Planning Commission	Agenda Item
Public Hearings	5. A.

TOWN OF MORAGA
PLANNING COMMISSION

Meeting Date: February 1, 2022

STAFF REPORT

To: **Planning Commission**

From: **Project Planner: Brian Horn, Associate Planner**
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Subject: **Hetfield Estates Precise Development Plan (PDP 01-21), Grading Permit (GR 02-21) and Design Review (DRB 07-21) – Located at the Southern Terminus of Hetfield Place APN (258-600-006)**

Conduct a Public Hearing and Consider Adoption of Planning Commission Resolution __ - 2021 for Approval of the Precise Development Plan, Grading Permit and Design Review for the Landscaping, Bridge, Retaining Walls and Design Guidelines for the Hetfield Estates Subdivision, a 7 Unit Single Family Residential Development.

CEQA Determination: An Environmental Impact Report (EIR) was prepared for the Conceptual Development Plan, pursuant to the California Environmental Quality Act. This EIR was certified in July 2012 by the Town of Moraga Planning Commission. The Draft and Final EIR are available at the Town offices.

An Addendum to the Hetfield Estates Subdivision EIR was prepared to address the alignment of an Emergency Vehicle Access (EVA) that was anticipated at the time of approval of the GDP, but for which detailed designs had not been developed at the time of the original EIR. The Addendum only addressed the EVA and no other elements of the project, which were analyzed in the previously certified EIR.

The proposed Precise Development Plan, Grading Permit and Design Review are consistent with the EIR and subsequent Addendum. Therefore, there are no substantial changes proposed in the project, substantial changes with respect to the circumstances under which the project will be undertaken or new information of substantial importance of the type that would require additional environmental review pursuant to

Section 15162 of the CEQA Guidelines. No additional environmental review is required.

I. Application Basics

A. Entitlements Required:

- Precise Development Plan under Moraga Municipal Code (MMC) §8.48.120.
- Grading Permit under MMC §14.12.020 – Design Review Board for more than 200 cubic yards of grading.
- Design Review under MMC 8.72.060 for landscaping, bridge design, retaining walls and review of Hetfield Estates Design Guidelines.

B. Applicants Team:

- Applicant: Eric A. Mandell, 2 Crow Canyon Place #200, San Ramon, CA 94583
- Property Owner: Hetfield Estates Partners, LLC, 2 Crow Canyon Road #200, San Ramon, CA 94583
- Project Engineer: Lea & Braze, Engineering, Inc. 2495 Industrial Pkwy West, Hayward, CA 94545
- Geotechnical Engineer: Engeo, Inc. 2010 Crow Canyon Place, Suite 250, San Ramon, CA 94583
- Landscape Architect: Gates and Associates, 1655 N. Main Street, Suite 365, Walnut Creek, CA 94596

C. Requested Action:

The applicant is requesting approval of the Precise Development Plan (PDP). The PDP is the final step in the three-step planned development process and review is focused on determining consistency with the prior conceptual development plan (CDP), general development plan (GDP) and environmental review previously approved by the Planning Commission and Town Council. The actions tonight are limited to:

- The PDP and plans
- The grading permit
- Design review for landscaping, bridge, retaining walls and Hetfield Estates Design Guidelines

The Planned Development Process Overview

MMC Chapter 8.48 – Planned Development District prescribes the process by which new residential Planned Developments (PDs) are reviewed and approved. It was included as one of the original chapters of Title 8 Planning and Zoning, when it was adopted by the Town Council in 1980.

The intent of the PD process is to allow flexible regulations to be applied to large-scale integrated development projects as opposed to strictly requiring conventional standards

that can result in monotonous and less desirable neighborhood designs. Per MMC Section 8.48.010, its purpose is as follows:

> The planned development district is intended to allow diversification in the relationship of uses, building structures, lot sizes and open spaces while ensuring compliance with the general plan and the intent of this (Zoning) code in requiring adequate standards necessary to satisfy the requirements of the public health, safety and general welfare.

PDs are especially appropriate for sites that may have sensitive environmental features (such as a creek, geologically unstable area, or hillside), because they allow for clustering of lots in the less sensitive areas of a property with modified development standards while still requiring compliance with the General Plan land use designation and underlying zoning.

Chapter 8.48 prescribes three separate steps which an applicant must undergo to obtain final approval. Per Section 8.48.030, all parcels of land in Moraga 10 acres or larger are automatically classified as PDs and any proposals to develop them are subject to the three-step process.

The three steps in the PD process are as follows:

1. Conceptual development plan (CDP);
2. General development plan (GDP); and
3. Precise development plan (PDP)

Each step includes different submittal requirements and builds upon the previous step. Each step also includes a public process and public hearings prior to approvals. The submittal requirements of the CDP include technical studies and conceptual architectural renderings. The GDP builds upon the CDP with more fine-grained technical analysis and detailed designs. The PDP is mainly a final checklist that the project has been developed in conformance with the prior plans and conditions of approval. This includes site improvements, including retaining walls, bridge design, site landscaping and the proposed Hetfield Estates Design Guidelines.

II. Request and Regulatory Context

The Planning Commission is requested to consider a Precise Development Plan (PDP), grading permit under MMC §14.12.020 – Design Review Board for more than 200 cubic yards of grading, and Design Review under MMC 8.72.060 for project landscaping, bridge design, retaining walls and review of Hetfield Estates Design Guidelines.

The project is a 7-unit single-family residential subdivision (Sub 9051), located on a 58.2-acre site that would be accessed from the southern terminus of Hetfield Place. The requested approval of a Precise Development Plan is the final step of the three step Planned Development process under MMC Section 8.48.110. Previously the Conceptual Development Plan (CDP) and the General Development Plan (GDP) were approved by the Planning Commission according to MMC 8.48, and the PDP is the last

remaining step in the Planned Development process. For approval, the PDP must be consistent with the project's previously approved Conceptual Development Plan (CDP), General Development Plan (GDP) and Vesting Tentative Map (VTM).

The site is zoned Open Space-MOSO (OS-M), making its development subject to the requirements and procedures of the Moraga Open Space Ordinance (MOSO) and Guidelines. The site is also greater than 10 acres in size and is therefore classified as a Planned Development District (PD), to be planned and developed in a manner consistent with the requirements of MMC Chapter 8.48.

Since the CDP and the GDP have already been approved, the Planning Commission review consists of review of the PDP for consistency with these previous approvals, final grading design of the project, and design review for site improvements, including retaining walls, bridge design, site landscaping and the proposed Hetfield Estates Design Guidelines. Per the conditions of approval, each home will need to come before the Planning Commission for the specific design prior to construction. Per Moraga Municipal Code §8.04.180.B.1.c., the Hetfield PDP and requested associated approvals are not subject to the hillside and ridgeline regulations that were adopted by the Town Council on April 25, 2018 as a Draft EIR for the project was certified on July 16, 2012, prior to adoption of these regulations.

III. Background

The Hetfield Estates project was originally submitted to the Town in 2005 as a 6-lot single-family residential subdivision with a 51.45-acre open space lot on a 58.2-acre site zoned Moraga Open Space (MOSO). Since the project site is over 10 acres, it was subject to the Town's three-step Planned Development (PD) process in accordance with Moraga Municipal Code (MMC) Section 8.48.030.

In 2008, the PC held public hearings on the project, and adopted a Mitigated Negative Declaration and approved the CDP for the project on November 17, 2008. This decision was subsequently appealed to the Town Council (TC) by a third party. The TC upheld the appeal and directed preparation of an EIR for the project. The Planning Commission certified the EIR and approved the CDP once again on July 16, 2012. During the hearing process the Commission required modifications to the project and ultimately approved a development featuring seven residential lots instead of six. Numerous conditions of approval were applied to the project, many of which reflected mitigation measures identified in the project EIR. The findings for approval addressed the project's conformance with the Moraga Open Space Ordinance and allowed for an increase in project density of up to one unit per five acres.

An application for a General Development Plan (GDP), Vesting Tentative Map (VTM), and Conditional Use Permit (CUP) for the seven-lot subdivision was subsequently filed in October 2013, with the application later amended to include a Hillside Development Permit (HDP). In addition to the seven lots and associated grading and improvements, the GDP/VTM/CUP/HDP application included a more specific alignment for a proposed

Emergency Vehicle Access Easement (EVAE) and associated fire trail that had been described in concept, but not mapped in the CDP.

On March 3, 2014, the Planning Commission approved the GDP, VTM, CUP and HDP determining (among other findings) that the project would be in conformance with the previously approved CDP. Based on questions about the specific alignment of the EVAE, as well as the project's on-site parking, two Councilmembers filed separate appeals of the Planning Commission's decision. After considering the project at hearings on April 23 and May 21, 2014, the Town Council ultimately voted to uphold the Planning Commission approvals, with refinements to the proposed EVAE and associated Conditions of Approval.

On February 24, 2016, the Town Council adopted Resolution 15-2016 granting a two-year extension to the VTM and all related project approvals to May 21, 2018. The resolution also modified the project's Condition of Approval #173, clarifying that the associated entitlements, including the GDP, CUP and HDP, were also extended for this two-year time frame as well.

On December 4, 2017, the applicant submitted the Final Map, Improvement Plans, Precise Development Plan and Grading Permit to the Town for review, as well as related technical reports and documents. Since that time, the various plan sets have been under review, as well as the related documents and reports that were submitted. During several meetings with the applicant and his consultants during the winter of 2017/18, Town staff advised the applicant that it was very unlikely that the Final Map and associated entitlements could be considered for final approval by the Town Council prior to the map extension deadline. Therefore, the applicant filed for a one-year extension of the map, which was approved by adoption of Resolution 54-2018 by the Town Council on August 22, 2018.

After that time, the applicant continued to make slow but steady progress on the Final Map and associated entitlements. Additionally, the applicant made efforts to work with the Sanders Ranch Homeowners' Association toward a mutually beneficial alignment of an EVAE route desired by the Town and the Moraga-Orinda Fire District, per Condition of Approval #40. However, given the quantity and complexity of many of the project's conditions of approval and the time needed to satisfy them, staff and the applicant again concluded that all the final documents needed for the Final Map would not be ready for final consideration by the one-year map extension deadline. As such, the applicant filed for another one-year extension on April 17, 2019, which the Council approved through the adoption of Resolution 41-2019 on May 22, 2019.

Over the following year, a new property owner entered into escrow to purchase the property/project. In the meantime, the original applicant (whose services the new property owner retained after the purchase) and his team of consultants continued to make minor progress in their efforts to satisfy those conditions that were required to be completed prior to approval of the Final Map. Some of the major accomplishments that were made included the completion of formal consultation with the U.S. Fish and Wildlife Service required for the issuance of a Nationwide Permit 29 – Residential

Developments allowing the alteration or filling of jurisdictional wetlands by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act, the approval of said Nationwide Permit, and the completion of the Streambed Alteration Program obligations required by the California Department of Fish and Wildlife. However, despite the progress that was made, there were still numerous conditions of approval that remained to be satisfied before the Final Map could be approved and, as such, the applicant again filed for an additional one-year extension of the VTM and related project approvals, which the Council approved through the adoption of Resolution 27-2020 on May 13, 2020.

After a lengthy financing process that was hampered by the onset of the COVID-19 pandemic, the new property owner closed escrow on the property/project in January 2021. Due to the extended escrow process, only minor progress was made from May 2020 to February 2021. Since that time, the applicant's team has resumed its efforts to complete the remaining items that still must be satisfied before the Final Map can be approved. Since February 2021, the applicant has been more actively engaged and working with staff on processing of the Final Map, Precise Development Plan, Grading Permit and Design Review. The Council approved the final extension of the VTM on May 12, 2021. Under Article 2 of Section 66452.6(e) of the Subdivision Map Act, May 2022 is the sixth and final year of the extended life of the VTM. No additional extensions of the VTM can be granted.

Table 1: Project Chronology

Date	Action
November 17, 2008	Planning Commission (PC) adopts a Mitigated Negative Declaration (MND) and approves Conceptual Development Plan (CDP) for the Hetfield Estates Project.
December, 2008	Neighbors appeal decision.
January 14, 2009	Town Council overturns PC decision on the MND and requires preparation of an Environmental Impact Report (EIR) instead.
July 16, 2012	Planning Commission certifies the EIR and re-approves the CDP.
October 8, 2013	Applicant filed an application for a General Development Plan, Vesting Tentative Map and Conditional Use Permit to develop the seven single family residential lots.
March 3, 2014	Planning Commission approves the General Development Plan (GDP), Vesting Tentative Map (VTM), Conditional Use Permit (CUP) and Hillside Development Permit (HDP) for the project.
March, 2014	Planning Commission's decision is appealed separately by two Town Councilmembers.
May 21, 2014	Town Council upholds Planning Commission approvals, with refinements to the proposed Emergency Vehicle Access Easement (EVAE) and associated Conditions of Approval and adopts a CEQA addendum for the EVAE and VTM.
February 16, 2016	The applicant filed an application for the Precise Development Plan (previous property owner).
February 24, 2016	Town Council adopts Resolution 15-2016 approving a two-year extension of the VTM, GDP and other associated entitlements to May 21, 2018.

December 4, 2017	Applicant submits plans for review by the Town for the Final Map, Precise Development Plan, Grading Permit and Design Review.
August 22, 2018	Town Council adopts Resolution 54-2018 approving a one-year extension of the VTM and associated entitlements to May 21, 2019.
May 22, 2019	Town Council adopts Resolution 41-2019 approving a one-year extension of the VTM and associated entitlements to May 21, 2020.
May 13, 2020	Town Council adopts Resolution 27-2020 approving a one-year extension of the VTM and associated entitlements to May 21, 2021
May 12, 2021	Town Council adopts Resolution 21-2021 approving a one-year extension of the VTM and associated entitlements to May 21, 2022
December 13, 2022	New applicant/owner submitted new Precise Development Plan, Grading and Design Review application form with updated applicant and owner information.
January 20, 2022	Public Notices mailed and posted
February 1, 2022	Public Hearing

IV. Project Setting

A. Neighborhood/Area Description:

The project site is located within the southeast portion of Moraga, in a small valley. Sanders Drive bisects the valley and dead-ends approximately 1,000 feet east of Hetfield Place. The project portion of the site would be accessed from the southern terminus of Hetfield Place, which extends a short distance south of Sanders Drive, terminating at the north property boundary. Larch Creek, a seasonal stream, lined with oaks, bays, willows, and Monterey Pines, runs along the northern border of the site, separating the property from homes along the south side of Sanders Drive. Most of the lots along Sanders Drive are heavily vegetated with shrubs and trees along their rear, or southern, property lines, which are located within the Larch creeks riparian area.

The neighborhood along Sanders Drive primarily consists of single-story, ranch-style single-family residences, most built 40 to 50 years ago. Residential lots in the vicinity range from 9,200 sq. ft. to 18,200 sq. ft. with an approximate average size of 14,000 sq. ft. The remainder of the surrounding area contains a mixture of detached single-family residences on relatively small and larger lots, open space used as grazing land. The "Los Encinos" project site, an approved and substantially completed single-family residential development is located across the ridge on the property to the south. Also, to the south, in addition to single-family residential development are two MOSO open space properties, one approximately 23.58-acre site that is vacant and an approximately 24.63-acre site known as the Moraga Tennis and Swim Club, which is no longer operating, that is developed with tennis courts, a swimming pool, club house building and parking lot. The surrounding area is hilly and pocketed with steep slopes of 25% and greater. The Sanders Ranch subdivision is located to the east and more single-family residential development is to the west.

B. Site Conditions:

The project site is located on a north-facing slope which extends uphill to a tree-lined ridge that extends northwest – southeast, roughly bisecting the project site, and following the line of an inactive fault. The site has varied topography, with a flatter portion near the north property boundary and slopes exceeding 25% in the central area of the site. Site elevations range from a low point of 531 feet above mean sea level (msl) near the northwest corner to 853 feet msl near the southeast corner. The home sites would be located in the lower portion of the site, at elevations of approximately 556 msl (Lot 1) to 587 msl (Lot 7).

This elevation range compares to elevations of the existing homes along Sanders Drive of 551 to 582 feet above msl. An ephemeral spring is located in the slope above the northwest corner of the site. A stock pond is located in the northwest corner of the site, and wetlands are located near the northeast corner of the site. The site includes a number of landslides, including a landslide that occurred at the northern terminus of Hetfield Place, approximately 1,000 feet north of the project site, in 2009. The project site was historically grazed and contains mostly non-native annual grasses. Larch Creek runs along the northern property line and supports riparian vegetation and trees along its length.

V. Project Description

Lot Plan

The site plan showing the proposed seven lots is included in Attachment J. Consistent with the approved CDP and GDP, the project proposes to subdivide the 58.2-acre property into seven single family residential lots ranging in size from 18,039 square feet to 21,299 square feet plus one remainder 55.17-acre common area parcel. The average lot size (excluding the common area parcel) would be 18,578 square feet. The proposed plots slightly differ in size from the GDP, but are substantially within the same area and configurations, these changes are summarized in Table 2**.** Additional development requirements are further discussed in section VI of this report. Individual home designs have not yet been proposed and will be subject to Design Review approval at a later date.

Vehicular Access and Circulation

Vehicular access to the seven lots would be via a private road connecting to Hetfield Place, by means of a bridge crossing of Larch Creek. The road would terminate in a cul-de-sac. The road would generally have a 20- foot width with two 8-foot-wide bulb-outs on the northern side of the road for fire equipment and four 9-foot-wide bulb-outs south side of the road to provide on-street parking. Seven total on-street parking spaces are provided, with six along the southern side of the new road and one within the cul-de-sac.

Grading and Retaining Walls

The project would involve extensive grading for creation of building pads and roadways, as well as for remediation of on-site landslides. Except for the new bridge and a portion of a new bio-retention basin, grading and other site disturbances would be outside the required creek setback line. The bio-retention basin is considered a landscape feature/drainage facility and is not subject to creek setbacks.

Two stacked keystone retaining walls less than 3 feet in height, would be constructed to accommodate a vehicle turnaround at the terminus of the onsite access road. A 3-to 5-foot-tall boardform retaining wall would also be constructed towards the rear of the lots. Additionally, a keystone retaining wall of up to 2 feet in height would be constructed along the western side property line of lot 1.

Landscaping

The proposed landscape plan includes 96 mitigation tree plantings for 32 native trees removed as part of the project (3:1 replacement ratio), which would primarily be planted along the southern side of the Larch Creek riparian corridor to further provide screening of the development along the new road. The plantings include four species of trees with a maturity between 20 and 40 feet. Shrub planting sizes range from 1 gallon to 5 gallons, with mature heights between 1 and 7 foot depending on the species.

Trail

Consistent with the CDP, GDP and VTM, the PDP includes an on-site trail open to the public. A decomposed granite path would be provided along the north side of the access road along the south side of the creek. Beyond the east end of Lot 7 at the terminus of the cul-de-sac, the trail would for approximately the first 60 feet would be a 20-foot-wide asphalt pavement area which connects to a 6-foot-wide trail that would connect to the fire trail 41-7.

Emergency Vehicle Access Easement

The Hetfield Estates CDP approved in 2012 addressed an EVAE and fire trail and called for a more specific alignment for the EVAE and fire trail in the GDP and VTM. In its project approval of the GDP, the PC adopted Conditions of Approval that required dedication of the EVAE but did not require construction of the fire trail.

The GDP was appealed to the Town Council, with one of the concerns being that the Conditions of Approval did not require construction of the fire trail. At the April 23, 2014, Town Council meeting, after taking public comments both for and against construction of the fire trail connecting to Sander Ranch, the Town Council agreed to the following points:

- A 30-foot-wide EVAE should be provided (consistent with the alignment shown in the GDP/VTM), and the connection to Sanders Ranch should be refined as part of the Final Map and Precise Development Plan.
- A hiking trail, but not a graded fire trail, should be constructed within the easement at the time of project construction.
- Applicant should provide sufficient funding for expansion of the hiking trail to an unpaved graded fire trail in the future.

- A ten-year period should be allowed for agreement to be reached with the Sanders Ranch Homeowners Association (SRHOA) regarding a connection to Sanders Ranch Road.

Natural Resources Impacts

The grading and project construction would avoid most of the sensitive riparian resources along the creek corridor, limiting disturbance to the minimum necessary to construct the access bridge.

Impacts to these natural resources were considered in the Environmental Impact Report, and where necessary, Mitigation Measures were adopted by the Town at the time of EIR certification.

VI. Analysis

The Precise Development Plan is the third and final step in the Planned Development process. The PDP incorporates the conditions and changes from the Planning Commission approval of the General Development Plan, design review, and modifications to the site plan and improvements that occur as plans are refined and elaborated. The PDP must substantially conform to the standards for the approved Conceptual Development Plan and General Development Plan. The criteria of "substantial conformance" recognizes that, as the project moves through more detailed and specific design and engineering, with development of construction plans, improvement plans and engineered grading plans, that some details of the project may be adjusted or revised; however, such revisions must not be such that the findings or basis for prior approvals could no longer be made, or the intent of conditions of approval.

The project description in Section V of this report outlines the major aspects of the project, including the layout, site plan, landscaping, road and trail system, which correspond to the approved GDP/VTM.

The following analysis provides a summary and analysis of the proposed Precise Developments Plan's conformance to the approved development standards, modifications to the project, and compliance with other conditions of approval.

A. Conformance with General Development Plan Standards

A comparison of the proposed lot and building dimensions, setbacks and other standards to the approved development standards is provided in Table 2. The final lot sizes were adjusted slightly in the PDP from the GDP, but the proposed lots are substantially in the same locations as the GDP and conform to the project's approved development standards. The proposed lot sizes remain within the allowable range of between 15,000 and 27,000 gross square feet as set by GDP condition of approval 19.D.

Table 2: Proposed Parcel Characteristics – GDP/PDP Comparison

Parcel #	GDP Gross Size	PDP Gross Size	GDP Net Size	PDP Net Size	Consistent
Existing	58.2 acres				
1	16,889 sq. ft.	18,039 sq.ft.	15,393 sq.ft.	16,665 sq.ft	Y
2	21,063 sq. ft.	21,299 sq.ft.	18,228 sq.ft.	18,430 sq.ft	Y
3	18,567 sq. ft.	18,512 sq.ft.	16,070 sq.ft.	15,898 sq.ft.	Y
4	19,426 sq. ft.	19,365 sq.ft.	16,914 sq.ft.	16,794 sq.ft.	Y
5	17,550 sq. ft.	17,586 sq.ft.	15,475 sq.ft.	15,487 sq.ft.	Y
6	17,277 sq. ft.	17,242 sq.ft.	15,202 sq.ft.	14,849 sq.ft.	Y
7	18,145 sq. ft.	18,303 sq.ft.	15,913 sq.ft.	15,734 sq.ft.	Y
8	55.24 acres	55.17 acres			

As shown in the PDP plans (Attachment J), the seven lots would be located at the north side of the property, on the south side of Larch Creek, facing the project's access roadway. The GDP does not show specific finished building elevations for the proposed lots as these will be submitted at a later date and subject to Design Review with the Planning Commission. This application includes proposed design guidelines to be used by the Planning Commission to guide the design review for the homes.

The approved development standards in the GDP, Town Council Resolution No. 43-2014, set in Condition 19, are shown below. These standards represent the requirements for the residential lots, with which the development of the homes must comply.

19. Development Standards: Homes within the project shall conform to the following development standards:

- *a. Usable Yard Space. Usable yard space (having minimum dimensions of 25 ft. by 40 ft.) shall be provided for each lot.*
- *b. Setbacks. The following minimum setbacks shall apply for purposes of determining building envelope, but shall not be considered a maximum; setbacks beyond the minimums specified below may be required as part of design review if justified by specific design or lot-specific conditions.*
  - *i. Side Yard: Minimum 10 ft.;*
  - *ii. Rear yard setbacks: Minimum 10 ft. from the retaining walls for the 3:1 graded slopes.*
- *c. Front yard setbacks: Minimum of 15 feet from the edge of the street right-of-way, calculated as an average for all lots.*

d. Lot Size. None of the lots for individual homes shall be smaller than 15,000 square feet or larger than 27,000 square feet. The "common area" parcel that shall be retained as permanent open space shall be approximately 54 acres.

Additionally, COA 17 restricts the maximum size of the new homes to 4,000 gross square feet (including garages). Neither the CDP or GDP set a maximum height limit for the homes, therefore staff is recommending a maximum height of 35 feet be included as a condition of the PDP, this is consistent with the residential height limit within the Town's residentially zoned districts, and is the maximum height set by Mitigation Measure 3.1-3A of the Hetfield Estates Final Mitigation Monitoring and Reporting Program. Staff is also recommending some additional standards be added to regulate the construction of future accessory buildings and structures, which is modeled after a condition within the recent Rancho Laguna II AKA Bella Vista, and Camino Ricardo AKA Harvest Court planned Developments. The proposed condition is as follows:

"Accessory buildings and structures less than 400 square feet and that conform with applicable heights and setbacks for such buildings and structures described in the Moraga Municipal Code, may be approved by the Zoning Administrator. Accessory buildings and structures that exceed these specifications shall require Design Review Board review and approval."

B. Grading and Geology

The site plan in the GDP proposed a total grading of just under 89,000 cubic yards (CY). The approved CDP reflected an estimated 96,624 CY of grading in the 8-lot alternative, and 81,000 cubic yards in the GDP. After completing additional geotechnical work and finalizing the design of the PDP and associated plans the applicant is proposing a grading amount of 90,561 CY. This includes 16,870 CY of cut, 14,950 CY of fill, 31,556 CY for keyways and 27,185 cy for landslide repair. The calculated cubic yards of grading has changes from the GDP plan for several reasons. An updated topographical survey of the site was completed in 2015, the previous survey had been done in 1999. Additional grading was also being proposed for fire truck turnouts, street parking revisions, trail path adjustment, more detailed project design details, expansion of a wetland mitigation pond west of lot 1 and the creation of a new stormwater bio-retention basin west of the bridge and lot 1. The area where the basin is located is currently a substantially level area that is comprised mainly of non-native grasses and several trees. This grading is all located within the MOSO cell that was approved for the project (Attachment E) and reviewed as part of the project EIR, and subject to the mitigation measures and project COAs already established for the project. There will be approximately 1,920 CY of export from the site from the civil grading. Remedial and keyway grading would be balanced on site with all keyways and landslide removal areas being over excavated and backfilled. The overall grading plans and amounts are substantially similar to that approved in the CDP and GDP, and therefore consistent with the overall grading plan considered at that time. General Plan policies require grading to reflect natural contours of the site, minimize of retaining walls, and re-vegetate graded hillsides to retain a natural appearance. COA #145 of the GDP,

requires re-vegetation of exposed slopes with native grasses[1] and COA #39 requires monitoring by a restoration ecologist to ensure the success of planted vegetation and avoidance of noxious weeds.

The grading plan includes several retaining walls, ranging in height from 3 ft. to 5 ft. along the northern edge of the re-graded 3:1 slopes towards the rear of each lot. Two curving retaining walls would be built at the terminus of the cul-de-sac which would be less than 2 feet in height, separated by about 6 feet 8 inches. A retaining wall up to 2 feet in height would also be constructed along the western property of lot 1 adjacent to the bioretention area.

Consistency with Title 14: Grading

Title 14 of the Moraga Municipal Code regulates grading, and states that: "All grading operations on (1) slopes greater than or equal to twenty percent, or (2) predevelopment average slopes of less than twenty-five percent and equal to or greater than two hundred cubic yards that require a permit shall be reviewed and approved by the Design Review Board prior to the issuance of a permit (MMC §14.12.010). The project falls within the thresholds for Design Review Board approval of grading, and a Condition of Approval requires this approval, prior to approval of the Precise Development Plan and Final Map. The Planning Commission currently acts as the Design Review Board. MMC Section 14.12.030 lists a series of nine findings that must be made to approve the project grading including that the project would use "natural contour grading"; would minimize soil displacement; and would minimize the use of retaining walls.

The project includes both remedial grading for landslide repair, as well as grading to create developable building sites and to allow for an appropriate transition to slopes above the home-sites. The proposed transitional slope would have a 3:1 grade, which is within the maximum limits recommended by the Grading Ordinance. This slope is also less steep than the natural slopes above and would be graded to transition or contour into the natural topography. Remediated areas outside of development areas would be restored to reflect the natural topography and re-vegetated to blend in with the neighboring hillsides.

As noted there would be approximately 90,561 CY of grading required. However, the project places and clusters the home sites on the flattest portion of the hilly 54-acre site and places the home sites towards the front of each lot, with the rear areas preserved from future development and additional grading beyond that which would create the necessary 3:1 slopes. The project also proposes retaining walls no more than five feet in height, which would be located behind the future homes and largely screened by them. Additional retaining walls at the terminus of the cul-de-sac and along the western property line of lot 1 would be no taller than 2 feet.

Based on analysis, the proposed grading with modifications is consistent with the approved CDP and the GDP.

[1] This condition also relates to EIR Mitigation Measure IV-2 regarding use of creeping wild-rye in re-vegetation.

Landslide Remediation

The project site has a number of mapped landslides that as anticipated in the CDP and EIR would require remedial grading prior to development. These were originally addressed in geotechnical reports prepared at the time of the CDP approval. As part of the PDP and grading design permit, the applicant has prepared a more detailed report, which has been reviewed by the Town's consulting geologist. The applicant has proposed extensive corrective grading to reduce the overall landslide hazards on the site in the area proposed for development.

Per COA 30 of the GDP, the applicant's geologist, ENGEO, prepared a more detailed study of the project area, which is included as Attachment F. This has been peer reviewed by the Town's consulting geologist, Cal Engineering. As shown in figure 6 of the Geotechnical Exploration Report prepared by ENGEO, last updated on May 30, 2019, Landslides 2,3 and 4 are present within lots 1,2,3,4 and 5 and would be remediated. Proposed mitigation for the landsides includes:

Landslide 2 and 3	complete removal
Landslide 4 and 5	remediated

Landsides 2 and 3, will be completely removed since these are smaller landslides and located completely within the development area of lots 1 and 2. Landslides 4 and 5 are remediated since these extend above the development area. Per page 18 of the report (reference landslide 4 and 5), *"the removal of the upper reaches of these landslides would be difficult, and construction of a graded slope with benches and concrete-lined V-ditches would be undesirable form a visual standpoint."* A debris catchment area would be built at the top (southern portion) of the development area. The corrective grading also includes best practices of civil engineering and includes keyways, geogrid reinforcement, subexcavation areas and subdrains which are shown on Figure 6 of the ENGEO report.

Based on the analysis, staff concurs with the Town's consulting geologist in removing landslide 2 and 3, and remediating landslide 4 and 5.

C. Design Review

The GDP includes several conditions of approval requiring design review for specific elements of the project, either concurrently, or prior to review of the PDP, which are discussed in this section. The PDP does not include detailed architectural designs or landscaping for the homes, which will be done as a separate design review prior to issuance of a building permit for each home. The applicant is providing design guidelines as this point, consistent with Mitigation Measure 3.1-3D.

Landscape Plans

The project includes landscaping for the development that will be installed with the primary purpose of providing future screening of the development from the existing residences north of Larch Creek, which includes mitigation tree plantings for trees that will be removed as part of the project development, replaced at a 3 to 1 ratio. The

applicant has submitted a plan that includes four different tree species and seven different shrub species. Most trees will be planted between the north side of the road and Larch Creek. Trees would also be planted on the south side of the cul-de-sac, one along the front of each lot and west of Hetfield Place around the bio retention basin. Shrubs would be planted along the edges of the road, except for in front of lots 4 through 7.

GDP COA 14 requires that shrub and tree plantings that will reach a minimum 5 feet in height at maturity be planted at the northern edge of lots with graded slopes that will be visible from homes on Sanders Drive, specifically, lots 1, 2 and 3. The trees must be a minimum of 15-gallon container sizes and are to be planted within 1 month of the conclusion of corrective grading. The landscaping plans show a line of California Rose shrubs to be planted adjacent to the road along the frontage of lots 1,2, and 3. The planting legend indicates that the shrubs will grow to 5 feet in height with a 3-foot 6-inch spread. The plans also proposed a 24-inch box Coast Live Oak to be planted at the front of each lot adjacent to the road.

GDP COA 164 requires landscaping buffering and screening with broadleaf and evergreen trees and shrubs to replicate natural vegetation groupings of the area and surroundings. The landscape for the access street should be comprised of native evergreen and deciduous trees and shrubs, including oak trees, for a native woodland appearance. The landscaping should also be designed to screen the future houses and street from the view of Sanders Drive. The proposed plans include the planting of trees north of Hetfield Place between Larch Creek, around the bio retention basin and around the cul-de-sac. These trees include a mix of California Buck Eye, Western Redbud, Coast Live Oak and Valley Oak that are planted in a random pattern. These trees are primarily mitigation plantings for trees that are being removed by the project. The project biologist has recommended that these be planted at a Treepot 8 size, as the smaller container size has a higher rate of successful establishment and survival. At maturity the trees should reach between 20 and 40 feet in height. Along the northern side of Hetfield Place, 21 Coast Live Oaks are proposed to be planted at a 24-inch box size, which will provide more immediate screening of the future homes from the Sanders Drive neighborhood. Additionally, a variety of native shrubs, ranging in mature heights of 1 foot to 7 feet, would be planted along the northern edge of Hetfield Place and around the cul-de-sac to provide screening of the road. The proposed trees and shrubs are all native, deer tolerant, fire resistant and are either low or very low water use.

<u>Tree Removal and Replacement.</u>

The GDP had anticipated 22 trees being removed. However, the PDP proposes to remove 51 trees, with 32 of these being native. The list of trees proposed for removal is shown in the landscape plans (Attachment L, sheet L2). The proposed increase in the number of requested tree removals are primarily for three reasons, 1) trees that will be impacted by design revisions, such as the bio retention basin, 2) trees that previously were not large enough in 2013 to be considered protected trees, have grown since 2013 when the last tree report was conducted, to now be considered protected trees, and 3) trees that the arborist has determined may pose significant hazards to nearby residents and could cause bodily harm, death or damage to properties. Removal of these trees

would be granted as part of the grading permit; no separate tree removal permits would be required per MMC §12.12.110.

The calculations provided by the applicant show that the plantings would meet the State Model Water Efficient Landscape Ordinance (MWELO). The landscaping plans are included as Attachment L

Per COA 163 of the GDP, the 32 native trees proposed for removal are to be replaced at a 3:1 ratio, which is reflected in the landscape planting plan. The proposed landscape plan (Attachment L) identifies 96 replacement trees to replace the 32 native trees lost due to construction. These would include 44 coast live oaks; 7 valley oaks; 16 California buckeyes; and 29 western redbuds.

Bridge Design

To access the development, a bridge would be constructed from the southern terminus of Hetfield Place across Larch Creek. COA 11 of the GDP requires design review for the bridge. The proposed bridge elevations are included as Attachment M. The bridge would be approximately 7 feet 5 inches in height to the top of the tallest pilaster above the proposed road surface, and would be approximately 27 feet in width, with two 12-foot-wide traffic lanes and a 5-foot-wide sidewalk on the eastern side. The applicant has provided three options for the bridge pilaster and wall finishes, these include stucco, stone veneer, or stamped concrete.

The plans also include three cap options for the pilasters, which include chamfered, pyramid and squared. Staff believes that either of the three would be appropriate. If the stone veneer is selected for the pilaster and wall finishes, staff recommends that the cap have a more natural stone appearance as well. The pilasters would include lighting, that would be directed downward. The larger pilasters at entry propose a downlight that would illuminate a sign that says, “Hetfield Estates” and the smaller pilasters on the interior of the bridge would include recessed wall lights to provide illumination for pedestrian traffic.

Staff recommends the stone veneer be selected as it most aligns with the Moraga Design Guidelines, street and roadway enhancements (Appendix C, Page 110), which states that site furnishings should reflect Moraga’s semi-rural character, and notes that the use of natural materials, particularly stone, is appropriate, and includes several example photos.

Staff recommends a condition of approval be added limiting the sign to 4 square feet in size, and that final lighting details confirm the lighting is dark sky compliant. If this cannot be achieved, then the lighting must be removed from the bridge design, or a similar alternative design may be approved by the Planning Director.

Design Review and Design Exception for Retaining Walls

The project proposes the following retaining walls:

- Two stacked keystone retaining walls less than 3 feet in height, separated by a horizontal distance of approximately 6 feet 8 inches on the north side of the terminus if the new road.
- A 3-to 5-foot-tall boardform retaining wall constructed towards the rear of the seven lots, at the base of a 3:1 slope.
- A keystone retaining wall of up to 2 feet in height would be constructed along the western side property line of lot 1.

Overall, the use of retaining walls has been minimized for development of the site. The longest and tallest retaining wall would be located towards the rear of the developable area of the lots, and when the future homes are built, would be substantially screened from off-site views by the homes, landscaping, and fences, so staff is not recommending any additional screening beyond what is shown in the plans. An exception from design guideline ID11.5 *"Retaining walls should be built a minimum of three feet from a property line"* is required for the retaining wall at the rear of the seven lots which would span all the lots crossing the property lines and the proposed retaining wall along the western property line of lot 1, which is approximately 2 feet in height at its highest point.

Staff recommends support of ID11.5 exception for the retaining walls as the single retaining wall structure at the rear of the lots is needed to support the hillside above, so it necessarily must be built across property lines. The retaining wall along the western property line of lot 1 is adjacent to the bio retention basin, and not another private property. It will also serve as a clear indicator of where the property line is, further defining the open space from the private property.

Hetfield Design Guidelines

Mitigation measure 3.1-3D requires that, prior to final map approval, the applicant submit design guidelines for review and approval by the Planning Commission acting as the Design Review Board to ensure that future homebuilders incorporate features in the designs that are compatible with the adjoining neighborhood. The applicant has submitted proposed design guidelines, which are included in Attachment G. The proposed design guidelines include GDP COA's and project mitigation measures that are relevant to the home designs, they highlight specific design guidelines from the Town's Design Guidelines and provide an architectural context of the existing Sanders Drive neighborhood for reference. The Town wide design guidelines would also apply to the home designs, with the exception of Chapter 4, Hillside and Ridgeline design guidelines, which were adopted after publishing of the Hetfield Estates EIR, and would not apply to the initial development of the homes.

Staff has worked with the applicant on the design guidelines with the intent that they are complementary and compatible to the surrounding neighborhood while allowing for current designs. Staff recommends the Planning Commission approve the proposed design guidelines.

D. Additional Project Elements

Public Trail, Fire Trail and Emergency Vehicle Access Easement

As described in the project description section of this report, to date, the SRHOA has not agreed to complete the connection, and it is uncertain whether it would agree to do so in the future. As described on Condition 40 of the GDP, the applicant shall prepare a cost estimate to be approved by the Town Council for construction of a 16-foot-wide fire trail. Prior to issuance of the first building permit, payment of required funds for the construction of the fire trail shall be made to the GHAD or other Town entity as designated by the Council. Once the first building permit is issued, the GHAD or other designated agency shall submit a formal request to the SRHOA as to whether the SRHOA is willing to complete a connection of the fire trail from the Hetfield property line with Sanders Ranch to Sanders Ranch Road. This request shall be made once every two years for a ten-year period. If an agreement cannot be reached, then the GHAD or designated entity may re-assign the funds for other allowable purposes, which are to generally be to the benefit of publicly accessible facilities such as on-site trails and open space.

GDP COA's 36 and 40 both require that as part of the subdivision development that a public trail be built within from the end of the access road (Hetfield Place) and extend to the intersection of Fire Trail #41-7. Please see additional discussion regarding this in Attachment H, highlighted on page 2, an excerpt of the May 21, 2014, Town Council minutes. COA 40 further specifies that the trail is to be 6 feet in width. The PDP plans currently show that the trail would be built from the end of the access road to the Old Moraga Ranch Trail. The section was not required to be completed because should current property owner or GHAD, SRHOA and MOFD agree to use the existing Fire Trail #41-7 alignment, then the trail would continue to use that route rather than be separately constructed in the alignment shown. Since the current property owner and SRHOA have been unable to come to an agreement regarding construction of a fire trail. Given this, staff is recommending the following condition be added to the PDP. The submitted plans show the trail connecting to the Old Moraga Ranch Trail, however staff is recommending this be revised to instead connect to fire trail 41-7, consistent with GDP conditions of approval 36 and 40. The 6-foot-wide portion of the trail would be centered within a 30 ft wide public trail and EVAE until connecting with fire trail 41-7.

"In accordance with COA's 36 and 40 of the GDP, the PDP, grading and improvement plans shall be revised to show that the 6-foot-wide trail built from the eastern end of the access road (Hetfield Place) to Fire Trail 41-7. Additionally, a second 30-foot-wide Emergency Vehicle Access Easement shall be recorded on the final map centered on the alignment of the existing Fire Trail 41-7 to allow for the future option of the use of this alignment consistent with COA 40 of the GDP."

Bio Retention Basin

The PDP plans show a bioretention bason that was not previously included in the original drainage facility design. The applicants' engineers have explained to staff that they have proposed this design change for several reasons. To create a system that is simpler to maintain, to address updated Contra Costa Clean Water Program (C.3) requirements from when the previous plans were approved and to better capture

stormwater runoff from the street. The basin is a type of landscape feature that is used to filter stormwater and would be vegetated with specialized native plants. It would be located in a substantially level area containing primarily non-native grasses and some trees within the original approved MOSO development cell for the project, which was reviewed as part of the project EIR, and subject to the mitigation measures and project COAs already established for the project.

Staff recommends approval of the new bio-retention basin as it is consistent with the CDP, GDP and with practices of stormwater and MWELO.

VII. General Plan Consistency

The 2002 General Plan contains numerous policies applicable to the project. Conformance with the General Plan was considered in the approval of the CDP, and the project, at that time was found to comply with relevant policies. Since the project in the PDP is substantially similar to the CPD and GDP/VTM, a similar finding of consistency can be made, as documented in the Findings.

The project is consistent with General Plan Policies LU1.1, CD4.3 and H1.4 regarding compatibility with existing neighborhood since the lot sizes and maximum home sizes would be similar to those in the adjacent neighborhood. The proposed project will also be compatible with Policies LU1.2 and LU1.5 regarding densities, as the proposed density would not be less than 1 unit per 5 acres, the maximum allowable in MOSO lands. The project is consistent with the minimum and maximum lot sizes established in Policy LU1.6 for MOSO properties. The project is also consistent with Policy OS1.4 which calls for public use of private open space, and Policy OS2.8 regarding protection of onsite trees, since most trees on the site would be preserved, or mitigation provided for trees removed.

Regarding General Plan consistency findings related to MOSO, the project would also be consistent with General Plan Goal 5 (Policy OS-5.1) because the project and its associated grading would be confined to areas with less than 20% slope as established by the projects approved MOSO cell and would be set back significantly from the site's ridgeline. The lots would be clustered on the flatter portion of the site and resultant 3:1 slopes from corrective grading would be preserved in open space. The approved Conceptual Development Plan allows density to be increased from one unit per twenty acres, but limited to approximately one unit per approximately eight acres. A significant amount of the site would remain as open space. The slope stability work will allow removing a portion of the site from its designation as "high risk".

VIII. Community Notification

On January 20, 2022, public hearing notices were mailed to 171 property owners within a 500-foot radius of the project site and mailed to 37 interested parties who had requested notification during earlier project phases and posted at the project site on that same date, at least ten (10) days prior to the hearing date. At the time of this staff

report, one public comment was received via email which is included as Attachment I of this report.

IX. Recommendation

Based on the proposed Precise Development Plan conformance with the approved Conceptual Development Plan, General Development Plan, Mitigation Measures, the adopted Environmental Impact Report and Moraga General Plan, staff recommends that the Planning Commission adopt the attached Resolution adopting findings, and approving the Precise Development Plan, Grading Permit, and Design Review for Landscaping, Bridge, Retaining Walls and Design Guidelines, subject to conditions.

Report reviewed by: **Afshan Hamid, Planning Director**
Karen Murphy, Assistant Town Attorney

Attachments:

- **A.** Draft Resolution
- **B.** Town Council Resolution 43-2014 - General Development Plan, Hillside Development Permit, Use Permit, Vesting Tentative Map
- **C.** Mitigation Monitoring and Reporting Plan
- **D.** General Development Plan
- **E.** MOSO Cell
- **F.** Engeo Geotechnical Report, May 30, 2019
- **G.** Draft Hetfield Estates Design Guidelines
- **H.** May 24, 2014, Town Council Minutes Excerpt
- **I.** Public Correspondence
- **J.** Precise Development Plan
- **K.** Grading Plans
- **L.** Landscaping Plans
- **M.** Bridge Plans

ATTACHMENT A

Draft Resolution __-2022

BEFORE THE TOWN OF MORAGA PLANNING COMMISSION

In the Matter of: Resolution No.__-__ PC

Approval of a Precise Development Plan, Grading Permit and Design Review for Landscaping, Bridge, Retaining Walls and Design Guidelines for the the Hetfield Estates Project, a seven-lot Single Family Residential Subdivision

File No PDP 01-21
GR 02-21
DRB 07-21

Adoption Date:

Appeal Period Ends:

WHEREAS, in December 2005, an application for a Conceptual Development Plan (CDP 02-05) was submitted for review to allow the development of six single-family residential lots on a 58.2-acre property (the "Property"), with individual lots ranging in size from 41,826 square feet (0.96 acres) to 59,930 square feet (1.38 acres) plus one remainder parcel of 51.45 acres for common area; and

WHEREAS, on November 17, 2008, the Planning Commission adopted a Mitigated Negative Declaration (MND) and approved the proposed project; and

WHEREAS, in December 2008, the Planning Commission approvals, including adoption of the MND were appealed to the Town Council; and

WHEREAS, on January 14, 2009, the Town Council upheld the appeal and denied, without prejudice, the Planning Commission decision and directed that a Focused Environmental Impact Report (EIR) be prepared for the project; and

WHEREAS, on January 14, 2011, a Draft Focused EIR was prepared by Mills Associates and was released for public review for a 45-day period; and

WHEREAS, during the public comment period, on March 7, 2011, the Planning Commission held a public hearing on the Draft EIR and the project, wherein public comments were received and considered; and

WHEREAS, on March 23, 2012, a Final EIR was released for public review, including responses to comments received at the public hearing and during the public comment period; and

WHEREAS, on April 2, 2012, and June 4, 2012, the Planning Commission held a public hearing regarding certification of the Final EIR and approval of the Conceptual Development Plan; and

WHEREAS, the Final Environmental Impact Report concluded that all potentially significant impacts of the project could be mitigated to a less than significant level and that there were no significant and unavoidable impacts; and

WHEREAS, the applicant was directed to provide more information about the 8-lot alternative that was evaluated in the "Alternatives" chapter of the EIR as this was shown to be the "Environmentally-Superior Alternative" in the EIR and this information was incorporated into Staff Reports for the April 2, 2012 and June 4, 2012 Planning Commission public hearings; and

WHEREAS, at the public hearings for the project, the Planning Commission discussed the elimination of one lot from the 8-lot alternative in order to further reduce exposure to landslide hazards; and

WHEREAS, it was noted by Staff that, with the exception of Mitigation Measures 3.1-1A, 3.1-1C, and 3.1-3A, all mitigation measures identified for the 6-lot project would otherwise be applicable to the 8-lot and 7-lot alternatives; and

WHEREAS, on July 16, 2012, the Planning Commission certified the Hetfield Estates Environmental Impact Report, which identified that significant environmental impacts may result from the project, but that mitigation measures could reduce the impacts to a less-than-significant level, and adopted a Mitigation Monitoring and Reporting Program ("MMRP"); and

WHEREAS, as required by the "Guidelines for Interpreting and Implementing the Moraga Open Space Initiative" (as amended by Town Council Resolution No. 6-99), Section III.C, on July 16, 2012, the Planning Commission approved an increase in density from one unit per 20 acres to not more than one unit per 5 acres based on findings that the proposed development is consistent with specific criteria listed below and approved the CDP with the seven lot alternative (the "Project"); and

WHEREAS, on October 8, 2013, John Wyro of the Wyro Company (applicant) and Robert E. Lipson and Sandy Gage (owners) filed an application for a General Development Plan, Vesting Tentative Map (Subdivision 9051), and Conditional Use Permit to develop the seven (7) single family residential lots on the Property; and

WHEREAS, at the request of the Town, the application was modified to include a Hillside Development Permit; and

WHEREAS, in accordance with MMC Chapter 8.48, the General Development Plan (GDP) is required to be consistent with the approved Conceptual Development Plan, and accordingly, the GDP is consistent with the approved Project in terms of number of lots, overall site plan, development footprint and other aspects; and

WHEREAS, the CDP considered, in concept, the provision of an Emergency Vehicle Access (EVA) as a project component, but the alignment of the EVA was not specified or analyzed in detail in the EIR; and

WHEREAS, a CEQA Addendum was prepared and presented as part of the Staff Report for the February 3, 2014 Planning Commission meeting and public hearing to analyze changes to the project since approval of the CDP, including the alignment of the proposed EVA, and the Addendum concludes that no new significant impacts were

identified because specific measures from the adopted MMRP would apply to the EVA to mitigate any potential impacts ("EIR Addendum"); and

WHEREAS, public hearing notices were mailed to all property owners within 500 feet of the subject property on February 6, and February 21, 2014, and the notice was posted at various public locations and at the project site; and

WHEREAS, on February 18, 2014, the Planning Commission held a public hearing and received testimony from the applicant and interested parties, and continued the hearing to a date certain of March 3, 2014, at which the Planning Commission received additional public testimony.

WHEREAS, on March 3, 2014, the Planning Commission held a public hearing and took testimony and approved the General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit; and

WHEREAS, in their approval, the Planning Commission revised the project to require the dedication of an easement for an Emergency Vehicle Access (EVA), but not to require the applicant to construct the EVA; and

WHEREAS, on March 13, 2014, two appeals of the Planning Commission were separately filed by Councilmember Dave Trotter, and Councilmember Mike Metcalf; and

WHEREAS, on April 23 and May 21 2014 the Town Council held public hearings accepting testimony from the appellant, the applicant and the public, and discussed the appeal; and

WHEREAS, on May 21, 2014, the Town Council held a public hearing and took testimony and upheld the Planning Commission's approval of the General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit and adopted a CEQA addendum for the EVA;

WHEREAS, on February 16, 2016, Robert Lipson and Sandy Gage filed an application for the Precise Development Plan, under MMC Section 8.48.110; and

WHEREAS, on February 24, 2016, Town Council adopted Resolution 15-2016 approving a two-year extension of the VTM, GDP and other associated entitlements to May 21, 2018.

WHEREAS, on August 22, 2018, Town Council adopted Resolution 54-2018 approving a one-year extension of the VTM, GDP and other associated entitlements to May 21, 2019.

WHEREAS, on May 22, 2019, Town Council adopted Resolution 41-2019 approving a one-year extension of the VTM and associated entitlements to May 21, 2020.

WHEREAS, on May 13, 2020, Town Council adopted Resolution 27-2020 approving a one-year extension of the VTM and associated entitlements to May 21, 2021.

WHEREAS, on May 12, 2021, Town Council adopted Resolution 21-2021 approving a one-year extension of the VTM and associated entitlements to May 21, 2022.

WHEREAS, Under Article 2 of Section 66452.6(e) of the Subdivision Map Act, May 2022 is the sixth and final year of the extended life of the VTM. No additional extensions of the VTM can be granted.

WHEREAS, on December 13, 2021, to reflect a change in property ownership, Eric A. Mandell filed an application for the Precise Development Plan, under MMC Section 8.48.110, Grading Permit and Design Review; and

WHEREAS, public hearing notices were mailed to all property owners within 500 feet of the subject property and interested parties and posted on the site on January 20, 2022; and

WHEREAS, on February 1, 2022, the Planning Commission conducted a duly noticed public meeting to consider the Precise Development Plan, Grading Permit and Design Review for Landscaping, Bridge, Retaining Walls and Design Guidelines and their conformance to the approved General and Conceptual Development Plan.

NOW, THEREFORE, BE IT RESOLVED, the Planning Commission of the Town of Moraga hereby finds and determines as follows:

PART I: CEQA REVIEW AND FINDINGS

A. The Town Council certified the Final EIR for the project on July 16, 2012, and the Town Council adopted an Addendum to the Final EIR on May 21, 2014, with refinements to the proposed Emergency Vehicle Access Easement (EVAE) and associated Conditions of Approval and adopts a CEQA addendum for the EVAE and VTM.

B. The Precise Development Plan will substantially conform in all aspects to the approved Conceptual Development Plan and General Development Plan, including seven (7) single-family homes on individual lots and associated improvements, in a configuration and with dimensions consistent with the prior approvals, and 55.17 acres of permanently protected open space with publicly accessible trails.

C. Therefore, there are no substantial changes proposed in the project, substantial changes with respect to the circumstances under which the project will be undertaken or new information of substantial importance of the type that would require additional environmental review pursuant to Section 15162 of the CEQA Guidelines. No additional environmental review is required.

PART II: PRECISE DEVELOPMENT PLAN FINDINGS

The Planning Commission hereby finds:

A. The Precise Development Plan conforms in all respects to the approved Conceptual Development Plan and General Development Plan, including a 7-lot subdivision, internal roadway, and landscaping, with a consistent site plan and configuration as those included in the General Development Plan.

B The Precise Development Plan is consistent with all relevant conditions of approval. The Precise Development further defines the previous project approvals, including a slight increase in the overall lot areas, the lots will remain in compliance with required lot size parameters set by the Conceptual Development Plan and General Development Plan. The final grading plan proposes approximately 90,561 cubic yards of grading, which is consistent with the Conceptual Development Plan and General Development Plan, which proposed approximately 96,624 cubic yards, and approximately 89,000 cubic yards respectively. The number of trees proposed for removal has been increased what was anticipated at the General Development Plan phase but will be replaced at a 3:1 ratio in compliance with the General Development Plan conditions of approval. The Precise Development Plan and associated plans include the proposed final designs for the bridge, street and parking, retaining walls, bio retention basin for stormwater and design guidelines for future homes. The public trail design has been conditioned in the Precise Development Plan conditions of approval to be consistent with the requirements of General Development Plan conditions 36 and 40, that it is only to be graded to connect with fire trail 41-7 at this time.

C. The project, as represented in the Precise Development Plan, is consistent with the applicable policies of the General Plan. Since the project is consistent with the General Development Plan and Conceptual Development Plan, the Planning Commission similarly finds the project to be in conformance to the General Plan, based on the findings previously determined and documented for each of the prior approvals, and which are incorporated herein by reference.

PART III: FINDINGS TO APPROVE THE GRADING PERMIT

The Planning Commission of the Town of Moraga makes the following findings to approve a Grading Permit involving 200 cubic yards of grading or more on an average slope of less than 25% and more than 20% pursuant to Moraga Municipal Code §14.12.030:

The Planning Commission finds that the Proposed Grading:

(a) Is consistent with the town design guidelines;

Applicable design guidelines include those under Guideline ID10 and ID11 in the Town of Moraga Design Guidelines. The grading would generally be consistent with applicable design guidelines since it would adhere to the requirements of the Grading Ordinance in terms of applicable permitting (ID10.1-10-4); would screen cut slopes to the extent feasible by utilizing contour grading, and extensive vegetation replanting to return slopes, cuts and fills to a natural appearance; and would create rounded slopes that avoid sharp breaks and angles and that transition into the adjacent slopes (ID10.6).

Although the project does include slopes greater than 3:1, the site also includes natural slopes of similar steepness. The General Development Plan Conditions if Approval and special engineering measures as recommended in the project's Geotechnical Exploration prepared by ENGEO dated January 12, 2015, and revised May 30, 2019, ensure that slopes do not present unacceptable hazards.

The use of retaining walls for the development of project is minimal. Two stacked keystone retaining walls less than 3 feet in height, separated by a horizontal distance of approximately 6 feet 8 inches would be constructed to accommodate a vehicle turnaround at the terminus of the onsite access road. A 3-to 5-foot-tall boardform retaining wall would also be constructed towards the rear of the lots, at the base of a 3:1 slope that would extend to the south, and that would transition to the natural grade of the slope above. This retaining wall will be largely screened from off-site view by future homes, landscaping and fencing. Additionally, a keystone retaining wall of up to 2 feet in height would be constructed along the western side property line of lot 1. The project's retaining walls would all be five feet or less in height consistent with Design Guideline ID11.2. A Design Review exception has been requested for a retaining wall along the western property line of lot 1 to allow it within 3 feet of the property line, and the Planning Commission has made findings to approve this exception, as documented elsewhere in this resolution. The project plans indicate that there would be a minimum of 6 feet 8 inches between two stacked retaining wall less than 3 feet in height, consistent with Design Guideline ID11.4.

(b) Is consistent with the regulations of MMC Chapter 14.12;

MMC Chapter 14.12 pertains to the criteria and findings and procedures for Design Review Board (Now Planning Commission) review and approval of a grading permit. The project's grading falls within limits that are subject to Planning Commission approval since it involves 200 cubic yards of grading or more and slopes greater than or equal to 20 percent and predevelopment average slopes less than twenty-five percent.

(c) Is not detrimental to public safety;

The proposed grading plan is based on geotechnical reports of site conditions, soils reports, and other similar technical reports which were peer reviewed by licensed professionals on behalf of the Town of Moraga, and by other Town staff. The recommendations of these professionals resulted in a site plan that avoids

public safety impacts. The Grading and Erosion Control Conditions of Approval and geotechnical report recommendations include a number of measures to ensure that slope stability is maintained before, during and after construction. These include conformance with the geotechnical report recommendations; preparation of remedial grading plans with final grading plans; monitoring by a geotechnical engineer and engineering geologist during grading operations; design of building foundations in accordance with geotechnical recommendations; remediation of observed adverse conditions; and post-construction documentation/recordation of remedial measures taken.

The project grading would result in a number of fill slopes with gradients of 3:1. Section 14.48.021 of the Grading Ordinance generally requires fill slopes to not be steeper than *3:1, steeper slopes are allowed where natural slopes are greater, and where it can be demonstrated that proposed fill slopes will not create a hazard to public or private property*. Both of these provisions would be met, since some existing slopes on the site are steeper than 3:1, but none are proposed steeper than 3:1 and peer-reviewed engineering reports have been provided, indicating that, with appropriate stabilization measures, slopes will be stable and not create hazards.

(d) Is not detrimental to stormwater runoff;

The Hetfield States Subdivision EIR includes an extensive analysis of the potential effects of the project on stormwater quality and quantity and concludes that all such effects would be less than significant. A complex and exhaustive series of permitting and other regulatory requirements pertain to stormwater and runoff, with which the project is required to comply. Various Conditions of Approval have been specified that would ensure project development, including grading, would not result in detrimental effects on stormwater, including Conditions 84 - 92 relating to design and permitting of drainage facilities; Conditions 97 - 101 pertaining to compliance with Water Quality and National Pollutant Discharge Elimination System (NPDES) requirements; Conditions 102 - 110 regarding C.3 Stormwater Control plans and permits.

(e) Is consistent with the requirements of Chapter 8.136 of this code;

Chapter 8.136 sets forth the Town's Slope Density (Hillside Development Permit) requirements. A Hillside Development Permit is required for this project, and was approved with findings concurrently with the General Development Plan by the Planning Commission and Town Council, consistent with Chapter 8.136.

(f) Is "Natural contour grading";

"Contour grading" is defined in Title 14 as "the grading of cut and fill slopes to blend with existing contours and to provide horizontal and vertical variation to eliminate the artificial appearance of slopes." Although the natural terrain of approximately 3 acres of the site would be modified for the creation of lots and future homes, the proposed grading approach, which provides contours that

reflect rounded, natural forms, and that reflect and transition into adjacent grades, complies with the Code's definition. The building areas on each of the lots would transition to the adjacent lots with a gradual slope to better follow the existing native slopes. The retaining wall needed to retain the hillside and create the developable portion of the lots would be located behind the future homes, landscaping and fences. This wall is not taller than 5 feet and increases in elevation from west to east following the topography of the site.

(g) Minimizes soil displacement;

The site plan in the GDP proposed a total grading of just under 89,000 cubic yards (CY). The approved CDP reflected an estimated 96,624 CY of grading in the 8-lot alternative, and 81,000 cubic yards in the GDP. After completing additional geotechnical work and finalizing the design of the PDP and associated plans the applicant is proposing a grading amount of 90,561 CY, slightly higher than the 89,000 CY approved with the GDP. This includes 16,870 CY of cut, 14,950 CY of fill, 31,556 CY for keyways and 27,185 cy for landslide repair. The calculated CY of grading has changes from the GDP plan for several reasons. An updated topographical survey of the site was completed in 2015, the previous survey had been done in 1999. Additional grading is also being proposed for fire truck turnouts as required by the Moraga Orinda Fire District, street parking revisions, trail path adjustment, more detailed project design details, expansion of a wetland mitigation pond west of lot 1 and the creation of a new stormwater bio-retention basin west of the bridge and lot 1. The total amount of soil displacement is approximately the same is less than the CDP and approximately 1.561 cubic yards more than was anticipated in the GDP. The majority of grading will be for keyway and landslide repair, which is necessary for the safety of the site. The remainder of the grading will be for development of the lots, road and trail.

(h) Minimizes the use of retaining walls;

The proposed amount of retaining walls is minimal and the largest wall would not be substantially visible from off site. There will be one larger retaining wall built along the rear of the proposed lots that is necessary to create a developable area on the lots. This wall will be approximately 650 feet in length and up to 5 feet tall at its highest point. It is necessary to support the hillside and create building areas below on each of the lots. This wall will be substantially screened from off-site view by the future homes, landscaping, and fences. The other proposed retaining walls include two walls of less than 3 feet in height, which will have 6 feet 8 inches of separation, at the end of the Hetfield Place cul-de sac and a retaining wall up to 2 feet in height along the western property line of lot 1.

(i) Is not inconsistent with the general plan.

The project was determined to be consistent with the General Plan in the findings made by the Planning Commission and Town Council for the approved Conceptual Development Plan and General Development Plan. The proposed grading is consistent with these plans. In particular, the project-specific

geotechnical analysis determined that with implementation of all site preparation, slope stabilization, cut/fill transitions, foundation design, structural design, drainage, retaining wall construction, and other recommendations by the geotechnical engineer, the proposed structures would withstand the maximum probable seismic ground shaking at the site and would not be exposed to slope failure.

PART VI: DESIGN REVIEW FINDINGS

The Planning Commission hereby makes the following findings for Design Review approval of the subdivision landscaping, retaining walls and bridge and Design Guidelines, in accordance with Moraga Municipal Code §8.72.080.B:

The structure conforms with good taste, good design and in general contributes to the character and image of the town as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality;

- The proposed landscaping for the project is designed to provide screening of the development from the existing neighborhood. This includes three different native tree species and seven native shrub species. The majority of trees will be planted on the property between the southern side of Larch Creek and the new Hetfield Place road extension. These will be planted in a pattern designed to appear natural. The shrubs and approximately 21 Coast Live Oaks will be planted at a 24-inch box size and will be planted along the street. The landscaping will provide texture, color and visual interest, and an appropriate transition between the existing neighborhood, streets, future residences and the adjacent open space.
- The proposed retaining walls include one approximately 650-foot-long wall that would be built along the rear developable area of lots 1 through 7, at the base of the hill. This concrete wall will have a boardform finish and a maximum height of 5 feet. Once homes and associated improvements, such as landscaping and fences are constructed, it will largely be screened from offsite views. There will be two keystone walls not exceeding 3 feet in height at the end of the cul-de-sac and one keystone wall not exceeding 2 feet in height along the western property line of lot 1. The largest retaining wall will be largely screened from off-site views and the three keystone walls 3 feet or less in height. Overall, the minimal use of retaining walls that would be visible from off-site once the project is fully built, and proposed landscaping provides for a design that will minimize potential aesthetic impacts to off-site views.
- The proposed bridge would be approximately 7 feet 5 inches in height to the top of the tallest pilaster above the proposed road surface, and would be approximately 27 feet in width, with two 12-foot-wide traffic lanes and a 5-foot-wide sidewalk on the eastern side. Pilaster and wall finishes would be stone which aligns with the Moraga Design Guidelines, street and roadway enhancements (Appendix C, Page 110), which states that site furnishings should reflect Moraga's semi-rural character, and notes that the use of natural materials. The pilasters would include lighting, that would be directed downward. The larger

pilasters at entry propose a downlight that would illuminate a sign that says, “Hetfield Estates” and the smaller pilasters on the interior of the bridge would include recessed wall lights to provide illumination for pedestrian traffic. A condition of approval has been added limiting the sign to 4 square feet in size, and that final lighting details confirm the lighting is dark sky compliant. If this cannot be achieved, then the lighting must be removed from the bridge design, or a similar alternative design may be approved by the Planning Director.

- The Hetfield Design Guidelines provide context and guidance to future developers of the property to ensure that new homes will be designed to incorporate design characteristics of the homes within the surrounding neighborhood into new home designs.

The structure will be protected against exterior and interior noise, vibrations and other factors which may tend to make the environment less desirable;

- The landscaping would be planted outdoors and is not anticipated to create noise that would make the environment less desirable.
- The retaining walls are not anticipated to create noise that would make the environment less desirable.
- The bridge has no noise generating components, beyond traffic that would utilize it, and it is not anticipated to create noise that would make the environment less desirable.
- The Design Guidelines themselves do not authorize construction of a structure. Future construction will be subject to building code requirements and compliance with Moraga Municipal Code Section 7.12, Noise Control.

The exterior design and appearance of the structure is not of inferior quality as to cause the nature of the neighborhood to materially depreciate in appearance and value;

- The proposed landscaping includes a variety of native plants chosen to compliment the vegetation and provide additional screening of the development from the existing neighborhood along Sanders Drive.
- The propose retaining walls would be constructed of concrete with a stamped boardform design and keystones, which are retaining wall materials that are commonly used for retaining walls throughout the Town.
- The proposed bridge has been designed to accommodate two lanes of vehicle traffic and a sidewalk for pedestrians. It includes pilasters which will provide architectural interest and would be sided with stone, a natural material that reflects Moraga’s semi-rural character.
- The Hetfield Design Guidelines provide that exterior building design on all elevations of the building be coordinated regarding color, texture, materials, finishes and architectural form and detailing to achieve design harmony and continuity. The designs are to use materials like those found in the surrounding neighborhood, including lap siding, vertical panel siding, stucco siding and stone

or brick veneers. The home designs will be subject to the Town wide design guidelines as well.

