated with ranching, and used regularly for cattle grazing and as a set for filming. All the existing structures will be demolished as a part of the new tract development.

The site is located between the creeks of Mormon Canyon to the east and Brown's Canyon to the west, with the confluence of the two located at the southern end of the site. One tributary to Brown's Canyon and three tributaries to Mormon Canyon exist on the site, with the main channels of these two creeks located below and outside the project boundary. According to the update to the Final EIR, dated October 25, 2013, a total of 2.05 acres of the project site are defined as streambed "Waters of the US", subject to the jurisdiction of the Army Corps of Engineers, and 15.29 acres are defined as wetland areas, subject to the jurisdiction of the California Department of Fish and Wildlife.

The development includes the phased construction of a gated residential community with 188 single-family residential lots (25 of which will be Equine Keeping, Residential Lots). The two-story, 35 feet high single-family homes will be located on 140 acres of the site. The tract will include a public park with baseball/softball fields, basketball courts, a children's playground and walking trails and paths, community room, restrooms and parking for 100 vehicles on 19 acres of the site. A new equestrian center will replace the existing Equestrian Center, accommodating up to 100 horse stalls, 30 trailer storage stalls, two arenas, a hot walker, three wash racks, a caretaker residence, a manager residence and an employee residence and 30 parking spaces, on 15 acres of the site. Also included in the development will be a total of two (2) miles of horse trails within the tract boundaries. 123 acres of the property will be set aside as preserved Open Space, restricted and dedicated in perpetuity to the City of Los Angeles as open space and maintained by the Hidden Creeks Estates Homeowners' Association (the "HOA").

Surrounding property to the north, west and east are undeveloped. The property to the south-east consists of several hundred homes already developed and several acres of land approved for development for additional single-family homes.

Access and Circulation Improvements

On October, 2013, the Porter Ranch Neighborhood Council voted to reaffirm, without any opposition, its earlier support of Hidden Creeks.

Primary access to the project site is proposed via a new roadway extending from the current northern terminus of Mason Avenue in Porter Ranch, and connecting to the northeastern corner of the Hidden Creeks Estates project site, near the proposed park. The road would traverse through an easement to be granted to the City of Los Angeles by the Southern California Gas Company, the owner of the property, located northeast of the project site and north of Porter Ranch. The right-of-way for the roadway would be approximately 50 feet wide. The Southern California Gas Company property is not proposed to be annexed to the City, and will remain in unincorporated Los Angeles County.

Browns Canyon Road, located south of the project site, would provide secondary emergency access to the site and the surrounding area. To facilitate the use of Browns Canyon Road for secondary emergency access, the roadway would be widened in 14 locations south of the project site. Public access to the equestrian facility would also be

provided via Browns Canyon Road. A staging area that could accommodate trailers and vehicles would be located near the equestrian center, and would also serve as a staging area for fire trucks, with a new fire hydrant installed for fire suppression. Project residents would access the equestrian center internally, parking off of internal streets at the southern edge of the property.

Internal circulation within the Hidden Creeks Estates property would be provided by a network of private streets. The streets in the horse keeping portion of the property will include equestrian trails that will connect to the new equestrian center and to the major equestrian trails.

Trees

According to the Tree Survey prepared for the project site, over 1,000 protected trees, including coast live oak and valley oaks, black walnuts and sycamores, were identified within the proposed approximately 158-acre grading area or within 100 feet of the grading area.

The site does not have any special environmental designation by any public agency, including the County of Los Angeles, the jurisdiction in which the site is currently located; the site in not designated by the County's General Plan as a Significant Ecological Area (SEA).

Environmental Issues and Response

Subsequent to the publication of the 2011 Final EIR for the Hidden Creeks Estates Project, a supplemental analysis was made to reflect the changes in the revised tract map. With the exception of the Mason Avenue extension, the supplemental analysis provided in the June, 2015 Supplemental EIR analysis shows that no new significant impacts or substantial increase in the severity of significant impacts identified in the 2008 Draft EIR and 2011 Final EIR would occur.

On the basis of the whole of the record before the lead agency including any comments received, the lead agency finds that, with imposition of the mitigation measures described in the EIR, there is no substantial evidence that the proposed project will have a significant effect on the environment, with the exception of short-term, construction related impacts (air quality and noise). The Planning Department finds that substantial evidence for each and every finding made is contained in the Draft, Final and Supplemental EIR, including a Statement of Overriding Considerations and a Mitigation Monitoring Program (MMP).

REPORTS RECEIVED: **Please Note: The Agency Conditions are available online only.**

BUREAU OF ENGINEERING: Reports that the Tract Map layout has been reviewed as submitted and recommends approval subject to conditions stated in the memo dated March 6, 2015. See recommended conditions in **Draft Vesting Tentative Tract Determination Letter with Conditions** under department.

DEPARTMENT OF BUILDING AND SAFETY, GRADING DIVISION: Tentatively approves subject to conditions stated in the memo dated December 20, 2013. See recommended conditions in **Draft Vesting Tentative Tract Determination Letter with Conditions** under department.

DEPARTMENT OF BUILDING AND SAFETY, ZONING DIVISION: A clearance letter will be issued stating that no Building and Zoning Code violations exist on the subject site once the items identified in the memo dated February 11, 2014 have been satisfied. See recommended conditions in **Draft Vesting Tentative Tract Determination Letter with Conditions** under department.

DEPARTMENT OF TRANSPORTATION: Recommends that the project be subject to conditions stated in the memo dated January 31, 2014. See recommended conditions in **Draft Vesting Tentative Tract Determination Letter with Conditions** under department.

FIRE DEPARTMENT: Recommends that the project be subject to conditions stated in the memo dated August 23, 2013. See recommended conditions in **Draft Vesting Tentative Tract Determination Letter with Conditions** under department.

DEPARTMENT OF WATER AND POWER: No comments were available at the writing of the staff report.

BUREAU OF STREET LIGHTING: No comments were available at the writing of the staff report.

BUREAU OF SANITATION: See the recommended conditions in Bureaus of Engineering and Sanitation joint letter to HARDY ENGINEERING dated February 2, 2015 and Inter Departmental Correspondence letter dated January 13, 2015.

ENVIRONMENTAL CLEARANCE

The Environmental Staff Advisory Committee reviewed Final Environmental Impact Report ENV-2005-6657-EIR ("FEIR"). The FEIR was reviewed by the City Planning Commission on November 21, 2013. The City Planning Commission recommends that the City Council certify the FEIR. See **Draft Tentative Tract Report with Conditions.**

STAFF RECOMMENDATIONS

The Planning Department staff recommends approval of Vesting Tentative Tract No. 68724 subject to the standard conditions and the additional conditions in the **Draft Tentative Tract Report with Conditions.**

Prepared by:

Nelson Rodriguez
City Planning Associate

Note: Recommendation does not constitute a decision. Changes may be made by the Advisory Agency at the time of the public hearing.

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Decision Date:

Appeal End Date:

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RE: Vesting Tentative Tract No. 68724
Related Case: ZA-2013-4153-CU-ZAD-F
12100 Brown's Canyon Road (vacant)
Chatsworth-Porter Ranch Community Plan
Zone : RA-1, RE11-1H, A1-1, OS-1
D.M. : 219-B-109 & 222-B-109
C.D. : 12
CEQA : ENV-2005-6657-EIR
Legal Description: Tract, Block & Arb None
Lot LT 9

DRAFT VESTING TENTATIVE TRACT DETERMINATION LETTER WITH CONDITIONS

In accordance with provisions of Section 17.03 of the Los Angeles Municipal Code (LAMC), the Advisory Agency adopted Environmental Impact Report ENV-2005-6657-EIR as the environmental clearance and approved Vesting Tentative Tract No.68724, located at 12100 Brown's Canyon Road for a maximum 188 single-family residential lots (25 of which will be Equine Keeping, Residential Lots), to be constructed with two-story, 35 feet in height homes, on 140 acres; a public park to include baseball/softball fields, basketball courts, a children's playground and walking trails and paths, community room, restrooms and parking for 100 vehicles, on 19 acres; replacement and relocation of the existing Equestrian Center, accommodating up to 100 horse stalls, 30 trailer storage stalls, two arenas, a hot walker, three wash racks, a caretaker residence, a manager residence and an employee residence and 30 parking spaces, on 15 acres; a total of two (2) miles of horse trails will be developed within the property; and 123 acres of preserved Open Space, restricted and dedicated in perpetuity as open space and maintained by the Hidden Creeks Estates Homeowners' Association (the "HOA"), as shown on map stamp-dated July 11, 2013 in the Chatsworth-Porter Ranch Community Plan. This unit density is based on the RA-1-K and

RE11-1-H Zones. (The subdivider is hereby advised that the LAMC may not permit this maximum approved density. Therefore, verification should be obtained from the Department of Building and Safety which will legally interpret the Zoning Code as it applies to this particular property.) The Advisory Agency's approval is subject to the following conditions:

NOTE on clearing conditions: When two or more **agencies** must clear a condition, subdivider should follow the sequence indicated in the condition. For the benefit of the applicant, subdivider shall maintain record of all conditions cleared, including all material supporting clearances and be prepared to present copies of the clearances to each reviewing agency as may be required by its staff at the time of its review.

BUREAU OF ENGINEERING - SPECIFIC CONDITIONS

1. That a minimum 50-foot wide and variable width right-of-way be dedicated for the off-site portion of the Mason Avenue on an alignment satisfactory to the Valley Engineering Office. Additional off-site slope easement shall be dedicated to the City of Los Angeles. These off-site dedications shall be completed within 12-months of the tentative tract approval prior to the recordation of the final map by separate instrument and be shown on the final map. In the event that this dedication cannot be completed as required herein prior to the recordation of the final map, then the subdivider shall submit a revised map showing other alternatives for access to this tract satisfactory to all City Departments.

2. That the subdivider make a request to the Valley District Office of the Bureau of Engineering to determine the capacity of any existing off-site sewer for this tract.

3. That a 50-foot wide and variable width (at the entrance to the tract) public street right-of-way be dedicated for the Mason Avenue within the tract property including any necessary public slope easement all on alignment satisfactory to the Valley Engineering Office.

4. That all the proposed tract map boundary lines be properly established in accordance with Section 17.07.D of the Los Angeles Municipal Code prior to the recordation of the final map satisfactory to the City Engineer.

5. That a 50-foot wide private street easement be provided for proposed Private Street "A" including a 39-foot radius property easement cul-de-sac at the terminus and 15-foot radius property easement returns at all other private street intersections. Additional easements will be required at the locations of the street median areas to provide for 20-foot minimum roadways at both sides of the medians.

6. That a minimum 44-foot wide private street easement be provided for all proposed private streets, (except the "A" street) including a 39-foot radius property easement cul-de-sacs at their terminus and 15-foot radius property easement returns at their intersections.

7. That sanitary sewer easements be dedicated full-width of the proposed private streets.

8. That the private street easement be included as a part of the adjoining parcels.

9. That the owners of the property record an agreement satisfactory to the City Engineer stating that they will grant the necessary easements for ingress, egress

and public facilities over the private street area upon the sale of the respective lots and they will maintain the private street, free and clear of obstructions and in a safe condition for vehicular use at all times.

10. That a Covenant and Agreement be recorded stating that private street will be posted in a manner prescribed in Section 18.07 of the Los Angeles Municipal Code "Private Street Regulations".

11. That a revised map be submitted showing public or private street frontage for proposed Lot No. 191 and the property line between Lot No. 191 and Lot No. 192 shall be clearly delineated.

12. That a revised map be submitted showing emergency access connection outside of the tract boundary to a suitable outlet satisfactory to the Fire Department.

13. That a 30-foot wide onsite emergency access connection be dedicated on an alignment and width satisfactory to the Fire Department.

14. That any necessary off-site emergency access easement be dedicated by separate instrument prior to the recordation of the final map and be shown on the final map.

15. That if a sewage pumping station is required to serve this development, then a Covenant and Agreement be recorded advising future property owners that such facilities will be privately will be privately operated and maintained.

16. That the following requirements in connection with grading and construction in and adjacent to public rights-of-way or private streets be compiled within a manner satisfactory to the City Engineer and the following conditions shall be reproduced in its entirety on the project construction plans:

    (a) Cut or fill slopes in artificial fill and residual soils shall be no steeper than 2.1 (H V). Cut slopes shall be no steeper than 1.5.1 (H V) in competent bedrock.

    (b) The toes and crests of all cut and fill slopes shall be located on private properly and shall be set back 2 and 3 feet, respectively from the property line.

    (c) Where fill overlies a cut slope, the fill shall be keyed horizontally into bedrock a minimum of 12 feet or the slope shall be overexcavated a minimum of 12 feet and replaced as a compacted fill slope.

    (d) The consulting soils engineer shall provide methods of mitigating the effects of expansive soil, which underlies the public property and private streets. Prior to the approval of plans, the City Engineer must approve the proposed method.

    (e) All streets shall be founded upon firm natural materials or properly compacted fill. Any loose fill, loose soil, or organic material shall be removed prior to the placement of engineered fill.

(f) Fill material shall be compacted to a minimum of 90 percent relative compaction as defined in Section 300 of the Standard Specifications for Public Works Construction. Fill shall be benched into competent material.

(g) All slopes shall be planted and an irrigation system installed as soon as possible after grading to alleviate erosion.

(h) Adequate perforated pipe and gravel sub-drain systems approved by the City Engineering shall be placed beneath canyon fills and behind retaining walls.

(i) Slopes that daylight adversely dipping bedding and are not demonstrated per grading code to have strength characteristics sufficient to produce a stable slope shall be supported by either a retaining wall or a designed buttress fill.

(j) This project will require a B-Permit. Approval conditions I-T below relate to construction under the B-permit and will be requirements for B-Permit review and final B-permit approval. The Mason Avenue extension area of the project includes the project area 500 feet west of the proposed bridge and all slopes adjacent to that side of the bridge.

(k) Complete signed and stamped street plans shall be provided to GEO to review for the Mason Avenue extension area of the project. These plans shall include 1H.1V normal cross sections for critical areas of the extension, and continuous 1H.1V parallel cross sections for the entire length of the extension. Complete subsurface utilities shall be shown on all plans and cross sections. All canyon drains, subdrains, culverts, V-ditches, debris walls, debris basins or other drainage devices shall be clearly delineated on all plans and cross sections. All proposed outlets for all storm drains, canyon drains, and subdrains shall be clearly delineated on the project and street improvement plans.

(l) If any storm drain or subdrain is intended to discharge into Mormon Creek or Browns Canyon, the appropriate approval shall be obtained from the governing agencies, California State Water Board, California Department of Fish and Game, etc.

(m) It is understood that it is proposed to have sewage from the housing conveyed by pumps over the Mason Avenue extension. The following shall be provided to GEO for review: pump hose locations, locations of sealed lines beneath streets, maintenance recommendations, and complete recommendations for proposed backup systems including diversionary or retention areas.

(n) Adverse geology if encountered will require the proposed cut slopes in the Mason Avenue extension areas of the project to be changed to buttress fill slopes. Backcut slope stability calculations and recommendations for all potential shall buttress fill slopes be provided to GEO prior to the start of construction.

(o) For the Mason Avenue extension area of the project: weekly as-built geology reports shall be provided to GEO for all cut/fill slopes, street improvement

bottoms, etc. These reports shall include 40 scale geologic maps, 40 scale (1H:1V) cross sections, progress photos, and geologic mapping as described in item P-Q of this letter.

(p) For the Mason Avenue extension area of the project, Geologic maps shall include data collected at a minimum of every five vertical feet, and repeated every 250 feet laterally, or closer as needed to document adverse or unexpected geology.

(q) For the Mason Avenue extension area of the project. The geologic maps shall also clearly delineate by lateral transects the terrace bedrock contact with platform orientation attitudes every 50 horizontal feet, or closer as needed to document dips or channels in the platform.

(r) For the Mason Avenue extension area of the project, all cutslopes, keyways and street excavation bottoms shall require inspection and approval by GEO. Cutslope inspections by GEO shall be required for every 25 vertical feet of cutslope as it is exposed. Ongoing geologic mapping shall be provided and will be reviewed onsite at the time of inspection. The geotechnical engineer or engineering geologist of record shall notify GEO at least 48 hours or two business days prior to each of these required inspections.

(s) Drainage improvement plans shall be provided to GEO sufficient to carry stormwater flow and debris emanating from east of the Mason Avenue Extension to the planned debris basin north east of the intersection of Mason Avenue and Sesnon Boulevard.

(t) All debris basins for the project will be sized appropriately to handle debris arid storm flow from100 year storm events.

(u) Where not in conflict with the above, the general recommendations contained in GeoSoils Consultants, Inc., 2013, Updated Geologic and Geotechnical Engineering Report, and Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 3, 2010 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated July 21, 2010, Hidden Creeks, Vesting Tentative Tract 68724, Chatsworth, City of Los Angeles, California, dated May 1, 2013, signed by the consulting engineering geologist Rudy F. Ruberti (EG 1708) and geotechnical engineer Karen Miller (GE 2257), shall be implemented.

(v) GEO required procedures for review and approval of grading and foundation Construction as it relates to City Property and the Right-of-way are specified in the Inter-Departmental Correspondence. "Geotechnical Engineering Division Requirements for Review and Approval of Grading and Foundation Construction", dated October 12, 2001 (attached). These procedures shall be followed during tract design and construction.

NOTE: Any question regarding above GEO conditions shall be directed to Mr. Eric Noreen at (213) 847-0507, or Theo Seeley at (213) 847-0534.

17. That any necessary approval from the Los Angeles County Flood Control District for drainage discharge from the tract area be obtained.

18. That any fee deficit under Work Order No. E1906920 be paid.

19. That variable width future street be dedicated for the extension of the Sesnon Boulevard including a turning area within this tract on a location and alignment satisfactory to the Valley District Engineering Office.

20. That prior to the recordation of the final map, the subdivider shall provide a design for construction and maintenance of sewer system that utilizes either a pump, gravity siphon or a combination thereof to serve all sanitary sewer requirements of the map all satisfactory to the Valley District Engineering office and Bureau of Sanitation.

DEPARTMENT OF BUILDING AND SAFETY, GRADING DIVISION

2. That prior to issuance of a grading or building permit, or prior to recordation of the final map, the subdivider shall make suitable arrangements to assure compliance, satisfactory to the Department of Building and Safety, Grading Division, with all the requirements and conditions contained in Inter-Departmental Letter dated December 20, 2013, Log No. 59139-04 and attached to the case file for Vesting Tract No. 68724.

   A favorable response for tentative tract preliminary mass grading was received from the GEO-PW in the referenced 11/21/2013 letter. The referenced reports and the referenced tentative tract map (with the Department of City Planning receipt stamp dated June 16, 2007) and tentative tract preliminary mass grading as currently proposed, is approved subject to the following conditions:

   (a) The vesting tentative tract is located in a complex geologic environment with faulting and various ages of landsliding. It is important that grading is carefully monitored by the engineering geologist. Unanticipated fault features may be exposed during the large excavations required for the remedial grading. If such geologic conditions are encountered, the LADBS Grading Division shall be notified immediately and supplemental geologic reports shall be submitted, if warranted. Note: If unanticipated fault features are encountered, the project engineering geologist shall be aware that continued grading may remove critical evidence that could determine the age of the faults. If pre-Holocene age cannot be demonstrated, building setbacks in addition to the currently proposed setback, will be required.

   (b) A "Monthly Grading Progress Report and Map" with the project address and geologic cross-sections (at the current scale of 1 inch = 100 feet) sufficient to illustrate the geologic inspection, approved bottoms accomplished and the monthly progress of grading shall be submitted, during each reporting period. A convenient lettering and numbering system shall be provided to identify specific areas of cut and fill, subdrain placement and the geologic units and geologic structure (strikes & dips) exposed. The map (and sections) will, therefore, be updated in each successive report. Upon completion of the tentative tract preliminary mass grading, the final geologic inspection report,

based upon an As-Graded geologic map/plan that is labeled "As-Graded", shall be filed for Department approval.

(c) The project engineering geologist shall map in detail and update the geology and upon completion submit a final report stating that the completed work complies with his recommendations. Geological data for faults, shears, slides, slip surfaces, weak layers, thick clays, locations of water seeps or springs, etc., shall be obtained from grading exposures, particularly at back slope cuts for fills and buttresses and on cut surfaces and in areas where the inferred/concealed faults were investigated. This data shall be presented on the final geologic inspection report and "As-Graded" geologic map/plan.

(d) If the grading concept varies from that shown in the referenced 07/11/2013 tentative tract map and the reports currently approved, a revised or modified tract map shall be filed.

(e) This letter is only an approval for the tentative tract preliminary mass grading, as currently proposed. Additional geotechnical reports will be required for 40-scale grading, precise grading, debris basin design per City requirements, foundation recommendations, etc.

(f) A grading permit shall be obtained, prior to recordation of the *final* tract map.

(g) Prior to the issuance of the grading permit, a settlement monitoring report shall be submitted as required in items 8 and 9 of this approval.

(h) Settlement monitoring of deep fills and portions of the ancient landslide to remain shall be performed, as recommended (see Figure 4 in the 05/01/2013 report), and as required in this letter.

(i) A report with a detailed monitoring plan and appropriate drawings (both in 1 inch =100 feet scale plan and section view) showing the monitoring locations shall be provided. The report shall include sufficient details as to how these settlement monitoring markers will be installed and preserved/sustained during grading.

(j) Secure the notarized written consent from all owners upon whose property the proposed grading is to extend, and include as part of the final grading plans.

(k) Prior to the issuance of any permit which authorizes an excavation where the excavation is located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation.

(l) The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety.

(m) Obtain approval for grading within all areas under the jurisdiction of the Army Corps of Engineers & the County Department of Fish & Game.

(n) Approval shall be obtained from the utility company with regard to proposed grading within or adjacent to existing utility easements.

(o) All recommendations of the reports prepared by GeoSoils Consultants dated 04/12/2007, 02/05/2009, 04/15/2010, 05/01/2013, 08/23/2013, 10/23/2013 & 11/21/2013 signed by Rudy F. Ruberti (CEG 1078) and Karen L. Miller (GE 2257) and the civil engineer's report dated 09/23/2013 prepared by H. M. K. Engineering signed by Mark D. Hardy (RCE 36538) included as Appendix B in GeoSoils Consultants report dated 10/23/2013, which are in addition to or more restrictive than the conditions contained herein shall also be incorporated into the plans for the project.

(p) The geologist and soils engineer shall review and approve the detailed plans prior to issuance of any permits. This approval shall be by signature on the plans which clearly indicates that the geologist and soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in their reports.

(q) A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.

(r) All new graded slopes shall be no steeper than 2H:1V.

(s) Existing uncertified fill (if present), unsuitable naturally-occurring soil or landslide material (with the exception of portions of the ancient landslide to be buttressed in place), shall not be used for support of new fill.

(t) Prior to excavation, an initial inspection and meeting shall be called at which time the sequence of grading, protection fences and dust and traffic control will be scheduled. Note: The department geologist and grading inspector shall be provided with a minimum of 48 hours' notice, for this meeting.

(u) All grading shall be performed under the direct inspection, supervision and approval of the registered engineering geologist, soils engineer and deputy grading inspector.

(v) The geologist and soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading.

(w) Subdrains shall be installed in all drainage courses within which compacted fill is to be placed.

(x) Subdrains shall be provided at the base of all new fill placed, as recommended.

(y) Subdrains shall be provided at the base of the new fill/bedrock or new/fill/ancient landslide contacts including within the buttress key-ways under the direct observation and supervision of the consulting engineering geologist and soil engineer. The locations of these sub-drains shall be documented by survey and shown on the "As-graded" final geologic inspection report and the compaction report required in this letter. All subdrains shall be day-lighted away from the fill mass by gravity, to an approved location.

(z) Grading Shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Inspection Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cu yd.

(aa) All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density (D1556). Placement of gravel in lieu of compacted fill is allowed only if complying with Section 91.7011.3 of the Code.

(bb) All fill placed more than 40 feet below final grade shall be compacted to a minimum relative compaction of 95 percent, as recommended.

(cc) Fills over 40 feet deep shall be monitored with a system of benchmarks installed at critical points on the fill. The settlement characteristics shall be established and the cessation of any movements shall be demonstrated. In such cases, accurate measurements of both horizontal and vertical movements shall be taken for a period of time sufficient to define the settlement behavior. In no case shall this be less than one year, with at least four consecutive checks made at intervals of 3 months. (7011.3)

(dd) Prior to the placing of compacted fill, a representative of the consulting soils engineer shall inspect and approve the bottom excavations. He shall post a notice on the job site for the LADBS Grading Inspector and the Contractor stating that the soil inspected meets the conditions of the report, but that no fill shall be placed until the LADBS Grading Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be filed in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. The engineer's certificate of compliance shall include the grading permit number and the legal description as described in the permit.

DEPARTMENT OF BUILDING AND SAFETY, ZONING DIVISION

3. That prior to recordation of the final map, the Department of Building and Safety, Zoning Division shall certify that no Building or Zoning Code violations exist on the subject site. In addition, the following items shall be satisfied:

   (a) Provide a copy of CPC case CPC-2005-6656-AD-GPA-ZC-DA for the annexation and zone designation to this parcel of land to the City of Los Angeles. Show compliance with all the conditions/requirements of the CPC case as applicable.

   (b) Provide a copy of the ordinance for the annexation and zone designation prior to obtaining Zoning clearance.

   (c) Show all street dedication(s) as required by Bureau of Engineering and provide net lot area after all dedication. "Area" requirements shall be re-checked as per net lot area after street dedication.

   (d) Provide the required setbacks per the Zoning Code or per the Porter Ranch Land Use/Transportation Specific Plan according to the designated Zone. Revise the Map to show compliance with the above requirement or obtain approval from the Department of City Planning.

NOTE: The proposed building plans have not been checked for and shall comply with Building and Zoning Code requirements. With the exception of revised health or safety standards, the subdivider shall have a vested right to proceed with the proposed development in substantial compliance with the ordinances, policies, and standards in effect at the time the subdivision application was deemed complete. Plan check will be required before any construction, occupancy or change of use.

If the proposed development does not comply with the current Zoning Code, all zoning violations shall be indicated on the Map.

An appointment is required for the issuance of a clearance letter from the Department of Building and Safety. The applicant is asked to contact Laura Duong at (213) 482-0434 to schedule an appointment.

DEPARTMENT OF TRANSPORTATION

4. That prior to recordation of the final map, satisfactory arrangements shall be made with the Department of Transportation to assure:

   (a) A minimum of 20-foot reservoir space is required between any security gate and the property line or to the satisfaction of the Department of Transportation.

   (b) A parking area and driveway plan must be submitted to the Valley Development Review Section of the Department of Transportation for approval prior to submittal of building permit plans for plan check by the Department of Building and Safety. Transportation approvals are conducted at 6262 Van Nuys Blvd., Room 320, Van Nuys, CA 91401.

(c) That a fee in the amount of $197 be paid for the Department of Transportation as required per Ordinance No. 180542 and LAMC Section 19.15 prior to recordation of the final map. Note: the applicant may be required to comply with any other applicable fees per this new ordinance.

FIRE DEPARTMENT

5. That prior to the recordation of the final map, a suitable arrangement shall be made satisfactory to the Fire Department, binding the subdivider and all successors to the following:

(a) Submit plot plans for Fire Department approval and review prior to recordation of Tract Action.

(b) Access for Fire Department apparatus and personnel to and into all structures shall be required.

(c) No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

(d) Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.

(e) The width of private roadways for general access use and fire lanes shall not be less than 20 feet, and the fire lane must be clear to the sky.

(f) Where fire apparatus will be driven onto the road level surface of the subterranean parking structure, that structure shall be engineered to withstand a bearing pressure of 8,600 pounds per square foot.

(g) Submit plot plans indicating access road and turning area for Fire Department approval.

(h) All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being issued.

(i) Where access for a given development requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet.

(j) Fire lanes, where required and dead ending streets shall terminate in a cul-de-sac or other approved turning area. No dead ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.

(k) No building or portion of a building shall be constructed more than 300 feet from an approved fire hydrant. Distance shall be computed along path of travel.

(l) Adequate public and private fire hydrants shall be required.

(m) Electric Gates approved by the Fire Department shall be tested by the Fire Department prior to Building and Safety granting a Certificate of Occupancy.

(n) No framing shall be allowed until the roadway is installed to the satisfaction of the Fire Department.

(o) Any required fire hydrants to be installed shall be fully operational and, accepted by the Fire Department prior to any building construction.

(p) At least two different ingress/egress roads for each area, which will accommodate major fire apparatus and provide for major evacuation during emergency situations, shall be required. The LAFD does not support the "Shelter in place" concept during brush fires. Instead, we utilize "Ready — Set — Go". Information on the LAFD program is available from our website at LAFD.org.

(q) This project is located in the very high fire hazard severity zone and shall comply with requirements set forth in the City of Los Angeles Municipal Code 57.25.01.

Mitigating measures shall be considered. These measures shall include, but not be limited to the following:

i. Boxed-in eaves.

ii. Single pane, double thickness (minimum 118" thickness) or insulated windows.

iii. Non-wood siding.

iv. Exposed wooden members shall be two inches nominal thickness.

v. Noncombustible finishes.

(r) The open space areas within 200 feet of all structures shall be maintained per the Los Angeles Fire Department Brush Clearance Requirements. The manufactured slope landscape areas within 200 feet of all development structures shall be planted and irrigated until the planting is established and maintained per the Los Angeles Fire Department Brush Clearance Requirements.

(s) All landscaping shall use fire-resistant plants and materials. A list of such plants is available from the Fire Department.

(t) All homes shall have noncombustible roofs. (Non-wood)

(u) The brush in the area adjacent to the proposed development shall be cleared or thinned periodically by the Homeowner's Association under supervision of the Los Angeles City Fire Department in order to reduce the risk of brush fires spreading to the homes.

(v) Any required roadway improvement within the Hillside Ordinance shall be completed prior to the Fire Department signing off and building plans or building permit application.

(w) Construction of public or private roadway in the proposed development shall not exceed 15 percent in grade.

(x) Proposed emergency helicopter landing pad to be obtained by LAFD Air Ops.

(y) Development of the project will expose additional people to local fire hazards. The City of Los Angeles Fire Department considers the existing fire fighting facilities in the vicinity inadequate to protect the site. The Fire Department also believes that the single access route to the site as proposed presents a potential adverse impact.

(z) The adequacy of fire protection for a given area is based on required fire-flow, response distance from existing fire stations, and this Department's judgment for needs in the area. In general, the required fire-flow is closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

(aa) Fire-flow requirements vary from 2,000 gallons per minute (G.P.M.) in low density residential areas to 12,000 G.P.M. in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (P.S.I.) is to remain in the water system, with the required gallons per minute flowing. The required fire-flow for this project has been set at 4,000 G.P.M. from 4 fire hydrants flowing simultaneously.

(bb) Improvements to the water system in this area may be required to provide 4,000 G.P.M. fire-flow. The cost of improving the water system may be charged to the developer. For more detailed information regarding water main improvements, the developer shall contact the Water Services Section of the Department of Water and Power.

(cc) Based on a required fire-flow of 4,000 G.P.M., the first-due Engine Company should be within 1 1/2 mile(s), the first-due Truck Company within 1 1/2 mile(s).

(dd) Based on these criteria (response distance from existing fire stations), fire protection would be considered inadequate.

Note: Adverse Effects: Project implementation will increase the need for fire protection and emergency medical services in this area.

The applicant is further advised that all subsequent contact regarding these conditions must be with the Hydrant and Access Unit. This would include clarification, verification of condition compliance and plans or building permit applications, etc., and shall be accomplished BY APPOINTMENT ONLY, in order to assure that you receive service with a minimum amount of waiting,

please call (213) 482-6502. You should advise any consultant representing you of this requirement as well.

DEPARTMENT OF WATER AND POWER

6. Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power (LADWP) for compliance with LADWP's Water System Rules and requirements. Upon compliance with these conditions and requirements, LADWP's Water Services Organization will forward the necessary clearances to the Bureau of Engineering. (This condition shall be deemed cleared at the time the City Engineer clears Condition No. S-1.(c).)