The structure is in harmony with proposed developments on land in the general area.

- The proposed landscaping has been designed to enhance the existing vegetation between the riparian corridor and new Hetfield Place road extension with new native trees that will be planted in a natural pattern. The landscaping also includes native shrubs and trees that will be planted along the roadway to provide additional screening of the new homes and roadway from the existing Sander Drive neighborhood.
- The proposed retaining walls use designs and materials that are commonly found within Moraga neighborhoods. An exception from design guideline ID11.5 *"Retaining walls should be built a minimum of three feet from a property line"* is required for the retaining wall at the rear of the seven lots which would span all the lots crossing the property lines and the proposed retaining wall along the western property line of lot 1, which is approximately 2 feet in height at its highest point. Staff supports this exception for the retaining walls as the single retaining wall structure at the rear of the lots is needed to support the hillside above, so it necessarily must be built across property lines. The retaining wall along the western property line of lot 1 is adjacent to the bio retention basin, and not another private property. It will also serve as a clear indicator of where the property line is, further defining the open space from the private property. Overall, the design of the walls are in harmony with the area and the construction of retaining walls across and along property lines would not negatively impact this and is necessary for the orderly development of the site.
- The proposed bridge is necessary to access the Hetfield Estates development. It would include a stone veneer on the pilasters and walls, which would be a material consistent with the semi-rural character of the site and in harmony with the neighborhood.
- The Hetfield Design Guidelines provide context and guidance to future developers of the property to ensure that new homes will be designed to incorporate design characteristics of the homes within the surrounding neighborhood into new home designs. this includes characteristics such as low-pitched roofs and roof overhangs, a mix of lap, vertical panel, and stucco siding, brick or stone wainscoting, sitting porches, ranch style garage doors and colors that blend with the environment & nearby houses.

PART IV: PROJECT APPROVALS

Based on the record before the Planning Commission and the findings set forth above, the Planning Commission of the Town of Moraga hereby approves a Precise Development Plan, Grading Permit and Design Review for Landscaping, Retaining Walls and Bridge for the Hetfield Estates Project, a seven-lot single family residential

subdivision, subject to the conditions of approval listed in Exhibit A and effective upon the adoption of this resolution.

PART V: APPEAL
Any interested person may appeal this Resolution of the Planning Commission to the Town Council within ten calendar days of its passage pursuant to Moraga Municipal Code Section §8.12.200.

PASSED AND ADOPTED by the Planning Commission of the Town of Moraga on February 1, 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Brenda Luster, Chair

ATTEST:

Afshan Hamid, Planning Director, AICP

EXHIBIT A

Project Description: Hetfield Estates Precise Development Plan (PDP 01-21), Grading Permit (GR 02-21) and Design Review (DRB 07-21) – Located at the Southern Terminus of Hetfield Place APN (258-600-006). Approval of the Precise Development Plan, Grading Permit and Design Review for Landscaping, Bridge, Retaining Walls and Design Guidelines for the Hetfield Estates Subdivision, a 7 Unit Single Family Residential Development.

Planning Standard Conditions

1. This approval authorizes the following as approved by the Town of Moraga Planning Commission on February 1, 2022: Hetfield Estates Precise Development Plan (PDP), Grading Permit and Design Review for subdivision landscaping, retaining walls and bridge. The approvals would allow for development of up to 7 single-family homes on individual lots and associated improvements, including construction of a bridge, construction of an extension of Hetfield Place and trails.

2. The applicant will include the Conditions of Approval in all permit sets after the cover page, and provide responses to each condition as to how it is addresses the comments to staff satisfaction.

3. Further approvals necessary to allow development of the site include, Final Map, Improvement Plans, Building Permit Plans, Grading Permit Plans etc. All such plans shall be in substantial conformance with the General Development Plan approved by the Town Council on May 21, 2014, and approvals listed in Condition #1, above, as approved by the Planning Commission on February 1, 2022, and more fully described in the Resolution and its Exhibits and as modified by these conditions of approval. Additional Conditions of Approval, or modification/refinement of these Conditions of Approval may be required with these further approvals. Minor modifications to the plans may be approved by the Planning Director or Public Works Director, as applicable.

4. EIR Mitigation Compliance. All required mitigation measures identified in the certified Environmental Impact Report (SCH# 2009022086) ("EIR") shall be implemented and monitored in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP). The mitigation measures identified by Mills Associates in the final Mitigation Monitoring and Reporting Plan (March 23, 2012) of the Final EIR and as stipulated in the Mitigation Monitoring and Reporting Program adopted by the Planning Commission at its July 16, 2012, meeting shall be implemented. The applicant shall fund a Town-contracted individual to monitor compliance with mitigation measures and conditions of approval. During grading and construction activities, a sign shall be posted on the site with the name and contact information for the mitigation and condition compliance officer

5. Conditions of Approval required at subsequent project stages need not be satisfied prior to approval of the Precise Development Plan or Final Map, but shall continue to be required at subsequent development stages as provided herein, unless a Condition or the timing for its satisfaction is modified at the request of the Applicant and with the approval of the Planning Commission, or approved by the Town as otherwise specified herein.

6. Applicant Responsible for Compliance with Conditions. The applicant shall ensure compliance with all of the conditions specified in these Conditions of Approval, including submittal to the Town required approval signatures at the times specified. Notice of failure to comply with any condition shall be provided to the applicant by the Town, and a reasonable opportunity to gain compliance provided. Applicant's failure to comply with any condition may result in construction being stopped, issuance of a citation, and/or modification or revocation of the permit

7. Town staff (including authorized agents) shall have the right to enter the subject property to verify compliance with these conditions. The holder of any permit associated with this project shall make the premises available to Town staff during regular business and shall, upon request, make records and documents available to Town staff as necessary to evidence compliance with the terms and conditions of the permit.

8. Where compliance with the conditions of approval or applicant-initiated changes to the Hetfield Estates Subdivision requires additional staff work, that time shall be billed at the Town's established billing rates.

9. All new improvements constructed on the site shall be in compliance with all local State and federal laws, statutes, ordinances, regulations, rules, orders, judgments, decrees, permits, approvals and the like requirements applicable thereto and in force the time thereof ("applicable law"). "Local, state and federal" applicable law shall include without limitation, the applicable law of the Town of Moraga; Contra Costa County; Moraga Orinda Fire District, Bay Area Air Quality Management District, San Francisco Bay Area Regional Water Quality Control Board; California Department of Fish and Wildlife, US Army Corps of Engineers; State of California; and United States of America.

Planning Special Conditions of Approval

10. All project plans shall be subject to the Conditions of the Approval of Town Council Resolution 43-2014, included as Attachment A of the May 21, 2014, Town Council staff report, with the additional conditions set forth below as COA # 11, through #19. In the event of any conflict between COAs #11 through #19 and the conditions in Town Council Resolution 43-2014, COAs #11 through #19 shall prevail.

11. All plans submitted for the proposed 7 residential lot Hetfield Estates Subdivision, and related building permit and other submittals required for project construction shall be substantially in accordance with the approved Conceptual, General and

Precise Development Plans. In accordance with MMC Section 8.48.140: Changes in Approved Development Plans: Changes to the plans may be made only by following the procedure required for initial review and approval. The planning director or public works director may approve minor changes which are in accord with the intent of the previously approved development plans or refer them to the Planning Commission.

12. The future homes shall be reviewed for compliance by the Planning Commission with the Design Guidelines for Moraga Subdivision 9051, Hetfield Estates, Exhibit A of this resolution and the applicable Town Design Guidelines.

13. The maximum building height of the homes shall not exceed 35 feet consistent with the Moraga Municipal Code.

14. Future accessory buildings and structures less than 400 square feet and that conform with applicable heights and setbacks for such buildings and structures described in the Moraga Municipal Code, may be approved by the Zoning Administrator. Accessory buildings and structures that exceed these specifications shall require Design Review Board review and approval.

15. The final bridge plans shall meet the following requirements:

    a. The pilasters and walls shall have a stone veneer with matching pilaster caps.
    b. The pilaster mounted “Hetfield Estates” sign shall not exceed 4 square feet in size.
    c. The lighting shall be dark sky compliant. If this cannot be achieved, the lighting shall either be removed from the plan, or a similar alternative design may be approved by the Planning Director.

16. In accordance with COA’s 36 and 40 of the GDP, the PDP, grading and improvement plans shall be revised to show that the 6-foot-wide trail built from the eastern end of the access road (Hetfield Place) to Fire Trail 41-7. Additionally, a second 30-foot-wide Emergency Vehicle Access Easement shall be recorded on the final map centered on the alignment of the existing Fire Trail 41-7 to allow for the future option of the use of this alignment consistent with COA 40 of the GDP.

17. The approved drawings shall be in compliance with all applicable and current Federal, State, County and Town of Moraga requirements and standards.

18. If the permit is not exercised, used or established consistent with Moraga Municipal Code Section 8.16.020 within two years of the date of approval, the approval shall expire on February 1, 2024. However, the approval may be extended by the Planning Director for a maximum period of one additional year provided the applicant submits a request for an extension in writing to the Planning Director 30 business days prior to the expiration date showing good cause.

19. As part of the application for the Project, the applicant and/or property owner (collectively "Applicant") agree to defend, indemnify, and hold harmless the Town of Moraga, its agents, officers, council members, employees, boards and commissions from any and all claims, actions or proceedings (collectively "Claims") brought against any of the foregoing individuals or entities, seeking to attack, set aside, void or annul any approval of the application or related decision, or the processing or adoption of any environmental documents or negative declarations which relate to the approval. This indemnification shall include, but is not limited to, all damages, costs, expenses, attorney fees or expert witness fees that may be awarded to the prevailing party arising out of or in connection with the approval of the application or related decision, whether or not there is concurrent, passive or active negligence on the part of the Town of Moraga, its agents, officers, council members, employees, boards, commissions. If for any reason any portion of this indemnification agreement is held to be void or unenforceable by a court of competent jurisdiction, the remainder of the agreement shall remain in full force and effect.

END OF CONDITIONS OF APPROVAL

ATTACHMENT B

Town Council Resolution 43-2014, General Development Plan, Hillside Development Permit, Use Permit, Vesting Tentative Map

BEFORE THE TOWN COUNCIL OF THE TOWN OF MORAGA

In the Matter of:

Considering an Appeal, Upholding the Planning Commission Decision, with Modifications to the Conditions of Approval, and Approving a General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit for the Hetfield Estates Project, a seven-lot Single Family Residential Subdivision	)	Resolution No. 43 - 2014

WHEREAS, in December 2005, an application for a Conceptual Development Plan (CDP 02-05) was submitted for review to allow the development of six single-family residential lots on a 58.2 acre property (the "Property"), with individual lots ranging in size from 41,826 square feet (0.96 acres) to 59,930 square feet (1.38 acres) plus one remainder parcel of 51.45 acres for common area; and

WHEREAS, on November 17, 2008, the Planning Commission adopted a Mitigated Negative Declaration (MND) and approved the proposed project; and

WHEREAS, in December 2008, the Planning Commission approvals, including adoption of the MND were appealed to the Town Council; and

WHEREAS, on January 14, 2009, the Town Council upheld the appeal and denied, without prejudice, the Planning Commission decision and directed that a Focused Environmental Impact Report (EIR) be prepared for the project; and

WHEREAS, on January 14, 2011, a Draft Focused EIR was prepared by Mills Associates and was released for public review for a 45-day period; and

WHEREAS, during the public comment period, on March 7, 2011, the Planning Commission held a public hearing on the Draft EIR and the project, wherein public comments were received and considered; and

WHEREAS, on March 23, 2012, a Final EIR was released for public review, including responses to comments received at the public hearing and during the public comment period; and

WHEREAS, on April 2, 2012 and June 4, 2012, the Planning Commission held a public hearing regarding certification of the Final EIR and approval of the Conceptual Development Plan; and

WHEREAS, the Final Environmental Impact Report concluded that all potentially significant impacts of the project could be mitigated to a less than significant level and that there were no significant and unavoidable impacts; and

WHEREAS, the applicant was directed to provide more information about the 8-lot alternative that was evaluated in the "Alternatives" chapter of the EIR as this was shown to be the "Environmentally-Superior Alternative" in the EIR and this information was incorporated into Staff Reports for the April 2, 2012 and June 4, 2012 Planning Commission public hearings; and

WHEREAS, at the public hearings for the project, the Planning Commission discussed the elimination of one lot from the 8-lot alternative in order to further reduce exposure to landslide hazards; and

WHEREAS, it was noted by Staff that, with the exception of Mitigation Measures 3.1-1A, 3.1-1C, and 3.1-3A, all mitigation measures identified for the 6-lot project would otherwise be applicable to the 8-lot and 7-lot alternatives; and

WHEREAS, on July 16, 2012, the Planning Commission certified the Hetfield Estates Environmental Impact Report, which identified that significant environmental impacts may result from the project, but that mitigation measures could reduce the impacts to a less-than-significant level, and adopted a Mitigation Monitoring and Reporting Program ("MMRP"); and

WHEREAS, as required by the "Guidelines for Interpreting and Implementing the Moraga Open Space Initiative" (as amended by Town Council Resolution No. 6-99), Section III.C, on July 16, 2012, the Planning Commission approved an increase in density from one unit per 20 acres to not more than one unit per 5 acres based on findings that the proposed development is consistent with specific criteria listed below and approved the CDP with the seven lot alternative (the "Project"); and

WHEREAS, on October 8, 2013, John Wyro of the Wyro Company (applicant) and Robert E. Lipson and Sandy Gage (owners) filed an application for a General Development Plan, Vesting Tentative Map (Subdivision 9051), and Conditional Use Permit to develop the seven (7) single family residential lots on the Property; and

WHEREAS, at the request of the Town, the application was modified to include a Hillside Development Permit; and

WHEREAS, in accordance with MMC Chapter 8.48, the General Development Plan (GDP) is required to be consistent with the approved Conceptual Development Plan, and accordingly, the GDP is consistent with the approved Project in terms of number of lots, overall site plan, development footprint and other aspects; and

WHEREAS, the CDP considered, in concept, the provision of an Emergency Vehicle Access (EVA) as a project component, but the alignment of the EVA was not specified or analyzed in detail in the EIR; and

WHEREAS, a CEQA Addendum was prepared and presented as part of the Staff Report for the February 3, 2014 Planning Commission meeting and public hearing to analyze changes to the project since approval of the CDP, including the alignment of the proposed EVA, and the Addendum concludes that no new significant impacts were identified because specific measures from the adopted MMRP would apply to the EVA to mitigate any potential impacts ("EIR Addendum"); and

WHEREAS, public hearing notices were mailed to all property owners within 500 feet of the subject property on February 6, and February 21, 2014, and the notice was posted at various public locations and at the project site; and

WHEREAS, on February 18, 2014, the Planning Commission held a public hearing and received testimony from the applicant and interested parties, and continued the hearing to a date certain of March 3, 2014, at which the Planning Commission received additional public testimony.

WHEREAS, on March 3, 2014, the Planning Commission held a public hearing and took testimony and approved the General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit; and

WHEREAS, in their approval, the Planning Commission revised the project to require the dedication of an easement for an Emergency Vehicle Access (EVA), but not to require the applicant to construct the EVA; and

WHEREAS, on March 13, 2014, two appeals of the Planning Commission were separately filed by Councilmember Dave Trotter, and Councilmember Mike Metcalf; and

WHEREAS, on April 23 and May 21 2014 the Town Council held a public hearing accepting testimony from the appellant, the applicant and the public, and discussed the appeal; and

NOW, THEREFORE, BE IT RESOLVED, BASED ON THE STAFF REPORT, WRITTEN MATERIALS, ORAL AND WRITTEN TESTIMONY AND ALL OTHER INFORMATION PRESENTED, THAT:

PART I: CALIFORNIA ENVIRONMENTAL QUALITY ACT REVIEW AND FINDINGS

A. The Town Council makes the findings set forth below with respect to the EIR Addendum:

i. The Addendum was prepared in accordance with all legal requirements, including CEQA Guidelines section 15164(b).

ii. The Addendum reflects the independent judgment and analysis of the Town as the lead agency for the project.

iii. Based on substantial evidence in the whole record before the Town, the revisions with respect to the EVA do not make substantial changes to the Project

or substantial changes with respect to the circumstances under which the Project would be undertaken which would require revisions to the Final EIR due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects and there is no new information that would require preparation of a subsequent or supplemental EIR under CEQA Guidelines Section 15162.

iv. As only minor technical changes or additions were required to the Final EIR, the Addendum was prepared in accordance with all legal requirements, including CEQA Guidelines Section 15164.

v. The mitigation measures described in the Final EIR and MMRP are within the jurisdiction of the City to adopt, and will be implemented by the applicant.

B. The Town Council hereby approves and adopts the Addendum. The documents and other materials that constitute the record of proceedings upon which the Planning Commission has based its decision are located in and may be obtained from the Town of Moraga Planning Department at 329 Rheem Boulevard in Moraga.

PART II: GENERAL FINDINGS

The Town Council further makes the general findings set forth below:

A. As set forth in Parts III, IV, V and VI below, the project meets the criteria of the Moraga Municipal Code and the General Plan, since it would comply with all applicable findings for approval of the Conditional Use Permit, General Development Plan, Vesting Tentative Map, and Hillside Development Permit, and with regard to increase in density pursuant to the Moraga Open Space Ordinance.

B. The project approved by the Planning Commission has been revised to require dedication and construction of an Emergency Vehicle Access (EVA) from the end of the access roadway to the Moraga Ranch Trail, and the dedication of an easement for the remaining portion of the EVA to the property line adjoining Sanders Ranch and the potential future construction of the EVA on such property. The Town Council finds that inclusion of such EVA will provide for enhanced public safety and access for emergency vehicles, including a potential secondary connection to the Sanders Ranch subdivision.

C. The project provides private off-street parking in excess of that required by the Municipal Code, and off-street parking that adequately serves the project and trail users.

PART III: FINDINGS TO APPROVE A CONDITIONAL USE PERMIT

The Town Council of the Town of Moraga makes the following findings to approve a Conditional Use Permit for seven single-family residential units pursuant to Moraga Municipal Code Section 8.52.110:

A. The proposed use is appropriate to the specific location:

The project site is located south of Sanders Drive, at the southern terminus of Hetfield Place that intersects Sanders Drive. Other nearby land uses include open space to the south and single-family residences to the north, east, and west. The project is entirely undeveloped open space at the present time, and is separated from residential uses to the north by the thick riparian vegetation along Larch Creek which forms the northern boundary of the site. Residences to the east and west are farther from the area proposed for development. New residential development will occur in the lower elevations of the site, set back from Larch Creek and behind existing tree cover. The distance and intervening vegetation, as well as the limited number of clustered lots, and similarity to adjacent single family residential uses, will result in a development compatible with nearby residential uses as well as surrounding open space that will be preserved as part of the project. The site has a designation of MOSO Open Space in both the General Plan and Zoning Ordinance and is designated as MOSO "high risk" due to landslide hazards. However, the applicant has requested, and the Town Council has approved, removal of the site from the "high risk" designation based on corrective grading that will be completed and that has been addressed in geotechnical studies reviewed by the Town and determined to adequately address landslide hazards.

B. The proposed use is not detrimental to the health, safety, and general welfare of the Town:

The previously certified EIR evaluated the safety of the proposed project and the environment relative to geological and soils conditions. Conditions 40 through 52 address fire safety and fire access. Condition 169 addresses use of hazardous materials. Condition 141 addresses reduction of dust emissions during construction. Conditions 21, and Conditions 161 through 166 address landscaping and reduced lighting. Conditions 32, 33, 34, 35, 38 and 39 address protection/replacement of onsite open space, habitat protection and wetlands. Conditions 30-31 address geotechnical and soils issues.

C. The proposed use will not adversely affect the orderly development of property within the Town:

The project is a proposed low-density single family residential development, located adjacent to existing developed single family residential neighborhoods. The property to be developed is located at the end of an existing street that connects to the neighboring residential area. The MOSO designation allows for residential uses as proposed, and the density of the project was previously found by the Town to be acceptable, in findings adopted pursuant to approval of the CDP.

D. The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town:

As conditioned, the proposed use is consistent with the surrounding uses. In addition, conditions of approval will ensure the proposed use will not conflict with the scale, design and density of nearby residential uses. Conditions 58 and 59 require the applicant to repair any damage to public streets resulting from construction or construction equipment. Conditions 14, 38 and 123 require the project site to be protected in a naturalized state until the project is constructed or to be landscaped and maintained. Condition 13 requires bonding to restore the site should there be a substantial delay between grading and installation of above-ground infrastructure and construction of new homes. Consequently, it is not expected to have an adverse effect on property values or revenue sources within the Town.

E. The proposed use is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan:

The proposed project is consistent with General Plan Policies LU1.1, CD4.3 and H1.4 regarding compatibility with existing neighborhoods, as detailed in findings B and C, above. The proposed project will be compatible with Policies LU1.2 and LU1.5 regarding densities, as the proposed density will be less than 1 unit per 5 acres, the maximum allowable in MOSO lands. The project is consistent with Policy LU1.6 regarding minimum lot sizes. The project is also consistent with Policy OS1.4 since it would allow public use of private open space and Policy OS2.8 regarding protection of onsite trees, since it would minimize disturbance within the riparian corridor and more forested portions of the site.

F. The proposed use will not create a nuisance or enforcement problem within the neighborhood:

Condition 26 requires regular maintenance of the project site, including daily removal of trash and litter on and around the premises, including along the sidewalk and in landscaped areas. **Conditions 146 through 152** require noise control during construction.

G. The proposed use will not encourage marginal development within the neighborhood:

Individual homes constructed within the subdivision will be subject to Design Review and the adopted Design Guidelines. The project limits gross square footage of homes to ensure compatibility with nearby residences. Landscaping will be incorporated into the project and evaluated at the time of Design Review. **Condition 19** requires specific setbacks and useable yard space to ensure a quality living environment for project residents.

H. The proposed use will not create a demand for public services within the Town beyond that of the ability of the Town to meet in the light of taxation and spending restraints imposed by law:

Construction of 7 new single-family homes will not place undue burdens on services and facilities within the Town of Moraga. The project will be served by public water and wastewater systems; police protection services will be

provided by the Town; and, the Moraga-Orinda Fire District will provide fire service. New property tax revenue will help to offset the cost of providing services, as will payment of impact fees in accordance with the Town's adopted fee programs.

I. **The proposed use is consistent with the Town's approved funding priorities:**
The project has no impact on the Town's funding priorities. All conditions of approval shall be installed and maintained by the applicant. In addition, **Condition 7** requires the applicant to reimburse the Town for all costs associated with processing and permitting the proposed use; and **Condition #3** requires that the Applicant pay for the cost of monitoring compliance with the Conditions of Approval and the Mitigation Monitoring and Reporting Program of the EIR.

PART IV: FINDINGS TO APPROVE THE GENERAL DEVELOPMENT PLAN

The Town Council of the Town of Moraga makes the following findings to approve the GDP for the Project pursuant to Moraga Municipal Code Section 8.48.110:

A. **The proposed use is appropriate to the specific location:**
The project site is located south of Sanders Drive, at the southern terminus of Hetfield Place that intersects Sanders Drive. Other nearby land uses include open space to the south and single-family residences to the north, east, and west. The project is entirely undeveloped open space at the present time, and is separated from residential uses to the north by the thick riparian vegetation along Larch Creek which forms the northern boundary of the site. Residences to the east and west are farther from the area proposed for development. New residential development will occur in the lower elevations of the site, set back from Larch Creek and behind existing tree cover. The distance and intervening vegetation, as well as the limited number of clustered lots, and similarity to adjacent single family residential uses, will result in a development compatible with nearby residential uses as well as surrounding open space that will be preserved as part of the project. The site has a designation of MOSO Open Space in both the General Plan and Zoning Ordinance and is designated as MOSO "high risk" due to landslide hazards. However, the applicant has requested, and the Town Council has approved, removal of the site from the "high risk" designation based on corrective grading that will be completed and that has been addressed in geotechnical studies reviewed by the Town and determined to adequately address landslide hazards.

B. **The proposed use is not detrimental to the health, safety, and general welfare of the Town:**
The previously certified EIR evaluated the safety of the proposed project and the environment relative to geological and soils conditions. Conditions 40 through 52 address fire safety and fire access. Condition 169 addresses use of hazardous materials. Condition 141 addresses reduction of dust emissions during construction. Conditions 21, and Conditions 161 through 166 address

landscaping and reduced lighting. Conditions 32, 33, 34, 35, 38 and 39 address protection/replacement of onsite open space, habitat protection and wetlands. Conditions 30-31 address geotechnical and soils issues.

C. **The proposed use will not adversely affect the orderly development of property within the Town:**
The project is a proposed low-density single family residential development, located adjacent to existing developed single family residential neighborhoods. The property to be developed is located at the end of an existing street that connects to the neighboring residential area. The MOSO designation allows for residential uses as proposed, and the density of the project was previously found by the Town to be acceptable, in findings adopted pursuant to approval of the CDP.

D. **The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town:**
As conditioned, the proposed use is consistent with the surrounding uses. In addition, conditions of approval will ensure the proposed use will not conflict with the scale, design and density of nearby residential uses. Conditions 58 and 59 require the applicant to repair any damage to public streets resulting from construction or construction equipment. Conditions 14, 38 and 123 require the project site to be protected in a naturalized state until the project is constructed or to be landscaped and maintained. Condition 13 requires bonding to restore the site should there be a substantial delay between grading and installation of above-ground infrastructure and construction of new homes. Consequently, it is not expected to have an adverse effect on property values or revenue sources within the Town.

E. **The proposed use is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan**:
The proposed project is consistent with General Plan Policies LU1.1, CD4.3 and H1.4 regarding compatibility with existing neighborhoods, as detailed in findings B and C, above. The proposed project will be compatible with Policies LU1.2 and LU1.5 regarding densities, as the proposed density will be less than 1 unit per 5 acres, the maximum allowable in MOSO lands. The project is consistent with Policy LU1.6 regarding minimum lot sizes. The project is also consistent with Policy OS1.4 since it would allow public use of private open space and Policy OS2.8 regarding protection of onsite trees, since it would minimize disturbance within the riparian corridor and more forested portions of the site.

F. **The proposed use will not create a nuisance or enforcement problem within the neighborhood:**
Condition 26 requires regular maintenance of the project site, including daily removal of trash and litter on and around the premises, including along the

sidewalk and in landscaped areas. **Conditions 146 through 152** require noise control during construction.

G. The proposed use will not encourage marginal development within the neighborhood:
Individual homes constructed within the subdivision will be subject to Design Review and the adopted Design Guidelines. The project limits gross square footage of homes to ensure compatibility with nearby residences. Landscaping will be incorporated into the project and evaluated at the time of Design Review. **Condition 19** requires specific setbacks and useable yard space to ensure a quality living environment for project residents.

H. The proposed use will not create a demand for public services within the Town beyond that of the ability of the Town to meet in the light of taxation and spending restraints imposed by law:
Construction of 7 new single-family homes will not place undue burdens on services and facilities within the Town of Moraga. The project will be served by public water and wastewater systems; police protection services will be provided by the Town; and, the Moraga-Orinda Fire District will provide fire service. New property tax revenue will help to offset the cost of providing services, as will payment of impact fees in accordance with the Town's adopted fee programs.

I. The proposed use is consistent with the Town's approved funding priorities:
The project has no impact on the Town's funding priorities. All conditions of approval shall be installed and maintained by the applicant. In addition, **Condition 7** requires the applicant to reimburse the Town for all costs associated with processing and permitting the proposed use; and **Condition #3** requires that the Applicant pay for the cost of monitoring compliance with the Conditions of Approval and the Mitigation Monitoring and Reporting Program of the EIR.

J. The GDP is substantially consistent with the previously approved CDP.
The project is substantially the same in terms of site plan, lotting plan, amount of grading, site amenities and other features, to the previously approved project, and reflects the same number of units. Other than refinement of the EVA alignment, and minor modifications to the grading plan to reflect the approved 7-lot plan, no other significant changes have been made.

PART IV: FINDINGS TO APPROVE THE VESTING TENTATIVE MAP

In accordance with Government Code Section 66474, the Moraga Town Council hereby makes the following findings for approval of the Vesting Tentative Map 9051:

A. The proposed map is consistent with the General Plan

The General Plan Land Use Diagram identifies the land that is the subject of this subdivision as OS-M, MOSO Open Space lands. The proposed use of the land for residential uses at a density of 1 unit per 8.3 acres is consistent with the General Plan land use designation.

B. The design and improvement of the proposed subdivision, as conditioned, is consistent with the General Plan.

The following General Plan policies illustrate the consistency of this project with the General Plan:

The proposed project would be compatible with Policy LU1-1 in terms of not impacting existing residential neighborhoods. The project would largely be screened from the nearby Sanders Drive neighborhood by heavy tree plantings along Larch Creek.

The project would comply with Policy CD4.3 related to ensuring that new development reflects the size, scale, height, and character of existing development.

The project will be within the density limits established by the General Plan (Policy LU1.2 and LU1.5).

Lot sizes will be within minimum lot sizes established (LU1.6).

The project would comply with slope restrictions identified in Policy LU1.8, grading limitations as per Policy PS4.10, and the policy related to retaining walls (Policy PS4.11).

Underground utilities will be installed in accordance with Community Design (CD) policy CD1.8.

Maintenance of hillside areas would occur in compliance with Policy PS4.12 via the establishment of a Geologic Hazard Abatement District (GHAD).

C. The site is physically suitable for the type of development.

The Town of Moraga Planning Commission approved the CDP in 2012. The project was also reviewed at that time by the Town's Geologist given the presence of active landslides on the site. The project was also subject to an Environmental Impact Report which was done by professionals such as geologists, biologists, and planners. The site was determined to be and is suitable for this type of development.

D. The site is physically suitable for the proposed density of development.

The CDP was approved in 2012 by the Town at the same density as what is now proposed as part of the GDP and VTM and the site remains physically suitable for the density proposed.

E. The design of the subdivision or the proposed improvements is not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat because numerous conditions of approval address habitat and wildlife issue.

The project was subject to an Environmental Impact Report which identified necessary mitigation measures to reduce potential environmental impacts to a level of less than significant. These measures are included in the MMRP, which is included in the conditions of approval. In addition, compliance with the conditions of approval will ensure that there will not be substantial environmental damage or avoidable injury to fish or wildlife or their habitat.

F. The design of the subdivision or type of improvements is not likely to cause serious public health concerns.

All construction is in compliance with the California Building Code which in part addresses issues of public health. The project was also the subject of an EIR, which determined there are no significant effects that cannot be mitigated pursuant to the approved MMRP.

G. The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision because prior to this project no such easements existed.

The project is in construction entirely on private property. Existing onsite easements existed related to public trails and these would not be impacted by the proposed subdivision. New trails will be created that connect to existing onsite trails.

PART VI: FINDINGS TO APPROVE THE HILLSIDE DEVELOPMENT PERMIT

The Town Council of the Town of Moraga makes the following findings to approve a Hillside Development Permit pursuant to MMC Chapter 8.136.070:

A. Each of the following factors was considered by the Town Council in reviewing the application for a Hillside Development Permit: slope, soil instability, drainage, soil characteristics, seismic factors, existing and future residential development, view shed, access, potential traffic congestion, fire risk, noise, glare, wildlife, dust and impact on existing vegetation.

An Environmental Impact Report was prepared and certified for the project, that included analysis of the above environmental factors including natural and geologic hazards, the characteristics and impacts associated with existing and proposed residential development on this site; aesthetic impacts including impacts of and from the site, and on neighboring residences; traffic and circulation; wildland fire; construction and operational noise; air quality and biological resources.

B. The site plan shall provide an appropriate living space on a site consistent with the site's constraints in relation to the review and approval criteria set forth in this section.

The site plan will create 7 residential lots, each of which would accommodate a home of up to 4,000 square feet, and which include ample living space and private and common open space.

C. A building site which is adjacent to a steep slope not abutting a ridge shall be located at the lowest possible elevation on the site.

The project will cluster the proposed development at the lower portion of the site, as far south as possible while avoiding Larch Creek. It leaves the majority of the site, which is also at higher elevations and includes steeper slopes, as open space.

D. Residential development that is adjacent to a steep downslope shall be designed so that the principal and accessory structures blend with the topography.

The project incorporates contour grading that will reflect and conform to the existing natural topography and avoids large retaining walls. The future homes, whose size is limited by Conditions of Approval, will be subject to design review to ensure that they blend with the surrounding topography. Condition of Approval #21 requires use of earth-tone paint colors and finishes to better blend with the adjacent natural landscape.

PART VII: PROJECT APPROVALS

Based on the record before the Town Council and the findings set forth above, the Town Council of the Town of Moraga hereby considered the appeal, upholds the Planning Commission decision, with modifications to the conditions of approval, and approves a General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit for the Hetfield Estates Project, a seven-lot single family residential subdivision, subject to the conditions of approval listed in Exhibit A and effective upon the adoption of this resolution.

PASSED AND ADOPTED by the Town Council of the Town of Moraga at a special meeting on May 21, 2014, by the following vote:

AYES:	Mayor Chew, Vice Mayor Wykle, Councilmembers Arth and Trotter
NOES:	None
ABSTAIN:	None
ABSENT:	Councilmember Metcalf

Ken Chew, Mayor

Attest: _____
Marty C. McInturf, Town Clerk

Town Council Resolution 43-2014
Exhibit 1

CONDITIONS OF APPROVAL
Hetfield Estates General Development Plan, Vesting Tentative Map, Conditional Use Permit and Hillside Development Permit

Planning Standard Conditions and Project-Specific Conditions

1. This approval authorizes the following, as approved by the Town of Moraga Town Council on May 21, 2014: Hetfield Estates General Development Plan (GDP), Vesting Tentative Subdivision Map (VTM), Conditional Use Permit (CUP) and Hilllside Development Permit. The approvals would allow for development of seven (7) single-family homes on individual lots, one common area parcel, and associated improvements.

2. Further approvals necessary to allow development of the site include, but may not be limited to a Precise Development Plan, Final Map, Improvement Plans, Building Permit Plans, Landscape Plans and Grading Plans. All such plans shall be in substantial conformance with the approvals listed in Condition #1, above, as approved by the Town Council on May 21, 2014 and more fully described in the Resolution and its Exhibits and as modified by these conditions of approval. Conditions of Approval required at subsequent project stages need not be satisfied prior to approval of the Precise Development Plan or Final Map, but shall continue to be required at subsequent development stages as provided herein, unless a Condition or the timing for its satisfaction is modified at the request of the Applicant and with the approval of the Planning Commission, or approved by the Town as otherwise specified herein.[CDP COA No. 7 and 9]

3. EIR Mitigation Compliance. All required mitigation measures identified in the certified Environmental Impact Report (SCH# 2009022086) ("EIR") shall be implemented and monitored in accordance with the adopted Mitigation Monitoring and Reporting Program (MMRP). The mitigation measures identified by Mills Associates in the final Mitigation Monitoring and Reporting Plan (March 23, 2012) of the Final EIR and as stipulated in the Mitigation Monitoring and Reporting Program adopted by the Planning Commission at its July 16, 2012 meeting shall be implemented. The applicant shall fund a Town-contracted individual to monitor compliance with mitigation measures and conditions of approval. During grading and construction activities, a sign shall be posted on the site with the name and contact information for the mitigation and condition compliance officer. [CDP COA No. 8 and 89]

4. Applicant Responsible for Compliance with Conditions. The applicant shall ensure compliance with all of the conditions specified in these Conditions of Approval, including submittal to the Town required approval signatures at the times specified. Notice of failure to comply with any condition shall be provided to the applicant by

the Town, and a reasonable opportunity to gain compliance provided. Applicant's failure to comply with any condition may result in construction being stopped, issuance of a citation, and/or modification or revocation of the permit.[CDP COA No. 2]

5. Prior to approval of the Precise Development Plan (PDP), the Applicant or its successors shall provide a plan for the implementation of and verification of implementation of the Conditions of Approval. [CDP COA No. 97]

6. Town staff (including authorized agents) shall have the right to enter the subject property to verify compliance with these conditions. The holder of any permit associated with this project shall make the premises available to Town staff during regular business hours and shall, upon request, make records and documents available to Town staff as necessary to evidence compliance with the terms and conditions of the permit.

7. Where compliance with the conditions of approval or applicant initiated changes to the Hetfield Estates Subdivision requires additional staff work, that time shall be billed at the Town's established billing rates at the time any such additional staff work may be required.

8. All new improvements constructed on the site shall be in compliance with all local State and federal laws, statutes, ordinances, regulations, rules, orders, judgments, decrees, permits, approvals and the like requirements applicable thereto and in force at the time thereof ("applicable law"). "Local, State and federal" applicable law shall include without limitation, the applicable law of the Town of Moraga; Contra Costa County; Moraga Orinda Fire District, Bay Area Air Quality Management District, San Francisco Bay Area Regional Water Quality Control Board; California Department of Fish and Wildlife, US Army Corps of Engineers; State of California; and United States of America.

9. Throughout all of the various phases of project construction, existing public streets, trails, sidewalks, and bike lanes must be maintained in a safe and usable condition or a safe alternate route or detour provided if closure is necessary due to construction. Such closures or detours shall be addressed as part of a Town-approved Construction Management Plan or Traffic Management Plan for the project. Trails, bike lanes and sidewalks shall be constructed at the same time as any or all adjacent roadway segments are constructed.

10. Documentation of Remedial Actions. Applicant shall document if any remedial actions are necessary for landslides that are not proposed for disturbance but that are within 100 yards of ground disturbance. This is especially true for mapped Landslide 1. Documentation shall be submitted to the Town Geologist who shall review and approve prior to applicant undertaking remedial actions.

11. Timing of Future Approvals. Design Review shall be required for the residences and for the design of the access roadway bridge. Prior to approval of individual Design

Review applications and building permits for any custom residences, approval of a Precise Development Plan shall be obtained.

12. A Grading Permit (pursuant to MMC 14.04.031) shall be obtained prior to, or in conjunction with the review and approval of the Final Map and Precise Development Plan. [Modified CDP COA No. 10]

13. Bond. The applicant shall prepare a "Bond Study" prior to approval of the Final Subdivision Map. The Bond Study shall be subject to Town review and approval and shall address the following (at a minimum): costs such as re-grading the site to more natural contours and removal of paving and retaining walls if reasonable progress to construct at least one single-family home within 2 years of approval of the grading permit has not been made; landscaping of site to restore graded areas; slide repair and corrective grading to eliminate any risks for adjoining neighbors; completion of the site access road, bridge, storm drainage system and erosion control improvements if applicable; and other similar items. Time limits can be extended under unusual circumstances as allowed by the Town Planning Director and/or Town Engineer. The "Bond Study" shall identify the items that will be covered by the bond, the amount to be deposited, and conditions for use of bond funds. Seed money shall also be provided to allow repairs if any damage occurs in association with Landslide 1, 5 or 6. Bond requirements shall be stipulated at the time of Final Subdivision Map approval. Bond money shall be available prior to issuance of the grading permit. Separate bonds may be required a) for completion of improvements, and b) for site restoration of the site if not developed per the timelines specified in this Condition.[CDP COA no. 11]

14. Tree and Shrubbery Plantings. Shrub and/or tree plantings (minimum height at maturity of 5 feet) shall be planted at the northern edge of all lots with graded slopes that will be visible from homes on Sanders Drive as shown in the GDP/VTM. These include Lots 1, 2 and 3. Trees shall be planted from no smaller than 15-gallon containers within one month of conclusion of corrective grading. This landscaping can be removed when individual lot designs are finalized and accepted and this landscaping would not be subject to the replacement ratios for trees removed from the site. Trees and shrubs planted prior to installation of irrigation systems shall be hand watered until water pipes and an automatic irrigation system are installed and operational to provide for watering.[CDP COA No. 13]

15. Roads. At the time of grading, a private onsite access road shall be constructed to Town and Moraga-Orinda Fire District (MOFD) standards and shall be maintained by the Applicant until a Homeowners' Association is established and sufficiently funded. The private road shall provide public access and shall not be gated. Subdivision improvements (including roads) shall be reviewed at the time of the Final Subdivision Map application to ensure compliance with improvements shown at the time of the Vesting Tentative Map. [Modified CDP COA No. 14]

16. Trails and Trail Gates. No locked gates or other barriers limiting pedestrian and bicyclist access to onsite trails designated for public access shall be allowed. Trails shall be multi-use, i.e. allowing both bicyclists and pedestrians (per EBRPD request). Barriers may be allowed for cattle grazing and to prevent unauthorized motorized use of a future Fire Trail or EVA or the Common Area Parcel. The trails shall be designed and installed by the applicant, and maintained by the applicant until the responsible entity (HOA or GHAD) is established, sufficiently funded, and able to assume maintenance responsibilities. [Modified CDP COA No. 16]

17. Home Sizes. Homes shall be limited in size to a maximum of 4,000 gross square feet (including garages) and shall be built within the building envelopes shown on the General Development Plan. All homes shall be subject to Design Review Board review and approval to ensure compatibility with neighboring residences and consistency with applicable Design Guidelines.[CDP COA No. 40]

18. Story Poles. At the time of Design Review, story poles for all homes (with ridgelines taped) shall be required. Story poles shall be placed no later than two weeks prior to the scheduled DRB meeting. [Modified CDP COA No. 45]

19. Development Standards: Homes within the project shall conform to the following development standards:
    a. Usable Yard Space. Usable yard space (having minimum dimensions of 25 ft. by 40 ft.) shall be provided for each lot.
    b. Setbacks. The following minimum setbacks shall apply for purposes of determining building envelope, but shall not be considered a maximum; setbacks beyond the minimums specified below may be required as part of design review if justified by specific design or lot-specific conditions.
        i. Side Yard: Minimum 10 ft.;
        ii. Rear yard setbacks: Minimum 10 ft. from the retaining walls for the 3:1 graded slopes.
    c. Front yard setbacks: Minimum of 15 feet from the edge of the street right-of-way, calculated as an average for all lots.
    d. Lot Size. None of the lots for individual homes shall be smaller than 15,000 square feet or larger than 27,000 square feet. The "common area" parcel that shall be retained as permanent open space shall be approximately 54 acres.

20. Building Colors. Color selection for building exteriors and roofs shall be restricted to colors that blend with the landscape during the dry season (i.e., earthtones, tans and light browns).[Modified CDP COA No. 61]

21. Visual Measures. To minimize reflective light and glare, and ensure long-term maintenance of visual quality, design, materials and illumination shall be subject to Design Review Board review and approval, and Project shall implement the following prior to Final Design Review:
    a. Use non-reflective exterior material and finishes.
    b. Ensure that all exterior lighting shall be reflected downward. No monument signs are allowed, lit or unlit. Any lighting shall be dark sky compliant, in

accordance with industry standards such as those established by the Illuminating Engineering Society of North America (IESNA).

c. Provide safety lighting that incorporates low voltage/low lumosity lighting and/or treatments designed to reduce the amount of spillover into surrounding areas.[Modified CDP COA No. 62 and 101]

22. Green Building. The design review for the Precise Development Plan shall include a review of its Green Building Program components, which shall demonstrate how it is expected the project will obtain a score of 90 points (at a minimum) pursuant to the Town's "Build it Green Program" and demonstrating energy efficiency and sustainability beyond current code requirements. Photovoltaic panels shall be offered to buyers as an option.[Modified CDP COA No. 64]

23. Guest Parking. No less than 2 guest parking spaces shall be provided on each lot, in addition to the minimum number of covered and uncovered parking spaces ordinarily required for single family home by the Moraga Municipal Code. Guest parking may be provided as tandem spaces set within the driveway. [Modified CDP COA No. 19]

24. Street Parking. A minimum of 7 on-street parking spaces, including four spaces along the access roadway, and three spaces within the cul-de-sac, shall be provided and shall be identified prior to approval of the Final Subdivision Map, and which shall provide overflow guest parking as well as parking for trail users. Signage shall be posted saying "No Overnight Parking" where on-street parking is provided. The Applicant may, at applicant's discretion, revise the parking plan to provide additional parking within the street prior to the cul de sac subject to the review and approval of the Town of Moraga. These spaces may be in lieu of the spaces now shown in the parking bay on the plan and shall number at least three (3) for an on-street total of at least seven (7) spaces. [Modified CDP COA No. 20]

25. Water Conservation. The Project Applicant and/or property owners shall comply with applicable water conservation requirements including, but not limited to:

a. The Project Applicant shall comply with the Assembly Bill 325, Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495) including installation of drought-tolerant landscaping and water efficient irrigation systems within residential outdoor yards that include efficient sprinkler heads or drip irrigation.

b. Installation of ultra-low flow toilets and other water-efficient fixtures, as required by the California Building Code.

c. The Project Applicant shall commit to additional Demand Reduction Measures, commensurate with the amount of the project's water demand, or as specified in the Town's "Build it Green Program". [Modified CDP COA No. 57]

26. Maintenance of Common Area Facilities. Applicant and/or Homeowners' Association shall maintain all common areas such as streets, drainage facilities, stormwater treatment areas and any retaining walls not specifically located on individual properties unless this responsibility is identified as part of the GHAD Plan. This shall include litter control.

27. HOA. Creation of a "Homeowners' Association" (HOA) shall be required for maintenance of common facilities. The HOA shall be established prior to the approval of the first building permit. The Homeowner's Articles of Incorporation and Conditions, Covenants and Restrictions (CC&R's) shall be submitted for review and approval by the Town Attorney. The Homeowners' Association (HOA) shall maintain all private streets at a minimum Pavement Condition Index of 70 as determined using the Metropolitan Transportation Commission (MTC) Pavement Management Condition (PMC) Rating System rating system. The HOA shall undertake the responsibilities of the landscape lighting and distribution of common areas such as bridge and roadway lighting. [Modified CDP COA No. 38 and 93]

28. Access Road to Debris Bench. The PDP shall show the access road to the debris bench.[Modified CDP COA No. 47]

29. The 3:1 Slope Area. Any landscape plans for the area in which 3:1 slopes will result from grading within private lots shall be reviewed by the Town's geotechnical engineer to ensure that plantings will be appropriate for the area and will not undermine the geologic stability of the slope, and that irrigation provisions will be adequate for the same reason. Such review shall occur at the time of Design Review. [Modified CDP COA No. 43]

Other Special Conditions

30. Repair of Slides and Final Geotechnical Work. A detailed geotechnical study shall be completed prior to approval of the Final Subdivision Map. Additional geotechnical studies may be required at the time of Design Review. During grading, the applicant's geologist and the Town's geologist shall be on the site to monitor excavations and to verify that all slide hazards have been remediated as documented in the most recent geotechnical study. A minimum of a 20-foot setback shall be maintained for any disturbance in the vicinity of slides that are not stabilized as part of the corrective grading unless mitigation measures that have been reviewed and approved by the Town are incorporated in the project plans. No land disturbance shall be allowed in this setback area. At time of Precise Development Plan (PDP), further geological borings may be required at the request of the Town Geologist. Such borings may be large diameter borings (vs. core borings) assuming that safety for drilling operators will not be compromised due to presence of groundwater and chances of "caving" conditions. [Modified CDP COA No. 41 and 44 and 83]

31. The Project Applicant shall request and the Town shall form, or annex into, a Geologic Hazard Abatement District (GHAD) or other Town-designated entity, to

be funded in perpetuity by the property owners within the project through district assessments, with initial funding by the Project Applicant. The GHAD shall be established prior to the first building permit and shall be funded by the developer until homeowners can be assessed the GHAD fees. A "GHAD Plan" shall be submitted by the applicant prior to approval of the Final Subdivision Map to address the following items. Either the GHAD or the HOA may own the open space parcel and management and maintenance responsibilities and funding structured accordingly and agreements pertaining thereto subject to review by the Town of Moraga to ensure conformance with these Conditions of Approval. The GHAD Plan shall address the following:

a. The GHAD shall have its own district engineer and other qualified professional consultants, including a qualified ecologist/biologist.
b. Except as otherwise assigned to the HOA, the GHAD shall be responsible for the following management, monitoring and maintenance tasks within lands under its ownership or control: (i) geotechnical stability and erosion control; (ii) stormwater control and water quality basins; (iii) open space grazing, fire protection and control, trails and EVA; and (iv) intermittent drainage, seasonal wetlands, seeps and biological resources
b. GHAD obligations shall include compliance with the final (i) Geotechnical Study, (ii) Drainage Plan, (iii) Open Space Management Plan, (iv) Public Trail System Plan, (v) Fire Protection Plan, (vi) Wetland/Special-Status Species Plan, (vii) Revegetation Plan, and (viii) Conservation Easement (or other appropriate deed restriction). All of the above plans shall be completed prior to approval of the Final Map.
c. Pre-formation costs of the GHAD shall be paid by the Project Applicant.
d. Except for functions assigned to the HOA, the GHAD shall provide sufficient funding, in perpetuity, for the estimated costs of the following functions for which it is responsible including: (a) monitoring and annual reporting, (b) weeding, trail maintenance, erosion control and repair, grazing management, and fence repair, and (c) development of a Plan of Control. Funding sources for the GHAD may include seed money provided by the Project Applicant, annual contributions from homeowners, and income from grazing leases.
e. The actions of the GHAD in meeting its responsibilities, including the adequacy of permanent funding from the Project Applicant and future homeowners, shall be subject to review, direction and control by the GHAD Board of Directors. Alternatively, the Project Applicant shall establish an endowment to provide for its maintenance and monitoring. No grading or building permits shall be issued by the Town until the funding sources have been agreed upon and secured. [Modified CDP COA No. 50 and 83 and 86]

32. Conservation Easement for Open Space Parcel. The Common Area Parcel (approximately 54 acres of the project area) as shown on Sheet 1 of 6 of the GDP application shall be preserved in a Conservation Easement, or alternate type of deed restriction approved by the Town Attorney, as open space managed and preserved by the GHAD or HOA. The form of the Conservation Easement shall be approved by the Town Attorney and the Easement shall be recorded with the Final Subdivision Map. [Modified CDP COA No. 52 and 86]

33. Conservation Easement Area. Habitats within the Conservation Easement shall be monitored in the spring and fall for no less than five years following installation of fencing. Prior to issuance of building permits, an education brochure shall be produced for future homeowners describing the purpose of the conservation easement and other mitigation measures, the species and habitats being protected, prohibited activities, and homeowner responsibilities. This issue shall be addressed as part of the Open Space Management Plan. [Modified CDP COA No. 74]

34. Onsite Open Space. The Common Area Parcel of the property shall be subject to an Open Space Management Plan for the Project that may include grazing of the undeveloped approximately 54 acres of the property as a means of fire protection and open space preservation. The Open Space Management Plan, prepared by a qualified ecologist who is either selected by the Town, or whose work shall be subject to peer review by a Town-selected consultant,, shall be consistent with resource agency permit conditions and shall allow for public trail access as otherwise specified in these Conditions of Approval. The Plan shall be consistent with and incorporate the Fire Protection Plan. The following information shall be included as part of a final Open Space Management Plan that shall be completed prior to approval of the Final Map:

a. A total of approximately 54 acres of grassland, scrub and oak woodland shall be designated as a permanent conservation easement, or other suitable deed restriction, and conveyed to the GHAD or HOA as approved by the Town, USFWS and CDFG for preservation in perpetuity;

b. The onsite riparian area within the conservation easement area shall be protected from grazing by a permanent wildlife-passable fence to exclude livestock from the channel banks;

c. Existing springs within any areas proposed for grazing shall be fenced with wildlife passable fencing to exclude livestock. If access to water is required, water may be piped from the springs to water troughs outside of the enclosure fencing;

d. Restrictions on vehicle access shall be identified, and long-term risk management and other criteria as required by the Fire Marshal shall be addressed; and

e. No grazing shall be allowed within 350 feet of the western property boundary. [Modified CDP COA No. 7 and 79 and 80]

35. Wetlands. The Wetland Mitigation Plan (as defined in the MMRP) shall be reviewed by the Town biologist monitor prior to submittal to the USACE, CDFG, and RWQCB for approval. Approval of the Wetland Mitigation Plan from applicable agencies shall occur prior to approval of the Final Map and submittal of the Wetland Mitigation Plan to the Town shall occur prior to Final Map approval. All wetland mitigation measures identified in the adopted MMRP shall be completed. The jurisdictional wetlands (recreated and preserved) shall be incorporated in the final landscape plan and mitigation implemented under the direction of a qualified

restoration ecologist for the project. The GHAD or HOA shall be responsible for long-term management of jurisdictional wetlands. All restored jurisdictional wetlands, along with an appropriate upland buffer, shall be placed in a permanent Conservation Easement, or similar deed restriction, in favor of the Town or appropriate third party entity, preserved in perpetuity, and managed by the GHAD or HOA.[Modified CDP COA No. 53 and 73]

36. Public Trails. A public trail shall be constructed to Town standards between the end of the (access road) cul-de-sac, within the Emergency Vehicle Access Easement (EVAE) and extending to the intersection of Fire Trail # 41-7 as shown on the attached exhibit "Potential Fire Trails".. Public trail use and maintenance, including use and maintenance of the Fire Trail if and when constructed shall be addressed as part of the Open Space Management Plan. The Open Space Management Plan shall include a final Public Trail System Plan. The Geologic Hazard Abatement District (GHAD) or HOA once formed shall be responsible for public trail maintenance and control. [CDP COA No. 54]

37. Encroachments. Pedestrian encroachments (e.g., informal paths) leading from the pedestrian trail into the Larch Creek riparian corridor shall be avoided. Trailheads at both ends shall be marked and shall include informational signage to stipulate that pets must be leashed and that off-trail travel by foot or bicycle is prohibited. No trash cans shall be provided at trailheads or along trails as they can become attractive nuisances for wildlife and require increased human activity. [CDP COA No. 55]

38. Habitat Protection. In order to prevent the incremental degradation of preserved habitats, the following measures shall be followed:

a. Areas not proposed for grading shall be protected from construction disturbance and existing vegetation left intact. Construction fencing shall be installed to delineate the areas subject to disturbance and to protect native vegetation outside the limits of grading;

b. Soil and other debris shall not be stockpiled in areas outside of areas not designated for grading or disturbance;

c. Glare from security night lighting on private property shall be minimized by facing lights (pathway and parking lights, etc.) toward developed portions of the project and not toward native wildlife habitat or open space areas. All lighting shall be shielded to face downwards and towards the interior of individual lots.

d. Habitats within the Common Area Parcel shall be managed according to the final Open Space Management Plan.

e. Human encroachment and predation by domestic pets shall be minimized by the designation of trail access, informative signage regarding the sensitive nature of the native habitats and wildlife, homeowner education, and restrictions on pet access. [CDP COA No. 56]

39. Restoration Verification. All disturbed areas shall be visited by a restoration ecologist after one rainy season has passed since seeding. Site visits should be made during the spring, and each site shall be visited at least once. Sites shall be monitored for the revegetation. Sites that fail to show suitable vegetative cover shall be noted and mapped, and shall be re-seeded in the fall. The restoration ecologist shall make notes on the occurrence of particularly noxious non-native plant species, and make recommendations for their eradication. The selection of the restoration ecologist is subject to Planning Department review and approval, as are recommendations made by the ecologist. [CDP COA No. 87]

40. The project shall include dedication of an Emergency Vehicle Access Easement (EVAE) from the end of the (access road) cul de sac to the Moraga Ranch Trail, and dedication of an easement from this point to the Sanders Ranch property line with the final alignment to be shown on the Precise Development Plan, which alignment may be relocated to match the existing alignment of Fire Trail #41-7 as shown in the Exhibit on Page 39 of these Conditions of Approval. As described in COA #36, a six-foot hiking trail shall be constructed within the EVAE from Hetfield Place to the intersection of Fire Trail #41-7. Funding for future construction of a 16-foot wide dirt fire trail ("Fire Trail" or "EVA") from the end of the Hetfield Place cul-de-sac to the Sanders Ranch property line shall be provided by the applicant.

Funding and construction of the Fire Trail shall be subject to the following requirements:

a. The amount of the required funding shall be based on a cost estimate approved by the Town, and shall include all costs for engineering, design, grading and construction of the trail in accordance with specifications identified in these Conditions of Approval, and may account for expected inflation in cost over a ten year period based on the Construction Cost Index.

b. The applicant shall be responsible for the installation of necessary additional gates and fences, to be installed in accordance with COAs #51 and 116, to avoid unauthorized motor vehicle access, at the time the Fire Trail is constructed. Payment of required funds for construction of the Fire Trail shall be made to the applicable project GHAD (or the Town or other entity designated by the Town Council). Payment shall be made prior to issuance of the first building permit, unless alternate timing is approved by the Town based on timing of GHAD formation.

c. The Fire Trail shall be constructed a) if so approved by the Town Council or b) if the Sanders Ranch Homeowners Association agrees to complete a connection of the Fire Trail to Sanders Ranch Road, during a period that shall end no later 10 years after issuance of the first building permit. The funds shall be held by the GHAD (or the Town or other entity designated by the Town Council) for a period of ten years. During this period the GHAD Manager (or other appropriate responsible agent for another designated entity) shall be required to submit a formal request to the Sanders Ranch

Homeowners Association (SRHOA) as to whether the SRHOA is willing to complete a connection of the Fire Trail from the Hetfield property line with Sanders Ranch to Sanders Ranch Road. Such request to the SRHOA shall be submitted no later than 30 days following issuance of the first building permit, and not less than once every two years thereafter, and a copy of the request provided to the Town. (For example, if the first building permit is issued on October 15 2015, a request to the SRHOA shall be submitted no later than November 15, 2015, and again no later than September 15, in the years 2017, 2019, 2021, 2023 and 2025.) In the tenth year, such request shall be made no later than six months prior to the expiration of the ten year period, and shall include notice of the date upon which the funding will no longer be available. Upon expiration of the ten year period, the GHAD (or Town or other entity designated by the Town Council) may re-assign the funds for other allowable purposes, but which shall generally be to the benefit of publicly-accessible facilities such as the on-site trails and open space.

d. In the event that the cost to construct the Fire Trail is less than the fund amount held by the GHAD, excess funds may be returned to the GHAD, for the above-described purposes. In the event that the cost to construct the Fire Trail is greater than the fund amount held by the GHAD, the Project HOA shall be responsible for the remaining costs. The requirement to fund these potential additional costs shall be included in the project CC&Rs.

MOFD Conditions and Fire Protection Measures

41. Prior to the issuance of a building permit, the Moraga-Orinda Fire Protection District shall review and approve the final plans. Sufficient access for fire equipment shall be provided and requirements for visible addressing shall be met. The applicant shall submit the design review fee to the Fire District prior to obtaining approval. [Modified CDP COA No. 32]

42. Water Supply. The developer shall provide an adequate and reliable water supply for fire protection. The project shall comply with the 2013 Fire Code Chapter 5, Section 507 (or as subsequently updated) regarding fire flow requirements, including Appendix B MOFD Ordinance 13-01. Fire flow calculations shall be designed by a fire protection engineer or a C-16 licensed contractor. [CDP COA No. 21]

43. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives at the site

44. Fire sprinklers shall be installed in single family dwellings in accordance with MOFD Ordinance 10-04 and NFPA 13 or as revised and amended as of the time of building permit application.

45. Fire hydrants shall be installed at the required distances for residential structures. [Modified CDP COA No. 23]

46. Fire apparatus access shall conform to MOFD Standard 2013.503. Fire apparatus roadways in excess of 150 feet in length shall make provisions for approved fire apparatus turnarounds.

47. The developer shall maintain access roadways (other than the Emergency Vehicle Access [EVA]) with all-weather driving surfaces (asphalt, concrete or road pavers) of not less than 20 feet of unobstructed width. Adequate access for fire protection shall be maintained during construction. [Modified CDP COA No. 24]

48. Fire Alarm and notification devices shall be UL listed and comply with NFPA 72.

49. Proposed Fire Trail (EVA) and Fire Apparatus Roadways. Fire apparatus roadways (public, private streets, roads and in some instances driveways used for vehicle access) shall extend to within 150 feet of any portion of an exterior wall of the first story of any building. Fire apparatus roadways in excess of 150 feet in length shall make provisions for approved fire apparatus turnarounds. Fire apparatus roadways shall be capable of supporting the imposed weight of fire apparatus (40,000 pounds) and shall be provided with a paved or concrete surface (except for the EVA on the site). Vehicular use of the EVA shall be restricted to emergency vehicle access only.

At such time that an EVA is constructed, where the EVA crosses a seasonal wetland area with drainage, the EVA shall be constructed to support the weight of 15 tons. [Modified CDP COA No. 28 and 33]

50. Fire Hydrants. The developer shall provide fire hydrants as specified by East Bay Municipal Utility District and the Fire District. Final utility map with hydrant locations shall be submitted to the Fire District for final approval. All hydrants shall be wet barrel, standard steamer type (1-4.5" and 1-2.5") outlet.[Modified CDP COA No. 23]

51. All electronic gates crossing Fire District accessways shall comply with ASTM F2200.

52. Vegetation Management. The applicant shall maintain all vegetation in accordance with the requirements of the Moraga-Orinda Fire District for the common open space and lot areas until the GHAD and Homeowners Association are established and sufficiently funded. Private lot vegetation management will be the responsibility of individual private lot owners as each acquires their respective lots. [Modified CDP COA No. 30]

53. Fire Protection Plan. A Fire Protection Plan shall be included as part of the Open Space Management Plan and shall be approved by the Town prior to approval of the Final Map. Firefighting equipment access shall be provided to all areas of the project site in accordance with fire access standards of the Fire District and the adopted Uniform Fire Code and the time of project approval. The Fire Protection Plan shall include the following provisions:

a. All housing shall be constructed with fire resistant exterior materials and fire retardant roofing and include interior sprinklers.
b. Landscaping around homes shall be designed to minimize the interface between grassland areas and residences (e.g., fire resistant vegetation).
c. An annual inspection report for compliance shall be submitted to the Fire Marshal for approval. Annual inspection fees shall be paid by the GHAD or HOA.
d. Consistency with the Town's emergency evacuation plan.
e. Limitations on use of the EVA including restrictions on vehicle access to emergency vehicles only.[Modified CDP COA No. 30 and 31 and 79]

Public Works/Engineering Standard Conditions of Approval and Conditions Specific to Project Related to Roadways, Grading, and Utilities

54. If the cost of the project will be more than $250,000 the applicant shall submit a Construction and Demolition Debris Recycling Waste Management Plan waste management plan as required by MMC Section 8.156.080 prior to the issuance of the building permit. The plan shall include a quantitative estimate of recyclable material(s), a list of recyclers to be used for the project, a schedule for submitting receipts to the Planning Department and a description of how the recycling will be accomplished. The applicant shall also submit a deposit in compliance with MMC Section 8.156.070 to ensure completion of the waste management plan and submittal of the receipts from disposal and recycling facilities for the project. The amount of the deposit is calculated as a percentage of the projects total cost in accordance with the following table:

Project Total Cost	Percent of Total Cost	Required Deposit
10,000 – 500,000	2.00	$200 – $10,000
500,001 – 1,000,000	1.75	$8,750 – $17,500
1,000,001 – 2,000,000	1.50	$15,000 – $30,000
2,000,001 – 5,000,000	1.25	$25,000 – $62,500
Above 5,000,000	1.00	$50,000 and up

The deposit may be cash, a certificate of deposit requiring both the signature of the applicant and the Town for release or a letter of credit. The applicant is responsible to make sure that contractors working on the project follow the waste management plan and submit the receipts from disposal and recycling facilities for the project, otherwise the deposit cannot be returned.

The project is not required to submit a Construction and Demolition Debris Recycling Waste Management Plan unless the cost of the project exceeds $250,000.00. Nevertheless, the Town encourages all applicants to divert fifty-percent (50%) of all project waste from landfills by reuse and/or recycling. The applicant should review the Contra Costa Builder's Guide for a listing of the

materials that can be recycled and the places where they can be recycled. [Modified CDP COA No. 76 and 102]

55. Within three months of completion of construction, a site plan showing the final "as-built" location of any subdrains installed on any portion of the lot and all drainage inlets and outlets shall be submitted to the Town Engineer and Planning Director.

Public Streets and Public Utility Connections:

56. The subdivision shall conform to the provisions of the Subdivision Ordinance (Title 9) as adopted and amended by the Town of Moraga with exceptions as noted and approved by the Town in these Conditions of Approval.

57. Improvement plans prepared by a registered Civil Engineer shall be submitted, if necessary, to the Public Works Department along with review and inspection fees, and security for all improvements required by the Ordinance Code for the conditions of approval of this subdivision. Any necessary traffic signing and striping shall be included in the improvement plans for review by the Public Works Department.

58. Any curb and gutter cracked and displaced during construction shall be removed and replaced no later than three months after issuance of final certificate of occupancy for the new homes, unless alternate timing is approved by the Town. Concrete shall be saw cut prior to removal. Existing lines and grade shall be maintained. New curb and gutter shall be doweled into existing improvements.

59. Sanders Drive, which will serve as the primary construction access route, shall be assessed in terms of paving conditions prior to grading or construction. After grading is complete, a "post-construction" paving study shall be completed and the applicant and/or HOA shall be responsible for restoring Sanders Drive to its "pre-construction" condition. Following the completion of corrective grading, the applicant shall complete the Sanders Drive improvements within 3 months unless site lot improvements are underway within this time. If lot improvements are undertaken within 3 months of corrective grading, the Sanders Drive improvements can be undertaken at the completion of the lot improvements. If grading is completed more than 12 months prior to the start of home construction, an interim paving study shall be completed on Sanders Drive and the paving shall be restored to "pre-grading stage" conditions.

60. Paving repairs on streets, if necessary, shall to be edge ground and overlaid with 2" of class 2 A.C. from street centerline to the new driveway curb cut and gutter.