BUREAU OF STREET LIGHTING – SPECIFIC CONDITIONS

7. Street Lighting clearance for this Street Light Maintenance Assessment District condition is conducted at 1149 S. Broadway Suite 200. Street Lighting improvement condition clearance will be conducted at the Bureau of Engineering District office, see condition S-3. (h).

   If new street light(s) are required, then prior to the recordation of the final map or issuance of the Certificate of Occupancy (C of O), street lighting improvement plans shall be submitted for review and the owner shall provide a good faith effort via a ballot process for the formation or annexation of the property within the boundary of the development into a Street Lighting Maintenance Assessment District.

BUREAU OF SANITATION

8. Satisfactory arrangements shall be made with the Bureau of Sanitation, Wastewater Collection Systems Division for compliance with its sewer system review and requirements. Upon compliance with its conditions and requirements, the Bureau of Sanitation, Wastewater Collection Systems Division will forward the necessary clearances to the Bureau of Engineering. (This condition shall be deemed cleared at the time the City Engineer clears Condition No. S-1. (d).)

INFORMATION TECHNOLOGY AGENCY

9. That satisfactory arrangements be made in accordance with the requirements of the Information Technology Agency to assure that cable television facilities will be installed in the same manner as other required improvements. Refer to the Los Angeles Municipal Code Section 17.05N. Written evidence of such arrangements must be submitted to the Information Technology Agency, 200 N. Main Street, Room 1255, Los Angeles, CA 90012, (213) 978-0856.

DEPARTMENT OF RECREATION AND PARKS

10. The fee stated in LAMC §17.12 requires that all subdivisions of land include either a dedication of land by the private developer to the City or the payment of a fee in lieu of such dedication, such requirement is commonly referred to as the Quimby Fee. LAMC §17.12.B calculates that the dedication of land for a subdivision of the size and density of the Map would equal eight and one-half (8.5) acres. The Subdivider's offer to dedicate and improve the 19 acre public park and the dedication of 123 acres of open space to the City, provide great benefit to the public and shall act to

fully satisfy the Subdivider's obligations under LAMC §17.12, et. al. with respect to the Tract Map.

URBAN FORESTRY DIVISION AND THE DEPARTMENT OF CITY PLANNING

11. Prior to the issuance of a grading permit, the applicant shall submit a tree report and landscape plan prepared by a Municipal Code-designated tree expert as designated by LAMC Ordinance No. 177,404, for approval by the City Planning Department and the Urban Forestry Division of the Bureau of Street Services.

A minimum of two trees (a minimum of 48 inch box in size if available) shall be planted for each one that is removed. The canopy of the oak trees planted shall be in proportion to the canopies of the oak trees removed per Ordinance No. 177,404, and to the satisfaction of the Urban Forestry Division of the Bureau of Street Services and the Advisory Agency. **Note**: All protected tree removals must be approved by the Board of Public Works. Contact: Urban Forestry Division at: 213-847-3077.

DEPARTMENT OF CITY PLANNING - SITE SPECIFIC CONDITIONS

12. Prior to the recordation of the final map, the subdivider shall prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770) in a manner satisfactory to the Planning Department, binding the subdivider and all successors to the following:

(a) Limit the proposed development to a maximum of 193 lots; 163 single family lots in the RE1-1-H Zone, 25 single family/equestrian lots, an equestrian center lot and a retention basin lot in the RA-1-K Zone, one (1) undeveloped open space lot in the A1-1XL Zone, and two (2) park lots in the OS-1XL Zone.

(b) Provide a minimum of 2 covered off-street parking spaces per dwelling unit. Lots with less than 50 feet frontage shall have one guest parking provided on site.

(c) That a solar access report shall be submitted to the satisfaction of the Advisory Agency prior to obtaining a grading permit.

(d) That the subdivider consider the use of natural gas and/or solar energy and consult with the Department of Water and Power and Southern California Gas Company regarding feasible energy conservation measures.

(e) The applicant shall defend, indemnify and hold harmless the City, its agents, officers, or employees from any claim, action, or proceeding against the City or its agents, officers, or employees relating to or to attack, set aside, void or annul this approval which action is brought within the applicable limitation period. The City shall promptly notify the applicant of any claim, action, or proceeding and the City shall cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim action or proceeding, or if the City fails to cooperate fully in the defense, the applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the City.

13. The Subdivider agrees and acknowledges that in the event the California Public Utilities Commission fails to approve the easement from the Southern California Gas Company to the City of Los Angeles for public access on Mason Avenue in reasonable conformance to the location as shown on Exhibit ____, an alternative primary access shall be submitted to the City for review and approval prior to the recordation of the Final Vesting Tract Map. The revised primary access shall conform to all City requirements and standards as determined in the City's sole and reasonable discretion and shall be reflected on a Modified Vesting Tentative Tract Map, if necessary.

14. Subsequent to the City's acquisition of an easement for the public access of Mason Avenue but prior to the recordation of the Final Vesting Tract Map, the Los Angeles County Board of Supervisors shall adopt a Resolution whereby the County will relinquish authority to the City to issue permits, perform inspections and grant approvals associated with that portion of Mason Avenue that will remain in the jurisdiction of the County, including, but not limited to; grading, drainage, water, sewer and other utilities, street lights, landscaping, the street's design, construction and maintenance and related services. The City shall cooperate with the Subdivider and the County in actions associated with the Resolution. In the event the County fails to adopt the Resolution, the Subdivider shall submit an alternative plan to the City for its review and approval prior to the recordation of the Final Vesting Tract Map, if necessary.

15. The Subdivider shall design and construct a sewer system to serve the tract to a capacity and with the financial requirements satisfactory to the Department of Sanitation and the Bureau of Engineering. The sewer design, construction and operation shall be consistent with the Sewer Feasibility Study submitted to the City.

16. That prior to the issuance of the building permit or the recordation of the final map, a copy of CPC-2005-6656-AD-GPA-ZC-DA shall be submitted to the satisfaction of the Advisory Agency. In the event that CPC-2005-6656-AD-GPA-ZC-DA is not approved, the subdivider shall submit a tract modification.

17. That prior to the issuance of the building permit or the recordation of the final map, a copy of ZA-2013-4153-CU-ZAD-F shall be submitted to the satisfaction of the City Planning, Development Services Center. In the event that ZA-2013-4153-CU-ZAD-F is not approved, the subdivider shall submit a tract modification.

18. In the event the Subdivider forms an Assessment District for the maintenance of the 123 acre open space, the members of that District shall be all of the members of the Hidden Creeks Homeowner’s Association (“HOA”). The District and/or the HOA shall provide sufficient funding for the maintenance for the 123 acre open space and the insurance liability coverage on such space, and shall name the City of Los Angeles as an additional insured party.

19. Subject to an offer to dedicate by the Porter Ranch Development Company, and an acceptance by the City of Los Angeles on or before one (1) year from the effective date of this action, the HOA of the Subdivider or an Assessment District formed by the Subdivider shall be financially responsible for the maintenance and insurance

liability coverage of that open space stated in condition No. 50 of Tract Map 50505 in a similar manner as the Subdivider's 123 acre open space.

20. The Subdivider shall dedicate the approximately 19 acres of real property to the City for a public park and shall fund the park's improvements per a Letter Agreement executed by the Subdivider, as previously approved by the City Attorney and the Chief Administrative Officer, dated July 9, 2013 (attached).

21. The Subdivider shall construct or install all of the following: a water tank with a capacity of one million gallons; a helipad at the new public park; ten (10) "turnouts" on Brown's Canyon Road, all to the satisfaction of the Los Angeles City or Los Angeles County Fire Department.

22. Mason Avenue shall be designed and constructed and dedicated as a public street. Those streets located "behind" the gates of the Hidden Creeks development are approved as private streets as a part of this action and shall be designed and constructed to public street standards and maintained by the HOA.

DEPARTMENT OF CITY PLANNING-ENVIRONMENTAL MITIGATION MEASURES

23. That prior to recordation of the final map, the subdivider shall prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770 and Exhibit CP-6770. M) in a manner satisfactory to the Planning Department requiring the subdivider to identify (a) mitigation monitor(s) who shall provide periodic status reports on the implementation of mitigation items required by the Mitigation Monitoring Program included in Sections No(s). IV.A.1 through IV.M.4 of the Final Environmental Impact Report satisfactory to the Advisory Agency. The mitigation monitor(s) shall be identified as to their areas of responsibility, and phase of intervention (pre-construction, construction, post-construction/maintenance) to ensure continued implementation of the above mentioned mitigation items.

24. **Construction Mitigation Conditions** - Prior to the issuance of a grading or building permit, or the recordation of the final map, the subdivider shall prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770) in a manner satisfactory to the Planning Department, binding the subdivider and all successors to the following:

CM-1 That a sign be required on site clearly stating a contact/complaint telephone number that provides contact to a live voice, not a recording or voice mail, during all hours of construction, the construction site address, and the tract map number. YOU ARE REQUIRED TO POST THE SIGN 7 DAYS BEFORE CONSTRUCTION IS TO BEGIN.

- Locate the sign in a conspicuous place on the subject site or structure (if developed) so that it can be easily read by the public. The sign must be sturdily attached to a wooden post if it will be free-standing.

- Regardless of who posts the site, it is always the responsibility of the applicant to assure that the notice is firmly attached, legible, and remains in that condition throughout the entire construction period.

- If the case involves more than one street frontage, post a sign on each street frontage involved. If a site exceeds five (5) acres in size, a separate notice of posting will be required for each five (5) acres or portion thereof. Each sign must be posted in a prominent location.

CM-2 The use of security lighting during project construction shall be limited to only those locations on the construction site requiring illumination.

CM-3 All security lights shall be properly shielded and projected downwards during construction such that light is directed onto the project site only.

CM-4 High pressure sodium and/or cut-off fixtures shall be used instead of typical mercury-vapor fixtures for outdoor lighting.

CM-5 The construction contractor shall develop a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

CM-6 The construction contractor shall ensure that the use of all construction equipment is suspended during first-stage smog alerts.

CM-7 The construction contractor shall enforce the use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible.

CM-8 The construction contractor shall ensure that all construction equipment is maintained by conducting regular tune-ups according to the manufacturers' recommendations.

CM-9 The construction contractor shall ensure the use of electric welders to avoid emissions from gas or diesel welders, to the extent feasible.

CM-10 The construction contractor shall ensure the use of on-site electricity or alternative fuels rather than diesel-powered or gasoline-powered generators to the extent feasible.

CM-11 Prior to use in construction, the project applicant will evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as particulate traps, selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. These technologies will be required if they are verified by the Air Resources Board (ARB) and/or the US Environmental Protection Agency (EPA) and are commercially available and can feasibly be retrofitted onto construction equipment.

CM-12 The construction contractor shall ensure that traffic speeds on all unpaved roads are reduced to 15 miles per hour or less.

CM-13 The construction contractor shall ensure that active sites are watered at least three times daily during dry weather.

CM-14 The construction contractor shall schedule all construction activities that affect traffic flow during off-peak hours (e.g., between 7:00 PM and 6:00 PM and between 10:00 AM and 3:00 PM).

CM-15 Because riparian corridors are ecologically sensitive areas, the applicant shall install fencing around the on-site riparian areas associated with Brown's and Mormon Canyon creeks, and post interpretive signs identifying such areas for residents. The fencing shall serve to discourage entrance of humans and domestic animals into riparian areas, in order to protect the sensitive plants, animals, habitat, and wildlife movement areas within riparian corridors. The interpretive signs shall include information regarding the high biological value of riparian corridors, including information about plant and wildlife species that are found in such habitat, wildlife movement through such corridors, and benefits to water quality provided by natural riparian habitat. Where existing trails serving as equestrian and hiking paths will remain in the riparian corridors as part of the proposed project, fencing and signage shall be placed on the outer limits of the trail edges, allowing continued recreational access. If a trail easement is provided to the permitting authority of the project, necessitating trail improvements, fencing and signage shall accommodate the improvements. The Homeowners Association (HOA), or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall be responsible for maintaining this program, including fencing and signs. This mitigation will also serve to keep off-road vehicles and recreational uses out of non-trail portions of Browns and Mormon Canyons, which will reduce indirect impacts to local wildlife movement associated with operation of the proposed project.

CM-16 To avoid direct impacts to the Bulrush-Cattail Wetland located approximately 125 feet to the west of the grading area associated with extension of Mason Avenue, the applicant shall retain a qualified biologist (approved by the City of Los Angeles Planning Department) to fence off protected areas associated with the wetland, and to periodically (for example, on a weekly basis) check in on the wetland to make sure no impacts have occurred. Upon completion of grading and paving activities associated with Mason Avenue extension, the biologist shall submit a report regarding measures taken to protect the wetland and results to the City of Los Angeles Planning Department.

CM-17 According to the Jurisdictional Delineation prepared for the subject site (attached as **Appendix IV.C**), the project site and off-site impact areas contain 4.46 acres of USACE protected wetlands or drainages, of which 1.47 acres would be impacted directly or indirectly by grading. To mitigate for this impact, the applicant shall either re-create the impacted USACE waters on the project site or shall secure purchase and conservation (through direct placement of a conservation easement over lands, or purchase of lands in a program that has already entered a conservation easement) of suitable USACE waters. As feasible, mitigation for USACE waters may be carried out

in conjunction with mitigation for potential impacts to special-status wildlife species (MM-BIO-2, MM-BIO-3, and MM-BIO-4), mitigation for impacts to RWQCB areas (MM-BIO-7), and mitigation for impacts to CDFW waters (MM-BIO-8). The creation/purchase of USACE waters shall be carried out in coordination with the USACE during submittal of the Jurisdictional Delineation to the USACE for review and certification, and on the basis of a minimum 2:1 ratio, or at a ratio determined to be appropriate by the USACE. Prior to the issuance of a grading permit, the resulting USACE certification shall be provided to the City of Los Angeles Planning Department. When the USACE permit is obtained, mitigation measures recommended by the USACE as part of the permitting process shall be implemented.

CM-18 Any permits obtained for impacts to jurisdictional waters and/or wetlands shall be maintained on the project site during all construction activities.

CM-19 To reduce indirect impacts to wildlife remaining in the project area upon implementation of the Hidden Creeks Estates project, waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas throughout the project site. The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall be responsible for maintaining these receptacles.

CM-20 The dust accumulation onto the foliage of protected trees from construction activities shall be hosed off periodically during construction; a certified arborist shall be contacted to determine how often dust accumulation should be hosed off. Dust accumulation on protected tree foliage shall be hosed off under the supervision of a certified arborist.

CM-21 Copies of the Hidden Creeks Estates Tree Report by L. Newman Design Group and the City approved grading plans/tree removal permit shall be maintained on the project site during all construction activities.

CM-22 Paleontologic Monitoring and Fossil/Sample Recovery. Earth-moving activities shall be monitored by the monitor only in those areas of the project site where these activities will disturb previously undisturbed strata. Monitoring shall be conducted on a full-time basis in areas underlain by the Pico and Saugus Formations and on a half-time basis in areas underlain by older alluvium. Monitoring shall be conducted on a spot-check basis in areas underlain by younger alluvium and landslide deposits to determine when earth-moving activities have encountered an underlying rock unit. If fossil remains are encountered by earth-moving activities in an area underlain by older or younger alluvium and following approval from the City, monitoring shall be increased to full time, at least in the immediate vicinity of the fossil site. On the other hand, if very few or no fossil remains are found once 50 percent of earth-moving activities have been completed in an area underlain by a particular rock unit, monitoring can be reduced to half time in the remainder of the area underlain by the Pico and Saugus Formations, and to quarter time in an area underlain by older alluvium following approval from

the City.

Monitoring shall consist of visually inspecting debris piles and freshly exposed strata to allow for the discovery and recovery of larger fossil remains, and periodically dry test screening rock, sediment, and debris to allow for the discovery and recovery of smaller fossil remains. As soon as practicable, the monitor shall recover all larger vertebrate fossil remains, a representative sample of invertebrate or plant fossil specimens, or any fossiliferous rock or sediment sample that can be recovered easily. If recovery of a large or unusually productive fossil occurrence is warranted, earth-moving activities shall be diverted temporarily around the fossil site and a recovery crew shall be mobilized as necessary to remove the occurrence as quickly as possible. If not on site when a fossil occurrence is uncovered by such activities, the activities shall be diverted temporarily around the fossil site and the monitor called to the site to evaluate and, if warranted, recover the occurrence. If the fossil site is determined too unproductive or the fossil remains not worthy of recovery by the monitor, no further action will be taken to preserve the fossil site or remains, and earth-moving activities shall be allowed to proceed through the site immediately. The location and proper geologic context of any fossil occurrence or rock or sediment sample shall be documented, as appropriate.

Any recovered rock or sediment sample shall be processed to allow for the recovery of smaller fossil remains that normally are too small to be observed by the monitor. No more than 6,000 pounds (18,000 pounds total) of rock or sediment from either the Pico or Saugus Formation or from the older alluvium shall be processed.

CM-23 Final Laboratory Tasks. All fossil specimens recovered from the project site as a result of the mitigation program, including those recovered as the result of processing fossiliferous rock or sediment samples, will be treated (prepared, identified, curated, catalogued) in accordance with designated museum repository requirements. Rock or sediment samples will be submitted to commercial laboratories for microfossil, pollen, radiometric dating, or other analysis, as appropriate.

CM-24 In the event that archaeological resources are unearthed during project subsurface activities, all earth disturbing work within a 200-meter radius must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. Any artifacts uncovered shall be recorded and removed for storage at a location to be determined by the monitor. Construction on other parts of the project will be subject to Public Resources Code Section 21083.2(i). After the find has been appropriately mitigated, work in the area may resume.

CM-25 If human remains are unearthed, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to

notify the Native American Heritage Commission (NAHC). The NAHC will then contact the most likely descendant of the deceased Native American, who will then serve as consultant on how to proceed with the remains (i.e., avoid, rebury).

CM-26 All mitigation measures from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010, for site preparation, foundation design, slabs-on-grade, and drainage shall be incorporated into final design and construction. All such work and design shall be in conformance with local governmental regulations or the recommendations contained in the geotechnical engineering study, whichever is more restrictive.

CM-27 The project Applicant shall implement dust control measures consistent with SCAQMD Rule 403 – Fugitive Dust, during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:

- Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days).
- Replace ground cover in disturbed areas as quickly as possible.
- Enclose, cover, water twice daily or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content.
- Water active grading sites at least twice daily during construction activities.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period.
- All trucks hauling dirt, sand, soil or other loose materials are to be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code.
- Sweep streets at the end of the day if visible soil material is carried over to adjacent roads.
- Install wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.

- Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads.

CM-28 Based on the results of the subsurface exploration, laboratory testing, and engineering analyses, removals of colluvium, alluvium, and recent landslide material will be required in areas of proposed grading. Removals shall extend into firm terrace deposits or bedrock of the Saugus Formation. Removals at the toe of fill slopes shall extend laterally beyond the toe at a distance equal to the depth of removal. In the deeper removal areas, removals may extend 100 feet or more outside the toe of proposed fill slopes, including the temporary cut necessary to make the removals.

All cut slopes shall be planned at a gradient of 2:1 or less. Bedrock materials shall perform well at this gradient where geologic structure is favorable. Cut slopes in the terrace deposits shall not be affected by rock structure, as this material is rather massive, and bedding is only represented by variations of sand to gravel-sized material. Stabilization of cut slopes underlain by terrace deposits may be required during grading if loose or cohesionless soil is exposed.

During grading, detailed mapping will be performed on all cut slopes. If conditions differ from those anticipated, or if weak bedding planes are exposed, additional recommendations will be provided. Adequate area exists on the site to stabilize or buttress any slope with adverse geology. Details for stabilization and buttress fills are presented on the "Typical Buttress Section Design" figure (Figure 2 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010) and "Typical Stabilization Fill Design" figure (Figure 3 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007).

CM-29 Fill slopes shall be constructed at slope ratios of 2:1 (horizontal: vertical) or flatter between benches. To maintain safety factors for surficial stability, intermediate drainage terraces are required for all fill slopes steeper than 5:1 with slope height greater than 30 feet. Fill slopes shall be built in accordance with recommendations included in the GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical*

Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010. Fill over cut slopes shall be constructed in accordance with the "Typical Fill Over Cut Slope Design" detail (Figure 4 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007) and fill over natural slopes shall be in accordance with the "Typical Fill Over Natural Slope Design" detail (Figure 5 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007).

Fill slopes to the maximum height proposed are considered to be stable based on the shear strengths for fill material and the 2:1 gradients proposed. However, selective grading will be required for fill slopes higher than 92 feet based on the gross stability analysis and the slope stability analyses for Geologic Cross-Section 28-28'. For fill slopes higher than 92 feet, selective grading will be required. Materials with a minimum cohesion of 250 pounds per cubic foot and an angle of friction of 33 degrees shall be used. Additional remolded shear testing may be required to verify proposed fill material meets the minimum criteria.

CM-30 Based on the stability analyses presented in the GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010, and in the referenced reports, the natural slopes remaining above areas of proposed development are considered grossly stable. A slope stability analyses was performed on Cross-Section 29-29' (from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks,*

Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 15, 2010), and indicates a factor of safety above minimum code values for gross stability.

Steeper natural slope located at the southwestern and northern portions of the tract may be subject to surficial instability, even though the colluvium covering the slopes is relatively thin. Debris impact walls and rock fall protection shall be required at the rear of Lots 65 to 78. See "Debris Device Control Methods" detail (Figure 6 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010). Debris walls shall be a minimum of 5 feet high. The actual location of the wall shall be determined during the 40-scale grading plan review stage and will be based on the thickness of colluvium and the location of proposed structures. Debris impact walls shall be designed to support an equivalent fluid pressure on 125 pounds per square foot (psf). Additional debris walls may be added during grading at the discretion of the project geologist.

CM-31 A landslide summary is provided below on the type of mitigation required.

(A) Landslide Summary

Listed below are mitigation measures for each of the landslides on the Tentative Tract Map. A total of 28 landslides were mapped. The landslides are labeled with numbers on the Geologic Maps, Plates 1A and 1B from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010. The landslide configurations shown on the geologic cross-sections for Landslides 23 through 28 are assumed based on site topography and experience with landslides. As mitigation measures consist of removal and recompaction of Landslides 23 through 28, stability analyses dependent on specific slide plane geometries were not preformed. Additional exploration shall be required in this area at the 40-scale grading plane review stage of the project.

All landslide removals shall be recompacted in accordance with GeoSoils Consultants, Inc.'s grading guidelines.

Subject to the results of soil testing, alternative grading techniques designed to minimize land disturbance are encouraged and shall be approved in accordance with the recommendations of the project geotechnical and civil engineers.

1. Older landslide (Qols). The landslide shall be removed and recompacted with the exception of the shear keys plus the upper 20'0".

2. Most of this landslide will be removed as a part of the removals for Qols(1). The toe of this landslide is outside of the proposed development and most of this section will be removed as a part of the 1.5:1 temporary cut to the toe of the proposed shear key.

2A. This landslide shall follow the same requirements as Qls(2).

3 & 4. These two surficial landslides shall be removed entirely.

5. The tract boundary crosses this landslide. The upper portion of this landslide will be removed as a part of the proposed removals for the Qols(1). The removals will extend past the tract boundary with portions left in place with a 1.5:1 temporary cut.

6. Most of this landslide is outside the toe of the proposed 2:1 slope. The required removals will be done in accordance with Geologic Cross-Section 27-27'. Water seepages were observed in this area and groundwater may be a problem during excavation. The temporary cut shall be excavated at a gradient of 1.5:1.

7. The unsuitable materials as observed by an Engineering Geologist shall be removed. This landslide rests upon the older landslide (Qols (1)) that will be supported by shear keys.

9. This landslide shall follow the same requirements as Qls(7).

10. & 11. These two landslides shall be removed entirely to expose competent material.

12. The toe of this landslide is outside of the proposed 2:1 fill slope. The removals shall be done in accordance with Geologic Cross-Section 1-1'. The entire landslide shall be removed from the 1.5:1 temporary cut.

13 - 15. These three landslides shall be removed entirely to competent materials.

16. This landslide shall be removed entirely to the tract boundary with a 1.5:1 temporary cut along the tract boundary. Boring B-13 shows this landslide to be 74 feet below existing grade and may be deeper along the tract boundary.

17. This landslide is a failure of portion of Qls (16). This landslide shall be removed entirely with a 1.5:1 temporary cut along the tract boundary.

18, 18A & 19. All three of these landslides appear to be stacked landslides where sliding occurred on previous landslides. These landslides shall be removed entirely.

20. Most of this landslide is north of the tract boundary. Grading has been

permitted to grade off site along the tract boundary, as a number of tops of cut slopes are north of the tract boundary. As illustrated on Geologic Cross-Section 30-30', removals shall be made at a 1:1 projection northward from tops of cut slopes or the tract boundary with a 1.5:1 temporary cut.

21. This landslide is along the west side of Mormon Canyon. Portions of this landslide may not be able to be removed as it falls within California Department of Fish and Wildlife (CDFW) jurisdiction. A 1.5:1 temporary cut shall be performed along the tract boundary or along boundary as agreed by CDFW. The most ideal recommendations would be to restore the canyon upon completion of removals and recompaction.

22. The removals at this landslide shall be done using the same requirements given for Qls(20).

23. This landslide appears to be a secondary failure of Qls(26). The landslide shall be removed entirely to provide support for the proposed access road to the subject tract. The lower portion of the slide may not be able to be removed due to CDFW. A 1.5:1 temporary cut shall be made along the designated CDFW line or removal and restoration of the canyon.

24 & 25. These two landslides affect the stability of the proposed cut slope for the proposed access road to the subject tract. These landslides shall be removed with a shear key of a minimum of 260 feet wide with a temporary tow cut through Qls(24). The upper portion of Qls(24) and the entire Qls(25) shall be removed to competent material. The Civil Engineer shall configure a 2:1 fill slope for the final grading plan prior to site development.

26. This landslide shall be removed entirely and may have the same removal restrictions as Qls(23).

27 & 28. Both of these landslides shall be removed entirely.

For all of the landslides where removals encroach into natural ungraded areas, the Civil Engineer shall design fill slopes to best fit in those areas. Fill slopes shall not exceed a 2:1 gradient.

CM-32 10 Subdrain systems shall be provided in all canyon bottoms, stabilization fills, and shear keys prior to fill placement, (see Figure 7 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010), "Canyon Subdrain Design and Construction Methods."

Filter material shall be Class 2 permeable filter, or No. 2 and No. 3 concrete aggregate gradations per standard specifications for Public Works

Construction, or approved equivalent, inspected and tested to verify its suitability. The filter shall be clean with a wide range of sizes.

Subdrain pipe shall consist of Schedule 40 or equivalent and shall be a minimum of 6 inches in diameter for lengths up to 500 feet. For lengths over 500, 8-inch diameter pipe shall be used and for lengths over 1,000 feet, two 8-inch pipes shall be used.

During grading, the Engineering Geologist shall evaluate the necessity of placing additional subdrains. The Engineering Geologist and Geotechnical Engineer shall inspect all subdrain systems prior to cover with compacted fill.

CM-33 All cut and transition lots on the site shall be over-excavated a minimum of 5 feet and provided with a compacted fill blanket. The project surveyors shall verify the fill cap. The purpose of the cap is to provide a uniform bearing material for foundation support and to mitigate potential differential expansion. Deeper fill caps may be required if higher expansive materials are exposed. In addition, deeper fill caps may be required to mitigate large differential fill thicknesses across lots. The final fill cap thicknesses shall be determined during the 40-scale review stage and confirmed grading.

CM-34 The grading shall involve the removal and recompaction of colluvium, alluvium and landslide material, in addition to the mass-excavation. Site grading shall create cut and fill slopes to a maximum height on the order of 310 and 150 feet, respectively.

CM-35 Monitoring: All earthwork (i.e., clearing, site preparation, fill placement, etc.) shall be conducted with engineering control under observation and testing by the Geotechnical Engineer and in accordance with mitigation measures **MM-GEO-40** through **MM-GEO-43** related to grading.

CM-36 Job Site Safety: At all times, safety shall have precedence over production work. If an unsafe job condition is observed, it shall be brought to the attention of the grading contractor or the developer's representative. Once this condition is noted, it shall be corrected as soon as possible, or work related to the unsafe condition shall be terminated.

The contractor for the project shall realize that services provided by GeoSoils Consultants, Inc., do not include supervision or direction of the actual work performed by the contractor, his employees, or agents. GeoSoils Consultants, Inc., shall use accepted geotechnical engineering and testing procedures; however, GeoSoils Consultants, Inc., testing and observations shall not relieve the contractor of his primary responsibility to produce a completed project conforming to the project plans and specifications. Furthermore, GeoSoils Consultants, Inc., shall not be responsible for job or site safety on this project, as this is the responsibility of the contractor.

CM-37 Existing Structure Removal: Any existing underground structures (e.g., septic tanks, wells, pipelines, foundations, utilities, etc.) that have not been located prior to grading, shall be removed or treated in a manner required by the

Geotechnical Engineer.

CM-38 Clearing and Stripping: The construction areas shall be cleared and stripped of all vegetation, trees, bushes, sod, topsoil, artificial fill, debris, asphalt, concrete, and other deleterious material prior to fill placement.

CM-39 Subgrade Preparation: The subgrade for foundations, pavement areas, over-excavations, and for those areas receiving any additional fill shall be prepared by scarifying the upper 12 inches and moisture conditioning, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum. The scarified areas shall be compacted to at least 90 percent of the maximum laboratory density, as determined by ASTM D-1557-12 compaction method. All areas to receive fill shall be observed by the Geotechnical Engineer prior to fill placement.

CM-40 Subgrade Inspection: Prior to placing fill, the ground surface to receive fill shall be observed, tested, and approved by the Geotechnical Engineer.

CM-41 Laboratory Testing: Representative samples of materials to be utilized as compacted fill shall be analyzed in a laboratory to determine their physical properties. If any material other than that previously tested is encountered during grading, the appropriate analysis of this material shall be conducted.

CM-42 On-Site Fill Material: The on-site soils are adequate for re-use in controlled fills provided the soils do not contain any organic matter, debris, or any individual particles greater than 6 inches in diameter.

CM-43 Import Fill Material: All imported fill shall not contain any organic matter, debris, or any individual particles greater than 6 inches in diameter. The imported fill shall consist of a granular material with a non-expansive or a low expansive potential (plasticity index less than 15 percent). All imported fill materials shall be approved by the Geotechnical Engineer prior to use in controlled areas.

CM-44 Rock Fragments: Rock fragments less than 6 inches in diameter may be utilized in the fill, provided they are not placed in concentrated pockets, surrounded with fine grained material, and the distribution of the rocks is supervised by the Geotechnical Engineer. Rocks greater than 6 inches in diameter shall be taken off site, placed in fill areas designated as suitable for rock disposal, or placed in accordance with the requirements of the Geotechnical Engineer.

CM-45 Subgrade Verification and Compaction Testing: Regardless of material or location, all fill material shall be placed over properly compacted subgrades in accordance with the **Site Preparation** section of this report. The condition of all subgrades shall be verified by the Geotechnical Engineer before fill placement or earthwork grading begins. Earthwork monitoring and field density testing shall be performed during grading to provide a basis for opinions concerning the degree of soil compaction attained.

CM-46 Fill Placement: Approved on-site or imported fill material shall be evenly placed, watered, processed, and compacted in controlled horizontal layers not exceeding 8 inches in loose thickness, and each layer shall be thoroughly compacted with approved equipment. All fill material shall be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum moisture content. The fill shall be placed and compacted in horizontal layers, unless otherwise required by the Geotechnical Engineer.

CM-47 Compaction Criteria – Shallow Fills: For fills less than 40 feet in vertical thickness, each layer shall be compacted to at least 90 percent of the maximum laboratory density for material used as determined by ASTM D-1557-12. The field density shall be determined by the ASTM D-1556-12 method or equivalent. Where moisture content of the fill or density testing yields compaction results less than 90 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the fill material is in accordance with the requirements of the Geotechnical Engineer.

CM-48 Compaction Criteria – Deep Fills: For all fills greater than 40 feet in vertical thickness, the portion of the fill below a depth of 40 feet shall be placed at a minimum relative compaction of at least 95 percent. If compaction to a lesser percentage is authorized by the controlling governmental agency because of a specific land use or expansive geotechnical conditions, the area to receive fill compacted to less than 90 percent shall either be delineated on the grading plan or appropriate reference made to the area in the geotechnical report. Where moisture content of the fill or density testing yields compaction results less than 95 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the fill material is in accordance with the requirements of the Geotechnical Engineer.

CM-49 Fill Material – Moisture Content: All fill material placed must be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent. If excessive moisture in the fill results in failing results or an unacceptable “pumping” condition, then the fill shall be allowed to dry until the moisture content is within the necessary range to meet the required compaction requirements or reworked until acceptable conditions are obtained.

CM-50 Keying and Benching: All fills shall be keyed and benched through all topsoil, slopewash, alluvium or creep material, into sound bedrock or firm material where the slope receiving fill is steeper than 5:1 (horizontal:vertical) or as determined by Geotechnical Engineer. The standard acceptable bench height is 4 feet into suitable material. The key for side hill fills shall be a minimum of 15 feet within bedrock or firm materials, with a minimum toe embankment of 2 feet into bedrock, unless otherwise specified by the Geotechnical Engineer. The required design is shown on the “Typical Fill Over Natural Slope Design” plan (Figure 5 from GeoSoils Consultants, Inc., *Preliminary Geologic and*

Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010).

CM-51 Drainage Devices: Drainage terraces and subdrain devices shall be constructed in compliance with the ordinances of the controlling governmental agency, or with the requirements of the Geotechnical Engineer and Engineering Geologist.

CM-52 Slope Face – Compaction Criteria: The Contractor shall be required to obtain a minimum relative compaction of 90 percent out to the finish slope face of fill slopes, buttresses and stabilization fills. This may be achieved by either overbuilding the slope a minimum of 5 feet, or cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure which produces the required compaction. If the method of achieving the required slope compaction selected by the Contractor fails to produce the necessary results, the Contractor shall rework or rebuild such slopes until the required degree of compaction is obtained, at no additional cost to the owner or Geotechnical Engineer. Slope testing shall include testing the outer 6 inches to 3 feet of the slopeface during and after placement of the fill. In addition, during grading, density tests shall be taken periodically on the flat surface of the fill 3 to 5 feet horizontally from the face of the slope.

CM-53 Cut-Fill Transition: Where a cut-fill transition is present beneath planned structures, the cut area shall be over-excavated 3 feet below the bottom of proposed footings and the excavated material shall be replaced as compacted fill to reduce the transition condition. These guidelines shall also be followed in areas where lots are underlain by soils or rock with differential expansion potential and also for lots located above descending buttress and stabilization fills. In addition, where the sloped natural contact between the bedrock and the fill is steep, the upper portion of the natural slope may need to be laid back to further soften transition condition, or the fill cap thickness increased.

CM-54 Slope Face – Vegetation: All fill slopes shall be planted or protected from erosion by methods specified in the geotechnical report, or required by the controlling governmental agency.

CM-55 Grading Inspection: Earthwork monitoring and field density testing shall be performed by the Geotechnical Engineer during grading to provide a basis for

opinions concerning the degree of soil compaction attained. The Contractor shall receive a copy of the Geotechnical Engineer's Daily Field Engineering Report, which will indicate the results of field density tests for that day. Where failing tests occur or other field problems arise, the Contractor shall be notified of such conditions by written communication from the Geotechnical Engineer in the form of a conference memorandum, to avoid any misunderstanding arising from oral communication.

CM-56 Subgrade Inspection: All processed ground to receive fill and over-excavations shall be inspected and approved by the Geotechnical Engineer prior to placing any fill. The Contractor shall be responsible for notifying the Geotechnical Engineer when such areas are ready for inspection. Inspection of the subgrade may also be required by the controlling governmental agency within the respective jurisdictions.

CM-57 Subgrade Testing: Density tests shall also be made on the prepared subgrade to receive fill, as required by the Geotechnical Engineer.

CM-58 Density Testing Intervals: In general, density tests shall be conducted at minimum intervals of 2 feet of fill height or every 500 cubic yards. Due to the variability that can occur in fill placement and different fill material characteristics, a higher number of density tests may be warranted to verify that the required compaction is being achieved.

CM-59 Observation: The Engineering Geologist shall observe all cut slopes. Additional requirements may be provided at the 40-scale grading plan review stage.

CM-60 Change of Conditions: If any conditions not anticipated in the preliminary report such as perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints or faults planes, or areas of unstable material are encountered during grading, these conditions shall be analyzed by the Engineering Geologist and Geotechnical Engineer, and requirements shall be made to treat these problems.

CM-61 Criteria: Unless otherwise specified in the geotechnical and geological report, no cut slopes shall be excavated higher or steeper than that allowed by the ordinances of controlling governmental agencies.

CM-62 Drainage Devices: Drainage terraces shall be constructed in compliance with the ordinances of controlling governmental agencies, or with the requirements of the Geotechnical Engineer or Engineering Geologist.

CM-63 Utility Trenching: Open excavations and excavations that are shored shall conform to all applicable federal, state, and local regulations.

CM-64 Backfill Placement: Approved on-site or imported fill material shall be evenly placed, watered, processed, and compacted in controlled horizontal layers not exceeding 8 inches in loose thickness, and each layer shall be thoroughly

compacted with approved equipment. All fill material shall be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum moisture content. The fill shall be placed and compacted on a horizontal plane, unless otherwise required by the Geotechnical Engineer.

CM-65 Backfill Compaction Criteria: Each layer of utility trench backfill shall be compacted to at least 90 percent of the maximum laboratory density determined by ASTM D-1557-12. The field density shall be determined by the ASTM D-1556-12 method or equivalent. Where moisture content of the fill or density testing yields compaction results less than 90 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the compaction criteria is reached.

CM-66 Exterior Trenches Adjacent to Footings: Exterior trenches, paralleling a footing and extending below a 1:1 (horizonal:vertical) plane projected from the outside bottom edge of the footing shall be compacted to 90 percent of the laboratory standard. Sand backfill, unless it is similar to the in-place fill, shall not be allowed in these trench backfill areas. Density testing, along with probing, shall be accomplished to verify the desired results.

CM-67 Pipe Bedding: A minimum of 6 inches of bedding material shall be placed in the bottom of the utility trench. All bedding materials shall extend at least 4 inches above the bottom of utilities which require protection during subsequent trench backfilling. All trenches shall be wide enough to allow for compaction around the haunches of the pipe or materials, such as pea gravel, or controlled density fill (CDF) shall be used below the spring line of the pipes to eliminate the need for mechanical compaction in this portion of the trenches.

CM-68 Groundwater Migration: Backfilled utility trenches may act as French drains to some extent, and considerable groundwater flow along utility bedding and backfill shall be expected. Wherever buried utilities, or structures which they may intersect, could be adversely affected by such drainage, provisions shall be made to collect groundwater migrating along the trench lines. These situations include where buried utilities enter buildings, particularly where they enter below grade mechanical rooms, and where buried utilities enter junction boxes or switching stations that are intended to remain dry. Mitigation measures include, but are not limited to, placement of perforated drain pipes below and continuous with bedding materials, and placement of seepage barriers such as lean mix concrete or CDF.

CM-69 Erosion Control: Erosion control measures, when necessary, shall be provided by the Contractor during grading and prior to the completion and construction of permanent drainage controls.

CM-70 Compaction Equipment: It is the Contractor's responsibility to have suitable and sufficient compaction equipment on the project site to handle the amount of fill being placed and the type of fill material to be compacted. If necessary,

excavation equipment shall be shut down to permit completion of compaction in accordance with the requirements contained in the GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010). Sufficient watering devices/equipment shall also be provided by the Contractor to achieve optimum moisture content in the fill material.

CM-71 Final Grading Considerations: Care shall be taken by the Contractor during final grading to preserve any berms, drainage terraces, interceptor swales, or other devices of a permanent nature on or adjacent to the property.

CM-72 Surficial Soils and Expansion Considerations: Due to the variability of surficial soil throughout the site and the extensive grading that will be performed, the final foundation design for the proposed structure shall be based on expansion index tests performed at the completion of grading. Surficial soil samples obtained for expansion index testing shall be obtained from various locations within the actual building pad.

CM-73 Sulfate Content of Surficial Site Soils: The concrete design shall be determined by a structural engineer based on sulfate tests performed at the completion of grading and at a minimum, Type II or Type V cement shall be used in construction.

CM-74 In order to minimize the potential effects of seismic activity, expansive soils, and/or hydroconsolidation, either a post-tensioned slab foundation and/or mat foundation system shall be utilized for the proposed structures. Conventional foundation system consisting of spread footings and slab-on-grade floors are also provided as an alternative.

CM-75 It is recommended that slabs be designed for a free span of 15 feet regardless of the expansion index of the soil. From a soil expansion/shrinkage standpoint, a common contributing factor to distress of structures using post-tensioned slabs is fluctuation of moisture in soils underlying the perimeter of the slab, compared to the center, causing a "dishing" or "arching" of the slabs. To mitigate this possibility, a combination of soil presaturation and construction of a perimeter "cut off" wall should be employed.

All slab foundation areas should be moisture conditioned to at least optimum moisture, but no more than 5 percent above optimum moisture for a depth of

at least 12 inches below subgrade low EI soil, 18 inches for medium EI soil, and 24 inches for high EI soil. A continuous perimeter curtain wall should extend to a depth of at least 12 inches below exterior grade for low EI soil, 18 inches for medium EI soil, and 24 inches for high EI soil to preserve this moisture. The cut-off walls may be integrated into the slab design or independent of the slab and should be a minimum of 6 (six) inches wide.

CM-76 Post-tensioned slabs should have sufficient stiffness to resist excessive bending due to non-uniform swell and shrinkage of subgrade soils. The differential movement can occur at the corner, edge, or center of slab. The potential for differential uplift can be evaluated using design specifications of the Post-Tensioning Institute. The following table presents suggested minimum coefficients to be used in the Post-Tensioning Institute design method.

The coefficients are considered minimums and may not be adequate to represent worst case conditions such as adverse drainage, excess watering, and/or improper landscaping and maintenance. The above parameters are applicable provided structures have gutters and downspouts, yard drains, and positive drainage is maintained away from structure perimeters. Also, the values may not be adequate if the soils below the foundation become saturated or dry such that shrinkage occurs. The parameters are provided with the expectation that subgrade soils below the foundations are maintained in a relatively uniform moisture condition. Responsible irrigation of landscaping adjacent to the foundation must be practiced since over-irrigation of landscaping can cause problems. Therefore, it is important that information regarding drainage, site maintenance, settlements and affects of expansive soils be passed on to future homeowners.
Based on the above parameters, the following values were obtained from the Post Tensioning Institute Design manual. If a stiffer slab is desired, higher values of ym may be warranted.

Expansion Index of Soil Subgrade	Low E	Medium E	High E	
em center lift	9.0 feet	8.5 feet	6.5 feet	
em edge lift	4.7 feet	4.5 feet	3.5 feet	
Ym center lift	0.34 inch	0.56 inch	0.58 inch	
Ym edge lift	0.48 inch	0.77 inch	1.23 inch	

Deepened footings/edges around the slab perimeter must be used as indicated above to minimize non-uniform surface moisture migration (from an outside source) beneath the slab. An edge depth of at least 12 inches should be considered for low EI soil, 18 inches for medium EI soil, and 24 inches for high EI soil. The bottom of the deepened footing/edge should be designed to resist tension, using cable or reinforcement per the Structural Engineer. Other applicable recommendations in the referenced reports should be adhered to during the design and construction phase of the project.

CM-77 Bearing Subgrades: All footings shall be constructed on firm, unyielding compacted fill. All compacted fill shall be compacted to at least 90 percent of the Modified Proctor maximum laboratory density, as determined by ASTM D-1557-12 compaction method.

CM-78 Subgrade Preparation: Pre-moistening of all areas to receive concrete is required. The moisture content of the subgrade soils shall be equal to or greater than optimum moisture, and verified by the Geotechnical Engineer to a depth of 18 inches below adjacent grade in the footing areas within 48 hours of concrete placement.

CM-79 Subgrade Verification: All footing subgrades shall consist of firm, unyielding compacted fill. Under no circumstances shall footings be cast atop loose, soft or slough debris, existing artificial fill, unprocessed alluvium, or surfaces covered by standing water. The condition of all subgrades shall be verified by the Geotechnical Engineer before any concrete is placed.

CM-80 Footing Depth and Width: Footings shall be continuous and be founded at a minimum depth of 18 inches and 24 inches below the lowest adjacent ground surface for one- and two-story structures, respectively, and shall have a minimum width of 18 inches. Footings shall be reinforced according to structural design.

CM-81 Bearing Pressures: The allowable bearing capacity values shown in **Table IV.E-3** include dead and live loads and may be used for design of footings and foundations. All foundations shall be founded in firm, unyielding certified compacted fill and shall be reinforced according to structural design. The bearing values may be increased by one-third when considering short duration loading conditions, such as seismic or wind loads.

CM-82 Lateral Capacity: To resist lateral loads, the allowable passive earth pressures shown in **Table IV.E-4**, expressed as an equivalent fluid pressure, may be used on that portion of shallow foundations which have a minimum embedment as previously required. When combining passive pressure and frictional resistance, the passive pressure component shall be reduced by one-third.

CM-83 Reinforcement: Concrete slabs shall be reinforced with at least No. 4 rebar at 16 inches on-center in both directions. All slab reinforcement shall be properly positioned at mid-height in the slab during placement of concrete.

CM-84 Moisture Barrier: Concrete slabs shall be underlain with a minimum 6 millimeter polyvinyl-chloride membrane vapor barrier with a minimum overlap of 12 inches in all directions. This membrane shall be sandwiched between two 2-inch layers of sand.

CM-85 Slab Sectioning: To minimize transgression of shrinkage cracks, slabs shall not exceed 20-foot sections. Sectioning can be performed by expansion joints, plastic joints, saw cutting, or proper tooling during concrete placement.

Slabs shall not be tied structurally to heavily loaded walls or columns, until most of the dead loads are in place to permit minor differential settlement.

CM-86 Subgrade Preparation: All areas to receive concrete shall be presaturated to a depth of 18 inches, such that the soil within this zone is approximately at optimum moisture to not more than 4 percent above optimum moisture content. The Geotechnical Engineer shall verify all subgrades that are pre-soaked within 24 hours of concrete placement.

CM-87 Assuming the foundation elements are founded in the required bearing soils, total static settlement is not anticipated to exceed 0.75 inch, with differential settlements on the order of one-half the total settlement. The majority of the settlement will most likely occur during the initial loading of the foundation; however, if any disturbed, loose, yielding, or soft soils are left within the footing area prior to concrete placement, settlements greater than predicted in the GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010) may be realized. Settlement monitoring will be performed for deeper fills.

CM-88 Additional foundation settlement can also occur due to leakage from any appurtenant plumbing; therefore, it is imperative that all underground plumbing fixtures be *absolutely* leak-free.

CM-89 Backfilled concrete retaining walls shall be used around the below-grade portions of the on-site structure or to support proposed cuts and fills for heights up to 12 feet or a stacked wall design of two 10-foot retaining walls.

CM-90 Footing Depths: The retaining walls shall have a minimum embedment depth of 18 inches and a minimum width of 18 inches.

CM-91 Foundation Subgrade: All retaining wall foundation subgrades shall consist of firm, unyielding certified fill material or competent bedrock. Under no circumstances shall footings be cast atop loose or soft soil, slough, debris, existing uncontrolled fill, or surfaces covered by standing water. The condition of all subgrades shall be verified by the Geotechnical Engineer prior to concrete placement.

CM-92 Wall Drainage: To preclude the build-up of hydrostatic pressure, a 4-inch-diameter perforated drain pipe shall be installed behind the heel of the wall and a curtain drain shall be placed behind the entire wall. This curtain drain

shall consist of pea gravel, washed rock, or a mixture of these materials wrapped in approved filter material, extending outward at least 1 foot from the wall and extending from the footing drain upward to within approximately 3 feet of the ground surface. The enclosed "Retaining Wall Backfill and Subdrain Detail" (Figure 9 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007; *Response to City of Los Angeles, Geology and Soil Report Correction Letter dated July 17, 2008, and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated April 22, 2008, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* February 5, 2009*; Response to City of Los Angeles, Geology and Soil Report Correction Letter dated August 17, 2009 and City of Los Angeles Geotechnical Engineering Division Geotechnical Review dated August 31, 2009, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California,* April 15, 2010) illustrates the required drainage detail behind backfilled retaining walls. In areas where the foundation is founded in undisturbed bedrock, a subdrain shall be provided. The backside of all subterranean walls shall be waterproofed.

CM-93 Backfill Soil: To allow the dissipation of potential hydrostatic pressure behind the retaining wall, all retaining wall backfill placed behind the curtain drain shall consist of clean, free-draining, granular material. On-site granular soils can be used for this purpose provided their moisture content is near optimum. In the latter case, a geotextile shall be placed between the curtain drain and backfill to prevent fines infiltration into the drainage rock.

CM-94 Backfill Compaction: To prevent the build-up of lateral soil pressures in excess of the required design pressures, overcompaction of the fill behind the wall shall be avoided; however, a lesser degree of compaction may permit excessive post-construction settlements. Backfill above a 45-degree plane projected upward from the base shall be placed in horizontal lifts not exceeding 8 inches in loose depth and compacted by small, hand-operated compaction equipment.

CM-95 Grading and Capping: To retard the infiltration of surface water into the wall backfill soils, the backfill surface of exterior walls shall be adequately sloped to drain away from the wall. The backfill surface directly behind the wall shall be capped with asphalt, concrete, or 3 feet of low-permeability soil.

CM-96 Safety: Temporary excavation slope stability is a function of many factors including soil type, density, cut inclination, depth, the presence of groundwater, and the length of time that the cut is to remain open. As the cut is deepened, or as the length of time an excavation is open, the likelihood of bank failure increases. For this reason, maintenance of safe slopes and worker safety shall remain the responsibility of the contractor, who is present at the site, able to observe changes in the soil conditions, and monitor the performance of the excavation.

CM-97 Maintenance: If seepage or surface runoff is not controlled, flatter temporary slopes would be necessary. Larger cobbles and boulders shall be scaled from the excavation sidewalls prior to worker entry to prevent injury to workmen from falling rocks. In all cases, cut slopes and any excavation shoring shall conform to applicable federal, state, and/or local safety guidelines.

CM-98 Cut/Fill Slopes: Temporary and permanent cut and fill slopes in natural soil, bedrock and compacted fill soils shall not exceed the inclinations shown in **Table IV.E-8**.

CM-99 Excavations: Shallow excavations used for construction that are less than 4 feet in depth and are made in properly engineered fill or firm native soils shall stand with vertical sides. Excavations deeper than 4 feet shall be sloped at angles provided in **Table IV.E-8**, or shored. All open excavations and excavations that are shored shall conform to all applicable federal, state and local regulations.

CM-100 Surcharge: Surcharge loads shall be setback from the top of temporary excavations a minimum horizontal distance of 10 feet.

CM-101 Excavation Inspection: The soils exposed in temporary excavation slopes shall be observed by the Geotechnical Engineer so that modifications of the slopes can be made if variations in soil conditions occur.

CM-102 Limitations: The values listed in **Table IV.E-8** assume that the slopes will be protected from erosion and that significant drainage will not occur over the face of the slope. It is further assumed that no loads will be imposed above the slope within one half the slope height from the slope face. The temporary cut/fill slopes shall be stabilized and/or supported within three weeks. In no conditions shall the temporary excavations exceed those shown on the geologic cross-sections.

CM-103 Seasonal precipitation and/or landscape water shall not be allowed to pond within the site, especially next to slopes and foundations of any structures. Surface runoff shall be collected and disposed of in such a manner as to prevent concentrated erosion. Roof gutters and yard drains shall be provided. All pad drainage shall be directed toward the street or an approved water course area swale via non-erosive channel, pipe and/or dispersions devices. All planters proposed adjacent to structures shall be self-contained, provided with a subdrain system, and/or allowed to have positive drainage away from structures to drain excess landscape water.

CM-104 Leakage from any of the appurtenant plumbing will create an artificial groundwater condition which could likely render settlement or slope stability problems; therefore, it is imperative that all underground plumbing fixtures shall remain entirely leak-free.

CM-105 The bridge across Mormon Canyon Creek at the northeast part of the site

shall be built upon a deepened pile foundation system that derives support from the underlying bedrock, and will have a clear span across Mormon Canyon Creek US Army Corps of Engineers jurisdictional limits. Additional subsurface exploration shall be performed in the area of the proposed bridge foundation prior to pile-driving activities. Final requirements shall be determined based on the results of that exploration. The exploration is completed. However, the bridge report still needs to be completed.

CM-106 Wetland flora shall be planted in the retention basin to help remove nitrogen, phosphorus, and other contaminants from the surface water before it is discharged into the Browns Canyon Wash or absorbed into the ground. Non-invasive weed species shall be researched and prohibited from the retention basin. Vegetated swales and infiltration trenches shall be incorporated into the design of the retention basin. See **MM-WR-7** for implementation of infiltration trenches in conjunction of the retention basin. Vegetated swales are open, shallow channels with vegetation covering the side slopes and bottom that collect and slowly convey runoff to downstream discharge points. Vegetated swales can serve as part of a stormwater drainage system and can replace curbs, gutters, and storm sewer systems.

CM-107 Efficient irrigation systems, including drip irrigation lines, shall be installed to reduce excess irrigation water from entering the stormwater drainage systems.

CM-108 Alternative building materials shall be used instead of conventional materials for new construction and renovation when feasible. For example, recycled plastic fencing and stucco walls require less paint and staining than wood-based materials. These materials reduce potential sources of pollutants in stormwater runoff by eliminating compounds that can leach into runoff, reducing the need for pesticide application, reducing the need for painting and other maintenance, or by reducing the volume runoff.

CM-109 Drain inserts shall be used where appropriate. Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and debris. Inserts of various shapes and configurations are available, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene “bag” is placed in the wire mesh box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

CM-110 As per Section 41.40 of the City of Los Angeles Noise Ordinance, construction operations shall be limited to the hours of 7:00 AM to 6:00 PM Monday through Friday and 8:00 AM to 6:00 PM on Saturdays and holidays. No construction operations shall be permitted on Sundays.

CM-111 As per Section 112.05 of the City of Los Angeles Noise Ordinance, all

technically feasible measures shall be implemented to reduce noise levels of construction equipment operating within 500 feet of residential areas in cases where noise levels exceed 75 dB(A) at 50 feet from the noise source. Technically feasible measures include, but are not limited to, changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent land uses in advance of construction work, ensuring that construction equipment is fitted with modern sound-reduction equipment, and installing temporary acoustic barriers around stationary construction noise sources.

CM-112 Equipment used for project construction shall be hydraulically or electrically powered impact tools (e.g., jack hammers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. A muffler could lower noise levels from the exhaust by up to about 10 dB(A). External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB(A). Quieter procedures shall be used (such as drilling rather than impact equipment) wherever feasible. The project applicant shall require construction contractors to ensure that construction equipment is fitted with sound reduction equipment, per manufacturer's specifications.

CM-113 Prior to construction of the portion of the project site near Subarea B of the Porter Ranch Specific Plan, a temporary sound barrier (e.g., solid fence or similar barrier) shall be erected 500 feet from the nearest residences such that the line of sight from the residences to the construction area is blocked. This fence shall be maintained until completion of the construction activity.

CM-114 During project construction, a designated parking area with a security officer shall be provided for the construction workers.

CM-115 During project construction, the contractor shall ensure that roads and alleyways remain unobstructed to provide for emergency access at all times.

DEPARTMENT OF CITY PLANNING - STANDARD SINGLE-FAMILY CONDITIONS

SF-1. That approval of this tract constitutes approval of model home uses, including a sales office and off-street parking. If models are constructed under this tract approval, the following conditions shall apply:

1. Prior to recordation of the final map, the subdivider shall submit a plot plan for approval by the Division of Land Section of the Department of City Planning showing the location of the model dwellings, sales office and off-street parking. The sales office must be within one of the model buildings.

2. All other conditions applying to Model Dwellings under Section 12.22A, 10 and 11 and Section 17.05 O of the Code shall be fully complied with satisfactory to the Department of Building and Safety.

SF-2. That a landscape plan, prepared by a licensed landscape architect, be submitted to

and approved by the Advisory Agency in accordance with CP-6730 prior to obtaining any grading or building permits before the recordation of the final map. The landscape plan shall identify tree replacement on a 1:1 basis by a minimum of 24-inch box trees for the unavoidable loss of desirable trees on the site.

In the event the subdivider decides not to request a permit before the recordation of the final map, a covenant and agreement satisfactory to the Advisory Agency guaranteeing the submission of such plan before obtaining any permit shall be recorded.

BUREAU OF ENGINEERING - STANDARD CONDITIONS

S-1. (a) That the sewerage facilities charge be deposited prior to recordation of the final map over all of the tract in conformance with Section 64.11.2 of the Los Angeles Municipal Code (LAMC).

(b) That survey boundary monuments be established in the field in a manner satisfactory to the City Engineer and located within the California Coordinate System prior to recordation of the final map. Any alternative measure approved by the City Engineer would require prior submission of complete field notes in support of the boundary survey.

(c) That satisfactory arrangements be made with both the Water System and the Power System of the Department of Water and Power with respect to water mains, fire hydrants, service connections and public utility easements.

(d) That any necessary sewer, street, drainage and street lighting easements be dedicated. In the event it is necessary to obtain off-site easements by separate instruments, records of the Bureau of Right-of-Way and Land shall verify that such easements have been obtained. The above requirements do not apply to easements of off-site sewers to be provided by the City.

(e) That drainage matters be taken care of satisfactory to the City Engineer.

(f) That satisfactory street, sewer and drainage plans and profiles as required, together with a lot grading plan of the tract and any necessary topography of adjoining areas be submitted to the City Engineer.

(g) That any required slope easements be dedicated by the final map.

(h) That each lot in the tract complies with the width and area requirements of the Zoning Ordinance.

(i) That 1-foot future streets and/or alleys be shown along the outside of incomplete public dedications and across the termini of all dedications abutting unsubdivided property. The 1-foot dedications on the map shall include a restriction against their use of access purposes until such time as they are accepted for public use.

(j) That any 1-foot future street and/or alley adjoining the tract be dedicated for public use by the tract, or that a suitable resolution of acceptance be transmitted to the City Council with the final map.

(k) That no public street grade exceeds 15%.

(l) That any necessary additional street dedications be provided to comply with the Americans with Disabilities Act (ADA) of 1990.

S-2. That the following provisions be accomplished in conformity with the improvements constructed herein:

(a) Survey monuments shall be placed and permanently referenced to the satisfaction of the City Engineer. A set of approved field notes shall be furnished, or such work shall be suitably guaranteed, except where the setting of boundary monuments requires that other procedures be followed.

(b) Make satisfactory arrangements with the Department of Traffic with respect to street name, warning, regulatory and guide signs.

(c) All grading done on private property outside the tract boundaries in connection with public improvements shall be performed within dedicated slope easements or by grants of satisfactory rights of entry by the affected property owners.

(d) All improvements within public streets, private street, alleys and easements shall be constructed under permit in conformity with plans and specifications approved by the Bureau of Engineering.

(e) Any required bonded sewer fees shall be paid prior to recordation of the final map.

S-3. That the following improvements are either constructed prior to recordation of the final map or that the construction is suitably guaranteed:

(a) After submittal of hydrology and hydraulic calculations and drainage plans for review by the City Engineer prior to recordation of the final map, construction of on-site and off-site public or private drainage facilities will be required including the construction of debris basins detention basins and storm drain system to drain the tract satisfactory to the Valley Engineering Office.

(b) Improve **off-site** portion of Mason Avenue being dedicated by the construction of the following:

1) Concrete curbs, concrete gutters, and a 5-foot concrete sidewalks.

2) Suitable surfacing to provide minimum 40-foot full roadway (20-foot half roadway).

3) Any necessary removal and reconstruction of existing improvements.

4) The necessary transitions to join the existing improvements.

(c) Improve **on-site** portion of Mason Avenue being dedicated by the construction of the following:

1) Concrete curbs, concrete gutters, and a 5-foot concrete sidewalks.

2) Suitable surfacing to provide 40-foot full roadway (20-foot half roadway). 20-foot minimum roadways shall be provided on each side of any proposed medians.

3) Any necessary removal and reconstruction of existing improvements.

4) The necessary transitions to join the existing improvements.

(d) Improve private street "A" being provided by the construction of the following:

1) Concrete curbs, concrete gutters and 5-foot concrete sidewalks.

2) Suitable surfacing to provide a minimum 40-foot wide roadway. 20-foot minimum roadways shall be provided on each side of any proposed medians.

3) Any necessary removal and reconstruction of existing improvements.

4) The necessary transitions to join the existing improvements.

5) The suitable improvement of 35-foot curb radius cul-de-sac.

(e) Improve all private streets except "A" street being provided by the construction of the following:

1) Concrete curbs, concrete gutters, and a 4-foot concrete sidewalks.

2) Suitable surfacing to provide minimum 36-foot wide roadway.

3) Any necessary removal and reconstruction of existing improvements.

4) The necessary transitions to join the existing improvement.

5) The suitable improvement of 35-foot curb radius cul-de-sacs.

(f) Improve the emergency access road being provided on-site and off-site by the construction of a suitable surfacing to provide a 30-foot wide roadway satisfactory to the Valley Engineering Office and the Fire Department.

(g) Construct off-site and on-site sewers including any pumping stations within

suitable easements to an outlet in Mason Avenue satisfactory to the Valley Engineering Office. In the event other public sewer connection options together with public sewer easement became available in the future, then the developer may consider those options together with the submittal of appropriate plans and study to the City Engineer for review and approval.

(h) Install street lighting facilities to serve the tract as required by the Bureau of Street Lighting.

a. Construct one new light on Street A.

Notes:

The quantity of street lights identified may be modified slightly during the plan check process based on illumination calculations and equipment selection.

Conditions set: 1) in compliance with a Specific Plan, 2) by LADOT, or 3) by other legal instrument excluding the Bureau of Engineering condition S-3 (i), requiring an improvement that will change the geometrics of the public roadway or driveway apron may require additional or the reconstruction of street lighting improvements as part of that condition.

(i) Plant street trees and remove any existing trees within dedicated streets or proposed dedicated streets as required by the Street Tree Division of the Bureau of Street Maintenance. All street tree plantings shall be brought up to current standards. When the City has previously been paid for tree planting, the subdivider or contractor shall notify the Urban Forestry Division ((213) 847-3077) upon completion of construction to expedite tree planting.

(j) Repair or replace any off-grade or broken curb, gutter and sidewalk satisfactory to the City Engineer.

(k) Construct access ramps for the handicapped as required by the City Engineer.

(l) Close any unused driveways satisfactory to the City Engineer.

(m) Construct any necessary additional street improvements to comply with the Americans with Disabilities Act (ADA) of 1990.

(n) That the following improvements are either constructed prior to recordation of the final map or that the construction is suitably guaranteed:

NOTES:

The Advisory Agency approval is the maximum number of units permitted under the tract action. However the existing or proposed zoning may not permit this number of units. This

vesting map does not constitute approval of any variations from the Municipal Code, unless approved specifically for this project under separate conditions.

Any removal of the existing street trees shall require Board of Public Works approval. Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power, Power System, to pay for removal, relocation, replacement or adjustment of power facilities due to this development. The subdivider must make arrangements for the underground installation of all new utility lines in conformance with Section 17.05-N of the Los Angeles Municipal Code (LAMC).

The final map must be recorded within 36 months of this approval, unless a time extension is granted before the end of such period.

The Advisory Agency hereby finds that this tract conforms to the California Water Code, as required by the Subdivision Map Act.

The subdivider should consult the Department of Water and Power to obtain energy saving design features which can be incorporated into the final building plans for the subject development. As part of the Total Energy Management Program of the Department of Water and Power, this no-cost consultation service will be provided to the subdivider upon his request.

FINDINGS OF FACT (CEQA)

11. Based upon the above findings, the recommended Development Agreement action is deemed consistent with public necessity, convenience, general welfare and good zoning practice.