61. All work to be undertaken within the public right-of-way shall be shown on the construction plans (i.e. storm drain, joint utility trench, curb and gutter improvements, etc.) and reviewed by the town engineer. All new utility distribution facilities including electric, telephone and cable television systems shall be installed underground from point of connection. Prior to undertaking any work within the

public right-of-way, an encroachment permit shall be obtained from the Public Works Department.[Modified CDP COA No. 94]

62. All on-site subdivision improvements, including public utilities and drainage systems that will be privately maintained, shall be installed prior to the occupancy of any home in the subdivision unless alternate timing is approved by the Town Engineer.

Utilities/Undergrounding:

63. Applicant shall underground all new utility distribution facilities. The applicant shall provide joint trench composite plans for the underground electrical, gas, telephone, cable television and communication conduits and cables including the size, location and details of all trenches, locations of building utility service stubs and meters and placements or arrangements of junction structures as a part of the Improvement Plan submittals for the project. The composite drawings and/or utility improvement plans shall be signed by a licensed civil engineer. Individual lateral connections to existing public streets shall be avoided where possible.[Modified CDP COA No. 22 and 95]

64. To reduce hazards from underground utility line breakage, flexible conduits and piping shall be utilized in fill areas where settlement or earthquake movements could cause a break in service lines. To reduce earthquake hazards, manual shut-off valves for gas and water lines shall be installed, and in accordance with the appropriate utility agency's requirements.

65. If relocation of Pacific Gas and Electric facilities becomes necessary, such relocation shall be done at the applicant's expense.

66. The applicant shall comply with requirements of the Telephone and Television Service Providers for underground installation of telephone and television service as follows:

a. The applicant shall be responsible for furnishing and installing conduit for the service connection wire or cable.
b. The applicant shall provide and pay the cost of the underground supporting structure (usually a trench) for the buried wire or cable to be used for the service connections.
c. The applicant may collect any allowable reimbursements available from CPUC tariffs or other programs.

67. Water Service. If required by East Bay Municipal Utility District, a main extension shall be installed at the property owners' expense, to serve the proposed development. Final plans for the main extension will be prepared by EBMUD and are subject to review and approval by EBMUD prior to installation of the new line. The applicant shall be responsible for payment of all fees levied by EBMUD associated with preparation and review of such plans for water connections for which the applicant is responsible.

68. The applicant shall comply with the requirements of East Bay Municipal Utility District's (EBMUD) for water-efficiency measures. (Also see Condition 25 that requires the applicant to comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495)).

Central Contra Costa Sanitary District:

69. The applicant shall comply with the requirements of the Central Contra Costa Sanitary District (CCCSD) for sanitary sewer connections. These requirements include but are not limited to the following:

a. Prior to the issuance of a grading permit or working on the existing public sewer the applicant must contact CCCSD.
b. CCCSD requires gravity sewers in preference to pumped systems and locations in the public right-of-way or easements.
c. CC&Rs shall assign responsibility for operation and maintenance of the side sewers to individual homes to the respective homeowner(s).
d. Toxic substances such as gasoline, oil, paint, and pesticide residue are prohibited from being introduced into the CCCSD sewer system.
e. The applicant shall submit construction plans involving work on the public sewer for review and approval by CCCSD, prior to applying for a building permit.
f. The applicant shall pay Facilities Capacity Fees to CCCSD at the time of connection to the sewer system.
g. The applicant shall be responsible for installation of side sewers to the homes.
h. The requirements listed in the CCCSD "Hillside and Creek Area Sewer Policy" shall be followed when construction plans are prepared.
i. The applicant shall secure a will serve letter that addresses transmission capacity. [Modified CDP COA No. 58 and 85]

70. The use of sanitary sewer easement surfaces shall be limited to paving, shrubbery, gardens and other landscaping, excluding trees. Parallel surface drainage ways and permanent structures including, but not limited to, buildings, swimming pools, decks, and retaining walls are not permitted within the easement area. These limitations shall be reflected in the CC&Rs for the subdivision.

71. The applicant shall comply with the following requirements if directional drilling of the sewer line is allowed by CCCSD to avoid disturbance to onsite drainages or Larch Creek:

a. Construction shall be undertaken during the dry season and no grading shall occur between October 15 and April 15;
b. Undercrossings shall meet with California Department of Fish and Wildlife (CDFW) standards and permits for riparian habitat disturbance shall be obtained from CDFW if needed.

Private Streets:

72. Access Roadways. Except as otherwise specified for the EVA, if constructed in the future, all public access (but privately maintained) roadways shall be constructed with all-weather driving surfaces (asphalt, concrete or road pavers) of not less than 20 feet of unobstructed width. Access roads shall not exceed 20 percent grade, shall have a minimum inside turning radius of 28 feet and a 48 foot outside diameter and must be capable of supporting the imposed loads of fire apparatus. Roadways that are 20 feet wide shall be posted as NO PARKING on both sides of the roadway as outlined in the California Vehicle Code for fire access. (Parking may be provided within designated "bulb outs" outside of the 20 foot road width, as shown in the approved plans.) The proposed bridge must be built to CalTrans' H-20 Design Standard. [Modified CDP COA No. 96]

73. Private Road and Gates. No road gates on Hetfield Place where it connects to the onsite private road shall be allowed. Hetfield Place shall be privately maintained and insured to protect liability. A private road maintenance plan shall be submitted and approved prior to issuance of a Grading Permit. While the road shall be privately maintained, public access shall be permitted. [CDP COA No. 26]

74. The Private Street is being conditionally approved based on the accuracy of the information shown on the tentative map. Approval of the private street shall become effective upon final map approval.

75. Private street names are subject to modification prior to final map approval, and shall be approved by the Planning Director.

76. The applicant shall dedicate a private street right-of-way and install complete street improvements for the internal private street as shown on the tentative map. Streetlights are not required as part of this project.

77. A Public Access Easement (PAE), Public Utility Easement (PUE), East Bay Municipal Utility District Easement (EBMUD), Sanitary Sewer Easement (SSE) and Emergency Vehicle Access Easement (EVAE) are to be established over the entire private street right-of-way. The PUE dedication statement on the final map is to recite that the PUE is available for, but not limited to, the installation, access and maintenance of sanitary and storm sewers, water, gas, electrical and communication facilities.

78. The HOA shall be responsible for the maintenance of the facilities in the private street which are not maintained by a public utility agency, except all utility work resulting from backfill failure is to be the responsibility of the Homeowners' Association (HOA).

79. The design of the private street shall conform to the following standards and is subject to review and approval by the Town Engineer prior to final map approval:

a. Grading and drainage improvements shall generally conform to applicable public street standards

b. The private street pavement shall be designed on the basis of a traffic index using predicted traffic generation and a thirty-year pavement design life. In no case shall the traffic index be less than 5.5.
c. Asphalt concrete surfacing shall be treated with a seal coat of the type and amount required by the Town Engineer. Pavement design sections shall be subject to approval of the Town Engineer.
d. The new private street in the subdivision shall be constructed to the specifications in the Town's Subdivision Ordinance, but not including standard sidewalks. An exception has been granted to allow a minimum width of 20 feet for the travelway (width at parking bays is 28 feet, and 24 feet at the bridge). A decomposed granite 6-foot wide public path shall be adjacent to the private street. Any further changes in the Town Street Construction Standards prior to approval of the Subdivision Improvement Plans shall be applicable.
e. Rolled curbs shall be provided where feasible and acceptable to the Town Engineer.

80. The applicant shall submit signing and striping plans for traffic control devices to the Town's Public Works Department for approval at the time improvement plans and Final Map are submitted to the Town. The cost of review by the Town's Engineering Consultant shall be borne by the applicant. The following signs shall be included:
a. The improvement plans shall include the installation of a stop sign at Hetfield Place at its intersection with Sanders Drive per the Town of Moraga Public Works standards.
b. The improvement plans shall include the installation of a stop sign and sign reading, "Not a through Street" at the southbound intersection of Hetfield Place and Sanders Drive.[Modified CDP COA 25]

Restricted Development Areas:

81. The CC&Rs shall include notification to each property owner of any restricted development areas (e.g. open space easements, conservation easements, high hazard areas, utility easements, drainage easements) located on their property and within common areas. The notification shall inform future property owners of specific restrictions on use and development associated with each such area, including but not limited to prohibition of structures, pervious surfaces, parking and similar uses as required by these Conditions of Approval, EIR Mitigations, or by applicable utilities and agencies.[Modified CDP COA No. 34]

Maintenance of Facilities:

82. The HOA shall covenant and be responsible for the maintenance, in perpetuity, of the following, in addition to any other facilities specifically noted in other Conditions of Approval. Such maintenance shall exclude all facilities otherwise specified to be maintained by the GHAD:

a. Common area landscaping.
b. Landscaping and retaining walls within the Common Area Parcel.
c. The Private Road, as indicated in these conditions of approval.
d. Drainage and water quality features and facilities as indicated in these conditions of approval other than those maintained by the GHAD.
e. Retaining walls located on HOA owned property.

83. A maintenance plan of operation for all HOA-maintained facilities shall be submitted for Public Works review, prior to recordation of the Final Map. The Town will not accept these properties or facilities for ownership or maintenance.

Drainage Conditions:

84. Drainage facilities shall be designed in accordance with the Town's Subdivision Ordinance and Public Works standards. All storm waters entering or originating within the subject property shall be collected and conveyed to the nearest adequate man-made drainage facility or natural watercourse. As documented in the EIR, the project, with incorporation of on-site drainage improvements would not exceed the downstream drainage capacity of Larch Creek. An exception has been granted to allow clearing the natural channels in the areas of the proposed bridge. Detailed drainage plans shall be submitted to the Public Works Department for review and approval prior to approval of the improvement plans. Final pipe sizes shall be reviewed and approved by the Public Works Department upon submittal of improvement plans. The applicant shall also pay the required fee for storm drain improvements as specified in the Town's adopted fee schedule; such payment is considered adequate to address project impacts to downstream drainage facilities.

85. On-Site Detention and Drainage. Detention shall be provided through oversized stormwater pipes and buried detention facilities, with outfall to Larch Creek. In order to determine whether or not there will be a net increase to off-site peak flows and volumes for the 7-Lot Project, an Expanded Master Drainage Plan (Drainage Plan) shall be prepared based upon and at the time of the Precise Development Plan (which shall specifically identify all impervious surfaces, define the collection system, detention cells and outlets, and detail all BMPs). The Drainage Plan shall comply with the following Performance Standards:

a. Provide parallel hydrologic and hydraulic analyses and calculations of existing pre-development and of proposed post-development runoff flows and volumes from all tributary areas accounting for all changes in runoff characteristics and drainage area;
b. Clearly identify differences between existing and proposed conditions by providing at identical or equivalent geographic points in the watersheds

directly comparable tables of runoff analysis, tabulation of characteristics, and drainage maps;

c. Demonstrate that the detention and BMP facilities have the required capacity and can be constructed at the proposed sites without exceeding grading, landscape and other project criteria;

d. Show that any uncontrolled overflow of the facilities due to blockage or other malfunction will follow an identified flow path to the major channels and will result in no more than nuisance flooding;

e. Demonstrate that individual lot grading will direct all drainage from the building pads to the street or to the storm drainage system on the site. No overland drainage from the pads or street shall be discharged directly into Larch Creek, the fills or natural slopes;

f. Confirm capacity of the existing system and evaluate whether the project's contribution exceeds the capacity of the existing (plus planned) drainage facilities, or contain those contributions in acceptable storm drains or non-erodible open channels;

g. Confirm that any increase in the velocity and duration of erosive flows in the natural and recreated drainage ways within the project and downstream of project facilities do not aggravate erosion from storm runoff of 2-, 10- and 100-year average recurrence (50% through 1% annual probability);

h. If the project's contribution to the existing peak flows and volumes exceeds capacity of the existing (plus planned) facilities (both on and off site) the Drainage Plan shall identify required drainage enhancements and long term (in perpetuity) funding for these enhancements. Numeric hydrologic modeling for the project will be performed in conformance with the Contra Costa County Flood Control Standards and Contra Costa Clean Water Program (CCCWP) C.3 Hydromodification Requirements. The modeling will verify that final hydrologic mitigation measures reduce 2-, 10- and 100-year average recurrence flow rates to pre-development levels at points of discharge and do not aggravate erosion in existing downstream channels for smaller flow rates as defined by the CCCWP C.3 Hydromodification standards. These enhancements shall include:

    i. Either additional on-site detention facilities which can be demonstrated to preclude any increase in the flows and volumes to pre-project conditions and thereby preclude increased flooding and erosion risks; and/or,

    ii. As part of the Drainage Plan reviewed and approved by the Town of Moraga prior to approval of the grading permit, the Applicant shall demonstrate that the existing springs and seeps are not dependent on the recharge from the developed area. However, if found to be dependent, a supplemental water supply shall be provided, possibly necessitating further environmental analysis and review by the Town of Moraga. [Modified CDP COA No. 51]

86. All of the storm drain system facilities including pipes, catchment, bio-retention facilities, storm drain outfall and other structures are to be private, and will remain in

the ownership of the HOA and maintained by the GHAD or HOA, except that the HOA will be responsible for any needed replacement of storm drain facilities.

87. The applicant shall submit to the Town copies of any plans and reports provided to regulatory agencies, (e.g. California Fish and Wildlife (Streambed Alteration Agreement), US Fish and Wildlife Service, Army Corps of Engineers, the Regional Water Quality Control Board, etc.,) if required, for permits associated with work within creek channels. Proof of the compliance of any conditions associated with such permits shall also be submitted to the Planning Director.

88. The applicant shall comply with all permitting requirements of the Regional Water Quality Control Board (RWQCB) for work within the stream channel including filing a Notice of Intent (NOI) with the RWQCB if such permits are required or determined to be necessary. Undercrossings for water and wastewater lines shall meet with California Dept. of Fish and Wildlife (CDFW) standards and permits for riparian habitat disturbance shall be obtained from CDFW if needed; and, construction shall comply with CCCSD's Hillside and Creek Area Sewer Policy.

89. The applicant shall construct drainage improvements to satisfy the collect and convey provisions of the Subdivision Ordinance prior to issuance of a Building Permit.

90. The property owner shall be aware that the creek banks on the site are potentially unstable. The property owner shall execute a recordable agreement with the Town which states that the applicant/developer and the property owner and the future property owner(s) will hold harmless the Town of Moraga and the Contra Costa County Flood Control and Water Conservation District in the event of damage to the on-site and off-site improvements as a result of creek-bank failure or erosion.

91. Applicant shall prevent storm drainage from draining across the driveway(s) in a concentrated manner.

92. A private storm drain easement shall be dedicated over any proposed storm drain line traversing the site.

Creek Structure Setbacks and Creek Protection:

93. Applicant shall relinquish "development rights" over that portion of the site that is within the structure setback area of Larch Creek, except for the construction of facilities shown on the approved improvement plan, such as those associated with bridge crossings and trails. The structure setback area shall be determined by using the criteria outlined in Chapter 914-14, "Rights of Way and Setbacks," of the Contra Costa County Subdivision Ordinance, as adopted by the Town of Moraga. "Development rights" shall be conveyed to the Town by grant deed however, the Town will not accept these properties for ownership or maintenance, except as otherwise agreed for specific properties and facilities. The structure setback area may be reduced subject to the review of Public Works and the review and approval

of the Planning Director, based on a hydrology and hydraulic study and geotechnical analysis of the soil which shows that the creek banks will be stable and non-erosive with the anticipated creek flows. The hydrology and hydraulic study shall be based upon the ultimate development of the watershed.

94. The applicant shall show the creek structure setback line on the Final Map in accordance with Section 914-14.012, "Structures Setback Lines for Unimproved Earth Channels" of the Contra Costa County Subdivision Ordinance Code, as adopted by the Town of Moraga, and consistent with Attachment E.2 (Creek Setback Exhibit) of the February 18, 2014 Planning Commission Staff Report.

95. Creek Corridor and Public Trail. The public easement along the south side of Larch Creek shall be immediately adjacent to and attached to the paved onsite access road and shall allow both pedestrian and bicycle access. This 6-ft. wide path shall be composed of decomposed granite. During construction of this trail, orange fencing and straw bales shall be used on the creek side of the easement to prevent erosion and sedimentation and to minimize disturbance of the creek corridor. No equipment shall disturb any areas outside of the designated easement. Any retaining walls for lots or the onsite access road shall be subject to Design Review Board review and approval and shall not be placed closer than 60 feet to the centerline of the creek and retaining walls within 100 ft. of the creek centerline shall be landscaped to screen the walls from offsite locations (with vines or other mechanisms). [Modified CDP COA No. 46]

96. Creek Protection. The Larch Creek corridor shall be fenced during all of construction activity and erosion control measures shall be implemented in accordance with an approved Stormwater Pollution and Prevention Plan (SWPPP). [CDP COA No. 35]

Water Quality and National Pollutant Discharge Elimination System (NPDES)

97. Project construction shall be done in accordance with all applicable provisions of the Federal Clean Water Act, which protects the quality of surface waters through the National Pollution Discharge Elimination System (NPDES). Prior to issuance of a building permit, the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP), subject to approval of the Public Works Department. The applicant shall provide evidence to the Town of the State Water Resources Control Board (SWRCB) approval of the SWPPP. Storm water discharges shall be in accordance with the Town of Moraga NPDES permit. A copy of the Storm Water Pollution Prevention Plan (SWPPP) shall be provided to the Public Works Department and be kept at the construction site.

98. NPDES compliance shall include developing long-term best management practices (BMPs) for the reduction or elimination of storm water pollutants. The project design shall incorporate wherever feasible, the following long-term BMPs in accordance with the Town of Moraga and Contra Costa Clean Water Program for the site's storm water drainage:

- Minimize the amount of directly connected impervious surface area.
- Stenciling all storm drain inlets "No Dumping, Drains to Creek" (or similar) using thermoplastic tape.
- Construct concrete driveway weakened plane joints at angles to assist in directing run-off to landscaped/pervious areas prior to entering the street curb and gutter.
- Other alternatives comparable to the above as approved by Public Works.
- Shallow roadside and on-site swales.[Modified CDP COA No. 99]

99. Prior to issuance of a building permit, the project applicant shall prepare a "source control program" to remove non-point source pollutants before they are picked up by storm water runoff during the future operation of the project. A registered civil engineer (or other licensed professional acceptable to the Town) shall prepare the source control program, subject to approval by the Public Works Department. The program shall include the following provisions:

a. A pavement maintenance program, which consists of regular surface cleaning for the new driveway and parking area.
b. Labeling all catch basins "No Dumping-Drains to Creeks" (or similar). Mark all storm drains with signs to prohibit improper disposal of any hazardous materials such as cleaning solvents, pesticides and herbicides.
c. Strictly limiting the use of non-biodegradable fertilizers or pesticides in the landscape maintenance program.

100. CC&Rs for the subdivision shall require:

a. Materials such as gasoline, oil, sand, paint, pesticide residues, or other toxic substances are prohibited from being introduced into the storm drain system or the CCCSD sewer system.
b. Lot owner shall maintain his/her lot in a non-hazardous condition with regard to drainage.
c. Collected storm drainage originating from roof downspouts and paved areas shall not be discharged across sidewalks or out of driveways.
d. The discharge of chlorinated water from swimming pools and spas into storm drains or creek channels is prohibited. (All water from swimming pools and spas shall be discharged to the CCCSD sewer system in accordance with their requirements.)
e. Distribution of public information items regarding the Clean Water Program to buyers at time of sale.

101. Prior to the issuance of a certificate of occupancy for the first residence, the applicant shall submit a written agreement for a street sweeping program and a storm water system cleaning program to the town engineer for review and approval. The HOA shall be responsible for the maintenance of the private road, and drainage facilities located within common areas and open space easements, except for those to be maintained by the GHAD. Such facilities shall be subject to the following maintenance schedule, which may be reflected in a consolidated plan of maintenance and operation for the project::

a. The private road must be swept a minimum of six times per year and whenever dirt and debris is on the private drive or as determined by the Town's Public Works Department. One private drive sweeping shall be required for individual properties in late September.
b. All catch basins and storm drain pipes shall be cleaned two times per year including once in September.
c. Inspection and clearing of the storm drain inlets, ditches, and creeks shall occur once every year, in September.
d. The program shall give authority to the Town to enter onto the site to verify that the program is being implemented

Conditions Related to Provision C.3: Stormwater Control for New and Redevelopment:

102. The applicant shall be required to comply with all rules, regulations and procedures of the National Pollutant Discharge Elimination System (NPDES) for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board, or any of its Regional Water Quality Control Boards (San Francisco Bay - Region II), specifically in respect to Provision "C.3" in the NPDES permit.

103. Stormwater. Stormwater from roofs, patios, streets and sidewalks shall be treated before reaching creeks or public storm drain system. Stormwater from naturally vegetated areas (hillsides, landscapes, etc.) does not need to be treated and may be routed to the stormwater system or creeks directly. The two types of run-off should not be mixed. Bios ales may be used to treat runoff from paved surfaces. The construction plans shall include detailed stormwater treatment plans to reflect the specifics of the treatment facilities areas.

This project shall fully comply with the Town's Stormwater Management and Discharge Control Ordinance, the Stormwater C.3 Guidebook, and the requirements of the Regional Water Quality Control Board. As part of these requirements, the applicant shall incorporate Integrated Management Practices (IMPs) or Best Management Practices (BMPs) to the maximum extent practicable into the design of this project, implement them, and provide for perpetual operation and maintenance for all treatment IMP/BMPs.[Modified CDP COA No. 36]

104. A Preliminary Stormwater Control Plan dated October 18, 2013 was reviewed and determined to be preliminarily complete. Although the Stormwater Control Plan has been determined to be preliminarily complete, it is subject to revision during the preparation of improvement plans, as necessary, to bring it into full compliance with C.3 stormwater requirements. The applicant shall submit to the Public Works Department a final Stormwater Control Plan that has been certified and stamped by a licensed Civil Engineer, Architect, or Landscape Architect for the review and approval of the Public Works Department.[Modified CDP COA No. 37]

105. All construction plans (including, but not limited to, site, improvement, structural, mechanical, architectural, building, grading and landscaping plans) shall comply

with the preliminarily approved Stormwater Control Plan (SWCP) or any subsequently revised SWCP, the Town's Stormwater Management and Discharge Control Ordinance, the "C.3 Guidebook" and the requirements of the Regional Water Quality Control Board. All construction plans shall include details and specifications necessary to implement all measures of the SWCP, subject to the review and approval of the Public Works Department. To insure conformance with the SWCP, the applicant shall submit a completed "Construction Plan C.3 Checklist" indicating the location on the construction plans of all elements of the SWCP as described in the "C.3 Guidebook."

106. Any proposed water quality features that are designed to retain water for longer than 72 hours shall be subject to the review of the Contra Costa Mosquito & Vector Control District.

107. All water quality features shall be located within privately maintained storm drain or open space easements to allow Town access for any future inspection and/or maintenance purposes.

108. The applicant shall provide a Stormwater Control Operation and Maintenance (O&M) Plan for the review of the Public Works Department, and record an Operation and Maintenance Agreement, including any necessary rights-of-entry, prior to recording of the Final Map.

109. The HOA and GHAD financial/operating plan(s) shall include provisions to insure that all costs associated with the Operation & Maintenance, administration and reporting of water quality features (including costs associated with all required Town administration, inspection and reporting) will be addressed in perpetuity. Cost estimates for the complete financing and perpetual maintenance of the water quality features proposed shall be provided for the review and approval of the Public Works Department. This estimate shall include all long term costs associated with these water quality features including, but not limited to, Operation and Maintenance, financing, inflation indexing, and replacement costs.

110. Prior to building permit final and issuance of a Certificate of Occupancy, the applicant shall provide an Operation and Maintenance (O&M) plan and execute any agreements identified in the SWCP, which pertain to the transfer of ownership and/or long-term maintenance of storm water treatment or hydrograph modification BMPs.

Grading Conditions:

General Grading Conditions/Prior to Commencement of Grading

111. All grading operations shall be conducted in accordance with the conditions listed in this section and in conformance with the approved grading plan. An application for a grading permit, developed in accordance with applicable Town approvals, shall be made to the Contra Costa County Building Inspection Department, and shall be

accompanied by the requisite number of plan sets, documentation of earthwork quantities and fees in accordance with County requirements.

112. The applicant shall apply for and pay all appropriate fees for the grading permit, erosion control permit, plan checks and inspections and any other applicable fees.

113. The final grading plan shall be reviewed and approved by the Town Engineer prior to filing the Final Map and improvement plans. The grading plan shall be consistent with the recommendations of the Geotechnical Investigation and shall be signed for conformity by the applicant's soils engineer.

114. Prior to the issuance of a grading permit by Contra Costa County, a certificate of insurance shall be provided to the Town to verify that both the applicant and the grading contractor have public liability insurance. The amount and type of insurance shall be reviewed by the Town and shall be sufficient to cover damages that may result from the grading operation.

115. Grading operations shall occur between April 15 and October 15, in order to avoid seasonal rainfall, except as allowed outside this period in accordance with provisions of the Grading Ordinance. All erosion control measures shall be installed and deemed operational by the project engineer, the Contra Costa County grading inspector and Town Engineer prior to October 1. [Modified CDP COA No. 67]

116. Grading. No grading shall occur prior to approval of a grading permit. It is expected that all graded material will be balanced on site but this shall be verified at the time of the grading permit, at which time the applicant shall verify the maximum amount of off haul of any cut material from the site and the truck trips associated with any dirt removal, information on number of truck trips, and length of time of off haul shall be posted on the site in a location visible from the Hetfield Drive access point so that neighbors are aware of trucks associated with onsite grading activities. Contractor contact information shall also be posted if neighbors wish to register any complaints. All grading activity shall be monitored and daily records maintained that shall be provided to the Town of Moraga on a monthly basis. All excavations (keyways, benches, etc.) for the landslide removals shall be mapped and approved by the applicant's Certified Engineering Geologist and shall be reviewed by the Town's Consulting Engineering Geologist. Approval of corrective and site preparation grading shall be separate from individual lot grading for home construction. [Modified CDP COA No. 42]

117. Cut and Fill. Cut and fill material shall be balanced on-site to the maximum extent feasible. If the proposed project requires export or import of more than 500 cubic yards of dirt, a hauling permit shall be required in accordance with PC Resolution 46-82. However, even if the volume of the export or import is less than 500 cubic yards, a hauling permit shall also be required, subject to review and approval by the Town Engineer.[CDP COA No. 48]

118. CDFW and RWQCB Approvals. Prior to the issuance of grading permits by the Town of Moraga, the Project Applicant shall provide evidence of the required approvals from the CDFW and RWQCB in terms of impacts to Larch Creek and onsite wetlands. [CDP COA No. 70]

119. Prior to issuance of a County grading permit, the project applicant shall prepare a Construction Management Plan (CMP), subject to review and approval by the Public Works Director. The CMP shall provide the following information:

a. A project staging plan to maximize the on-site storage of materials and equipment;
b. A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak hours; lane closure proceedings; signs, cones and other warning devices for drivers; and designation of construction access routes;
c. Permitted construction hours;
d. Location of construction staging;
e. Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations and along Hetfield Place;
f. Provisions for street sweeping to remove construction-related debris on public streets; and
g. Designation of an on-site construction manager as a contact for the Town and the public.
h. Requirements for public notification for construction and grading activity that may block or impede access to driveways. The CMP shall require best efforts to ensure that access to private driveways can occur at all times, but if this is not possible, notice shall be provided to affected property owners at least 48 hours in advance of any blockage and its expected hours and duration.

The above list reflects the minimum required contents of the CMP. The Town may determine that other provisions, necessary to satisfy required Conditions of Approval or EIR Mitigation Measures should be included in the CMP.

120. Two weeks prior to commencement of the project's grading operation, notice shall be sent to residents in the vicinity to inform them of the date of the start-up of the grading. The notice shall include the telephone number of the construction supervisor and/or other responsible parties who may be contacted regarding the grading operation. A copy shall be sent to the Planning and Public Works Directors.

121. Prior to commencement of the grading operation, a survey (such as a videotape) of the condition of Sanders Drive and other local streets to be used by the construction equipment shall be performed by the applicant and provided to the town engineer for review. The survey shall include roads along proposed haul route(s) or any alternate route(s) that are proposed to be utilized by the hauling operation. Any off-site damage to public streets, including but not limited to potholes, depressions, spalling, curb and gutter cracks, traffic striping and pavement messages that become illegible, obliterated, or a hazard, which is determined by the town engineer to be the result of the construction operation shall

be corrected by the applicant at the applicant's expense. A copy of all pre-project survey work documentation shall be provided to the Public Works Department prior to commencing work, and is subject to Town verification and approval of the survey findings. At its option, the Town may require the applicant to execute a bonded road improvement agreement to assure the roadway repairs.[Modified CDP COA No. 27]

122. Prior to the commencement of the grading operation, a pre-work meeting shall be held with the grading contractor, a representative of the applicant, the project geotechnical engineer, the project engineer, the town engineer, the town's consulting geotechnical engineer, the planning director, the Contra Costa County grading inspector, and the various utility agencies. The purpose of the meeting shall be to review the conditions of approval and to advise the individuals performing the work of the requirements of the Town.

123. Within one year of the effective date of the Final Map, the applicant shall submit a Declaration of Deed Restrictions for each lot in a form satisfactory to the Town Attorney. The Declaration shall be reviewed by the Planning Director and recorded with the title of each lot. A copy of the recorded Declaration of Deed Restrictions shall be filed with the Town of Moraga. The Declaration of Deed Restrictions shall include the recommendations and exhibits from the project geotechnical engineer's reports:

a. Recommended structural setbacks from the bottom and top of slopes, including the minimum setback requirements from the toe of the landslide features identified on the building site.
b. The maintenance responsibilities required of the lot owner include annual inspection and cleaning of both surface and subsurface drainage facilities each September.
c. A site plan showing the "as-built" location of any subdrains installed on any portion of the lot and all drainage inlets and outlets.

124. Existing trees, plants and grasses in the area to be graded shall be left undisturbed, except as needed for weed control and fuels management, until the grading is ready to commence. Tree removal may be authorized by the Town prior to commencement of grading if so doing would reduce potential impacts to nesting birds and other species. Additional security deposits may be required in conjunction with such an authorization, at the discretion of the Town.

125. Retaining Walls and 3:1 Slopes. At the time of grading, slopes shall be 3:1 as shown in the grading plan for the CDP, and retaining walls shall not be constructed until design review has occurred. Retaining walls shall be subject to Design Review Board review and approval. At minimum, such retaining walls shall be consistent with the Design Guidelines, screened from view by the recommended shrubbery and tree plantings. Retaining wall height shall be minimized to the maximum extent possible, but shall not exceed five feet in height. [CDP COA No. 39]

During Grading Operations

126. The grading contractor and the applicant shall be responsible for preventing spills of soil, rock or other debris onto the Town's streets. If any spills occur, the grading contractor and the applicant will be required to immediately clean up the spill and repair any damage to the streets to the satisfaction of the Public Works Department and the grading inspector. Pavement and/or base rock apron (stabilized construction entrance) shall be provided at the entrance to the site to minimize dirt carried onto the Town streets. Specifications for the pavement or base rock apron (stabilized construction entrance) shall be provided to the Public Works Department for review and approval prior to installation. Streets in the vicinity of the site shall be swept clean of soil at least weekly to reduce the accumulation of dirt during the grading operations. The Town may request more frequent sweeping if determined necessary.

127. Parking of grading equipment, tractor tread vehicles and all construction vehicles and equipment on public streets is prohibited. These vehicles shall be delivered to the property by trailer and kept on site during grading and construction operations. Limited exceptions to this condition may be granted by the Public Works Department. or Planning Director for specific construction activities or project phases (such as prior to construction of the bridge crossing) where short-term staging of equipment on public streets is shown to be necessary.

128. The applicant shall generally require construction employee vehicles to be parked on-site, within an established onsite "staging area" for vehicles. Employee parking along Sanders Drive and Hetfield Place may be allowed with permission from the Town for a limited and specified duration (e.g. during early grading, prior to establishment of the on-site staging area).

129. The applicant shall provide phone numbers for its grading contractor and other responsible individuals so that the Town can contact these people at any time during the day or night, seven days of the week, in the event that emergency repairs to the erosion control measures or other measures to conform with grading-related conditions of approval are needed.

130. The applicant shall retain a civil engineer or licensed land surveyor to periodically perform surveying during the grading operations.

131. The applicant shall retain a geotechnical engineer and an engineering geologist to periodically observe the grading operation. All cut and fill slopes shall be observed during and at the completion of grading to determine if adverse conditions exist. Should adverse conditions be determined to exist, the appropriate remedial measures shall be implemented. The proposed remedial measures shall be submitted to the Town Engineer and the Town's consulting geotechnical engineer for review and comment. Final approval shall be issued by the Planning Director.

132. When deemed appropriate by the Town Engineer and/or grading inspector, a meeting shall be attended by the grading contractor, a representative of the applicant, the project geotechnical engineer, the project engineer, the Public Works

Department, the Town's consulting geotechnical engineer, the Planning Director, the County grading inspector and representatives of the various utility agencies. The purposes of the meeting shall be to discuss the progress of the grading operations, scheduling of required site observations by the Town's representatives/consultants, difficulties and/or unanticipated adverse conditions encountered.

133. The Town Engineer or designee and the Town's consulting geotechnical engineer shall periodically monitor excavations and filling operations, and review any design modifications proposed during grading, and review all record drawings and the grading completion report. The cost of this peer review shall be borne by the applicant.

134. The applicant's grading contractor shall take precautions to see that topsoil is not inadvertently utilized as fill. This material shall be spread over building pad areas following grading to assist in the establishment of a vegetative cover.

135. Grading operations shall not hinder the safe movement of pedestrians and vehicles along adjacent public streets.

Following Completion of Grading

136. Following the completion of the grading operations, the Town Engineer, County grading inspector and Town's consulting geotechnical engineer shall verify that the building envelopes are located in accordance with the approved grading plans and the building envelope elevations conform to the plans.

137. Prior to the final grading inspection, the project civil engineer shall prepare a record drawing showing, at a minimum: the limits of grading; the invert elevations of surface and subsurface drainage facilities and inlets, outlets, cleanouts, and access ports; the locations and depths of keyways; and the finished rough graded pad elevations. The project engineer shall also prepare a maintenance plan and schedule for all drainage facilities. The record drawing and maintenance plan shall be submitted to the Public Works Department and is subject to review and approval by the Town Engineer. The maintenance plan for drainage facilities may be developed and submitted as part of a consolidated maintenance plan of operations.

138. The project geotechnical engineer shall prepare a grading completion report following grading of the site. The grading report shall be submitted to the Planning Director, Town Engineer and the Town's consulting geotechnical engineer for review and approval no later than 60 days after grading work is completed, unless the Town approved alternate timing. A copy of the report shall be provided to the GHAD and HOA. The report shall include the following information:

a. A summary of construction observations;

b. Adverse conditions encountered and the implemented remedial measures;

c. Testing performed during grading. Describing the methods of fill replacement and the results of density testing;

d. Certification that the grading operations were in accordance with the project geotechnical engineer's recommendations and the approved grading plan;

e. Re-evaluation of slope stability and erosion hazards on the site after the completion of grading;

f. The geotechnical engineer's specific recommendations for maintenance by the property owners to achieve long-term stability of the hillside areas;

g. Recommendations for maintaining drainage facilities and landscaping, including proper watering consistent with soil conditions; and

h. The geotechnical constraints on construction on the property, such as recommended setbacks from the top or bottom of graded slopes.

139. The final grading plan shall include the following notes or details:

a. Individual trees to be preserved near the limits of grading and construction shall be protected by temporary fencing around the drip line and root zone of each tree, as determined by a certified arborist, to prevent soil compaction, tree damage, or inadvertent removal. Such measures shall reflect those recommended in the applicant's September 2013 arborist report.

b. No grading, trenching, storage or stockpiling of earth, compaction of soil, change in ground elevation or paving shall be done within the drip line of trees that are to be saved. These limitations may be modified at the recommendation of a certified arborist if it can be determined that allowing certain construction activities in proximity to a tree to be retained would still allow for it to be maintained in healthy condition.

140. Subsequent grading necessary beyond that associated with the initial development and construction of the project, exceeding 50 cubic yards shall require a grading permit from the town, with peer review of the applicant's geotechnical report by the town's consulting geotechnical engineer, and Design Review Board approval. The CC&Rs shall reflect this restriction.

Erosion and Dust Control Conditions:

141. The applicant and their grading contractor shall be responsible to prevent erosion of soil due to the grading operations. If inspection by the Town shows evidence that sediments have been carried off-site, then the applicant and their contractor shall be required to immediately clean up the deposits attributed to the grading project and to correct the cause of the off-site sediment deposition.[Modified CDP COA No. 67]

142. Construction dust control measures consistent with mitigation measures specified in the Environmental Impact Report and the MMRP shall be implemented.[Modified CDP COA No. 69]

143. An Erosion Control Plan shall be submitted as one of the selected Best Management Practices (BMPs) as outlined in Moraga's Storm Water Management Plan (SWMP). The applicant shall submit a Storm Water Pollution Prevention Plan (SWPPP) and an erosion and sediment control plan for both the period during and after construction. The SWPPP, erosion and sediment control plans are subject to review and approval by the Public Works Department and/or the grading inspector, prior to the issuance of a grading permit. The California Storm Water Best Management Practice Handbook and the ABAG Manual of Standards for Erosion and Sediment Control Measures will be used to evaluate the Erosion Control Plan.

144. A deposit, in the form of a security, to ensure implementation of the SWPPP and erosion and sediment control plan shall be required because of the close proximity of a creek to the project site. The amount of the deposit shall be based upon an estimate for the cost of installation of the SWPPP as specified in Section 14.28.010 of the Grading Ordinance

145. The erosion control facilities shall be maintained until all improvements are completed and project landscaping or a heavy growth of grass is established on all exposed slopes. A minimum of 4,000 pounds per acre of straw mulch or alternative acceptable to the Public Works Department shall be placed on all slopes where grass is not firmly established each year before October 1. Erosion control facilities must be maintained after every storm and as needed in between storms, and replaced whenever necessary.

146. Exposed slopes shall be landscaped or hydroseeded with a mixture of annual grasses, native grasses and wildflowers (except as limited by the MMRP), no later than October 1 of the year during which the exposed slope has been created, in anticipation of the rainy season. This applies to rough graded slopes as well as areas where grading has been completed. The landscaped or hydroseeded areas shall be maintained to ensure adequate plant growth and rooting. If an area is disturbed after hydroseeding, then the area shall be revegetated, or protected from erosion by other approved methods. [Modified CDP COA No. 67]

Noise: Conditions pertaining to Construction and Grading Related Noise

147. Noise-generating construction activities and grading shall take place only between the hours of 8:00 AM and 5:00 PM on weekdays. Construction activities within private and public street improvements shall be limited to the hours of 8:00 AM and 4:00 PM Monday through Friday. Grading work may be permitted by the Planning Director during a weekend if the grading is deemed necessary by the project geotechnical engineer due to a potentially hazardous and unforeseen condition that requires immediate attention. Other construction, such as interior work on homes may also be permitted outside of these hours with the approval of the Planning Director.

148. All construction equipment operated at the project site shall be equipped with manufacturer's standard noise control devices (i.e., mufflers, intake silencers, and/or engine enclosures). Newer equipment shall be used whenever possible.

149. Equipment used for project construction shall have hydraulically or electrically powered impact tools (e.g., jack hammers, pavement breakers, and rock drills) whenever 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. This muffler can lower noise levels from the exhaust up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, thereby achieving a further reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment, whenever feasible.

150. Construction staging areas, maintenance yards and other construction-oriented operations shall be located as far as reasonably possible from noise-sensitive receptors.

151. Stationary noise generating equipment, such as air compressors and concrete pumpers, shall be located as far away from adjacent residences and noise-sensitive receptors as possible. If they must be used near existing homes, they shall be adequately muffled.

152. Grading equipment and trucks used for project construction shall utilize the best available noise control techniques to maintain noise levels within the following standards shown in the Table, below:

RECOMMENDED NOISE LIMITS FOR CONSTRUCTION EQUIPMENT

Equipment Type	Leq at 50 Ft., dBA	Equipment Type	Leq at 50 Ft., dBA
Air Compressor	75	Loader	75
Backhoe	75	Pneumatic Tool	80
Concrete Mixer	75	Pump	75
Dozer	75	Scraper	80
Generator	75	Shovel	75
Grader	75	Truck	75
Jack Hammer	75		

153. As part of the Construction Management Plan, developer/applicant shall include a construction noise management plan that identifies measures to be taken to minimize construction noise on surrounding developed properties. Specific noise management measures shall be included in the project plans and specifications.

Construction Conditions:[Modified CDP COA No. 78]

154. Applicant shall furnish proof to Public Works of the acquisition of all necessary rights of way, rights of entry, permits and/or easements for the construction of off-site, temporary or permanent, public and private road and drainage improvements. Such proof shall be furnished prior to Final Map, issuance of grading permit, or commencement of construction, whichever occurs first. [Modification of CDP COA 85]

155. Prior to issuance of grading permit, the Applicant shall post a cash deposit with the Town of Moraga for emergency cleanup during construction. The amount of the deposit shall be satisfactory to the Town as determined by the Town Engineer.[CDP COA No. 12]

156. Notification. The project applicant and/or project contractor shall notify neighbors located adjacent to the construction site of the construction schedule in writing. Notification shall be at least one week prior to commencement of grading/construction.

157. Disturbance Coordinator. The applicant and/or project contractor shall designate a "noise disturbance coordinator" (subject to Town of Moraga approval) who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. A telephone number for the disturbance coordinator shall be posted in a conspicuous location at the construction site and included in any notices sent to neighbors regarding the construction schedule.

158. Debris. During construction, debris, waste dirt, or rubble shall not be deposited on adjacent habitats designated as open space areas.

159. Staging. Staging areas for construction equipment, for construction occurring after installation of the bridge, shall be screened or located out of sight of neighbors to the north to the extent feasible. Storage areas shall be fenced with solid slat fencing to screen construction materials from view and for security purposes. Landscaping may also be required for the fenced area. The staging area location and fencing shall be approved by the Planning Director. (Also see Condition of Approval #127 regarding staging of construction equipment and vehicles on public streets).

160. Applicant shall locate any vehicular construction entrance gates a minimum 40 feet from the edge of pavement to allow vehicles to queue without obstructing through traffic. Sufficient area shall be provided outside any gate to allow a vehicle to turn around and re-enter Sanders Drive in a forward direction.

161. Applicant shall only be permitted access at the locations shown on the approved site/development plan.

Landscaping

162. Landscaping shall be designed to comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495).

163. Native and protected trees designated for removal shall be replaced at the ratio of 3:1 (i.e., 3 new trees for every 1 tree removed). A final tree removal and replanting plan shall be submitted and approved by the Town prior to issuance of a grading permit, and shall be substantially in conformance with the landscape plan that is part of these approvals. The plan shall reflect protective measures such as fencing to protect trees in the vicinity of construction activity but proposed to be preserved. The removal of other trees not included on the approved tree removal list, proposed for future removal by the HOA, GHAD or private homeowners shall require issuance of a Tree Removal Permit, in accordance with the Moraga Municipal Code. Such tree removal shall be mitigated at the same ratio as that specified above.

164. Landscape buffering and screening shall be with broadleaf deciduous and evergreen trees and shrubs planted so as to replicate the natural vegetation groupings on and adjacent to the site. The landscape for the access street will be comprised of native evergreen and deciduous trees and shrubs, including oak trees, for a native woodland appearance. That landscape shall be in natural vegetation groupings, carefully designed to screen the houses and streets from the view of the Sanders Drive neighborhood. These details in the final landscape design shall be provided with the Final Subdivision Map and approved by the Planning Commission.

a. Landscaping shall supplement existing vegetation along Larch Creek with medium-sized broadleaf deciduous and native evergreen trees, but the tree species shall not grow so tall as to block upper hillside and skyline views from Sanders Drive.

b. The proposed debris benches at the upper reaches of new lots shall include low lying landscape at the perimeter that is consistent with the open views of the landscape plan for the project but that does not preclude access for maintenance of the debris benches.

c. Invasive non-native plant species known to invade wetlands and natural areas shall not be used in either the subdivision or individual lot landscaping. Under no circumstances shall the revegetation of graded or filled areas include any species appearing on the California Invasive Plant Council's Invasive Plant Inventory (available at http://www.cal-ipc.org/pest_plant_list/). A deed restriction to this effect shall be recorded on each lot prior to the recordation of the final subdivision map and its enforcement monitored and controlled by the HOA and GHAD. [Modified CDP COA No. 60]

165. Minor modifications to the approved landscaping plan may be approved by the Zoning Administrator; substantial changes may be referred to the Design Review Board for review and approval, at the discretion of the Zoning Administrator.

166. New landscaping shall comply with the Moraga-Orinda Fire District's Fire Safe Landscaping guidelines.

167. The property owner shall comply with annual weed abatement requirements from the Moraga-Orinda Fire District to provide a fire break between the open acreage and adjacent single family homes. If disking of the soil or mowing of the grass is not possible due to steep slopes, then alternatives such as grazing should be considered to reduce the potential fire hazard.

Other Conditions

168. This entitlement and each condition contained herein shall be binding upon applicant and any transferor, or successor in interest. Subsequent approvals shall be subject to additional conditions of approval.

169. Applicant shall indemnify, hold harmless and defend (with legal counsel chosen by Town ("Counsel")) the Town, its officials, employees and representatives (the "Town Indemnitees") from and against any and all claims, damages, liabilities, actions or proceedings, including any CEQA challenge, arising out of the Town's approvals associated with the application for the Hetfield Estates Subdivision and Environmental Impact Report (the "Project Approvals"). Applicant shall also pay all filing court costs and similar out-of-pocket expenses required for Town and applicant to defend Litigation. [CDP COA No. 90]

170. Hazardous Materials. The project applicant shall comply with all Federal, State and local laws regarding use of hazardous materials at construction sites.[Modified CDP COA No. 68]

171. School Fees. The Applicant/Owner agrees to pay to the School District the maximum fee authorized by law for the construction and/or reconstruction of school facilities. The applicable fee shall be the fee established by the School District that is in effect at the time of the issuance of a building permit. Specifically, the Applicant/Owner agrees to pay any and all fees and charges and comply with any and all dedications or other requirements authorized under Section 17620 of the Education Code; Chapter 4.7 (commencing with Section 65970) of the Government Code; and Sections 65995, 65995.5 and 65995.7 of the Government Code. [CDP COA No. 82]

172. Disclosure to Homebuyers. The Applicant/Owner shall disclose to the homebuyer in the Conditions, Covenants, and Restrictions and in the Department of Real Estate Public Report that pedestrian trails and staging areas are planned in and around the project area, and that the public use associated with such trails and recreational facilities (and the private roads and EVA) will be present during various times,

including but not limited to evening and nighttime hours. Disclosure of geologic hazards including remediated, non-remediated and high hazard areas shall also be provided. [CDP COA No. 84]

173. Time Limit on GDP and VTM Approval. The project approval shall remain in effect for two years from the date of approval of the General Development Plan by the Planning Commission and Conditions shall apply to the Vesting Tentative Map (VTM) and time limits in accordance with the VTM as allowed by State law. If a Precise Development Plan application is not submitted to the Town for processing prior to the expiration date and the Applicant has not demonstrated substantial progress towards development of the project, the approval shall be considered null and void. The Applicant/Owner may file an application for extension with the Planning Department for an extension not less than 30 days prior to the expiration date of the General Development Plan, along with appropriate fees and necessary submittal requirements. The Conditional Use Permit shall have the same expiration date as the General Development Plan and Vesting Tentative Map.[Modification of CDP COA No. 88]

174. Consultant Costs. If the Town utilizes the services of consultants to prepare special studies or provide specialized design review or inspection services for the project, the Applicant shall reimburse the Town for actual costs it incurs in utilizing these services, including administrative costs for town personnel. A deposit for these services shall be provided prior to initiating review of the General Development Plan, or any other subsequent plans and maps for the project submitted to the Town by the Applicant and requiring Town review. [CDP COA No. 91]

175. Town Inspection. No final inspection shall be performed by the Town for any residence until the landscaping is installed or a bond is issued to the Town for the value of the landscape improvements, in an amount as determined by the Town.[CDP COA No. 92]

176. Encroachment Permit. The Applicant shall obtain an encroachment permit from the Town prior to performing any work within the public right-of-way.

177. Public Transit. Prior to the issuance of the first certificate of occupancy, the Applicant shall provide brochure information to all new home buyers that promotes the use of public transit. [CDP COA No. 98]

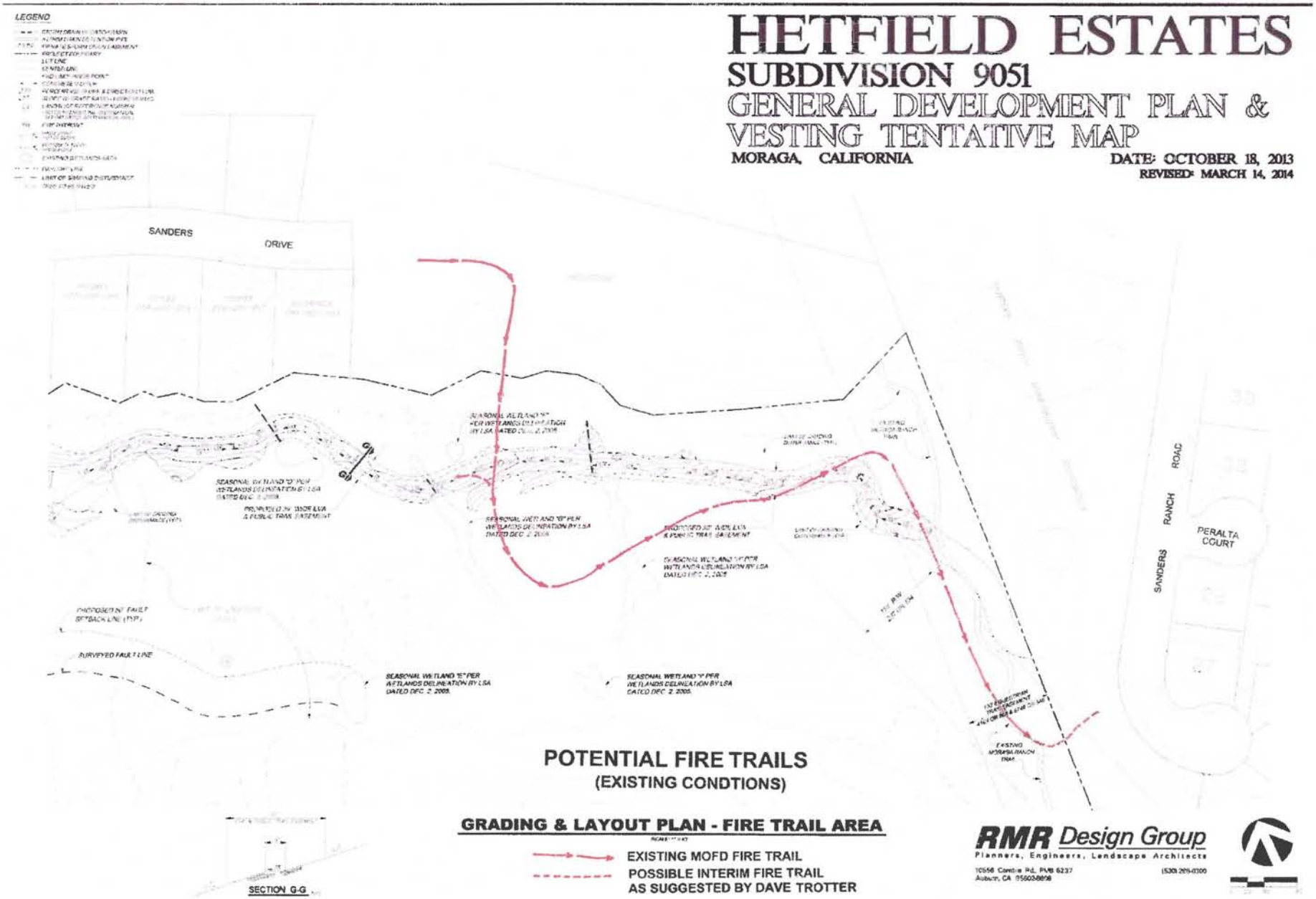
178. Failure of the applicant or any successor to comply with any of the conditions of this resolution or applicable provisions of the Town of Moraga Municipal Code or the laws, rules and regulations of any other governmental entity having jurisdiction over any of the activities conducted on the site may be cause for the commencement of proceedings to revoke this use permit. The failure by the Town to proceed against the applicant or any successor for any violation shall not constitute or be deemed a waiver of the Town's right to proceed against the applicant for any subsequent violation. Nothing in this use permit shall limit in any manner the authority to the

Town of Moraga to apply and/or enforce any provisions of the Municipal Code to this use permit.[Modification of CDP COA No. 102 and all of CDP COA No. 103]

179. This entitlement and each condition contained herein shall be binding upon applicant and any transferor, or successor in interest. Subsequent approvals shall be subject to additional conditions of approval.[CDP COA No. 104]

180. Conditions of Approval shall be printed on the initial sheet(s) of each plan set submitted for a building permit or grading permit pursuant to this permit. Such Conditions shall include all relevant conditions of subsequent approvals including the Precise Development Plan, Final Map and Design Review, The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable"

Exhibit: Hiking Trail Connection to Fire Trail #41-7



ATTACHMENT C

Mitigation Monitoring and Reporting Plan

HETFIELD ESTATES

FINAL MITIGATION MONITORING AND REPORTING PROGRAM

APPROVED BY PC RESOLUTION 10-12

JULY 16, 2012

MITIGATION MONITORING AND REPORTING PLAN

(For Significant Impacts Only)

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
MITIGATION MEASURES IDENTIFIED IN THE ENVIRONMENTAL IMPACT REPORT (EIR) AND REVISED PURSUANT TO THE RESPONSE TO COMMENTS				
AESTHETICS / VISUAL RESOURCES				
3.1-1A: The existing tree screen shall be supplemented with similar native species on the site behind the houses at 1108 through 1116, 1140, 1144, and 1156 through 1164 Sanders Drive. Trees shall be planted on lower portions of the creek bank, (on the project side of the creek bank), protected from deer, and maintained prior to the start of site preparation. Tree size shall be no less than 15-gallon size and shall be a mix of native evergreen species. The applicant shall submit a tree-planting plan for review and approval by the Town.	Applicant/Builder	Tree planting plans shall be submitted for design review. Town of Moraga shall review final planting plan prior to issuance of grading permit. Notify Town when trees have been planted. Conduct on-site inspection of new trees.	Town of Moraga Town of Moraga	Pre-construction. After trees have been planted.
3.1-1B: The applicant shall post a security bond to assure protection of existing and newly planted trees that are located along the north edge of the property. The term of the bond shall extend at least 36 months beyond the completion of the required subdivision improvements.	Applicant/Builder	Bond shall be posted prior to start of site preparation and grading.	Town of Moraga	Prior to issuance of grading permit.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.1-1C: Newly planted trees shall be monitored until a Homeowners' Association has been established and assumed responsibility. Any trees lost during this period shall be replaced and monitored by the developer for the same length of time. Upon completion of the monitoring period, the property owners or a homeowner's association shall replace any trees that may require removal and shall be responsible for maintaining the trees.	Applicant/Builder	The applicant shall submit annual monitoring reports to the Town of Moraga for review and approval.	Town of Moraga	Reports filed yearly after first year of installation.
3.1-2: Refer to Mitigation Measures 3.1-1A–C.	See above			
3.1-3A: The massing and stepping of the houses shall be as shown on Figures 2-2 through 2-4. The maximum building height shall be determined through the design review process, but shall not exceed 35 feet consistent with Moraga Municipal Code.	Applicant/Builder	Plans submitted for review and approval by the Design Review Board.	Town of Moraga	Prior to issuance of building permits.
3.1-3B: House designs shall be compatible to the adjoining neighborhood; that is, low profile by incorporating low-pitched roofs and roof overhangs.	Applicant/Builder	Plans submitted for review and approval by the Design Review Board.	Town of Moraga	Prior to issuance of building permits.
3.1-3C: The final map shall reflect similar house plotting as shown on Figure 3-1 in Appendix B. A minimum distance between new and existing houses shall be no less than 180 feet.	Applicant/Builder	Plans submitted for review and approval by the Design Review Board.	Town of Moraga	Prior to issuance of building permits.
3.1-3D: Prior to final map approval, the applicant shall submit design guidelines to ensure that future homebuilders incorporate features in the design that are compatible with the adjoining neighborhood.	Applicant/Builder	Plans submitted for review and approval by the Design Review Board.	Town of Moraga	Prior to final map approval.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.1-3E: Individual landscape plans shall be submitted to the Town's Design Review Board at the time individual house plans are reviewed. The landscape plans shall reflect a mix of native vegetation that will help blend the structures with the natural setting.	Applicant/Builder	Plans submitted for review and approval by the Design Review Board.	Town of Moraga	Prior to issuance of building permits.
GEOLOGY / GEOTECHNICAL / SOILS				
3.2-1A: A design-level geotechnical and geologic investigation report shall be submitted to the Town of Moraga prior to recordation of the subdivision map. The report, which shall respond to the peer review letter by the Town's Engineering Geologist, shall provide specific criteria and standards to guide site grading, drainage and foundation design.	Applicant's geotechnical consultant	Submit final geotechnical report 45 days prior to recordation.	Review and approval of report by Town's Peer Review Geologist.	Prior to recordation
In areas of proposed development (i.e., cells), existing landslides and slope repairs shall include (a) removal of slide debris, with the depth of excavation extending into underlying competent material; (b) installation of subsurface drainage measures, (c) replacement of slide debris with compacted engineered fill, (d) construction of surface drainage measures, and (e) planting disturbed areas with erosion-resistant vegetation, as recommended in the design-level geotechnical investigation.				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.2-1B: Gradient criteria for engineered slopes as recommended by Engeo shall be required for development of the project site. Any conflicts between future grading plans and these criteria should be interpreted as evidence that special engineering is required (e.g., retaining walls, geogrid reinforcement). Those standards call for use of 3:1 fill slopes as a general standard for the project, with the exception that fill slopes less than 8 feet high may have a 2:1 gradient. Cut slopes are to be avoided.	Applicant's geotechnical consultant	Submit grading plan 45 days prior to recordation.	Review and approval of report by the Town's Peer Review Geologist.	Prior to recordation
3.2-1C: Grading and drainage plans shall be subject to review of the Town's Public Works Department and the Town's Peer Review Geologist. Appropriately licensed professionals shall prepare the plans.	Town of Moraga	Technical review of grading and drainage plans.	Review and approval of plan by Town's Peer Review Geologist.	Prior to issuance of grading permit.
3.2-1D: Buttressing, keying and installation of debris benches shall be provided in the transition areas between open space areas and development as recommended in the design-level geotechnical report.	Applicant/project engineering consultant	Technical review by town's Peer Review Geologist.	Town's Peer Review Geologist	Prior to issuance of grading permit.
3.2-1E: The design-level geotechnical report shall evaluate all major graded slopes and open space hillsides whose performance could affect planned improvements. The slope stability analysis shall be performed for both static and dynamic conditions using an appropriate pseudo-static coefficient.	Applicant's geotechnical consultant	Technical review of design-level geotechnical report.	Review and approval of report by Town's Peer Review Geologist.	Prior to issuance of grading permit.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.2-1F: During grading, the project geotechnical engineer shall observe and approve all keyway excavations, removal of fill and landslide materials down to stable bedrock or in-place material, and installation of all subdrains including their connections. Cut slopes and keyways shall be observed and mapped by the project-engineering geologist who will provide any required slope modification recommendations based on the actual geologic conditions encountered during grading. Written approval from the Town's Public Works Department shall be obtained prior to any modification. Placement of all fill shall be observed and tested by the representative of the geotechnical engineer, and the density test results and reports submitted to the Town to be kept on file.	Project engineering geologist	Observation and mapping throughout mass grading of sit.	Review and approval by the Town's Peer Review Geologist.	Submittal of a final grading report by applicant prior to "finalizing" grading permit.
3.2-1G: Prior to recordation of the Final Map, the applicant shall provide a draft deed disclosure recorded against each lot. The disclosure shall provide a detailed citation of the Final Geotechnical Report, indicating that it is available from the developer and from the Town of Moraga; and it shall summarizing the potential geologic hazards and explain the maintenance responsibilities of the property owner, including maintenance of the debris bench and drainage facilities. The language in the draft deed disclosure is subject to review and approval of the Planning Director, and it shall be recorded concurrent with or prior to recordation of the final map.	Applicant	Review and approval of Deed Disclosure.	Town's Peer Review Geologist and Town of Moraga.	Prior to recordation of final map.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.2-2: A structure setback zone that provides a building free corridor along the mapped fault shall be shown and labeled on the Final Map. The zone shall be 125 feet wide and extend 50 feet from the mapped fault on its northeast flank and 75 feet from the mapped fault on the southwest flank. An annotation of the map shall specify that within the structure setback zone, corrective grading of the landslides is allowed, including the installation of subdrains, debris benches and surface drainage facilities. Additionally, necessary maintenance of these improvements is allowed. Any other use shall require review and approval by the Planning Director.	Applicant	Review and approval of the setback zone.	Town's Peer Review Geologist and Town of Moraga.	Prior to recordation of final map.
3.2-3A: Grading activities shall be restricted to the summer construction season (15 April through 1 October). Any earthwork done after 1 October shall be limited to activities directly related to erosion control, unless the Town of Moraga Public Works Department authorizes additional work.	Applicant/builder	Town of Moraga to review requests for winter season work.	Planning Director may seek comments from Grading Inspector or Town's Peer Review Geologist.	Prior to authorizing any winter season work.
3.2-3B: Provide an erosion control plan prior to approval of the grading plan. The following interim control measures shall be employed based on site-specific needs in the project area: • Grading to minimize areas of exposed, erodible material, and to avoid over-concentration of rapidly flowing runoff in unprotected, erodible areas.	Applicant's engineer	Technical review of erosion control plans.	Grading Technician Review	Prior to issuance of grading permit.
• The erosion control plans shall include water bars, temporary culverts and swales, mulch and jute netting blanks on exposed slopes, hydro seeding, silt fences, and sediment traps/basins.				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Placement of salvaged topsoil on graded 3:1 slopes prior to the onset of winter rains. • Because the biggest problem with effective sediment control is lack of maintenance, the erosion control plan must have a comprehensive program for inspection and maintenance during the winter rainy season, including provisions for documenting maintenance activities. • Wherever feasible, isolate runoff from ungraded areas, thereby simplifying erosion control and sediment control measures within the graded area. • Monitor the effectiveness of the erosion control measures throughout the duration of construction.				
3.2-3C: Provide a "Stormwater Control Plan" that is C.3 compliant, for review and approval of the Moraga Public Works Department. In order to reduce the potential impacts of long-term erosion and sedimentation, the project shall incorporate the appropriate design, construction and continued maintenance of one or more of the following long-term control measures:	Applicant's engineer	Technical review of the Stormwater Control Plan.	Town Engineer	Prior to issuing grading permit.
• The specific measures shall be based on the recommendations of the project geotechnical engineer and hydrologist. • Project plans shall incorporate drainage measures to collect and control surface runoff water on sloping lots, including lined ditches and closed downspout collection systems.				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Concentrated runoff shall not be permitted to drain over engineered slopes.				
• The proposed location of lined drainage ditches shall be specified on the development plan accompanying the design-level geotechnical investigation report, which shall be reviewed by the Town's Peer Review Geologist.				
3.2-3D: Provide low retaining walls with subsurface and surface drainage facilities at the toe of the major fill slopes on the site (at rear of building pads).	Applicant's engineer	Technical review of improvement plans	Town Engineer and Town's Peer Review Geologist.	Prior to issuance of grading permit.
3.2-4A: The design-level geotechnical investigation shall provide criteria for foundation and pavement design, developed in accordance with the latest version of the California Building Code and Ordinance Code requirements on the basis of subsurface exploration and laboratory testing. The constraints on the use of expansive soil near finish grade shall be evaluated in the design-level geotechnical investigation report.	Applicant's engineer	Technical review of geotechnical report.	Town's Peer Review Geologist	Prior to issuance of building permits.
3.2-4B: The foundation recommendation shall include provision for measuring corrosivity of soils within area planned for buildings following grading but prior to the issuance of building permits. The ferrous materials and concrete that is in contact with the ground shall be engineered to minimize/ avoid damage from corrosivity.	Applicant's engineer	Technical review of geotechnical report	Town's Peer Review Geologist	Prior to issuance of building permits.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.2-5: Prior to the issuance of the first residential building permit, the applicant shall submit a Grading Completion Report prepared by the project geotechnical engineer. The report shall include the following: • An as-graded geologic map of all cut slopes and keyways exposed during grading. This map shall not be generalized and diagrammatic; it shall show the details of observed features and conditions, and serve to document that all slide debris was removed from the graded areas. • Provide the results of compaction of fill, performed using an ASTM compaction test method. The documentation provided shall include reference to the date, location and elevation of the test.	Applicant/project geotechnical engineer	Technical review of the Grading Completion Report.	Town's Peer Review Geologist and Town Engineer	Prior to issuance of building permits.
• Document any field changes made during construction (i.e., what unexpected condition was encountered, date; what consultation occurred with the Town's Public Works Department/Town Geologist, date; and what remediation was implemented).				
• Describe the conformance of the as-graded project with the recommendations in the approved geotechnical report.				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.2-6: Prior to recordation of a subdivision map for the proposed project, or prior to approval of a final map, the applicant shall ensure that the entire project site, including the open space portion and the wetland mitigation ponds, be included within a Geologic Hazard Abatement District (GHAD) formed pursuant to Public Resources Code section 26500 *et seq*. The GHAD formation requires a Plan of Control that shall provide the following details: • frequency of inspections/ timing of inspections, • outline the design elements of the ponds that are to be inspected by the GHAD Manager (e.g. holding capacity, outfall structure, etc.), • provide objective criteria for triggering the need for sediment removal or re-construction of ponds, • indicate the role of a wetlands biologist in any necessary maintenance operations that involve work within the ponds,	Applicant/geotechnical consultant	Technical review of GHAD Plan of Control.	Town Engineer and Town's Peer Review Geologist	Prior to recordation
• when the GHAD Manager determines the need for maintenance, outline the process to notice the GHAD Board of Directors and resource agencies of the proposed plan for maintenance, and				
• provide the agencies a reasonable amount of time to comment on the maintenance plan.				
HYDROLOGY / DRAINAGE				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.3-3: The V–ditches shall be designed to convey the surface runoff from the natural areas above the debris benches resulting from a 100-year, 12-hour storm with saturated soil conditions.	Applicant's engineer	Technical review of Improvement Plans	Town Engineer and Town's Peer Review Geologist	Prior to issuance of grading permit.
3.3-5A: Prior to submitting the final map, the applicant shall submit a Stormwater Facilities Operation and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule.	Applicant's engineer	Technical review of the Stormwater Facilities Operation and Maintenance Plan.	Town Engineer and Town's Peer Review Geologist	Prior to submittal of final map.
3.3-5B: Joint Maintenance Agreement (JMA) shall be established for maintaining and cleaning the Hetfield Estates storm drain system, including subdrains, V–ditches, catch basins and gratings, storm drain pipelines, the detention basin, and the IMPs that are proposed in the Stormwater Control Plan for the proposed project (RMR, 2008a, Table 1). All facilities shall be cleaned prior to the rainy season (mid-October each year) and following every major storm. All Hetfield Estates property owners shall be required to contribute annually to fund the JMA. Potential buyers of Hetfield Estates properties shall be informed of their commitments to the JMA so that they can assess their ability to pay their annual contributions.	Applicant	The JMA shall be included with the property deeds at the time of sale for individual house sites. Copies of the agreements shall be provided to the Town for review and approval.	Town Engineer	Prior to issuance of occupancy permit.
3.3-7A: Lined ditches capable of collecting surface runoff shall be provided at the toe of the engineered slope to collect and transport runoff from the fills to the selected discharge points.	Applicant's engineer	Review and approval of Improvement Plans. On-site inspection upon installation.	Town Engineer Town Engineer	Prior to the issuance of grading permits. Upon installation.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
3.3-7B: During grading, the location and approximate depth of subdrains shall be established by field survey. At the conclusion of site grading, the project applicant shall submit an as-built drainage plan showing the location and elevation of the subdrains and cleanouts, as well as the surface drainage facilities.	Applicant's engineer	On-site inspection by Town of Moraga Engineer. Submittal of as-built drainage plan for review and approval by Town of Moraga.	Town Engineer	During grading activities. Upon completion of site grading.
3.3-8: The applicant shall contact the United States Corps of Engineers and the California Department of Fish and Game to obtain required permits and a Streambed Alteration Agreement for construction and operation of a storm drain discharge structure and access bridge over Larch Creek.	Applicant's engineer	Streambed alteration permit shall be obtained and submitted with improvement plans to Town of Moraga for review and approval.	Town of Moraga	Prior to issuance of grading permit.
PLANNING AND LAND USE				
IMPACTS AND MITIGATION MEASURES IDENTIFIED IN THE INITIAL STUDY / PROPOSED MITIGATED NEGATIVE DECLARATION (IS/MND)				
AIR QUALITY				
III-1: During grading and construction activities, the applicant shall implement the following measures to control dust: • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose materials, or require trucks to maintain at least two feet of freeboard.	Applicant/Builder	Grading plans shall include dust control measures approved by the Town of Moraga.	Town of Moraga	On-site inspection during grading activities.
• Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.				