Environmental. On September 7, 2011, the City Planning Department issued a Final Environmental impact Report (State Clearinghouse No. 2006031049). On the basis of the whole of the record before the lead agency including any comments received, the lead agency finds that, with imposition of the mitigation measures described in the EIR, there is no substantial evidence that the proposed project will have a significant effect on the environment, with the exception of short-term, construction related impacts (air quality and noise). The EIR reflects the lead agency's independent judgment and analysis. Based upon the whole of the environmental record and the public hearing held September 23, 2011, the Planning Department finds that substantial evidence for each and every finding made Is contained in the Draft and Final EIR, including a Statement of Overriding Considerations and a Mitigation Monitoring Program (MMP). The records upon which this decision is based are located in the Department of City Planning, Marvin Braude Constituent Services Center, 6262 Van Nuys Boulevard, Room 430, Van Nuys, California 91401.

Based upon the above findings, the recommended action is deemed consistent with public necessity, convenience, general welfare and good zoning practice.

FINDINGS OF FACT FOR SIGNIFICANT IMPACTS AND STATEMENT OF OVERRIDING CONSIDERATIONS

I. INTRODUCTION

The project applicant is seeking approval by the City of Los Angeles of annexation of the project site to the City and a tentative tract map to subdivide the 285.1-acre project site to create 188 single-family home lots. Approval of annexation of the site to the City of Los Angeles by the Los Angeles Local Agency Formation Commission (LAFCO) for the County of Los Angeles is also being requested.

The proposed project would subdivide 162 acres of the project site into 188 single-family residential lots consisting of 163 single-family residential and 25 equestrian residential lots, two public park lots, and one retention basin lot. The remaining 123 acres of the project site would be maintained as permanent open space.

Implementation of the proposed project would include the construction a public park on 19 acres in the northeastern portion of the Hidden Creeks Estates project site. Park amenities could include, but would not be limited to, baseball and softball fields, soccer fields, a basketball court, a children's playground, and walking trails and paths.

The 123-acres of open space surrounding the proposed development area would buffer the proposed residential development from the existing community of Porter Ranch to the east and south and would complement adjacent open space areas, including the Michael D. Antonovich Regional Park, located to the north and west of the project site.

As part of the proposed project, the applicant would construct a new equestrian facility on 12 acres to replace the existing equestrian facility located in the southern portion of the project site. As proposed, the equestrian facility would accommodate up to 120 horse stalls, 30 trailer storage stalls, an arena, a hot walker, two wash racks, a caretaker house, a manager house, and 30 parking spaces. Equestrian trails would be provided throughout the project site. One equestrian trail along the western edge of the project site would continue connections to trails to the north and west of the site and provide linkages from existing communities to parklands beyond the project site.

Primary access to the project site is proposed via an extension of Mason Avenue north from the current terminus in the adjacent community of Porter Ranch that would connect to the northeastern corner of the Hidden Creeks Estates project site, near the proposed park. Browns Canyon Road, located south of the project site, would provide secondary emergency access to the site and the surrounding area. To facilitate the use of Browns Canyon Road for secondary emergency access, the roadway would be widened in 14 locations approved by the County of Los Angeles Fire Department. Public access to the equestrian center would also be provided via Browns Canyon Road. A staging area that could accommodate trailers and vehicles would be located near the equestrian center and would also serve as a staging area for fire trucks, including a fire hydrant for fire suppression. Project residents would access the equestrian center internally, parking off of internal streets at the southern edge of the property.

Access to the site during construction would be provided by Browns Canyon Road. Construction of the proposed project would consist of four phases: (1) site clearing,

(2) site grading, (3) underground utility construction, and (4) asphalt concrete paving.

The Hidden Creeks Estates project site is currently located in an unincorporated portion of Los Angeles County. Implementation of the proposed project requires annexation of the property into the City of Los Angeles. Upon annexation of the project site, the site would be located within the Chatsworth-Porter Ranch Community Plan Area as defined in the City of Los Angeles General Plan.

II. ENVIRONMENTAL DOCUMENTATION BACKGROUND

The City of Los Angeles Planning Department, acting as lead agency, distributed a Notice of Preparation (NOP) of preparation of an Environmental Impact Report ("EIR") to the State Clearinghouse, Office of Planning and Research, responsible agencies and other interested parties on March 13, 2006. The NOP was circulated for a period of 30 days, until April 11, 2006. The 30-day public scoping period began on March 13, 2006 and ended on April 11, 2006. The City, prepared a Draft Environmental Impact Report ("Draft EIR") for the proposed project, which was circulated from April 3, 2008, to June 30, 2008, pursuant to the California Environmental Quality Act of 1970, as amended (CEQA Public Resources Code Section 21000 et seq.), and the State CEQA Guidelines (14 Code of Regulations 15000 et seq., "CEQA Guidelines") and City Guidelines [L.A. CEQA Thresholds Guide: Your Resource for preparing CEQA Analyses in Los Angeles] adopted pursuant thereto.

During this review period, the City Planning Department accepted comments from agencies and the public. A total of 35 comment letters were received during the public review of the Draft EIR. Copies of the original comment letters are contained in Section III of the Final Environmental Impact Report (Final EIR). Upon the close of the public review period, written responses were prepared to comments received on the Draft EIR.

The Final EIR for the Hidden Creeks Estates Project was prepared pursuant to CEQA and the State and City CEQA Guidelines, and includes the Draft EIR, additions and corrections to the Draft EIR, a list of parties commenting on the Draft EIR comments on the Draft EIR, the comments received on the Draft EIR, and written responses to these comments.

III. FINDINGS REQUIRED UNDER CEQA

Public Resources Code Section 21081 and CEQA Guidelines Section 15091 require a public agency, prior to approving a Project, to identify significant impacts of the Project and make one or more of three allowable findings for each of the significant impacts.

The first allowable finding is that "[c]hanges or alterations have been required in or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR." (State CEQA Guidelines Section 15091, subd. (a)(1))

The second allowable finding is that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency." (State CEQA Guidelines, Section 15091, subd. (a)(2))

The third allowable finding is that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the final environmental impact report' (State CEQA Guidelines, Section 15091 (a)(3))

The findings reported in the following pages incorporate the facts and discussions of the environmental impacts that are found to be significant in the EIR for the Project as fully set forth therein. Although Section 15091 of the CEQA Guidelines does not require findings to address environmental impacts that an EIR identifies as merely 'potentially significant," these findings nevertheless fully account for all such effects identified in the EIR. For each of the significant impacts associated with the Project, the following sections are provided:

Description of Significant Effects - A specific description of the environmental effects identified in the EIR, including a conclusion regarding the significance of the impact.

Mitigation Measures - Identified mitigation measures or actions that are required as part of the Project.

Finding - One or more of three specific findings in direct response to CEQA Guidelines Section 15091_

Rationale - A summary for the reasons for the finding(s).

Reference - A notation on the specific section of the Final EIR, which includes the evidence and discussion of the identified impact.

For the environmental impacts identified in the Final EIR to be less than significant, a statement explaining why the impacts are less than significant is provided.

IV. ENVIRONMENTAL EFFECTS DETERMINED TO BE LESS THAN SIGNIFICANT DURING PRELIMINARY REVIEW OF THE PROPOSED PROJECT

The City has determined that the. Project will not result in any potentially significant impacts related to the environmental topics identified and discussed below and, for this reason; these topics are not analyzed in detail in the Final EIR.

A. Aesthetics/Shading

Shading refers to the effect of shadows cast upon adjacent areas by proposed structures. All proposed structures on the project site, including the 188 single-family residences and the equestrian center, would be 36 feet in height or shorter, no buildings would exceed 60 feet in height above the ground elevation. These buildings would be located on large lots. There are

no solar access sensitive buildings or uses located close enough to the project site to be affected by buildings of this height. Therefore, shading impacts are not significant and shading impacts are not addressed in the EIR.

B. Agricultural Resources

Construction of the proposed project would not result in the conversion of. Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. According to mapping prepared by the Department of Conservation, the project area Is designated as grazing land.1 Therefore, no impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur. Although the project site is zoned as A-2-1, which allows for single-family residences and some agricultural and animal-keeping uses, conversion of the project site as proposed would not affect surrounding farmland uses or result in the conversion of designated farmland beyond the project site. East of the project site is the existing residential community of Porter Ranch, and north, west and south of the project site is undeveloped open space. Therefore, no significant impacts associated with the conversion of farmland off of the project site would occur.

C. Cultural Resources

As discussed in Section IV.D, Cultural Resources of the Draft EIR, the proposed project presents will not result in significant impacts relating to historic resources. No historical resources were found within the project site as a result of records searches and background checks or during an intensive Phase I cultural resources survey of the project site. The on-site equestrian and ranching facilities and filming set were determined not to be historical resources. For these reasons, no impacts to historical resources would occur, and no mitigation measures are required.

D. Geology and Soils

Construction of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. The proposed project would be connected to existing City of Los Angeles wastewater conveyance systems. As such, no impacts would occur from the use of septic tanks or alternative wastewater disposal systems.

E. Hazards and Hazardous Materials

Construction and operation of the proposed project would not result in the handling of hazardous or acutely hazardous materials within 0.25 mile of an existing or proposed school. No schools are proposed as part of the project, and the closest existing schools to the project site are located to the east in the Porter Ranch community and to the south in the Chatsworth community. Therefore, no hazardous materials impacts to schools will result from the

1 State of California, Department of Conservation. Important Farmland in California, 2002. August 2004.

proposed project. Construction of the proposed project would also not pose a safety hazard due to proximity to any public airport or private airstrip. No public airports or private airstrips are located near the project site and the site is not located in an area addressed by an airport land use plan.

F. Hydrology and Water Quality

According to flood hazard maps, the development footprint falls within Zone X, which is defined as being outside a 100-year flood plain. Therefore, no housing or structures would be constructed within a 100-year flood plain, no flood flows would be impeded or redirected, and no impacts would occur. No levees or dams are located either on the project site or upstream from the project site and, for this reason, the project site is not subject to any potential inundation impacts that could result from failure of a levee or dam.

G. Land Use and Planning

No habitat conservation plans or natural community conservation plans apply to the project site; therefore, no conflicts with such plans would result from implementation of the proposed project.

Construction activities, including site preparation and grading, construction of the 188 single-family residences, associated roadways and infrastructure, and other proposed facilities would not require the use of pile driving or other construction activities known to generate ground borne vibration. Therefore, no ground borne vibration impacts would occur. No public or private airports or, airstrips are located within the vicinity of the project site. Implementation of the proposed project would not, therefore, expose people residing or working in the project area to excessive noise levels associated with airport uses.

I. Population and Housing

Implementation of the proposed project would involve demolition of one existing occupied single-family residence associated with the existing equestrian facility on the site to allow for the construction of 188 new single-family residences, associated roadways and infrastructure, a public park and a new equestrian center. The new equestrian center will include a replacement home for, the existing home that will be removed from the site, and two caretaker homes. Therefore, no significant impacts would result from project implementation.

J. Transportation, Traffic, and Parking

The proposed project would include low-density residential uses located outside an airport land use plan area and, for this reason; the project would not interfere with overhead flights or require existing air traffic patterns to be altered.

Parking at both the new equestrian facility and public park would be provided in conformance with the Los Angeles Municipal Code. As such, the provision

of these parking spaces is anticipated to meet the demands of both equestrian facility and park users. Therefore, no significant impacts associated with inadequate parking are anticipated.

The Porter Ranch community is currently served by two Metropolitan Transportation Authority (MTA) bus lines: lines 242 and 243. These two, lines run, in a general north-south direction along Tampa Avenue, Winnetka Avenue and Masson Avenue and serve the communities of Porter Ranch, Chatsworth, Northridge, Winnetka, and Woodland Hills. Destinations reachable from Porter Ranch via these two MTA lines include the Northridge Shopping Center and Los Angeles Pierce College. The proposed project would be constructed immediately west of the existing Porter Ranch community, and as such, would have comparable access to the transit options available to the residents of Porter Ranch. The northernmost stop for these two bus lines is Rinaldi Street. Therefore, similar to the situation for existing residents in Porter Ranch, residents of the proposed project would have to travel south on Mason Avenue to Rinaldi Street in order to access these two bus lines.

In addition to regional bus transit available in Porter Ranch, throughout the community are bicycle lanes located along the streets and bicycle racks are provided in shopping centers and at public parks. Construction of the proposed project would involve similar bicycle lanes and bicycle racks at the equestrian facility and 19.3-acre public park. Therefore, construction of the proposed project is not anticipated to conflict with adopted polices, plans, or programs supporting alternative transportation.

VI. ENVIRONMENTAL EFFECTS DETERMINED TO BE LESS THAN SIGNIFICANT IN THE FINAL EIR

As analyzed in detail in the Final EIR, the City has determined that the proposed project would not cause significant impacts in the following areas:A. Aesthetics and Visual Resources

A. Aesthetics

1. Aesthetics (Final EIR pages 1-9)

The architectural styles and building materials of the homes and other buildings in the proposed project would be consistent with the styles and materials found in the adjacent Porter Ranch community. Ail signage and aboveground utility infrastructure would be subject to the height limit in the City's zoning code. The scale of the buildings would be consistent with the Porter Ranch community. The density of residential development would be less than Porter Ranch, as the proposed project would contain larger lots on single loaded streets than those in Porter Ranch. For these reasons, the aesthetic impact of the proposed zone change on the project site would be less than significant.

The proposed project would result in the development of an area representing less than 15 percent of the size of the adjacent Porter Ranch Specific Plan Area. Therefore, the project would represent an incremental extension of the existing adjacent development. The 123-acres of open space surrounding the proposed development area would buffer the proposed residential development from, and would be complementary to, the adjacent open space areas, including the Michael D. Antonovich Regional Park, located to the north and west of the project site. The Final EIR included photo simulations of the proposed project from surrounding trails and open space areas that demonstrate the project will not result in significant visual impacts due to the design of the project, the type and amount of landscaping proposed, and the adjacent development in Porter Ranch and other existing developed areas in the San Fernando Valley. The impact of the project on the visual and aesthetic character of the area would be less than significant.

Section IV.A.1, Aesthetics of the Draft EIR, evaluated the project's consistency with policies, guidelines, and regulations specifically related to aesthetics contained within the City of Los Angeles General Plan, the Chatsworth-Porter Ranch Community Plan, and the Los Angeles Municipal Code. The Final EIR determined that the proposed project would not conflict with any applicable guidelines or regulations specifically related to aesthetics. Therefore, impacts were determined to be less than significant.

2. Obstruction of Views (Final EIR page 1-11 and 11-3)

Views of the project site are available from short-, mid-, and long-range distances: Short-range views of the site are available from hiking and equestrian trails in the hills and mountains surrounding the site to the west, north, and east. Photo visual simulations were prepared from short-range viewpoints. These simulations demonstrate that the project will not result in a significant impact on the visual character of the panoramic views of the Santa Susana Mountains and the San Fernando Valley available from trails in the area and other locations near the site. Due to the elevation of the central plateau on the site where development is proposed, the project will not be highly visible from mid- and long-range viewpoints along Highway 118 or major streets in the San Fernando Valley. From mid- and long-range distances, the views of the project site would be slightly altered; however, construction of the proposed project would extend the existing suburban character of Porter Ranch slightly west to include the project site. Given the location of the proposed developed adjacent to the Porter Ranch community, implementation of the proposed project would not alter the existing visual character of the site or surrounding area such that significant adverse impacts to views would occur. Visual impacts to the character of the site and surrounding area would be less than significant.

B. Air Quality

1. Operational Emissions (Final EIR page 1-15)

The majority of emissions that would occur as a result of the proposed project would be generated indirectly by vehicular sources, with the exception of the emissions of volatile organic compounds from consumer products. Direct emissions from the proposed uses would comprise only a small portion of the overall emissions inventory associated with the proposed development. Operational emissions associated with the complete development and operation of the project would not exceed SCAQMD thresholds. Therefore, operational emissions will be less than significant.

2. Carbon Monoxide Hotspots (Final EIR page I-15)

Analysis of CO concentrations from vehicles at intersections in the area demonstrated that with the addition of project traffic emissions would not exceed the state or federal 1-hour or 8-hour standards. No significant CO hotspot impacts would occur to sensitive receptors in the vicinity of project intersections.

3. Consistency with Air Quality Management Plan (Final EIR page 1-15 and 1-16)

The population growth associated with the annexation of the proposed project site and development of the proposed residential lots would be within the Southern California Association of Governments (SCAG) growth projections for the City of Los Angeles in the near term and long term; therefore, the project is consistent with the 2003 Air Quality Management Plan (AQMP). The proposed project would not jeopardize attainment of state and federal ambient air quality standards in the Chatsworth-Porter Ranch Community Plan Area or the South Coast Air Basin. Therefore, impacts would be less than significant in regards to conflicting or obstructing implementation of the AQMP.

4. Objectionable Odors (Final EIR page I-16)

The proposed residential uses on the site would not generate objectionable odors. The project site presently contains an operating equestrian facility, which complements other existing equestrian facilities and horse keeping properties in the surrounding community in Brown's Canyon and to the south in Chatsworth. Horse-related odors would typically not be considered objectionable by most local residents because of the existing equestrian nature of the area. Wastes would be disposed of in accordance with any applicable requirements. Consequently, objectionable odor impacts would be less than significant.

5. Toxic Air Contaminants (Final EIR page 1-16)

The project would not have hazardous materials on site and would not be a source of toxic air contaminants regulated by the SCAQMD, state, or federal government, except for the normal use of household and consumer products, architectural coatings, and similar products. Therefore, the proposed project will result in .less than significant hazardous materials or emissions impacts.

C. Biological Resources

1. Project Impacts (Final EIR page 1-18)

Botanical surveys of the project site determined that no special-status plant species occur on the project site. Therefore, development associated with construction of the proposed project would result in less than significant impacts to special-status plant species.

Eighteen special-status wildlife species have the potential to occur on, or otherwise utilize, the project site. In addition, surveys of the project site have confirmed that three special-status species inhabit the site, all three (the two-striped garter snake, Cooper's hawk, and Southern California rufous-crowned sparrow) being California Species of Special Concern (CSC). However, several of the special-status wildlife species that have the potential to occur on the site, or that have been observed on the site, are considered to be special-status only during specific phases of their lifecycle. Because of the high mobility of these species and because these species are expected to utilize the project site for foraging only, direct impacts to these wildlife species would not be expected, and impacts from construction of the proposed project would be less than significant.

Due the high mobility of the golden eagle and the availability of similar habitat in other locations within the vicinity of the project site, project activities would be unlikely to directly impact wintering individuals of this species. Therefore, impacts to this species from construction activities would be less than significant.

2. Wildlife Movement/Migration (Final EIR page 1-19)

The project site is located to the east of the Santa Susana Pass regional wildlife corridor. Direct impacts to the wildlife corridor are not expected as a result of the proposed project, and indirect impacts would not significantly impact the viability of this corridor. Construction would be unlikely to result in significant impacts to wildlife movement, as most wildlife movement occurs primarily in the evening, when no construction would occur. In addition, disturbance associated with construction activities would be short-term. The proposed project would not significantly impact locally designated species, natural habitat, or plant communities, as none are present on the project site.

Therefore, impacts to regional wildlife movement/migration corridors associated with construction activities would be less than significant.

3. Conflict with Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Final EIR page I-19)

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would not conflict with the provisions of such a plan, and no significant impacts would result.

4. Habitat for Wildlife Species (Final EIR page 1-21)

Due to the availability of large amounts of similar habitat in the vicinity of the project site, implementation of the proposed project would not substantially reduce the habitat of a fish or wildlife species. Therefore, impacts to habitat for wildlife species would be less than significant.

5. Fish and Wildlife Populations (Final E1R page 1-21)

Given the general abundance of individuals of these common wildlife species in the project area, the development of the proposed project would not cause a regional population of any common animal species to drop below self-sustaining levels. Therefore, impacts to fish and wildlife populations would be less than significant.

6. Wildlife Communities (Final EIR page 1-21)

Given the fact that the plant and wildlife communities located on the project site also occur on nearby lands, development of the proposed project would not threaten to eliminate a plant community or an animal community and impacts would be less than significant.

D. Geology

1. Mineral Resources (Final EIR page 1-43)

The proposed project design includes the provision of a private access road to properties and oil wells located north and east of the project site. The private access road would provide access from the proposed Mason Avenue extension near the public park and would continue northward to the adjacent property containing the oil wells. Therefore, implementation of the proposed project would not affect access to oil wells located in the vicinity of the project site.

The site is not identified as a locally important mineral resource recovery site,' a "regionally significant construction aggregate resource area," or an available site with known mineral resources of value to the area, region, or state in the Los Angeles County General

Plan. For these reasons, impacts related to mineral resources would be less than significant.

E. Hazards

1. Risk of Upset (Draft EIR page IV.F-9)

Compliance with the regulatory framework in place for the transport, storage and use of hazardous materials would avoid the implementation of the project resulting in any potentially impacts to hazards; therefore, the risk of upset associated with the project would be less than significant.

No project improvements would interfere with usage or operation of the nearby gas storage field. Furthermore, methane gas is not a concern because the site is not located within a City Methane Zone or near a petroleum facility. Additionally, there is no evidence of historic agricultural activities on site that could have used chemical pesticides and herbicides at a level that would be a concern. As such, earth-moving, grading, and construction activities would not disturb or affect contaminated soil and would not pose a threat to construction workers or surrounding land uses. Therefore, construction impacts to hazards and hazardous materials would be less than significant

According to the site conditions as documented in the Phase I Environmental Site Assessment for the project site, no structures containing asbestos are located on site and the potential for soil contamination is low. Therefore, implementation of the proposed project is not expected to result in potential accidental release or explosions on the project site as a result of the presence of hazardous substances. Impacts would be less than significant.

After the proposed homes are built and occupied, typical household chemicals like cleaning solvents would be used in the project residences. However, these products do not pose a substantial risk to people or property and are not likely to result in explosion or cause harm to humans or the environment. Operational impacts associated with accidental release or explosion of hazardous substances within the project site would be less than significant.

2. Emergency Preparedness (Draft EIR page IV.F-13)

As part of the proposed project, Mason Avenue would be extended to become the primary access road into the project site. Browns Canyon Road would be used as a secondary emergency access road for the project and surrounding uses. The extension of Mason Avenue would provide an improved roadway constructed to comply with LADOT current street standards, and would shorten the travel route for emergency access vehicles when compared to the access available from Brown's Canyon Road. This additional access route would

decrease response times for emergency vehicles and would also relieve traffic in the event of an evacuation of the project site. Additionally, improvements proposed for Browns Canyon Road would further enhance the existing emergency access to the project site and the uses surrounding the project site. An emergency helistop with access to water will also be provided at the southern end of the project site to enhance fire suppression capabilities in the area. Therefore, implementation of the proposed project would result in less than significant impacts related to emergency preparedness.

F. Land Use and Planning

1. Project Impacts (Final EIR page 1-76)

As part of the proposed project, the project site would be annexed into the City of Los Angeles and subject to the land use and development standards in the proposed land use and zoning designations. Upon annexation of the project site into the City of Los Angeles, the site would be located within the Chatsworth-Porter Ranch Community Plan Area, which includes the most northwestern portion of the San Fernando Valley and the City of Los Angeles. Additionally, after the discretionary approval process is complete, the proposed project would comply with the goals and policies of all applicable land use plans, including the City of Los Angeles General Plan Framework Element, the City of Los Angeles Zoning Ordinance, the Chatsworth-Porter Ranch Community Plan, the Southern California Association of Governments (SCAG) Regional Comprehensive Plan and Guide, and SCAG's Regional Transportation Plan (RTP). Therefore, the project would be consistent with applicable land use plans and no significant impacts would result from approval and implementation of the proposed project.

G. Noise

1. Permanent Increase in Ambient Levels (Final EIR page 1-77)

Traffic generated by the proposed project would result in permanent ambient noise level increases ranging from 0.0 to 1.1 dB(A) on surrounding roadways during the weekday. The largest project-related increase of 1.1 dB(A) would occur on Sesnon Boulevard west of Porter Ranch Drive_ Additionally, the proposed project will have a minimal impact on current noise levels associated with State Route 118 (SR-118). These increases are well under the 3 dB(A) increase that may be perceptible and impacts would be less than significant.

H. Population and Housing

1. Growth Forecasts (Final EIR page 1-79)

The proposed project would add 188 residential units to the area, representing an approximately 0.3 percent of the 61,739 additional

units of housing growth projected for the City of Los Angeles by the Southern California Association of Governments (SCAG). The 188 residential units proposed are accounted for within the growth projections for the City of Los Angeles and the Chatsworth-Porter. Ranch Community Plan Area. Therefore, given that the anticipated housing and population growth generated by the proposed project in conjunction with the identified related projects would not exceed SCAG projections, impacts to growth would be less than significant.

I. Public Services

1. Recreation and Parks (Final EIR page 1-90)

The proposed project includes a 19.3-acre public park that would meet the demand for recreation and park services generated by the residents of the project as well as meet the existing demand for additional park and recreation facilities In the area. Since the proposed park is larger than the required 1.88 acres of parkland necessary for the 549 residents of the project, the proposed project would help alleviate the existing demand for public parks in the area. To encourage the use of existing trails near the project site, the project includes a system of equestrian trails, which would be located on the undeveloped portions of the project site, which would connect to the existing equestrian trail network off of the project site and provide access from the equestrian facility. The impacts of the proposed project on parks and recreation facilities will be less than significant

J. Transportation

1. Construction Trips (Final EIR page 1-92)

Given the off-peak nature of construction worker traffic, construction worker traffic would not substantially affect the volume-to-capacity ratios of the surrounding intersections or street segments. As such, worker trips would have a less than significant impact.

2. Exceed CMP Intersection Thresholds (Final EIR page 1-92)

The closest Congestion Management Program (CMP) intersection to the project site is Topanga Canyon Boulevard at the. Highway 118 westbound ramps. The proposed project will not add 50 or more trips to this intersection during either the AM or. PM weekday peak hours. The project traffic study shows the project will not add substantial traffic volumes to the regional transportation system. Therefore, the impact of the project on regional transportation facilities will be less than significant.

3. Design Hazards (Final EIR page 1-92 and 1-93)

Browns Canyon Roads is narrow and includes steep grades and sharp curves. The project would improve Browns Canyon Road by spot, widening Browns Canyon Road at 14 locations north of De Soto. Avenue and south of the project site. Therefore, use of this roadway by emergency vehicles in the future would be less likely to expose drivers, pedestrians, and other individuals along the roadway to design hazards. As such, implementation of the project would result in a less than significant hazard impacts along Browns Canyon Road.

4. Primary Emergency Access (Final EIR page 1-93)

Primary emergency access to the site would be available via the extended Mason Avenue. With, implementation of the proposed project existing emergency access to both the project site and the surrounding area would be enhanced with the construction of the proposed improvements along Browns Canyon Road; therefore, the proposed project would result in less than significant impacts related to emergency access.

K. Public Utilities

1. Water (Final EIR page 1-94)

(a) Water Infrastructure

The proposed project would comply with requirements stipulated by the Los Angeles Department of Water and Power (LADWP) for the provisions of adequate water infrastructure. All necessary new water delivery facilities will be built the proposed Mason Avenue extension and impacts will be less than significant.

2. Solid Waste (Final EIR page 1-97)

Due to the small scale of development presently on the site, the quantity of demolition debris generated would not contribute significantly to the City's waste flow. The disposal of the demolition debris would be a one-time occurrence and since the City is required to divert at least 50 percent of its waste from landfills, the impact of the demolition and construction phase of the project on solid waste services would be less than significant.

VII. ENVIRONMENTAL IMPACTS FOUND TO BE LESS THAN SIGNIFICANT AFTER MITIGATION

A. Aesthetics and Visual Resources

1. Aesthetic Character

The single-family residences would reflect the style and design of single-family homes typical to Southern California and would not exceed two stories, or 36 feet, in height

(a) Significant Environmental Effects

The permanent conversion of an open space area to a residential neighborhood, the associated grading activity, and the removal of protected trees on the site would permanently alter the visual character of the site. The physical removal of these trees constitutes a significant impact. However, to ensure these impacts would be less than, significant, the Final EIR included mitigation measures to reduce the impacts of removing trees from the site to a less than significant impact by requiring that replacement trees be incorporated into the project landscape plan.

(b) Mitigation Measures

(c) Finding

Implementation of the mitigation measure identified in the Final EIR would substantially lessen any potential significant environmental effects of the proposed project relating to the aesthetic character of the surrounding area. This mitigation measure has been required in, or incorporated into the proposed project, or are within the responsibility and jurisdiction of another agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Impacts related to the aesthetic character of the surrounding area would be less than significant. However, to ensure these impacts would remain less than significant, the Final EIR included mitigation to reduce any such impacts.

(e) Reference

For a complete discussion of aesthetic impacts, please see page 1-9 in Section 1.1., Obstruction of Views, and page 11-3 in Section II, Additions and Corrections of the Final EIR.

2. Nighttime Illumination

(a) Significant Environmental Effects

The existing nighttime illumination on the project site is minimal and is associated with the existing single-family residence, equestrian facility, and ranching, operations. New temporary sources of lighting will be established and used on the site during construction and the project would also introduce new permanent light sources within a previously undeveloped area of the Santa Susana foothills. The potential exists for light generated by the project to spill off the project site and affect

adjacent light-sensitive areas, resulting in a significant impact. However, to ensure these impacts would remain less than significant, the Final EIR included the following mitigation measures to reduce potential impacts to a less than significant level:

(b) Mitigation Measures

MM-NIGHT-1 The use of security lighting during project construction shall be limited to only those locations on the construction site requiring illumination.

MM-NIGHT-2 All security lights shall be properly shielded and projected downwards during construction such that light is directed onto the project site only.

MM-NIGHT-3 Prior to the issuance of a grading permit, the project applicant shall develop a lighting plan that shall be subject to approval by the City of Los Angeles Planning Department. In the plan, all lighting shall be downcast luminaries with light patterns shielded and directed away from adjacent open space areas. Mercury vapor and halide lighting shall not be used on the perimeter of the developed areas and in areas adjacent to undeveloped open space. Security lighting throughout the project shall be controlled by motion detectors, to limit light shine to necessary periods

MM-NIGHT-4 High-pressure sodium and/or cut-off fixtures shall be used instead of typical mercury-vapor fixtures for outdoor lighting.

MM-NIGHT-5 The lighting plan shall provide structural and/or vegetative screening from sensitive uses

MM-NIGHT-6 The lighting plan shall design exterior lighting to conform illumination to the project site and/or to areas which do not include light-sensitive uses.

MM-NIGHT-7 The hours of operation of outdoor lighting at the equestrian facility shall be restricted to the hours of 6:00 AM to 10:00 PM. The hours of operations of outdoor lighting at the public park shall be restricted to the hours of 7:00 AM to 10:00 PM.

(c) Finding

Implementation of the mitigation measures identified in the Final EIR would avoid or substantially lessen any potential significant environmental effects of the project relating to nighttime lighting. These mitigation measures have been required in, or incorporated into the project, or is within the

responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Impacts related to nighttime lighting would be less than significant. However, to ensure these impacts would remain less than significant, the Final EIR included mitigation measures to reduce any such impacts.

(e) Reference

For a complete discussion of nighttime illumination impacts, see Section I, Aesthetics and Visual Resources, of the Final EIR.

B. Biological Resources

1. Project impacts

(a) Significant Environmental Effects

The two-striped garter snake, which was observed on site, has been disappearing rapidly from throughout its range, and because the aquatic habitats on which they depend are subject to hydro-modification impacts, the potential impacts to this species associated with removal of on-site aquatic habitat would be potentially significant.

Construction of the proposed project would result in the loss of suitable nesting habitat for several special-status bird species, such as Cooper's hawk, white-tailed kite, Southern California rufous-crowned sparrow, Bell's sage sparrow, southwestern willow flycatcher, and least Bell's vireo. If these bird species were to nest on site, construction-related activities could result in the direct loss of an active nest or the abandonment of an active nest by adult birds during that year's nesting season, which would result in a significant impact.

In addition, construction of the proposed project would result in the loss of suitable habitat for other special-status species such as silvery legless lizard, coast horned lizard, coastal whiptail, San Bernardino ring-neck snake, San Diego black-tailed jackrabbit, San Diego desert woodrat, western yellow bat, and Yuma myotis. Construction-related activities could result in the direct loss of individuals of the species which would be a potentially significant impact.

On-site stream channels, as well as those stream channels impacted by construction associated with the Mason Avenue extension, that fall under the jurisdiction of the US Army Corps

of Engineers (USAGE) and the California Department of Fish and Wildlife (CDFVV) have been identified in the Jurisdictional Delineation included in the Final EIR. Riparian vegetation on the project site also qualifies to be regulated by CDFW. In addition, two wetlands that meet the USAGE definition criteria were observed on the project site or in the vicinity of off-site impact areas. A portion of the partially on-site wetland, located on the western border of the project site, would be directly impacted by project construction. The wetland located to the northeast of the project site, approximately 125 feet to the west of off-site impact areas associated with the Mason Avenue extension, would be indirectly impacted by grading, activities required for the construction of Mason Avenue. Such grading activities would change the hydrologic regime of water feeding the wetland seep. It is expected that construction of the project would result in direct removal of both federal and state jurisdictional wetland resources. Due to the high habitat value that drainages and swales are known to provide for wildlife, and the importance of drainages in improving water quality, the proposed removal of this vegetation and these waters is considered a significant impact prior to mitigation.

Development of the project site as proposed and occupancy of the proposed residences would result in an increase in human and domestic animal presence in the area, increased populations of non-native plant species, and increased stormwater runoff. Increases in such disturbances to wetlands and jurisdictional waters that remain undeveloped after project construction could result in degradation of the quality of these areas, which would be considered a potentially significant impact.

Occupancy of the proposed residential development would affect special-status wildlife species in the offsite open space areas through indirect impacts, including increased human and domestic animal presence (and associated noise) in the area, increased populations of nonnative plant species, and increased light and glare, all of which could result in a significant impact.

Sensitive plant communities on the project site include California Walnut Woodland and Mixed Willow Riparian Woodland. Approximately 0.3 acre of Mixed Willow Riparian Woodland would be removed as part of construction of the Mason Avenue> extension, which would be a potentially significant impact, In addition, increases in disturbances to the sensitive on-site California Walnut Woodland vegetation community due to operation of the project could result in degradation of the quality of these areas, which could be considered a significant impact.

Impacts to the 456 protected trees associated with construction of the project site would be a significant impact prior to mitigation. If not properly cared for upon implementation of the project, the native oak trees that would remain on the project site would be negatively affected, impacts to trees protected by the City of Los Angeles tree ordinance associated with operation of the proposed project would be a significant impact prior to mitigation. However, to ensure impacts would remain less than significant, the Final EIR included mitigation measures to reduce these impacts to a less than significant level

(b) Mitigation Measures

MM-B10-2 To avoid impacts to nesting birds, the applicant shall retain a qualified biologist (with selection to be reviewed by the City of Los Angeles Planning Department) to conduct nest surveys within suitable nesting habitat within the project site prior to grading, construction, or site preparation activities. Specifically, within 30 days of initiation of ground disturbance activities associated with construction or grading, a qualified biologist shall conduct weekly surveys to determine if active nests of bird species protected by the Migratory Bird Treaty Act (MBTA) and/or the California Fish and Game Code are present in the construction zone or within 300 feet (500 for raptors) of the construction zone. Because many birds known to occur in the project area (including Coopers hawk and several species of hummingbirds) may nest during the late winter, breeding bird surveys shall be carried out both during the typical nesting/breeding bird season (mid-March through September) and in January through early March. The surveys shall continue on a weekly basis, with the last survey being conducted no more than three days prior to initiation of clearance/construction work. If ground disturbance activities are delayed, then additional pre-construction surveys will be conducted such that no more than three days will have elapsed between the last survey and the commencement of ground disturbance activities. Surveys shall include examination of trees, shrubs, and the ground within grassland for nesting birds, as several bird species known to the area are shrub or ground nesters, including mourning dove.

If active nests are found, clearing and construction activities within 300 feet of the nest (500 feet for raptors) shall be postponed or halted until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers and construction personnel shall be instructed on the sensitivity of nest areas.

The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts on these nests will occur. The results of the survey, and any avoidance measures taken, shall be submitted to the City of Los Angeles Planning Department within 30 days of completion of the pre-construction surveys and/or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

MM-B10-3 Prior to conducting pre-construction nesting bird surveys, the qualified biologist shall consult with the CDFW to identify possible relocation sites for captured individuals, and be in possession of a CDFW Scientific Collection Permit and CDFW Memorandum of Understanding prior to survey initiation. The biologist conducting the surveys shall examine on-site trees and other potential roosting habitat (as determined by the biologist) for evidence of roosting bats (western yellow bat and Yuma myotis), particularly during the breeding season of native bats (generally April 1 through August 31). Surveys should include examination of trees for roosting bats under bark, in trunks, and behind leaves, as feasible. Bats are known to use day roosts principally for extended rest periods and night roosts for eating and brief rest periods. Bats are generally active at night, exiting the roost at dusk to feed (Graham 1994); therefore, surveys should include review of woodland areas at dusk. If active roosts are found, construction shall be postponed within 300 feet of the location until the roost is vacated and *(if* present) juveniles have fledged, as determined by the biologist.

MM-B10-4 The applicant shall retain a qualified biologist (approved by the City of Los Angeles Planning Department) to conduct pre-construction surveys on the project site in the proposed development areas and 500 feet beyond the grading limits for the presence of those special-status wildlife species with the potential to occur in on-site habitats that will be directly impacted by project activities. The qualified biologist shall possess a CDFW Scientific Collection Permit and obtain CDFW Memorandum of Understanding prior to the implementation of pre-construction surveys. The implementation of these aforementioned mitigation measures would reduce impacts to special-status species to below a significant level. Surveys shall include an examination of the on-site pool and the perennial areas of Mormon and Browns Canyon streams for two-striped garter snake and southwestern pond turtle, and on-site scrub, woodland, and grassland plant communities for silvery legless lizard, coast homed lizard, coastal whiptail, San Bernardino ring-neck snake, San Diego black-tailed jackrabbit, and San Diego desert woodrat.

If one of the above special-status species is observed on the project site during clearance surveys, potential loss of individual animals shall be mitigated by (1) ensuring that construction activities do not enter the specific area in which the individual was observed until the individual has been observed vacating the area and moving into habitat that will not be directly impacted by project activities (appropriate for highly mobile species, such as San Diego black-tailed jackrabbit), or (2) through active trapping and relocation program, conducted by a qualified biologist and in coordination with the CDFW, that will move individuals to suitable on-site habitat that will not be directly impacted by project Implementation (appropriate for less mobile species, such as two-striped garter snake, coast homed lizard, or San Diego desert woodrat).

Silt fencing shall be placed at the limits of grading to prevent animals from moving onto the site following the pre-construction surveys. The bottom of the silt fence shall be back-filled to prevent animals from moving under the fence. During construction, the fence shall be monitored weekly and repairs shall be made immediately following inspection. Silt fencing shall be removed following ground disturbing activities (e.g., vegetation, clearing and grading).

MM-B10-5 Because riparian corridors are ecologically sensitive areas, the applicant shall install fencing around the on-site riparian areas associated with Browns and Mormon Canyon creeks, and post interpretive signs identifying such areas for residents. The fencing shall serve to discourage entrance of humans and domestic animals into riparian areas, in order to protect the sensitive plants, animals, habitat, and wildlife movement areas within riparian corridors. The interpretive signs shall include information regarding the high biological value of riparian corridors, including information about plant and wildlife species that are found in such habitat, wildlife movement through such corridors, and benefits to water quality provided by natural riparian habitat. Where existing trails serving as equestrian and hiking paths will remain in the riparian corridors as part of the proposed project, fencing and signage shall be placed on the outer limits of the trail edges, allowing continued recreational access. If a trail easement is provided to the permitting authority of the project, necessitating trail improvements, fencing, and signage shall accommodate the improvements. The homeowners' association (HOA), or an acceptable land manager/agency, as approved' by the City of Los Angeles Planning Department, shall be responsible for maintaining this program, including fencing and signs. This mitigation will also serve to keep off-road vehicles and recreational uses out of non-trail portions of Browns and Mormon Canyons, which will reduce indirect impacts to local

wildlife movement associated with operation of the proposed project.

MM-B10-6 To avoid direct impacts to the Bulrush-Cattail Wetland located approximately 125 feet to the west of the grading area associated with extension of Mason Avenue, the applicant shall retain a qualified biologist (approved by the City of Los Angeles Planning Department) to fence off protected areas associated with the wetland, and to periodically (for example, on a weekly basis) check in on the wetland to make sure no impacts have occurred. Upon completion of grading and paving activities associated with Mason Avenue extension, the biologist shall submit a report regarding measures taken to protect the wetland and results to the City of Los Angeles Planning Department

MM-B10-7 According to the Jurisdictional Delineation prepared for the subject site (see Hidden Creeks Estates Final EIR Update, attachment to Exhibit D), the project site and off-site impact areas contain 2.05 acres of USACE-protected wetlands or drainages, of which 0.53 acres would be impacted directly or indirectly by grading. To mitigate for this impact, the applicant shall either recreate the impacted USAGE "waters" on the project site or shall secure purchase and conservation (through direct placement of a conservation easement over lands, or purchase of lands in a program that has already entered a conservation easement) of suitable USAGE "waters." As feasible, mitigation for USAGE "waters" may be carried out in conjunction with mitigation for potential impacts to special-status, riparian wildlife species (MM-B10-1), mitigation for impacts to LARWQCB areas (MM-B10-7), and mitigation for impacts to CDFW 'waters" (MM-B10-8). The creation/purchase of USAGE "waters" shall be carried out in coordination with the USAGE during submittal of the Jurisdictional Delineation to the USAGE for review and certification, and on the basis of a minimum 2:1 ratio, or at a ratio determined to be appropriate by the USACE. Prior to the issuance of a grading permit, the resulting USACE certification shall be provided to the City of Los Angeles Planning Department. When the USAGE permit is obtained, mitigation measures recommended by the USACE as part of the permitting process shall be implemented.

MM-B10-8 Concurrent with the processing of the 404 permit, a RWQCB 401 Certification shall be obtained and mitigation measures recommended by the LARWQCB as part of the permitting process shall be implemented.

MM-B10-9 According to the Jurisdictional Delineation, 15.29 acres of state-protected waters and associated vegetation falling under the jurisdiction of the CDFW occur on the project

site or within Mason Avenue extension areas and up to 1.1 acres within the remedial grading areas, of which 3.4 acres of CDFW "waters' would be impacted by grading. To mitigate for this impact, the applicant shall either re-create the impacted CDFW "waters' on the project site or shall secure purchase and conservation (through direct placement of a conservation easement over lands, or purchase of lands in a program that has already entered a conservation easement) of suitable CDFW "waters." As feasible, mitigation for CDFW waters may be carried out in conjunction with mitigation for potential impacts to special-status, riparian wildlife species (MM-B10-1), mitigation for impacts to LARWQCB areas (MM-B10-7), and mitigation for impacts to USACE "waters" (MM-B10-6). The creation/purchase of CDFW "waters" shall be carried out in coordination with the CDFW during submittal of the Streambed Alteration Agreement (SAA) to the CDFW for approval, and on the basis of a minimum 2:1 ratio, or at a ratio determined to be appropriate by the CDFW. Prior to the issuance of a grading permit, the resulting CDFW SAA shall be provided to the City of Los Angeles Planning Department. When the SAA is obtained, mitigation measures recommended by the CDFW as part of the SAA shall be implemented.

MM-B10-10 Any permits obtained for impacts to jurisdictional waters and/or wetlands shall be maintained on the project site during all construction activities.

MM-B10-11 A public awareness program shall be developed to educate residents of the Hidden Creeks Estates project about impacts to biological resources resulting from increased human and domestic animal presence in the area. This program shall include supplying educational information to future residents of the project site regarding the importance of preventing unleashed domestic animals from entering ecologically sensitive areas, such as riparian habitat areas and sensitive plant communities (including on-site California Walnut Woodland and Mixed Willow Riparian Woodland), and of prohibiting off-leash domestic animals from disturbing native wildlife species. In addition, the public awareness program shall address the impact domestic cats have on local wildlife populations (especially birds and small mammals), to encourage pet owners to keep their cats indoors.

MM-B10-12 All dogs owned by future residents of the Hidden Creeks Estates project shall be contained within their property boundary, or shall be leashed while in designated open space areas. The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall add a prohibition to the covenants, conditions, and

restrictions (CCRs) for the community against unleashed dogs in open space areas.

MM-B10-13 To reduce indirect impacts to wildlife remaining in the project area upon implementation of the Hidden Creeks Estates project, waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas throughout the project site. The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall be responsible for maintaining these receptacles.

MM-B10-14 The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall supply educational information to future residents of the project site regarding the importance of not feeding wildlife, ensuring that trash containing food is not accessible to wildlife, and not leaving pet food outside.

MM-B10-15 Prior to the issuance of a grading permit, the project applicant shall develop a lighting plan that shall be subject to approval by the City of Los Angeles Planning Department. In the plan, all lighting shall be downcast luminaries with light patterns directed away from, and shielded so that light is not directed into adjacent open space areas. Mercury vapor and halide lighting shall not be used on the perimeter of the developed areas and in areas adjacent to undeveloped open space. Security lighting throughout the project shall be controlled by motion detectors, to limit light shine to necessary periods.

MM-B10-16 To mitigate for the indirect effect to biological resources on the project site resulting from the increased presence of non-native plant species on the site, the applicant shall remove existing non-native plant species from open space areas that will not be developed as part of project implementation, including on-site drainages. Non-native plants will be removed from within riparian corridors associated with Browns Canyon and Mormon Canyon drainages. In addition, non-native plant species will be removed from upland portions of the site that will remain undeveloped. Non-native plant species that should be included in the removal plan include, but are not limited to, Peruvian pepper tree *(Schinus mob),* Italian thistle *(Carduus pycnocephalus),* and yellow star-thistle *(Centaurea solstitialls).* Castor bean *(Ricinus cornmunis)* and arundo *(Anindo donax)* have not been observed on site, but if they are observed at any point during non-native plant removal efforts, individuals of these plant species shall also be removed. A certified biologist shall be hired to conduct/oversee

the removal work. Invasive plant removal shall take place upon completion of grading activities, and shall continual on an annual basis for three years after grading, at which time a report documenting invasive plant removal methods shall be submitted to the City of Los Angeles Planning Department.

Invasive plant removal shall be carried out such that practical, currently accepted invasive weed management techniques approved by an invasive weed specialist are used to remove those plant species that are within control of the Hidden Creeks Estates property owners. Removal of invasive plant species whose continued introduction to the site from a limitless supply of seed bank on adjacent lands outside the control of Hidden Creeks Estates property owners would not, for example, be considered feasible. For those invasive annual grass species for which removal is considered feasible, it is recommended that biological control be considered, as other methods of removal (such as hand pulling of invasive annual grasses) would not be considered practical, and others (such as use of fire for clearing large tracts of invasive grasses) would not be considered safe.

MM-B10-17 Prior to the issuance of a grading permit, the applicant shall prepare a landscape plan for all common areas of the site_ This plan shall be prepared by or approved by a qualified biologist and will be subject to review by the City of Los Angeles Planning Department. The plan shall include a plant palette composed of non-invasive species that are adapted to the conditions found on the project site, including the condition of a dry, low-rainfall climate. The landscaping plan will also include a list of invasive plant species prohibited from being planted in the common areas of the project site. In addition, the landscaping plan should include as an attachment a copy of the Tree Preservation Program from the preliminary tree report prepared by L. Newman Design Group, which is provided as an attachment to this document in Appendix IV.0 (in the Draft EIR). The landscaper should be made aware that landscape planting, irrigation, and/or placement of utilities should not occur within the dripline (outermost edge of a tree's foliage) of any protected tree. The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall be responsible for providing the landscape plan to landscapers hired to install landscaping in common areas within the Hidden Creeks Estates project site.

A minimum of 0.8 acres of common area shall be vegetated with native purple needlegrass in order to mitigate for the loss of 0.4 acres of native purple needlegrass on site. This 0.8 acre area shall be depicted on the landscape plan.

MM-B10-18 The HOA, or an acceptable land manager/agency, as approved by the City of Los Angeles Planning Department, shall supply future residents of the project site with a list of invasive plant species prohibited from being planted on the project site and with educational materials emphasizing the importance of planting noninvasive, drought-tolerant plants.

MM-B10-19 To mitigate for the removal of 0.3 acre of Mixed Willow Riparian Woodland during grading for Mason Avenue extension, the project applicant shall be responsible for hiring a qualified biologist to revegetate on-site areas with this vegetation type. If conditions are appropriate after construction of the Mason Avenue access road, on-site mitigation shall be carried out within Mormon Canyon drainage, near where existing Mixed Willow Riparian Woodland will be removed. If conditions are not appropriate within Mormon Canyon drainage where grading has occurred, revegetation shall take place in near-by downstream/upstream portions of Mormon Canyon drainage or Browns Canyon drainage. The mitigation shall be carried out on a minimum 2:1 basis (or as determined to be appropriate by CDFW), resulting in the creation of a minimum of 1.72 acres of this vegetation type. Revegetation shall be carried out through salvage of willow branches from the project site during/prior to grading. Salvaged willow branches shall be bundled and staked within Mormon Creek. In addition, native, riparian seed mix shall be applied to the re-vegetation area. Revegetation shall either take place just prior to the rainy season (October through April), or the revegetation area shall be watered for a minimum of one year (or as long as determined to be appropriate by the CDFW) to promote growth. The revegetation plan shall be prepared by a qualified biologist and approved by the CDFW prior to implementation. Because the Mixed Willow Riparian Woodland vegetation community occurs within areas determined to be likely jurisdictional waters of the CDFVV/USACE, revegetation of this plant community shall be considered suitable mitigation for removal/fill of 0.3 acre of jurisdictional waters. Mitigation for impacts to jurisdictional waters is discussed under mitigation measure MM-B10-4, above.

MM-B10-20 Prior to issuance of a grading permit, the applicant shall submit to the City of Los Angeles Board of Public Works a tree permit application, in accordance with City of Los Angeles Municipal Code, Section 46.00, Protected Tree Regulations. All conditions required by the tree permit shall be met prior to or concurrent with construction of the proposed project.

MM-B10-21 Prior to commencement of ground clearing activities, protected trees on the project site or within 100 feet of the grading boundary shall be fenced at their dripline. Fencing around protected trees shall remain intact throughout all phases of construction, and shall not be moved or removed without approval of the project biologist Construction activities, including grading, excavation, and storing of construction materials, shall not enter the fenced dripline of protected trees.

MM-B10-22 The dust accumulation onto the foliage of protected trees from construction activities shall be hosed off periodically during construction; a certified arborist shall be contacted to determine how often dust accumulation should be hosed off. Dust accumulation on protected tree foliage shall be hosed off under the supervision of a certified arborist.

MM-B10-23 Copies of the Hidden Creeks Estates Tree Report by L. Newman Design Group and the City approved grading plans/tree removal permit shall be maintained on the project site during all construction activities.

MM-B10-24 Prior to the issuance of a grading permit, the applicant shall prepare and submit a Native Woodland Mitigation Plan to the City of Los Angeles Urban Forestry Division for review and approval. As outlined in the tree report for the project site, 15-gallon trees shall be planted to replace the trees removed during construction activities, at a minimum of a 21 ratio. As such, the Tree Replacement Program should include a minimum of 690 15-gallon oak trees, 372 15-gallon black walnut trees, six 15-gallon western sycamores, and two 15-gallon valley oak trees. Additional trees affected by remedial grading will be replaced at the same ratios, totaling up to 104 coast live oak trees and 82 black walnut trees. The replacement trees shall be planted on the project site, and shall be incorporated into project design by a qualified restoration specialist. The Tree Replacement Program shall include the following planting specifications and guidelines, as recommended in the L Newman Design Group tree report:

- The newly planted trees shall be planted high, as much as 1 inch above the new adjacent grade, so as not to bury the root collar.

- Amending the backfill soil with wood shavings, etc., is not recommended when existing soil is high in natural organic matter with a sandy loam texture.

- If backfill amendments (such as polymers) and drainage systems are to be used in tree replacement plantings, consultation with a certified arborist is recommended

(based upon soil tests done for the project site to the satisfaction of the Urban Forestry Division).

- Replacement trees shall be properly maintained for a period of three years, and if trees die during that period, they shall be replaced by the project applicant.

- The irrigation system (dripline or comparable system) for replacement trees shall be compatible with the watering requirements oak trees indigenous to the project site.

- The irrigation system maintenance program should water replacement trees for the first two to three years to establish the trees. Thereafter, watering should be done only in the winter months during periods of severe drought.

MM-B10-25 The Tree Preservation Program shall include the following specifications and guidelines for care, as recommended in the L Newman Design Group tree report for the project site (except where otherwise noted):

- Any work within the driplines of protected trees that are to be preserved as part of project implementation shall be conducted by a certified arborist, This includes ail dead wood removal and/or pruning.

- Landscape planting, irrigation, and/or placement of utilities shall be prohibited within the dripline (outermost edge of a tree's foliage) of any protected tree.

- The application of chemical herbicides shall be prohibited within the dripline of any protected tree.

- Any brush clearance within the dripline of protected trees shall be carried out by handwork only.

- Natural leaf mulch within the dripline of any protected tree should remain in-place, unless removal is absolutely necessary.

- Severe stubbing to branches of protected trees should be avoided. Stubbed trees are not only unsightly, but they respond with vigorous watersprout growth that is susceptible to mildew. Large pruning wounds are also more subject to decay;

- All pruned roots of protected trees shall consist of clean-cut surfaces at a 90-degree angle and shall not be sealed unless approved by a certified arborist.

- Climbing gaffs shall not be used on any preserved protected trees by a tree climber unless to reach an injured climber.

- The nailing of items (including grade stakes) to any protected native tree on the project site shall be prohibited.

- If it becomes necessary to treat on-site protected trees for disease or pests, treatment shall be conducted by a licensed Pest Control Applicator. A certified arborist shall supervise the work and shall submit documentation of the work to the City of Los Angeles Urban Forestry Division for approval.

- If bees are encountered within on-site protected trees and they become a problem, they shall be handled by a professional beekeeper.

- As reference material, any arborist conducting maintenance on native oak trees on the Hidden Creeks project site shall refer to the Los Angeles County Fire Department Forestry Division Oak Trees Care and Maintenance guide (Los Angeles County 2005).

- Mature oak trees seldom need extensive pruning; however, weak and dead branches should be removed from oak trees every year or two. Occasionally, a mature oak tree may benefit from a light thinning (removal of 10 percent of the leaf area) of branches (cuts less than 2 inches in diameter) to reduce the weight of branches and to open foliage for deeper light penetration and reduce wind resistance. If pruning is necessary, oak trees should be pruned in the dry season (June and July is best) (California Oak Mortality Task Force 2004).

- On-site native oak trees should not be watered unless periods of extreme drought result in the need for supplemental irrigation, If necessary, supplemental irrigation shall occur in the winter or early spring, never during summer months. The irrigation shall consist of a deep watering, 1 to 2 feet, in the outer two-thirds of the root zone (California Oak Mortality Task Force 2004).

- Fertilizer is not recommended for native trees.

Protective Fencing

Protective fencing not less than 4 feet in height shall be placed at the limits of the protective zone of any individual protected tree or dense stand of protected trees within 200 feet of the grading limits, and shall be inspected by the forester or City-approved arborist prior to commencement of any activity on the subject property, and shall remain in place until construction is completed.

Grading Restrictions Near Protective Zones

Care must be taken to limit grade changes near the protective zone of a protected tree. Grade changes can lead to plant stress from oxygen deprivation or root fungus at the root collar of protected tree species. Minor grade changes further from the trunk are not as critical but can negatively affect the health of the tree if not carefully monitored by a City-approved arborist.

The grade shall not be lowered or raised around the trunks (i.e., within the protective zone) of any protected tree without the approval of the City of Los Angeles urban forester or a City-approved arborist. A City-approved arborist shall supervise all excavation or grading proposed within the protective zone of a tree.

Trenching, excavation, or clearance of vegetation within the protective zone of a protected tree shall be accomplished by the use of hand tools or small hand-held power tools. Any major roots encountered shall be conserved to the greatest extent possible and treated as recommended by the City-approved arborist.

Equipment damage to limbs, trunks, and roots of all remaining trees shall be avoided during project construction and development Even slight trunk injuries can result in susceptibility to long-term pathogenic maladies.

No utility, trenches shall be routed within the protective zone of a protected tree unless no feasible alternative locations are available, and shall be approved by the City forester.

Equipment Storage

No storage of equipment, supplies, vehicles, or debris shall be permitted within the protective zone of a protected tree.

No dumping of construction wastewater, paint, stucco, concrete, or any other clean-up waste shall occur within the protective zone of a protected tree.

No temporary structures shall be placed within the protective zone of any remaining protected trees.

Maintenance

Healthy trees, if not maintained, often grow beyond their ability to support themselves and fail at their naturally occurring weakest point. This is typically at a branch union at or near the main crotch of the tree. Weight-reduction pruning and/or cabling is important in any tree preservation program. Pruning of protected trees within residential neighborhoods is recommended every four to six years, based on a City-approved arborist's determination.

Pruning of replacement protected trees and preserved protected trees shall include the removal of dead wood, stubs, and medium pruning of branches 2 inches in diameter or less.

Pruning of replacement protected trees and preserved protected trees shall be in accordance with the guidelines published by the international Society of Arboriculture. In no case shall more than 20 percent of the tree canopy of any protected tree be removed. Cuts over 2 inches in diameter shall require a pruning permit from the City. After pruning, installation of support cables to prevent future main crotch failures may be necessary based on a City-approved arborist's determination.

A two-year maintenance period shall begin upon the start of planting the replacement trees. All replacement trees failing to survive within this period shall be replaced. A new two-year maintenance period shall start for each tree that failed to survive and required a replacement tree to be planted.

Irrigation Schedule

Each Los Angeles City protected tree has different watering requirements. For example, oak trees survive and thrive on annual rainfall alone and generally do not require supplemental irrigation except during periods of extreme drought. Additionally, care _should be taken to avoid placing any irrigation devices within the protected zone of an oak tree, since too much moisture near the base of an oak tree is thought to be the leading cause of oak root rot. Sycamores require a higher irrigation frequency, and can tolerate more moisture within their protective zone. All newly planted trees must be irrigated regularly until established, even oak trees.

Develop an irrigation schedule to determine irrigation duration and frequency for each replacement tree species. The irrigation schedule should be prepared by a qualified horticulturist or landscape installer.

Control of Diseases and Pests

Protected trees generally have an acceptable level of common insect pests. During the visual inspection of the trees assessed, no evidence of abnormal presence of fungi, disease or bacteria were observed on the trees that were surveyed.

A City approved arborist shall periodically (about every five to seven years) evaluate the effects of pathogens and insect pests, and the overall health

and structural integrity, of all preserved and replacement trees, to ensure longevity of remaining protected tree species.

Construction Monitoring

Damage to remaining trees must be avoided by workers and equipment during construction activities.

A qualified biologist or City-approved arborist shall monitor on-site construction and grading activities occurring hear protection zones and protected trees to ensure that damage to such trees does not occur.

Prior to initiation of construction activities, the qualified biologist or City-approved arborist shall schedule a field meeting to inform personnel involved in construction where all protective zones are located and the importance of avoiding encroachment within the protective zones.

MM-B10-26 The proposed fence to be located on the north side of the Mason Avenue extension, east of Mormon Creek shall be designed to allow wildlife movement at key points along the fence. A qualified biologist shall submit written approval of the fence design to the City prior to receiving grading permits.

(c) Finding

Implementation of the mitigation measures identified in the Final EIR would avoid or substantially lessen any potential significant environmental effects of the proposed project relating to sensitive species, habitat and riparian areas. These mitigation measures have been required in, or incorporated into the proposed project, or are within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Although the sensitive species, habitat and riparian area impacts of the proposed project could be potentially significant, the Final EIR included mitigation measures to ensure that these impacts would be less than significant.

(e) Reference

For a complete discussion of biological impacts, please see page 1-18 in Section 1.3, Biological Resources and page II-30 in Section II, Additions and Corrections of the Final EIR.

C. Cultural Resources

1. Archeological and Paleontological Resources

An archaeological survey of the project site found no archaeological resources within the project area. No archaeological resources were identified within the project site as a result of background studies, records searches, and an intensive Phase I surface survey of the project site. The archaeological resources study prepared for the proposed project concluded that development within the project site does not have a high potential to result in adverse impacts to archaeological resources.

(a) Significant Environmental Effects

While the archaeological survey of the project site did not identify any resources on the site, excavation of the project site has the potential to disturb unknown subsurface resources. However, to ensure these impacts would be less than significant, the Final EIR included mitigation measures to reduce any such impacts.

(b) Mitigation Measures Paleontological Resources

MM-CR-1 Retention of Paleontologist, Prior to the initiation of earth-moving activities associated with development of the project site, the services of a qualified paleontologic consulting firm approved by the City and the Natural History Museum of Los Angeles County Vertebrate Paleontology Section (LACMVP) shall be retained by the developer of the project site to implement the mitigation program.

MM-CR-2 Museum Storage Agreement. The paleontologist shall develop a formal agreement with a recognized museum repository, such as the Natural History Museum of LACMVP and History Museum of Los Angeles County Invertebrate Paleontology Section (LACMIP), regarding final disposition and permanent storage and maintenance of any fossil remains that might be recovered as a result of the mitigation program, the archiving of associated specimen data and corresponding geologic and geographic site data, and the level of treatment (preparation, identification, curation, cataloguing) of, the remains that would be required before the entire mitigation program fossil collection would be accepted by the repository for storage.

MM-CR-3 Preconstruction Coordination and Environmental Awareness Training. The paleontologist or another mitigation program staff member shall coordinate with appropriate construction contractor personnel to provide information regarding City (2007) requirements concerning the protection of paleontologic resources. Contractor personnel, particularly heavy-equipment operators, shall also be briefed on procedures to be followed in the event that fossil remains and a currently unrecorded fossil site are encountered by earth-moving activities, particularly when the monitor is not on site. The briefing shall be presented to new contractor personnel as necessary. Names and telephone numbers of the monitor and other appropriate mitigation program personnel shall be provided to appropriate contractor personnel.

MM-CR-4 Paleontologic Monitoring and Fossil/Sample Recovery. Earth-moving activities shall be monitored by the monitor only in those areas of the project site where these activities will disturb previously undisturbed strata. Monitoring shall be conducted on a full-time basis in areas underlain by the Pico and Saugus Formations and on a half-time basis in areas underlain by older alluvium. Monitoring shall be conducted on a spot-check basis in areas underlain by younger alluvium and landslide deposits to determine when earth-moving activities have encountered an underlying rock unit. If fossil remains are encountered by earth-moving activities in an area underlain by older or younger alluvium and following approval from the City, monitoring shall be increased to full time, at least in the immediate vicinity of the fossil site. On the other hand, if very few or no fossil remains are found once 50 percent of earth-moving activities have been completed in an area underlain by a particular rock unit, monitoring can be reduced to half time in the remainder of the area underlain by the Pico and Saugus Formations, and to quarter time in an area underlain by older alluvium following approval from the City.

Monitoring shall consist of visually inspecting debris piles and freshly exposed strata to allow for the discovery and recovery of larger fossil remains, and periodically dry test screening rock, sediment, and debris to allow for the discovery and recovery of smaller fossil remains. As soon as practicable, the monitor shall recover all larger vertebrate fossil remains, a representative sample of invertebrate or plant fossil specimens, or any fossiliferous rock or sediment sample that can be recovered easily. If recovery of a large or unusually productive fossil occurrence is warranted, earth-moving activities shall be diverted temporarily around the fossil site and a recovery crew shall be mobilized as necessary to remove the occurrence as quickly as possible. If the monitor is not on site when a fossil occurrence is uncovered by such activities, the activities shall be diverted temporarily around the fossil site and the monitor called to the site to evaluate and, if warranted, recover the occurrence. If the fossil site is determined too unproductive or the fossil remains not worthy of recovery by the monitor, no further action will be taken to preserve the fossil site or remains, and earth-moving activities shall be allowed to proceed through the site immediately. The location and proper geologic context of any fossil occurrence or rock or sediment sample shall be documented, as appropriate.