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Sweep off-site streets leading to the project site daily if soil, sand, or other loose materials are deposited on these streets. • Sweep daily all paved access roads, parking areas, staging areas and entrances at the construction site.				
BIOLOGICAL RESOURCES				
IV-1A: The applicant shall obtain all necessary permits from the Corps, USFWS, and the RWQCB as required by federal and State law to avoid, minimize or offset impacts to any species listed under either the State or federal Endangered Species Acts or protected under any other State or federal law as follows:				
• Before project implementation, a delineation of waters of the United States, including wetlands that could be affected by development, shall be made by a qualified wetland specialist through the formal CWA Section 404 process.	Applicant's Wetland Consultant/Juris-dictional Agencies	Verify Draft Wetland Delineation with Corps and provide copy to Town.	Town of Moraga	Provide Verification prior to issuance of Grading Permit.
• If based on the verified delineation, it is determined that fill of waters of the United States would result from project implementation, authorization for such fill shall be secured from the Corps through the Section 404 permitting process and from the RWQCB as part of the Section 401 water quality certification process.	Applicant's Wetland Consultant/Juris-dictional Agencies	Secure agency authorizations and provide evidence to Town	Town of Moraga	Provide copies of agency authorizations prior to issuance of Grading Permit.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Consultation or incidental take permitting may be required under the ESA. The applicant shall obtain all legally-required permits from the USFWS for the "take" of protected species under the ESA. • Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Town of Moraga prior to issuance of any grading or building permits for the project.				
IV-1B: Following a biological opinion issued by the regulatory agencies as discussed above, measures shall be applied to minimize take within the construction zone. The applicant shall follow the requirements of the biological opinion. Furthermore, a qualified biologist shall be retained by the applicant to oversee construction and ensure that no inadvertent take of Alameda whipsnake or California red-legged frog occurs as a result of development of the site. If no biological opinion is obtained from the regulatory agencies regarding the taking of an endangered species, the following mitigation shall apply:	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Prior to any grading or grubbing of the site, the biologist shall conduct a preconstruction survey to confirm absence of any California red-legged frog or Alameda whipsnake on the site. During the construction phase of the project, a trained biologist or a trained on-site monitor (such as the construction foreman) shall check the site in the morning and in the evening of construction activities for the presence of California red-legged frog and Alameda whipsnake. This includes checking holes, under vehicles and under boards left on the ground. If any California red-legged frog or Alameda whipsnake are found, construction shall be halted until they disperse naturally, and the monitor shall immediately notify the biologist in charge and the USFWS. Construction shall not proceed until adequate measures are taken to prevent dispersal of any individuals into the construction zone, as directed by the USFWS.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.
• Subsequent recommendations made by the USFWS shall be followed. The monitor shall not handle or otherwise harass the animal. The biologist in charge and the on-site monitor shall be aware of all terms and conditions set by USFWS and CDFG on the project. The biologist in charge shall train the on-site monitor in how to identify California red-legged frog and Alameda whipsnake. The biologist in charge shall visit the site at least once a week during construction and confer with the trained on-site monitor.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• All construction workers shall be informed of the potential presence of California red-legged frog and Alameda whipsnake, that these species are to be avoided, that the foreman must be notified if they are seen, and that construction shall be halted until authorization to proceed is obtained from the USFWS and appropriate protocols for species protection shall be followed.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.
• During construction, all holes shall be covered at night to prevent California red-legged frog and Alameda whipsnake from becoming trapped in holes on the construction site.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.
IV-1C: A qualified biologist shall be retained by the applicant to conduct a trapping and relocation program for any San Francisco dusky-footed woodrats located within the limits of proposed grading and development. A field survey shall be conducted by a qualified biologist to determine whether any woodrat nests occur within the anticipated limits of grading. Any nests within the construction zone shall be relocated to locations proposed as permanent open space on the site and individual woodrats released into their relocated nests.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
If nest relocation is required, the trapping and relocation effort shall be conducted from August through February outside the breeding season to ensure any young are not inadvertently lost due to the destruction of the protective nest. The trapping and relocation effort shall preferably be conducted within a few days prior to grubbing and vegetation removal to prevent individual woodrats from moving back into the construction zone.				
IV-1D: Any active raptor or loggerhead shrike nests in the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling removal of trees and shrubs during the non-nesting period, September through February, or by establishing buffers around any active nests until the young have fledged based on the results of a pre-construction survey and recommendations of a qualified biologist. Provisions of the pre-construction survey and nest avoidance, if necessary, shall include the following:	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.
• If grading is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall be retained by the applicant to conduct a pre-construction nesting survey no more than 30 days prior to initiation of grading to provide confirmation on the presence or absence of active nests in the vicinity.	Applicant's Biological Consultant/ Construction Contractor	Implement preconstruction and construction avoidance measures to ensure avoidance of inadvertent take.	Applicant's Biological Consultant and Construction Contractor	Applicant's Biological Consultant and Construction Contractor

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the CDFG and implemented to prevent nest abandonment. Buffers and setback zones shall be established as required by CDFG and remain in place until young have fledged the zones. At a minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. The perimeter of the nest-setback zone shall be fenced or adequately demarcated, and construction personnel restricted from the area.	Applicant's Biological Consultant/DFG	Provide required construction setback as negotiated with CDFG	Applicant's Biological Consultant and CDFG	As negotiated during construction.
• If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the nest-setback zone until a qualified biologist verifies that the birds have either (a) not begun egg-laying and incubation, or (b) that the juveniles from the nest are foraging independently and capable of independent survival at an earlier date. A survey report by the qualified biologist verifying that the young have fledged shall be submitted to the Town of Moraga prior to initiation of grading in the nest-setback zone.	Applicant's Biological Consultant/DFG	Provide copy of survey report to Town prior to initiation of grading in nest-setback zone.	Applicant's Biological Consultant and Town of Moraga	Provide copy of survey report prior to grading in nest-setback zone.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
IV-2: Native grass plants from the stand of creeping wildrye in the vicinity of proposed Lot 3 shall be salvaged and reused as part of revegetating graded slopes. Plants shall be salvaged before grubbing and initial grading, and stored until replanted on the site. The salvage and replanting program shall be prepared by a qualified biologist and incorporated into the Landscaping Plan for the project, preferably as part of the Wetland Mitigation Program specified in **Mitigation Measure IV-3A**.	Applicant's Biological Consultant/Landscape Architect	Provide salvage and replanting program as part of Landscape Plan	Applicant's Biological Consultant/Landscape Architect/Town of Moraga	Incorporate program prior to approval of Final Landscape Plan.
IV-3A: A Final Wetland Mitigation Program shall be prepared by a qualified wetland specialist to provide for the protection, replacement, and management of jurisdictional waters on the site affected by proposed development. The Final Wetland Mitigation Program shall include the following components and meet the following standards:	Applicant's Wetland Consultant	Provide Final Wetland Mitigation Plan	Applicant's Biological Consultant/Town of Moraga	Provide Final Wetland Mitigation Plan prior to issuance of Grading Permit.
• Proposed grading and development shall be redesigned to preferably avoid removal or adverse impacts on areas verified as jurisdictional wetlands, particularly the freshwater seep at the southeastern edge of the "Grading Daylight Limits" on proposed Lot 6. This freshwater seep appears to be larger than currently mapped by the applicant's consultant.	Applicant's Wetland Consultant and Civil Engineer	Refine Tentative Map and Grading Plan to minimize disturbance to wetlands.	Applicant's Biological Consultant/Town of Moraga	Demonstrate wetlands have been adequately avoided and provide Final Wetland Mitigation Plan prior to issuance of Grading Permit.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
• Provide adequate mitigation for any direct or indirect impacts on jurisdictional waters as coordinated with the Corps and/or RWQCB where complete avoidance is infeasible. Replacement wetlands shall be at a minimum of 2:1 ratio and shall be established in suitable locations within undeveloped open space areas, preferably on-site. The wetlands replacement component of the Final Wetland Mitigation Program shall emphasize establishment of native freshwater marsh and seasonal wetlands to enhance existing habitat values.	Applicant's Wetland Consultant/Juris-dictional Agencies	Provide Final Wetland Mitigation Plan satisfactory to jurisdictional agencies.	Applicant's Biological Consultant/Town of Moraga	Provide Final Wetland Mitigation Plan prior to issuance of Grading Permit.
• The wetland replacement component of the Final Wetland Mitigation Program shall specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring shall be conducted by the qualified wetland specialist for a minimum of five years and continue until the success criteria are met.	Applicant's Wetland Consultant/Juris-dictional Agencies	Provide Final Wetland Mitigation Plan satisfactory to jurisdictional agencies.	Applicant's Biological Consultant/Town of Moraga	Provide Final Wetland Mitigation Plan prior to issuance of Grading Permit.
• The Final Wetland Mitigation Program shall be completed prior to approval of the Final Map for the project to demonstrate feasibility of wetland mitigation, and allow for possible major adjustments to the limits of proposed development, particularly on Lot 6.	Applicant's Wetland Consultant and Civil Engineer	Provide Final Wetland Mitigation Plan satisfactory to jurisdictional agencies.	Applicant's Biological Consultant/Town of Moraga	Provide Final Wetland Mitigation Plan prior to approval of Final Map.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
IV-3B: The final trail alignment connecting to the cul-de-sac on proposed Lot 6 should be designed to avoid or minimize passing through the freshwater seeps and seasonal wetlands on this portion of the site. If complete avoidance is not feasible, potential impacts shall be addressed as part of the Final Wetland Mitigation Program outlined in **Mitigation Measure IV-3A.**	Applicant's Wetland Consultant and Civil Engineer	Adjust alignment of trail to avoid wetland resources and address any impacts as part of Final Wetland Mitigation Plan.	Applicant's Biological Consultant and Civil Engineer/Town of Moraga	Identify trail alignment and provide Final Wetland Mitigation Plan prior to approval of Final Map.
IV-4A: The portion of the site not proposed for development will be placed in permanent open space to preserve its function as permanent wildlife habitat. Any fencing proposed as part of development on individual lots shall be designed to allow for continued movement by wildlife, or shall be restricted to the vicinity of the building pads. Any fencing, which could obstruct wildlife movement, shall not extend beyond the limits of grading shown in the Conceptual Development Plan.	Applicant's Civil Engineer	Provide protective mechanism.	Applicant's Civil Engineer/Town of Moraga	Include r protective mechanism prior to approval of Final Map.
IV-4B: Signage shall be provided at the access points off the cul-de-sac on proposed Lot 6 which indicate that dogs shall be leashed.	Applicant's Civil Engineer	Include signage on Final Map. Conduct on-site inspection	Applicant's Civil Engineer/Town of Moraga Town of Moraga	Confirm signage include on plans prior to approval of Final Map. Prior to issuing occupancy permit.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
IV-5A: Grading shall be designed to avoid and minimize possible tree removal. This shall be accomplished by expanding the current tree mapping, adjusting the limits of grading to ensure adequate avoidance, and retaining a certified arborist to evaluate potential impacts and make specific recommendations to minimize tree loss or damage. The limits of tree mapping should be expanded to show all trees with trunk diameters of 5 inches or greater within 30 feet of the proposed "Grading Daylight Line" on the Conceptual Development Plan. All mapped trees shall be evaluated by a certified arborist consistent with Section 12.12.070 of the Town of Moraga Tree Preservation Ordinance, and a report shall be prepared to minimize short-term construction damage and long-term decline due to changes in root zone.	Applicant's Biological Consultant, Certified Arborist and Civil Engineer	Adjust limits of grading on the Final Map and Final Grading Plan.	Applicant's Certified Arborist and Town of Moraga	Confirm adjustments to Tentative Map and Grading Plan.
IV-5B: A construction fence shall be installed around all trees to be protected that will identify the limits of grading and disturbance.	Applicant's Biological Consultant and Construction Contractor	Install construction fencing to protect trees to be preserved.	Applicant's Biological Consultant and Construction Contractor	As specified during construction.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
IV-5C: A Tree Replacement Program shall be prepared by the applicant's consulting biologist, and implemented as part of the mitigation program for the project. Replacement trees shall be provided at a minimum 3:1 ratio, shall be installed along the edge of the riparian corridor and other locations to be retained as undeveloped open space, and shall be maintained for a minimum of five years to ensure their successful establishment. Replace-ment tree plantings shall be irrigated for a minimum of two years following initial planting to ensure their survival, and shall be replaced on an annual basis to meet success criteria specified in the Tree Replacement Program.	Applicant's Biological Consultant	Prepare and implement Tree Replacement Program, and provide results of long-term monitoring	Applicant's Biological Consultant/Town of Moraga	Provide Tree Replacement Program prior to issuance of Grading Permit, and Annual Monitoring Reports.
CULTURAL RESOURCES				
V-1A: In the event of the discovery of human remains during construction, pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Contra Costa County Coroner shall be notified by the developer and shall make a determination as to whether the remains are Native American. If the remains are not subject to his authority, he shall notify the Native American Heritage Commission, who will attempt to identify descendants of the deceased Native American.	Builder/Contractor Builder/Contractor	Notify County Coroner and Town of Moraga if remains are uncovered. Notify Town of Moraga when cultural resources encountered.	Contractor/Town of Moraga Builder and/or Contractor and/Town of Moraga	During grading/ excavation activities. During grading/ excavation activities.

Mitigation Measure	Person/Agency Responsible for Implementation	Monitoring Requirements	Person/Agency Responsible for Monitoring	Timing or Frequency of Monitoring
V-1B: Should evidence of prehistoric cultural resources be discovered during construction, work in the immediate area of the find shall be stopped to allow adequate time for evaluation and mitigation. A qualified professional archaeologist will be called in to make an evaluation of the material; and if significant, develop a mitigation program that includes collection and analysis of the materials, preparation of a report, and curation of the materials at a recognized storage facility under the direction of the Planning Director. Collection and evaluation shall be completed prior to the resumption of grading.	Builder/Contractor	Notify Town of Moraga when cultural resources encountered.	Builder and/or Contractor and/Town of Moraga	During grading/ excavation activities.
PUBLIC SERVICES				
XIII-1: The six houses shall be equipped with security alarm systems subject to review and approval of the Town of Moraga Police Department.	Applicant/Builder	Building plans and specifications shall include security systems. Plans to be reviewed and approved by Building Inspection. Conduct on-site inspection.	Town of Moraga Town of Moraga	Prior to issuance of building permit. Prior to issuance of occupancy permit.
TRANSPORTATION/TRAFFIC				
XV-1: Both approaches of Hetfield Place shall be stop sign controlled.	Applicant's engineer	Submit improvement plans for review and approval by the Town of Moraga	Town of Moraga	Prior to issuance of grading permit.

ATTACHMENT D

General Development Plan Sheets

HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP
MORAGA, CALIFORNIA

DATE: OCTOBER 18, 2013

LEGEND

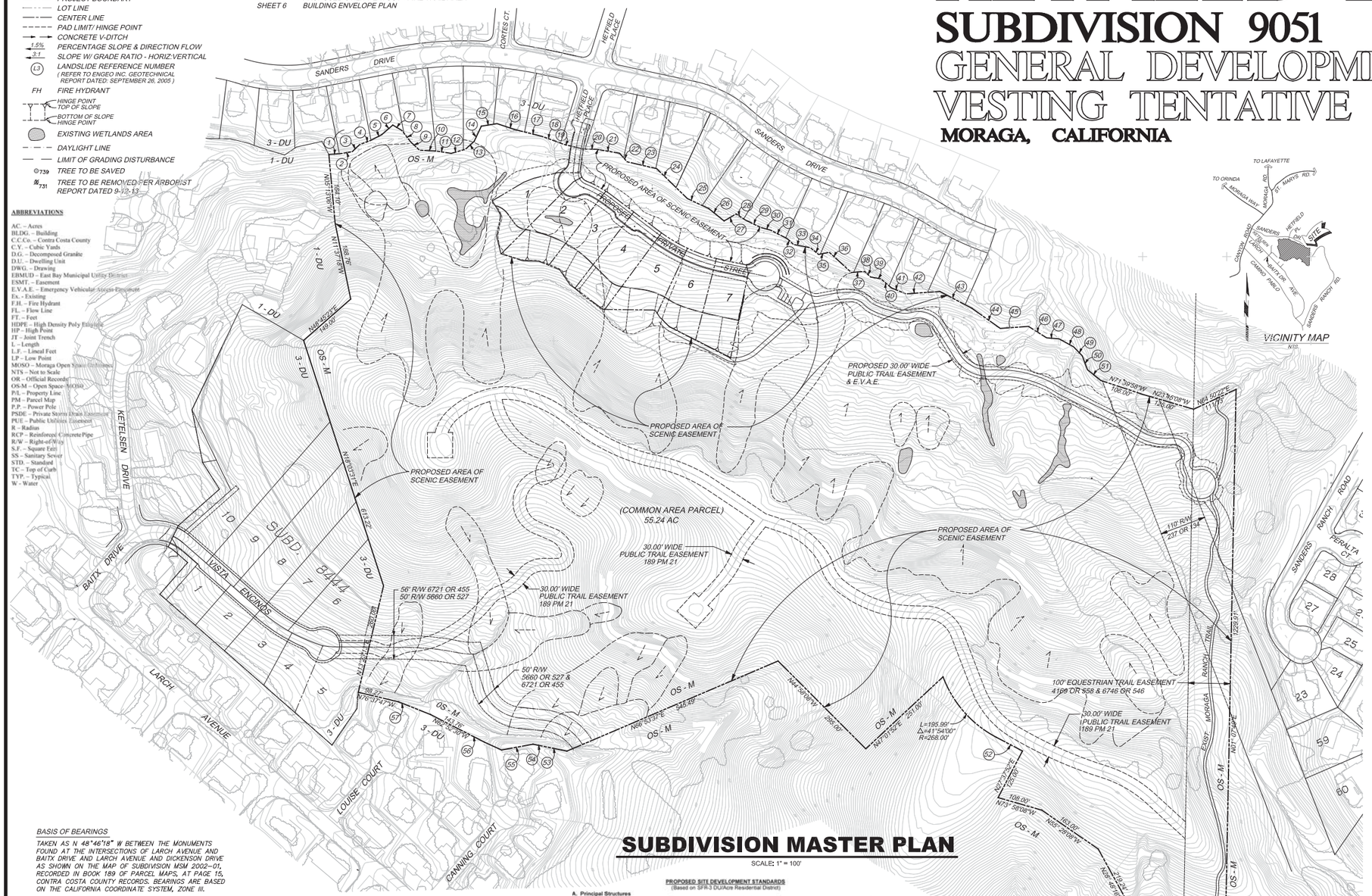
- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- CONCRETE V-DITCH
- 1.5% PERCENTAGE SLOPE & DIRECTION FLOW
- 3:1 SLOPE W/ GRADE RATIO - HORIZ:VERTICAL
- (L3) LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 26, 2005)
- FH FIRE HYDRANT
- HINGE POINT / TOP OF SLOPE
- BOTTOM OF SLOPE / HINGE POINT
- EXISTING WETLANDS AREA
- DAYLIGHT LINE
- LIMIT OF GRADING DISTURBANCE
- ⊙739 TREE TO BE SAVED
- ✱731 TREE TO BE REMOVED - PER ARBORIST REPORT DATED 9-12-13

SHEET INDEX

SHEET 1	SUBDIVISION MASTER PLAN
SHEET 2	GRADING & LAYOUT PLAN - LOT AREA
SHEET 3	GRADING & LAYOUT PLAN - FIRE TRAIL AREA
SHEET 4	PROPOSED UTILITY LAYOUT - LOT AREA
SHEET 5	PROPOSED UTILITY LAYOUT - FIRE TRAIL AREA
SHEET 6	BUILDING ENVELOPE PLAN

ABBREVIATIONS

AC. – Acres
BLDG. – Building
C.C.Co. – Contra Costa County
C.Y. – Cubic Yards
D.G. – Decomposed Granite
D.U. – Dwelling Unit
DWG. – Drawing
EBMUD – East Bay Municipal Utility District
ESMT. – Easement
E.V.A.E. – Emergency Vehicular Access Easement
Ex. - Existing
F.H. – Fire Hydrant
FL. – Flow Line
FT. – Feet
HDPE – High Density Poly Ethylene
HP – High Point
JT – Joint Trench
L. – Length
L.F. – Lineal Feet
LP - Low Point
MOSO – Moraga Open Space Ordinance
NTS – Not to Scale
OR – Official Records
OS-M – Open Space- MOSO
P/L – Property Line
PM – Parcel Map
P.P. – Power Pole
PSDE – Private Storm Drain Easement
PUE – Public Utilities Easement
R – Radius
RCP – Reinforced Concrete Pipe
R/W – Right-of-Way
S.F. – Square Feet
SS – Sanitary Sewer
STD. – Standard
TC – Top of Curb
TYP. – Typical
W - Water



SUBDIVISION MASTER PLAN

SCALE: 1" = 100'

GENERAL NOTES

LEGAL OWNER
ROBERT A. LIPSON and SANDY LIPSON
802 N. SIERRA DRIVE
BEVERLY HILLS, CA 90210
(310)273-5654

APPLICANT
JOHN WYRO
THE WYRO COMPANY
40 VALLEY DRIVE
ORINDA, CA 94563
(925)254-5246

LAND PLANNER / CIVIL ENGINEER
ROBERT M. ROURKE, P.E., AICP
RMR DESIGN GROUP
10566 COMBE RD., PMB 6237
AUBURN, CA 95602-8908
(530)268-0300
R.C.E. #29650

SOIL / GEOTECHNICAL ENGINEER
RAYMOND P. SKINNER
ENGEO, INCORPORATED
2010 CROW CANYON PLACE, SUITE 250
SAN RAMON, CA 94583-4634
(925)866-9000
C.E.G. #1239

TOTAL DEVELOPMENT AREA
58.20 ACRES

ASSESSOR'S PARCEL NUMBER
256-600-006

MORAGA GENERAL PLAN
OS-M – OPEN SPACE, M.O.S.O.

EXISTING ZONING
OS-M

EXISTING LAND USE
VACANT

PROPOSED ZONING
OS-M

PROPOSED LAND USE
RESIDENTIAL - SINGLE FAMILY
MINIMUM LOT SIZE: 17,390 SF
MAXIMUM LOT SIZE: 21,640 SF
AVERAGE LOT SIZE: 18,731 SF
COMMON AREA PARCEL SIZE: 55.24 AC

PROPOSED NUMBER OF LOTS
7 SINGLE FAMILY LOTS
1 COMMON AREA PARCEL

DEVELOPMENT STANDARDS
MINIMUM REQUIRED LOT AREAS, DIMENSIONS, AND SETBACKS SHALL GENERALLY BE AS REQUIRED BY THE SFR-3 DU/ACRE ZONING STANDARD OF THE TOWN OF MORAGA. (SEE PROPOSED SITE DEVELOPMENT STANDARDS TABLE ATTACHED)

SCENIC EASEMENT
THE DESIGNATED SCENIC EASEMENT AREA IS TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS OF LOTS 1 - 7 AS INDICATED ON THE GENERAL DEVELOPMENT PLAN AND VESTING TENTATIVE MAP. NO GRADING, STRUCTURES, OR OBSCURE FENCES SHALL BE ALLOWED WITHIN THE SCENIC EASEMENT AREA.

PUBLIC UTILITIES

WATER SERVICE:	EAST BAY MUNICIPAL UTILITY DISTRICT
SEWER COLLECTION:	CENTRAL CONTRA COSTA SANITARY DISTRICT
SEWER TREATMENT:	CENTRAL CONTRA COSTA SANITARY DISTRICT
GAS & ELECTRIC:	PACIFIC GAS & ELECTRIC
TELEPHONE:	AT & T
CABLE TELEVISION:	COMCAST

PUBLIC SERVICES

FIRE PROTECTION:	MORAGA-ORINDA FIRE DISTRICT
POLICE SERVICE:	MORAGA POLICE DEPARTMENT
SCHOOL DISTRICTS:	MORAGA SCHOOL DISTRICT
	ACALANES UNIFIED SCHOOL DISTRICT

PRIMARY GRADING
(Excavation & Compaction)
CUT: 14,810 C.Y.
FILL: 14,810 C.Y.

REMEDIAL GRADING
(Overexcavation & Re-compaction)
Keyway Excavation: 34,074 C.Y.
Landslide Repair: 25,278 C.Y.

TOPOGRAPHY
AERIAL TOPOGRAPHY AT A SCALE OF 1"=40' AND 1"=100' WITH A CONTOUR INTERVAL OF 2 FEET HAS BEEN PREPARED BY CARTWRIGHT AERIAL SURVEYS, INC., DATED 12/17/99.

BOUNDARY
BOUNDARY SHOWN IS COMPILED FROM RECORD AND FIELD SURVEYED INFORMATION

EASEMENTS
ALL EASEMENTS OF RECORD ARE SHOWN ON THE TENTATIVE MAP AND WILL APPEAR ON THE RECORDED SUBDIVISION MAP UNLESS OTHERWISE NOTED.

BASIS OF ELEVATION
CONTRA COSTA COUNTY BENCH MARK #1478 (ELEV.=483.693). STANDARD DISK SET IN EAST END OF HEADWALL OF CONCRETE BOX ON NORTH SIDE OF LARCH AVENUE, 150± FEET EAST OF ROBERTS COURT.

NOTE: A FIRE PROTECTION PLAN IS TO BE APPROVED BY THE FIRE MARSHALL PRIOR TO COMMENCEMENT OF GRADING

FOR AREAS OF LANDSLIDE REMOVALS AND REPAIRS, SEE THE "RESPONSE TO REVIEW COMMENTS" BY ENGEO, INC., DATED OCTOBER 18, 2013.

BASIS OF BEARINGS

TAKEN AS N 48°46'18" W BETWEEN THE MONUMENTS FOUND AT THE INTERSECTIONS OF LARCH AVENUE AND BAITX DRIVE AND LARCH AVENUE AND DICKENSON DRIVE AS SHOWN ON THE MAP OF SUBDIVISION MSM 2002–01, RECORDED IN BOOK 189 OF PARCEL MAPS, AT PAGE 15, CONTRA COSTA COUNTY RECORDS. BEARINGS ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III.

NO	BEARING	LENGTH
1	N 86°31'52"E	26.00
2	N 80°41'52"E	30.00
3	N 46°01'52"E	24.00
4	N 69°01'52"E	28.00
5	N 62°42'42"E	30.00
6	N 49°01'52"W	35.00
7	N 59°18'08"W	25.00
8	N 37°38'08"W	35.00
9	N 46°58'08"W	28.00
10	N 86°58'08"W	40.00
11	N 81°08'08"W	36.00
12	N 74°01'52"E	35.00
13	N 48°01'52"E	28.00
14	N 25°16'52"E	39.98

15	N 80°41'52"E	38.02
16	N 71°18'08"W	43.06
17	N 75°58'08"W	70.06
18	N 69°38'08"W	53.06
19	N 76°27'08"W	48.06
20	N 88°58'08"W	32.06
21	N 80°08'08"W	55.06
22	N 41°18'08"W	27.06
23	N 76°58'08"W	72.06
24	N 45°48'08"W	102.01
25	N 64°58'08"W	56.06
26	N 51°08'08"W	47.06
27	N 59°40'52"W	33.06
28	N 56°38'08"W	26.06

30	N 74°38'08"W	25.00
31	N 62°58'08"E	45.00
32	N 47°08'08"W	20.00
33	N 78°58'08"W	41.00
34	N 50°37'38"W	25.00
35	N 78°41'52"E	26.00
36	N 47°28'08"W	71.00
37	N 85°31'52"E	32.00
38	N 46°08'08"W	19.00
39	N 79°58'08"W	25.00
40	N 49°18'08"W	33.00
41	N 67°28'08"W	37.00
42	N 86°01'52"E	81.00
43	N 62°28'08"W	86.00

44	N 54°38'08"W	83.00
45	N 85°52'02"E	67.00
46	N 57°48'08"W	51.00
47	N 85°08'08"W	30.00
48	N 61°18'08"W	39.00
49	N 43°58'08"W	30.00
50	N 20°13'08"W	35.00
51	N 51°13'08"W	41.00
52	N 62°22'08"W	70.00
53	N 78°33'36"W	13.14
54	N 78°33'36"W	69.22
55	N 79°38'50"W	76.00
56	N 65°28'59"W	44.59
57	N 68°19'53"W	82.28

PROPOSED SITE DEVELOPMENT STANDARDS
(Based on SFR-3 DU/Acre Residential District)

A. Principal Structures

Lot No.	Minimum Lot Area	Frontage (Width)	Front Setback†	Side Setback	Rear Setback††	Building Height	Maximum Home Size
1	10,000 s.f.	50 ft.*	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
2	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
3	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
4	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
5	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
6	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**
7	10,000 s.f.	80 ft.	20 ft.	10 ft.	10 ft.	35 ft.	4,000 s.f.**

B. Accessory Structure. The minimum side yard setback for an accessory structure o' six feet or less in height is three feet if the structure is set back at least fifty (50) feet from the front property line. The minimum rear yard setback for an accessory structure of six feet or less in height is three feet. An accessory structure higher than six feet is permitted within these setback areas upon approval by the Design Review Board.

C. Accessory Buildings. Accessory buildings shall have setbacks as provided in Section A above.

* Lot #1 is located at the westerly end of the private street at the proposed knuckle. Consequently, typical frontage requirements are not relevant. The 50 ft. width denoted reflects the minimum width of the lot frontage measured along the private access easement.

** Maximum home size as stated above includes garages.

† Front setbacks may be reduced, with specific approval through the Town of Moraga Design Review process, to a minimum of 10 ft. with an average of not less than 15 ft.

†† Rear setbacks shall be not less than a minimum of 10 ft. as measured from the face of the rear yard retaining walls.

THIS GENERAL DEVELOPMENT PLAN AND VESTING TENTATIVE MAP HAS BEEN PREPARED UNDER THE DIRECTION OF AND APPROVED BY:

ROBERT M. ROURKE
R.C.E. 29650

DATE
EXPIRES 3/31/15

REGISTERED PROFESSIONAL ENGINEER ROBERT M. ROURKE No. 29650 Exp. CIVIL STATE OF CALIFORNIA

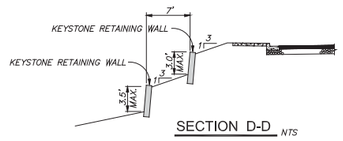
RMR Design Group
Planners, Engineers, Landscape Architects
10556 Combie Rd., PMB 6237
Auburn, CA 95602-8908
(530) 268-0300

0 50 100 200

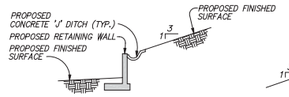
HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP
MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**

LEGEND

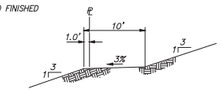
- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- CONCRETE V-DITCH
- 1.5% PERCENTAGE SLOPE & DIRECTION FLOW
- 3:1 SLOPE W/ GRADE RATIO - HORIZ:VERTICAL
- L3 LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 26, 2005)
- FH FIRE HYDRANT
- HINGE POINT TOP OF SLOPE
- BOTTOM OF SLOPE HINGE POINT
- EXISTING WETLANDS AREA
- DAYLIGHT LINE
- LIMIT OF GRADING DISTURBANCE
- 739 TREE TO BE SAVED
- 731 TREE TO BE REMOVED PER ARBORIST REPORT DATED 9-12-13



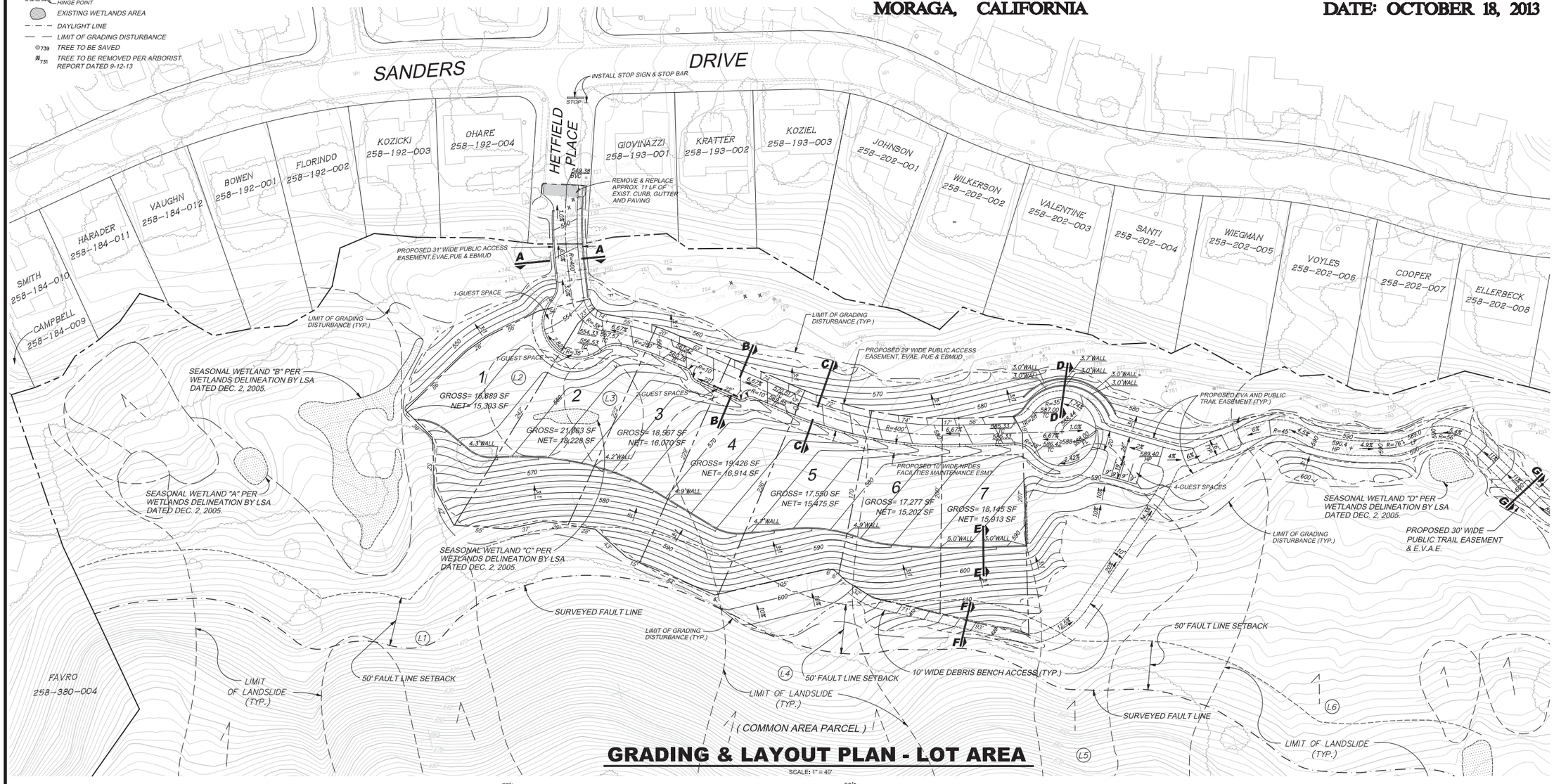
SECTION D-D NTS



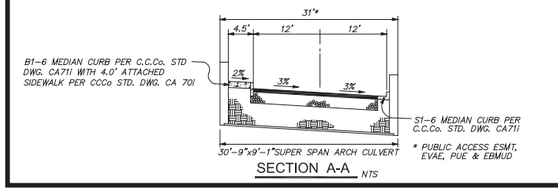
SECTION E-E NTS



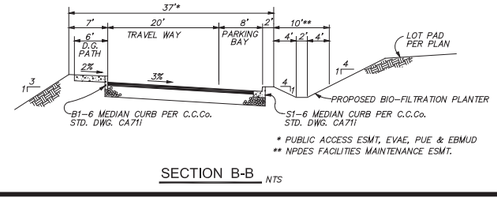
SECTION F-F NTS



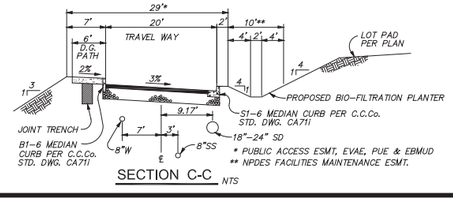
GRADING & LAYOUT PLAN - LOT AREA
SCALE: 1" = 40'



SECTION A-A NTS



SECTION B-B NTS



SECTION C-C NTS

RMR Design Group
Planners, Engineers, Landscape Architects
10556 Combie Rd., PMB 6237
Auburn, CA 95602-8908
(530) 268-0300

0 20 40 80

HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP

MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**

LEGEND

- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- CONCRETE V-DITCH
- 1.5% PERCENTAGE SLOPE & DIRECTION FLOW
- 2:1 SLOPE W/ GRADE RATIO - HORIZ:VERTIC/
- L3 LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 26, 2005)
- FH FIRE HYDRANT
- HINGE POINT / TOP OF SLOPE / BOTTOM OF SLOPE / HINGE POINT
- EXISTING WETLANDS AREA
- DAYLIGHT LINE
- LIMIT OF GRADING DISTURBANCE
- 739 TREE TO BE SAVED

SANDERS DRIVE

WIEGMAN 258-202-005

VOYLES 258-202-006

COOPER 258-202-007

ELLERBECK 258-202-008

BRUZZONE

SANDERS RANCH HOMEOWNERS' ASSOCIATION

SANDERS RANCH ROAD

PERALTA COURT

33

32

28

27

SEASONAL WETLAND "D" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

SEASONAL WETLAND "F" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

SEASONAL WETLAND "G" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

SEASONAL WETLAND "H" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

SEASONAL WETLAND "E" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

SEASONAL WETLAND "I" PER WETLANDS DELINEATION BY LSA DATED DEC. 2, 2005.

LIMIT OF GRADING DISTURBANCE (TYP.)

PROPOSED 30' WIDE EVA & PUBLIC TRAIL EASEMENT

EXISTING MORAGA RANCH TRAIL

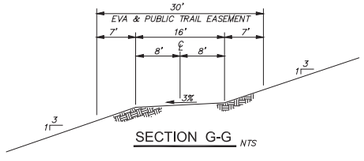
PROPOSED 50' FAULT SETBACK LINE (TYP.)

LIMIT OF LANDSLIDE (TYP.)

SURVEYED FAULT LINE

110' R/W 237 OR 134

10' EQUESTRIAN TRAIL EASEMENT 4169 OR 568 & 6746 OR 546



GRADING & LAYOUT PLAN - FIRE TRAIL AREA

SCALE: 1" = 40'

RMR Design Group
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Auburn, CA 95602-8908
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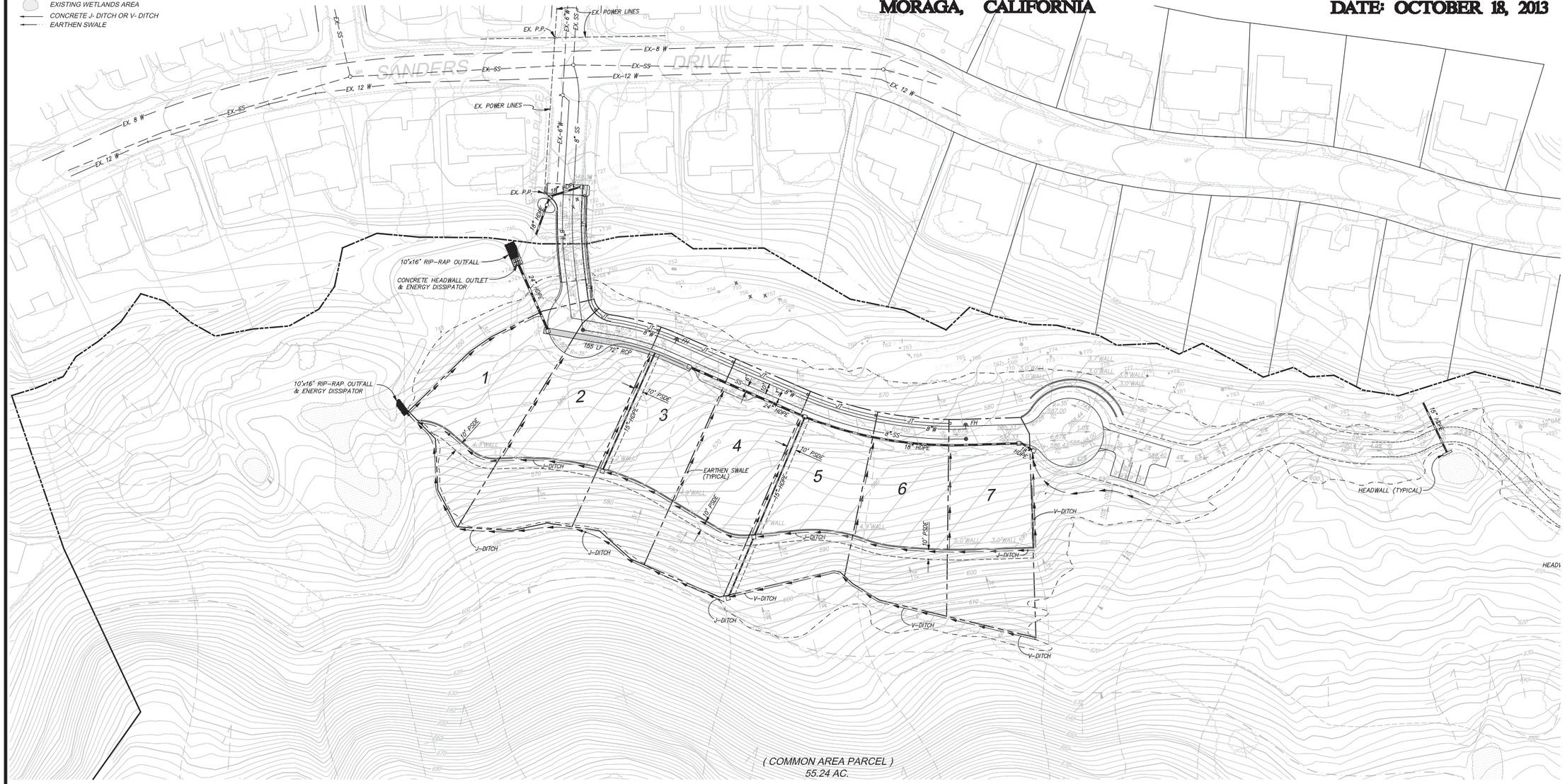
HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP

MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**

LEGEND

- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- 1.5% PERCENTAGE SLOPE & DIRECTION FLOW
- 3:1 SLOPE W/ GRADE RATIO - HORIZ:VERT
- L3 LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 26, 2005)
- FH FIRE HYDRANT
- HINGE POINT TOP OF SLOPE
- BOTTOM OF SLOPE HINGE POINT
- EXISTING WETLANDS AREA
- CONCRETE J- DITCH OR V- DITCH
- EARTHEN SWALE



PROPOSED UTILITY LAYOUT - LOT AREA

SCALE: 1"= 40'

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(530) 268-0300

0 20 40 80

HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP

MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**

LEGEND

- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- 1.5% PERCENTAGE SLOPE & DIRECTION FLOW
- 3:1 SLOPE W/ GRADE RATIO - HORIZ:VERT
- L3 LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 26, 2005)
- FH FIRE HYDRANT
- HINGE POINT / TOP OF SLOPE
- BOTTOM OF SLOPE / HINGE POINT
- EXISTING WETLANDS AREA
- CONCRETE J- DITCH OR V- DITCH
- EARTHEN SWALE



PROPOSED UTILITY LAYOUT - FIRE TRAIL AREA

SCALE: 1"= 40'

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Auburn, CA 95602-8908
(530) 268-0300

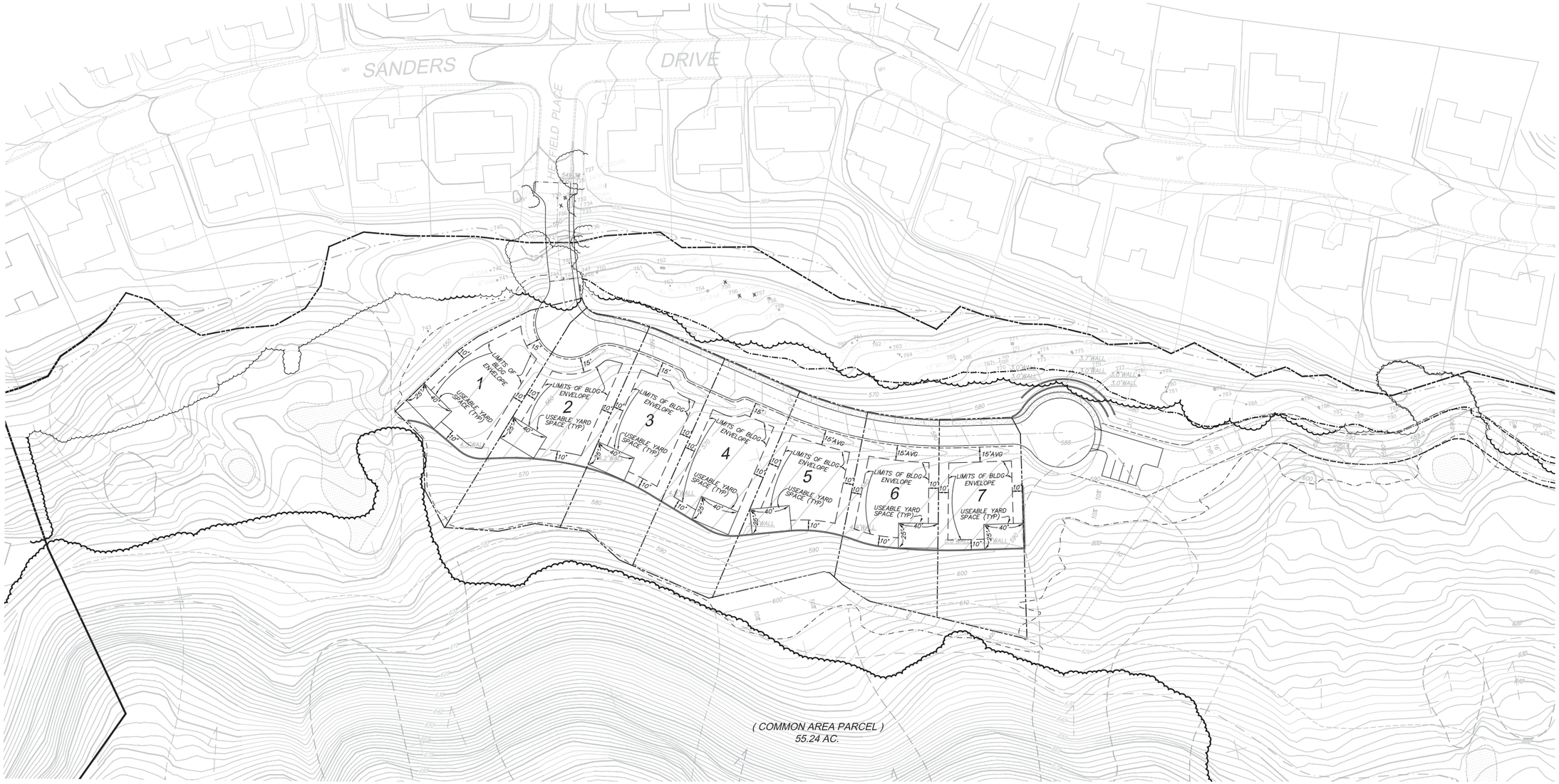
0 20 40 80

HETFIELD ESTATES

SUBDIVISION 9051

GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP

MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**



BUILDING ENVELOPE PLAN

SCALE: 1"= 40'

RMR Design Group
Planners, Engineers, Landscape Architects
10556 Combie Rd., PMB 6237
Auburn, CA 95602-8908
(530) 268-0300

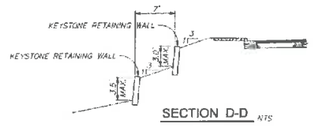
0 20 40 80

HETFIELD ESTATES
SUBDIVISION 9051
GENERAL DEVELOPMENT PLAN & VESTING TENTATIVE MAP

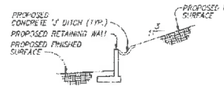
MORAGA, CALIFORNIA **DATE: OCTOBER 18, 2013**

LEGEND

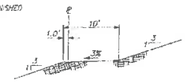
- STORM DRAIN W/ CATCH BASIN
- STORM DRAIN DETENTION PIPE
- PSDE PRIVATE STORM DRAIN EASEMENT
- PROJECT BOUNDARY
- LOT LINE
- CENTER LINE
- PAD LIMIT/ HINGE POINT
- CONCRETE V-DITCH
- 5% PERCENTAGE SLOPE & DIRECTION FLOW
- 3:1 SLOPE W/ GRADE RATIO - HORIZ:VERTICAL
- (L3) LANDSLIDE REFERENCE NUMBER (REFER TO ENGEO INC. GEOTECHNICAL REPORT DATED: SEPTEMBER 20, 2005)
- FH FIRE HYDRANT
- HINGE POINT TOP OF SLOPE
- BOTTOM OF SLOPE HINGE POINT
- EXISTING WETLANDS AREA
- DAYLIGHT LINE
- LIMIT OF GRADING DISTURBANCE
- TREE TO BE SAVED
- TREE TO BE REMOVED PER ARBORIST REPORT DATED 9-12-13



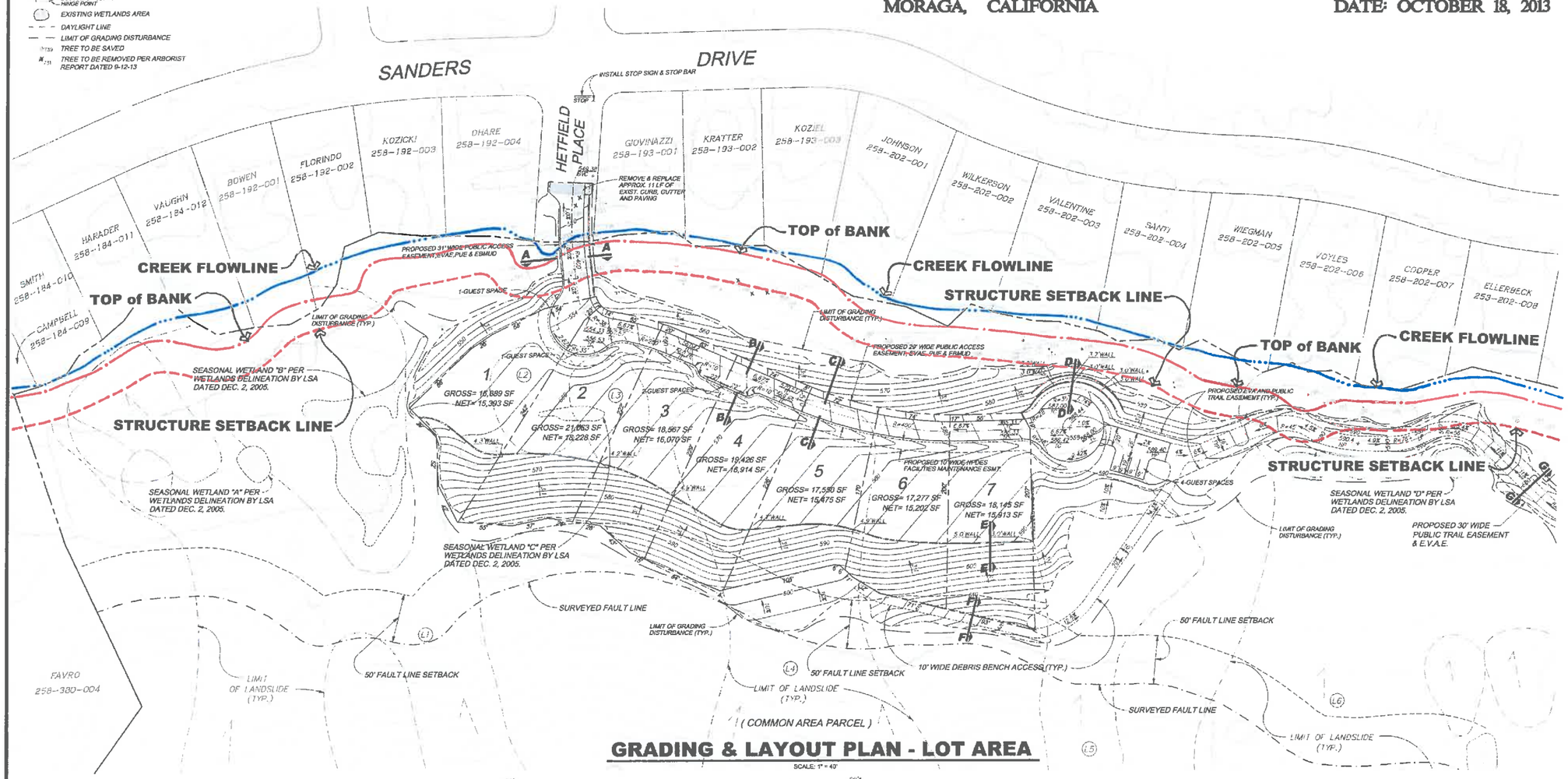
SECTION D-D NTS



SECTION E-E NTS

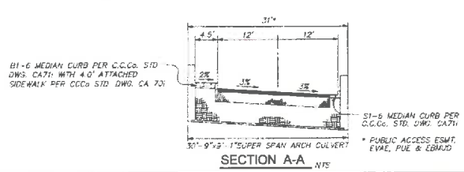


SECTION F-F NTS

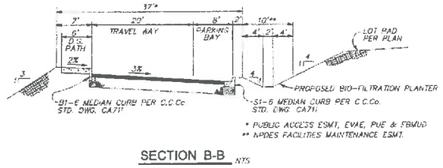


GRADING & LAYOUT PLAN - LOT AREA

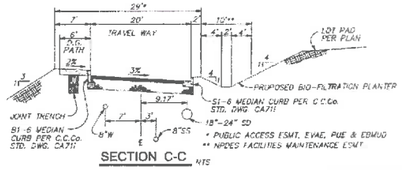
SCALE: 1" = 40'



SECTION A-A NTS



SECTION B-B NTS



SECTION C-C NTS

RMR Design Group
Planners, Engineers, Landscape Architects
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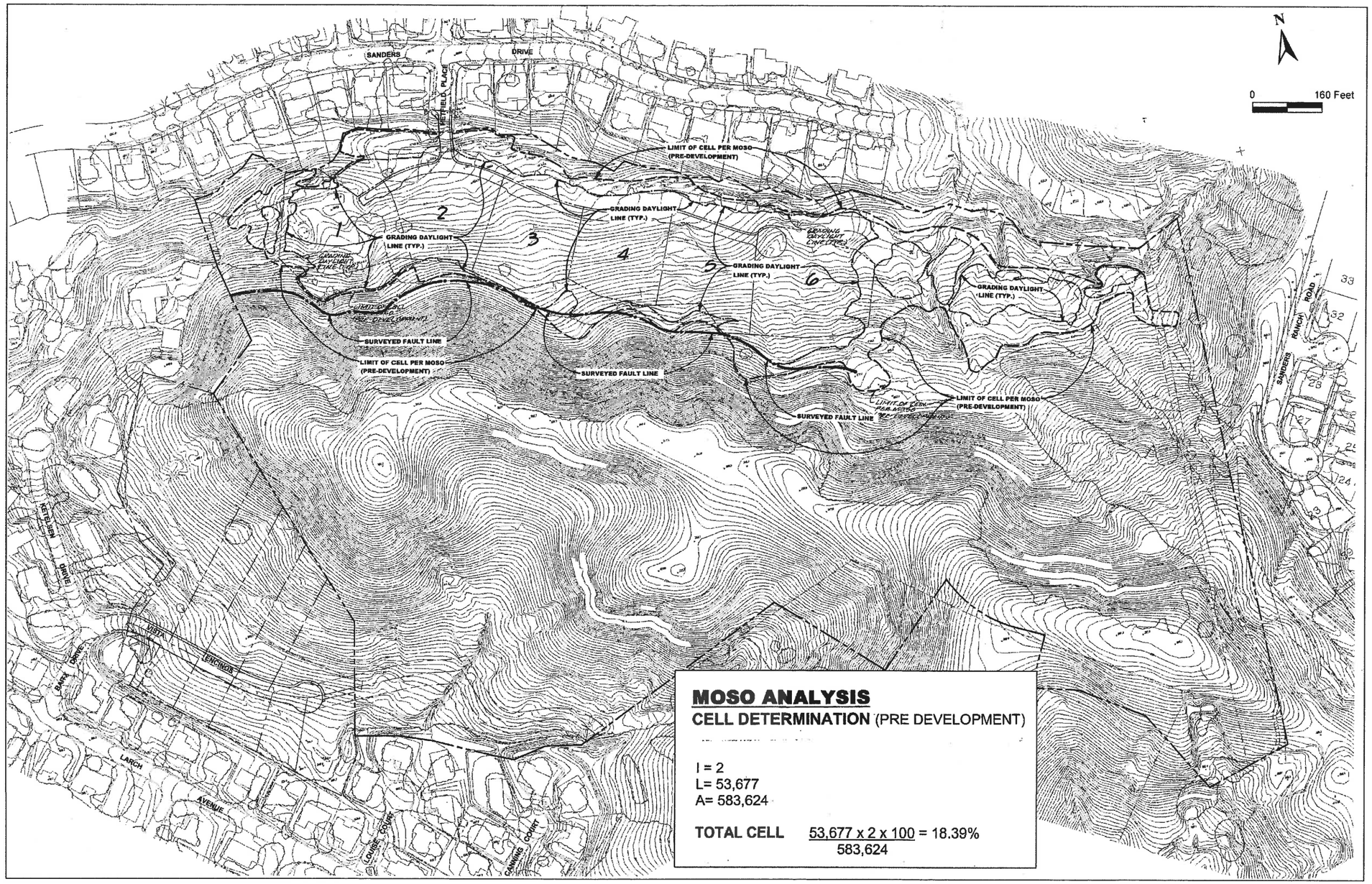
0 20 40 80

ATTACHMENT E

MOSO Cell



Source: RMR Design Group

Figure 3.4-3 MOSO Cell Analysis - Pre-development Conditions

ATTACHMENT F

Engeo Geotechnical Report, May 30, 2019 (Link)

ATTACHMENT G

Draft Hetfield Design Guidelines

Design Guidelines for Moraga Subdivision 9051
Hetfield Estates, Moraga, California

INTRODUCTION OF DESIGN PHILOSOPHY & APPROACH

These Design Guidelines are intended to assure compliance with the Subdivision Conditions of Approval for seven (7) homes to be built within the Hetfield Estates Development. The Guidelines contain all the Conditions of Approval which are relevant to the design and construction of the homes per the Town Council Resolution 43-2014 "Conditions of Approval", the Hetfield Estates Final Mitigation Monitoring and Reporting Program approved by PC Resolution 10-12, July 16, 2012, and reference is made from which the design criteria have been derived. The focus of this document is on the buildings "design criteria" as specified in the aforementioned "Conditions of Approval" and Mitigation Measures.

Architectural design for the homes in the Hetfield Estates Development should be varied, but compatibility of design and style should be considered. Knowledge and consideration of the existing homes or planned homes adjacent to the specific home being designed is particularly important. House designs shall be compatible to the adjoining neighborhood but not necessarily the same; this includes characteristics such as low-pitched roofs and roof overhangs and other elements found in Section IV, Architectural Notes, of these Design Guidelines.

In addition to the specific references contained herein, the Town of Moraga also has General Design Guidelines that shall be adhered to at the time of architectural planning for any home within the Hetfield Estates Development[1].

I. SPECIFIC CONDITIONS OF APPROVAL (COA)

COA 8: All new improvements constructed on the site shall be in compliance with all local, state, and federal laws, statutes, ordinances, regulations, rules, orders, judgements, decrees, permits, approvals and the like requirements applicable thereto and in force at the time thereof ("applicable law"). "Local, State, and Federal" applicable law shall include without limitation, the applicable law of the Town of Moraga; Contra Costa County; Moraga Orinda Fire District, Bay Area Air Quality Management District, San Francisco Bay Area Regional Water Quality Control Board; California Department of Fish and Wildlife, US Army Corps of Engineers; State of California, and United States of America.

[1] Chapter 4 of the Moraga Design Guidelines (Protect Ridgelines and Hillside Areas (RH)) was adopted after the publishing of the Hetfield Estates EIR and does not apply to the initial development of the homes.

COA 17: Home Sizes. Homes shall be limited in size to a maximum of 4,000 gross square feet (including garages) and shall be built within the building envelopes shown on the GDP. All homes shall be subject to Design Review Board review and approval to ensure compatibility with neighboring residences and consistency with applicable Design Guidelines. [CDP COA No. 40].

COA 19: Development Standards: Homes within the project shall conform to the following development standards:

a. **Usable Yard Space**. Usable yard space (having minimum dimensions of 25 ft. by 40 ft.) shall be provided for each lot.
b. **Setbacks.** The following minimum setbacks shall apply for purposes of design review if justified by specific design or lot-specific conditions.
   Side Yard: Minimum 10ft.
   Rear yard setbacks: Minimum 10 ft. from the retaining walls for the 3:1 graded slopes.
   Front yard setbacks: Minimum of 15 feet from the edge of the street right-of way, calculated as an average for all lots.
c. **Lot Size**. None of the lots for individual homes shall be smaller than 15,000 square feet or larger than 27,000 square feet. The "common area" parcel that shall be retained as permanent open space shall be approximately 54 acres.

COA 20: Building Colors. Color selection for building exteriors and roofs shall be restricted to colors that blend with the landscape during the dry season (Le., earth tones, tans and light browns). [Modified CDP COA No. 61]

COA 21: Visual Measures. To minimize reflective light "and glare, and ensure long-term maintenance of visual quality, design, materials, and illumination shall be subject to Design Review Board review and approval, and Project shall implement the following, prior to Final Design Review:

a. Use non-reflective exterior material and finishes.

b. Ensure that all exterior lighting shall be reflected downward. No monument signs are allowed, lit or unlit. Any lighting shall be dark sky compliant, in accordance with industry standards such as those established by the Illuminating Engineering Society of North America (IESNA).

c. Provide safety lighting that incorporates low voltage low luminosity lighting and/or treatments designed to reduce the amount of spillover into surrounding areas. [Modified CDP COA No. 62 and 101]

COA 22: Green Building. The design review for the Precise Development Plan (PDP) shall include a review of its Green Building Program components, which

shall demonstrate how it is expected the project will obtain a score of 90 points (at a minimum) pursuant to the Town's "Build it Green Program" and demonstrating energy efficiency and sustainability beyond current code requirements. Photovoltaic panels shall be offered to buyers as an option. [Modified COP COA No. 64]

COA 38.C: Glare from security night lighting on private property shall be minimized by facing lights (pathway and parking lights, etc.) toward developed portions of the project and not toward native wildlife habitat or open space areas. All lighting shall be shielded to face downwards and towards the interior of individual lots.