Any recovered rock or sediment sample shall be processed to allow for the recovery of smaller fossil remains that normally are too small to be observed by the monitor. No more than 6,000 pounds (18,000 pounds total) of rock or sediment from either the Pico or Saugus Formation or from the older alluvium shall be processed.

MM-CR-5 Final Laboratory Tasks. All fossil specimens recovered from the project site as a result of the mitigation program, including those recovered as the result of processing fossiliferous rock or sediment samples, will be treated (prepared, identified, curated, catalogued) in accordance with designated museum repository requirements. Rock or sediment samples will

be submitted to commercial laboratories for microfossil, pollen, radiometric dating, or other analysis, as appropriate.

MM-CR-6 Reporting. The monitor shall maintain daily monitoring logs that include the particular tasks accomplished, the earth-moving activity monitored, the location where monitoring was conducted, the rock unit(s) encountered, the fossil specimens recovered, and associated specimen data and corresponding geologic and geographic site data. A final technical report of results and findings shall be prepared by the paleontologist in accordance with any City requirements.

Archaeological Resources

MM-CR-7 In the event that archaeological resources are unearthed during project subsurface activities, all earth disturbing work within a 200-meter radius must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. Any artifacts uncovered shall be recorded and removed for storage at a location to be determined by the monitor. Construction on other parts of the project will be subject to Public Resources Code Section 21083.2(i). After the find has been appropriately mitigated, work in the area may resume,

MM-CR-8 If human remains are unearthed, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then contact the most likely descendant of the deceased Native American, who will then serve as consultant on how to proceed with the remains (Le., avoid, rebury).

(c) Finding

Implementation of the mitigation measures identified in the Final EIR would avoid or substantially lessen any potential significant environmental effects of the proposed project relating to archaeological and paleontological resource impacts. These mitigation measures have been required in, or incorporated into the project, or are within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Although the archaeological and paleontological resource impacts of the proposed project could be potentially significant, the Final EIR included mitigation measures to ensure that these impacts would be less than significant.

(e) Reference

For a complete discussion of archeological and paleontological impacts, please see page 1-36 in Section I.4, Cultural Resources of the Final EIR.

D. Geology and Soils

1. Project Impacts

(a) Significant Environmental Effects

The Modelo Formation, which is associated with large boulders, is mostly outside the limits of proposed grading. These boulders represent a rock fall hazard thereby resulting in a potentially significant impact, In addition, significant geologic hazard impacts could result from slope instability with implementation of the proposed project.

Given that the proposed project is located within art area of mapped landslides, implementation of the proposed project could result in potentially significant geologic hazards impacts. Additionally, the presence of thin clay beds within the Saugus Formation, which are highly expansive, could potentially result in significant geologic hazards impacts to the proposed development. To ensure these Impacts would remain less than significant, the Final EIR included mitigation measures to reduce any such impacts.

The highest groundwater levels were observed in the western portion of the site, near the identified spring, where groundwater had artesian conditions. As a result, project construction activities would potentially be affected negatively by the groundwater level on the project site.

Hydroconsolidation is the phenomena in which naturally occurring soils collapse or consolidate upon inundation with water. Based on consolidation testing performed during the last geotechnical investigation, the majority of the soils on the site are not subject to hydroconsolidation. However, unknown potential does exist given the number and steepness of slopes on the project site, and in the event that hydroconsolidation potential exists, potentially significant geologic hazard impacts could result.

All recent alluvium, landslide deposits, and unsuitable soils would be removed and recompacted during grading, thereby preventing impacts associated with seismic settlement. Additionally, during grading, all alluvium subject to liquefaction would be removed to firm bedrock or older alluvium (terrace deposits) and recompacted. These efforts would assist in

reducing the potential for liquefaction hazards to a less than significant impact.

The colluvium, alluvium, and landslide debris may have shrinkage of up to 15 to 20 percent when the material is compacted in accordance with the mitigation measures recommended for this project. This shrinkage could result in a potentially significant impact. These efforts would assist in reducing the potential for shrinkage impacts to less than significant.

Due to the number of slopes on the project site and the steepness of these slopes, slope stability poses a potentially significant geologic hazard impact to the proposed project.

Due to medium expansion soils present on site, the soils have the potential to result in significant geologic hazard impacts.

Without the removal of surficial soils, the proposed project would result In significant impacts. Standard construction practice is to conduct laboratory tests to determine sulfate content at the completion of grading and prior to construction, when soils below the building areas are exposed, and appropriate concrete designs will be determined at that time.

During project construction, potentially significant impacts associated with sedimentation and erosion could result. Due to permanent changes in topography and new graded slopes on the project site within close proximity to the drainage channels along Browns Canyon Wash and Mormon Canyon Creek, project implementation has the potential to result in new significant impacts associated with sedimentation and erosion into drainage channels.

However, to ensure these impacts would be less than significant, the Final EIR included the following mitigation measures to reduce potential geologic and soils impacts to a less than significant level.

(b) Mitigation Measures

MM-GEO-1 All mitigation measures from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007, for site preparation, foundation design, slabs-on-grade, and drainage shall be incorporated into final design and construction. All such work and design shall be in conformance with local governmental regulations or the recommendations contained in the Geotechnical Engineering Study, whichever is more restrictive.

MM-GEO-2 All structures shall be designed in accordance with the CBC, LABC and the SEAOC guidelines to ensure safety in the event of an earthquake.

MM-GEO-3 Prior to start of soil-disturbing activities at the site, a Notice of Intent (NOI) and SWPPP shall be prepared in accordance with, and in order to partially fulfill, the California State Water Resources Control Board Order No. 99-08-DWQ, NPDES General Permit No. CAS000002 (General Construction Permit) and Chapter 6 Article 4.4, Stormwater and Urban Runoff Pollution Control from the Los Angeles Municipal Code. The SWPPP shall meet the applicable provisions of Sections 301 and 402 of the CWA and Chapter 6 Article 4.4, Stormwater and Urban Runoff Pollution Control from the Los Angeles Municipal Code, by requiring controls of pollutant discharges that utilize best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce pollutants.

MM-GEO-4 The project Applicant shall implement dust control measures consistent with SCAQMD Rule 403 – Fugitive Dust, during the construction phases of new project development. The following actions are currently recommended to implement Rule 403 and have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:

Apply water and/or approved nontoxic chemical soil stabilizers according to manufacturer's specification to all inactive construction areas (previously graded areas that have been inactive for 10 or more days);

Replace ground cover in disturbed areas as quickly as possible;

Enclose, cover, water twice daily or apply approved chemical soil binders to exposed piles with 5 percent or greater silt content;

Water active grading sites at least twice daily during construction activities;

Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period;

All trucks hauling dirt, sand, soil or other loose materials are to be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer), in accordance with Section 23114 of the California Vehicle Code;

Sweep streets at the end of the day if visible soil material is carried over to adjacent roads;

Install wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip; and

Post and enforce traffic speed limits of 15 miles per hour or less on all unpaved roads.

Removals

MM-GEO-5 Based on the results of the subsurface exploration, laboratory testing, and engineering analyses, removals of colluvium, alluvium and recent landslide material will be required in areas of proposed grading. Removals shall extend into firm terrace deposits or bedrock of the Saugus Formation. Removals at the toe of fill slopes shall extend laterally beyond the toe at a distance equal to the depth of removal. In the deeper removal areas, removals may extend 100 feet or more outside the toe of proposed fill slopes, including the temporary cut necessary to make the removals.

Cut Slopes

MM-GEO-6 All cut slopes shall be planned at a gradient of 2:1 or less. Bedrock materials shall perform well at this gradient where geologic structure is favorable. Cut slopes in the terrace deposits shall not be affected by rock structure, as this material is rather massive, and bedding is only represented by variations of sand to gravel-sized material. Stabilization of cut slopes underlain by terrace deposits may be required during grading if loose or cohesionless soil is exposed.

During grading, detailed mapping will be performed on all cut slopes. If conditions differ from those anticipated, or if weak bedding planes are exposed, additional recommendations will be provided. Adequate area exists on the site to stabilize or buttress any slope with adverse geology. Details for stabilization and buttress fills are presented on the Typical Buttress Section Design figure (Figure 2 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles*, California, April 12, 2007) and Typical Stabilization Fill Design (Figure 3 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007).

Fill Slopes

MM-GEO-7 Fill slopes shall be constructed at slope ratios of 2:1 (horizontal: vertical) or flatter between benches. To maintain safety factors for surficial stability, intermediate drainage terraces are required for all fill slopes steeper than 5:1 with slope height greater than 30 feet. Fill slopes shall be built in accordance with recommendations included in the GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study*, *Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007. Fill over cut slopes shall be constructed in accordance with the Typical Fill Over Cut Slope Design detail (Figure 4 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007) and fill over natural slopes shall be in accordance with the Typical Fill Over Natural Slope Design detail (Figure 5 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study,*

Hidden Creeks, Tentative Tract 68724, *Chatsworth, City of Los Angeles, California*, April 12, 2007).

Fill slopes to the maximum height proposed are considered to be stable based on the shear strengths for fill material and the 2:1 gradients proposed. However, selective grading will be required for fill slopes higher than 92 feet based on the gross stability analysis and the slope stability analyses for Geologic Cross-Section 28-28.' For fill slopes higher than 92 feet, selective grading will be required. Materials with a minimum cohesion of 250 pounds per cubic foot and an angle of friction of 33 degrees shall be used. Additional remolded shear testing may be required to verify proposed fill material meets the minimum criteria.

Natural Slopes

MM-GEO-8 Based on the stability analyses presented in the GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007 and in the referenced reports, the natural slopes remaining above areas of proposed development are considered grossly stable. A slope stability analyses was performed on Cross-Section 29-29' (from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007), and indicates a factor of safety above minimum Code values for gross stability.

Steeper natural slope located at the southwestern and northern portions of the tract may be subject to surficial instability, even though the colluvium covering the slopes is relatively thin. Debris impact walls shall be required at the rear of Lots 83 to 94. See Debris Device Control Methods detail (Figure 6 from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007.). Debris walls shall be a minimum of 5 feet high. The actual location of the wall shall be determined during the 40-scale grading plan review stage and will be based on the thickness of colluvium and the location of proposed structures. Debris impact walls shall be designed to support an equivalent fluid pressure on 125 pcf. Additional debris walls may be added during grading at the discretion of the project geologist.

Landslide Stabilization/Removal

MM-GEO-9 A landslide summary is provided below on the type of mitigation required.

All landslide removals shall be recompacted in accordance with GeoSoils Consultants, Inc.'s, grading guidelines.

Older landslide (Qols). The landslide shall be removed and recompacted.

1. Older landslide (Qols). The landslide shall be removed and re-compacted.

2 and 2A. These landslides shall be removed entirely.

3 & 4. These two surficial landslides shall be removed entirely.

5. The tract boundary crosses this landslide. The upper portion of this landslide will be removed as a part of the proposed shear key for the Qols(1). The removals will be made at a 1.5:1 temporary cut gradient along the tract boundary to competent material.

6. Most of this landslide is outside the toe of the proposed 2:1 slope. The required removals will be done in accordance with Geologic Cross-Section 27-27'. Water seepages were observed in this area and groundwater may be a problem during excavation. The temporary cut shall be excavated at a gradient of 1.5:1.

7. The unsuitable materials as observed by an Engineering Geologist shall be removed. This landslide rests upon the older landslide (Qols (1)) that will be supported by shear keys.

8. This landslide crosses the tract boundary. The upper portion shall be removed as a temporary cut at a 1.5:1 gradient from the tract boundary.

9. This landslide shall follow the same requirements as Qls(7).

10. & 11. These two landslides shall be removed entirely to expose competent material.

12. The toe of this landslide is outside of the proposed 2:1 fill slope. The removals shall be done in accordance with Geologic Cross-Section 1-1'. The entire landslide shall be removed from the 1.5:1 temporary cut.

13 - 15. These three landslides shall be removed entirely to competent bedrock.

16. This landslide shall be removed entirely to the tract boundary with a 1.5:1 temporary cut along the tract boundary. Boring B-13 shows this landslide to be 74 feet below existing grade and may be deeper along the tract boundary.

17. This landslide is a failure of portion of Qls (16). This landslide shall be removed entirely with a 1.5:1 temporary cut along the tract boundary.

18, 18A & 19. All three of these landslides appear to be stacked landslides where sliding occurred on previous landslides. These landslides shall be removed entirely.

20. Most of this landslide is north of the tract boundary. Grading has been permitted to grade offsite along the tract boundary, as a number of tops of cut slopes are north of the tract boundary. As illustrated on Geologic Cross-Section 30-30', removals shall be made at a 1:1 projection northward from tops of cut slopes or the tract boundary with a 1.5:1 temporary cut.

21. This landslide is along the west side of Mormon Canyon. Portions of this landslide may not be able to be removed as it falls within California Department of Fish and Game (CDFG) jurisdiction. A 1.5:1 temporary cut shall be performed along the tract boundary or along boundary as agreed by CDFG. The most ideal recommendations would be to restore the canyon upon completion of removals and recompaction.

22. The removals at this landslide shall be done using the same requirements given for Qls(20).

23. This landslide appears to be a secondary failure of Qls(26). The landslide shall be removed entirely to provide support for the proposed access road to the subject tract. The lower portion of the slide may not be able to be removed due to CDFG. A 1.5:1 temporary cut shall be made along the designated CDFG line or removal and restoration of the canyon.

24 & 25. These two landslides affect the stability of the proposed cut slope for the proposed access road to the subject tract. These landslides shall be removed with a shear key of a minimum of 260 feet wide with a temporary toe cut through Qls (24). The upper portion of Qls(24) and the entire Qls(25) shall be removed to competent material. The Civil Engineer shall configure a 2:1 fill slope for the final grading plan prior to site development.

26. This landslide shall be removed entirely and may have the same removal restrictions as Qls(23).

27 & 28. Both of these landslides shall be removed entirely.

For all of the landslides where removals encroach into natural ungraded areas, the Civil Engineer shall design fill slopes to best fit in those areas. Fill slopes shall not exceed a 2:1 gradient.

Subdrains

MM-GEO-10 Subdrain systems shall be provided in all canyon bottoms, stabilization fills, and shear keys prior to fill placement, (see Figure 7 from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City

of Los Angeles, California, April 12, 2007), Canyon Subdrain Design and Construction Methods).

Filter material shall be Class 2 permeable filter, or No. 2 and No. 3 concrete aggregate gradations per standard specifications for Public Works Construction, or approved equivalent, inspected and tested to verify its suitability. The filter shall be clean with a wide range of sizes.

Subdrain pipe shall consist of Schedule 40 or equivalent and shall be a minimum of 6 inches in diameter for lengths up to 500 feet. For lengths over 500, 8-inch diameter pipe shall be used and for lengths over 1,000 feet, and two, 8-inch pipes shall be used.

During grading, the Engineering Geologist shall evaluate the necessity of placing additional subdrains. The Engineering Geologist and Geotechnical Engineer shall inspect all subdrain systems prior to cover with compacted fill.

Lot Fill Caps

MM-GEO-11 All cut and transition lots on the site shall be over-excavated a minimum of 5 feet and provided with a compacted fill blanket. The project surveyors shall verify the fill cap. The purpose of the cap is to provide a uniform bearing material for foundation support and to mitigate potential differential expansion. Deeper fill caps may be required if higher expansive materials are exposed. In addition, deeper fill caps may be required to mitigate large differential fill thicknesses across lots. The final fill cap thicknesses shall be determined during the 40-scale review stage and confirmed grading.

Rock Hardness

MM-GEO-12 The results of the exploratory borings and test pits indicate that the bedrock material is rippable with heavy duty grading equipment. Deeper cuts within the bedrock material may encounter hard bedrock that may be difficult to rip; however, blasting is not anticipated to be necessary. The grading contractor shall perform additional studies on the deeper cut areas to verify rippability, as hard rock layer may have been missed during GeoSoils, Consultants, Inc.'s explorations. GeoSoils Consultants, Inc. is not responsible for variations in rock hardness during grading.

Hydroconsolidation

MM-GEO-13 All soil subject to excessive consolidation shall be removed and recompacted.

Setback Requirements

MM-GEO-14 Setback requirements, as established by the 2012 International Building Code, Section 1806.4, require that structures constructed near the

top of descending slopes or the toe of ascending slopes steeper than 3H:1V (Horizontal:Vertical), meet structural setbacks. The setback for a building or structure foundation shall be located a distance of one third (1/3) of the vertical height of the slope, with a minimum of 5 feet and a maximum of 40 feet, measured horizontally from the slope surface to the lower edge of the footing. See Required Slope Setback Design diagram (Figure 8 from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007). Final structure locations shall be reviewed by GeoSoils Consultants, Inc., at the 40-scale review stage.

Grading

MM-GEO-15 The grading shall involve the removal and recompaction of colluvium, alluvium and landslide material, in addition to the mass-excavation. Site grading shall create cut and fill slopes to a maximum height on the order of 310 and 150 feet, respectively.

Earthwork Grading

General

MM-GEO-16 Monitoring: All earthwork (i.e., clearing, site preparation, fill placement, etc.) shall be conducted with engineering control under observation and testing by the Geotechnical Engineer and in accordance with mitigation measures MM-GEO-40 through MM-GEO-43 related to grading.

MM-GEO-17 Job Site Safety: At all times, safety shall have precedence over production work. If an unsafe job condition is observed, it shall be brought to the attention of the grading contractor or the developer's representative. Once this condition is noted, it shall be corrected as soon as possible, or work related to the unsafe condition shall be terminated.

The contractor for the project shall realize that services provided by GeoSoils Consultants, Inc. do not include supervision or direction of the actual work performed by the contractor, his employees, or agents. GeoSoils Consultants, Inc. shall use accepted geotechnical engineering and testing procedures; however, GeoSoils Consultants, Inc. testing and observations shall not relieve the contractor of his primary responsibility to produce a completed project conforming to the project plans and specifications. Furthermore, GeoSoils Consultants, Inc. shall not be responsible for job or site safety on this project, as this is the responsibility of the contractor.

Site Preparation

MM-GEO-18 Existing Structure Location: The General Contractor shall locate all surface and subsurface structures on the site or on the approved grading plan prior to preparing the ground surface.

MM-GEO-19 Existing Structure Removal: Any existing underground structures (e.g., septic tanks, wells, pipelines, foundations, utilities, etc.) that

have not been located prior to grading, shall be removed or treated in a manner required by the Geotechnical Engineer.

MM-GEO-20 Clearing and Stripping: The construction areas shall be cleared and stripped of all vegetation, trees, bushes, sod, topsoil, artificial fill, debris, asphalt, concrete and other deleterious material prior to fill placement.

MM-GEO-21 Subgrade Preparation: The subgrade for foundations, pavement areas, overexcavations, and for those areas receiving any additional fill shall be prepared by scarifying the upper 12 inches and moisture conditioning, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum. The scarified areas shall be compacted to at least 90 percent of the maximum laboratory density, as determined by ASTM D-1557-12 compaction method. All areas to receive fill shall be observed by the Geotechnical Engineer prior to fill placement.

MM-GEO-22 Subgrade Inspection: Prior to placing fill, the ground surface to receive fill shall be observed, tested, and approved by the Geotechnical Engineer.

Fill Placement

MM-GEO-23 Laboratory Testing: Representative samples of materials to be utilized as compacted fill shall be analyzed in a laboratory to determine their physical properties. If any material other than that previously tested is encountered during grading, the appropriate analysis of this material shall be conducted.

MM-GEO-24 On-Site Fill Material: The on-site soils are adequate for re-use in controlled fills provided the soils do not contain any organic matter, debris, or any individual particles greater than 6 inches in diameter.

MM-GEO-25 Import Fill Material: All imported fill shall not contain any organic matter, debris, or any individual particles greater than 6 inches in diameter. The imported fill shall consist of a granular material with a non-expansive or a low expansive potential (plasticity index less than 15 percent). All imported fill materials shall be approved by the Geotechnical Engineer prior to use in controlled areas.

MM-GEO-26 Rock Fragments: Rock fragments less than 6 inches in diameter may be utilized in the fill, provided they are not placed in concentrated pockets, surrounded with fine grained material, and the distribution of the rocks is supervised by the Geotechnical Engineer. Rocks greater than 6 inches in diameter shall be taken off site, placed in fill areas designated as suitable for rock disposal, or placed in accordance with the requirements of the Geotechnical Engineer.

MM-GEO-27 Subgrade Verification and Compaction Testing: Regardless of material or location, all fill material shall be placed over properly compacted subgrades in accordance with the Site Preparation section of this report. The

condition of all subgrades shall be verified by the Geotechnical Engineer before fill placement or earthwork grading begins. Earthwork monitoring and field density testing shall be performed during grading to provide a basis for opinions concerning the degree of soil compaction attained.

MM-GEO-28 Fill Placement: Approved on-site or imported fill material shall be evenly placed, watered, processed, and compacted in controlled horizontal layers not exceeding 8 inches in loose thickness, and each layer shall be thoroughly compacted with approved equipment. All fill material shall be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum moisture content. The fill shall be placed and compacted in horizontal layers, unless otherwise required by the Geotechnical Engineer.

MM-GEO-29 Compaction Criteria - Shallow Fills: For fills less than 40 feet in vertical thickness, each layer shall be compacted to at least 90 percent of the maximum laboratory density for material used as determined by ASTM D-1557-12. The field density shall be determined by the ASTM D-1556-07 method or equivalent. Where moisture content of the fill or density testing yields compaction results less than 90 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the fill material is in accordance with the requirements of the Geotechnical Engineer.

MM-GEO-30 Compaction Criteria - Deep Fills: For all fills greater than 40 feet in vertical thickness, the portion of the fill below a depth of 40 feet shall be placed at a minimum relative compaction of at least 95 percent. If compaction to a lesser percentage is authorized by the controlling governmental agency because of a specific land use or expansive geotechnical conditions, the area to receive fill compacted to less than 90 percent shall either be delineated on the grading plan or appropriate reference made to the area in the geotechnical report. Where moisture content of the fill or density testing yields compaction results less than 95 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the fill material is in accordance with the requirements of the Geotechnical Engineer.

MM-GEO-31 Fill Material - Moisture Content: All fill material placed must be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent. If excessive moisture in the fill results in failing results or an unacceptable “pumping” condition, then the fill shall be allowed to dry until the moisture content is within the necessary range to meet the required compaction requirements or reworked until acceptable conditions are obtained.

MM-GEO-32 Keying and Benching: All fills shall be keyed and benched through all topsoil, slopewash, alluvium or creep material, into sound bedrock or firm material where the slope receiving fill is steeper than 5:1 (horizontal:vertical) or as determined by Geotechnical Engineer. The standard acceptable bench height is 4 feet into suitable material. The key for

side hill fills shall be a minimum of 15 feet within bedrock or firm materials, with a minimum toe embankment of 2 feet into bedrock, unless otherwise specified by the Geotechnical Engineer. The required design is shown on the Typical Fill Over Natural Slope Design plan (Figure 5 from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007).

MM-GEO-33 Drainage Devices: Drainage terraces and subdrain devices shall be constructed in compliance with the ordinances of the controlling governmental agency, or with the requirements of the Geotechnical Engineer and Engineering Geologist.

MM-GEO-34 Slope Face - Compaction Criteria: The Contractor shall be required to obtain a minimum relative compaction of 90 percent out to the finish slope face of fill slopes, buttresses and stabilization fills. This may be achieved by either overbuilding the slope a minimum of 5 feet, or cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure which produces the required compaction. If the method of achieving the required slope compaction selected by the Contractor fails to produce the necessary results, the Contractor shall rework or rebuild such slopes until the required degree of compaction is obtained, at no additional cost to the Owner or Geotechnical Engineer. Slope testing shall include testing the outer 6 inches to 3 feet of the slopeface during and after placement of the fill. In addition, during grading, density tests shall be taken periodically on the flat surface of the fill 3 to 5 feet horizontally from the face of the slope.

MM-GEO-35 Cut-Fill Transition: Where a cut-fill transition is present beneath planned structures, the cut area shall be over-excavated 3 feet below the bottom of proposed footings and the excavated material shall be replaced as compacted fill to reduce the transition condition. These guidelines shall also be followed in areas where lots are underlain by soils or rock with differential expansion potential and also for lots located above descending buttress and stabilization fills. In addition, where the sloped natural contact between the bedrock and the fill is steep, the upper portion of the natural slope may need to be laid back to further soften transition condition, or the fill cap thickness increased.

MM-GEO-36 Slope Face – Contractor's Responsibility: The Contractor shall prepare a written detailed description of the method or methods he would employ to obtain the required slope compaction. Such documents shall be submitted to the Geotechnical Engineer for review and comments prior to the start of grading.

MM-GEO-37 Slope Face – Vegetation: All fill slopes shall be planted or protected from erosion by methods specified in the geotechnical report, or required by the controlling governmental agency.

Grading Control

MM-GEO-38 Grading Inspection: Earthwork monitoring and field density testing shall be performed by the Geotechnical Engineer during grading to provide a basis for opinions concerning the degree of soil compaction attained. The Contractor shall receive a copy of the Geotechnical Engineer's Daily Field Engineering Report which will indicate the results of field density tests for that day. Where failing tests occur or other field problems arise, the Contractor shall be notified of such conditions by written communication from the Geotechnical Engineer in the form of a conference memorandum, to avoid any misunderstanding arising from oral communication.

MM-GEO-39 Subgrade Inspection: All processed ground to receive fill and over-excavations shall be inspected and approved by the Geotechnical Engineer prior to placing any fill. The Contractor shall be responsible for notifying the Geotechnical Engineer when such areas are ready for inspection. Inspection of the subgrade may also be required by the controlling governmental agency within the respective jurisdictions.

MM-GEO-40 Subgrade Testing: Density tests shall also be made on the prepared subgrade to receive fill, as required by the Geotechnical Engineer.

MM-GEO-41 Density Testing Intervals: In general, density tests shall be conducted at minimum intervals of 2 feet of fill height or every 500 cubic yards. Due to the variability that can occur in fill placement and different fill material characteristics, a higher number of density tests may be warranted to verify that the required compaction is being achieved.

Cut Slopes

MM-GEO-42 Observation: The Engineering Geologist shall observe all cut slopes. Additional requirements may be provided at the 40-scale grading plan review stage.

MM-GEO-43 Change of Conditions: If any conditions not anticipated in the preliminary report such as perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints or faults planes, or areas of unstable material are encountered during grading, these conditions shall be analyzed by the Engineering Geologist and Geotechnical Engineer, and requirements shall be made to treat these problems.

MM-GEO-44 Protection: Cut slopes that face in the same direction as the prevailing drainage shall be protected from slopewash by a non-erosive interceptor swale placed at the top of the slope.

MM-GEO-45 Criteria: Unless otherwise specified in the geotechnical and geological report, no cut slopes shall be excavated higher or steeper than that allowed by the ordinances of controlling governmental agencies.

MM-GEO-46 Drainage Devices: Drainage terraces shall be constructed in compliance with the ordinances of controlling governmental agencies, or with the requirements of the Geotechnical Engineer or Engineering Geologist.

Utility Trenching and Backfill

MM-GEO-47 Utility Trenching: Open excavations and excavations that are shored shall conform to all applicable Federal, State and local regulations.

MM-GEO-48 Backfill Placement: Approved on-site or imported fill material shall be evenly placed, watered, processed, and compacted in controlled horizontal layers not exceeding 8 inches in loose thickness, and each layer shall be thoroughly compacted with approved equipment. All fill material shall be moisture conditioned, as required to obtain at least optimum moisture, but not greater than 120 percent of optimum moisture content. The fill shall be placed and compacted on a horizontal plane, unless otherwise required by the Geotechnical Engineer.

MM-GEO-49 Backfill Compaction Criteria: Each layer of utility trench backfill shall be compacted to at least 90 percent of the maximum laboratory density determined by ASTM D- 1557-12. The field density shall be determined by the ASTM D-1556-07 method or equivalent. Where moisture content of the fill or density testing yields compaction results less than 90 percent, additional compaction effort and/or moisture conditioning, as necessary, shall be performed, until the compaction criteria is reached.

MM-GEO-50 Exterior Trenches Adjacent to Footings: Exterior trenches, paralleling a footing and extending below a 1H: 1V plane projected from the outside bottom edge of the footing shall be compacted to 90 percent of the laboratory standard. Sand backfill, unless it is similar to the in-place fill, shall not be allowed in these trench backfill areas. Density testing, along with probing, shall be accomplished to verify the desired results.

MM-GEO-51 Pipe Bedding: A minimum of 6 inches of bedding material shall be placed in the bottom of the utility trench. All bedding materials shall extend at least 4 inches above the bottom of utilities which require protection during subsequent trench backfilling. All trenches shall be wide enough to allow for compaction around the haunches of the pipe or materials, such as pea gravel, or controlled density fill (CDF) shall be used below the spring line of the pipes to eliminate the need for mechanical compaction in this portion of the trenches.

MM-GEO-52 Groundwater Migration: Backfilled utility trenches may act as French drains to some extent, and considerable groundwater flow along utility bedding and backfill shall be expected. Wherever buried utilities, or structures which they may intersect, could be adversely affected by such drainage, provisions shall be made to collect groundwater migrating along the trench lines. These situations include where buried utilities enter buildings, particularly where they enter below grade mechanical rooms, and where buried utilities enter junction boxes or switching stations that are intended to

remain dry. Mitigation measures include, but are not limited to, placement of perforated drain pipes below and continuous with bedding materials, and placement of seepage barriers such as lean mix concrete or controlled density fill (CDF).

Construction Considerations

MM-GEO-53 Erosion Control: Erosion control measures, when necessary, shall be provided by the Contractor during grading and prior to the completion and construction of permanent drainage controls.

MM-GEO-54 Compaction Equipment: It is the Contractor's responsibility to have suitable and sufficient compaction equipment on the project site to handle the amount of fill being placed and the type of fill material to be compacted. If necessary, excavation equipment shall be shut down to permit completion of compaction in accordance with the requirements contained in the GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007). Sufficient watering devices/equipment shall also be provided by the Contractor to achieve optimum moisture content in the fill material.

MM-GEO-55 Final Grading Considerations: Care shall be taken by the Contractor during final grading to preserve any berms, drainage terraces, interceptor swales, or other devices of a permanent nature on or adjacent to the property.

MM-GEO-56 Surficial Soils and Expansion Considerations: Due to the variability of surficial soil throughout the site and the extensive grading that will be performed, the final foundation design for the proposed structure shall be based on expansion index tests performed at the completion of grading. Surficial soil samples obtained for expansion index testing shall be obtained from various locations within the actual building pad.

MM-GEO-57 Sulfate Content of Surficial Site Soils: The concrete design shall be determined by a structural engineer based on sulfate tests performed at the completion of grading and at a minimum, Type II or Type V cement shall be used in construction.

Foundation Design Requirements

MM-GEO-58 In order to minimize the potential effects of seismic activity, expansive soils, and/or hydroconsolidation, either a post-tensioned slab foundation and/or mat foundation system shall be utilized for the proposed structures. Conventional foundation system consisting of spread footings and slab-on-grade floors are also provided as an alternative.

Post-Tension Slab Foundation

MM-GEO-59 Post-tensioned slabs shall be designed in accordance with the recommendations of either the California Foundation Slab Method or Post-

Tensioning Institute. The slabs shall be designed for at least 2 inches of surficial differential movement (i.e., at least 2 inches in a 30-foot span) for low expansion index (EI) soil, 2.5 inches for medium EI soil, and at least 3 inches of surficial differential movement for high EI soil. Based on review of laboratory data for the on-site materials, the average soil modulus of subgrade reaction K, to be used for design is 100 pounds per cubic inch. A surface bearing value of 1,000 pounds per square foot may be used for design.

California Foundation Slab Method

MM-GEO-60 Slab Sectioning: This method recommends that slabs be designed for a free span of 15 feet regardless of the expansion index (EI) of the soil.