COA 44: Fire sprinklers shall be installed in single family dwellings in accordance with MOFD Ordinance 10-04 and NFP A 13 or as revised and amended as of the time of building permit application.

COA 48: Fire Alarm and notification devices shall be UL listed and comply with NFPA 72.

COA 53: Fire Protection Plan –

a. All housing shall be constructed with fire resistant exterior materials and fire-retardant roofing and include interior sprinklers.

b. Landscaping around homes shall be designed to minimize the interface between grassland areas and residences (e.g., fire resistant vegetation).

II. Hetfield Estates Final Mitigation Monitoring and Reporting Program – Approved by PC Resolution 10-12, July 16, 2012:

MM 3.1-3A: The maximum building height shall be determined through the design review process but shall not exceed 35 feet consistent with Moraga Municipal Code.

MM 3.1-3B: House designs shall be compatible to the adjoining neighborhood; that is, low profile by incorporating low-pitched roofs and roof overhangs.

MM 3.1-3C: A minimum distance between new and existing houses (on Sanders Drive) shall be no less than 180 feet.

MM 3.1-3E: Individual landscape plans shall be submitted to the Town’s Design Review Board at the time individual house plans are reviewed. The landscape plans shall reflect a mix of native vegetation that will help blend the structures with the natural setting.

III. HETFIELD BUILDING DESIGN APPROACH

GENERAL SITE GUIDELINES

1. Retain, protect, and utilize existing natural features, such as trees and other vegetation, interesting ground forms, rocks, water, and view in the design.
2. Provide proper drainage, erosion prevention, wind barriers, shade, sound absorption, dust abatement and glare reduction.
3. Guidelines and mandates issued by the California Energy Resources Commission shall apply to residential and non-residential structures to conserve energy. For example, where feasible, buildings should be oriented so that they have a good southern window exposure with shading devices used to exclude summer sunlight.
4. The level of lighting shall not exceed the needs for security and safety or detract from the aesthetics of the development.
    a. Outdoor lighting shall be related to the design of the structure.
    b. Outdoor light fixtures shall be designed and mounted so that the source of light has minimal impact off site.
    c. Outdoor lighting shall be directed inward toward the property and may require additional screening to avoid spillage on adjacent properties.
5. The impact and presence of vehicles resulting from the development shall be minimized through proper siting and screening to buffer parking areas from locations both interior and exterior to the site.
6. Circulation systems shall avoid conflict between vehicular, bicycle and pedestrian traffic. Emergency and service vehicle access shall be accommodated within the circulation system.
7. Accessory structures shall not encroach upon front yard and exterior side yard setbacks.

GRADING & EROSION CONTROL

1. Preserve natural site amenities. Retain trees and other native vegetation, consistent with tree preservation ordinance, to maintain current stability of steep hillsides, retain moisture, prevent erosion, and enhance the natural scenic beauty.
2. Consider appropriate remedial measures to deal with geologic hazards and adverse soil conditions in site planning and design of structures.
3. Place buildings on the site to permit ample room for usable yard areas, adequate landscaping, and drainage between and around buildings.
4. Drainage should follow natural flow patterns and, where appropriate, plans should develop wide area flow patterns, rather than concentrating flow at one point.

5. An exterior retaining wall shall be limited to five feet in height, unless it is visible from off site, in which case it shall be no higher than three feet. Materials used to construct a retaining wall shall be either concrete, suitably treated wood or masonry, and shall be designed by a professional with an appropriate State license to hold the required load. Other materials shall be used only when shown to have sufficient strength and longevity. The total height of a retaining wall and fencing on top of the wall shall not exceed eight feet. A guardrail or handrail (provided a solid fence does not support it) may be located on top of the retaining wall.
6. Surface and subsurface water behind all retaining walls shall be collected and properly channeled to an approved drainage system.

BUILDING DESIGN

A harmonious relationship with the surrounding neighborhood should be created using compatible design schemes and scale.

1. The side yard setback shall be no less than the minimum permitted by the Zoning Ordinance and shall be a minimum of 10' feet.
2. Rear Set Back – shall be a minimum of 10' feet from the required retaining wall at the rear of each lot.
3. Front Set Back - Minimum of 15 feet from the edge of the street right-of way, calculated as an average for all lots.
4. Although the maximum height for any structure is set by the Zoning Ordinance at thirty-five feet, a lower height may be required, based on the special circumstances of an individual lot.
5. Exterior building design on all elevations shall be coordinated regarding color, texture, materials, finishes and architectural form and detailing to achieve design harmony and continuity.
6. The number of different materials on the exterior face of the building shall be limited. Generally, a variety of masonry materials should be avoided. All chimneys on the same home should be similar in architectural style and materials. Major contrasts with the appearance of neighboring buildings shall be avoided.
7. Roof shape, color and texture shall harmonize with the color and architectural treatment of exterior walls.
8. Conscious efforts shall be made to recognize building security as a design element in new construction.
9. A cantilevered deck or balcony shall not extend more than ten feet laterally without support.
10. The overall height of the deck skirt shall not exceed six feet, except for cantilevered decks from the second story.
11. The visible portion of a concrete footing or grade beam shall not exceed twelve inches above the lowest adjacent ground surface.

12. The design of the mailbox shall complement the style and materials of the principal building on the site.
13. Roof leader drains are to be connected to a closed drainage system.

ADDITIONAL SPECIFIC RESIDENTIAL DEVELOPMENT GUIDELINES

1. Not more than three (2) two-story units shall be placed side by side in this seven (7) home development.
2. The color schemes of homes on adjacent lots shall be compatible and not duplicate one another.
3. Front setbacks should be varied, with no more than two adjacent units having the same setback. Setback variation shall be a minimum of three feet.
4. A sufficient number of drains shall be provided in the crawl space under the foundation to provide an outlet for water that may accumulate beneath the house and to drain any areas that may be divided by internal grade beams. Such drainage facilities shall be connected to the street or to other appropriate drainage facility.

IV. HETFIELD AREA - ARCHITECTURAL NOTES

Description of Surrounding Area

The neighborhoods adjacent and connecting to the proposed Hetfield Estates project can be described from an architectural perspective as "classic ranch style" homes. It appears that most of the homes nearby were built 40-60 years ago and encompass few but distinctive design elements. These notes shall be used in informing the Hetfield Estates home designs.

The predominate design elements for the area include:

Roofs

- Gable Roofs – A few hip roofs but predominantly gable style
- Composite Shingles – scattered number of tile roofs but mostly composite.
- Exposed Ridge Beams – at gable ridge – some at the Gable & Eave overhang.
- The Eave overhangs are exaggerated – 24" – 30".

Siding

- Lap Siding – most of the homes have wood lap siding.
- Vertical Panel Siding – Many homes have vertical panel siding.
- Mix Siding – several homes have a mixture of vertical & lap siding.
- Stucco Siding – a few homes have stucco siding or a mixture of stucco & wood.

- Brick Veneer – Many of the homes incorporate brick wainscoting or brick veneer porches.
- Stone – a few homes incorporate stone veneer with stucco or wood siding.

Window Treatments

- The dominant window styles are hung, double hung, or casement windows. A few houses have side sliding windows as well.
- The window Muntin pattern is mostly classic Grid – although several have no Muntins at all.
- The exterior casings are mostly wood (between 3.5-5" wide).
- About 50% of the windows have shutter treatments – usually slab plank shutters.
- Many homes also have window planters or a shelf for pots

Porches

- Most of the homes have covered porches – covered by the main roof plane. Most have simple post column supports and are large enough for chairs & or a bench.

Garage Doors

- Most garage doors have been updated and are mostly "modern ranch" automatic aluminum clad doors.

House Colors

- The color spectrum of the nearby houses is wide. The most dominate color spectrums are shades of white, tan, grey and green.
- Many homes have dark green, grey, blue, and red color exteriors.
- Pastel colors can be found around the neighborhood as well.

Misc. Design Elements

- Most of the front doors in the area have been updated with styles ranging ranch to modern. White and brown are the most dominant colors but almost every color is represented.
- Several Houses have post and rail ranch style fencing in the front yards.

V. Design Concept Examples

Roofs

All roof pitches are 5/12 and 4/12. Highest Ridge is 27’.



The designs include a mix of Lap, vertical panel, and stucco siding. Most incorporate brick wainscoting, sitting porches, ranch style garage doors and colors that blend with the environment & nearby houses.

ATTACHMENT H

May 24, 2014, Town Council Minutes Excerpt

TOWN OF MORAGA
TOWN COUNCIL SPECIAL MEETING

May 21, 2014
MINUTES

7:00 P.M. Special Meeting

Joaquin Moraga Intermediate School Auditorium
1010 Camino Pablo, Moraga, California 94556

I. CALL TO ORDER

The special meeting was called to order at 7:02 P.M. by **Mayor Ken Chew**.

ROLL CALL

Councilmembers present: Mayor Ken Chew, Vice Mayor Roger Wykle, and Councilmembers Phil Arth, and Dave Trotter

Councilmembers absent: Councilmember Metcalf

II. PLEDGE OF ALLEGIANCE

Vice Mayor Wykle led the Pledge of Allegiance.

III. PUBLIC COMMENTS

There were no comments from the public.

IV. ADOPTION OF MEETING AGENDA

PUBLIC COMMENTS OPENED

There were no comments from the public.

PUBLIC COMMENTS CLOSED

ACTION: It was M/S (Trotter/Wykle) to adopt the meeting agenda, as shown. Vote: 4-0-1. Absent: Metcalf.

V. PUBLIC HEARINGS

A. Consider an Appeal of the Planning Commission's Decision to Approve the General Development Plan, Vesting Tentative Map, Conditional Use Permit, and Hillside Development Permit for the Hetfield Estates Project, a seven-lot Single Family Subdivision on a 58.2-Acre Property. An Environmental Impact Report (EIR) for the project was certified in June 2012. (Proposed Resolution 43-2014) *(Continued from April 23, 2014)*

Senior Planner Ellen Clark presented the staff report dated May 21, 2014 for consideration of an appeal of the Planning Commission's decision to approve the General Development Plan, Vesting Tentative Map, Conditional Use Permit, and Hillside Development Permit for the

Hetfield Estates Project, a seven-lot single family subdivision on a 58.2-acre property. The item had been continued from the Town Council meeting of April 23, 2014, which had focused on conditions related to the fire trail and the Emergency Vehicle Access (EVA), and parking and lighting. The Conditions of Approval had been revised in response to the direction from the Town Council, specifically Condition #24, #40, and #76, as reflected in the staff report and in a redline strikeout attached to the Conditions of Approval. Staff recommended an additional revision to Condition #40, [which had not been reflected in the redline handout] to show that the hiking trail would extend into the intersection of Fire Trail #41-7 as shown on the exhibit, as opposed to the old Moraga Ranch Trail to be consistent with Condition #36, as revised.

Ms. Clark recommended that the Town Council adopt a resolution considering the appeal, upholding the Planning Commission's decision, with modifications to the Conditions of Approval, and approve the General Development Plan, Vesting Tentative Map, Conditional Use Permit, and Hillside Development Permit for the Hetfield Estates project.

In response to the Council, Ms. Clark advised that there was no diagram for the proposed change to the parking configuration but the condition allowed flexibility for a modification as part of the Precise Development Plan (PDP). She acknowledged the parking within the cul-de-sac would be closer to Lot 7 than shown on the plans, and there was no drawing to show that revision. She identified the proposed alignment for the fire trail and EVA, which was the reason that Condition #40 had been modified to be more consistent with Condition #36.

John Wyro, Applicant, acknowledged an inconsistency between Condition #40 and Condition #36; clarified the need to conform with Condition #36 calling for the trail to end where the Hetfield Trail intersected with Fire Trail #41-7; and should the EVA go through, the alignment would be the easement on the Vesting Tentative Map and Development Plan, and at that point in time it would adhere to the easement. On an interim basis, until the Sanders Ranch Homeowner's Association (HOA) decided it wanted an EVA, the hiking trail would end at Fire Trail #41-7. Pursuant to a diagram which had shown Fire Trail #41-7, everything to the west would be as shown in the EVA easement and the temporary alignment would pick up Fire Trail #41-7. When and if the Sanders Ranch HOA decided to move forward with the EVA, it would go back to the alignment shown on the plans dated October 18, 2013 without the cul-de-sac (turnaround) since that was where the EVA would leave the subject property to travel up to Sanders Ranch Road; it would not go along the fire trail which was too steep. In the interim, the existing Fire Trail #41-7 adjacent to a wetland area would be used.

PUBLIC HEARING OPENED

Edy Schwartz, Moraga, thanked Mr. Wyro for working long and hard on the project which had a number of restrictions. She affirmed that she had met with Mr. Wyro to review the project plans and details and that Mr. Wyro had suggested waiting until the project had been reviewed by the Design Review Board (DRB). She thanked Mr. Wyro again for his openness and expertise.

PUBLIC HEARING CLOSED

Councilmember Trotter requested the following amendments to the Conditions of Approval as follows:

The second sentence of Condition #40 (b) to be revised to read:

> *Payment or required funds for construction of the Fire Trail shall be made to the applicable project GHAD (or the Town, or other entity designated by the Town Council.)*

Assistant Town Attorney Karen Murphy advised that modification would be acceptable.

Councilmember Trotter asked that the same change be reflected in the last sentence of Condition #40 (c). He asked the Council to opine whether it really needed a temporary alignment for a hiking trail/fire road while the Sanders Ranch HOA decided whether to move forward with the EVA. He questioned why the EVA had to be in a different configuration from the existing Fire Trail #41-7, particularly given the proximity to the wetlands which could otherwise be avoided.

Mr. Wyro clarified that the existing fire trail actually went through the wetlands while the proposed easement missed it. He stated they were restricted with the EVA which must not go over certain grades and which argued for the easement to remain as shown until such time as the Sanders Ranch HOA made a decision on the EVA (stopping the hiking trail where it connected to the fire trail). He understood the concerns with potential impacts to the wetlands and the desire to avoid environmental impacts and asked that the Project Civil Engineer be allowed to address the Town Council.

Bob Rourke, Civil Engineer, explained that the existing fire trail came off the end of a bulb, down and up to a drainage/wetland area, which they must cross under either scenario. Once the wetland area had been crossed there were no wetland impacts further east through the proposed alignment whereas the existing fire trail alignment would angle down the slope crossing the wetland a second time. If improved into a fire trail at a later date, the question was whether the area would be re-impacted above and beyond minor grading that had already been planned. He commented that at the time of the alignment, the intent was to avoid impacts altogether by improving the trail further down the line. He identified the daylight line where grading would be avoided, the northern end of the wetland, and in both cases an effort had been made to keep grading impacts away from the wetlands. The fire trail would disturb a portion of the wetland anyway and if an EVA was placed in the current location there would be a bit more disturbance since it must be wider.

If the Council was contemplating not going along the easement and the fire trail route, Town Manager Jill Keimach asked for input from staff on the requirements of the California Environmental Quality Act (CEQA).

Planning Director Shawna Brekke-Read advised that an addendum had been prepared for the EVA, as shown, while the alignment suggested by Councilmember Trotter had not been analyzed under CEQA. The addendum analyzed the impacts of the first wetland and not to the second wetland area, which the proposed alignment avoided.

Mr. Wyro explained that under the alternatives shown, they had stopped the trail where Fire Trail #41-7 intersected the project trail and they had no plan to do anything related to the fire trail which was under the purview of the Moraga-Orinda Fire District (MOFD). He therefore suggested that the developer's trail and project would not create any environmental impacts.

Vice Mayor Wykle clarified with Mr. Wyro that the contours for the project had not changed with the only change the elimination of the turnaround. He asked the MOFD representative present in the audience to opine on the trail.

MOFD Fire Marshal Kathy Leonard explained that the MOFD used the trails with Type 3 all-wheel drive fire engines that were used to go up and down the hills, and the trail was well established and graded.

Ms. Brekke-Read reiterated that if the EVA alignment followed the existing fire trail it would go through wetlands that had not been analyzed. She suggested the time to conduct that analysis

would depend on the scope of work and would require staff to discuss it with the EIR Consultant and it could require biologic resource evaluation. She was uncertain of the additional costs and noted that with the Conceptual Development Plan (CDP) the exact alignment for the EVA had not been analyzed in the EIR, with the CDP to have some of that analysis conditioned in the GDP phase. She suggested it may be possible to have one alignment or the other subject to approval at the PDP phase.

Ms. Murphy advised that as long as it did not impact the map that would be acceptable direction since the action before the Town Council included the approval of the Vesting Tentative Map.

Councilmember Trotter commented that the alignment was on an existing disturbed path and he questioned whether that would trigger CEQA.

Mayor Chew suggested it would be unfair at this stage to require a change in the alignment of the EVA even though this was a de novo hearing. He asked why Councilmember Trotter was adamant to recommend a change at this time.

Councilmember Trotter suggested the proposed alignment of the EVA with the fire trail would create the least environmental impact, less than what had been proposed, and if it went across a couple of feet of wetland when the existing blading did the same thing every year he described that as a de minimis circumstance. The Fire Marshal had also stated that the fire trail alignment was bladed routinely, was functional, and was usable in that location. Having walked the area, he stated it was not that steep in the location where it traveled south from off the end of Sanders Drive and crossed over, but farther to the east and up to the old Moraga Ranch Trail he had been informed that steepness did not allow a functional EVA and it would be a temporary measure on up the hill towards Sanders Ranch Drive. If the Sanders Ranch HOA decided it wanted the EVA, it would start at the bottom of the hill anyway and design from that point. He suggested a decision could be made at this time where the EVA would be located on the Hetfield Estates property which justified keeping the alignment with the existing fire trail since the environmental impacts appeared fewer than what had been proposed.

Councilmember Arth commented that he had not walked the property, recognized that Councilmember Trotter had walked the property several times, and he concurred with Councilmember Trotter's comments.

Ms. Keimach reiterated the concerns with new environmental impacts to wetlands that had not been analyzed.

Councilmember Arth found there would be minimal disruption to the wetlands and he was confident it would be regarded as de minimis.

Ms. Murphy advised that an addendum had been prepared for the Planning Commission decision with respect to the EVA, which addendum had analyzed environmental impacts related to the first EVA alignment. She was uncertain of the analysis on the alternative paths. She emphasized that there had to be assurance that the analysis had been appropriately documented.

Ms. Brekke-Read advised that the Biologist and the Environmental Consultant had reviewed the EVA alignment, as shown, had analyzed the impacts of the EVA, and had not analyzed the alignment of the existing fire trail. The EVA was not exempt from CEQA pursuant to advice from the Environmental Consultant.

Mr. Wyro emphasized that everyone had been working in good faith. He was amenable to either alignment but if further study was required he requested approval of the Vesting Tentative Map at this time. He suggested as part of the GDP a condition of approval could be added to direct that the issue of the EVA alignment be revisited prior to PDP approval and an additional study could be conducted, if necessary, which would allow the project to proceed.

Councilmember Trotter suggested that Mr. Wyro's recommendation was a reasonable one. He recommended that the Town Council approve the Vesting Tentative Map and the General Development Plan subject to the proposed changes in the conditions, as discussed, with an additional condition that if the Council's wish was to have an EVA on top of the existing fire trail as an alternative to what had been shown on the Vesting Tentative Map the applicant shall be instructed to study that alternative and return for approval and modification at the Precise Development Plan stage. He suggested that any analysis would likely involve a one-page addendum to an environmental document and should not delay the project.

Councilmember Arth supported Councilmember Trotter's recommendation.

Vice Mayor Wykle supported that direction given that the Fire Marshal had indicated that the terrain changes were acceptable. He thanked the developer and staff for working through the parking issues.

Councilmember Trotter offered a motion to adopt a resolution to uphold the Planning Commission's decision, with certain modifications to the Conditions of Approval, and approve the Vesting Tentative Map, Conditional Use Permit, and Hillside Development Permit for the Hetfield Estates Project, with the Conditions of Approval to be as proposed by staff with the additional language in Condition #40 to include references to the Town being a potential recipient of the funds for the cost of construction of a future EVA and GHAD as previously discussed; approve the General Development Plan subject to a condition that the applicant, in connection with the Precise Development Plan approval of the project, may relocate the proposed EVA to conform to the sketch provided on the redline on Page 39 of the May 21, 2014 resolution, with conformance of the EVA to the location of Fire Trail #41-7.

Ms. Murphy commented that Condition #40, as written, had stated that if the alignment for the EVA was altered, one way for the Council to address that would be to show it on the Precise Development Plan and then modify the map. The resolution could be modified to make those changes and the Precise Development Plan could be reviewed at that time.

Mayor Chew suggested the motion, as stated, would be a way to address the concerns with the EVA alignment. **Councilmember Arth** seconded the motion.

Vice Mayor Wykle commented that since this was a de novo hearing he would not support the motion, as stated, since he was of the opinion there remained issues with non-conformity with the General Plan, an issue that had been part of the Planning Commission discussions.

ACTION: It was M/S (Trotter/Arth) to adopt a resolution Considering an Appeal, Upholding the Planning Commission's Decision, with certain modifications to the Conditions of Approval, and Approving the Vesting Tentative Map, Conditional Use Permit, and Hillside Development Permit for the Hetfield Estates Project, a seven-lot Single Family Subdivision on a 58.2-Acre Property; with the conditions of approval to be as proposed by staff with the additional language in Condition #40 which includes references to the Town being a potential recipient of the funds for the cost of construction of a future EVA and GHAD, as previously discussed; approve the General Development Plan subject to a condition that the applicant in connection with the Precise Development Plan approval of the project may relocate the proposed EVA to conform to

the sketch provided showing on the redline on Page 39 of the May 21, 2014 resolution, conforming the EVA to the location of Fire Trail #41-7. Vote: 3-1-1. Noes: Wykle. Absent: Metcalf.

VI. ORDINANCES, RESOLUTIONS AND REQUESTS FOR ACTION

A. Consider Introducing and Waiving the First Reading of an Ordinance Repealing and Replacing Moraga Municipal Code Title 7 Health and Safety, Chapter 7.16 Nuisance Abatement; and an Ordinance adding Title 1 General Provision, Chapter 1.28 Administrative Penalties *(Continued from April 23, 2014)*

Associate Planner Ella Samonsky presented the staff report dated April 23, 2014. She asked that the Town Council introduce and waive the first reading of an Ordinance repealing and replacing Moraga Municipal Code (MMC) Chapter 7.6, Nuisance Abatement as presented in Attachment A to the staff report, Existing Town of Moraga Nuisance Abatement Process Outline; and Ordinance adding Chapter 1.28 regarding Administrative Penalties as presented in Attachment B, Proposed Town of Moraga Nuisance Abatement Process Outline.

Responding to the Council, Ms. Keimach advised that the item was before the Town Council as a Town Council goal, had started a couple of years ago when new businesses had come in and used temporary signs, and there had been an effort by staff to clean up the Town from a sign point of view and to address neighborhood issues. She cited the property at Calle la Montana which had involved full nuisance abatement and issues with fencing which were not up to code, and explained that the process had been cumbersome for staff to address.

Mayor Chew added that he had encouraged the agenda item in response to the Town's experience with the property at Calle la Montana.

Councilmember Trotter pointed out that the Town had historically not paid for a position for code compliance. He asked staff the cost to implement the ordinance.

Ms. Keimach advised that the issue could take on a life of its own and could become an expense, although she clarified that no additional staff would be hired and the ordinance would be handled on a complaint basis with staff to act as the Code Enforcement Officer for the specific department where the issue had been raised. Staff had coordinated staff-wide meetings on that discussion and it was her hope the ordinance would streamline the process and allow the Town the tools to respond to complaints. She acknowledged it was likely the ordinance would have to be tested the first year, although the intent was not to go after everything; the intent was to be business as usual but with staff to have the tools to address any issues on a complaint driven basis.

Ms. Samonsky added that staff received complaints from the community and from neighborhoods and it was a matter of how to proceed and respond. Staff made the effort to record the complaints, write letters, and make contact, although it would be up to the Town Council to act. She recognized it was time intensive for staff to prepare items for public hearings and time on the Town Council schedule. If staff were to pursue nuisance abatement and other items and bring each one to the Town Council that would take more time resources than could be addressed through an ordinance. She also clarified that staff had reviewed the ordinances of neighboring communities and the ordinance for Contra Costa County.

PUBLIC COMMENTS OPENED

There were no comments from the public,

ATTACHMENT I

Public Correspondence

From: JOHN O"HARE
To: Planning
Subject: Hetfield Estates development
Date: Monday, January 24, 2022 12:16:46 PM

To the Planning Commission:
My wife and I live at 1120 Sanders Drive. The entrance to our garage opens to the southern terminus of Hetfield Place. We would like the following issues addressed at the approval meeting for this development on Feb. 1, 2022: Hetfield will most likely need to be dug up for sewer and water lines to access the new development. How are we to get vehicles in and out of our garage during this process? There is a mature oak tree on the embankment of the creek at Hetfield where the bridge accessing the development is to be built. It is my understanding from the previous general plan approval for this project that this tree is to remain and not be damaged. We would like that to be confirmed at the meeting. When constructing the bridge across the creek it would be important not to have trucks and heavy equipment parked on this part of Hetfield, which would make it very difficult for us to both exit and enter our garage. Thanks in advance for addressing these issues before approving this development.
John and Joan O'Hare

ATTACHMENT J

Precise Development Plan

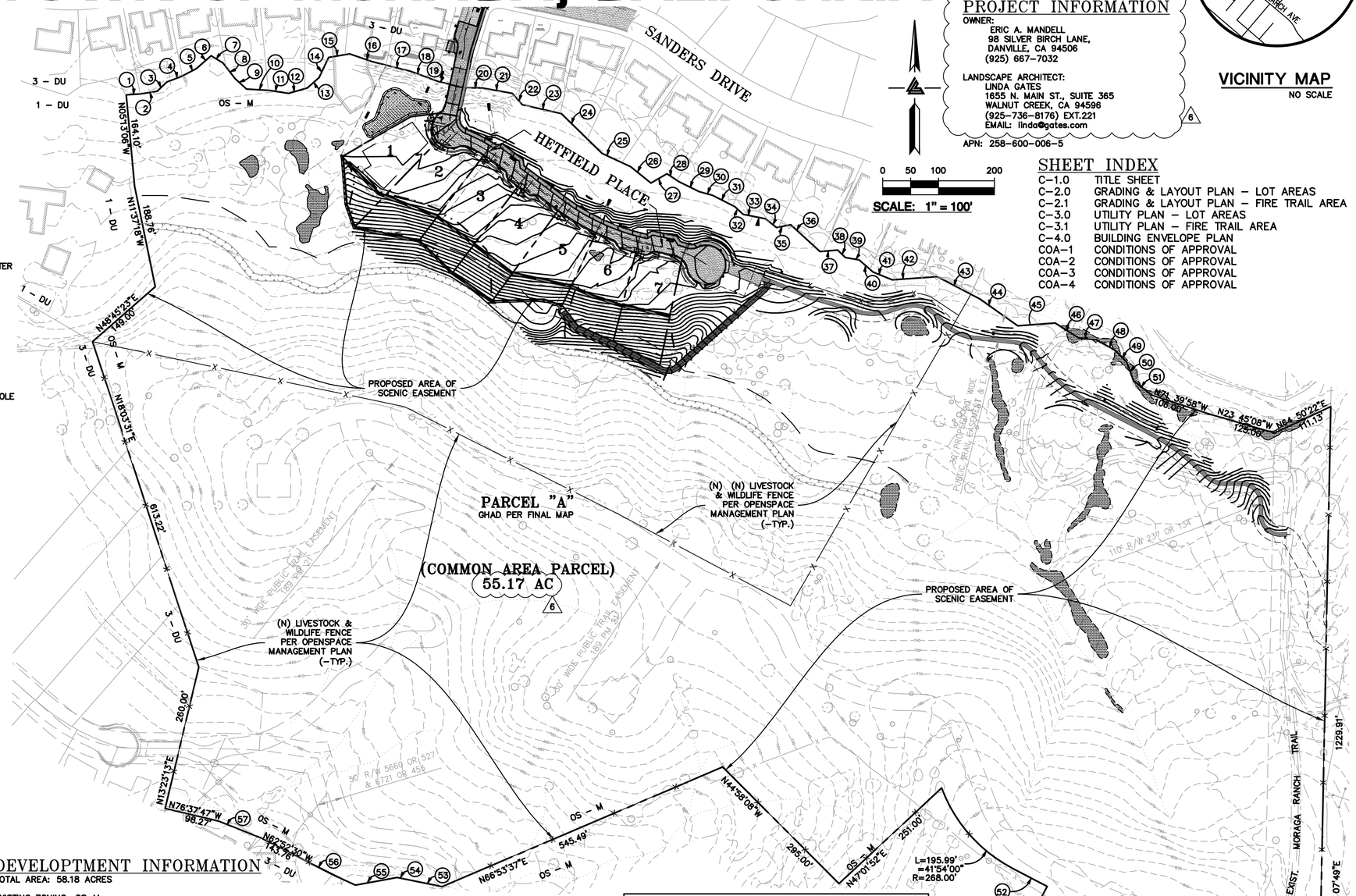
PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051 - HETFIELD ESTATES
TOWN OF MORAGA, CALIFORNIA

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BOUNDARY
		PROPERTY LINE
		RETAINING WALL
	RW RW	RAINWATER TIGHTLINE
	SUB	SUBDRAIN LINE
	TL	TIGHTLINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
G	G	GAS LINE
P	P	PRESSURE LINE
JT	JT	JOINT TRENCH
		SET BACK LINE
		CONCRETE VALLEY GUTTER
		EARTHEN SWALE
CB	CB	CATCH BASIN
AD	AD	AREA DRAIN
SDMH	SDMH	CURB INLET
SSMH	SSMH	STORM DRAIN MANHOLE
222.57 INV	222.57 INV	FIRE HYDRANT
		SANITARY SEWER MANHOLE
		STREET SIGN
		SPOT ELEVATION
		FLOW DIRECTION
		BENCHMARK
200	200	CONTOURS
XX" TREE	XX" TREE	TREE TO BE REMOVED

ABBREVIATIONS

AB	AGGREGATE BASE	MH	MANHOLE
AC	ASPHALT CONCRETE	MIN	MINIMUM
ACC	ACCESSIBLE	MON.	MONUMENT
AD	AREA DRAIN	(N)	NEW
BC	BEGINNING OF CURVE	NO.	NUMBER
B & D	BEARING & DISTANCE	NTS	NOT TO SCALE
BLDG	BUILDING	O.C.	ON CENTER
BM	BENCHMARK	O/	OVER
BW/FG	BOTTOM OF WALL/FINISH GRADE	(PA)	PLANTING AREA
CB	CATCH BASIN	PAE	PUBLIC ACCESS EASEMENT
CCCO.	CONTRA COSTA COUNTY	PED	PEDESTRIAN
C & G	CURB AND GUTTER	PSS	PUBLIC SERVICES EASEMENT
℄	CENTER LINE	P.	PROPERTY LINE
CO	CLEANOUT	PP	POWER POLE
COA	CONDITIONS OF APPROVAL	PUE	PUBLIC UTILITY EASEMENT
COTG	CLEANOUT TO GRADE	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCT or –TION	RCP	REINFORCED CONCRETE PIPE
CONC COR	CONCRETE CORNER	RIM	RIM ELEVATION
CY	CUBIC YARD	RW	RAINWATER
D	DIAMETER	R/W	RIGHT OF WAY
DI	DROP INLET	S	SLOPE
DIP	DUCTILE IRON PIPE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EA	EACH	SAN	SANITARY
EC	END OF CURVE	SD	STORM DRAIN
EG	EXISTING GRADE	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SHT	SHEET
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT	S.L.D.	SEE LANDSCAPE DRAWINGS
		SPEC	SPECIFICATION
(E)	EXISTING	SS	SANITARY SEWER
FC	FACE OF CURB	SSCO	SANITARY SEWER CLEANOUT
FF	FINISHED FLOOR	SSMH	SANITARY SEWER MANHOLE
FG	FINISHED GRADE	ST.	STREET
FH	FIRE HYDRANT	STA	STATION
FL	FLOW LINE	STD	STANDARD
FS	FINISHED SURFACE	T	TELEPHONE
G	GAS	TC	TOP OF CURB
GHAD	GEOLOGIC HAZARD ABATEMENT DISTRICT	TEMP	TEMPORARY
		TP	TOP OF PAVEMENT
GB	GRADE BREAK	TW/FG	TOP OF WALL/FINISH GRADE
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TYP	TYPICAL
		VC	VERTICAL CURVE
HORIZ	HORIZONTAL	VCP	VITRIFIED CLAY PIPE
HI PT	HIGH POINT	VERT	VERTICAL
ID	INSIDE DIAMETER	W/	WITH
INV	INVERT ELEVATION	W, WL	WATER LINE
JT	JOINT TRENCH	WM	WATER METER
JP	JOINT UTILITY POLE		
L	LENGTH		
LNDG	LANDING		
LF	LINEAR FEET		
MAX	MAXIMUM		

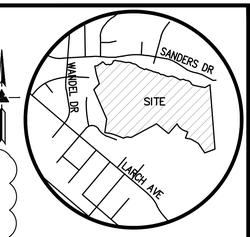


PROJECT INFORMATION

OWNER:
ERIC A. MANDELL
98 SILVER BIRCH LANE,
DANVILLE, CA 94506
(925) 667–7032

LANDSCAPE ARCHITECT:
LINDA GATES
1655 N. MAIN ST., SUITE 365
WALNUT CREEK, CA 94596
(925–736–8176) EXT.221
EMAIL: linda@gates.com

APN: 258–600–006–5



VICINITY MAP
NO SCALE

SHEET INDEX

C–1.0	TITLE SHEET
C–2.0	GRADING & LAYOUT PLAN – LOT AREAS
C–2.1	GRADING & LAYOUT PLAN – FIRE TRAIL AREA
C–3.0	UTILITY PLAN – LOT AREAS
C–3.1	UTILITY PLAN – FIRE TRAIL AREA
C–4.0	BUILDING ENVELOPE PLAN
COA–1	CONDITIONS OF APPROVAL
COA–2	CONDITIONS OF APPROVAL
COA–3	CONDITIONS OF APPROVAL
COA–4	CONDITIONS OF APPROVAL

DEVELOPMENT INFORMATION

TOTAL AREA: 58.18 ACRES

EXISTING ZONING: OS–M
PROPOSED ZONING: OS–M

PROPOSED LAND USE:
RESIDENTIAL – SINGLE FAMILY
MIN. GROSS LOT SIZE: 17,242 SF
MAX. GROSS LOT SIZE: 21,299 SF
AVG. GROSS LOT SIZE: 186,621 SF
COMMON AREA PARCEL SIZE: 55.17 ACRES

LOT INFORMATION:
7 SINGLE FAMILY LOTS
1 COMMON AREA PARCEL

PUBLIC UTILITIES:

WATER SERVICE:	EAST BAY MUNICIPAL UTILITY DISTRICT
SEWER COLLECTION:	CENTRAL COSTA SANITARY DISTRICT
SEWER TREATMENT:	CENTRAL COSTA SANITARY DISTRICT
GAS & ELECTRIC:	PACIFIC GAS & ELECTRIC
TELEPHONE:	AT&T
CABLE TELEVISION:	COMCAST

PUBLIC SERVICES:

FIRE PROTECTION:	MORAGA–ORINDA FIRE DISTRICT
POLICE SERVICE:	MORAGA POLICE DEPARTMENT
SCHOOL DISTRICTS:	MORAGA SCHOOL DISTRICT ACALANES UNIFIED SCHOOL DISTRICT

REFERENCES

THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO:

1. TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING INC., ENTITLED;
"TOPOGRAPHIC SURVEY"
HETFIELD PLACE
MORAGA, CA
DATED: DEVEMBER 8, 2015
JOB#2150581

2. SOIL REPORT BY ENGEO, INCORPORATED. ENTITLED:
"GEOTECHNICAL EXPLORATION, HETFIELD ESTATES"
HETFIELD PLACE
MORAGA, CA
JOB# 5047.000.000
DATE: JANUARY 12, 2015
REVISED: MAY 30, 2019

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	TOTAL CUBIC YARDS
CUT	0	16,870	16,870
FILL	0	14,950	14,950
EXPORT			1,920

REMEDIAL GRADING QUANTITY ESTIMATE (PER GEOTECH)

CORRECTIVE MEASURES	TOTAL CUBIC YARDS
KEYWAY	31,556
LANDSLIDE REMOVALS	27,185

NOTE:
GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN–SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER–EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

REGISTERED PROFESSIONAL ENGINEER JAMES TORA No. 69127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
BAY AREA REGION
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
(P) (510) 887–4086
(F) (510) 887–3019

SACRAMENTO REGION
3017 DOUGLAS BLVD, # 300
ROSEVILLE, CA 95661
(P) (916)966–1338
(F) (916)797–7363
WWW.LEABRAZE.COM

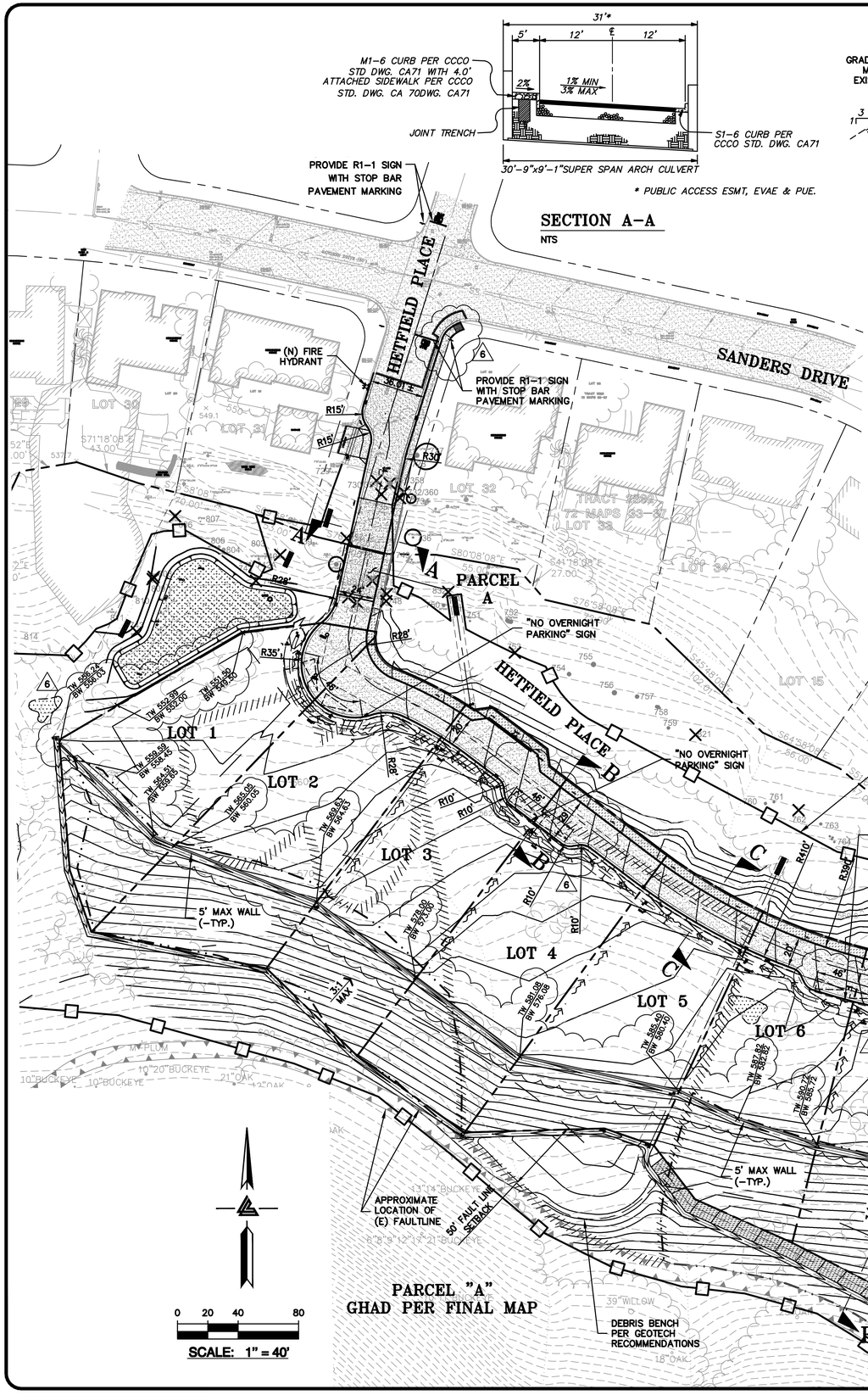
PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA
APN: 258–600–006–5
CONTRA COSTA COUNTY

TITLE SHEET

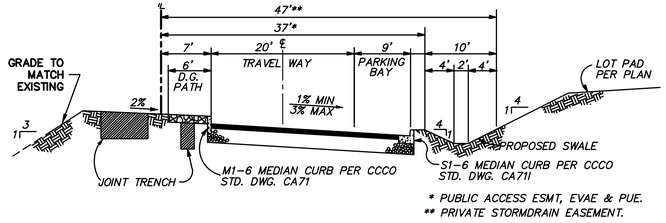
REVISIONS	BY
1 TOWN COMMENTS 3–26–18	MH
2 EASEMENT UPDATE 10–31–18	MH
3 TOWN COMMENTS 5–8–19	MH
4 TOWN COMMENTS 1–28–21	MH
5 SITE UPDATE 7–6–21	MH
6 TOWN COMMENTS 12–3–21	MH

JOB NO:	2150582
DATE:	11–17–17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C–1.0

1 OF 10 SHEETS



SECTION A–A
NTS



SECTION B–B
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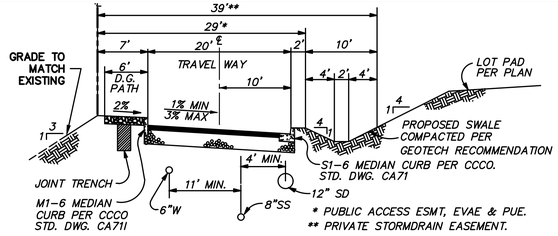
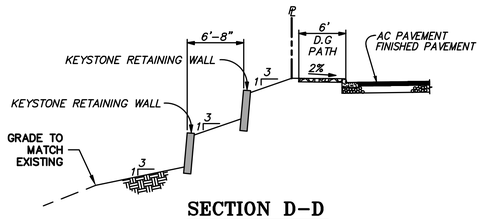
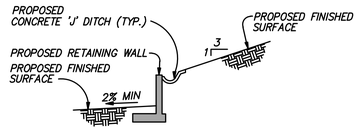


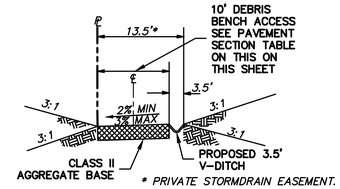
SECTION C–C
NTS



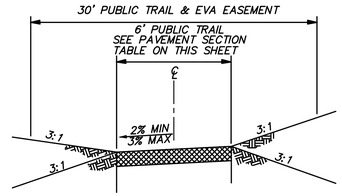
SECTION D–D
NTS



SECTION E–E
NTS



SECTION F–F
NTS



SECTION G–G
NTS

LEGEND

DESCRIPTION
(N) CONCRETE
(N) AC PAVEMENT
(N) GRAVEL PATH
WETLAND
FIRE TRAIL CLASS II AGGREGATE BASE
MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT.
RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
FLOW LINE
TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS

REGISTERED PROFESSIONAL ENGINEER JAMES TORA No. 63127 CIVIL STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258-600-006-5
CONTRA COSTA COUNTY

GRADING & LAYOUT PLAN (LOT AREAS)

MATCHLINE SEE SHEET C-2.1

1	TOWN COMMENTS 3-26-18	MH
2	EASEMENT UPDATE 10-31-18	MH
3	TOWN COMMENTS 5-8-19	MH
4	TOWN COMMENTS 1-28-21	MH
5	SITE UPDATE 7-6-21	MH
6	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

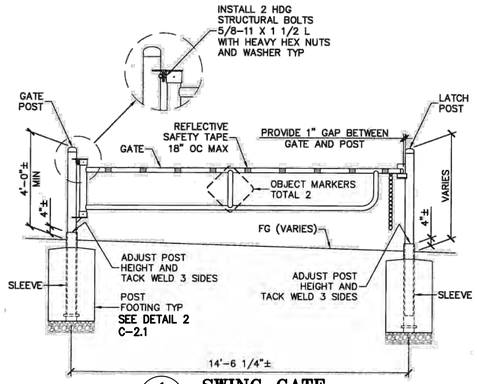
JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C-2.0

2 OF 10 SHEETS

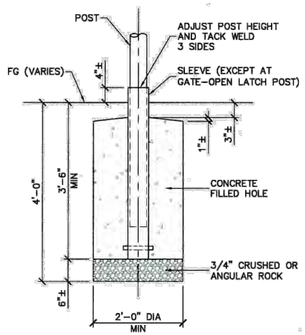
LEGEND

DESCRIPTION

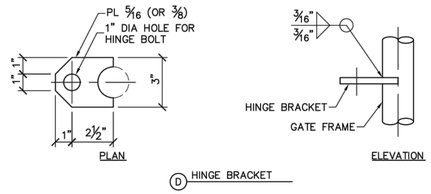
- (N) CONCRETE
- (N) AC PAVEMENT
- (N) GRAVEL PATH
- WETLAND
- FIRE TRAIL CLASS II AGGREGATE BASE
- MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
- RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT.
- RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
- FLOW LINE
- TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS

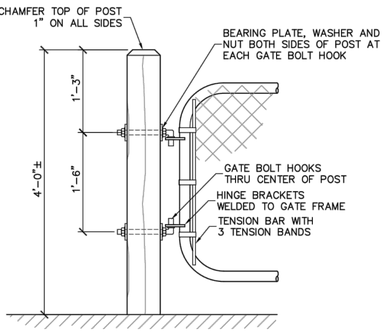


1 C-2.1 **SWING GATE** NTS

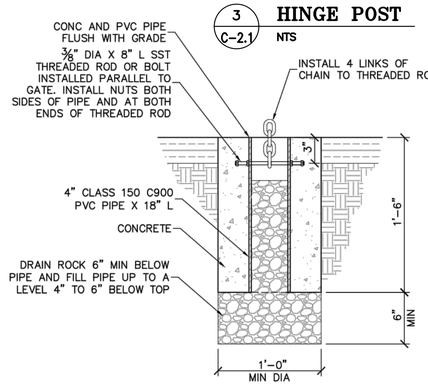


2 C-2.1 **POST FOOTING** NTS



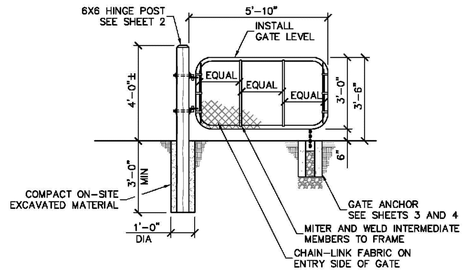


3 C-2.1 **HINGE POST** NTS

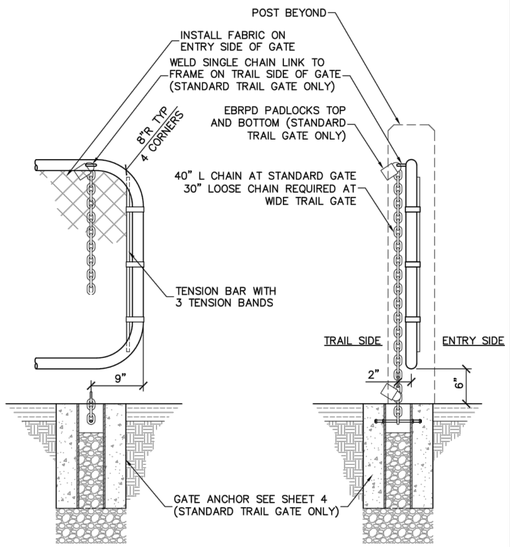


NOTE: GATE ANCHOR IS REQUIRED AT STANDARD TRAIL GATE ONLY. THE WIDE TRAIL GATE IS SECURED TO AN ANCHOR POST AS SHOWN ON SHEET 1.

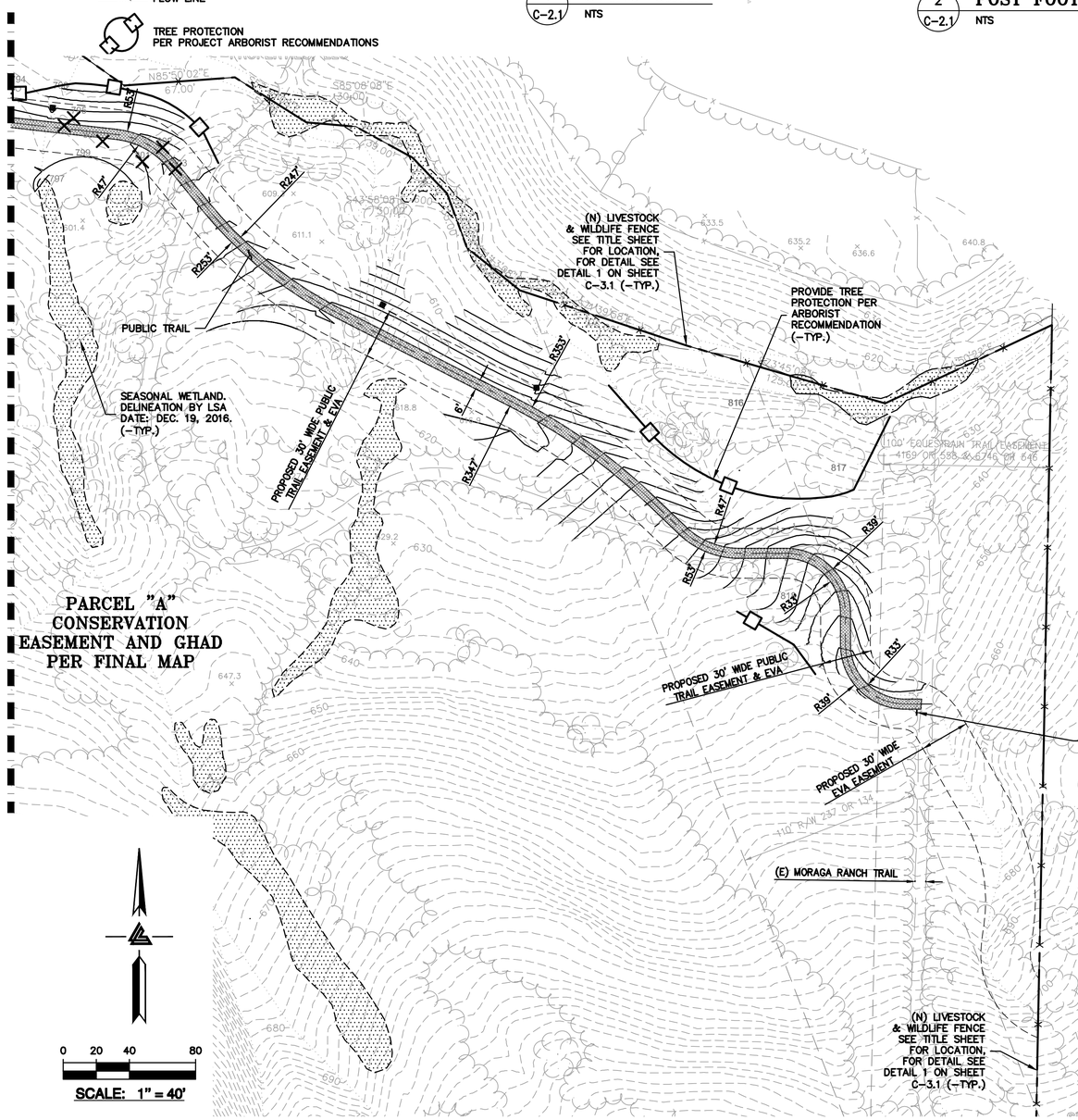
5 C-2.1 **GATE ANCHOR SECTION** NTS

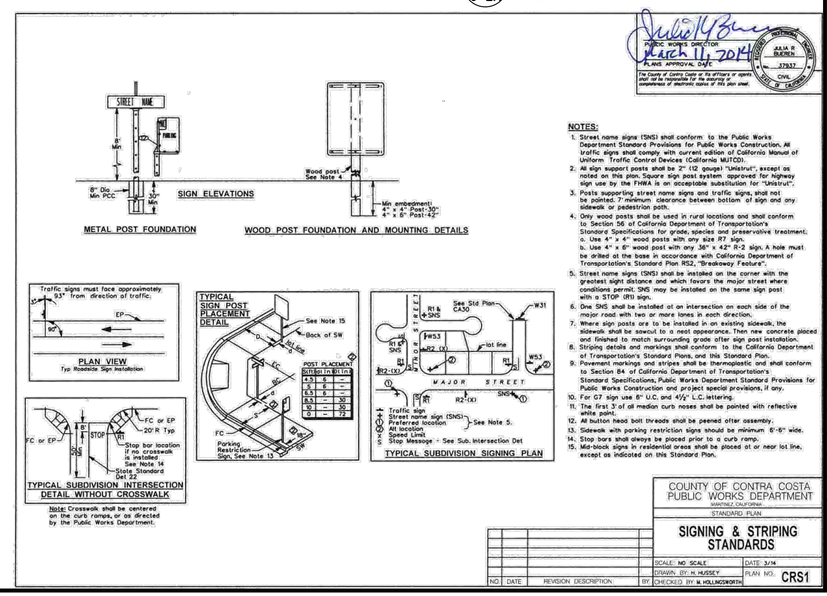


4 C-2.1 **TRAIL GATE** NTS



6 C-2.1 **ANCHOR END OF GATE** NTS





NOTES:

1. Street name signs (SNS) shall conform to the Public Works Department Standard Provisions for Public Works Construction, All traffic signs shall comply with current edition of California Manual of Uniform Traffic Control Devices (California MUTCD).
2. All sign support posts shall be 2" (12 gauge) "Unistrut", except as noted on this plan. Square sign post system approved for highway sign use by the FHWA is an acceptable substitution for "Unistrut".
3. Posts supporting street name signs and traffic signs, shall not be painted. 7' minimum clearance between bottom of sign and any sidewalk or pedestrian path.
4. Only wood posts shall be used in rural locations and shall conform to Section 56 of California Department of Transportation's Standard Specifications for grade, species and preservative treatment.
   a. Use 4" x 4" wood posts with any size R7 sign.
   b. Use 4" x 6" wood post with any 36" x 42" R-2 sign. A hole must be drilled at the base in accordance with California Department of Transportation's Standard Plan RS2, "Breakaway Feature".
5. Street name signs (SNS) shall be installed on the corner with the greatest sight distance and which favors the major street where conditions permit; SNS may be installed on the same sign post with a STOP (R1) sign.
6. One SNS shall be installed at an intersection on each side of the major road with two or more lanes in each direction.
7. Where sign posts are to be installed in an existing sidewalk, the sidewalk shall be sawcut to a neat appearance. Then new concrete placed and finished to match surrounding grade after sign post installation.
8. Striping details and markings shall conform to the California Department of Transportation's Standard Plans, and this Standard Plan.
9. Pavement markings and stripes shall be thermoplastic and shall conform to Section 84 of California Department of Transportation's Standard Specifications, Public Works Department Standard Provisions for Public Works Construction and project special provisions, if any.
10. For CT sign use 8" U.C. and 4½" L.C. lettering.
11. The first 3' of all median curb noses shall be painted with reflective white paint.
12. All button head bolt threads shall be peened after assembly.
13. Sidewalk with parking restriction signs should be minimum 6'-6" wide.
14. Stop bars shall always be placed prior to a curb ramp.
15. Mid-block signs in residential areas shall be placed at or near lot line, except as indicated on this Standard Plan.

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA
STANDARD PLAN
SIGNING & STRIPING STANDARDS
SCALE: NO SCALE DATE: 3/14
DRAWN BY: H. HUSSEY PLAN NO. CRS1
NO. DATE REVISION DESCRIPTION BY CHECKED BY: M. HOLLINGSWORTH

REGISTERED PROFESSIONAL ENGINEER JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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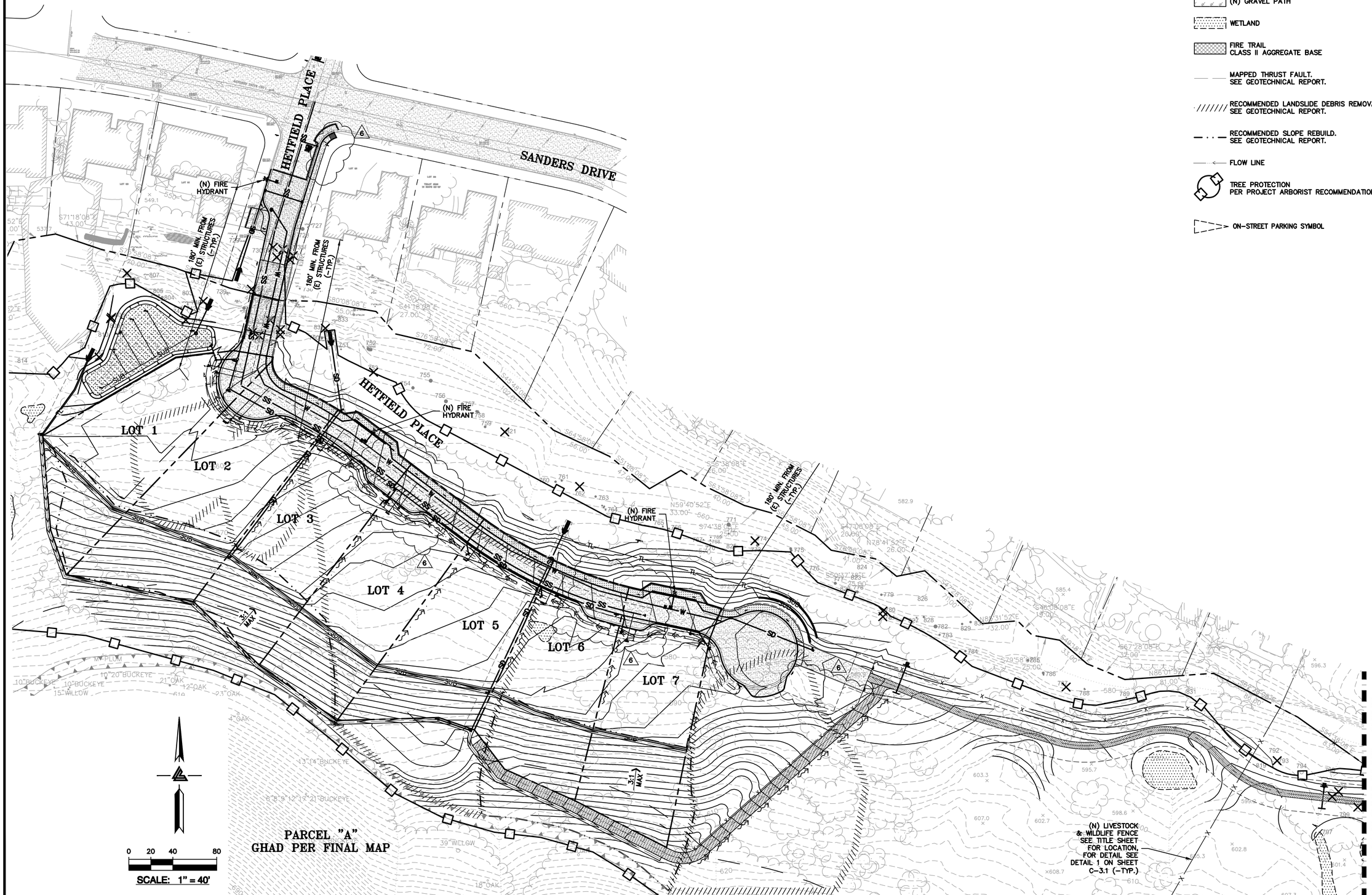
PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA
CONTRA COSTA COUNTY
APN: 258-600-006-5

GRADING & LAYOUT PLAN (FIRE TRAIL AREA)

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 EASEMENT UPDATE 10-31-18	MH
3 TOWN COMMENTS 5-8-19	MH
4 TOWN COMMENTS 1-28-21	MH
5 SITE UPDATE 7-6-21	MH
6 TOWN COMMENTS 12-3-21	MH

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C-2.1

3 OF 10 SHEETS



LEGEND

DESCRIPTION
(N) CONCRETE
(N) AC PAVEMENT
(N) GRAVEL PATH
WETLAND
FIRE TRAIL CLASS II AGGREGATE BASE
MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT.
RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
FLOW LINE
TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
ON-STREET PARKING SYMBOL

MATCHLINE SEE SHEET C-3.1

REGISTERED PROFESSIONAL ENGINEER JAMES TORY No. 83127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY

APN: 258-600-006-5

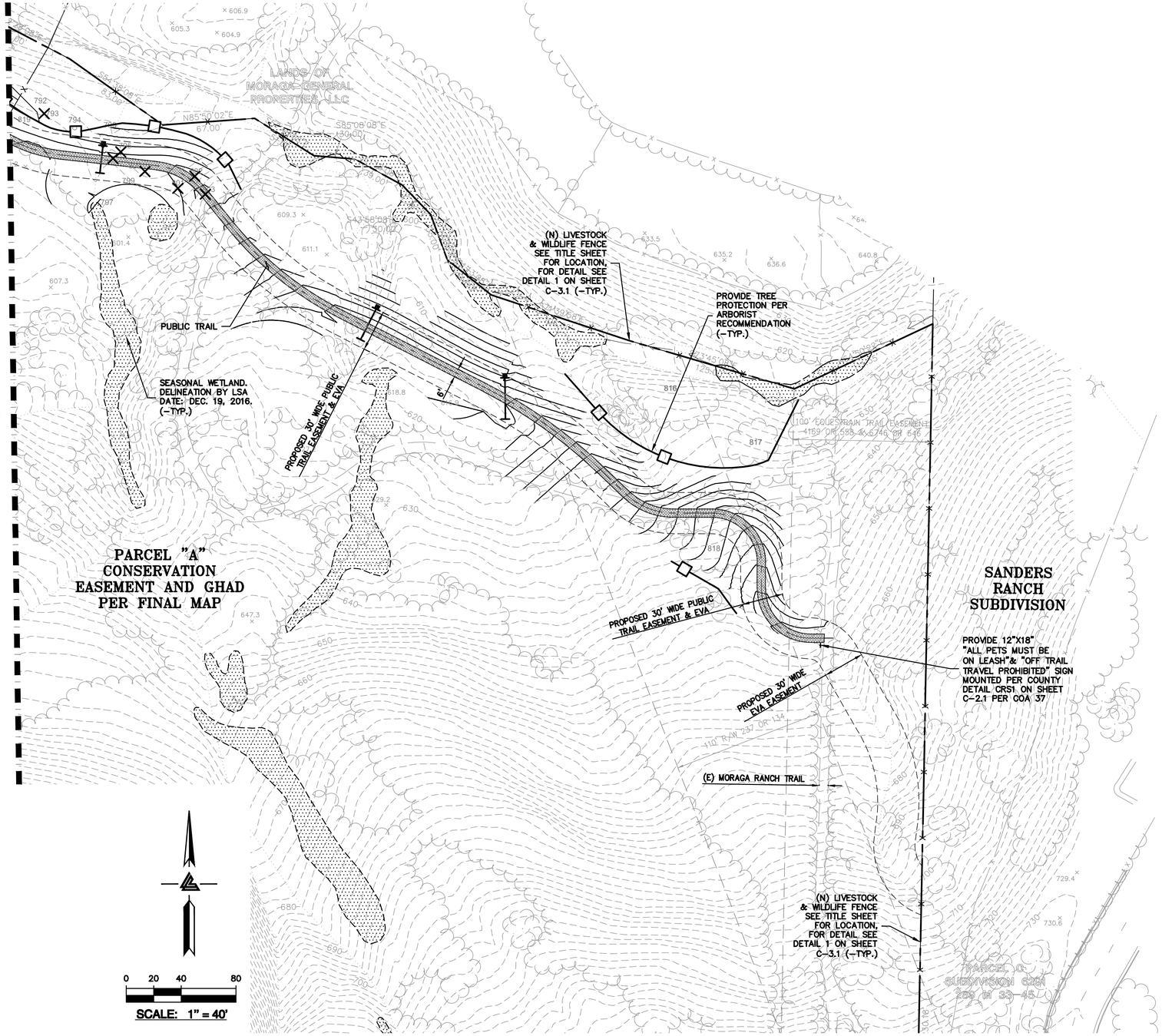
UTILITY LAYOUT PLAN (LOT AREAS)

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 EASEMENT UPDATE 10-31-18	MH
3 TOWN COMMENTS 5-8-19	MH
4 TOWN COMMENTS 1-28-21	MH
5 SITE UPDATE 7-6-21	MH
6 TOWN COMMENTS 12-3-21	MH

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C-3.0

4 OF 10 SHEETS

MATCHLINE SEE SHEET C-3.0

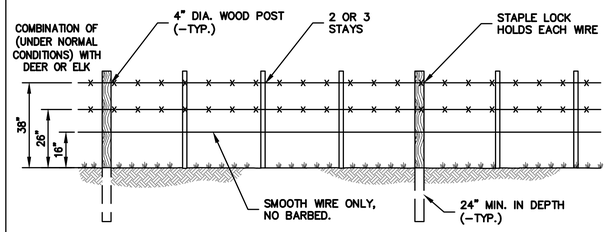


LEGEND

DESCRIPTION
(N) CONCRETE
(N) AC PAVEMENT
(N) GRAVEL PATH
WETLAND
FIRE TRAIL CLASS II AGGREGATE BASE
MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT.
RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
FLOW LINE
TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS

KINDS OF USE COMBINATIONS

KINDS OF LIVESTOCK AND WILDLIFE	NUMBER OF WIRES	MAX. FENCE HEIGHT IN INCHES	WIRE SPACING (FROM GROUND UP, IN INCHES)	WIRE TYPE	NO. STAYS BETWEEN LINE POSTS W/ SPACING OF 16.5' –30'
CATTLE AND SHEEP (NORMAL CONDITIONS)	3	42"	16, 10, 12	BOTTOM STRAND SMOOTH, OTHERS BARBED	2 TO 3



NOTE:
THE 4" DIAMETER FENCE WOULD BE A 3 STRAND MIN. FENCE DESIGNED TO MEET ALL WILDLIFE AND GRAZING ADMINISTRATION STANDARDS. A SIMPLE AND EFFECTIVE STAPLE LOCK HOLDS WIRE TIGHT ON WOOD POSTS. THE WIRE WOULD BE AT HEIGHTS OF 38", 26" 16" FROM THE GROUND; THE BOTTOM WIRE WOULD BE SMOOTH AND THE TOP 2 WIRES WOULD BE BARBED. INCLUDE A 4" GAP FROM THE TOP OF THE POST IS STANDARD. SEE DETAIL ABOVE.

1 / C-3.1 **LIVESTOCK AND WILDLIFE FENCE DETAIL**
NTS

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PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258-600-006-5

CONTRA COSTA COUNTY

UTILITY LAYOUT PLAN (FIRE TRAIL AREA)

1	TOWN COMMENTS 3-26-18	MH
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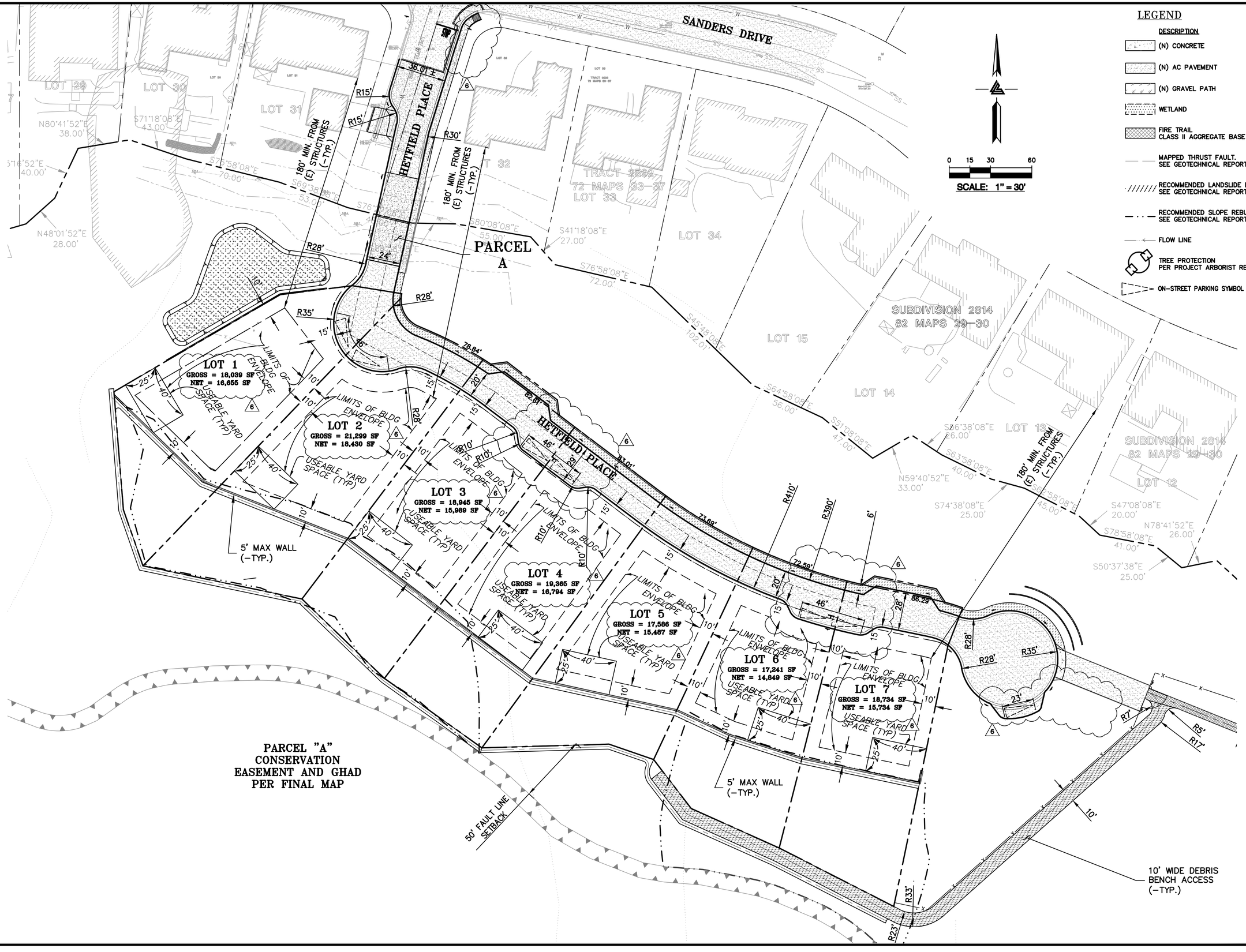
	REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C-3.1

5 OF 10 SHEETS



LEGEND

DESCRIPTION

- (N) CONCRETE
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- FLOW LINE
- TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
- ON-STREET PARKING SYMBOL

REGISTERED PROFESSIONAL ENGINEER
JAMES TORY
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258–600–006–5
CONTRA COSTA COUNTY

BUILDING ENVELOPE PLAN

	REVISIONS	BY
1	TOWN COMMENTS 3–26–18	MH
2	EASEMENT UPDATE 10–31–18	MH
3	TOWN COMMENTS 5–8–19	MH
4	TOWN COMMENTS 1–28–21	MH
5	SITE UPDATE 7–6–21	MH
6	TOWN COMMENTS 12–3–21	MH

JOB NO:	2150582
DATE:	11–17–17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	C-4.0

6 OF 10 SHEETS

SUBDIVISION 9051 –HETFIELD ESTATES
LIPSON PROPERTY – 0 HETFIELD PLACE
MORAGA, CA

ITEM NO. DESCRIPTION

PLANNING STANDARD CONDITIONS AND PROJECT–SPECIFIC CONDITIONS

1 THIS APPROVAL AUTHORIZES THE FOLLOWING, AS APPROVED BY THE TOWN OF MORAGA TOWN COUNCIL ON MAY 21, 2014: HETFIELD ESTATES GENERAL DEVELOPMENT PLAN (GDP), VESTING TENTATIVE SUBDIVISION MAP (VTM), CONDITIONAL USE PERMIT (CUP) AND HILLSIDE DEVELOPMENT PERMIT. THE APPROVALS WOULD ALLOW FOR DEVELOPMENT OF SEVEN (7) SINGLE–FAMILY HOMES ON INDIVIDUAL LOTS, ONE COMMON AREA PARCEL, AND ASSOCIATED IMPROVEMENTS.

2 FURTHER APPROVALS NECESSARY TO ALLOW DEVELOPMENT OF THE SITE INCLUDE, BUT MAY NOT BE LIMITED TO A PRECISE DEVELOPMENT PLAN, FINAL MAP, IMPROVEMENT PLANS, BUILDING PERMIT PLANS, LANDSCAPE PLANS AND GRADING PLANS. ALL SUCH PLANS SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVALS LISTED IN CONDITION #1, ABOVE, AS APPROVED BY THE TOWN COUNCIL ON MAY 21, 2014 AND MORE FULLY DESCRIBED IN THE RESOLUTION AND ITS EXHIBITS AND AS MODIFIED BY THESE CONDITIONS OF APPROVAL. CONDITIONS OF APPROVAL REQUIRED AT SUBSEQUENT PROJECT STAGES NEED NOT BE SATISFIED PRIOR – TO APPROVAL OF THE PRECISE DEVELOPMENT PLAN OR FINAL MAP, BUT SHALL CONTINUE TO BE REQUIRED AT SUBSEQUENT DEVELOPMENT STAGES AS PROVIDED HEREIN,. UNLESS A CONDITION OR THE TIMING FOR ITS SATISFACTION IS MODIFIED AT THE REQUEST OF THE APPLICANT AND WITH THE APPROVAL OF THE PLANNING COMMISSION, OR APPROVED BY THE TOWN AS OTHERWISE SPECIFIED HEREIN.[CDP COA NO.7 AND 9]

3 EIR MITIGATION COMPLIANCE. ALL REQUIRED MITIGATION MEASURES IDENTIFIED IN THE CERTIFIED ENVIRONMENTAL IMPACT REPORT (SCH# 2009022086) ("EIR") SHALL BE IMPLEMENTED AND MONITORED IN ACCORDANCE WITH THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP). THE MITIGATION MEASURES IDENTIFIED BY MILLS ASSOCIATES IN THE FINAL MITIGATION MONITORING AND REPORTING PLAN (MARCH 23, 2012) OF THE FINAL EIR AND AS STIPULATED IN THE MITIGATION MONITORING AND REPORTING PROGRAM ADOPTED BY THE PLANNING COMMISSION AT ITS JULY 16, 2012 MEETING SHALL BE IMPLEMENTED. THE APPLICANT SHALL FUND A TOWN–CONTRACTED INDIVIDUAL TO MONITOR COMPLIANCE WITH MITIGATION MEASURES AND CONDITIONS OF APPROVAL. DURING GRADING AND CONSTRUCTION ACTIVITIES, A SIGN SHALL BE POSTED ON THE SITE WITH THE NAME AND CONTACT INFORMATION FOR THE MITIGATION AND CONDITION COMPLIANCE OFFICER. [COP COA NO.8 AND 89]

4 APPLICANT RESPONSIBLE FOR COMPLIANCE WITH CONDITIONS. THE APPLICANT SHALL ENSURE COMPLIANCE WITH ALL OF THE CONDITIONS SPECIFIED IN THESE CONDITIONS OF APPROVAL, INCLUDING SUBMITTAL TO THE TOWN REQUIRED APPROVAL SIGNATURES AT THE TIMES SPECIFIED. NOTICE OF FAILURE TO COMPLY WITH ANY CONDITION SHALL BE PROVIDED TO THE APPLICANT BY THE TOWN, AND A REASONABLE OPPORTUNITY TO GAIN COMPLIANCE PROVIDED. APPLICANT'S FAILURE TO COMPLY WITH ANY CONDITION MAY RESULT IN CONSTRUCTION BEING STOPPED, ISSUANCE OF A CITATION, AND/OR MODIFICATION OR REVOCATION OF THE PERMIT. [CDP COA NO. 2]

5 PRIOR TO APPROVAL OF THE PRECISE DEVELOPMENT PLAN (PDP), THE APPLICANT OR ITS SUCCESSORS SHALL PROVIDE A PLAN FOR THE IMPLEMENTATION OF AND VERIFICATION OF IMPLEMENTATION OF THE CONDITIONS OF APPROVAL. [CDP COA NO. 97]

6 TOWN STAFF (INCLUDING AUTHORIZED AGENTS) SHALL HAVE THE RIGHT TO ENTER THE SUBJECT PROPERTY TO VERIFY COMPLIANCE WITH THESE CONDITIONS. THE HOLDER OF ANY PERMIT ASSOCIATED WITH THIS PROJECT SHALL MAKE THE PREMISES AVAILABLE TO TOWN STAFF DURING REGULAR BUSINESS HOURS AND SHALL, UPON REQUEST, MAKE RECORDS AND DOCUMENTS AVAILABLE TO TOWN STAFF AS NECESSARY TO EVIDENCE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT.

7 WHERE COMPLIANCE WITH THE CONDITIONS OF APPROVAL OR APPLICANT INITIATED CHANGES TO THE HETFIELD ESTATES SUBDIVISION REQUIRES ADDITIONAL STAFF WORK, THAT TIME SHALL BE BILLED AT THE TOWN'S ESTABLISHED BILLING RATES AT THE TIME ANY SUCH ADDITIONAL STAFF WORK MAY BE REQUIRED.

8 ALL NEW IMPROVEMENTS CONSTRUCTED ON THE SITE SHALL BE IN COMPLIANCE WITH ALL LOCAL STATE AND FEDERAL LAWS, STATUTES, ORDINANCES, REGULATIONS, RULES, ORDERS, JUDGEMENTS, DECREES, PERMITS, APPROVALS AND THE LIKE REQUIREMENTS APPLICABLE THERETO AND IN FORCE AT THE TIME THEREOF ("APPLICABLE LAW"). "LOCAL, STATE AND FEDERAL" APPLICABLE LAW SHALL INCLUDE WITHOUT LIMITATION, THE APPLICABLE LAW OF THE TOWN OF MORAGA; CONTRA COSTA COUNTY; MORAGA ORINDA FIRE DISTRICT, BAY AREA AIR QUALITY MANAGEMENT DISTRICT, SAN FRANCISCO BAY AREA REGIONAL WATER QUALITY CONTROL BOARD; CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, US ARMY CORPS OF ENGINEERS; STATE OF CALIFORNIA; AND UNITED STATES OF AMERICA.

9 THROUGHOUT ALL OF THE VARIOUS PHASES OF PROJECT CONSTRUCTION, EXISTING PUBLIC STREETS, TRAILS, SIDEWALKS, AND BIKE LANES MUST BE MAINTAINED IN A SAFE AND USABLE CONDITION OR A SAFE ALTERNATE ROUTE OR DETOUR PROVIDED IF CLOSURE IS NECESSARY DUE TO CONSTRUCTION. SUCH CLOSURES OR DETOURS SHALL BE ADDRESSED AS PART OF A TOWN–APPROVED CONSTRUCTION MANAGEMENT PLAN OR TRAFFIC MANAGEMENT PLAN FOR THE PROJECT. TRAILS, BIKE LANES AND SIDEWALKS SHALL BE CONSTRUCTED AT THE SAME TIME AS ANY OR ALL ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

10 DOCUMENTATION OF REMEDIAL ACTIONS. APPLICANT SHALL DOCUMENT IF ANY REMEDIAL ACTIONS ARE NECESSARY FOR LANDSLIDES THAT ARE NOT PROPOSED FOR DISTURBANCE BUT THAT ARE WITHIN 100 YARDS OF GROUND DISTURBANCE. THIS IS ESPECIALLY TRUE FOR MAPPED LANDSLIDE 1. DOCUMENTATION SHALL BE SUBMITTED TO THE TOWN GEOLOGIST WHO SHALL REVIEW AND APPROVE PRIOR TO APPLICANT UNDERTAKING REMEDIAL ACTIONS.

11 TIMING OF FUTURE APPROVALS. DESIGN REVIEW SHALL BE REQUIRED FOR THE RESIDENCES AND FOR THE DESIGN OF THE ACCESS ROADWAY BRIDGE. PRIOR TO APPROVAL OF INDIVIDUAL DESIGN REVIEW APPLICATIONS AND BUILDING PERMITS FOR ANY CUSTOM RESIDENCES, APPROVAL OF A PRECISE DEVELOPMENT PLAN SHALL BE OBTAINED.

12 A GRADING PERMIT (PURSUANT TO MMC 14.04.031) SHALL BE OBTAINED PRIOR TO, OR IN CONJUNCTION WITH THE REVIEW AND APPROVAL OF THE FINAL MAP AND PRECISE DEVELOPMENT PLAN. [MODIFIED COP COA NO. 10]

13 BOND. THE APPLICANT SHALL PREPARE A "BOND STUDY" PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP. THE BOND STUDY SHALL BE SUBJECT TO TOWN REVIEW AND APPROVAL AND SHALL ADDRESS THE FOLLOWING (AT A MINIMUM): COSTS SUCH AS RE–GRADING THE SITE TO MORE NATURAL CONTOURS AND REMOVAL OF PAVING AND RETAINING WALLS IF REASONABLE PROGRESS TO CONSTRUCT AT LEAST ONE SINGLE–FAMILY HOME WITHIN 2 YEARS OF APPROVAL OF THE GRADING PERMIT HAS NOT BEEN MADE; LANDSCAPING OF SITE TO RESTORE GRADED AREAS; SLIDE REPAIR AND CORRECTIVE GRADING TO ELIMINATE ANY RISKS FOR ADJOINING NEIGHBORS; COMPLETION OF THE SITE ACCESS ROAD, BRIDGE, STORM DRAINAGE SYSTEM AND EROSION CONTROL IMPROVEMENTS IF APPLICABLE; AND OTHER SIMILAR ITEMS. TIME LIMITS CAN BE EXTENDED UNDER UNUSUAL CIRCUMSTANCES AS ALLOWED BY THE TOWN PLANNING DIRECTOR AND/OR(TOWN ENGINEER. THE "BOND STUDY" SHALL IDENTIFY THE ITEMS THAT WILL BE COVERED BY THE BOND, THE AMOUNT TO BE DEPOSITED, AND CONDITIONS FOR USE OF BOND FUNDS. SEED MONEY SHALL ALSO BE PROVIDED TO ALLOW REPAIRS IF ANY DAMAGE OCCURS IN ASSOCIATION WITH LANDSLIDE1, 5 OR 6. BOND REQUIREMENTS SHALL BE STIPULATED AT THE TIME OF FINAL SUBDIVISION MAP APPROVAL. BOND MONEY SHALL BE AVAILABLE PRIOR TO ISSUANCE OF THE GRADING PERMIT. SEPARATE BONDS MAY BE REQUIRED A) FOR COMPLETION OF IMPROVEMENTS, AND B) FOR SITE RESTORATION OF THE SITE IF NOT DEVELOPED PER THE TIMELINES SPECIFIED IN THIS CONDITION.[CDP COA NO. 11]

14 TREE AND SHRUBBERY PLANTINGS. SHRUB AND/OR TREE PLANTINGS (MINIMUM HEIGHT AT MATURITY OF 5 FEET) SHALL BE PLANTED AT THE NORTHERN EDGE OF ALL LOTS WITH GRADED SLOPES THAT WILL BE VISIBLE FROM HOMES ON SANDERS DRIVE AS SHOWN IN THE GDP/VTM. THESE INCLUDE LOTS 1, 2 AND 3. TREES SHALL BE PLANTED FROM NO SMALLER THAN 15–GALLON CONTAINERS WITHIN ONE MONTH OF CONCLUSION OF CORRECTIVE GRADING. THIS LANDSCAPING CAN BE REMOVED WHEN INDIVIDUAL LOT DESIGNS ARE FINALIZED AND ACCEPTED AND THIS LANDSCAPING WOULD NOT BE SUBJECT TO THE REPLACEMENT RATIOS FOR TREES REMOVED FROM THE SITE. TREES AND SHRUBS PLANTED PRIOR TO INSTALLATION OF IRRIGATION SYSTEMS SHALL BE HAND WATERED UNTIL WATER PIPES AND AN AUTOMATIC IRRIGATION SYSTEM ARE INSTALLED AND OPERATIONAL TO PROVIDE FOR WATERING.[CDP COA NO. 13]

15 ROADS. AT THE TIME OF GRADING, A PRIVATE ONSITE ACCESS ROAD SHALL BE CONSTRUCTED TO TOWN AND MORAGA–ORINDA FIRE DISTRICT (MOFD) STANDARDS AND SHALL BE MAINTAINED BY THE APPLICANT UNTIL A HOMEOWNERS' ASSOCIATION IS ESTABLISHED AND SUFFICIENTLY FUNDED. THE PRIVATE ROAD SHALL PROVIDE PUBLIC ACCESS AND SHALL NOT BE GATED. SUBDIVISION IMPROVEMENTS (INCLUDING ROADS) SHALL BE REVIEWED AT THE TIME OF THE FINAL SUBDIVISION MAP APPLICATION TO ENSURE COMPLIANCE WITH IMPROVEMENTS SHOWN AT THE TIME OF THE VESTING TENTATIVE MAP. [MODIFIED COP COA NO. 14]

16 TRAILS AND TRAIL GATES. NO LOCKED GATES OR OTHER BARRIERS LIMITING PEDESTRIAN AND BICYCLIST ACCESS TO ONSITE TRAILS DESIGNATED FOR PUBLIC ACCESS SHALL BE ALLOWED. TRAILS SHALL BE MULTI–USE, I.E. ALLOWING BOTH BICYCLISTS AND PEDESTRIANS (PER EBRPD REQUEST). BARRIERS MAY BE ALLOWED FOR CATTLE GRAZING AND TO PREVENT UNAUTHORIZED MOTORIZED USE OF A FUTURE FIRE TRAIL OR EVA OR THE COMMON AREA PARCEL. THE TRAILS SHALL BE DESIGNED AND INSTALLED BY THE APPLICANT, AND MAINTAINED BY THE APPLICANT UNTIL THE RESPONSIBLE ENTITY (HOA OR GHAD) IS ESTABLISHED, SUFFICIENTLY FUNDED, AND ABLE TO ASSUME MAINTENANCE RESPONSIBILITIES. [MODIFIED COP COA NO. 16]

17 HOME SIZES. HOMES SHALL BE LIMITED IN SIZE TO A MAXIMUM OF 4,000 GROSS SQUARE FEET (INCLUDING GARAGES) AND SHALL BE BUILT WITHIN THE BUILDING ENVELOPES SHOWN ON THE GENERAL DEVELOPMENT PLAN. ALL HOMES SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL TO ENSURE COMPATIBILITY WITH NEIGHBORING RESIDENCES AND CONSISTENCY WITH APPLICABLE DESIGN GUIDELINES. [CDP COA NO. 40]

18 STORY POLES. AT THE TIME OF DESIGN REVIEW, STORY POLES FOR ALL HOMES (WITH RIDGELINES TAPED) SHALL BE REQUIRED. STORY POLES SHALL BE PLACED NO LATER THAN TWO WEEKS PRIOR TO THE SCHEDULED DRB MEETING. [MODIFIED COP COA NO. 45]

19 DEVELOPMENT STANDARDS: HOMES WITHIN THE PROJECT SHALL CONFORM TO THE FOLLOWING DEVELOPMENT STANDARDS:

A USABLE YARD SPACE. USABLE YARD SPACE (HAVING MINIMUM DIMENSIONS OF 25 FT. BY 40FT.) SHALL BE PROVIDED FOR EACH LOT.

B SETBACKS. THE FOLLOWING MINIMUM SETBACKS SHALL APPLY FOR PURPOSES OF DETERMINING BUILDING ENVELOPE, BUT SHALL NOT BE CONSIDERED A MAXIMUM; SETBACKS BEYOND THE MINIMUMS SPECIFIED BELOW MAY BE REQUIRED AS PART OF DESIGN REVIEW IF JUSTIFIED BY SPECIFIC DESIGN OR LOT–SPECIFIC CONDITION

I. SIDE YARD: MINIMUM 10FT.;

II. REAR YARD SETBACKS: MINIMUM 10 FT. FROM THE RETAINING WALLS FOR THE 3:1 GRADED SLOPES.

C "FRONT YARD SETBACKS: MINIMUM OF 15 FEET FROM THE EDGE OF THE STREET RIGHT–OF WAY, CALCULATED AS AN AVERAGE FOR ALL LOTS.

"

D LOT SIZE. NONE OF THE LOTS FOR INDIVIDUAL HOMES SHALL BE SMALLER THAN 15,000 SQUARE FEET OR LARGER THAN 27,000 SQUARE FEET. THE "COMMON AREA" PARCEL THAT SHALL BE RETAINED AS PERMANENT OPEN SPACE SHALL BE APPROXIMATELY 54 ACRES.

20 BUILDING COLORS. COLOR SELECTION FOR BUILDING EXTERIORS AND ROOFS SHALL BE RESTRICTED TO COLORS THAT BLEND WITH THE LANDSCAPE DURING THE DRY SEASON (I.E., EARTHTONES, TANS AND LIGHT BROWNS). [MODIFIED COP COA NO. 61]

21 VISUAL MEASURES. TO MINIMIZE REFLECTIVE LIGHT AND GLARE, AND ENSURE LONG–TERM MAINTENANCE OF VISUAL QUALITY, DESIGN, MATERIALS AND ILLUMINATION SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL, AND PROJECT SHALL IMPLEMENT THE FOLLOWING PRIOR TO FINAL DESIGN REVIEW:

A USE NON–REFLECTIVE EXTERIOR MATERIAL AND FINISHES.

B ENSURE THAT ALL EXTERIOR LIGHTING SHALL BE REFLECTED DOWNWARD. NO MONUMENT SIGNS ARE ALLOWED, LIT OR UNLIT. ANY LIGHTING SHALL BE DARK SKY COMPLIANT, IN ACCORDANCE WITH INDUSTRY STANDARDS SUCH AS THOSE ESTABLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA).

C PROVIDE SAFETY LIGHTING THAT INCORPORATES LOW VOLTAGE/LOW LUMOSITY LIGHTING AND/OR TREATMENTS DESIGNED TO REDUCE THE AMOUNT OF SPILLOVER INTO SURROUNDING AREAS. [MODIFIED CDP COA NO. 62 AND 101]

22 GREEN BUILDING. THE DESIGN REVIEW FOR THE PRECISE DEVELOPMENT PLAN SHALL INCLUDE A REVIEW OF ITS GREEN BUILDING PROGRAM COMPONENTS, WHICH SHALL DEMONSTRATE HOW IT IS EXPECTED THE PROJECT WILL OBTAIN A SCORE OF 90 POINTS (AT A MINIMUM) PURSUANT TO THE TOWN'S "BUILD IT GREEN PROGRAM" AND DEMONSTRATING ENERGY EFFICIENCY AND SUSTAINABILITY BEYOND CURRENT CODE REQUIREMENTS. PHOTOVOLTAIC PANELS SHALL BE OFFERED TO BUYERS AS AN OPTION. [MODIFIED CDP COA NO. 64]

23 GUEST PARKING. NO LESS THAN 2 GUEST PARKING SPACES SHALL BE PROVIDED ON EACH LOT, IN ADDITION TO THE MINIMUM NUMBER OF COVERED AND UNCOVERED PARKING SPACES ORDINARILY REQUIRED FOR SINGLE FAMILY HOME BY THE MORAGA MUNICIPAL CODE. GUEST PARKING MAY BE PROVIDED AS TANDEM SPACES SET WITHIN THE DRIVEWAY. [MODIFIED COP COA NO. 19]

24 STREET PARKING. A MINIMUM OF 7 ON–STREET PARKING SPACES, INCLUDING FOUR SPACES ALONG THE ACCESS ROADWAY; AND THREE SPACES WITHIN THE CUL–DE–SAC, SHALL BE PROVIDED AND SHALL BE IDENTIFIED PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP, AND WHICH SHALL PROVIDE OVERFLOW GUEST PARKING AS WELL AS PARKING FOR TRAIL USERS. SIGNAGE SHALL BE POSTED SAYING "NO OVERNIGHT PARKING" WHERE ON–STREET PARKING IS PROVIDED. THE APPLICANT MAY, AT APPLICANT'S DISCRETION, REVISE THE PARKING PLAN TO PROVIDE ADDITIONAL PARKING WITHIN THE STREET PRIOR TO THE CUL DE SAC SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF MORAGA. THESE SPACES MAY BE IN LIEU OF THE SPACES NOW SHOWN IN THE PARKING BAY ON THE PLAN AND SHALL NUMBER AT LEAST THREE (3) FOR AN ON–STREET TOTAL OF AT LEAST SEVEN (7) SPACES. [MODIFIED COP COA NO. 20]

25 WATER CONSERVATION. THE PROJECT APPLICANT AND/OR PROPERTY OWNERS SHALL COMPLY WITH APPLICABLE WATER CONSERVATION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO:

A THE PROJECT APPLICANT SHALL COMPLY WITH THE ASSEMBLY BILL 325, MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495) INCLUDING INSTALLATION OF DROUGHT–TOLERANT LANDSCAPING AND WATER EFFICIENT IRRIGATION SYSTEMS WITHIN RESIDENTIAL OUTDOOR YARDS THAT INCLUDE EFFICIENT SPRINKLER HEADS OR DRIP IRRIGATION.

B INSTALLATION OF ULTRA–LOW FLOW TOILETS AND OTHER WATER–EFFICIENT FIXTURES, AS REQUIRED BY THE CALIFORNIA BUILDING CODE.

C THE PROJECT APPLICANT SHALL COMMIT TO ADDITIONAL DEMAND REDUCTION MEASURES, COMMENSURATE WITH THE AMOUNT OF THE PROJECT'S WATER DEMAND, OR AS SPECIFIED IN THE TOWN'S "BUILD IT GREEN PROGRAM". [MODIFIED CDP COA NO. 57]

26 MAINTENANCE OF COMMON AREA FACILITIES. APPLICANT AND/OR HOMEOWNERS' ASSOCIATION SHALL MAINTAIN ALL COMMON AREAS SUCH AS STREETS, DRAINAGE FACILITIES, STORMWATER TREATMENT AREAS AND ANY RETAINING WALLS NOT SPECIFICALLY LOCATED ON INDIVIDUAL PROPERTIES UNLESS THIS RESPONSIBILITY IS IDENTIFIED AS PART OF THE GHAD PLAN. THIS SHALL INCLUDE LITTER CONTROL.

27 HOA. CREATION OF A "HOMEOWNERS' ASSOCIATION" (HOA) SHALL BE REQUIRED FOR MAINTENANCE OF COMMON FACILITIES. THE HOA SHALL BE ESTABLISHED PRIOR TO THE APPROVAL OF THE FIRST BUILDING PERMIT. THE HOMEOWNER'S ARTICLES OF INCORPORATION AND CONDITIONS, COVENANTS AND RESTRICTIONS (CC&R'S) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE TOWN ATTORNEY. THE HOMEOWNERS' ASSOCIATION (HOA) SHALL MAINTAIN ALL PRIVATE STREETS AT A MINIMUM PAVEMENT CONDITION INDEX OF 70 AS DETERMINED USING THE METROPOLITAN TRANSPORTATION COMMISSION (MTC) PAVEMENT MANAGEMENT CONDITION (PMC) RATING SYSTEM RATING SYSTEM. THE HOA SHALL UNDERTAKE THE RESPONSIBILITIES OF THE LANDSCAPE LIGHTING AND DISTRIBUTION OF COMMON AREAS SUCH AS BRIDGE AND ROADWAY LIGHTING. [MODIFIED CDP COA NO. 38 AND 93]

28 ACCESS ROAD TO DEBRIS BENCH. THE PDP SHALL SHOW THE ACCESS ROAD TO THE DEBRIS BENCH.[MODIFIED CDP COA NO. 47]

29 THE 3:1 SLOPE AREA. ANY LANDSCAPE PLANS FOR THE AREA IN WHICH 3:1 SLOPES WILL RESULT FROM GRADING WITHIN PRIVATE LOTS SHALL BE REVIEWED BY THE TOWN'S GEOTECHNICAL ENGINEER TO ENSURE THAT PLANTINGS WILL BE APPROPRIATE FOR THE AREA AND WILL NOT UNDERMINE THE GEOLOGIC STABILITY OF THE SLOPE, AND THAT IRRIGATION PROVISIONS WILL BE ADEQUATE FOR THE SAME REASON. SUCH REVIEW SHALL OCCUR AT THE TIME OF DESIGN REVIEW. [MODIFIED CDP COA NO. 43]

OTHER SPECIAL CONDITIONS

30 REPAIR OF SLIDES AND FINAL GEOTECHNICAL WORK. A DETAILED GEOTECHNICAL STUDY SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP. ADDITIONAL GEOTECHNICAL STUDIES MAY BE REQUIRED AT THE TIME OF DESIGN REVIEW. DURING GRADING, THE APPLICANT'S GEOLOGIST AND THE TOWN'S GEOLOGIST SHALL BE ON THE SITE TO MONITOR EXCAVATIONS AND TO VERIFY THAT ALL SLIDE HAZARDS HAVE BEEN REMEDIATED AS DOCUMENTED IN THE MOST RECENT GEOTECHNICAL STUDY. A MINIMUM OF A 20–FOOT SETBACK SHALL BE MAINTAINED FOR ANY DISTURBANCE IN THE VICINITY OF SLIDES THAT ARE NOT STABILIZED AS PART OF THE CORRECTIVE GRADING UNLESS MITIGATION MEASURES THAT HAVE BEEN REVIEWED AND APPROVED BY THE TOWN ARE INCORPORATED IN THE PROJECT PLANS. NO LAND DISTURBANCE SHALL BE ALLOWED IN THIS SETBACK AREA. AT TIME OF PRECISE DEVELOPMENT PLAN (PDP), FURTHER GEOLOGICAL BORINGS MAY BE REQUIRED AT THE REQUEST OF THE TOWN GEOLOGIST. SUCH BORINGS MAY BE LARGE DIAMETER BORINGS (VS. CORE BORINGS) ASSUMING THAT SAFETY FOR DRILLING OPERATORS WILL NOT BE COMPROMISED DUE TO PRESENCE OF GROUNDWATER AND CHANCES OF "CAVING" CONDITIONS. [MODIFIED CDP COA NO. 41 AND 44 AND 83]

31 THE PROJECT APPLICANT SHALL REQUEST AND THE TOWN SHALL FORM, OR ANNEX INTO, A GEOLOGIC HAZARD ABATEMENT DISTRICT (GHAD) OR OTHER TOWN–DESIGNATED ENTITY, TO BE FUNDED IN PERPETUITY BY THE PROPERTY OWNERS WITHIN THE PROJECT THROUGH DISTRICT ASSESSMENTS, WITH INITIAL FUNDING BY THE PROJECT APPLICANT. THE GHAD SHALL BE ESTABLISHED PRIOR TO THE FIRST BUILDING PERMIT AND SHALL BE FUNDED BY THE DEVELOPER UNTIL HOMEOWNERS CAN BE ASSESSED THE GHAD FEES. A "GHAD PLAN" SHALL BE SUBMITTED BY THE APPLICANT PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP TO ADDRESS THE FOLLOWING ITEMS. EITHER THE GHAD OR THE HOA MAY OWN THE OPEN SPACE PARCEL AND MANAGEMENT AND MAINTENANCE RESPONSIBILITIES AND FUNDING STRUCTURED ACCORDINGLY AND AGREEMENTS PERTAINING THERETO SUBJECT TO REVIEW BY THE TOWN OF MORAGA TO ENSURE CONFORMANCE WITH THESE CONDITIONS OF APPROVAL. THE GHAD PLAN SHALL ADDRESS THE FOLLOWING:

A THE GHAD SHALL HAVE ITS OWN DISTRICT ENGINEER AND OTHER QUALIFIED PROFESSIONAL CONSULTANTS, INCLUDING A QUALIFIED ECOLOGIST/BIOLOGIST.

B EXCEPT AS OTHERWISE ASSIGNED TO THE HOA, THE GHAD SHALL BE RESPONSIBLE FOR THE FOLLOWING MANAGEMENT, MONITORING AND MAINTENANCE TASKS WITHIN LANDS UNDER ITS OWNERSHIP OR CONTROL: (I) GEOTECHNICAL STABILITY AND EROSION CONTROL; (II) STORMWATER CONTROL AND WATER QUALITY BASINS; (III) OPEN SPACE GRAZING, FIRE PROTECTION AND CONTROL, TRAILS AND EVA; AND (IV) INTERMITTENT DRAINAGE, SEASONAL WETLANDS, SEEPS AND BIOLOGICAL RESOURCES.

B GHAD OBLIGATIONS SHALL INCLUDE COMPLIANCE WITH THE FINAL (I) GEOTECHNICAL STUDY, (II) DRAINAGE PLAN, (III) OPEN SPACE MANAGEMENT PLAN, (IV) PUBLIC TRAIL SYSTEM PLAN, (V) FIRE PROTECTION PLAN, (VI) WETLAND/SPECIAL–STATUS SPECIES PLAN, (VII) REVEGETATION PLAN, AND (VIII) CONSERVATION EASEMENT (OR OTHER APPROPRIATE DEED RESTRICTION). ALL OF THE ABOVE PLANS SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL MAP.

C PRE–FORMATION COSTS OF THE GHAD SHALL BE PAID BY THE PROJECT APPLICANT.

D EXCEPT FOR FUNCTIONS ASSIGNED TO THE HOA, THE GHAD SHALL PROVIDE SUFFICIENT FUNDING, IN PERPETUITY, FOR THE ESTIMATED COSTS OF THE FOLLOWING FUNCTIONS FOR WHICH IT IS RESPONSIBLE INCLUDING: (A) MONITORING AND ANNUAL REPORTING, (B) WEEDING, TRAIL MAINTENANCE, EROSION CONTROL AND REPAIR, GRAZING MANAGEMENT, AND FENCE REPAIR, AND (C) DEVELOPMENT OF A PLAN OF CONTROL. FUNDING SOURCES FOR THE GHAD MAY INCLUDE SEED MONEY PROVIDED BY THE PROJECT APPLICANT, ANNUAL CONTRIBUTIONS FROM HOMEOWNERS, AND INCOME FROM GRAZING LEASES.

E THE ACTIONS OF THE GHAD IN MEETING ITS RESPONSIBILITIES, INCLUDING THE ADEQUACY OF PERMANENT FUNDING FROM THE PROJECT APPLICANT AND FUTURE HOMEOWNERS, SHALL BE SUBJECT TO REVIEW, DIRECTION AND CONTROL BY THE GHAD BOARD OF DIRECTORS. ALTERNATIVELY, THE PROJECT APPLICANT SHALL ESTABLISH AN ENDOWMENT TO PROVIDE FOR ITS MAINTENANCE AND MONITORING. NO GRADING OR BUILDING PERMITS SHALL BE ISSUED BY THE TOWN UNTIL THE FUNDING SOURCES HAVE BEEN AGREED UPON AND SECURED. [MODIFIED CDP COA NO. 50 AND 83 AND 86]

32 CONSERVATION EASEMENT FOR OPEN SPACE PARCEL. THE COMMON AREA PARCEL (APPROXIMATELY 54 ACRES OF THE PROJECT AREA) AS SHOWN ON SHEET 1 OF 6 OF THE GDP APPLICATION SHALL BE PRESERVED IN A CONSERVATION EASEMENT, OR ALTERNATE TYPE OF DEED RESTRICTION APPROVED BY THE TOWN ATTORNEY, AS OPEN SPACE MANAGED AND PRESERVED BY THE GHAD OR HOA. THE FORM OF THE CONSERVATION EASEMENT SHALL BE APPROVED BY THE TOWN ATTORNEY AND THE EASEMENT SHALL BE RECORDED WITH THE FINAL SUBDIVISION MAP. [MODIFIED CDP COA NO. 52 AND 86]

33 CONSERVATION EASEMENT AREA. HABITATS WITHIN THE CONSERVATION EASEMENT SHALL BE MONITORED IN THE SPRING AND FALL FOR NO LESS THAN FIVE YEARS FOLLOWING INSTALLATION OF FENCING. PRIOR TO ISSUANCE OF BUILDING PERMITS, AN EDUCATION BROCHURE SHALL BE PRODUCED FOR FUTURE HOMEOWNERS DESCRIBING THE PURPOSE OF THE CONSERVATION EASEMENT AND OTHER MITIGATION MEASURES, THE SPECIES AND HABITATS BEING PROTECTED, PROHIBITED ACTIVITIES, AND HOMEOWNER RESPONSIBILITIES. THIS ISSUE SHALL BE ADDRESSED AS PART OF THE OPEN SPACE MANAGEMENT PLAN. [MODIFIED CDP COA NO. 74]

34 ONSITE OPEN SPACE. THE COMMON AREA PARCEL OF THE PROPERTY SHALL BE SUBJECT TO AN OPEN SPACE MANAGEMENT PLAN FOR THE PROJECT THAT MAY INCLUDE GRAZING OF THE UNDEVELOPED APPROXIMATELY 54 ACRES OF THE PROPERTY AS A MEANS OF FIRE PROTECTION AND OPEN SPACE PRESERVATION. THE OPEN SPACE MANAGEMENT PLAN, PREPARED BY A QUALIFIED ECOLOGIST WHO IS EITHER SELECTED BY THE TOWN, OR WHOSE WORK SHALL BE SUBJECT TO PEER REVIEW BY A TOWN–SELECTED CONSULTANT,, SHALL BE CONSISTENT WITH RESOURCE AGENCY PERMIT CONDITIONS AND SHALL ALLOW FOR PUBLIC TRAIL ACCESS AS OTHERWISE SPECIFIED IN THESE CONDITIONS OF APPROVAL. THE PLAN SHALL BE CONSISTENT WITH AND INCORPORATE THE FIRE PROTECTION PLAN. THE FOLLOWING INFORMATION SHALL BE INCLUDED AS PART OF A FINAL OPEN SPACE MANAGEMENT PLAN THAT SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL MAP:

A A TOTAL OF APPROXIMATELY 54 ACRES OF GRASSLAND, SCRUB AND OAK WOODLAND SHALL BE DESIGNATED AS A PERMANENT CONSERVATION EASEMENT, OR OTHER SUITABLE DEED RESTRICTION, AND CONVEYED TO THE GHAD OR HOA AS APPROVED BY THE TOWN, USFWS AND CDFG FOR PRESERVATION IN PERPETUITY;

B THE ONSITE RIPARIAN AREA WITHIN THE CONSERVATION EASEMENT AREA SHALL BE PROTECTED FROM GRAZING BY A PERMANENT WILDLIFE–PASSABLE FENCE TO EXCLUDE LIVESTOCK FROM THE CHANNEL BANKS;

C EXISTING SPRINGS WITHIN ANY AREAS PROPOSED FOR GRAZING SHALL BE FENCED WITH WILDLIFE PASSABLE FENCING TO EXCLUDE LIVESTOCK. IF ACCESS TO WATER IS REQUIRED, WATER MAY BE PIPED FROM THE SPRINGS TO WATER TROUGHS OUTSIDE OF THE ENCLOSURE FENCING;

D RESTRICTIONS ON VEHICLE ACCESS SHALL BE IDENTIFIED, AND LONG–TERM RISK MANAGEMENT AND OTHER CRITERIA AS REQUIRED BY THE FIRE MARSHAL SHALL BE ADDRESSED; AND

E NO GRAZING SHALL BE ALLOWED WITHIN 350 FEET OF THE WESTERN PROPERTY BOUNDARY. [MODIFIED CDP COA NO. 7 AND 79 AND 80]

35 WETLANDS. THE WETLAND MITIGATION PLAN (AS DEFINED IN THE MMRP) SHALL BE REVIEWED BY THE TOWN BIOLOGIST MONITOR PRIOR TO SUBMITTAL TO THE USACE, CDFG, AND RWQCB FOR APPROVAL. APPROVAL OF THE WETLAND MITIGATION PLAN FROM APPLICABLE AGENCIES SHALL OCCUR PRIOR TO APPROVAL OF THE FINAL MAP AND SUBMITTAL OF THE WETLAND MITIGATION PLAN TO THE TOWN SHALL OCCUR PRIOR TO FINAL MAP APPROVAL. ALL WETLAND MITIGATION MEASURES IDENTIFIED IN THE ADOPTED MMRP SHALL BE COMPLETED. THE JURISDICTIONAL WETLANDS (RECREATED AND PRESERVED) SHALL BE INCORPORATED IN THE FINAL LANDSCAP

C THE FIRE TRAIL SHALL BE CONSTRUCTED A) IF SO APPROVED BY THE TOWN COUNCIL OR B) IF THE SANDERS RANCH HOMEOWNERS ASSOCIATION AGREES TO COMPLETE A CONNECTION OF THE FIRE TRAIL TO SANDERS RANCH ROAD, DURING A PERIOD THAT SHALL END NO LATER 10 YEARS AFTER ISSUANCE OF THE FIRST BUILDING PERMIT. THE FUNDS SHALL BE HELD BY THE GHAD (OR THE TOWN OR OTHER ENTITY DESIGNATED BY THE TOWN COUNCIL) FOR A PERIOD OF TEN YEARS. DURING THIS PERIOD THE GHAD MANAGER (OR OTHER APPROPRIATE RESPONSIBLE AGENT FOR ANOTHER DESIGNATED ENTITY) SHALL BE REQUIRED TO SUBMIT A FORMAL REQUEST TO THE SANDERS RANCH HOMEOWNERS ASSOCIATION (SRHOA) AS TO WHETHER THE SRHOA IS WILLING TO COMPLETE A CONNECTION OF THE FIRE TRAIL FROM THE HETFIELD PROPERTY LINE WITH SANDERS RANCH TO SANDERS RANCH ROAD. SUCH REQUEST TO THE SRHOA SHALL BE SUBMITTED NO LATER THAN 30 DAYS FOLLOWING ISSUANCE OF THE FIRST BUILDING PERMIT, AND NOT LESS THAN ONCE EVERY TWO YEARS THEREAFTER, AND A COPY OF THE REQUEST PROVIDED TO THE TOWN. (FOR EXAMPLE, IF THE FIRST BUILDING PERMIT IS ISSUED ON OCTOBER 15 2015, A REQUEST TO THE SRHOA SHALL BE SUBMITTED NO LATER THAN NOVEMBER 15, 2015, AND AGAIN NO LATER THAN SEPTEMBER 15, IN THE YEARS 2017, 2019, 2021, 2023 AND 2025.) IN THE TENTH YEAR, SUCH REQUEST SHALL BE MADE NO LATER THAN SIX MONTHS PRIOR TO THE EXPIRATION OF THE TEN YEAR PERIOD, AND SHALL INCLUDE NOTICE OF THE DATE UPON WHICH THE FUNDING WILL NO LONGER BE AVAILABLE. UPON EXPIRATION OF THE TEN YEAR PERIOD, THE GHAD (OR TOWN OR OTHER ENTITY DESIGNATED BY THE TOWN COUNCIL) MAY RE-ASSIGN THE FUNDS FOR OTHER ALLOWABLE PURPOSES, BUT WHICH SHALL GENERALLY BE TO THE BENEFIT OF PUBLICLY-ACCESSIBLE FACILITIES SUCH AS THE ON-SITE TRAILS AND OPEN SPACE.

D IN THE EVENT THAT THE COST TO CONSTRUCT THE FIRE TRAIL IS LESS THAN THE FUND AMOUNT HELD BY THE GHAD, EXCESS FUNDS MAY BE RETURNED TO THE GHAD, FOR THE ABOVE-DESCRIBED PURPOSES. IN THE EVENT THAT THE COST TO CONSTRUCT THE FIRE TRAIL IS GREATER THAN THE FUND AMOUNT HELD BY THE GHAD, THE PROJECT HOA SHALL BE RESPONSIBLE FOR THE REMAINING COSTS. THE REQUIREMENT TO FUND THESE POTENTIAL ADDITIONAL COSTS SHALL BE INCLUDED IN THE PROJECT CC&RS.

MOFD CONDITIONS AND FIRE PROTECTION MEASURES

41 PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE MORAGA-ORINDA FIRE PROTECTION DISTRICT SHALL REVIEW AND APPROVE THE FINAL PLANS. SUFFICIENT ACCESS FOR FIRE EQUIPMENT SHALL BE PROVIDED AND REQUIREMENTS FOR VISIBLE ADDRESSING SHALL BE MET. THE APPLICANT SHALL SUBMIT THE DESIGN REVIEW FEE TO THE FIRE DISTRICT PRIOR TO OBTAINING APPROVAL. [MODIFIED CDP COA NO. 32]

42 WATER SUPPLY. THE DEVELOPER SHALL PROVIDE AN ADEQUATE AND RELIABLE WATER SUPPLY FOR FIRE PROTECTION. THE PROJECT SHALL COMPLY WITH THE 2013 FIRE CODE CHAPTER 5, SECTION 507 (OR AS SUBSEQUENTLY UPDATED) REGARDING FIRE FLOW REQUIREMENTS, INCLUDING APPENDIX B MOFD ORDINANCE 13-01. FIRE FLOW CALCULATIONS SHALL BE DESIGNED BY A FIRE PROTECTION ENGINEER OR A C-16 LICENSED CONTRACTOR. [CDP COA NO. 21]

43 AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES AT THE SITE

44 FIRE SPRINKLERS SHALL BE INSTALLED IN SINGLE FAMILY DWELLINGS IN ACCORDANCE WITH MOFD ORDINANCE 10-04 AND NFPA 13 OR AS REVISED AND AMENDED AS OF THE TIME OF BUILDING PERMIT APPLICATION.

45 FIRE HYDRANTS SHALL BE INSTALLED AT THE REQUIRED DISTANCES FOR RESIDENTIAL STRUCTURES. [MODIFIED CDP COA NO. 23]

46 FIRE APPARATUS ACCESS SHALL CONFORM TO MOFD STANDARD 2013.503. FIRE APPARATUS ROADWAYS IN EXCESS OF 150 FEET IN LENGTH SHALL MAKE PROVISIONS FOR APPROVED FIRE APPARATUS TURNAROUNDS.

47 THE DEVELOPER SHALL MAINTAIN ACCESS ROADWAYS (OTHER THAN THE EMERGENCY VEHICLE ACCESS [EVA]) WITH ALL-WEATHER DRIVING SURFACES (ASPHALT, CONCRETE OR ROAD PAVERS) OF NOT LESS THAN 20 FEET OF UNOBSTRUCTED WIDTH. ADEQUATE ACCESS FOR FIRE PROTECTION SHALL BE MAINTAINED DURING CONSTRUCTION. [MODIFIED CDP COA NO. 24]

48 FIRE ALARM AND NOTIFICATION DEVICES SHALL BE UL LISTED AND COMPLY WITH NFPA 72.

49 PROPOSED FIRE TRAIL (EVA) AND FIRE APPARATUS ROADWAYS. FIRE APPARATUS ROADWAYS (PUBLIC, PRIVATE STREETS, ROADS AND IN SOME INSTANCES DRIVEWAYS USED FOR VEHICLE ACCESS) SHALL EXTEND TO WITHIN 150 FEET OF ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY OF ANY BUILDING. FIRE APPARATUS ROADWAYS IN EXCESS OF 150 FEET IN LENGTH SHALL MAKE PROVISIONS FOR APPROVED FIRE APPARATUS TURNAROUNDS. FIRE APPARATUS ROADWAYS SHALL BE CAPABLE OF SUPPORTING THE IMPOSED WEIGHT OF FIRE APPARATUS (40,000 POUNDS) AND SHALL BE PROVIDED WITH A PAVED OR CONCRETE SURFACE (EXCEPT FOR THE EVA ON THE SITE). VEHICULAR USE OF THE EVA SHALL BE RESTRICTED TO EMERGENCY VEHICLE ACCESS ONLY.

AT SUCH TIME THAT AN EVA IS CONSTRUCTED, WHERE THE EVA CROSSES A SEASONAL WETLAND AREA WITH DRAINAGE, THE EVA SHALL BE CONSTRUCTED TO SUPPORT THE WEIGHT OF 15 TONS. [MODIFIED CDP COA NO. 28 AND 33]

50 FIRE HYDRANTS. THE DEVELOPER SHALL PROVIDE FIRE HYDRANTS AS SPECIFIED BY EAST BAY MUNICIPAL UTILITY DISTRICT AND THE FIRE DISTRICT. FINAL UTILITY MAP WITH HYDRANT LOCATIONS SHALL BE SUBMITTED TO THE FIRE DISTRICT FOR FINAL APPROVAL. ALL HYDRANTS SHALL BE WET BARREL, STANDARD STEAMER TYPE (1-4.5" AND 1-2.5") OUTLET.[MODIFIED CDP COA NO. 23]

51 ALL ELECTRONIC GATES CROSSING FIRE DISTRICT ACCESS WAYS SHALL COMPLY WITH ASTM F2200.

52 VEGETATION MANAGEMENT. THE APPLICANT SHALL MAINTAIN ALL VEGETATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE MORAGA-ORINDA FIRE DISTRICT FOR THE COMMON OPEN SPACE AND LOT AREAS UNTIL THE GHAD AND HOMEOWNERS ASSOCIATION ARE ESTABLISHED AND SUFFICIENTLY FUNDED. PRIVATE LOT VEGETATION MANAGEMENT WILL BE THE RESPONSIBILITY OF INDIVIDUAL PRIVATE LOT OWNERS AS EACH ACQUIRES THEIR RESPECTIVE LOTS. [MODIFIED CDP COA NO. 30]

53 FIRE PROTECTION PLAN. A FIRE PROTECTION PLAN SHALL BE INCLUDED AS PART OF THE OPEN SPACE MANAGEMENT PLAN AND SHALL BE APPROVED BY THE TOWN PRIOR TO APPROVAL OF THE FINAL MAP. FIREFIGHTING EQUIPMENT ACCESS SHALL BE PROVIDED TO ALL AREAS OF THE PROJECT SITE IN ACCORDANCE WITH FIRE ACCESS STANDARDS OF THE FIRE DISTRICT AND THE ADOPTED UNIFORM FIRE CODE AND THE TIME OF PROJECT APPROVAL. THE FIRE PROTECTION PLAN SHALL INCLUDE THE FOLLOWING PROVISIONS:

A ALL HOUSING SHALL BE CONSTRUCTED WITH FIRE RESISTANT EXTERIOR MATERIALS AND FIRE RETARDANT ROOFING AND INCLUDE INTERIOR SPRINKLERS.

B LANDSCAPING AROUND HOMES SHALL BE DESIGNED TO MINIMIZE THE INTERFACE BETWEEN GRASSLAND AREAS AND RESIDENCES (E.G., FIRE RESISTANT VEGETATION).

C AN ANNUAL INSPECTION REPORT FOR COMPLIANCE SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR APPROVAL. ANNUAL INSPECTION FEES SHALL BE PAID BY THE GHAD OR HOA.

D CONSISTENCY WITH THE TOWN'S EMERGENCY EVACUATION PLAN

E LIMITATIONS ON USE OF THE EVA INCLUDING RESTRICTIONS ON VEHICLE ACCESS TO EMERGENCY VEHICLES ONLY.[MODIFIED CDP COA NO. 30 AND 31 AND 79]

PUBLIC WORKS/ENGINEERING STANDARD CONDITIONS OF APPROVAL AND CONDITIONS SPECIFIC TO PROJECT RELATED TO ROADWAYS, GRADING, AND UTILITIES

54 IF THE COST OF THE PROJECT WILL BE MORE THAN $250,000 THE APPLICANT SHALL SUBMIT A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING WASTE MANAGEMENT PLAN WASTE MANAGEMENT PLAN AS REQUIRED BY MMC SECTION 8.156.080 PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT. THE PLAN SHALL INCLUDE A QUANTITATIVE ESTIMATE OF RECYCLABLE MATERIAL(S), A LIST OF RECYCLERS TO BE USED FOR THE PROJECT, A SCHEDULE FOR SUBMITTING RECEIPTS TO THE PLANNING DEPARTMENT AND A DESCRIPTION OF HOW THE RECYCLING WILL BE ACCOMPLISHED. THE APPLICANT SHALL ALSO SUBMIT A DEPOSIT IN COMPLIANCE WITH MMC SECTION 8.156.070 TO ENSURE COMPLETION OF THE WASTE MANAGEMENT PLAN AND SUBMITTAL OF THE RECEIPTS FROM DISPOSAL AND RECYCLING FACILITIES FOR THE PROJECT. THE AMOUNT OF THE DEPOSIT IS CALCULATED AS A PERCENTAGE OF THE PROJECTS TOTAL COST IN ACCORDANCE WITH THE FOLLOWING TABLE:

THE DEPOSIT MAY BE CASH, A CERTIFICATE OF DEPOSIT REQUIRING BOTH THE SIGNATURE OF THE APPLICANT AND THE TOWN FOR RELEASE OR A LETTER OF CREDIT. THE APPLICANT IS RESPONSIBLE TO MAKE SURE THAT CONTRACTORS WORKING ON THE PROJECT FOLLOW THE WASTE MANAGEMENT PLAN AND SUBMIT THE RECEIPTS FROM DISPOSAL AND RECYCLING FACILITIES FOR THE PROJECT, OTHERWISE THE DEPOSIT CANNOT BE RETURNED.

THE PROJECT IS NOT REQUIRED TO SUBMIT A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING WASTE MANAGEMENT PLAN UNLESS THE COST OF THE PROJECT EXCEEDS $250,000.00. NEVERTHELESS, THE TOWN ENCOURAGES ALL APPLICANTS TO DIVERT FIFTY-PERCENT (50%) OF ALL PROJECT WASTE FROM LANDFILLS BY REUSE AND/OR RECYCLING. THE APPLICANT SHOULD REVIEW THE CONTRA COSTA BUILDER'S GUIDE FOR A LISTING OF THE MATERIALS THAT CAN BE RECYCLED AND THE PLACES WHERE THEY CAN BE RECYCLED. [MODIFIED CDP COA NO. 76 AND 102]

55 WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, A SITE PLAN SHOWING THE FINAL "AS-BUILT" LOCATION OF ANY SUBDRAINS INSTALLED ON ANY PORTION OF THE LOT AND ALL DRAINAGE INLETS AND OUTLETS SHALL BE SUBMITTED TO THE TOWN ENGINEER AND PLANNING DIRECTOR.

PUBLIC STREETS AND PUBLIC UTILITY CONNECTIONS:

56 THE SUBDIVISION SHALL CONFORM TO THE PROVISIONS OF THE SUBDIVISION ORDINANCE (TITLE 9) AS ADOPTED AND AMENDED BY THE TOWN OF MORAGA WITH EXCEPTIONS AS NOTED AND APPROVED BY THE TOWN IN THESE CONDITIONS OF APPROVAL.

57 IMPROVEMENT PLANS PREPARED BY A REGISTERED CIVIL ENGINEER SHALL BE SUBMITTED, IF NECESSARY, TO THE PUBLIC WORKS DEPARTMENT ALONG WITH REVIEW AND INSPECTION FEES, AND SECURITY FOR ALL IMPROVEMENTS REQUIRED BY THE ORDINANCE CODE FOR THE CONDITIONS OF APPROVAL OF THIS SUBDIVISION. ANY NECESSARY TRAFFIC SIGNING AND STRIPING SHALL BE INCLUDED IN THE IMPROVEMENT PLANS FOR REVIEW BY THE PUBLIC WORKS DEPARTMENT.

58 ANY CURB AND GUTTER CRACKED AND DISPLACED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED NO LATER THAN THREE MONTHS AFTER ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY FOR THE NEW HOMES, UNLESS ALTERNATE TIMING IS APPROVED BY THE TOWN. CONCRETE SHALL BE SAW CUT PRIOR TO REMOVAL. EXISTING LINES AND GRADE SHALL BE MAINTAINED. NEW CURB AND GUTTER SHALL BE DOWELED INTO EXISTING IMPROVEMENTS.

59 SANDERS DRIVE, WHICH WILL SERVE AS THE PRIMARY CONSTRUCTION ACCESS ROUTE, SHALL BE ASSESSED IN TERMS OF PAVING CONDITIONS PRIOR TO GRADING OR CONSTRUCTION. AFTER GRADING IS COMPLETE, A "POST-CONSTRUCTION" PAVING STUDY SHALL BE COMPLETED AND THE APPLICANT AND/OR HOA SHALL BE RESPONSIBLE FOR RESTORING SANDERS DRIVE TO ITS "PRE-CONSTRUCTION" CONDITION. FOLLOWING THE COMPLETION OF CORRECTIVE GRADING, THE APPLICANT SHALL COMPLETE THE SANDERS DRIVE IMPROVEMENTS WITHIN 3 MONTHS UNLESS SITE LOT IMPROVEMENTS ARE UNDERWAY WITHIN THIS TIME. IF LOT IMPROVEMENTS ARE UNDERTAKEN WITHIN 3 MONTHS OF CORRECTIVE GRADING, THE SANDERS DRIVE IMPROVEMENTS CAN BE UNDERTAKEN AT THE COMPLETION OF THE LOT IMPROVEMENTS. IF GRADING IS COMPLETED MORE THAN 12 MONTHS PRIOR TO THE START OF HOME CONSTRUCTION, AN INTERIM PAVING STUDY SHALL BE COMPLETED ON SANDERS DRIVE AND THE PAVING SHALL BE RESTORED TO "PRE-GRADING STAGE" CONDITIONS.

60 PAVING REPAIRS ON STREETS, IF NECESSARY, SHALL TO BE EDGE GROUND AND OVERLAID WITH 2" OF CLASS 2 A.C. FROM STREET CENTERLINE TO THE NEW DRIVEWAY CURB CUT AND GUTTER.

61 ALL WORK TO BE UNDERTAKEN WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE SHOWN ON THE CONSTRUCTION PLANS (I.E. STORM DRAIN, JOINT UTILITY TRENCH, CURB AND GUTTER IMPROVEMENTS, ETC.) AND REVIEWED BY THE TOWN ENGINEER. ALL NEW UTILITY DISTRIBUTION FACILITIES INCLUDING ELECTRIC, TELEPHONE AND CABLE TELEVISION SYSTEMS SHALL BE INSTALLED UNDERGROUND FROM POINT OF CONNECTION. PRIOR TO UNDERTAKING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT.[MODIFIED CDP COA NO. 94]

62 ALL ON-SITE SUBDIVISION IMPROVEMENTS, INCLUDING PUBLIC UTILITIES AND DRAINAGE SYSTEMS THAT WILL BE PRIVATELY MAINTAINED, SHALL BE INSTALLED PRIOR TO THE OCCUPANCY OF ANY HOME IN THE SUBDIVISION UNLESS ALTERNATE TIMING IS APPROVED BY THE TOWN ENGINEER.

UTILITIES/UNDERGROUNDING:

63 APPLICANT SHALL UNDERGROUND ALL NEW UTILITY DISTRIBUTION FACILITIES. THE APPLICANT SHALL PROVIDE JOINT TRENCH COMPOSITE PLANS FOR THE UNDERGROUND ELECTRICAL, GAS, TELEPHONE, CABLE TELEVISION AND COMMUNICATION CONDUITS AND CABLES INCLUDING THE SIZE, LOCATION AND DETAILS OF ALL TRENCHES, LOCATIONS OF BUILDING UTILITY SERVICE STUBS AND METERS AND PLACEMENTS OR ARRANGEMENTS OF JUNCTION STRUCTURES AS A PART OF THE IMPROVEMENT PLAN SUBMITTALS FOR THE PROJECT. THE COMPOSITE DRAWINGS AND/OR UTILITY IMPROVEMENT PLANS SHALL BE SIGNED BY A LICENSED CIVIL ENGINEER. INDIVIDUAL LATERAL CONNECTIONS TO EXISTING PUBLIC STREETS SHALL BE AVOIDED WHERE POSSIBLE.[MODIFIED CDP COA NO. 22 AND 95]

64 TO REDUCE HAZARDS FROM UNDERGROUND UTILITY LINE BREAKAGE, FLEXIBLE CONDUITS AND PIPING SHALL BE UTILIZED IN FILL AREAS WHERE SETTLEMENT OR EARTHQUAKE MOVEMENTS COULD CAUSE A BREAK IN SERVICE LINES. TO REDUCE EARTHQUAKE HAZARDS, MANUAL SHUT-OFF VALVES FOR GAS AND WATER LINES SHALL BE INSTALLED, AND IN ACCORDANCE WITH THE APPROPRIATE UTILITY AGENCY'S REQUIREMENTS.

65 IF RELOCATION OF PACIFIC GAS AND ELECTRIC FACILITIES BECOMES NECESSARY, SUCH RELOCATION SHALL BE DONE AT THE APPLICANT'S EXPENSE.

66 THE APPLICANT SHALL COMPLY WITH REQUIREMENTS OF THE TELEPHONE AND TELEVISION SERVICE PROVIDERS FOR UNDERGROUND INSTALLATION OF TELEPHONE AND TELEVISION SERVICE AS FOLLOWS:

A THE APPLICANT SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING CONDUIT FOR THE SERVICE CONNECTION WIRE OR CABLE.

B THE APPLICANT SHALL PROVIDE AND PAY THE COST OF THE UNDERGROUND SUPPORTING STRUCTURE (USUALLY A TRENCH) FOR THE BURIED WIRE OR CABLE TO BE USED FOR THE SERVICE CONNECTIONS.

C THE APPLICANT MAY COLLECT ANY ALLOWABLE REIMBURSEMENTS AVAILABLE FROM CPUC TARIFFS OR OTHER PROGRAMS.

67 WATER SERVICE. IF REQUIRED BY EAST BAY MUNICIPAL UTILITY DISTRICT, A MAIN EXTENSION SHALL BE INSTALLED AT THE PROPERTY OWNERS' EXPENSE, TO SERVE THE PROPOSED DEVELOPMENT. FINAL PLANS FOR THE MAIN EXTENSION WILL BE PREPARED BY EBMUD AND ARE SUBJECT TO REVIEW AND APPROVAL BY EBMUD PRIOR TO INSTALLATION OF THE NEW LINE. THE APPLICANT SHALL BE RESPONSIBLE FOR PAYMENT OF ALL FEES LEVIED BY EBMUD ASSOCIATED WITH PREPARATION AND REVIEW OF SUCH PLANS FOR WATER CONNECTIONS FOR WHICH THE APPLICANT IS RESPONSIBLE.

68 THE APPLICANT SHALL COMPLY WITH THE REQUIREMENTS OF EAST BAY MUNICIPAL UTILITY DISTRICT'S (EBMUD) FOR WATER-EFFICIENCY MEASURES. (ALSO SEE CONDITION 25 THAT REQUIRES THE APPLICANT TO COMPLY WITH THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495)).

CENTRAL CONTRA COSTA SANITARY DISTRICT:

69 THE APPLICANT SHALL COMPLY WITH THE REQUIREMENTS OF THE CENTRAL CONTRA COSTA SANITARY DISTRICT (CCCSD) FOR SANITARY SEWER CONNECTIONS. THESE REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

A PRIOR TO THE ISSUANCE OF A GRADING PERMIT OR WORKING ON THE EXISTING PUBLIC SEWER THE APPLICANT MUST CONTACT CCCSD.

B CCCSD REQUIRES GRAVITY SEWERS IN PREFERENCE TO PUMPED SYSTEMS AND LOCATIONS IN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS.

C CC&RS SHALL ASSIGN RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE SIDE SEWERS TO INDIVIDUAL HOMES TO THE RESPECTIVE HOMEOWNER(S).