MM-GEO-61 Subgrade Preparation: Post-tension slabs often develop a “dishing” or "arching" characteristic due to the fluctuation of soil moisture content underlying the perimeter and center of the slab. All areas to receive concrete shall be presaturated to a depth of 18 inches, such that the soil within this zone is approximately at optimum moisture to not more than 4 percent above optimum moisture content. The Geotechnical Engineer shall verify all subgrades that are pre-soaked within 24 hours of concrete placement.

MM-GEO-62 Cut-Off Wall: A continuous perimeter curtain wall shall extend to a depth of at least 12 inches below exterior grade for low EI soil, 18 inches for medium EI soil and 24 inches for high EI soil to preserve existing moisture conditions below the slab. The cut-off walls may be integrated into the slab design or independent of the slab and shall be a minimum of 6 inches wide.

MM-GEO-63 Moisture Barrier: Concrete slabs shall be underlain with a minimum 6 mil polyvinyl chloride membrane vapor barrier with a minimum overlap of 12 inches in all directions. This membrane shall be sandwiched between two, 2-inch layers of sand.

Post-Tensioning Institute Method

MM-GEO-64 Slab Stiffness: Post-tensioned slabs shall have sufficient stiffness to resist differential movement of the corner, edge, or center of slab due to non-uniform swell and shrinkage of subgrade soils and fluctuation of subgrade soil moisture content. Based on the specifications of the Post-Tensioning Institute, the potential for differential movement can be evaluated. **Table IV.E-1, Post Tensioning Institute Method**, presents suggested minimum coefficients to be used in the Post-Tensioning Institute design method.

Table IV.E-1

Post Tensioning Institute Method – Suggested Coefficients

Thornthwaite Moisture Index	-20 in/yr
Correction Factor for Irrigation	20 in/yr
Depth to Constant Soil Suction	9 (feet)
Constant Soil Suction	3.8 (pf)

MM-GEO-65 Coefficient Applicability: The coefficients are considered minimums and may not be adequate to represent worst case conditions such as adverse drainage and/or improper landscaping and maintenance. The above parameters are applicable provided structures have gutters and downspouts and positive drainage is maintained away from structures.

MM-GEO-66 Design Parameters: Based on the above parameters, the values presented in **Table IV.E-2, Post Tensioning Institute Method – Design Parameters**, were obtained from Post Tensioning Institute Design Manual. The values may not account for possible differential settlement of the slab due to other factors. If a stiffer slab is desired, higher values of Y_m may be warranted.

Table IV.E-2

Post Tensioning Institute Method – Design Parameters

Expansion Index of Soil Subgrade	**Low Expansion Index**	**Medium Expansion Index**	**High Expansion Index**
e_m center lift	9.0 feet	8.5 feet	6.5 feet
e_m edge lift	4.7 feet	4.5 feet	3.5 feet
Y_m center lift	0.34 inch	0.56 inch	0.58 inch
Y_m edge lift	0.35 inch	0.77 inch	1.23 inch
Differential Settlement	2.0 inch	2.5 inch	3.0 inch

MM-GEO-67 Deepened Footings/Edges: Deepened footings/edges around the slab perimeter must be used to minimize non-uniform surface moisture

migration (from an outside source) beneath the slab. An edge depth of at least 12 inches shall be considered for low expansion index soil, 18 inches for medium EI soil, and 24 inches for high EI soil. The bottom of the deepened footing/edge shall be designed to resist tension, using cable or reinforcement per the Structural Engineer.

MM-GEO-68 Design and Construction: Other applicable mitigations measures presented in the Conventional Slab-on-Grade and the California Foundation Slab Method sections of this report shall be incorporated into the design and construction.

Mat Foundation

MM-GEO-69 Mat foundation could either be designed as a beam on an elastic foundation or using the method of static equilibrium. The static equilibrium method assumes the mat moves as a rigid body when the loads are applied and that the reaction pressures are distributed linearly across the bottom of the mat. For mat foundation, the criteria under post-tensioned slab may be used for design.

Conventional Spread Footings

MM-GEO-70 Bearing Subgrades: All footings shall be constructed on firm, unyielding compacted fill. All compacted fill shall be compacted to at least 90 percent of the Modified Proctor maximum laboratory density, as determined by ASTM D-1557-12 compaction method.

MM-GEO-71 Subgrade Preparation: Pre-moistening of all areas to receive concrete is required. The moisture content of the subgrade soils shall be equal to or greater than optimum moisture, and verified by the Geotechnical Engineer to a depth of 18 inches below adjacent grade in the footing areas within 48 hours of concrete placement.

MM-GEO-72 Subgrade Verification: All footing subgrades shall consist of firm, unyielding compacted fill. Under no circumstances shall footings be cast atop loose, soft or slough debris, existing artificial fill, unprocessed alluvium, or surfaces covered by standing water. The condition of all subgrades shall be verified by the Geotechnical Engineer before any concrete is placed.

MM-GEO-73 Footing Depth and Width: Footings shall be continuous and be founded at a minimum depth of 18 inches and 24 inches below the lowest adjacent ground surface for one- and two-story structures, respectively, and shall have a minimum width of 18 inches. Footings shall be reinforced according to structural design.

MM-GEO-74 Bearing Pressures: The allowable bearing capacity values shown in **Table IV.E-3, Bearing Capacity Values**, include dead and live loads and may be used for design of footings and foundations. All foundations shall be founded in firm, unyielding certified compacted fill and shall be reinforced according to structural design. The bearing values may be

increased by one-third when considering short duration loading conditions, such as seismic or wind loads.

Table IV.E-3

Bearing Capacity Values

Bearing Subgrade	Minimum Embedment Depth (inches)	Allowable Bearing Capacity (psf)	Bearing Capacity Increase per Foot Deeper (%)	Bearing Capacity Increase per Foot Wider (%)	Maximum Allowable Bearing Capacity (psf)
Compacted Fill	18	1,500	20	10	3,000

MM-GEO-75 Lateral Capacity: To resist lateral loads, the allowable passive earth pressures shown in **Table IV.E-4**, **Lateral Bearing Pressure Values**, expressed as an equivalent fluid pressure, may be used on that portion of shallow foundations which have a minimum embedment as previously required. When combining passive pressure and frictional resistance, the passive pressure component shall be reduced by one-third.

Table IV.E-4

Lateral Bearing Pressure Values

Soil Type	Allowable Passive Pressure (pcf)	Maximum Allowable Passive Pressure (psf)	Coefficient of Friction (Concrete/Soil)
Compacted Fill	250	3,000	0.35

Conventional Slab-On-Grade Floor

MM-GEO-76 Reinforcement: Concrete slabs shall be reinforced with at least No. 4 rebar at 16 inches on-center in both directions. All slab reinforcement shall be properly positioned at mid-height in the slab during placement of concrete.

MM-GEO-77 Thickness: The design engineer shall determine the actual thickness of the slabs based on proposed loadings and use. However, minimum slab thickness of 4 inches is required.

MM-GEO-78 Moisture Barrier: Concrete slabs shall be underlain with a minimum 6 mil polyvinyl chloride membrane vapor barrier with a minimum overlap of 12 inches in all directions. This membrane shall be sandwiched between two, 2-inch layers of sand.

MM-GEO-79 Slab Sectioning: To minimize transgression of shrinkage cracks, slabs shall not exceed 20-foot sections. Sectioning can be performed by expansion joints, plastic joints, saw cutting, or proper tooling during concrete placement. Slabs shall not be tied structurally to heavily loaded walls or columns, until most of the dead loads are in place to permit minor differential settlement.

MM-GEO-80 Subgrade Preparation: All areas to receive concrete shall be presaturated to a depth of 18 inches, such that the soil within this zone is approximately at optimum moisture to not more than 4 percent above optimum moisture content. The Geotechnical Engineer shall verify all subgrades that are pre-soaked within 24 hours of concrete placement.

Settlement

MM-GEO-81 Assuming the foundation elements are founded in the required bearing soils, total static settlement is not anticipated to exceed 0.75 inch, with differential settlements on the order of one-half the total settlement. The majority of the settlement will most likely occur during the initial loading of the foundation; however, if any disturbed, loose, yielding, or soft soils are left within the footing area prior to concrete placement, settlements greater than predicted in the GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007) may be realized.

MM-GEO-82 Additional foundation settlement can also occur due to leakage from any appurtenant plumbing; therefore, it is imperative that all underground plumbing fixtures be absolutely leak-free.

MM-GEO-83 Once foundation plans are available which include loading details of total dead and real live loads, the plans shall be reviewed by the Geotechnical Engineer to ensure that total and/or differential settlements are within tolerable limits.

Backfilled Retaining Walls

MM-GEO-84 Backfilled concrete retaining walls shall be used around the below-grade portions of the on-site structure or to support proposed cuts and fills for heights up to 12 feet or a stacked wall design of two 10-foot retaining walls.

MM-GEO-85 Footing Depths: The retaining walls shall have a minimum embedment depth of 18 inches and a minimum width of 18 inches.

MM-GEO-86 Foundation Subgrade: All retaining wall foundation subgrades shall consist of firm, unyielding certified fill material or competent bedrock.

Under no circumstances shall footings be cast atop loose or soft soil, slough, debris, existing uncontrolled fill, or surfaces covered by standing water. The condition of all subgrades shall be verified by the Geotechnical Engineer prior to concrete placement.

MM-GEO-87 Wall Drainage: To preclude the build-up of hydrostatic pressure, a 4-inch-diameter perforated drain pipe shall be installed behind the heel of the wall and a curtain drain shall be placed behind the entire wall. This curtain drain shall consist of pea gravel, washed rock, or a mixture of these materials wrapped in approved filter material, extending outward at least one foot from the wall and extending from the footing drain upward to within approximately 3 feet of the ground surface. The enclosed Retaining Wall Backfill and Subdrain Detail (Figure 9 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007) illustrates the required drainage detail behind backfilled retaining walls. In areas where the foundation is founded in undisturbed bedrock, a subdrain shall be provided. The backside of all subterranean walls shall be waterproofed.

MM-GEO-88 Backfill Soil: To allow the dissipation of potential hydrostatic pressure behind the retaining wall, all retaining wall backfill placed behind the curtain drain shall consist of clean, free-draining, granular material. On-site granular soils can be used for this purpose provided their moisture content is near optimum. In the latter case, a geotextile shall be placed between the curtain drain and backfill to prevent fines infiltration into the drainage rock.

MM-GEO-89 Backfill Compaction: To prevent the build-up of lateral soil pressures in excess of the required design pressures, overcompaction of the fill behind the wall shall be avoided; however, a lesser degree of compaction may permit excessive post-construction settlements. Backfill above a 45-degree plane projected upward from the base shall be placed in horizontal lifts not exceeding 8 inches in loose depth and compacted by small, hand-operated compaction equipment.

MM-GEO-90 Grading and Capping: To retard the infiltration of surface water into the wall backfill soils, the backfill surface of exterior walls shall be adequately sloped to drain away from the wall. The backfill surface directly behind the wall shall be capped with asphalt, concrete, or 3 feet of low-permeability soil.

MM-GEO-91 Applied Loads: Overturning and sliding loads applied to retaining walls can be classified as active, at-rest, surcharge, and hydrostatic pressures. The required methods of calculating design pressures are presented graphically on the enclosed Lateral Earth Pressure diagram (Figure 10 from GeoSoils Consultants, Inc., *Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California*, April 12, 2007) and are discussed in the following paragraphs.

Active and At-Rest Pressures: Yielding (cantilever) retaining walls shall be designed to withstand an appropriate active lateral earth pressure, whereas non-yielding (restrained) walls shall be designed to withstand an appropriate at-rest lateral earth pressure. These pressures act over the entire back of the wall and vary with the backslope inclination. For retaining walls up to 15 feet in height with various backslope angles, the active and at-rest pressures (given as equivalent fluid unit weights) provided in **Table IV.E-5, Retaining Pressure – Up to 15 Feet in Height**, shall be used.

Table IV.E-5

Retaining Pressure – Up to 15 Feet in Height

Backslope Angle	Static Active Pressure (pcf)	Static At-Rest Pressure (pcf)
Level	30	45
5H:1V	33	50
4H:1V	35	55
3H:1V	38	60
2H:1V	43	67
1.5H:1V	55	85

Seismic Pressures: Static lateral earth pressures acting on a retaining wall shall be increased to account for seismic loadings. These pressures act over the entire back of the wall and vary with the backslope inclination, the seismic acceleration, and the wall height. For a design acceleration coefficient of 0.4 and a wall height of "H" feet, uniform horizontal active and at-rest seismic pressures provided in **Table IV.E-6, Seismic Pressures**, shall be used.

Table IV.E-6

Seismic Pressures

Backslope Angle	Dynamic At-Rest Uniform Pressure (psf)	Dynamic At-Rest Uniform Pressure (psf)
Level	6H	18H

5H:1V	6H	18H
4H:1V	7H	21H
3H:1V	8H	24H
2H:1V	10H	30H
1.5H:1V	12H	36H

Surcharge Pressures: Any anticipated, superimposed loading (i.e., upper retaining walls, traffic surcharge or other structures, etc.) within a 45-degree plane projected upward from the wall bottom, except retained earth, shall be considered as surcharge and provided for in the design. For a uniformly distributed load behind the wall, a corresponding uniform distributed lateral soil pressure equal to 30 percent of the surcharge shall be added to the equivalent fluid pressure. A vertical component equal to one-third of the horizontal force so obtained may be assumed at the plane of application of the force.

Hydrostatic Pressures: If groundwater is allowed to saturate the backfill soils, hydrostatic pressures will act against a retaining wall. However, if an adequate drainage system is included with each retaining wall, hydrostatic pressures are not expected to develop.

MM-GEO-92 Resisting Forces: Active pressures, at-rest pressures, dynamic pressures, and surcharge pressures for conventional retaining wall foundations are resisted by a combination of passive lateral earth pressure, base friction, and subgrade bearing capacity. Passive pressure acts over the embedded front of the wall (neglecting the upper 1 foot for paved foreslopes, or the upper 2 feet for soil foreslopes) and varies with the foreslope inclination, whereas base friction and bearing capacity act along the bottom of the footings. For retaining walls with a level foreslope and zero hydrostatic pressure behind the wall, the resisting design values presented in **Table IV.E-7, Required Resisting Forces**, shall be used.

Table IV.E-7

Required Resisting Forces

Design Parameters	**Allowable Value**	
	Compacted Fill	**Bedrock**
Bearing Capacity	1,500 psf	2,500 psf

Maximum Bearing Capacity	3,000 psf	5,000 psf
Passive Pressure	250 pcf	350 pcf
Base Friction Coefficient	0.35	0.40

The required bearing capacities in the table above may be increased by 20 percent for each additional foot of depth deeper than the minimum required depth of 18 inches, plus 10 percent for each additional foot of width wider than the minimum required width of 18 inches.

Temporary and Permanent Slopes and Excavations

MM-GEO-93 Safety: Temporary excavation slope stability is a function of many factors including soil type, density, cut inclination, depth, the presence of groundwater, and the length of time that the cut is to remain open. As the cut is deepened, or as the length of time an excavation is open, the likelihood of bank failure increases. For this reason, maintenance of safe slopes and worker safety shall remain the responsibility of the contractor, who is present at the site, able to observe changes in the soil conditions, and monitor the performance of the excavation.

MM-GEO-94 Maintenance: If seepage or surface runoff is not controlled, flatter temporary slopes would be necessary. Larger cobbles and boulders shall be scaled from the excavation sidewalls prior to worker entry to prevent injury to workmen from falling rocks. In all cases, cut slopes and any excavation shoring shall conform to applicable Federal, State and/or local safety guidelines.

MM-GEO-95 Cut/Fill Slopes: Temporary and permanent cut and fill slopes in natural soil, bedrock and compacted fill soils shall not exceed the inclinations shown in **Table IV.E-8, Maximum Slope Inclinations**.

Table IV.E-8

Maximum Slope Inclinations

	Maximum Inclination Soil Type (Horizontal: Vertical)	
Soil Type	**Temporary***	**Permanent**
Natural Soil/Compacted Fill	1H:1V*	2H:1V

Bedrock	1H:1V*	2H:1V

* *or as shown on the geologic cross-sections from GeoSoils Consultants, Inc., Preliminary Geologic and Geotechnical Engineering Study, Hidden Creeks, Tentative Tract 68724, Chatsworth, City of Los Angeles, California, April 12, 2007*

MM-GEO-96 Excavations: Shallow excavations used for construction that are less than 4 feet in depth and are made in properly engineered fill or firm native soils shall stand with vertical sides. Excavations deeper than 4 feet shall be sloped at angles provided in **Table IV.E-8**, or shored. All open excavations and excavations that are shored shall conform to all applicable Federal, State and Local regulations.

MM-GEO-97 Surcharge: Surcharge loads shall be setback from the top of temporary excavations a minimum horizontal distance of 10 feet.

MM-GEO-98 Excavation Inspection: The soils exposed in temporary excavation slopes shall be observed by the Geotechnical Engineer so that modifications of the slopes can be made if variations in soil conditions occur.

MM-GEO-99 Limitations: The values listed in **Table IV.E-8** assume that the slopes will be protected from erosion and that significant drainage will not occur over the face of the slope. It is further assumed that no loads will be imposed above the slope within one half the slope height from the slope face. The temporary cut/fill slopes shall be stabilized and/or supported within three weeks. In no conditions shall the temporary excavations exceed those shown on the geologic cross-sections.

On-Site Drainage

MM-GEO-100 Seasonal precipitation and/or landscape water shall not be allowed to pond within the site, especially next to slopes and foundations of any structures. Surface runoff shall be collected and disposed of in such a manner as to prevent concentrated erosion. Roof gutters and yard drains shall be provided. All pad drainage shall be directed toward the street or an approved water course area swale via non-erosive channel, pipe and/or dispersions devices. All planters proposed adjacent to structures shall be self-contained, provided with a subdrain system, and/or allowed to have positive drainage away from structures to drain excess landscape water.

MM-GEO-101 Lot drainage shall be verified after house construction and notices shall be posted cautioning homeowners not to modify drainage in any way without approval by the City of Los Angeles, Grading Department. At no time shall drainage be directed toward any descending slope or allowed to pond. All slope or fill backdrains shall continue to remain unobstructed and be allowed to drain freely.

MM-GEO-102 Leakage from any of the appurtenant plumbing will create an artificial groundwater condition which could likely render settlement or slope stability problems; therefore, it is imperative that all underground plumbing fixtures shall remain entirely leak-free.

Bridge Requirements

MM-GEO-103 The bridge across Mormon Canyon at the northeast part of the site shall be built upon a deepened pile foundation system that derives support from the underlying bedrock, and will have a clear span across Mormon Canyon. Additional subsurface exploration shall be performed in the area of the proposed bridge foundation prior to pile driving activities. Final requirements shall be determined based on the results of that exploration.

(c) Finding

Implementation of the mitigation measures identified in the Final EIR would avoid or substantially lessen any potential significant geologic or grading impacts associated with the proposed project. These mitigation measures have been required in, or incorporated into the proposed project, or are within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Although the grading and construction impacts related to geology and soils of the proposed project could be potentially significant, the Final EIR included mitigation measures to ensure that these impacts would be less than significant

(e) Reference

For a complete discussion of grading and construction impacts related to geology and soils, see page 11-100 in Section II, Additions and Corrections of the Final EIR.

E. Hazards

1. Wildland Fire

(a) Significant Environmental Effects

The project site is located within a high fire danger area and potential wildfire impacts significant.

(b) Mitigation Measures

Mitigation measures MM-FIRE-1 through MM-FIRE-17 as included in Section 11.2, Fire Protection and Emergency Medical Services shall be implemented.

(c) Finding

Due to the high fire hazard danger associated with the project site location and the current long response times from the LAFD, mitigation measures have been included in order to reduce potentially significant impacts resulting from construction of the proposed project. These mitigation measures have been required in, or incorporated into the proposed project, or are within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency,

(d) Rationale for Finding

The proposed project would result in less than significant impacts with respect to wildland fire. However, to ensure these impacts would remain less than significant, the Final EIR included mitigation measure to reduce such impacts.

(e) Reference

For a complete discussion on wildland fire impacts, see Section IVY, Hazards in the Draft EIR.

F. Water Resources.

Both project construction and operation would result in significant impacts to surface water quality and groundwater quality; however, these impacts can be reduced to less than significant with the implementation of mitigation measures. The proposed project would introduce impermeable surfaces onto the project site. However, a retention basin on the project site would capture and treat surface runoff to mitigate potential impacts. Contaminants have been detected in well samples in the San Fernando Valley Ground Water Basin, which includes the project site. The project site is located at a higher elevation at the northwestern edge of the San Fernando. Valley Ground Water Basin than the portion of the basin where contaminated groundwater has been identified.

(a) Significant Environmental Effects

The majority of the project site is currently undeveloped and the proposed project would introduce urban uses that would potentially impact storm water quality. Project construction could potentially result in a temporary increase In groundwater contamination through spills and leaks associated with construction-related substances such as oils, lubricants, paints, cleaning agents and other fluids on the project site. If released, these substances could percolate into the ground and enter the underlying water table. To ensure these impacts would remain less than significant, the Final EIR included mitigation measures to reduce these potential impacts to a less than significant level.

(b) Mitigation Measures

MM-WR-1 Wetland flora shall be planted in the retention basin to help remove nitrogen, phosphorus, and other contaminants from the surface water before it is discharged into the Browns Canyon Wash or absorbed into the ground. Non-invasive weed species shall be researched and prohibited from the retention basin. Vegetated swales and infiltration trenches shall be incorporated into the design of the retention basin. See MM-WR-7 for implementation of infiltration trenches in conjunction of the retention basin. Vegetated swales are open, shallow channels with vegetation covering the side slopes and bottom that collect and slowly convey runoff to downstream discharge points. Vegetated swales can serve as part of a stormwater drainage system and can replace curbs, gutters, and storm sewer systems.

MM-WR-2 Appropriate landscape planning methodologies shall be integrated and incorporated into the project design to minimize surface and groundwater contamination from stormwater.

MM-WR-3 The project design shall incorporate various roof runoff controls to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants from roofing materials and atmospheric deposition on site. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through cisterns or rain barrels, dry wells or infiltration trenches and pop-up emitters, which require that roof runoff be contained in a gutter and downspout system, foundation planting, which requires a vegetated strip under the drip line of the roof, and other general approaches.

MM-WR-4 Efficient irrigation systems, including drip irrigation lines, shall be installed to reduce excess irrigation water from entering the stormwater drainage systems.

MM-WR-5 Notices regarding discharge prohibitions at storm drain inlets shall be placed adjacent to storm drain inlets to reduce the amount of illegal dumping. Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters.

MM-WR-6 Alternative building materials shall be used instead of conventional materials for new construction and renovation when feasible. For example, recycled plastic fencing and stucco walls require less paint and staining than wood-based materials. These materials reduce potential sources of pollutants in stormwater runoff by eliminating compounds that can leach into runoff, reducing the need for pesticide application, reducing the need for painting and other maintenance, or by reducing the volume runoff.

MM-WR-7 The project design shall incorporate an infiltration trench, which is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. Runoff is stored in the void space between the stones and infiltrates through the bottom and into the soil matrix. Infiltration trenches perform well for removal of fine sediment and associated pollutants. Pretreatment using buffer strips, swales, or detention basins is important for limiting amounts of

coarse sediment entering the trench that can clog and render the trench ineffective.

MM-WR-B Grassed buffer strips (vegetated filter strips, filter strips, and grassed filters) shall be implemented into the project design. Grassed buffer strips are vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Filter strips function by slowing runoff velocities and allowing sediment and other pollutants to settle and by providing some infiltration into underlying soils. With proper design and maintenance, filter strips can provide relatively high pollutant removal and enhance landscaping features.

MM-WR-9 Drain inserts shall be used where appropriate. Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and *debris.* Inserts of various shapes and configurations are available, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic . or wire mesh. Typically a polypropylene `bag' is placed in the wire mesh box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

MM-WR-10 The Hidden Creeks Estates Homeowner's Association shall promote efficient and safe housekeeping practices (storage, use, and cleanup) when handling potentially harmful materials such as fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals.

MM-WR-11 Pursuant to Section 402 of the Clean Water Act, the project applicant shall obtain a NPDES stormwater discharge permit and prepare a SWPPP prior to the start of construction. The SWPPP shall identify BMPs to prevent or reduce the potential for erosion, sedimentation, and contamination on the project site during construction. The BMPs shall also identify procedures for clean up in the event of contamination from construction-related substances such as fuel, oil, grease, lubricants, paint, and construction debris.

(c) Finding

Implementation of the mitigation measures identified in the Final EIR would avoid or substantially lessen any potential significant environmental effects of the proposed project relating to impacts associated with water resources during construction and operation. These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

The proposed project would result in potentially significant impacts with respect to water resources during construction and during the life of the project. However, to ensure these impacts would *be* less than significant, the Final. EIR included mitigation measures to reduce any such impacts to a less than significant level.

(e) Reference

For a complete discussion on water resources, please see Section IV.G, Water Resources in the Draft EIR.

G. Public Services

1. Police

The proposed project would result in a population increase of approximately 549 new residents, which would represent a 0.29 percent increase in the population served by the City's Devonshire Station over existing conditions. As such, implementation of the proposed has the potential to cause a significant impact on the police protection services.

(a) Significant Environmental Effects

While this 0.29 percent increase in population does not affect the patrol officer-to-resident ratio greatly, this ratio is already far below the target ratio standard used by other cities. However, the increased tax base and molar vehicle registration fees paid by project residents would fund necessary increases in law enforcement staffing and equipment. Therefore, the additional funding would increase the amount of patrol cars and officers and would reduce potentially significant police protection impacts to a less than significant level.

In order to help the Devonshire Station area commanding officers during responses to emergencies the applicant would provide a diagram demonstrating access routes to each portion of the project site. However, to ensure these impacts would be less than significant, the Final EIR included the following mitigation measures:

(b) Mitigation Measures

MM-PP-1 A construction traffic routing plan shall be prepared per Los Angeles Department of Transportation (LADOT) requirements that would facilitate the movement of construction vehicles. In addition, access on to the project site shall remain clear and unobstructed; proposed roadway modifications shall assure adequate access to the proposed project site and adjacent areas; security features shall be incorporated on the construction site, such as fencing and locked entrances; and construction equipment,

tools and material shall be secured by locking or placing them within sheds and/or other inaccessible areas while not in use.

MM-PP-2 The project applicant shall contact LAPD'S CPU to incorporate appropriate crime prevention features into the project design. Examples of crime prevention design features include the following.22

- Housing units can be designed so as to allow neighbors to "self-patrol" their environments.
- Fences around housing developments can be designed in ways that avoid creating hiding places for criminals.
- Vines or planted coverings may be placed on walls to deter graffiti.

MM-PP-3 During project construction, a designated parking area with a security officer shall be provided for the construction workers.

MM-PP-4 Upon completion of the project a diagram of each portion of the property, including access routes and any additional information that might facilitate police response, the diagram shall be submitted to the Devonshire Station area commanding officer.

(c) Finding

The proposed project would present a potentially significant impact on police protection services. However, implementation of the, mitigation measures would reduce the potentially significant impact to less than significant These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Police services could be significantly impacted by the development of the proposed project. The proposed project includes mitigation measures to ensure that these impacts would be reduced to a less than significant level.

(e) Reference

For a complete discussion on police services, see Section IV.K.1, Police in the Draft EIR.

2. Fire Protection and Emergency Medical Services

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2 Los Angeles Police Department, "Design Out Crime. City of Los Angeles." Retrieved from littp://www.lapdordine.org/prevent_crimekontent basic view/8852 on February 7, 2007.

Existing City of LA Fire stations are located are in excess of 5 minutes from the project site and cannot adequately meet the additional demands for Fire Protection services that would be generated by the proposed project Implementation and operation of the proposed project would subject residences, the public park, and the equestrian facility to a high level of fire danger. The proposed extension of Mason Avenue would provide additional road access to the site and Browns Canyon Road would be spot-widened for turnouts at 14 locations, to provide improved secondary access for emergency services.

(a) Significant Environmental Effects

The proposed project would result in potentially significant impacts with respect to fire protection and emergency medical services. However, to ensure these impacts would remain less than significant, the Final EIR included the following mitigation measures:

(b) Mitigation Measures

MM-FIRE-1 The use of construction and design features, which reduces fire potential and/or promotes containment, including increased spacing between buildings, noncombustible roofs, fire-resistant landscaping, and special irrigation facilities, shall be implemented. Design features shall be reviewed and approved by the Fire Chief prior to project approval.

MM-FIRE-2 Upon completion of project construction, a diagram of each portion of the property, including access routes and any additional information that might facilitate fire and emergency medical response, shall be submitted to the City of Los Angeles Fire Marshall.

MM-FIRE-3 During project construction, the contractor shall ensure that roads and alleyways remain unobstructed to provide for emergency access at all times.

MM-FIRE-4 The project applicant shall coordinate with the LAFD to design and implement fire hydrants in compliance with the LAFD Fire Code for low-density residential developments prior to project approval. All fire hydrants must be 2.5-inch-by-4-inch double hydrants and be placed adjacent to structures in the project site. Two fire hydrants shall be installed at the fire department staging area to be located at the southern portion of the project site adjacent to the equestrian center and one additional hydrant shall be located at the intersection of Browns Canyon Road with the project access road.

MM-FIRE-5 Recreational areas and parks proposed by the project shall be consistent with fire safety recommendations set in the Chatsworth-Porter Ranch Community Plan. Design plans shall be reviewed and approved by the Fire Marshall prior to project approval.

MM-FIRE-6 The Hidden Creeks Estates HOA will report annually to the City of Los Angeles Fire Marshall that Hidden Creeks Estates development is in compliance with requirements set forth in the Fire/Vegetation Management

Plan and Wildfire Risk Analysis and all mitigation measures included below no later than May 1 each year.

MM-FIRE-7 The Hidden Creeks Estates HOA shall ensure that a 200-foot-minimum Fuel Management Zone is in place, and cleared annually, around each structure on the project site. The 200-foot Fuel Management Zone shall be divided as follows:

- Zone A: Zone A will begin at the structure and extend out 50 feet from the structure. The zone must be irrigated, tree spacing will be 30 feet between canopies, shrub spacing will be 15 feet between canopies, lawn, or low-lying plants will be used as ground cover, and areas beneath Oak trees need not be irrigated.

- Zone B: Zone B will begin at the 51-foot mark of Zone A and extend out to 100 feet from structure. The zone may be irrigated, shrubs will not exceed 18 inches in height, tree spacing will be 30 feet between canopies, and shrub spacing will be 15 feet between canopies.

- Zone C: Zone C will begin at the 101-foot mark of Zone B and extend out to 200 feet from structure. All natural vegetation will be thinned out by 70 percent and all dead vegetation including grass will be maintained at less than 4 inches in height If the zone is not irrigated, the area may be covered with chipped biomass 4 inches deep. No tree limb shall be within 10 feet of a chimney, including outdoor barbeques. Trees must be maintained, free of dead branches. Trees must be limbed up 4 feet or one-third the height of the tree. Trees over driveways or roads must be limbed up to 15 feet. The shrub height limit is 2 feet.

MM-FIRE-8 The following shrubs and trees are highly flammable and will not be planted within the project area:

- Sage Species - Salvia spp.

- Pampas grass - Corfaderia spp.

- Cypress - Cupressus spp.

- Eucalyptus - Eucalyptus spp.

- Juniper - Juniperus spp.

- Pine - Pinus spp.

- Cedar - Cedrus spp.

The following shrubs and trees will be used for general landscaping and will undergo annual maintenance, as overseen by the Hidden Creeks Estates HOA:

- Coastal live oak - Quercus spp.
- California Sycamore - Plantus racemosa
- Cottonwood - Populus fremontii
- Willow - Salix spp.
- Mule Fat - Baccharis viminea
- California Bay - Umbellularia californica
- California Black Walnut - Juglans californica
- Liquidamber - Liquidamber styraciflua
- Ceanothus spp.
- Toyon - Heteromeles arbutifolias
- Mountain Mahogany - Cercocarpus betuiloides
- Holly leaf cherry - P. ilicifolia
- Dwarf periwinkle — Vince minor
- Grass Stipa spp.

MM-FIRE-9 The Hidden Creeks Estates HOA shall ensure annually that all roads and driveways provide a 15-foot clearance on each side. The clearance must comply with Fuel Management Zone A requirements, with trees set back so the canopy is kept 15 feet above the road bed to allow sufficient fire equipment access.

MM-FIRE-10 The Hidden Creeks Estates developer and HOA shall ensure that any wood fencing chosen for fencing wildland/open space areas shall be made of heavy timber, at least 2 inches thick or greater, and set back 5 feet from the wildland open space area. Chipped biomass, rock, and gravel or bare ground shall be maintained for at least 5 feet on each side of the wooden fence.

MM-FIRE-11 The Hidden Creeks Estates developer and HOA shall ensure that in all planted areas outside of the wet" zones, the uniform spacing of shrubs may be modified by the clustering of smaller shrubs thereby creating drifts of them as long as such clustering does not result in an average spacing less than 15 feet on center.

MM-FIRE-12 In order to mitigate the inadequacy of fire protection due to travel distance and response time, sprinkler systems shall be required throughout any structure to be built in accordance with the Los Angeles Municipal Code Section 57.09.07.

MM-FIRE-13 The Hidden Creeks Estates HOA shall ensure annual weed abatement and brush clearance meeting Los Angeles County Fire Department standards along Browns Canyon Road from Its intersection with the project access road southerly to De Soto Boulevard.

MM-FIRE-14 The Hidden Creeks Estates HOA shall make all necessary pavement repairs, including repair of potholes, on an as needed basis to Browns Canyon Road from its intersection with the project access road southerly to De Soto Boulevard to maintain this section of Browns Canyon Road as an all-weather access meeting Los Angeles County Fire Department standard. The HOA shall maintain records of all repairs and provide these records on request.

MM-FIRE-15 The firefighting helistop to be provided within the public park shall be designed to meet both Los Angeles City and County Fire Department standards.

MM-FIRE-16 An emergency access gate shall be provided on the project access road at the north end of the equestrian center with approved locking devices for both Los Angeles City and County fire departments on both sides of the gate. Signs shall be provided on the project access road at the equestrian center that states "Dead End, No Turnaround Ahead."

MM-FIRE-17 The project water tank shall be designed to provide 1 million gallons of additional water storage for firefighting purposes.

(c) Finding

The proposed project would result in potentially significant impacts with respect to fire protection and emergency medical services. However, to ensure these impacts would be reduced to less than significant, the Final EIR included measures to mitigate these impacts. These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

The Final EIR includes mitigation measures to reduce any fire protection and emergency medical services to ensure that these impacts would be less than significant.

(e) Reference

For a complete discussion of fire protection and emergency medical services, see Section IV.K,2., Fire in the Draft EIR.

3. Public Schools

(a) Significant Environmental Effects

The proposed project includes 188 residential units that would generate approximately 267 students into the Los Angeles Unified School District (LAUSD). Three schools currently serve the project site: German Elementary School, Lawrence Middle School and Chatsworth Senior High School. In order to reduce potentially significant impacts to the LAUSD school system associated with the introduction of 267 new students, the applicant would pay a development impact fee to pay their fair share of any improvements necessary to reduce Impacts to the LAUSD. To ensure that impacts to schools would remain less than significant, the Final ER included the following mitigation measure,

(b) Mitigation Measures

MM-SCH-1 As authorized by Senate Bill 50, the project applicant shall pay school impact fees to the LAUSD prior to the issuance of building permits. The current fee schedule for residential development is $3.96 per square foot.

(c) Finding

The proposed project would add an increase of students to schools that are considered to be operating at overcrowded conditions. However, the payment of school fees in conformance with SB 50, would address the proposed project's impact on schools by providing funds for future LAUSD expansion. In accordance with SB 50, payment of school fees is deemed to provide full and complete mitigation to impacts on schools pursuant CEQA. This mitigation measure has been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

The proposed project would add an increase of students to schools that are considered to be operating at overcrowded conditions. However, the payment of school fees in conformance with SB 50, would address the proposed project's impact on schools by providing funds for future LAUSD expansion. In accordance with SB 50, payment of school fees is deemed to provide full and complete mitigation to impacts on schools pursuant CEQA.

(e) Reference

For a complete discussion of school services, see Section IV.K3, Schools in the Draft EIR.

4. Libraries

(a) Significant Environmental Effects

The proposed project would increase demand for library services with the addition of residents, and the project would reduce the resident to book ratio in the City of Los Angeles. Therefore, the project would have a potentially significant impact on library services.

(b) Mitigation Measures

MM-L113-1 The LAPL requires that the project applicant pay a fee of $200 per capita, based on the projected population of the development The funds will be used for books, computers and other library materials.

(c) Finding

The payment of fees to the Los Angeles Public Library (LAPL) would allow the library system to adequately serve the anticipated demand associated with project implementation. The funds would be used for books, computers and other library materials. These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Library services could be significantly impacted by the development of the proposed project The proposed project includes a mitigation measure to ensure that these impacts would be reduced to a less than significant impact.

(e) Reference

For a complete discussion on library services, see Section IV.K.5., Libraries in the Draft EIR.

I. Transportation

1. Construction

(a) Significant Environmental Effects

Truck traffic and lane closures associated with project construction could potentially disrupt traffic flow along adjoining streets. As a result, significant impacts could occur prior to incorporation of mitigation.

(b) Mitigation Measures

MM-TRAF-1 Prior to the issuance of demolition permits, the project applicant shall require a Construction Traffic Management Plan to be prepared and

submitted to LADOT for review and approval and this plan shall be implemented by the construction contractor during project construction.

(c) Finding

The construction of the proposed project would present a potentially significant impact on traffic and transportation. However, implementation of the mitigation measure would reduce the potentially significant impact to less than significant. This mitigation measure has been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

Implementation of the mitigation measure would reduce traffic impacts to less than significant. The proposed project includes a mitigation measure to ensure that this impact would be reduced to a less than significant impact.

(e) Reference

For a complete discussion of construction related traffic impacts, see Section IV.L, Transportation in the Draft EIR.

J. Public Utilities

1. Water

LADWP estimates the annual water use for the project will be approximately 380 acre-feet per year. Because the project site is located outside of the current City of Los Angeles boundary, the water needs of this project have not been addressed in, LADWP's water supply planning efforts.

(a) Significant Environmental Effects

To ensure LADWP will have an adequate supply of water to meet the needs of the project, the developer of the project will enter into a Water Supply Agreement with LADWP as described below in Mitigation Measure MM-Water-1. Implementation of the measure to be included in this agreement will mitigate the impact of the project on LADWP water supplies to less than significant.

(b) Mitigation Measures

MM-WATER-1 Prior to recordation of the tract map, the project applicant shall enter into a Water Supply Agreement with LADWP to ensure adequate water supplies are available for the project. This agreement will include measures approved by LADWP to minimize the amount of water used by the project and provide for new water supplies to offset the increase in water demand from the project This agreement shall include the following:

Water Use Efficiency

- The project will adhere to all plumbing codes and ordinances regarding water efficiency.
- The project will include all current City of Los Angeles water conservation devices and measures.
- The developer shall incorporate in the subdivision recordation a covenant that runs with the land, which incorporates elements of drought tolerant and native landscaping.

Water Supply Agreement

The developer will provide new water supplies to meet the project water demands through one or a combination of the following:

- Purchase or lease water supply acceptable to LADWP from an existing available source and convey this water to the LADWP water distribution system.
- Retrofit plumbing fixtures in existing public buildings to provide verifiable annual conservation savings.
- Retrofit existing public landscaping or parks to provide permanent conservation savings.
- Continue to use water from the existing on-site wells for non-potable uses subject to an approved License Agreement from LADWP.

(c) Finding

Implementation of the mitigation measure would ensure that impacts to water resource availability would remain less than significant. This mitigation measure has been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

The implementation of the mitigation measure would ensure that water availability impacts would remain less than significant with implementation of the proposed project.

(e) Reference

For a complete discussion of water impacts, see Section IV.M.1, Water of the Draft EIR.

2. Wastewater

The estimated wastewater generation for the project is projected to be 96.126 gallons per day (gpd) or 35.1 million gpd. The Hyperion Treatment Plant (I-1TP), which ultimately treats the City's sewage, currently treats 340 million gpd and is operating at 110 million gpd below capacity. The projected 96,126 gpd of wastewater generated by the project represents less than 0.1 percent of this excess capacity.

(a) Significant Environmental Effects

The Bureau of Sanitation has indicated that the project's anticipated wastewater flow may exceed the capacity of the existing sewers in the project vicinity. Therefore, a significant impact to system capacity could occur. However, to ensure impacts would be less than significant, the Final EIR includes mitigation.

(b) Mitigation Measures

MM-WVV-1 The project applicant, in conjunction with the Bureau of Sanitation, shall incorporate required upgrades based on the result of the gauging being done by Los Angeles Department of Public Works (LADPW), Bureau of Sanitation.

(c) Finding

With the implementation of the required upgrades based on the result of the gauging being done by LADPW, Bureau of Sanitation, the project's anticipated wastewater flow would not exceed the capacity of the sewers in the project vicinity. Therefore, impacts would be less than significant. This measure has been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency and can and should be adopted by such agency.

(d) Rationale for Finding

With the implementation of the mitigation measure, the impacts with respect to wastewater flow would be reduced to less than significant.

(e) Reference

For a complete discussion of wastewater impacts, see Section I, Wastewater of the Final EIR.

3. Solid Waste

Operation of the proposed project would generate a net increase of approximately 10,467 pounds of solid waste per day, or about 1,911 tons per year. The Bureau of Sanitation currently does not serve the project site, The Bureau of Sanitation has indicated that the 25 equestrian lots could generate additional waste due to the caretaking of horses. However, this waste is anticipated to be green material, which can be composted or mulched on site.

(a) Significant Environmental Effects

Additionally, the Bureau of Sanitation has recommended as mitigation that adequate manure containment and manure collection bins be used by the equestrian lots and that the equestrian facility coordinate the collection of any green material and manure with the Bureau of Sanitation.

Therefore, the project would necessitate an additional solid waste collection route for weekly curbside pickup. No new recycling or disposal facility would be required to handle project-generated waste. The Bureau of Sanitation has indicated that *its* collection vehicles could serve the site as long as access roads comply with fire road accessibility codes. Since the proposed extension of Mason Avenue and neighborhood streets would meet all applicable fire department access codes, the impact would be less than significant with incorporation of mitigation measures.

(b) Mitigation Measures

MM-SW-1 At the newly constructed equestrian facility and on the residential equestrian lots, adequate runoff containment shall be provided to ensure that manure generated by the 25 residential equestrian lots and equestrian facility does not washout into neighboring streams, canyons or storm drains. Brown bins with appropriate manure disposal instructions shall be supplied to all equestrian lots for collection of the manure.

MM-SW-2 The collection of green material and horse manure from the equestrian center shall be provided at a cost based on tonnage generated and frequency of collection.

MM-SW-3 At least two months prior to project occupation, notice of project occupancy shall be provided to the Bureau of Sanitation. During this time, the new solid' waste collection route shall be prepared and be incorporated into the Bureau of Sanitation's Geographical Information System (GIS) collection routing system.

MM-SW-4 The Bureau of Sanitation shall hold a meeting with the Hidden Creeks Estates HOA at least twice per year to promote the importance of proper recycling, contamination reduction in the recycling bin and greenwaste bin, and the source reduction of waste.

(c) Finding

With the implementation of mitigation measures, LADWP has determined that solid waste impacts would result in less than significant impacts. These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding

The proposed project has included mitigation measures to ensure that project related impacts on solid waste would be reduced to less than significant impacts.

(e) Reference

For a complete discussion of solid waste, see Section IV.M.3, Solid Waste of the Draft EIR.

5. Energy Electricity

The estimated total electricity consumption from the proposed project is anticipated to be approximately 1,057,782 kilowatt-hours (kwh) per year. Generally, the LADWP power service systems are flexible and can be readily altered to meet demand requirements. The anticipated electricity demands associated with project implementation are beyond those previously considered, anticipated, or planned for by LADWP.

Natural Gas

The estimated total natural gas consumption for the proposed project is anticipated to be approximately 15 million cubic feet per year. According to The Gas Company, the existing system would be able to meet the proposed project's load based on the above assumptions.

(a) Significant Environmental Effects Electricity

The Installation of at least one new 4.8-kilovolt (kV) circuit from either Distribution Station 82 or Distribution Station 88 to the project site would be required. In addition, since Distribution Stations 82 and 88 are presently operating close to capacity, it may be necessary for LADWP to acquire land for and install a new 34.5-kV to 4_8-kV distributing station to meet the electricity demand of the project in addition to the demand of the surrounding area, LADWP indicates that the eventual need for the construction of a new distribution station is due to the cumulative impacts of development in the area. If LADWP decides to construct a new distribution station in the project area, the new distribution station would be the origin for the new 4.8-kV circuit serving the project site. LADWP has indicated that upon annexation into the City, LADWP would provide service to the project site as long as the infrastructure needs for service are satisfied.

Natural Gas

However, the Gas Company currently does not serve the site and no conveyance infrastructure exists on or to the project site. Due to the project site's location outside The Gas Company's current service area, no natural gas supply facilities have been planned by The Gas Company for the site. All required infrastructure improvements would be installed within the alignment

of the proposed Mason Avenue extension. Since the project site is not within an existing Gas Company service zone, potentially significant impacts to the Gas Company natural gas supply system could result from implementation of the proposed project.

(b) Mitigation Measures

Electricity

MM-ENG-1 Prior to submittal of final plans, the project applicant shall consult with LADWP to determine the exact specifications for additional facilities supplying electricity to the project site. Upon finalizing the specifications for electricity infrastructure planned for the project site, the project applicant shall fund the cost of infrastructure installation.

MM-ENG-2 Prior to submittal of final plans, the project applicant shall consult with LADWP's Energy Solutions Group regarding possible energy efficiency measures. Additionally, the project applicant shall submit plans to the City's Building and Safety Department for review and approval demonstrating that each building complies with the state Energy Conservation Standards for New Residential Buildings (Title 24, part 6, Article 2, California Administrative Code).

Natural Gas

MM-ENG-3 As part of the submittal of final plans, the applicant shall incorporate the exact specifications of necessary alterations to the natural gas distribution system as required by the Gas Company, Upon finalizing the specifications for natural gas infrastructure planned along the Mason Avenue extension alignment for the project site, the project applicant shall fund the cost of infrastructure installation.

MM-ENG-4 The project applicant shall consult with the Gas Company regarding the incorporation of feasible energy conservation measures into the project design and construction. Additionally, the project applicant shall submit plans for review and approval to the City's Building and Safety Department demonstrating that each building complies with the state Energy Conservation Standards for New Residential Buildings (Title 24, part 6, Article 2, California Administrative Code).

Cumulative

MM-ENG-5 The project applicant shall pay a fair-share contribution towards the construction of a new distribution station that LADWP may need in order to provide adequate service to the proposed project and related projects in addition to existing loads within the project's service area.

(c) Finding Electricity

Project design would be required to comply with sections of the State Building Energy Efficiency Standards, contained in Title

24 of the California Code of Regulations. Implementation of mitigation measures, which requires that the applicant consult with LADWP regarding energy efficiency, would ensure that impacts related to electricity would remain less than significant. These mitigation measures have been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

Natural Gas

The proposed project would implement the mitigation measures discussed above to ensure that natural gas impacts would be less than significant. This mitigation measure has been required in, or incorporated into the proposed project, or is within the responsibility and jurisdiction of another public agency, and can and should be adopted by such agency.

(d) Rationale for Finding Electricity

The proposed project includes mitigation measures to ensure that electricity supply and infrastructure impacts would be less than significant.

The proposed project includes mitigation measures to ensure that natural gas supply impacts would be less than significant.

(e) Reference

For a complete discussion of natural gas supply impacts, see Section IV.M.4 Energy of the Draft and Final EIR.

VIII. Environmental Impacts Found To Be Significant and Unavoidable

The proposed project would result in the following significant unavoidable environmental impacts:

A. Air Quality

1. Construction Related Emissions

Emissions generated during all phases of project construction are expected to exceed the South Coast Air Quality Management District (SCAQMD) threshold for emissions of oxides of nitrogen (NOX). In addition, the project is expected to exceed the volatile organic compounds (VOC), particulate matter-10 microns or smaller—(PM10), and particulate matter-2.5 microns or smaller---(PM2.5) SCAQMD thresholds during the site grading phase.

(a) Significant Environmental Effects

Since construction emissions for NOX, PM10, and PM2.5 exceed the SCAQMD thresholds, construction impacts associated with development of the project are considered significant.

(b) Mitigation Measures

MM-AQ-1 The construction contractor shall develop a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

MM-AQ-2 The construction contractor shall ensure that the use of all construction equipment is suspended during first-stage smog alerts.

MM-AQ-3 The construction contractor shall enforce the use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible,

MM-AQ-4 The construction contractor shall ensure that all construction equipment is maintained by conducting regular tune-ups according to the manufacturers' recommendations.

MM-AQ-5 The construction contractor shall ensure the use of electric welders to avoid emissions from gas or diesel welders, to the extent feasible.

MM-AQ-6 The construction contractor shall ensure the use of on-site electricity or alternative fuels rather than diesel-powered or gasoline-powered generators to the extent feasible.

MM-AQ-7 Prior to use in construction, the project applicant will evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as particulate traps, selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. These technologies will be required if they are verified by the Air Resources Board (ARB) and/or the US Environmental Protection Agency (EPA) and are commercially available and can feasibly be retrofitted onto construction equipment.

MM-AQ-8 The construction contractor shall ensure that traffic speeds on all unpaved roads are reduced to 15 miles per hour or less.

MM-AQ-9 The construction contractor shall ensure that active sites are watered at least three times daily during dry weather.

MM-AQ-10 The construction contractor shall schedule all construction activities that affect traffic flow during off-peak hours (e.g., between 7:00 PM and 6:00 PM and between 10:00 AM and 3:00 PM).

(c) Finding

Specific economic, legal, social, technological or other considerations, including considerations identified in Section VIII of this Exhibit 1 (Statement of Overriding Considerations) make infeasible additional mitigation measures or alternatives to the proposed project identified in the Final El R. Air quality impacts with respect to construction would be significant and unavoidable,

(d) Rationale for Finding

Air quality impacts with respect to construction would be significant and unavoidable. No additional feasible mitigation measures are available to reduce these impacts to less-than-significant levels.

(e) Reference

For a complete discussion of air quality impacts, see section IV.B, Air Quality of the Draft EIR.

B. Noise

1. Construction Related Noise

(a) Significant Environmental Effects

The nearest sensitive receptors in the vicinity of the project site include single- and multi-family residences south and southeast of the project site. Currently, development of the Subarea B portion of the Porter Ranch Specific Plan Area is underway. Subarea B is located south of Sesnon Road, west of Mason Avenue and is southeast of the project site. Because Subarea B may be occupied prior to the completion of the proposed project, it would be considered a sensitive receptor during construction of the proposed project. In addition, as building construction is estimated to take 48 months, any completed residential uses on the project site would also be considered sensitive uses during the construction period of the project. The nearest off-site residential use is estimated to be approximately 150 feet to the southeast from the project site. Temporary and periodic noise levels of up to 90.2 dB(A) could occur at the nearest residence during project construction. This noise level would exceed the measured ambient daytime noise levels of 49.7 dB(A) at this location by more than 5 dB(A), a significant impact prior to incorporation of mitigation.

(b) Mitigation Measures

MM-NOISE-1 As per Section 41.40 of the City of Los Angeles Noise Ordinance, construction operations shall be limited to the hours of 7:00 AM to 6:00 PM Monday through Friday and 8:00 AM to 6:00 PM on Saturdays and holidays. No construction operations shall be permitted on Sundays.

MM-NOISE-2 As per Section 112.05 of the City of Los Angeles Noise Ordinance, all technically feasible measures shall be implemented to reduce noise levels of construction equipment operating within 500 feet of residential areas in cases where noise levels exceed 75 dB(A) at 50 feet from the noise source. Technically feasible measures include, but are not limited to, changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent land uses in advance of construction work, ensuring that construction equipment is fitted with modem sound reduction equipment, and installing temporary acoustic barriers around stationary construction noise sources.

MM-NOISE-3 Equipment used for project construction shall be hydraulically or electrically powered impact tools (e.g., jack hammers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. A muffler could lower noise levels from the exhaust by up to about 10 dB(A). External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB(A). Quieter procedures shall be used (such as drilling rather than impact equipment) wherever feasible. The project applicant shall require construction contractors to ensure that construction equipment is fitted with sound reduction equipment, per manufacturer's specifications.

MM-NOISE-4 Signs shall be posted prior to construction activities with a phone number for residents to call with noise complaints.

MM-NOISE-5 Prior to construction of the portion of the project site near Subarea B of the Porter Ranch Specific Plan, a temporary sound barrier (e.g., solid fence or similar barrier) shall be erected 500 feet from the nearest residences such that the line of sight from the residences to the construction area is blocked. This fence shall be maintained until completion of the construction activity.

(c) Finding

Specific economic, legal, social, technological or other considerations, including considerations identified in Section IX of this Exhibit XX (Findings of Fact for Significant impacts and Statement of Overriding Considerations) make infeasible additional mitigation measures or alternatives to the proposed project identified in the Final EIR, Construction related noise impacts would be significant and unavoidable.

(d) Rationale for Finding

Although the proposed project includes several mitigation measures to reduce the construction noise impacts to the maximum extent feasible, impacts would still be considered significant and unavoidable.

(e) Reference

For a complete discussion of construction noise impacts, see Section IV.I, Noise of the Draft EIR.

IX. Statement of Overriding Considerations

The implementation of the proposed project may have significant and adverse effects on the environment, as described in the project EIR, specifically impacts to Air Quality (Construction Related Emissions) and Noise (Construction Related Noise). No further changes or alterations in the Project to avoid or substantially lessen these significant environmental effects are feasible (i.e., no feasible mitigation measures or alternatives to the Proposed Project have been identified which will reduce the impacts listed above to less than significant levels).

In accordance with *State CEQA Guidelines* Section 15093(a), CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological or other benefits of a Project against its unavoidable environmental risks. If the specific economic, legal, social, technological or other benefits of a proposal outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable.

The City, having balanced the benefits of the proposed Hidden Creeks Estates Project against the adverse environmental effects of the Project as described in the Final EIR, the Resolution and these findings, the City, acting pursuant to Section 15093 of the CEQA Guidelines, hereby determines that the proposed Project will result in substantial community benefits, including economic, legal, social, technological, or other benefits, that outweigh and render acceptable the significant effects on the environment that cannot be mitigated to a level less than significant. Specifically, such benefits include but are not limited to the following:

Implement the recommendations contained in the Chatsworth-Porter Ranch Community Plan by annexing a portion of the 12,800-acre area adjacent to the City of Los Angeles, north of the communities of Chatsworth, Porter Ranch and Granada Hills, into the City of Los Angeles and within the Chatsworth-Porter Ranch Community Plan Area;

Build economically and attractively designed housing and public facilities to accommodate the growing population within the City of Los Angeles;

Design a project with density and intensity respectful of the Chatsworth-Porter Ranch Community Plan policies related to development in a hillside area;

Provide 188 new estate single family homes, 25 of which will be dedicated for equestrian use, to the Chatsworth-Porter Ranch Community Plan Area that complement and enhance the equestrian orientation of the community;

Provide a new facility for training and boarding horses within an equestrian facility which serves the surrounding community;

Cluster the single family lots to minimize grading quantities and to conform to the natural terrain;

Permanently preserve views, 127 acres of open space, and the unique topography and vegetation in the Chatsworth-Porter Ranch Community Plan Area;

Provide an additional 19 acre neighborhood park which would include softball fields, a tot lot, basketball courts, a passive walking trail and a community center;

Provide new trails on the project site that link to existing equestrian trails;

Improve Browns Canyon Road by widening in 14 locations to improve the ability for public safety vehicles and residents to use this road for emergency access;

Enhance fire protection capabilities in the area by extending water facilities to the site, providing a helistop with access to water, and an additional 1 million gallons of water storage for fire suppression;

Provide construction jobs, tax revenues and economic benefits that would include up to 4,360 jobs and over $500 million in economic activity; and

Provide up to $4 million in new fees to support local schools;

X. Custodian of Documents

The custodian of the documents or other material which constitute the record of proceedings upon which the lead agency's decision is based is the City of Los Angeles Department of City Planning located at 200 North Spring Street, Los Angeles, 90012.

FINDINGS OF FACT (SUBDIVISION MAP ACT)

In connection with the approval of (Vesting) Tentative Tract No. 68724 the Advisory Agency of the City of Los Angeles, pursuant to Sections 66473.1, 66474.60, .61 and .63 of the State of California Government Code (the Subdivision Map Act), makes the prescribed findings as follows:

(a) THE PROPOSED MAP WILL BE CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS.

Once the annexation of the property is effective, the Los Angeles City zoning and general plan will become effective. The property will be zoned OS-1 (Open Space), [T][Q]A1-1XL (Agricultural), [T][Q]RA-1-K (Suburban) and [T][Q]RE11-1-H (Residential Estate – Hillside) and will be within the Chatsworth-Porter Ranch Community Plan area.

(b) THE DESIGN AND IMPROVEMENT OF THE PROPOSED SUBDIVISION ARE CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS.

The adopted Chatsworth-Porter Ranch Community Plan designates the subject property for Very Low II and Very Low I land use with the corresponding zones of

OS-1, [T][Q]A1-1XL, [T][Q]RE1-1-H and [T][Q]RA-1-K. The property contains approximately 285 net acres. The proposed development of 163 single-family residential lots in the [T][Q]RE11-1-H Zone, 25 Equine Keeping residential lots in the [T][Q]RA-1-K Zone, Park and Recreational uses in the OS-1 Zone and undeveloped open land in the [T][Q]A1-1XL Zone are allowable under the zoning and the land use designation effective upon annexation of the property into the City of Los Angeles.

The Bureau of Engineering has reviewed the proposed subdivision and found the subdivision layout generally satisfactory. As a condition of approval, the subdivider is required to construct the Mason Avenue extension to current street standards and construct Private Streets within the tract boundaries to current Private Street standards.

Therefore, as conditioned, the proposed tract map is consistent with the intent and purpose of the applicable General and Specific Plans.

(c) THE SITE IS PHYSICALLY SUITABLE FOR THE PROPOSED TYPE OF DEVELOPMENT.

As a condition of approval, all previous landslide material must be removed and recompacted in order to stabilize the site prior to any construction. Mitigation measures have been adopted to control storm water runoff and prevent erosion. Numerous construction mitigation measures are adopted to mitigate any impacts associated with the construction activities and structural integrity of the structures. As such, the site is physically suitable for the proposed type of development.

(d) THE SITE IS PHYSICALLY SUITABLE FOR THE PROPOSED DENSITY OF DEVELOPMENT.

The Vesting Tentative Tract Map allows for single-family development within the [T][Q]RE1-1-H and [T][Q]RA-1-K Zones on lots of the minimum area required for the respective zones. 285 acres will be developed with 188 single-family residences. A caretaker residence, a manager residence and an employee residence will be included on a 15 acre equestrian center lot. The development will include a 19 acre public park, two miles of new equestrian trails and 123 acres of preserved Open Space, restricted and dedicated in perpetuity as open space and maintained by the Hidden Creeks Estates Homeowners' Association (the "HOA"). The site is physically suitable for the proposed density of development because the overall residential density is allowed by the respective zones and is of lesser residential density than adjacent properties at the Porter Ranch development under Tract Map Nos. 50506 and 50507.

The Department of Building and Safety, Grading Division, has conditionally approved the tract map subject to control of on-site drainage in a manner acceptable to that Department and in accordance with the Grading Regulations, Section 91.3000 of the Los Angeles Municipal Code (LAMC) relative to Division 70 of the Building Code.

The soils and geology reports for the proposed subdivision were found to be

adequate by the Grading Division of the Department of Building and Safety.

(e) THE DESIGN OF THE SUBDIVISION AND THE PROPOSED IMPROVEMENTS ARE NOT LIKELY TO CAUSE SUBSTANTIAL ENVIRONMENTAL DAMAGE OR SUBSTANTIALLY AND AVOIDABLY INJURE FISH OR WILDLIFE OR THEIR HABITAT.

The Deputy Advisory Agency certifies that Environmental Impact Report ENV-2005-6657-EIR ("EIR") reflects the independent judgment of the lead agency and incorporates significant environmental mitigation measures. A mitigation monitoring program has also been adopted to facilitate the continuous monitoring of all required mitigation. A Statement of Overriding Considerations is adopted addressing the only two environmental impacts that have not been reduced to a level of insignificance by the adopted mitigation measures.

(f) THE DESIGN OF THE SUBDIVISION AND THE PROPOSED IMPROVEMENTS ARE NOT LIKELY TO CAUSE SERIOUS PUBLIC HEALTH PROBLEMS.

There appears to be no potential public health problems caused by the design or improvement of the proposed subdivision.

The development is required to be connected to the City's sanitary sewer system, where the sewage will be directed to the LA Hyperion Treatment Plant, which has been upgraded to meet Statewide ocean discharge standards. The Bureau of Engineering has reported that the proposed subdivision does not violate the existing California Water Code because the subdivision will be connected to the public sewer system and will have only a minor incremental impact on the quality of the effluent from the Hyperion Treatment Plant.

Specific mitigation measures are adopted to address solid waste disposal of the residential and equine-keeping lots as well as for the new Equestrian Center.

(g) THE DESIGN OF THE SUBDIVISION AND THE PROPOSED IMPROVEMENTS WILL NOT CONFLICT WITH EASEMENTS ACQUIRED BY THE PUBLIC AT LARGE FOR ACCESS THROUGH OR USE OF PROPERTY WITHIN THE PROPOSED SUBDIVISION.

No such easements are known to exist. Needed public access for roads and utilities will be acquired by the City prior to recordation of the proposed tract.

(h) THE DESIGN OF THE PROPOSED SUBDIVISION WILL PROVIDE, TO THE EXTENT FEASIBLE, FOR FUTURE PASSIVE OR NATURAL HEATING OR COOLING OPPORTUNITIES IN THE SUBDIVISION. (REF. SECTION 66473.1)

1) In assessing the feasibility of passive or natural heating or cooling opportunities in the proposed subdivision design, the applicant has prepared and submitted materials which consider the local climate, contours, configuration of the parcel(s) to be subdivided and other design and improvement requirements.

2) Providing for passive or natural heating or cooling opportunities will not result in reducing allowable densities or the percentage of a lot which may be occupied by a building or structure under applicable planning and zoning in effect at the time the tentative map was filed.

3) The lot layout of the subdivision has taken into consideration the maximizing of the north/south orientation.

4) The topography of the site has been considered in the maximization of passive or natural heating and cooling opportunities.

5) In addition, prior to obtaining a building permit, the subdivider shall consider building construction techniques, such as overhanging eaves, location of windows, insulation, exhaust fans; planting of trees for shade purposes and the height of the buildings on the site in relation to adjacent development.

These findings shall apply to both the tentative and final maps for Vesting Tract No. 68724.

Michael J. LoGrande
Director of Planning

Marc Woersching
Deputy Advisory Agency

MJL:MW:NR:mkc

Note: If you wish to file an appeal, it must be filed within 10 calendar days from the decision date as noted in this letter. For an appeal to be valid to the City Planning Commission, it must be accepted as complete by the City Planning Department and appeal fees paid, prior to expiration of the above 10-day time limit. Such appeal must be submitted on Master Appeal Form No. CP-7769 at the Department's Public Offices, located at:

Figueroa Plaza
201 North Figueroa Street
4th Floor
Los Angeles, CA 90012
(213) 482-7077

Marvin Braude San Fernando
Valley Constituent Service Center
6262 Van Nuys Boulevard, Room 251
Van Nuys, CA 91401
(818) 374-5050

Forms are also available on-line at http://cityplanning.lacity.org

The time in which a party may seek judicial review of this determination is governed by California Code of Civil Procedure Section 1094.6. Under that provision, a petitioner may seek judicial review of any decision of the City pursuant to California Code of Civil Procedure Section 1094.5, only if the petition for writ of mandate pursuant to that section is filed no later than the 90th day following the date on which the City's decision becomes final.

n:tract_letters (09-15-14)