D TOXIC SUBSTANCES SUCH AS GASOLINE, OIL, PAINT, AND PESTICIDE RESIDUE ARE PROHIBITED FROM BEING INTRODUCED INTO THE CCCSD SEWER SYSTEM.

E THE APPLICANT SHALL SUBMIT CONSTRUCTION PLANS INVOLVING WORK ON THE PUBLIC SEWER FOR REVIEW AND APPROVAL BY CCCSD, PRIOR TO APPLYING FOR A BUILDING PERMIT.

F THE APPLICANT SHALL PAY FACILITIES CAPACITY FEES TO CCCSD AT THE TIME OF CONNECTION TO THE SEWER SYSTEM.

G THE APPLICANT SHALL BE RESPONSIBLE FOR INSTALLATION OF SIDE SEWERS TO THE HOMES.

H THE REQUIREMENTS LISTED IN THE CCCSD "HILLSIDE AND CREEK AREA SEWER POLICY" SHALL BE FOLLOWED WHEN CONSTRUCTION PLANS ARE PREPARED.

I THE APPLICANT SHALL SECURE A WILL SERVE LETTER THAT ADDRESSES TRANSMISSION CAPACITY. [MODIFIED CDP COA NO. 58 AND 85]

70 THE USE OF SANITARY SEWER EASEMENT SURFACES SHALL BE LIMITED TO PAVING, SHRUBBERY, GARDENS AND OTHER LANDSCAPING, EXCLUDING TREES. PARALLEL SURFACE DRAINAGE WAYS AND PERMANENT STRUCTURES INCLUDING, BUT NOT LIMITED TO, BUILDINGS, SWIMMING POOLS, DECKS, AND RETAINING WALLS ARE NOT PERMITTED WITHIN THE EASEMENT AREA. THESE LIMITATIONS SHALL BE REFLECTED IN THE CC&RS FOR THE SUBDIVISION.

71 THE APPLICANT SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS IF DIRECTIONAL DRILLING OF THE SEWER LINE IS ALLOWED BY CCCSD TO AVOID DISTURBANCE TO ONSITE DRAINAGES OR LARCH CREEK:

A CONSTRUCTION SHALL BE UNDERTAKEN DURING THE DRY SEASON AND NO GRADING SHALL OCCUR BETWEEN OCTOBER 15 AND APRIL 15;

B UNDERCROSSING SHALL MEET WITH CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW) STANDARDS AND PERMITS FOR RIPARIAN HABITAT DISTURBANCE SHALL BE OBTAINED FROM CDFW IF NEEDED.

PRIVATE STREETS:

72 ACCESS ROADWAYS. EXCEPT AS OTHERWISE SPECIFIED FOR THE EVA, IF CONSTRUCTED IN THE FUTURE, ALL PUBLIC ACCESS (BUT PRIVATELY MAINTAINED) ROADWAYS SHALL BE CONSTRUCTED WITH ALL-WEATHER DRIVING SURFACES (ASPHALT, CONCRETE OR ROAD PAVERS) OF NOT LESS THAN 20 FEET OF UNOBSTRUCTED WIDTH. ACCESS ROADS SHALL NOT EXCEED 20 PERCENT GRADE, SHALL HAVE A MINIMUM INSIDE TURNING RADIUS OF 28 FEET AND A 48 FOOT OUTSIDE DIAMETER AND MUST BE CAPABLE OF SUPPORTING THE IMPOSED LOADS OF FIRE APPARATUS. ROADWAYS THAT ARE 20 FEET WIDE SHALL BE POSTED AS NO PARKING ON BOTH SIDES OF THE ROADWAY AS OUTLINED IN THE CALIFORNIA VEHICLE CODE FOR FIRE ACCESS. (PARKING MAY BE PROVIDED WITHIN DESIGNATED "BULB OUTS" OUTSIDE OF THE 20 FOOT ROAD WIDTH, AS SHOWN IN THE APPROVED PLANS.) THE PROPOSED BRIDGE MUST BE BUILT TO CALTRANS' H-20 DESIGN STANDARD. [MODIFIED CDP COA NO. 96]

73 PRIVATE ROAD AND GATES. NO ROAD GATES ON HETFIELD PLACE WHERE IT CONNECTS TO THE ONSITE PRIVATE ROAD SHALL BE ALLOWED. HETFIELD PLACE SHALL BE PRIVATELY MAINTAINED AND INSURED TO PROTECT LIABILITY. A PRIVATE ROAD MAINTENANCE PLAN SHALL BE SUBMITTED AND APPROVED PRIOR TO ISSUANCE OF A GRADING PERMIT. WHILE THE ROAD SHALL BE PRIVATELY MAINTAINED, PUBLIC ACCESS SHALL BE PERMITTED. [CDP COA NO. 26]

74 THE PRIVATE STREET IS BEING CONDITIONALLY APPROVED BASED ON THE ACCURACY OF THE INFORMATION SHOWN ON THE TENTATIVE MAP. APPROVAL OF THE PRIVATE STREET SHALL BECOME EFFECTIVE UPON FINAL MAP APPROVAL.

75 PRIVATE STREET NAMES ARE SUBJECT TO MODIFICATION PRIOR TO FINAL MAP APPROVAL, AND SHALL BE APPROVED BY THE PLANNING DIRECTOR.

76 THE APPLICANT SHALL DEDICATE A PRIVATE STREET RIGHT-OF-WAY AND INSTALL COMPLETE STREET IMPROVEMENTS FOR THE INTERNAL PRIVATE STREET AS SHOWN ON THE TENTATIVE MAP. STREETLIGHTS ARE NOT REQUIRED AS PART OF THIS PROJECT.

77 A PUBLIC ACCESS EASEMENT (PAE), PUBLIC UTILITY EASEMENT (PUE), EAST BAY MUNICIPAL UTILITY DISTRICT EASEMENT (EBMUD), SANITARY SEWER EASEMENT (SSE) AND EMERGENCY VEHICLE ACCESS EASEMENT (EVAE) ARE TO BE ESTABLISHED OVER THE ENTIRE PRIVATE STREET RIGHT-OF-WAY. THE PUE DEDICATION STATEMENT ON THE FINAL MAP IS TO RECITE THAT THE PUE IS AVAILABLE FOR, BUT NOT LIMITED TO, THE INSTALLATION, ACCESS AND MAINTENANCE OF SANITARY AND STORM SEWERS, WATER, GAS, ELECTRICAL AND COMMUNICATION FACILITIES.

78 THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE FACILITIES IN THE PRIVATE STREET WHICH ARE NOT MAINTAINED BY A PUBLIC UTILITY AGENCY, EXCEPT ALL UTILITY WORK RESULTING FROM BACKFILL FAILURE IS TO BE THE RESPONSIBILITY OF THE HOMEOWNERS' ASSOCIATION (HOA).

79 THE DESIGN OF THE PRIVATE STREET SHALL CONFORM TO THE FOLLOWING STANDARDS AND IS SUBJECT TO REVIEW AND APPROVAL BY THE TOWN ENGINEER PRIOR TO FINAL MAP APPROVAL:

A GRADING AND DRAINAGE IMPROVEMENTS SHALL GENERALLY CONFORM TO APPLICABLE PUBLIC STREET STANDARDS

B THE PRIVATE STREET PAVEMENT SHALL BE DESIGNED ON THE BASIS OF A TRAFFIC INDEX USING PREDICTED TRAFFIC GENERATION AND A THIRTY-YEAR PAVEMENT DESIGN LIFE. IN NO CASE SHALL THE TRAFFIC INDEX BE LESS THAN 5.5.

C ASPHALT CONCRETE SURFACING SHALL BE TREATED WITH A SEAL COAT OF THE TYPE AND AMOUNT REQUIRED BY THE TOWN ENGINEER. PAVEMENT DESIGN SECTIONS SHALL BE SUBJECT TO APPROVAL OF THE TOWN ENGINEER.

D THE NEW PRIVATE STREET IN THE SUBDIVISION SHALL BE CONSTRUCTED TO THE SPECIFICATIONS IN THE TOWN'S SUBDIVISION ORDINANCE, BUT NOT INCLUDING STANDARD SIDEWALKS. AN EXCEPTION HAS BEEN GRANTED TO ALLOW A MINIMUM WIDTH OF 20 FEET FOR THE TRAVEL WAY (WIDTH AT PARKING BAYS IS 28 FEET, AND 24 FEET AT THE BRIDGE). A DECOMPOSED GRANITE 6-FOOT WIDE PUBLIC PATH SHALL BE ADJACENT TO THE PRIVATE STREET. ANY FURTHER CHANGES IN THE TOWN STREET CONSTRUCTION STANDARDS PRIOR TO APPROVAL OF THE SUBDIVISION IMPROVEMENT PLANS SHALL BE APPLICABLE.

E ROLLED CURBS SHALL BE PROVIDED WHERE FEASIBLE AND ACCEPTABLE TO THE TOWN ENGINEER.

80 THE APPLICANT SHALL SUBMIT SIGNING AND STRIPING PLANS FOR TRAFFIC CONTROL DEVICES TO THE TOWN'S PUBLIC WORKS DEPARTMENT FOR APPROVAL AT THE TIME IMPROVEMENT PLANS AND FINAL MAP ARE SUBMITTED TO THE TOWN. THE COST OF REVIEW BY THE TOWN'S ENGINEERING CONSULTANT SHALL BE BORNE BY THE APPLICANT. THE FOLLOWING SIGNS SHALL BE INCLUDED:

A THE IMPROVEMENT PLANS SHALL INCLUDE THE INSTALLATION OF A STOP SIGN AT HETFIELD PLACE AT ITS INTERSECTION WITH SANDERS DRIVE PER THE TOWN OF MORAGA PUBLIC WORKS STANDARDS.

B THE IMPROVEMENT PLANS SHALL INCLUDE THE INSTALLATION OF A STOP SIGN AND SIGN READING, "NOT A THROUGH STREET" AT THE SOUTHBOUND INTERSECTION OF HETFIELD PLACE AND SANDERS DRIVE.[MODIFIED CDP COA 25]

RESTRICTED DEVELOPMENT AREAS:

81 THE CC&RS SHALL INCLUDE NOTIFICATION TO EACH PROPERTY OWNER OF ANY RESTRICTED DEVELOPMENT AREAS (E.G. OPEN SPACE EASEMENTS, CONSERVATION EASEMENTS, HIGH HAZARD AREAS, UTILITY EASEMENTS, DRAINAGE EASEMENTS) LOCATED ON THEIR PROPERTY AND WITHIN COMMON AREAS. THE NOTIFICATION SHALL INFORM FUTURE PROPERTY OWNERS OF SPECIFIC RESTRICTIONS ON USE AND DEVELOPMENT ASSOCIATED WITH EACH SUCH AREA, INCLUDING BUT NOT LIMITED TO PROHIBITION OF STRUCTURES, PERVIOUS SURFACES, PARKING AND SIMILAR USES AS REQUIRED BY THESE CONDITIONS OF APPROVAL, EIR MITIGATIONS, OR BY APPLICABLE UTILITIES AND AGENCIES.[MODIFIED CDP COA NO. 34]

MAINTENANCE OF FACILITIES:

82 THE HOA SHALL COVENANT AND BE RESPONSIBLE FOR THE MAINTENANCE, IN PERPETUITY, OF THE FOLLOWING, IN ADDITION TO ANY OTHER FACILITIES SPECIFICALLY NOTED IN OTHER CONDITIONS OF APPROVAL. SUCH MAINTENANCE SHALL EXCLUDE ALL FACILITIES OTHERWISE SPECIFIED TO BE MAINTAINED BY THE GHAD:

A COMMON AREA LANDSCAPING.

B LANDSCAPING AND RETAINING WALLS WITHIN THE COMMON AREA PARCEL.

C THE PRIVATE ROAD, AS INDICATED IN THESE CONDITIONS OF APPROVAL

D DRAINAGE AND WATER QUALITY FEATURES AND FACILITIES AS INDICATED IN THESE CONDITIONS OF APPROVAL OTHER THAN THOSE MAINTAINED BY THE GHAD.

E RETAINING WALLS LOCATED ON HOA OWNED PROPERTY.

83 A MAINTENANCE PLAN OF OPERATION FOR ALL HOA-MAINTAINED FACILITIES SHALL BE SUBMITTED FOR PUBLIC WORKS REVIEW, PRIOR TO RECORDATION OF THE FINAL MAP. THE TOWN WILL NOT ACCEPT THESE PROPERTIES OR FACILITIES FOR OWNERSHIP OR MAINTENANCE.

DRAINAGE CONDITIONS:

84 DRAINAGE FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH THE TOWN'S SUBDIVISION ORDINANCE AND PUBLIC WORKS STANDARDS. ALL STORM WATERS ENTERING OR ORIGINATING WITHIN THE SUBJECT PROPERTY SHALL BE COLLECTED AND CONVEYED TO THE NEAREST ADEQUATE MAN-MADE DRAINAGE FACILITY OR NATURAL WATERCOURSE, AS DOCUMENTED IN THE EIR, THE PROJECT, WITH INCORPORATION OF ON-SITE DRAINAGE IMPROVEMENTS WOULD NOT EXCEED THE DOWNSTREAM DRAINAGE CAPACITY OF LARCH CREEK. AN EXCEPTION HAS BEEN GRANTED TO ALLOW CLEARING THE NATURAL CHANNELS IN THE AREAS OF THE PROPOSED BRIDGE. DETAILED DRAINAGE PLANS SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO APPROVAL OF THE IMPROVEMENT PLANS. FINAL PIPE SIZES SHALL BE REVIEWED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT UPON SUBMITTAL OF IMPROVEMENT PLANS. THE APPLICANT SHALL ALSO

87 THE APPLICANT SHALL SUBMIT TO THE TOWN COPIES OF ANY PLANS AND REPORTS PROVIDED TO REGULATORY AGENCIES, (E.G. CALIFORNIA FISH AND WILDLIFE (STREAMBED ALTERATION AGREEMENT), US FISH AND WILDLIFE SERVICE, ARMY CORPS OF ENGINEERS, THE REGIONAL WATER QUALITY CONTROL BOARD, ETC.,) IF REQUIRED, FOR PERMITS ASSOCIATED WITH WORK WITHIN CREEK CHANNELS. PROOF OF THE COMPLIANCE OF ANY CONDITIONS ASSOCIATED WITH SUCH PERMITS SHALL ALSO BE SUBMITTED TO THE PLANNING DIRECTOR.

88 THE APPLICANT SHALL COMPLY WITH ALL PERMITTING REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) FOR WORK WITHIN THE STREAM CHANNEL INCLUDING FILING A NOTICE OF INTENT (NOI) WITH THE RWQCB IF SUCH PERMITS ARE REQUIRED OR DETERMINED TO BE NECESSARY. UNDERCROSSING FOR WATER AND WASTEWATER LINES SHALL MEET WITH CALIFORNIA DEPT. OF FISH AND WILDLIFE (CDFW) STANDARDS AND PERMITS FOR RIPARIAN HABITAT DISTURBANCE SHALL BE OBTAINED FROM CDFW IF NEEDED; AND, CONSTRUCTION SHALL COMPLY WITH CCCSD'S HILLSIDE AND CREEK AREA SEWER POLICY.

89 THE APPLICANT SHALL CONSTRUCT DRAINAGE IMPROVEMENTS TO SATISFY THE COLLECT AND CONVEY PROVISIONS OF THE SUBDIVISION ORDINANCE PRIOR TO ISSUANCE OF A BUILDING PERMIT.

90 THE PROPERTY OWNER SHALL BE AWARE THAT THE CREEK BANKS ON THE SITE ARE POTENTIALLY UNSTABLE. THE PROPERTY OWNER SHALL EXECUTE A RECORDABLE AGREEMENT WITH THE TOWN WHICH STATES THAT THE APPLICANT/DEVELOPER AND THE PROPERTY OWNER AND THE FUTURE PROPERTY OWNER(S) WILL HOLD HARMLESS THE TOWN OF MORAGA AND THE CONTRA COSTA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT IN THE EVENT OF DAMAGE TO THE ON-SITE AND OFF-SITE IMPROVEMENTS AS A RESULT OF CREEK-BANK FAILURE OR EROSION.

91 APPLICANT SHALL PREVENT STORM DRAINAGE FROM DRAINING ACROSS THE DRIVEWAY(S) IN A CONCENTRATED MANNER.

92 A PRIVATE STORM DRAIN EASEMENT SHALL BE DEDICATED OVER ANY PROPOSED STORM DRAIN LINE TRAVERSING THE SITE.

CREEK STRUCTURE SETBACKS AND CREEK PROTECTION:

93 APPLICANT SHALL RELINQUISH "DEVELOPMENT RIGHTS" OVER THAT PORTION OF THE SITE THAT IS WITHIN THE STRUCTURE SETBACK AREA OF LARCH CREEK, EXCEPT FOR THE CONSTRUCTION OF FACILITIES SHOWN ON THE APPROVED IMPROVEMENT PLAN, SUCH AS THOSE ASSOCIATED WITH BRIDGE CROSSINGS AND TRAILS. THE STRUCTURE SETBACK AREA SHALL BE DETERMINED BY USING THE CRITERIA OUTLINED IN CHAPTER 914-14, "RIGHTS OF WAY AND SETBACKS," OF THE CONTRA COSTA COUNTY SUBDIVISION ORDINANCE, AS ADOPTED BY THE TOWN OF MORAGA. "DEVELOPMENT RIGHTS" SHALL BE CONVEYED TO THE TOWN BY GRANT DEED HOWEVER, THE TOWN WILL NOT ACCEPT THESE PROPERTIES FOR OWNERSHIP OR MAINTENANCE, EXCEPT AS OTHERWISE AGREED FOR SPECIFIC PROPERTIES AND FACILITIES. THE STRUCTURE SETBACK AREA MAY BE REDUCED SUBJECT TO THE REVIEW OF PUBLIC WORKS AND THE REVIEW AND APPROVAL OF THE PLANNING DIRECTOR, BASED ON A HYDROLOGY AND HYDRAULIC STUDY AND GEOTECHNICAL ANALYSIS OF THE SOIL WHICH SHOWS THAT THE CREEK BANKS WILL BE STABLE AND NON-EROSIVE WITH THE ANTICIPATED CREEK FLOWS. THE HYDROLOGY AND HYDRAULIC STUDY SHALL BE BASED UPON THE ULTIMATE DEVELOPMENT OF THE WATERSHED.

94 THE APPLICANT SHALL SHOW THE CREEK STRUCTURE SETBACK LINE ON THE FINAL MAP IN ACCORDANCE WITH SECTION 914-14.012, "STRUCTURES SETBACK LINES FOR UNIMPROVED EARTH CHANNELS" OF THE CONTRA COSTA COUNTY SUBDIVISION ORDINANCE CODE, AS ADOPTED BY THE TOWN OF MORAGA, AND CONSISTENT WITH ATTACHMENT E.2 (CREEK SETBACK EXHIBIT) OF THE FEBRUARY 18, 2014 PLANNING COMMISSION STAFF REPORT.

95 CREEK CORRIDOR AND PUBLIC TRAIL. THE PUBLIC EASEMENT ALONG THE SOUTH SIDE OF LARCH CREEK SHALL BE IMMEDIATELY ADJACENT TO AND ATTACHED TO THE PAVED ONSITE ACCESS ROAD AND SHALL ALLOW BOTH PEDESTRIAN AND BICYCLE ACCESS. THIS 6-FT. WIDE PATH SHALL BE COMPOSED OF "DECOMPOSED GRANITE. DURING CONSTRUCTION OF THIS TRAIL, ORANGE FENCING AND STRAW BALES SHALL BE USED ON THE CREEK SIDE OF THE EASEMENT TO PREVENT EROSION AND SEDIMENTATION AND TO MINIMIZE DISTURBANCE OF THE CREEK CORRIDOR. NO EQUIPMENT SHALL DISTURB ANY AREAS OUTSIDE OF THE DESIGNATED EASEMENT. ANY RETAINING WALLS FOR LOTS OR THE ONSITE ACCESS ROAD SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL AND SHALL NOT BE PLACED CLOSER THAN 60 FEET TO THE CENTERLINE OF THE CREEK AND RETAINING WALLS WITHIN 100 FT. OF THE CREEK CENTERLINE SHALL BE LANDSCAPED TO SCREEN THE WALLS FROM OFFSITE LOCATIONS (WITH VINES OR OTHER MECHANISMS). [MODIFIED CDP COA NO. 46]

96 CREEK PROTECTION. THE LARCH CREEK CORRIDOR SHALL BE FENCED DURING ALL OF CONSTRUCTION ACTIVITY AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH AN APPROVED STORMWATER POLLUTION AND PREVENTION PLAN (SWPPP). [CDP COA NO. 35]

WATER QUALITY AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

97 PROJECT CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE FEDERAL CLEAN WATER ACT, WHICH PROTECTS THE QUALITY OF SURFACE WATERS THROUGH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), SUBJECT TO APPROVAL OF THE PUBLIC WORKS DEPARTMENT. THE APPLICANT SHALL PROVIDE EVIDENCE TO THE TOWN OF THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) APPROVAL OF THE SWPPP. STORM WATER DISCHARGES SHALL BE IN ACCORDANCE WITH THE TOWN OF MORAGA NPDES PERMIT. A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AND BE KEPT AT THE CONSTRUCTION SITE.

98 NPDES COMPLIANCE SHALL INCLUDE DEVELOPING LONG-TERM BEST MANAGEMENT PRACTICES (BMPS) FOR THE REDUCTION OR ELIMINATION OF STORM WATER POLLUTANTS. THE PROJECT DESIGN SHALL INCORPORATE WHEREVER FEASIBLE, THE FOLLOWING LONG-TERM BMPS IN ACCORDANCE WITH THE TOWN OF MORAGA AND CONTRA COSTA CLEAN WATER PROGRAM FOR THE SITE'S STORM WATER DRAINAGE:

. MINIMIZE THE AMOUNT OF DIRECTLY CONNECTED IMPERVIOUS SURFACE AREA.

. STENCILING ALL STORM DRAIN INLETS "NO DUMPING, DRAINS TO CREEK" (OR SIMILAR) USING THERMOPLASTIC TAPE.

. CONSTRUCT CONCRETE DRIVEWAY WEAKENED PLANE JOINTS AT ANGLES TO ASSIST IN DIRECTING RUN-OFF TO LANDSCAPED/PERVIOUS AREAS PRIOR TO ENTERING THE STREET CURB AND GUTTER.

. OTHER ALTERNATIVES COMPARABLE TO THE ABOVE AS APPROVED BY PUBLIC WORKS.

. SHALLOW ROADSIDE AND ON-SITE SWALES.[MODIFIED CDP COA NO. 99]

99 PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE PROJECT APPLICANT SHALL PREPARE A "SOURCE CONTROL PROGRAM" TO REMOVE NON-POINT SOURCE POLLUTANTS BEFORE THEY ARE PICKED UP BY STORM WATER RUNOFF DURING THE FUTURE OPERATION OF THE PROJECT. A REGISTERED CIVIL ENGINEER (OR OTHER LICENSED PROFESSIONAL ACCEPTABLE TO THE TOWN) SHALL PREPARE THE SOURCE CONTROL PROGRAM, SUBJECT TO APPROVAL BY THE PUBLIC WORKS DEPARTMENT. THE PROGRAM SHALL INCLUDE THE FOLLOWING PROVISIONS:

A A PAVEMENT MAINTENANCE PROGRAM, WHICH CONSISTS OF REGULAR SURFACE CLEANING FOR THE NEW DRIVEWAY AND PARKING AREA.

B LABELING ALL CATCH BASINS "NO DUMPING-DRAINS TO CREEKS" (OR SIMILAR). MARK ALL STORM DRAINS WITH SIGNS TO PROHIBIT IMPROPER DISPOSAL OF ANY HAZARDOUS MATERIALS SUCH AS CLEANING SOLVENTS, PESTICIDES AND HERBICIDES.

C STRICTLY LIMITING THE USE OF NON-BIODEGRADABLE FERTILIZERS OR PESTICIDES IN THE LANDSCAPE MAINTENANCE PROGRAM.

100 CC&RS FOR THE SUBDIVISION SHALL REQUIRE:

A MATERIALS SUCH AS GASOLINE, OIL, SAND, PAINT, PESTICIDE RESIDUES, OR OTHER TOXIC SUBSTANCES ARE PROHIBITED FROM BEING INTRODUCED INTO THE STORM DRAIN SYSTEM OR THE CCCSD SEWER SYSTEM.

B LOT OWNER SHALL MAINTAIN HIS/HER LOT IN A NON-HAZARDOUS CONDITION WITH REGARD TO DRAINAGE.

C COLLECTED STORM DRAINAGE ORIGINATING FROM ROOF DOWNSPOUTS AND PAVED AREAS SHALL NOT BE DISCHARGED ACROSS SIDEWALKS OR OUT OF DRIVEWAYS.

D THE DISCHARGE OF CHLORINATED WATER FROM SWIMMING POOLS AND SPAS INTO STORM DRAINS OR CREEK CHANNELS IS PROHIBITED. (ALL WATER FROM SWIMMING POOLS AND SPAS SHALL BE DISCHARGED TO THE CCCSD SEWER SYSTEM IN ACCORDANCE WITH THEIR REQUIREMENTS.)

E DISTRIBUTION OF PUBLIC INFORMATION ITEMS REGARDING THE CLEAN WATER PROGRAM TO BUYERS AT TIME OF SALE

101 PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE FIRST RESIDENCE, THE APPLICANT SHALL SUBMIT A WRITTEN AGREEMENT FOR A STREET SWEEPING PROGRAM AND A STORM WATER SYSTEM CLEANING PROGRAM TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PRIVATE ROAD, AND DRAINAGE FACILITIES LOCATED WITHIN COMMON AREAS AND OPEN SPACE EASEMENTS, EXCEPT FOR THOSE TO BE MAINTAINED BY THE GHAD. SUCH FACILITIES SHALL BE SUBJECT TO THE FOLLOWING MAINTENANCE SCHEDULE, WHICH MAY BE REFLECTED IN A CONSOLIDATED PLAN OF MAINTENANCE AND OPERATION FOR THE PROJECT:

A THE PRIVATE ROAD MUST BE SWEPT A MINIMUM OF SIX TIMES PER YEAR AND WHENEVER DIRT AND DEBRIS IS ON THE PRIVATE DRIVE OR AS DETERMINED BY THE TOWN'S PUBLIC WORKS DEPARTMENT. ONE PRIVATE DRIVE SWEEPING SHALL BE REQUIRED FOR INDIVIDUAL PROPERTIES IN LATE SEPTEMBER.

B ALL CATCH BASINS AND STORM DRAIN PIPES SHALL BE CLEANED TWO TIMES PER YEAR INCLUDING ONCE IN SEPTEMBER.

C INSPECTION AND CLEARING OF THE STORM DRAIN INLETS, DITCHES, AND CREEKS SHALL OCCUR ONCE EVERY YEAR, IN SEPTEMBER.

D THE PROGRAM SHALL GIVE AUTHORITY TO THE TOWN TO ENTER ONTO THE SITE TO VERIFY THAT THE PROGRAM IS BEING IMPLEMENTED

CONDITIONS RELATED TO PROVISION C.3: STORMWATER CONTROL FOR NEW AND REDEVELOPMENT:

102 THE APPLICANT SHALL BE REQUIRED TO COMPLY WITH ALL RULES, REGULATIONS AND PROCEDURES OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR MUNICIPAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES AS PROMULGATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD, OR ANY OF ITS REGIONAL WATER QUALITY CONTROL BOARDS (SAN FRANCISCO BAY - REGION II), SPECIFICALLY IN RESPECT TO PROVISION "C.3" IN THE NPDES PERMIT.

103 STORMWATER. STORMWATER FROM ROOFS, PATIOS, STREETS AND SIDEWALKS SHALL BE TREATED BEFORE REACHING CREEKS OR PUBLIC STORM DRAIN SYSTEM. STORMWATER FROM NATURALLY VEGETATED AREAS (HILLSIDES, LANDSCAPES, ETC.) DOES NOT NEED TO BE TREATED AND MAY BE ROUTED TO THE STORMWATER SYSTEM OR CREEKS DIRECTLY. THE TWO TYPES OF RUN-OFF SHOULD NOT BE MIXED. BIOS ALES MAY BE USED TO TREAT RUNOFF FROM PAVED SURFACES. THE CONSTRUCTION PLANS SHALL INCLUDE DETAILED STORMWATER TREATMENT PLANS TO REFLECT THE SPECIFICS OF THE TREATMENT FACILITIES AREAS.

THIS PROJECT SHALL FULLY COMPLY WITH THE TOWN'S STORMWATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE, THE STORMWATER C.3 GUIDEBOOK, AND THE REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD. AS PART OF THESE REQUIREMENTS, THE APPLICANT SHALL INCORPORATE INTEGRATED MANAGEMENT PRACTICES (IMPS) OR BEST MANAGEMENT PRACTICES (BMPS) TO THE MAXIMUM EXTENT PRACTICABLE INTO THE DESIGN OF THIS PROJECT, IMPLEMENT THEM, AND PROVIDE FOR PERPETUAL OPERATION AND MAINTENANCE FOR ALL TREATMENT IMP/BMPS.[MODIFIED CDP COA NO. 36]

104 A PRELIMINARY STORMWATER CONTROL PLAN DATED OCTOBER 18, 2013 WAS REVIEWED AND DETERMINED TO BE PRELIMINARILY COMPLETE. ALTHOUGH THE STORMWATER CONTROL PLAN HAS BEEN DETERMINED TO BE PRELIMINARILY COMPLETE, IT IS SUBJECT TO REVISION DURING THE PREPARATION OF IMPROVEMENT PLANS, AS NECESSARY, TO BRING IT INTO FULL COMPLIANCE WITH C.3 STORMWATER REQUIREMENTS. THE APPLICANT SHALL SUBMIT TO THE PUBLIC WORKS DEPARTMENT A FINAL STORMWATER CONTROL PLAN THAT HAS BEEN CERTIFIED AND STAMPED BY A LICENSED CIVIL ENGINEER, ARCHITECT, OR LANDSCAPE ARCHITECT FOR THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT.[MODIFIED CDP COA NO. 37]

105 ALL CONSTRUCTION PLANS (INCLUDING, BUT NOT LIMITED TO, SITE, IMPROVEMENT, STRUCTURAL, MECHANICAL, ARCHITECTURAL, BUILDING, GRADING AND LANDSCAPING PLANS) SHALL COMPLY WITH THE PRELIMINARILY APPROVED STORMWATER CONTROL PLAN (SWCP) OR ANY SUBSEQUENTLY REVISED SWCP, THE TOWN'S STORMWATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE, THE "C.3 GUIDEBOOK" AND THE REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD. ALL CONSTRUCTION PLANS SHALL INCLUDE DETAILS AND SPECIFICATIONS NECESSARY TO IMPLEMENT ALL MEASURES OF THE SWCP, SUBJECT TO THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT. TO INSURE CONFORMANCE WITH THE SWCP, THE APPLICANT SHALL SUBMIT A COMPLETED "CONSTRUCTION PLAN C.3 CHECKLIST" INDICATING THE LOCATION ON THE CONSTRUCTION PLANS OF ALL ELEMENTS OF THE SWCP AS DESCRIBED IN THE "C.3 GUIDEBOOK.

106 ANY PROPOSED WATER QUALITY FEATURES THAT ARE DESIGNED TO RETAIN WATER FOR LONGER THAN 72 HOURS SHALL BE SUBJECT TO THE REVIEW OF THE CONTRA COSTA MOSQUITO & VECTOR CONTROL DISTRICT.

107 ALL WATER QUALITY FEATURES SHALL BE LOCATED WITHIN PRIVATELY MAINTAINED STORM DRAIN OR OPEN SPACE EASEMENTS TO ALLOW TOWN ACCESS FOR ANY FUTURE INSPECTION AND/OR MAINTENANCE PURPOSES.

108 THE APPLICANT SHALL PROVIDE A STORMWATER CONTROL OPERATION AND MAINTENANCE (O&M) PLAN FOR THE REVIEW OF THE PUBLIC WORKS DEPARTMENT, AND RECORD AN OPERATION AND MAINTENANCE AGREEMENT, INCLUDING ANY NECESSARY RIGHTS-OF-ENTRY, PRIOR TO RECORDING OF THE FINAL MAP.

109 THE HOA AND GHAD FINANCIAL/OPERATING PLAN(S) SHALL INCLUDE PROVISIONS TO INSURE THAT ALL COSTS ASSOCIATED WITH THE OPERATION & MAINTENANCE, ADMINISTRATION AND REPORTING OF WATER QUALITY FEATURES (INCLUDING COSTS ASSOCIATED WITH ALL REQUIRED TOWN ADMINISTRATION, INSPECTION AND REPORTING) WILL BE ADDRESSED IN PERPETUITY. COST ESTIMATES FOR THE COMPLETE FINANCING AND PERPETUAL MAINTENANCE OF THE WATER QUALITY FEATURES PROPOSED SHALL BE PROVIDED FOR THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT. THIS ESTIMATE SHALL INCLUDE ALL LONG TERM COSTS ASSOCIATED WITH THESE WATER QUALITY FEATURES INCLUDING, BUT NOT LIMITED TO, OPERATION AND MAINTENANCE, FINANCING, INFLATION INDEXING, AND REPLACEMENT COSTS.

110 PRIOR TO BUILDING PERMIT FINAL AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL PROVIDE AN OPERATION AND MAINTENANCE (O&M) PLAN AND EXECUTE ANY AGREEMENTS IDENTIFIED IN THE SWCP, WHICH PERTAIN TO THE TRANSFER OF OWNERSHIP AND/OR LONG-TERM MAINTENANCE OF STORM WATER TREATMENT OR HYDROGRAPH MODIFICATION BMPS.

GRADING CONDITIONS:

GENERAL GRADING CONDITIONS/PRIOR TO COMMENCEMENT OF GRADING

111 ALL GRADING OPERATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONDITIONS LISTED IN THIS SECTION AND IN CONFORMANCE WITH THE APPROVED GRADING PLAN. AN APPLICATION FOR A GRADING PERMIT, DEVELOPED IN ACCORDANCE WITH APPLICABLE TOWN APPROVALS, SHALL BE MADE TO THE CONTRA COSTA COUNTY BUILDING INSPECTION DEPARTMENT, AND SHALL BE ACCOMPANIED BY THE REQUISITE NUMBER OF PLAN SETS, DOCUMENTATION OF EARTHWORK QUANTITIES AND FEES IN ACCORDANCE WITH COUNTY REQUIREMENTS.

112 THE APPLICANT SHALL APPLY FOR AND PAY ALL APPROPRIATE FEES FOR THE GRADING PERMIT, EROSION CONTROL PERMIT, PLAN CHECKS AND INSPECTIONS AND ANY OTHER APPLICABLE FEES.

113 THE FINAL GRADING PLAN SHALL BE REVIEWED AND APPROVED BY THE TOWN ENGINEER PRIOR TO FILING THE FINAL MAP AND IMPROVEMENT PLANS. THE GRADING PLAN SHALL BE CONSISTENT WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION AND SHALL BE SIGNED FOR CONFORMITY BY THE APPLICANT'S SOILS ENGINEER.

114 PRIOR TO THE ISSUANCE OF A GRADING PERMIT BY CONTRA COSTA COUNTY, A CERTIFICATE OF INSURANCE SHALL BE PROVIDED TO THE TOWN TO VERIFY THAT BOTH THE APPLICANT AND THE GRADING CONTRACTOR HAVE PUBLIC LIABILITY INSURANCE. THE AMOUNT AND TYPE OF INSURANCE SHALL BE REVIEWED BY THE TOWN AND SHALL BE SUFFICIENT TO COVER DAMAGES THAT MAY RESULT FROM THE GRADING OPERATION.

115 GRADING OPERATIONS SHALL OCCUR BETWEEN APRIL 15 AND OCTOBER 15, IN ORDER TO AVOID SEASONAL RAINFALL, EXCEPT AS ALLOWED OUTSIDE THIS PERIOD IN ACCORDANCE WITH PROVISIONS OF THE GRADING ORDINANCE. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND DEEMED OPERATIONAL BY THE PROJECT ENGINEER, THE CONTRA COSTA COUNTY GRADING INSPECTOR AND TOWN ENGINEER PRIOR TO OCTOBER 1. [MODIFIED CDP COA NO. 67]

116 GRADING. NO GRADING SHALL OCCUR PRIOR TO APPROVAL OF A GRADING PERMIT. IT IS EXPECTED THAT ALL GRADED MATERIAL WILL BE BALANCED ON SITE BUT THIS SHALL BE VERIFIED AT THE TIME OF THE GRADING PERMIT, AT WHICH TIME THE APPLICANT SHALL VERIFY THE MAXIMUM AMOUNT OF OFF HAUL OF ANY CUT MATERIAL FROM THE SITE AND THE TRUCK TRIPS ASSOCIATED WITH ANY DIRT REMOVAL INFORMATION ON NUMBER OF TRUCK TRIPS, AND LENGTH OF TIME OF OFF HAUL SHALL BE POSTED ON THE SITE IN A LOCATION VISIBLE FROM THE HETFIELD DRIVE ACCESS POINT SO THAT NEIGHBORS ARE AWARE OF TRUCKS ASSOCIATED WITH ONSITE GRADING ACTIVITIES. CONTRACTOR CONTACT INFORMATION SHALL ALSO BE POSTED IF NEIGHBORS WISH TO REGISTER ANY COMPLAINTS. ALL GRADING ACTIVITY SHALL BE MONITORED AND DAILY RECORDS MAINTAINED THAT SHALL BE PROVIDED TO THE TOWN OF MORAGA ON A MONTHLY BASIS. ALL EXCAVATIONS (KEYWAYS, BENCHES, ETC.) FOR THE LANDSLIDE REMOVALS SHALL BE MAPPED AND APPROVED BY THE APPLICANT'S CERTIFIED ENGINEERING GEOLOGIST AND SHALL BE REVIEWED BY THE TOWN'S CONSULTING ENGINEERING GEOLOGIST. APPROVAL OF CORRECTIVE AND SITE PREPARATION GRADING SHALL BE SEPARATE FROM INDIVIDUAL LOT GRADING FOR HOME CONSTRUCTION. [MODIFIED CDP COA NO. 42]

117 CUT AND FILL. CUT AND FILL MATERIAL SHALL BE BALANCED ON-SITE TO THE MAXIMUM EXTENT FEASIBLE. IF THE PROPOSED PROJECT REQUIRES EXPORT OR IMPORT OF MORE THAN 500 CUBIC YARDS OF DIRT, A HAULING PERMIT SHALL BE REQUIRED IN ACCORDANCE WITH PC RESOLUTION 46-82. HOWEVER, EVEN IF THE VOLUME OF THE EXPORT OR IMPORT IS LESS THAN 500 CUBIC YARDS, A HAULING PERMIT SHALL ALSO BE REQUIRED, SUBJECT TO REVIEW AND APPROVAL BY THE TOWN ENGINEER.[CDP COA NO. 48]

118 CDFW AND RWQCB APPROVALS. PRIOR TO THE ISSUANCE OF GRADING PERMITS BY THE TOWN OF MORAGA, THE PROJECT APPLICANT SHALL PROVIDE EVIDENCE OF THE REQUIRED APPROVALS FROM THE CDFW AND RWQCB IN TERMS OF IMPACTS TO LARCH CREEK AND ONSITE WETLANDS. [CDP COA NO. 70]

119 PRIOR TO ISSUANCE OF A COUNTY GRADING PERMIT, THE PROJECT APPLICANT SHALL PREPARE A CONSTRUCTION MANAGEMENT PLAN (CMP), SUBJECT TO REVIEW AND APPROVAL BY THE PUBLIC WORKS DIRECTOR. THE CMP SHALL PROVIDE THE FOLLOWING INFORMATION:

A A PROJECT STAGING PLAN TO MAXIMIZE THE ON-SITE STORAGE OF MATERIALS AND EQUIPMENT;

B A SET OF COMPREHENSIVE TRAFFIC CONTROL MEASURES, INCLUDING SCHEDULING OF MAJOR TRUCK TRIPS AND DELIVERIES TO AVOID PEAK HOURS; LANE CLOSURE PROCEEDINGS; SIGNS, CONES AND OTHER WARNING DEVICES FOR DRIVERS; AND DESIGNATION OF CONSTRUCTION ACCESS ROUTES;

C PERMITTED CONSTRUCTION HOURS;

D LOCATION OF CONSTRUCTION STAGING;

E IDENTIFICATION OF PARKING AREAS FOR CONSTRUCTION EMPLOYEES, SITE VISITORS, AND INSPECTORS, INCLUDING ON-SITE LOCATIONS AND ALONG HETFIELD PLACE;

F PROVISIONS FOR STREET SWEEPING TO REMOVE CONSTRUCTION-RELATED DEBRIS ON PUBLIC STREETS; AND

G DESIGNATION OF AN ON-SITE CONSTRUCTION MANAGER AS A CONTACT FOR THE TOWN AND THE PUBLIC.

H REQUIREMENTS FOR PUBLIC NOTIFICATION FOR CONSTRUCTION AND GRADING ACTIVITY THAT MAY BLOCK OR IMPEDE ACCESS TO DRIVEWAYS. THE CMP SHALL REQUIRE BEST EFFORTS TO ENSURE THAT ACCESS TO PRIVATE DRIVEWAYS CAN OCCUR AT ALL TIMES, BUT IF THIS IS NOT POSSIBLE, NOTICE SHALL BE PROVIDED TO AFFECTED PROPERTY OWNERS AT LEAST 48 HOURS IN ADVANCE OF ANY BLOCKAGE AND ITS EXPECTED HOURS AND DURATION.

THE ABOVE LIST REFLECTS THE MINIMUM REQUIRED CONTENTS OF THE CMP. THE TOWN MAY DETERMINE THAT OTHER PROVISIONS, NECESSARY TO SATISFY REQUIRED CONDITIONS OF APPROVAL OR EIR MITIGATION MEASURES SHOULD BE INCLUDED IN THE CMP.

120 TWO WEEKS PRIOR TO COMMENCEMENT OF THE PROJECT'S GRADING OPERATION, NOTICE SHALL BE SENT TO RESIDENTS IN THE VICINITY TO INFORM THEM OF THE DATE OF THE START-UP OF THE GRADING. THE NOTICE SHALL INCLUDE THE TELEPHONE NUMBER OF THE CONSTRUCTION SUPERVISOR AND/OR OTHER RESPONSIBLE PARTIES WHO MAY BE CONTACTED REGARDING THE GRADING OPERATION. A COPY SHALL BE SENT TO THE PLANNING AND PUBLIC WORKS DIRECTORS.

121 PRIOR TO COMMENCEMENT OF THE GRADING OPERATION, A SURVEY (SUCH AS A VIDEOTAPE) OF THE CONDITION OF SANDERS DRIVE AND OTHER LOCAL STREETS TO BE USED BY THE CONSTRUCTION EQUIPMENT SHALL BE PERFORMED BY THE APPLICANT AND PROVIDED TO THE TOWN ENGINEER FOR REVIEW. THE SURVEY SHALL INCLUDE ROADS ALONG PROPOSED HAUL ROUTE(S) OR ANY ALTERNATE ROUTE(S) THAT ARE PROPOSED TO BE UTILIZED BY THE HAULING OPERATION. ANY OFF-SITE DAMAGE TO PUBLIC STREETS, INCLUDING BUT NOT LIMITED TO POTHOLES, DEPRESSIONS, SPALLING, CURB AND GUTTER CRACKS, TRAFFIC STRIPING AND PAVEMENT MESSAGES THAT BECOME ILLEGIBLE, OBLITERATED, OR A HAZARD, WHICH IS DETERMINED BY THE TOWN ENGINEER TO BE THE RESULT OF THE CONSTRUCTION OPERATION SHALL BE CORRECTED BY THE APPLICANT AT THE APPLICANT'S EXPENSE. A COPY OF ALL PRE-PROJECT SURVEY WORK DOCUMENTATION SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK, AND IS SUBJECT TO TOWN VERIFICATION AND APPROVAL OF THE SURVEY FINDINGS. AT ITS OPTION, THE TOWN MAY REQUIRE THE APPLICANT TO EXECUTE A BONDED ROAD IMPROVEMENT AGREEMENT TO ASSURE THE ROADWAY REPAIRS.[MODIFIED CDP COA NO. 27]

122 PRIOR TO THE COMMENCEMENT OF THE GRADING OPERATION, A PRE-WORK MEETING SHALL BE HELD WITH THE GRADING CONTRACTOR, A REPRESENTATIVE OF THE APPLICANT, THE PROJECT GEOTECHNICAL ENGINEER, THE PROJECT ENGINEER, THE TOWN ENGINEER, THE TOWN'S CONSULTING GEOTECHNICAL ENGINEER, THE PLANNING DIRECTOR, THE CONTRA COSTA COUNTY GRADING INSPECTOR, AND THE VARIOUS UTILITY AGENCIES. THE PURPOSE OF THE MEETING SHALL BE TO REVIEW THE CONDITIONS OF APPROVAL AND TO ADVISE THE INDIVIDUALS PERFORMING THE WORK OF THE REQUIREMENTS OF THE TOWN.

123 WITHIN ONE YEAR OF THE EFFECTIVE DATE OF THE FINAL MAP, THE APPLICANT SHALL SUBMIT A DECLARATION OF DEED RESTRICTIONS FOR EACH LOT IN A FORM SATISFACTORY TO THE TOWN ATTORNEY. THE DECLARATION SHALL BE REVIEWED BY THE PLANNING DIRECTOR AND RECORDED WITH THE TITLE OF EACH LOT. A COPY OF THE RECORDED DECLARATION OF DEED RESTRICTIONS SHALL BE FILED WITH THE TOWN OF MORAGA. THE DECLARATION OF DEED RESTRICTIONS SHALL INCLUDE THE RECOMMENDATIONS AND EXHIBITS FROM THE PROJECT GEOTECHNICAL ENGINEER'S REPORTS:

A RECOMMENDED STRUCTURAL SETBACKS FROM THE BOTTOM AND TOP OF SLOPES, INCLUDING THE MINIMUM SETBACK REQUIREMENTS FROM THE TOE OF THE LANDSLIDE FEATURES IDENTIFIED ON THE BUILDING SITE.

B THE MAINTENANCE RESPONSIBILITIES REQUIRED OF THE LOT OWNER INCLUDE ANNUAL INSPECTION AND CLEANING OF BOTH SURFACE AND SUBSURFACE DRAINAGE FACILITIES EACH SEPTEMBER.

C A SITE PLAN SHOWING THE "AS-BUILT" LOCATION OF ANY SUBDRAINS INSTALLED ON ANY PORTION OF THE LOT AND ALL DRAINAGE INLETS AND OUTLETS.

124 EXISTING TREES, PLANTS AND GRASSES IN THE AREA TO BE GRADED SHALL BE LEFT UNDISTURBED, EXCEPT AS NEEDED FOR WEED CONTROL AND FUELS MANAGEMENT, UNTIL THE GRADING IS READY TO COMMENCE. TREE REMOVAL MAY BE AUTHORIZED BY THE TOWN PRIOR TO COMMENCEMENT OF GRADING IF SO DOING WOULD REDUCE POTENTIAL IMPACTS TO NESTING BIRDS AND OTHER SPECIES. ADDITIONAL SECURITY DEPOSITS MAY BE REQUIRED IN CONJUNCTION WITH SUCH AN AUTHORIZATION, AT THE DISCRETION OF THE TOWN.

125 RETAINING WALLS AND 3:1 SLOPES. AT THE TIME OF GRADING, SLOPES SHALL BE 3:1 AS SHOWN IN THE GRADING PLAN FOR THE CDP, AND RETAINING WALLS SHALL NOT BE CONSTRUCTED UNTIL DESIGN REVIEW HAS OCCURRED. RETAINING WALLS SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL. AT MINIMUM, SUCH RETAINING WALLS SHALL BE CONSISTENT WITH THE DESIGN GUIDELINES, SCREENED FROM VIEW BY THE RECOMMENDED SHRUBBERY AND TREE PLANTINGS. RETAINING WALL HEIGHT SHALL BE MINIMIZED TO THE MAXIMUM EXTENT POSSIBLE, BUT SHALL NOT EXCEED FIVE FEET IN HEIGHT. [CDP COA NO. 39]

DURING GRADING OPERATIONS

126 THE GRADING CONTRACTOR AND THE APPLICANT SHALL BE RESPONSIBLE FOR PREVENTING SPILLS OF SOIL, ROCK OR OTHER DEBRIS ONTO THE TOWN'S STREETS. IF ANY SPILLS OCCUR, THE GRADING CONTRACTOR AND THE APPLICANT WILL BE REQUIRED TO IMMEDIATELY CLEAN UP THE SPILL AND REPAIR ANY DAMAGE TO THE STREETS TO THE SATISFACTION OF THE PUBLIC WORKS DEPARTMENT AND THE GRADING INSPECTOR. PAVEMENT AND/OR BASE ROCK APRON (STABILIZED CONSTRUCTION ENTRANCE) SHALL BE PROVIDED AT THE ENTRANCE TO THE SITE TO MINIMIZE DIRT CARRIED ONTO THE TOWN STREETS. SPECIFICATIONS FOR THE PAVEMENT OR BASE ROCK APRON (STABILIZED CONSTRUCTION ENTRANCE) SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. STREET

145 THE EROSION CONTROL FACILITIES SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS ARE COMPLETED AND PROJECT LANDSCAPING OR A HEAVY GROWTH OF GRASS IS ESTABLISHED ON ALL EXPOSED SLOPES. A MINIMUM OF 4,000 POUNDS PER ACRE OF STRAW MULCH OR ALTERNATIVE ACCEPTABLE TO THE PUBLIC WORKS DEPARTMENT SHALL BE PLACED ON ALL SLOPES WHERE GRASS IS NOT FIRMLY ESTABLISHED EACH YEAR BEFORE OCTOBER 1. EROSION CONTROL FACILITIES MUST BE MAINTAINED AFTER EVERY STORM AND AS NEEDED IN BETWEEN STORMS, AND REPLACED WHENEVER NECESSARY.

146 EXPOSED SLOPES SHALL BE LANDSCAPED OR HYDRO SEEDED WITH A MIXTURE OF ANNUAL GRASSES, NATIVE GRASSES AND WILDFLOWERS (EXCEPT AS LIMITED BY THE MMRP), NO LATER THAN OCTOBER 1 OF THE YEAR DURING WHICH THE EXPOSED SLOPE HAS BEEN CREATED, IN ANTICIPATION OF THE RAINY SEASON. THIS APPLIES TO ROUGH GRADED SLOPES AS WELL AS AREAS WHERE GRADING HAS BEEN COMPLETED. THE LANDSCAPED OR HYDRO SEEDED AREAS SHALL BE MAINTAINED TO ENSURE ADEQUATE PLANT GROWTH AND ROOTING. IF AN AREA IS DISTURBED AFTER HYDRO SEEDING, THEN THE AREA SHALL BE REVEGETATED, OR PROTECTED FROM EROSION BY OTHER APPROVED METHODS. [MODIFIED CDP COA NO. 67]

NOISE: CONDITIONS PERTAINING TO CONSTRUCTION AND GRADING RELATED NOISE

147 NOISE-GENERATING CONSTRUCTION ACTIVITIES AND GRADING SHALL TAKE PLACE ONLY BETWEEN THE HOURS OF 8:00 AM AND 5:00 PM ON WEEKDAYS. CONSTRUCTION ACTIVITIES WITHIN PRIVATE AND PUBLIC STREET IMPROVEMENTS SHALL BE LIMITED TO THE HOURS OF 8:00 AM AND 4:00 PM MONDAY THROUGH FRIDAY. GRADING WORK MAY BE PERMITTED BY THE PLANNING DIRECTOR DURING A WEEKEND IF THE GRADING IS DEEMED NECESSARY BY THE PROJECT GEOTECHNICAL ENGINEER DUE TO A POTENTIALLY HAZARDOUS AND UNFORESEEN CONDITION THAT REQUIRES IMMEDIATE ATTENTION. OTHER CONSTRUCTION, SUCH AS INTERIOR WORK ON HOMES MAY ALSO BE PERMITTED OUTSIDE OF THESE HOURS WITH THE APPROVAL OF THE PLANNING DIRECTOR.

148 ALL CONSTRUCTION EQUIPMENT OPERATED AT THE PROJECT SITE SHALL BE EQUIPPED WITH MANUFACTURER'S STANDARD NOISE CONTROL DEVICES (I.E., MUFFLERS, INTAKE SILENCERS, AND/OR ENGINE ENCLOSURES). NEWER EQUIPMENT SHALL BE USED WHENEVER POSSIBLE.

149 EQUIPMENT USED FOR PROJECT CONSTRUCTION SHALL HAVE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS, PAVEMENT BREAKERS, AND ROCK DRILLS) WHENEVER 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. THIS MUFFLER CAN LOWER NOISE LEVELS FROM THE EXHAUST UP TO ABOUT 10 DBA. EXTERNAL JACKETS ON THE TOOLS THEMSELVES SHALL BE USED WHERE FEASIBLE, THEREBY ACHIEVING A FURTHER REDUCTION OF 5 DBA. QUIETER PROCEDURES SHALL BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT, WHENEVER FEASIBLE.

150 CONSTRUCTION STAGING AREAS, MAINTENANCE YARDS AND OTHER CONSTRUCTION-ORIENTED OPERATIONS SHALL BE LOCATED AS FAR AS REASONABLY POSSIBLE FROM NOISE-SENSITIVE RECEPTORS.

151 STATIONARY NOISE GENERATING EQUIPMENT, SUCH AS AIR COMPRESSORS AND CONCRETE PUMPERS, SHALL BE LOCATED AS FAR AWAY FROM ADJACENT RESIDENCES AND NOISE-SENSITIVE RECEPTORS AS POSSIBLE. IF THEY MUST BE USED NEAR EXISTING HOMES, THEY SHALL BE ADEQUATELY MUFFLED.

152 GRADING EQUIPMENT AND TRUCKS USED FOR PROJECT CONSTRUCTION SHALL UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES TO MAINTAIN NOISE LEVELS WITHIN THE FOLLOWING STANDARDS SHOWN IN THE TABLE, BELOW

RECOMMENDED NOISE LIMITS FOR CONSTRUCTION EQUIPMENT

153 AS PART OF THE CONSTRUCTION MANAGEMENT PLAN, DEVELOPER/APPLICANT SHALL INCLUDE A CONSTRUCTION NOISE MANAGEMENT PLAN THAT IDENTIFIES MEASURES TO BE TAKEN TO MINIMIZE CONSTRUCTION NOISE ON SURROUNDING DEVELOPED PROPERTIES. SPECIFIC NOISE MANAGEMENT MEASURES SHALL BE INCLUDED IN THE PROJECT PLANS AND SPECIFICATIONS.

CONSTRUCTION CONDITIONS:[MODIFIED CDP COA NO. 78]

154 APPLICANT SHALL FURNISH PROOF TO PUBLIC WORKS OF THE ACQUISITION OF ALL NECESSARY RIGHTS OF WAY, RIGHTS OF ENTRY, PERMITS AND/OR EASEMENTS FOR THE CONSTRUCTION OF OFF-SITE, TEMPORARY OR PERMANENT, PUBLIC AND PRIVATE ROAD AND DRAINAGE IMPROVEMENTS. SUCH PROOF SHALL BE FURNISHED PRIOR TO FINAL MAP, ISSUANCE OF GRADING PERMIT, OR COMMENCEMENT OF CONSTRUCTION, WHICHEVER OCCURS FIRST. [MODIFICATION OF CDP COA 85]

155 PRIOR TO ISSUANCE OF GRADING PERMIT, THE APPLICANT SHALL POST A CASH DEPOSIT WITH THE TOWN OF MORAGA FOR EMERGENCY CLEANUP DURING CONSTRUCTION. THE AMOUNT OF THE DEPOSIT SHALL BE SATISFACTORY TO THE TOWN AS DETERMINED BY THE TOWN ENGINEER.[CDP COA NO. 12]

156 NOTIFICATION. THE PROJECT APPLICANT AND/OR PROJECT CONTRACTOR SHALL NOTIFY NEIGHBORS LOCATED ADJACENT TO THE CONSTRUCTION SITE OF THE CONSTRUCTION SCHEDULE IN WRITING. NOTIFICATION SHALL BE AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF GRADING/CONSTRUCTION.

157 DISTURBANCE COORDINATOR. THE APPLICANT AND/OR PROJECT CONTRACTOR SHALL DESIGNATE A "NOISE DISTURBANCE COORDINATOR" (SUBJECT TO TOWN OF MORAGA APPROVAL) WHO WILL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS ABOUT CONSTRUCTION NOISE. THE DISTURBANCE COORDINATOR WILL DETERMINE THE CAUSE OF THE NOISE COMPLAINT (E.G., STARTING TOO EARLY, BAD MUFFLER, ETC.) AND WILL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED. A TELEPHONE NUMBER FOR THE DISTURBANCE COORDINATOR SHALL BE POSTED IN A CONSPICUOUS LOCATION AT THE CONSTRUCTION SITE AND INCLUDED IN ANY NOTICES SENT TO NEIGHBORS REGARDING THE CONSTRUCTION SCHEDULE.

158 DEBRIS. DURING CONSTRUCTION, DEBRIS, WASTE DIRT, OR RUBBLE SHALL NOT BE DEPOSITED ON ADJACENT HABITATS DESIGNATED AS OPEN SPACE AREAS.

159 STAGING. STAGING AREAS FOR CONSTRUCTION EQUIPMENT, FOR CONSTRUCTION OCCURRING AFTER INSTALLATION OF THE BRIDGE, SHALL BE SCREENED OR LOCATED OUT OF SIGHT OF NEIGHBORS TO THE NORTH TO THE EXTENT FEASIBLE. STORAGE AREAS SHALL BE FENCED WITH SOLID SLAT FENCING TO SCREEN CONSTRUCTION MATERIALS FROM VIEW AND FOR SECURITY PURPOSES. LANDSCAPING MAY ALSO BE REQUIRED FOR THE FENCED AREA. THE STAGING AREA LOCATION AND FENCING SHALL BE APPROVED BY THE PLANNING DIRECTOR. (ALSO SEE CONDITION OF APPROVAL #127 REGARDING STAGING OF CONSTRUCTION EQUIPMENT AND VEHICLES ON PUBLIC STREETS).

160 APPLICANT SHALL LOCATE ANY VEHICULAR CONSTRUCTION ENTRANCE GATES A MINIMUM 40 FEET FROM THE EDGE OF PAVEMENT TO ALLOW VEHICLES TO QUEUE WITHOUT OBSTRUCTING THROUGH TRAFFIC. SUFFICIENT AREA SHALL BE PROVIDED OUTSIDE ANY GATE TO ALLOW A VEHICLE TO TURN AROUND AND RE-ENTER SANDERS DRIVE IN A FORWARD DIRECTION.

161 APPLICANT SHALL ONLY BE PERMITTED ACCESS AT THE LOCATIONS SHOWN ON THE APPROVED SITE/DEVELOPMENT PLAN.

LANDSCAPING

162 LANDSCAPING SHALL BE DESIGNED TO COMPLY WITH THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495).

163 NATIVE AND PROTECTED TREES DESIGNATED FOR REMOVAL SHALL BE REPLACED AT THE RATIO OF 3:1 (I.E., 3 NEW TREES FOR EVERY 1 TREE REMOVED). A FINAL TREE REMOVAL AND REPLANTING PLAN SHALL BE SUBMITTED AND APPROVED BY THE TOWN PRIOR TO ISSUANCE OF A GRADING PERMIT, AND SHALL BE SUBSTANTIALLY IN CONFORMANCE WITH THE LANDSCAPE PLAN THAT IS PART OF THESE APPROVALS. THE PLAN SHALL REFLECT PROTECTIVE MEASURES SUCH AS FENCING TO PROTECT TREES IN THE VICINITY OF CONSTRUCTION ACTIVITY BUT PROPOSED TO BE PRESERVED. THE REMOVAL OF OTHER TREES NOT INCLUDED ON THE APPROVED TREE REMOVAL LIST, PROPOSED FOR FUTURE REMOVAL BY THE HOA, GHAD OR PRIVATE HOMEOWNERS SHALL REQUIRE ISSUANCE OF A TREE REMOVAL PERMIT, IN ACCORDANCE WITH THE MORAGA MUNICIPAL CODE. SUCH TREE REMOVAL SHALL BE MITIGATED AT THE SAME RATIO AS THAT SPECIFIED ABOVE.

164 LANDSCAPE BUFFERING AND SCREENING SHALL BE WITH BROADLEAF DECIDUOUS AND EVERGREEN TREES AND SHRUBS PLANTED SO AS TO REPLICATE THE NATURAL VEGETATION GROUPINGS ON AND ADJACENT TO THE SITE. THE LANDSCAPE FOR THE ACCESS STREET WILL BE COMPRISED OF NATIVE EVERGREEN AND DECIDUOUS TREES AND SHRUBS, INCLUDING OAK TREES, FOR A NATIVE WOODLAND APPEARANCE. THAT LANDSCAPE SHALL BE IN NATURAL VEGETATION GROUPINGS, CAREFULLY DESIGNED TO SCREEN THE HOUSES AND STREETS FROM THE VIEW OF THE SANDERS DRIVE NEIGHBORHOOD. THESE DETAILS IN THE FINAL LANDSCAPE DESIGN SHALL BE PROVIDED WITH THE FINAL SUBDIVISION MAP AND APPROVED BY THE PLANNING COMMISSION.

A LANDSCAPING SHALL SUPPLEMENT EXISTING VEGETATION ALONG LARCH CREEK WITH MEDIUM-SIZED BROADLEAF DECIDUOUS AND NATIVE EVERGREEN TREES, BUT THE TREE SPECIES SHALL NOT GROW SO TALL AS TO BLOCK UPPER HILLSIDE AND SKYLINE VIEWS FROM SANDERS DRIVE.

B THE PROPOSED DEBRIS BENCHES AT THE UPPER REACHES OF NEW LOTS SHALL INCLUDE LOW LYING LANDSCAPE AT THE PERIMETER THAT IS CONSISTENT WITH THE OPEN VIEWS OF THE LANDSCAPE PLAN FOR THE PROJECT BUT THAT DOES NOT PRECLUDE ACCESS FOR MAINTENANCE OF THE DEBRIS BENCHES.

C INVASIVE NON-NATIVE PLANT SPECIES KNOWN TO INVADE WETLANDS AND NATURAL AREAS SHALL NOT BE USED IN EITHER THE SUBDIVISION OR INDIVIDUAL LOT LANDSCAPING. UNDER NO CIRCUMSTANCES SHALL THE REVEGETATION OF GRADED OR FILLED AREAS INCLUDE ANY SPECIES APPEARING ON THE CALIFORNIA INVASIVE PLANT COUNCIL'S INVASIVE PLANT INVENTORY (AVAILABLE AT HTTP://WWW.CAL-IPC.ORG/PEST_PLANT_LIST/). A DEED RESTRICTION TO THIS EFFECT SHALL BE RECORDED ON EACH LOT PRIOR TO THE RECORDATION OF THE FINAL SUBDIVISION MAP AND ITS ENFORCEMENT MONITORED AND CONTROLLED BY THE HOA AND GHAD. [MODIFIED CDP COA NO. 60]

165 MINOR MODIFICATIONS TO THE APPROVED LANDSCAPING PLAN MAY BE APPROVED BY THE ZONING ADMINISTRATOR; SUBSTANTIAL CHANGES MAY BE REFERRED TO THE DESIGN REVIEW BOARD FOR REVIEW AND APPROVAL, AT THE DISCRETION OF THE ZONING ADMINISTRATOR.

166 NEW LANDSCAPING SHALL COMPLY WITH THE MORAGA-ORINDA FIRE DISTRICT'S FIRE SAFE LANDSCAPING GUIDELINES.

167 THE PROPERTY OWNER SHALL COMPLY WITH ANNUAL WEED ABATEMENT REQUIREMENTS FROM THE MORAGA-ORINDA FIRE DISTRICT TO PROVIDE A FIRE BREAK BETWEEN THE OPEN ACREAGE AND ADJACENT SINGLE FAMILY HOMES. IF DISKING OF THE SOIL OR MOWING OF THE GRASS IS NOT POSSIBLE DUE TO STEEP SLOPES, THEN ALTERNATIVES SUCH AS GRAZING SHOULD BE CONSIDERED TO REDUCE THE POTENTIAL FIRE HAZARD.

OTHER CONDITIONS

168 THIS ENTITLEMENT AND EACH CONDITION CONTAINED HEREIN SHALL BE BINDING UPON APPLICANT AND ANY TRANSFEROR, OR SUCCESSOR IN INTEREST. SUBSEQUENT APPROVALS SHALL BE SUBJECT TO ADDITIONAL CONDITIONS OF APPROVAL.

169 APPLICANT SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND (WITH LEGAL COUNSEL CHOSEN BY TOWN ('COUNSEL')) THE TOWN, ITS OFFICIALS, EMPLOYEES AND REPRESENTATIVES (THE "TOWN INDEMNITEES") FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES, LIABILITIES, ACTIONS OR PROCEEDINGS, INCLUDING ANY CEQA CHALLENGE, ARISING OUT OF THE TOWN'S APPROVALS ASSOCIATED WITH THE APPLICATION FOR THE HETFIELD ESTATES SUBDIVISION AND ENVIRONMENTAL IMPACT REPORT (THE "PROJECT APPROVALS"). APPLICANT SHALL ALSO PAY ALL FILING COURT COSTS AND SIMILAR OUT-OF-POCKET EXPENSES REQUIRED FOR TOWN AND APPLICANT TO DEFEND LITIGATION. [CDP COA NO. 90]

170 HAZARDOUS MATERIALS. THE PROJECT APPLICANT SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING USE OF HAZARDOUS MATERIALS AT CONSTRUCTION SITES.[MODIFIED CDP COA NO. 68]

171 SCHOOL FEES. THE APPLICANT/OWNER AGREES TO PAY TO THE SCHOOL DISTRICT THE MAXIMUM FEE AUTHORIZED BY LAW FOR THE CONSTRUCTION AND/OR RECONSTRUCTION OF SCHOOL FACILITIES. THE APPLICABLE FEE SHALL BE THE FEE ESTABLISHED BY THE SCHOOL DISTRICT THAT IS IN EFFECT AT THE TIME OF THE ISSUANCE OF A BUILDING PERMIT. SPECIFICALLY, THE APPLICANT/OWNER AGREES TO PAY ANY AND ALL FEES AND CHARGES AND COMPLY WITH ANY AND ALL DEDICATIONS OR OTHER REQUIREMENTS AUTHORIZED UNDER SECTION 17620 OF THE EDUCATION CODE; CHAPTER 4.7 (COMMENCING WITH SECTION 65970) OF THE GOVERNMENT CODE; AND SECTIONS 65995, 65995.5 AND 65995.7 OF THE GOVERNMENT CODE. [CDP COA NO. 82]

172 DISCLOSURE TO HOMEBUYERS. THE APPLICANT/OWNER SHALL DISCLOSE TO THE HOMEBUYER IN THE CONDITIONS, COVENANTS, AND RESTRICTIONS AND IN THE DEPARTMENT OF REAL ESTATE PUBLIC REPORT THAT PEDESTRIAN TRAILS AND STAGING AREAS ARE PLANNED IN AND AROUND THE PROJECT AREA, AND THAT THE PUBLIC USE ASSOCIATED WITH SUCH TRAILS AND RECREATIONAL FACILITIES (AND THE PRIVATE ROADS AND EVA) WILL BE PRESENT DURING VARIOUS TIMES, INCLUDING BUT NOT LIMITED TO EVENING AND NIGHTTIME HOURS. DISCLOSURE OF GEOLOGIC HAZARDS INCLUDING REMEDIATED, NON-REMEDIATED AND HIGH HAZARD AREAS SHALL ALSO BE PROVIDED. [CDP COA NO. 84]

173 TIME LIMIT ON GDP AND VTM APPROVAL. THE PROJECT APPROVAL SHALL REMAIN IN EFFECT FOR TWO YEARS FROM THE DATE OF APPROVAL OF THE GENERAL DEVELOPMENT PLAN BY THE PLANNING COMMISSION AND CONDITIONS SHALL APPLY TO THE VESTING TENTATIVE MAP (VTM) AND TIME LIMITS IN ACCORDANCE WITH THE VTM AS ALLOWED BY STATE LAW. IF A PRECISE DEVELOPMENT PLAN APPLICATION IS NOT SUBMITTED TO THE TOWN FOR PROCESSING PRIOR TO THE EXPIRATION DATE AND THE APPLICANT HAS NOT DEMONSTRATED SUBSTANTIAL PROGRESS TOWARDS DEVELOPMENT OF THE PROJECT, THE APPROVAL SHALL BE CONSIDERED NULL AND VOID. THE APPLICANT/OWNER MAY FILE AN APPLICATION FOR EXTENSION WITH THE PLANNING DEPARTMENT FOR AN EXTENSION NOT LESS THAN 30 DAYS PRIOR TO THE EXPIRATION DATE OF THE GENERAL DEVELOPMENT PLAN, ALONG WITH APPROPRIATE FEES AND NECESSARY SUBMITTAL REQUIREMENTS. THE CONDITIONAL USE PERMIT SHALL HAVE THE SAME EXPIRATION DATE AS THE GENERAL DEVELOPMENT PLAN AND VESTING TENTATIVE MAP.[MODIFICATION OF CDP COA NO. 88]

174 CONSULTANT COSTS. IF THE TOWN UTILIZES THE SERVICES OF CONSULTANTS TO PREPARE SPECIAL STUDIES OR PROVIDE SPECIALIZED DESIGN REVIEW OR INSPECTION SERVICES FOR THE PROJECT, THE APPLICANT SHALL REIMBURSE THE TOWN FOR ACTUAL COSTS IT INCURS IN UTILIZING THESE SERVICES, INCLUDING ADMINISTRATIVE COSTS FOR TOWN PERSONNEL. A DEPOSIT FOR THESE SERVICES SHALL BE PROVIDED PRIOR TO INITIATING REVIEW OF THE GENERAL DEVELOPMENT PLAN, OR ANY OTHER SUBSEQUENT PLANS AND MAPS FOR THE PROJECT SUBMITTED TO THE TOWN BY THE APPLICANT AND REQUIRING TOWN REVIEW. [CDP COA NO. 91]

175 TOWN INSPECTION. NO FINAL INSPECTION SHALL BE PERFORMED BY THE TOWN FOR ANY RESIDENCE UNTIL THE LANDSCAPING IS INSTALLED OR A BOND IS ISSUED TO THE TOWN FOR THE VALUE OF THE LANDSCAPE IMPROVEMENTS, IN AN AMOUNT AS DETERMINED BY THE TOWN.[CDP COA NO. 92]

176 ENCROACHMENT PERMIT. THE APPLICANT SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE TOWN PRIOR TO PERFORMING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

177 PUBLIC TRANSIT. PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL PROVIDE BROCHURE INFORMATION TO ALL NEW HOME BUYERS THAT PROMOTES THE USE OF PUBLIC TRANSIT. [CDP COA NO. 98

178 FAILURE OF THE APPLICANT OR ANY SUCCESSOR TO COMPLY WITH ANY OF THE CONDITIONS OF THIS RESOLUTION OR APPLICABLE PROVISIONS OF THE TOWN OF MORAGA MUNICIPAL CODE OR THE LAWS, RULES AND REGULATIONS OF ANY OTHER GOVERNMENTAL ENTITY HAVING JURISDICTION OVER ANY OF THE ACTIVITIES CONDUCTED ON THE SITE MAY BE CAUSE FOR THE COMMENCEMENT OF PROCEEDINGS TO REVOKE THIS USE PERMIT. THE FAILURE BY THE TOWN TO PROCEED AGAINST THE APPLICANT OR ANY SUCCESSOR FOR ANY VIOLATION SHALL NOT CONSTITUTE OR BE DEEMED A WAIVER OF THE TOWN'S RIGHT TO PROCEED AGAINST THE APPLICANT FOR ANY SUBSEQUENT VIOLATION. NOTHING IN THIS USE PERMIT SHALL LIMIT IN ANY MANNER THE AUTHORITY TO THE TOWN OF MORAGA TO APPLY AND/OR ENFORCE ANY PROVISIONS OF THE MUNICIPAL CODE TO THIS USE PERMIT.[MODIFICATION OF CDP COA NO. 102 AND ALL OF CDP COA NO. 103]

179 THIS ENTITLEMENT AND EACH CONDITION CONTAINED HEREIN SHALL BE BINDING UPON APPLICANT AND ANY TRANSFEROR, OR SUCCESSOR IN INTEREST. SUBSEQUENT APPROVALS SHALL BE SUBJECT TO ADDITIONAL CONDITIONS OF APPROVAL.[CDP COA NO. 104]

180 CONDITIONS OF APPROVAL SHALL BE PRINTED ON THE INITIAL SHEET(S) OF EACH PLAN SET SUBMITTED FOR A BUILDING PERMIT OR GRADING PERMIT PURSUANT TO THIS PERMIT. SUCH CONDITIONS SHALL INCLUDE ALL RELEVANT CONDITIONS OF SUBSEQUENT APPROVALS INCLUDING THE PRECISE DEVELOPMENT PLAN, FINAL MAP AND DESIGN REVIEW. THE SHEET(S) CONTAINING THE CONDITIONS SHALL BE OF THE SAME SIZE AS THOSE SHEETS CONTAINING THE CONSTRUCTION DRAWINGS; 8-1/2" BY 11" SHEETS ARE NOT ACCEPTABLE"

REGISTERED PROFESSIONAL ENGINEER
JAMES TORR
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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PRECISE DEVELOPMENT PLAN
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY

APN: 258-600-006-5

CONDITIONS OF APPROVAL

1	TOWN COMMENTS 3-26-18	MH
2	EASEMENT UPDATE 10-31-18	MH
3	TOWN COMMENTS 5-8-19	MH
4	TOWN COMMENTS 1-28-21	MH
5	SITE UPDATE 7-6-21	MH
6	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	MH
SHEET NO:	

COA-4

10 OF 10 SHEETS

ATTACHMENT K

Grading Plans

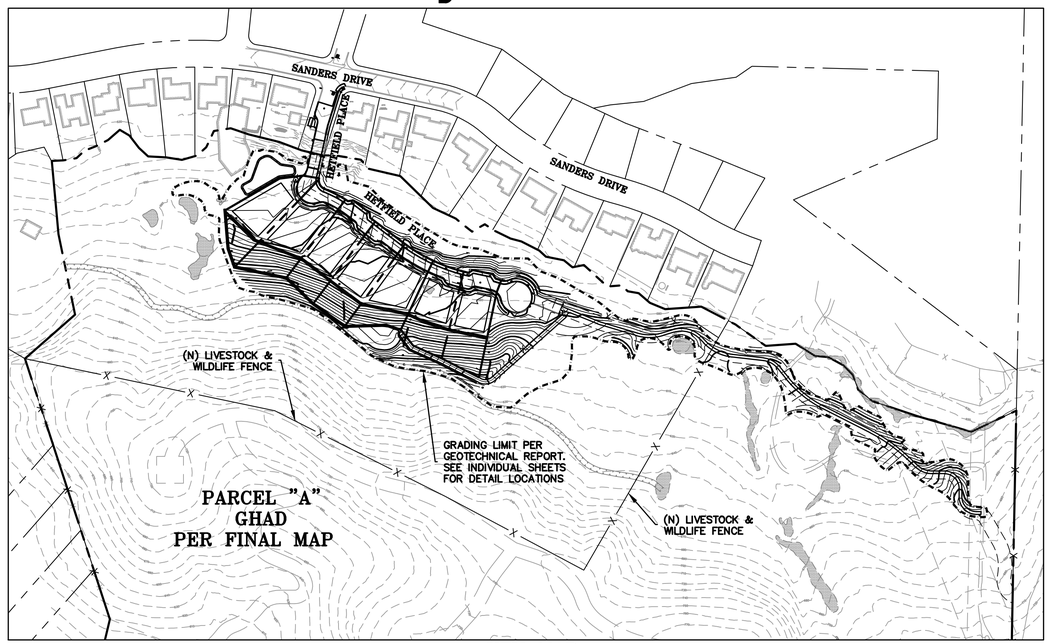
GRADING PLANS
HETFIELD ESTATES
SUBDIVISION 9051
MORAGA, CALIFORNIA

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BOUNDARY
		RETAINING WALL
		LANDSCAPE RETAINING WALL
TL	TL	RAINWATER TIGHTLINE
SUB	SUB	SUBDRAIN LINE
SD	SD	STORM DRAIN LINE
		SET BACK LINE
		CONCRETE VALLEY GUTTER
		EARTHEN SWALE
CB	CB	CATCH BASIN
AD	AD	AREA DRAIN
		CURB INLET
		CURB & GUTTER
		VERTICAL CURB
SDMH	SDMH	STORM DRAIN MANHOLE
		FIRE HYDRANT
SSMH	SSMH	SANITARY SEWER MANHOLE
		STREET SIGN
222.57 INV	222.57 INV	SPOT ELEVATION
		FLOW DIRECTION
		BENCHMARK
200	200	CONTOURS
XX" TREE		TREE TO BE REMOVED

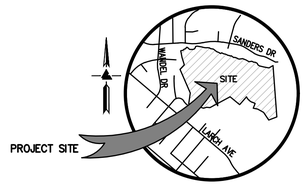
ABBREVIATIONS

AB	AGGREGATE BASE	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MH	MANHOLE
ACC	ACCESSIBLE	MIN	MINIMUM
AD	AREA DRAIN	MON.	MONUMENT
ANG	ANGLE	(N)	NEW
BC	BEGINNING OF CURVE	NO.	NUMBER
B & D	BEARING & DISTANCE	NTS	NOT TO SCALE
BM	BENCHMARK	O.C.	ON CENTER
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION	O/	OVER
BVCS	BEGINNING OF VERTICAL CURVE STATION	(PA)	PLANTING AREA
BW/FG	BOTTOM OF WALL/FINISH GRADE	PAE	PUBLIC ACCESS EASEMENT
CB	CATCH BASIN	PCC	PORTLAND CEMENT CONCRETE
C & G	CURB AND GUTTER	PED	PEDESTRIAN
CCCSD	CENTRAL CONTRA COSTA SANITARY DISTRICT	PIV	POST INDICATOR VALVE
		PSS	PUBLIC SERVICES EASEMENT
℄	CENTER LINE	℄	PROPERTY LINE
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PP	POWER POLE
		PRC	POINT OF REVERSE CURVE
CO	CLEANOUT	PSDE	PRIVATE STORMDRAIN EASEMENT
COA	CONDITIONS OF APPROVAL	PT	POINT
COTG	CLEANOUT TO GRADE	PUE	PUBLIC UTILITY EASEMENT
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
CONST	CONSTRUCT or –TION	PVI	POINT OF VERTICAL INTERSECTION
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DG	DECOMPOSED GRANITE	RW	RAINWATER
DI	DROP INLET	R/W	RIGHT OF WAY
DIP	DUCTILE IRON PIPE	S	SLOPE
EA	EACH	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EBMUD	EAST BAY MUNICIPAL UTILITY DISTRICT	SAN	SANITARY
EC	END OF CURVE	SD	STORM DRAIN
EG	EXISTING GRADE	SDMH	STORM DRAIN MANHOLE
EL	ELEVATIONS	SHT	SHEET
EP	EDGE OF PAVEMENT	S.L.D.	SEE LANDSCAPE DRAWINGS
EQ	EQUIPMENT	SPEC	SPECIFICATION
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT	SS	SANITARY SEWER
EW	EACH WAY	SSCO	SANITARY SEWER CLEANOUT
(E)	EXISTING	SSE	SANITARY SEWER EASEMENT
FC	FACE OF CURB	SSMH	SANITARY SEWER MANHOLE
FF	FINISHED FLOOR	ST.	STREET
FG	FINISHED GRADE	STA	STATION
FH	FIRE HYDRANT	STD	STANDARD
FL	FLOW LINE	STRUCT	STRUCTURAL
FS	FINISHED SURFACE	T	TELEPHONE
G	GAS	TC	TOP OF CURB
GA	GAGE OR GAUGE	TEMP	TEMPORARY
GB	GRADE BREAK	TP	TOP OF PAVEMENT
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TL	TIGHTLINE
		TE	TRAIL EASEMENT
HORIZ	HORIZONTAL	TW/FG	TOP OF WALL/FINISH GRADE
HI PT	HIGH POINT	TYP	TYPICAL
H&T	HUB & TACK	VC	VERTICAL CURVE
ID	INSIDE DIAMETER	VCP	VITRIFIED CLAY PIPE
INV	INVERT ELEVATION	VERT	VERTICAL
JB	JUNCTION BOX	W/	WITH
JT	JOINT TRENCH	W, WL	WATER LINE
JP	JOINT UTILITY POLE	WM	WATER METER
L	LENGTH	WWF	WELDED WIRE FABRIC
LNDG	LANDING		
LF	LINEAR FEET		



KEY MAP
1" = 160'

0 80 160 320
SCALE: 1" = 160'



VICINITY MAP
NO SCALE

PROJECT INFORMATION

8

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APN: 258-600-006-5

REFERENCES

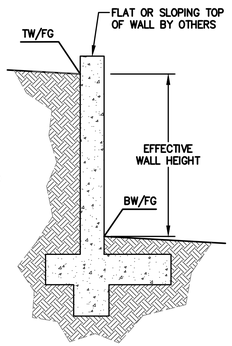
THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO:
1. TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING, ENTITLED:
"TOPOGRAPHIC SURVEY"
HETFIELD PLACE
MORAGA, CALIFORNIA
DATED: 12-8-15
JOB#2150581

2. SOIL REPORT BY ENGEO INCORPORATED, ENTITLED:
"GEOTECHNICAL EXPLORATIONS"
HETFIELD ESTATES
MORAGA, CALIFORNIA
JOB# 5047.000.000
DATE: JANUARY 12, 2015
REVISED: MAY 30, 2019

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

RETAINING WALL NOTES

1. TW/FG REPRESENTS FINISHED EARTHEN GRADE OR PAVEMENT ELEVATION AT TOP OF WALL, NOT ACTUAL TOP OF WALL MATERIAL. BW/FG REPRESENTS FINISH EARTHEN GRADE OR PAVEMENT ELEVATION AT BOTTOM OF WALL NOT INCLUDING FILL FOUNDATION. GRADES INDICATED ON THESE PLANS REFER TO THE FINISHED GRADES ADJACENT TO THE RETAINING WALL, NOT INCLUDING FOOTING, FREEBOARD, ETC.
2. DIMENSIONS SHOWN IN BRACKETS SHOWN AS [X.X'] DENOTE THE EFFECTIVE WALL HEIGHT ONLY. THE ACTUAL WALL HEIGHT AND DEPTH MAY DIFFER DUE TO CONSTRUCTION REQUIREMENTS.
3. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR STRUCTURAL ELEMENTS, FREEBOARD, AND EMBEDMENT.
4. REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURE, AND/OR STRUCTURAL PLANS FOR DETAILS, WALL ELEVATIONS, SUBDRAINAGE, WATERPROOFING, FINISHES, COLORS, STEEL REINFORCING, MATERIALS, ETC. PROVIDE CLIPS OR OTHER MEANS OF SECURING FINISH MATERIALS AS NECESSARY (WET SET INTO THE WALL).
5. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT BUILD-UP OF HYDROSTATIC PRESSURE.
6. SEE DETAIL SHEET FOR SPECIFIC INFORMATION.
7. PROVIDE GUARDRAIL (WHERE APPLICABLE AND DESIGNED BY OTHERS) AS REQUIRED FOR GRADE SEPARATION OF 30 INCHES OR MORE MEASURED 5' HORIZONTALLY FROM FACE OF WALL, PER CBC.



ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	TOTAL CUBIC YARDS
CUT	0	16,870	16,870
FILL	0	14,950	14,950
EXPORT			1,920

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REMEDIAL GRADING QUANTITY ESTIMATE (PER GEOTECH)	
CORRECTIVE MEASURES	TOTAL CUBIC YARDS
KEYWAY	31,556
LANDSLIDE REMOVALS	27,185

NOTE:
GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.

UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.

BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR)

EASEMENT NOTE

8

EASEMENTS ARE SHOWN PER PRELIMINARY TITLE REPORT ISSUED BY CHICAGO TITLE COMPANY, ORDER NO. 98203866-982-CF-KC, DATED AS OF MARCH 31, 2021

BENCHMARK

CONTRA COSTA COUNTY BENCH MARK #1478.
STANDARD DISK SET IN EAST END OF HEADWALL OF CONCRETE BOX ON NORTH SIDE OF LARCH AVENUE, 150± FEET EAST OF ROBERTS COURT.
ELEVATION = 483.693' (NGVD 1929 DATUM)

SITE BENCHMARK

STANDARD STREET MONUMENT AT CENTERLINE INTERSECTION OF SANDERS DRIVE AND HETFIELD PLACE
ELEVATION = 551.03'

BASIS OF BEARINGS

THE BEARING N 17°18'34" E OF THE MONUMENTED OFFSET LINE OF HETFIELD PLACE AS SHOWN ON THE TRACT MAP NO. 2592, 72 MAPS 33, WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

TREE PROTECTION NOTES

1. INDIVIDUAL TREES TO BE PRESERVED NEAR THE LIMITS OF GRADING AND CONSTRUCTION SHALL BE PROTECTED BY TEMPORARY FENCING AROUND THE DRIP LINE AND ROOT ZONE OF EACH TREE, AS DETERMINED BY A CERTIFIED ARBORIST, TO PREVENT SOIL COMPACTION, TREE DAMAGE, OR INADVERTENT REMOVAL. SUCH MEASURES SHALL REFLECT THOSE RECOMMENDED IN THE APPLICANT'S SEPTEMBER 2013 ARBORIST REPORT.
2. NO GRADING, TRENCHING, STORAGE OR STOCKPILING OF EARTH, COMPACTION OF SOIL, CHANGE IN GROUND ELEVATION OR PAVING SHALL BE DONE WITHIN THE DRIP LINE OF TREES THAT ARE TO BE SAVED. THESE LIMITATIONS MAY BE MODIFIED AT THE RECOMMENDATION OF A CERTIFIED ARBORIST IF IT CAN BE DETERMINED THAT ALLOWING CERTAIN CONSTRUCTION ACTIVITIES IN PROXIMITY TO A TREE TO BE RETAINED WOULD STILL ALLOW FOR IT TO BE MAINTAINED IN HEALTHY CONDITION.

1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

SHEET INDEX

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C-2.0	STANDARD NOTES & SPECIFICATIONS
C-2.1	STANDARD NOTES & SPECIFICATIONS
C-3.0	OVERALL SITE PLAN
C-3.1	GRADING PLAN
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C-3.3	GRADING PLAN
C-3.4	GRADING PLAN
C-3.5	GRADING PLAN
C-4.0	SECTIONS
C-4.1	SECTION & DETAILS
C-4.2	STORM DRAIN PROFILE
C-4.3	WALL DETAILS
C-4.4	WALL DETAILS
ER-1	EROSION CONTROL PLAN
ER-2	EROSION CONTROL PLAN
ER-3	EROSION CONTROL DETAILS
ER-4	EROSION CONTROL NOTES
COA-1	CONDITIONS OF APPROVAL
COA-2	CONDITIONS OF APPROVAL
COA-3	CONDITIONS OF APPROVAL
COA-4	CONDITIONS OF APPROVAL
SU-1 TO SU-10	TOPOGRAPHIC SURVEY

REGISTERED PROFESSIONAL ENGINEER JAMES TORA No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
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2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
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WWW.LEABRAZE.COM

GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA
APN: 258-600-006-5
CONTRA COSTA COUNTY

TITLE SHEET

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
3 GEOTECH COMMENTS 8-8-18	MH
4 TOWN COMMENTS 5-8-19	MH
5 GEOTECH COMMENTS 6-25-19	MH
6 TOWN SUBMITTAL 4-30-21	MH
7 SITE UPDATE 7-6-21	MH
8 TOWN COMMENTS 12-3-21	MH

JOB NO:	2150582
DATE:	11-17-17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-1.0

1 OF 22 SHEETS

CAUTION:

1. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION– PHONE (800) 227–2600. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

2. THE LOCATION, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO ANY EXCAVATION OR IMPROVEMENT.

3. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS, METHODS OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED. CONTRACTOR MUST NOTIFY THE OWNER'S PROJECT MANAGER IMMEDIATELY IF ANY SOILS ARE EVEN SUSPECTED OF BEING CONTAINED.

GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.

2. ALL WORK SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.

3. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO OWNER'S PROJECT MANAGER AND CIVIL ENGINEER.

4. ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT. IF INCONSISTENCIES ARE FOUND IN THE VARIOUS NOTATIONS, NOTIFY THE ENGINEER IMMEDIATELY IN WRITING REQUESTING CLARIFICATION.

5. ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, CALTRANS STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES AND/OR LEGISLATION.

6. COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

7. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBLE OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.

8. CONTRACTOR SHALL REPLACE ALL STRUCTURES AND GRATE LIDS FOR VAULTS, CATCH BASINS, ETC.., WITH VEHICULAR–RATED STRUCTURES IN ALL TRAFFIC ACCESSIBLE AREAS.

9. THE CONTRACTOR SHALL ADJUST TO FINAL GRADE ALL EXISTING AND/OR NEW MANHOLES, CURB INLETS, CATCH BASIN, VALVES, MONUMENT COVERS, AND OTHER CASTINGS WITHIN THE WORK AREA TO FINAL GRADE IN PAVEMENT AND LANDSCAPE AREAS UNLESS NOTED OTHERWISE.

10. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE OWNER, THE CONSULTING ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CONSULTING ENGINEER.

11. EXISTING PEDESTRIAN WALKWAYS. BIKE PATHS AND ACCESSIBLE ACCESS PATHWAYS SHALL BE MAINTAINED, WHERE FEASIBLE, DURING CONSTRUCTION.

12. IF A CONFLICT ARISES BETWEEN THE SPECIFICATIONS AND THE PLANS NOTES, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

13. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

14. THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

15. NEITHER THE FINAL PAYMENT, NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

16. THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THERE FROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

17. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORTS BY ENGEO, INCORPORATED, "GEOTECHNICAL EXPLORATION HETFIELD ESTATES", PROJECT NUMBER 5047.000.000. DATED JANUARY 12, 2015 & REVISED MAY 30, 2019.

18. NOTIFY CONTRA COSTA COUNTY FLOOD CONTROL DISTRICT (DISTRICT) INSPECTOR AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING ANY WORK WITHIN THE DISTRICT'S PROPERTY.

19. ANY DAMAGE TO THE DISTRICT'S STRUCTURES, EQUIPMENT, MATERIALS, VEGETATION AND/OR PROPERTY SHALL BE REPLACED AND/OR REPAIRED IN KIND AT THE CONTRACTOR'S EXPENSE, AS DIRECTED AND TO THE SATISFACTION OF THE DISTRICT.

EXISTING CONDITIONS:

1. EXISTING TOPOGRAPHIC SURVEY PERFORMED BY LEA AND BRAZE ENGINEERING SURVEYING ON 12–8–15 (JOB #2150581). GRADES ENCOUNTERED ON–SITE MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL REVIEW THE PLANS AND CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE PROJECT SITE.

SURVEYOR'S NOTES:

THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF IT'S DELINEATE OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED. BUT WHICH ARE NOT SHOWN ON THIS SURVEY.

CONTRACTOR SHALL VERIFY ALL UTILITIES IN DEPTH AND LOCATION PRIOR TO CONSTRUCTION.

TREE/PLANT PROTECTION NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL IDENTIFY, CONFIRM WITH OWNER AND PROTECT EXISTING TREES AND PLANTS DESIGNED AS TO REMAIN.

2. PROVIDE 6 FOOT TALL TREE PROTECTION FENCE WITH DISTINCTIVE MARKING VISIBLE TO CONSTRUCTION EQUIPMENT, ENCLOSING DRIP LINES OF TREES DESIGNED TO REMAIN.

3. WORK REQUIRED WITHIN FENCE LINE SHALL BE HELD TO A MINIMUM, AVOID USE OF HEAVY EQUIPMENT WITHIN FENCED AREA AND DO NOT PARK ANY VEHICLES UNDER DRIP LINE OF TREES. DO NOT STORE EQUIPMENT OR MATERIALS WITHIN FENCE LINE.

4. PRIOR TO REMOVING ROOTS AND BRANCHES LARGER THAN 2" IN DIAMETER OF TREES OR PLANTS THAT IS TO REMAIN, CONSULT WITH THE OWNER'S PROJECT MANAGER.

5. ANY GRADE CHANGES GREATER THAN 6" WITHIN THE DRIPLINE OF EXISTING TREES SHALL NOT BE MADE WITHOUT FIRST CONSULTING THE LANDSCAPE ARCHITECT / CIVIL ENGINEER.

6. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIALS; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE CITY'S ENGINEER / INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.

7. PROVIDE TEMPORARY IRRIGATION TO ALL TREES AND PLANTS THAT ARE IN OR ADJACENT TO CONSTRUCTION AREAS WHERE EXISTING IRRIGATION SYSTEMS MAY BE AFFECTED BY THE CONSTRUCTION. ALSO PROVIDE TEMPORARY IRRIGATION TO RELOCATE TREES.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES AND PLANTS DESIGNED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES OR PLANTS THAT DIE DUE TO LACK OF MAINTENANCE.

9. INDIVIDUAL TREES TO BE PRESERVED NEAR THE LIMITS OF GRADING AND CONSTRUCTION SHALL BE PROTECTED BY TEMPORARY FENCING AROUND THE DRIP LINE AND ROOT ZONE OF EACH TREE, AS DETERMINED BY A CERTIFIED ARBORIST, TO PREVENT SOIL COMPACTION, TREE DAMAGE, OR INADVERTENT REMOVAL. SUCH MEASURES SHALL REFLECT THOSE RECOMMENDED IN THE APPLICANT'S SEPTEMBER 2013 ARBORIST REPORT.

10. NO GRADING, TRENCHING, STORAGE OR STOCKPILING OF EARTH, COMPACTION OF SOIL, CHANGE IN GROUND ELEVATION OR PAVING SHALL BE DONE WITHIN THE DRIP LINE OF TREES THAT ARE TO BE SAVED. THESE LIMITATIONS MAY BE MODIFIED AT THE RECOMMENDATION OF A CERTIFIED ARBORIST IF IT CAN BE DETERMINED THAT ALLOWING CERTAIN CONSTRUCTION ACTIVITIES IN PROXIMITY TO A TREE TO BE RETAINED WOULD STILL ALLOW FOR IT TO BE MAINTAINED IN HEALTHY CONDITION.

DEMOLITION NOTES:

1. CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).

2. THE CONTRACTOR SHALL LOCATE AND CLEARLY MARK (AND THEN PRESERVE THESE MARKERS) FOR THE DURATION OF CONSTRUCTION OF ALL TELEPHONE, DATA, STREET LIGHT, SIGNAL LIGHT AND POWER FACILITIES THAT ARE IN OR NEAR THE AREA OF CONSTRUCTION.

3. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND STATE JURISDICTIONS.

6. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH DISPOSAL OF MATERIALS.

7. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION OF FOUNDATIONS & UTILITIES TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

8. WITHIN LIMITS OF WORK, REMOVE CURBS, GUTTERS, LANDSCAPING, SIGNAGE, TREES, SCRUBS, ASPHALT, UNDERGROUND PIPES, ETC. AS INDICATED ON THE PLANS AND SPECIFICATIONS.

9. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

10. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION PLAN & DETAILS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING ALL DEMOLITION MATERIALS, OR STORING SELECTED ITEMS BY OWNER'S REPRESENTATIVE AT DESIGNATED LOCATIONS.

12. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.

13. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OF ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.

14. COORDINATE WITH ELECTRICAL, MECHANICAL, LANDSCAPING AND ARCHITECTURAL DRAWINGS FOR UTILITY SHUT–DOWN / DISCONNECT LOCATIONS. CONTRACTOR IS TO SHUT OFF ALL UTILITIES AS NECESSARY PRIOR TO DEMOLITION. CONTRACTOR IS TO COORDINATE SERVICE INTERRUPTIONS WITH THE DEVELOPER / OWNER. DO NOT INTERRUPT SERVICES ADJACENT OFF–SITE OWNERS. ALSO SEE ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.

15. DEMOLITION INCLUDES REMOVAL OF ALL ITEMS ASSOCIATED WITH THE UTILITY, RETAINING WALL, FENCE, TREE OR BUILDING, INCLUDING BUT NOT LIMITED TO FOOTINGS, VALVES, ROOTS, BACKFILL, ETC. AND SHALL INCLUDE PREPARING THE SITE FOR NEW UTILITIES, BUILDINGS, RETAINING WALLS, ETC.

16. ALL MATERIALS TO BE DEMOLISHED AND REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF–SITE.

17. THE PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE ITEMS TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT SHOWN, IT IS IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR REMOVED. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OR WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.

18. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

19. ALL ABANDONED UNDERGROUND TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPURTENANT DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.

20. ALL UNDERGROUND IRRIGATION OR UTILITY LINES SHALL BE REMOVED 5' BEYOND PROPOSED BUILDING FOUNDATION. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:

    A. EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.

    B. EXCAVATE AND CRUSH THE UTILITY LINE IN THE TRENCH.

    C. CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE CITY ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETED MIX EMPLOYED SHALL HAVE MINIMUM SHRINKAGE.

HORIZONTAL CONTROL NOTES:

1. ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THERE OF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.

2. ALL RETURN RADII AND CURB DATA ARE TO FACE OF CURB, UNLESS OTHERWISE SHOWN OR INDICATED.

GRADING AND EARTHWORK NOTES:

1. ALL PAVED AREAS ARE TO SLOPE AT A MINIMUM OF 1 %. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ANY DIRECTION AND ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 8.33% WITH A MAXIMUM CROSS SLOPE OF 2 %. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH FORMWORK FOR CURBS AND/OR FLATWORK.

2. CONTRACTOR SHALL DETERMINE EARTHWORK QUANTITIES BASED ON THE TOPOGRAPHIC SURVEY, THE SOILS INVESTIGATION AND THE PROPOSED SURFACE GRADES AND BASE THE BID ACCORDINGLY. ANY DIFFERENCES BETWEEN THE STATE IN WHICH THE PROJECT SITE IS DELIVERED TO THE CONTRACTOR AND THESE DOCUMENTS SHOULD BE NOTED TO THE CIVIL ENGINEER.

3. ALL FILL SHALL BE COMPACTED PER THE CONSTRUCTION SPECIFICATIONS AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE OWNERS TESTING AGENCY TO TAKE THE APPROPRIATE TEST TO VERIFY COMPACTION VALUES.

4. IMPORT SOILS MUST MEET THE REQUIREMENTS OF THE SOILS REPORT AND SPECIFICATIONS.

5. COORDINATE THE PLACEMENT OF ALL SLEEVES FOR LANDSCAPE IRRIGATION (WATER AND CONTROL WIRING) AND STREET LIGHTING PRIOR TO THE PLACEMENT OF ANY ASPHALT, BASEROCK, OR CONCRETE SURFACING. SEE LANDSCAPE AND SITE ELECTRICAL DRAWINGS.

6. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER

7. SPOT ELEVATIONS ARE TO FINISHED SURFACE.

8. TOP OF CONCRETE CURBS ARE 0.5' ABOVE TOP OF PAVING ELEVATIONS, U.N.O.

9. ROUGH GRADING TO BE WITHIN 0.1' AND FINISH GRADES ARE TO BE WITH IN 0.05'.

10. AFTER STAKING FOR HORIZONTAL CONTROL CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THEN 0.05' TO ARCH/ENGR.

11. ALL EXISTING UTILITY STRUCTURES WITHIN THE AREA OF WORK SHALL HAVE THE LIDS, GRATES, COVERS, ETC. ADJUSTED TO BE FLUSH WITH FINISHED GRADES, CONTRACTOR SHALL IDENTIFY ALL SUCH ITEMS BY USE OF THESE PLANS AND THOROUGH FIELD INVESTIGATION.

12. GEOTECHNICAL CONSULTANT TO BE NOTIFIED OF DELIVERY OF ALL IMPORTED SOILS TO SITE FOR HIS/HER INSPECTION AND APPROVAL PRIOR TO PLACING BY CONTRACTOR.

13. THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES,

14. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY OF 87% TO 92% RELATIVE COMPACTION PER GEOTECHNICAL RECOMMMENDATION AND BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOIL ENGINEER. THE RESULTS OF THESE TEST AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOIL ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

EARTHWORK QUANTITY NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITIES OF ALL FORMS OF EARTHWORK ON THIS PROJECT AND BASING THE BID ON THOSE QUANTITIES WITH FULL KNOWLEDGE THAT ADDITIONAL PROCESSES – INCLUDING ENGINEERING – AND QUANTITIES ARE ALSO TO BE INCLUDED IN THE BID PER THE FOLLOWING NOTES.

2. THE CONTRACTOR SHALL MAKE AN INITIAL DETERMINATION OF THE QUANTITIES, BASED ON A DETAILED SITE VISIT. THE TOPOGRAPHIC SURVEY, THE GEOTECHNICAL REPORT, THE FINISH GRADES SHOWN ON THESE DRAWINGS, THE SIZE AND EXTENT OF FOOTINGS, THE PREPARATION AND MATERIALS USED FOR BUILDING SLABS, PAVEMENT SECTIONS, AND THE SIZE AND DEPTH OF UTILITY TRENCHES, INCLUDING THE UTILITY CONTRACTORS ANTICIPATED RE–USE OF EXISTING MATERIAL FOR BACKFILL IF ANY.

3. THE CONTRACTOR SHALL MEET THE GRADES SHOWN ON THE DRAWINGS, ADJUSTING THE AMOUNT OF IMPORT OR EXPORT AS REQUIRED TO DO SO. NO ASSUMPTIONS SHOULD BE MADE ABOUT THE SITE BALANCING. NO ADJUSTMENTS TO THE GRADE SHALL BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ARCH/ENGR IN WRITING AFTER THE IMPACT OF ANY GRADE CHANGES (IMPACT TO RAMPS, STAIRS, WORK BY OTHERS, ETC.) HAS BEEN THOROUGHLY REVIEWED BY THE ARCH/ENGR. WHEN PREPARING THE EARTHWORK BIDS, DO NOT ASSUME ANY CHANGES TO THE FINISHED GRADES SHOWN ON THESE DRAWINGS WILL BE PERMITTED.

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GRADING PLANS
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CONTRA COSTA COUNTY APN: 258–600–006–5

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2 TOWN COMMENTS 6–15–18	MH
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7 SITE UPDATE 7–6–21	MH
8 TOWN COMMENTS 12–3–21	MH

JOB NO: 2150582
DATE: 11–17–17
SCALE: AS NOTED
DESIGN BY: JC
DRAWN BY: WM
SHEET NO:

C-2.0

GENERAL UTILITY SYSTEM NOTES:

1. ALL TRENCHES SHALL BE BACKFILLED PER THE GEOTECHNICAL ENGINEER RECCOMMENDATIONS.

2. CLEAN OUTS, CATCH BASINS AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, ROOF DRAINS, AND/OR CURB LAYOUT, NOT BY THE LENGTH OF PIPE SPECIFIED IN THE DRAWINGS (WHICH IS APPROXIMATE).

3. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (BACKFLOW PREVENTOR, SATELLITE DISH, TRANSFORMER, GAS METER, ETC.) AND MEET WITH OWNER TO REVIEW LOCATION PRIOR TO INSTALLATION. PLANNING DEPARTMENT MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.

4. CONTRACTOR SHALL PREPARE AN ACCURATE COMPOSITE UTILITY PLAN THAT TAKES INTO ACCOUNT THE ACTUAL LOCATION OF EXISTING UTILITIES AS DETERMINED DURING THE DEMOLITION WORK. THE UTILITIES SHOWN ON THE CIVIL DRAWINGS, AND THE SITE POWER, CONDUITS AND LIGHTING SHOWN ON THE ELECTRICAL PLANS. THE FIRE SPRINKLER SYSTEM SHALL BE INCLUDED AS DESIGNED BY THE DESIGN/BUILD UNDERGROUND FIRE SPRINKLER CONTRACTOR.

5. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES, AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.

6. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS FOR THE INFORMATION SHOWN. THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD THE UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING COMPACTION OF ROADWAY SUBGRADE AND PRIOR TO PLACEMENT OF FINAL PAVEMENT SECTIONS.

8. CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UP STREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY. CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SEWER LATERAL WITH OWNER PRIOR TO CONSTRUCTION.

9. EXISTING UTILITY CROSSINGS OF THE NEW PIPELINE ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. GAS, WATER AND SEWER, SERVICE LATERALS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE, LOCATION, AND DEPTH OF ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND SHALL PROTECT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) FROM DAMAGE DUE TO HIS OPERATION.

10. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY AND SEWER LINES WHERE THEY ARE TO BE CROSSED ABOVE OR BELOW BY THE NEW FACILITY BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ENSURE THAT THERE IS SUFFICIENT CLEARANCE.

    VERTICAL SEPARATION REQUIREMENTS:

    A MINIMUM OF SIX (6) INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE/OVER EXISTING SANITARY SEWER PIPELINES.

    WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EXISTING AND/OR NEW SANITARY SEWER PIPELINES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THEN 10' MINIMUM HORIZONTAL DISTANCE FROM CENTERLINE OF UTILITY CROSSINGS WHERE FEASIBLE.

    HORIZONTAL SEPARATION REQUIREMENTS:

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE 5' FEET EXCEPT THAT THE MINIMUM HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER PIPELINES SHALL BE 10' MINIMUM, UNLESS OTHERWISE NOTED.

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5 FEET.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR FACILITIES AND TO COORDINATE WORK SCHEDULES.

RECORD DRAWINGS:

1. THE CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. PRINTS SHALL BE SUBMITTED TO THE CITY ENGINEER AND DEVELOPERS CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE CITY/TOWN ENGINEER AND DEVELOPER'S CIVIL ENGINEER.

PAVEMENT SECTION:

1. ALL PAVING SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.

2. SEE STRUCTURAL DRAWINGS FOR BUILDING SLAB SECTIONS AND PAD PREPARATIONS.

3. SEE GRADING AND DRAINAGE PLAN AS WELL AS DETAIL SHEETS FOR FLATWORK SECTIONS AND BASE REQUIREMENTS.

4. EXISTING PAVEMENT SHALL BE TACK COATED PRIOR TO CONSTRUCTING NEW PAVEMENT.

5. THE FINAL OR SURFACE LAYER OF ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL ALL ON-SITE IMPROVEMENTS HAVE BEEN COMPLETED, INCLUDING ALL GRADING, AND ALL UNACCEPTABLE CONCRETE WORK HAS BEEN REMOVED AND REPLACED. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND/OR DEVELOPER'S CITY ENGINEER.

SITE MAINTENANCE:

1. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.

2. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.

3. CONTRACTOR SHALL: GATHER ALL CONSTRUCTION DEBRIS ON A REGULAR BASIS AND PLACE IT IN A DUMPSTER OR OTHER CONTAINER WHICH IS EMPTIED OR REMOVED ON A REGULAR BASIS. WHEN APPROPRIATE, USE TARPS ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORM WATER RUNOFF POLLUTION.

4. IF THE STREET, SIDEWALKS AND/OR PARKING LOT ARE PRESSURE WASHED, DEBRIS MUST BE TRAPPED AND COLLECTED TO PREVENT ENTRY INTO THE STORM DRAIN SYSTEM. NO CLEANING AGENT MAY BE DISCHARGED INTO THE STORM DRAIN. IF ANY CLEANING AGENT OR DEGREASER IS USED, WASHED WATER MUST BE COLLECTED AND DISCHARGED TO THE SANITARY SEWER, SUBJECT TO THE APPROVAL OF THE OWNER'S PROJECT MANAGER, OR OTHERWISE DISPOSED OF THROUGH APPROVED DISPOSAL METHODS.

5. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIAL USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING WIND-BLOWN OR IN THE EVENT OF A MATERIAL SPILL.

6. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN

7. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.

8. THE ON-SITE STORM DRAIN FACILITIES SHALL BE CLEANED A MINIMUM OF TWICE A YEAR AS FOLLOWS: IMMEDIATELY PRIOR TO OCTOBER 15TH AND ONCE IN JANUARY. ADDITIONAL CLEANING MAY BE REQUIRED IF FOUND NECESSARY BY THE CITY ENGINEER/INSPECTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR COST ASSOCIATED WITH CLEANING.

9. PREVENT DUST FROM LEAVING THE SITE AND ACCUMULATING ON ADJACENT AREAS AS REQUIRED IN THE DUST CONTROL NOTES ON THIS SHEET.

10. PREVENT SEDIMENT LADEN STORM RUN-OFF FROM LEAVING THE SITE OR ENTERING STORM DRAIN OR SANITARY SEWER SYSTEMS AS REQUIRED IN THE EROSION AND SEDIMENTATION CONTROL NOTES ON THIS SHEET.

11. MAINTAIN EXISTING TREES AND PLANTS THAT ARE TO REMAIN AS REQUIRED BY THE TREE AND PLANT PROTECTION NOTES ON THE SHEET.

SITE FENCING NOTES:

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.

2. FENCE LOCATION MAY BE ADJUSTED FROM TIME TO TIME AS CONSTRUCTION PROCEEDS TO EXCLUDE SOME AREAS WHERE CONSTRUCTION WORK IS NOT BEING DONE AND THE AREA IS NOT OBJECTIONABLE IN VISUAL APPEARANCE, AT THE DISCRETION AND APPROVAL OF THE DISTRICT STAFF.

3. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK FENCE WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.

4. CONTRACTOR SHALL REPLACE THE GREEN FABRIC AT LEAST ONCE A YEAR OR AT SUCH A TIME AS IT BECOMES TATTERED AND UNSIGHTLY DUE TO WIND OR CONSTRUCTION ACTIVITIES.

DUST CONTROL:

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE APPROPRIATE GOVERNMENTAL AGENCY IN ORDER TO ENSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.

2. WATERING ASSOCIATED WITH ON-SITE CONSTRUCTION ACTIVITY SHALL TAKE PLACE BETWEEN THE ESTABLISHED CONSTRUCTION HOURS AND SHALL INCLUDE AT LEAST ONE LATE-AFTERNOON WATERING TO MINIMIZE THE EFFECTS OF BLOWING DUST.

3. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE OWNER'S ENGINEER/INSPECTOR, TO THE SATISFACTION OF THE CITY'S DEPARTMENT OF PUBLIC WORKS.

4. WATERING ON PUBLIC STREETS OR POWER WASHING SEDIMENTATION ON STREETS SHALL NOT OCCUR, UNLESS CONTRACTOR COLLECTS AND FILTERS THE WASH WATER PRIOR TO ITS ENTERING THE CITY'S STORM DRAIN SYSTEM.

5. ON-SITE PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS SHALL BE SWEPT DAILY WITH A WATER SWEEPER.

6. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.

7. GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT SWPPP AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CITY RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.

8. THE PERMITEE IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS. ALL GRADING OPERATIONS SHALL BE SUSPENDED DURING SECOND (OR WORSE) STAGE SMOG ALERTS.

9. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.

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DESIGN BY:	JC
DRAWN BY:	WM
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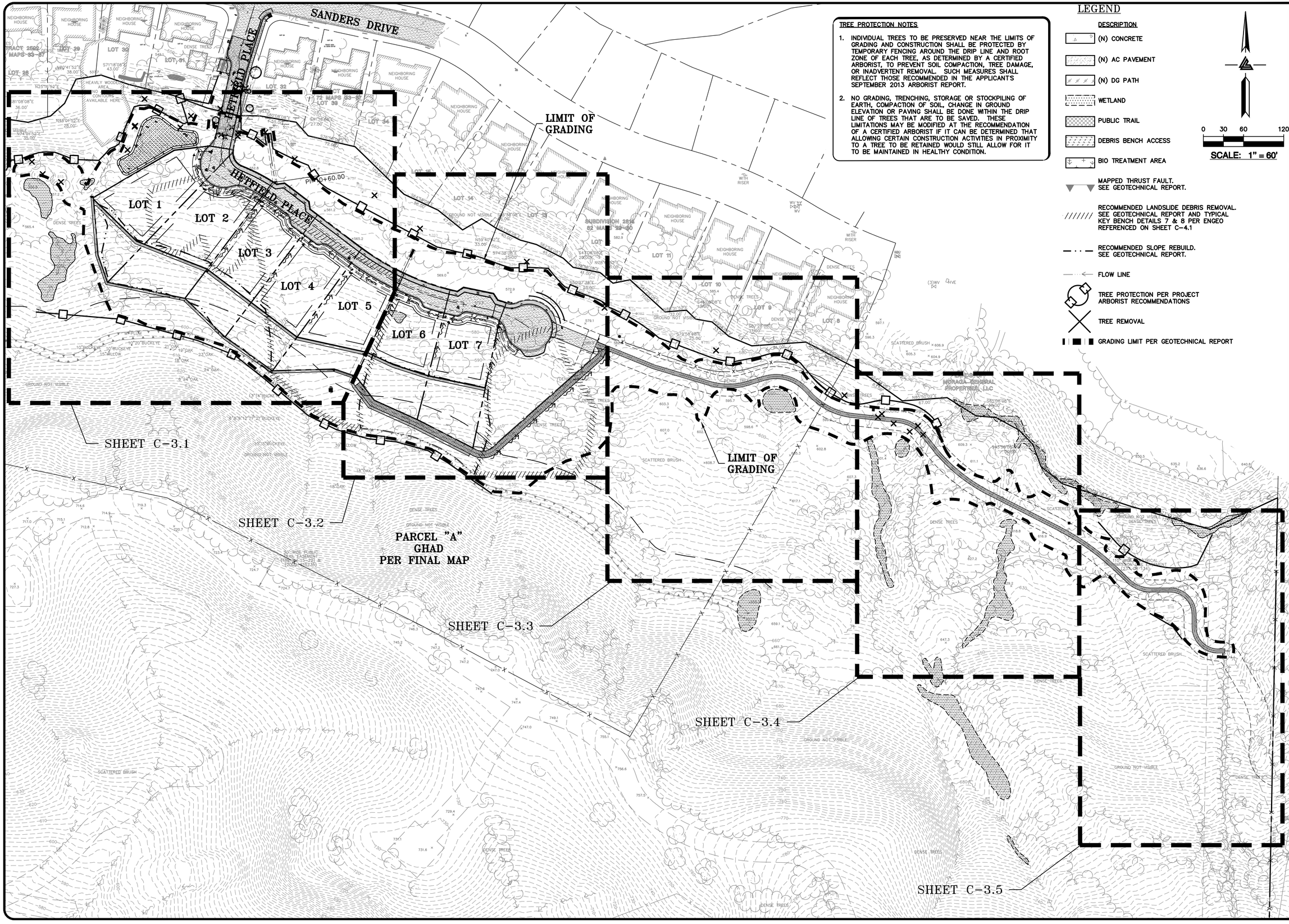
3 OF 22 SHEETS



TREE PROTECTION NOTES

1. INDIVIDUAL TREES TO BE PRESERVED NEAR THE LIMITS OF GRADING AND CONSTRUCTION SHALL BE PROTECTED BY TEMPORARY FENCING AROUND THE DRIP LINE AND ROOT ZONE OF EACH TREE, AS DETERMINED BY A CERTIFIED ARBORIST, TO PREVENT SOIL COMPACTION, TREE DAMAGE, OR INADVERTENT REMOVAL. SUCH MEASURES SHALL REFLECT THOSE RECOMMENDED IN THE APPLICANT'S SEPTEMBER 2013 ARBORIST REPORT.
2. NO GRADING, TRENCHING, STORAGE OR STOCKPILING OF EARTH, COMPACTION OF SOIL, CHANGE IN GROUND ELEVATION OR PAVING SHALL BE DONE WITHIN THE DRIP LINE OF TREES THAT ARE TO BE SAVED. THESE LIMITATIONS MAY BE MODIFIED AT THE RECOMMENDATION OF A CERTIFIED ARBORIST IF IT CAN BE DETERMINED THAT ALLOWING CERTAIN CONSTRUCTION ACTIVITIES IN PROXIMITY TO A TREE TO BE RETAINED WOULD STILL ALLOW FOR IT TO BE MAINTAINED IN HEALTHY CONDITION.

LEGEND

DESCRIPTION

- (N) CONCRETE
- (N) AC PAVEMENT
- (N) DG PATH
- WETLAND
- PUBLIC TRAIL
- DEBRIS BENCH ACCESS
- BIO TREATMENT AREA
- MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
- RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT AND TYPICAL KEY BENCH DETAILS 7 & 8 PER ENGEO REFERENCED ON SHEET C-4.1
- RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
- FLOW LINE
- TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
- TREE REMOVAL
- GRADING LIMIT PER GEOTECHNICAL REPORT

0 30 60 120

SCALE: 1" = 60'

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OVERALL GRADING PLAN

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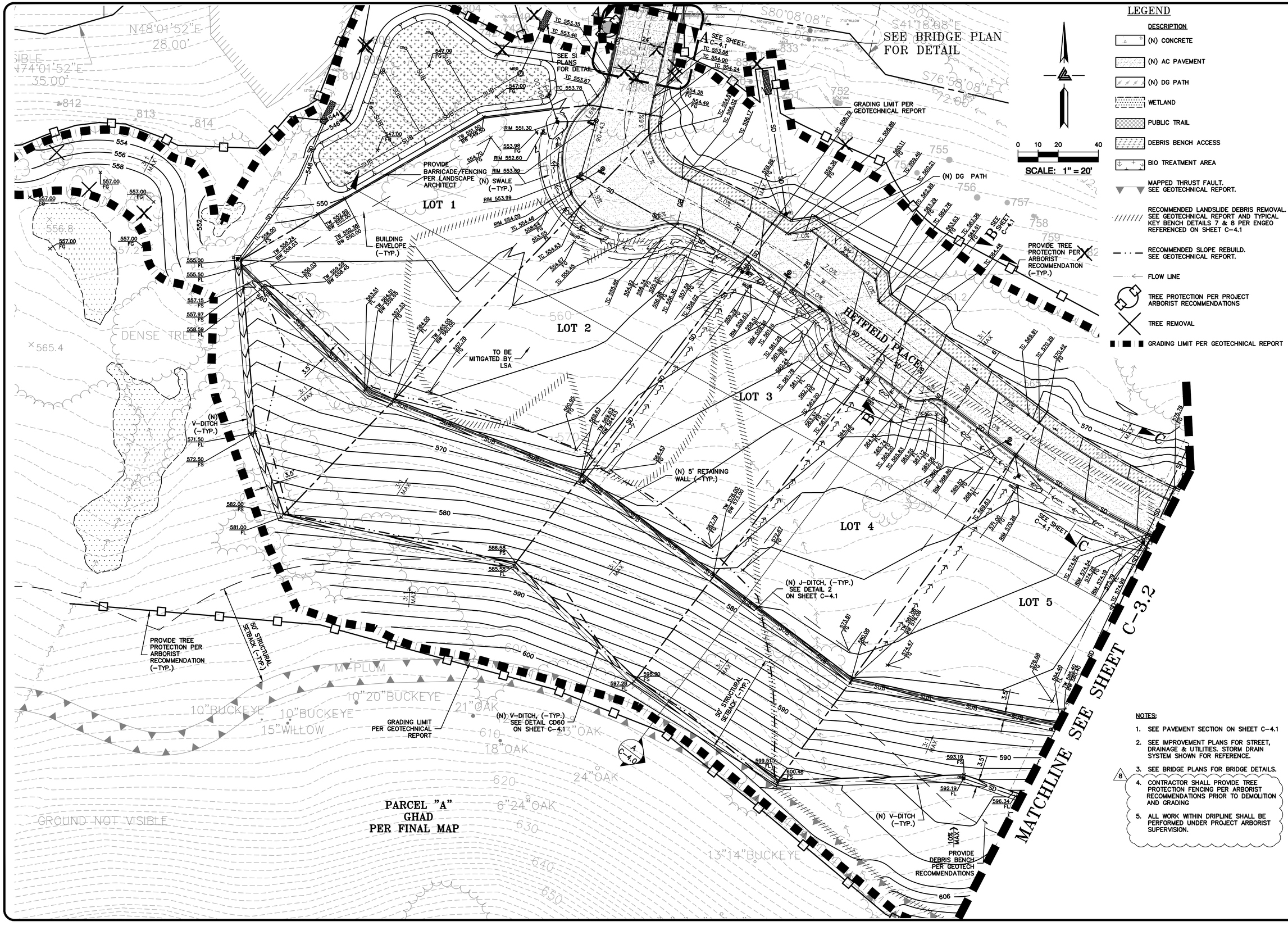

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- TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
- TREE REMOVAL
- GRADING LIMIT PER GEOTECHNICAL REPORT

NOTES:

1. SEE PAVEMENT SECTION ON SHEET C-4.1
2. SEE IMPROVEMENT PLANS FOR STREET, DRAINAGE & UTILITIES. STORM DRAIN SYSTEM SHOWN FOR REFERENCE.
3. SEE BRIDGE PLANS FOR BRIDGE DETAILS.
4. CONTRACTOR SHALL PROVIDE TREE PROTECTION FENCING PER ARBORIST RECOMMENDATIONS PRIOR TO DEMOLITION AND GRADING
5. ALL WORK WITHIN DRIPLINE SHALL BE PERFORMED UNDER PROJECT ARBORIST SUPERVISION.

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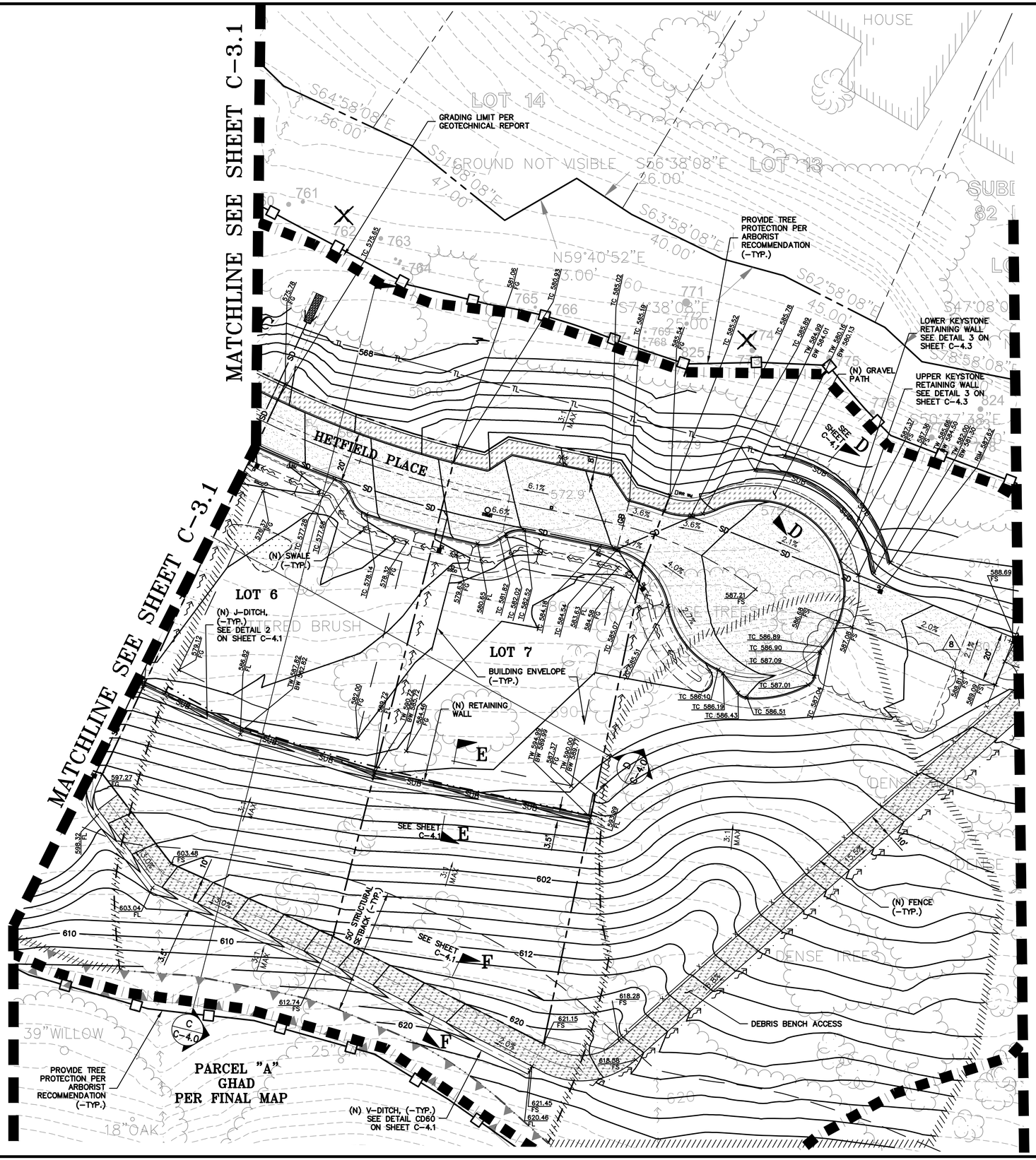
SHEET NO:	C-3.1

5 OF 22 SHEETS



0 10 20 40

SCALE: 1" = 20'

LEGEND

DESCRIPTION
(N) CONCRETE
(N) AC PAVEMENT
(N) DG PATH
WETLAND
PUBLIC TRAIL
DEBRIS BENCH ACCESS
BIO TREATMENT AREA
MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT AND TYPICAL KEY BENCH DETAILS 7 & 8 PER ENGEO REFERENCED ON SHEET C-4.1
RECOMMENDED SLOPE REBUILD. SEE GEOTECHNICAL REPORT.
FLOW LINE
TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
TREE REMOVAL
GRADING LIMIT PER GEOTECHNICAL REPORT

NOTES:

1. SEE PAVEMENT SECTION ON SHEET C-4.1
2. SEE IMPROVEMENT PLANS FOR STREET, DRAINAGE & UTILITIES. STORM DRAIN SYSTEM SHOWN FOR REFERENCE.
3. SEE BRIDGE PLANS FOR BRIDGE DETAILS.
4. CONTRACTOR SHALL PROVIDE TREE PROTECTION FENCING PER ARBORIST RECOMMENDATIONS PRIOR TO DEMOLITION AND GRADING
5. ALL WORK WITHIN DRIPLINE SHALL BE PERFORMED UNDER PROJECT ARBORIST SUPERVISION.

REGISTERED PROFESSIONAL ENGINEER JAMES TORRES No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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ROSEVILLE, CA 95661
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(F) (916)797-7363
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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

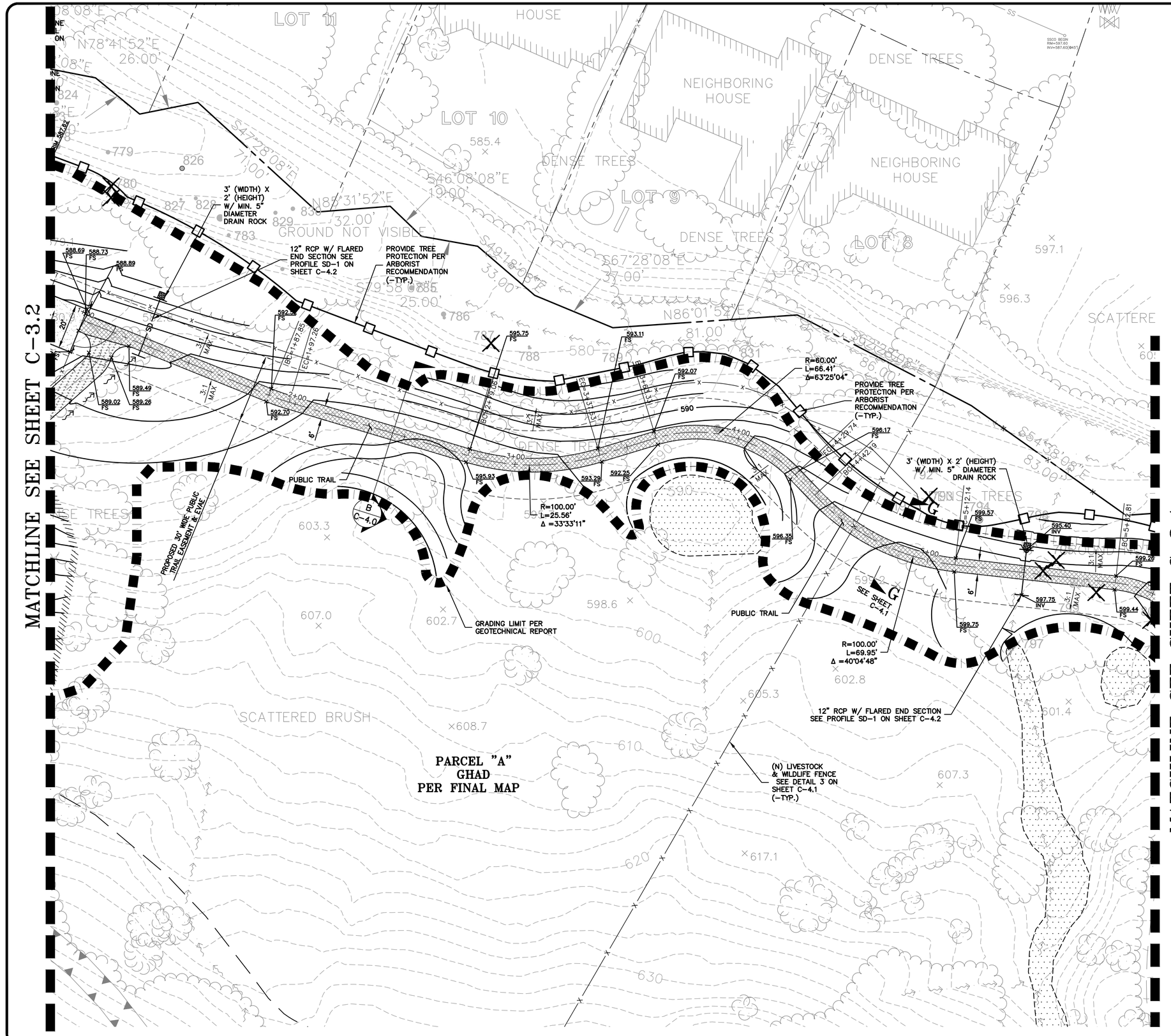
CONTRA COSTA COUNTY APN: 258-600-006-5

GRADING PLAN

1	TOWN COMMENTS 3-26-18	MH
2	TOWN COMMENTS 6-15-18	MH
3	GEOTECH COMMENTS 8-8-18	MH
4	TOWN COMMENTS 5-8-19	MH
5	GEOTECH COMMENTS 6-25-19	MH
6	TOWN SUBMITTAL 4-30-21	MH
7	SITE UPDATE 7-6-21	MH
8	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-3.2

6 OF 22 SHEETS



0 10 20 40

SCALE: 1" = 20'

LEGEND

DESCRIPTION

- (N) CONCRETE
- (N) AC PAVEMENT
- (N) DG PATH
- WETLAND
- PUBLIC TRAIL
- DEBRIS BENCH ACCESS
- BIO TREATMENT AREA
- MAPPED THRUST FAULT. SEE GEOTECHNICAL REPORT.
- RECOMMENDED LANDSLIDE DEBRIS REMOVAL. SEE GEOTECHNICAL REPORT AND TYPICAL KEY BENCH DETAILS 7 & 8 PER ENGEO REFERENCED ON SHEET C-4.1
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- FLOW LINE
- TREE PROTECTION PER PROJECT ARBORIST RECOMMENDATIONS
- TREE REMOVAL
- GRADING LIMIT PER GEOTECHNICAL REPORT

NOTES:

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REGISTERED PROFESSIONAL ENGINEER JAMES TOPE No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY APN: 258-600-006-5

GRADING PLAN

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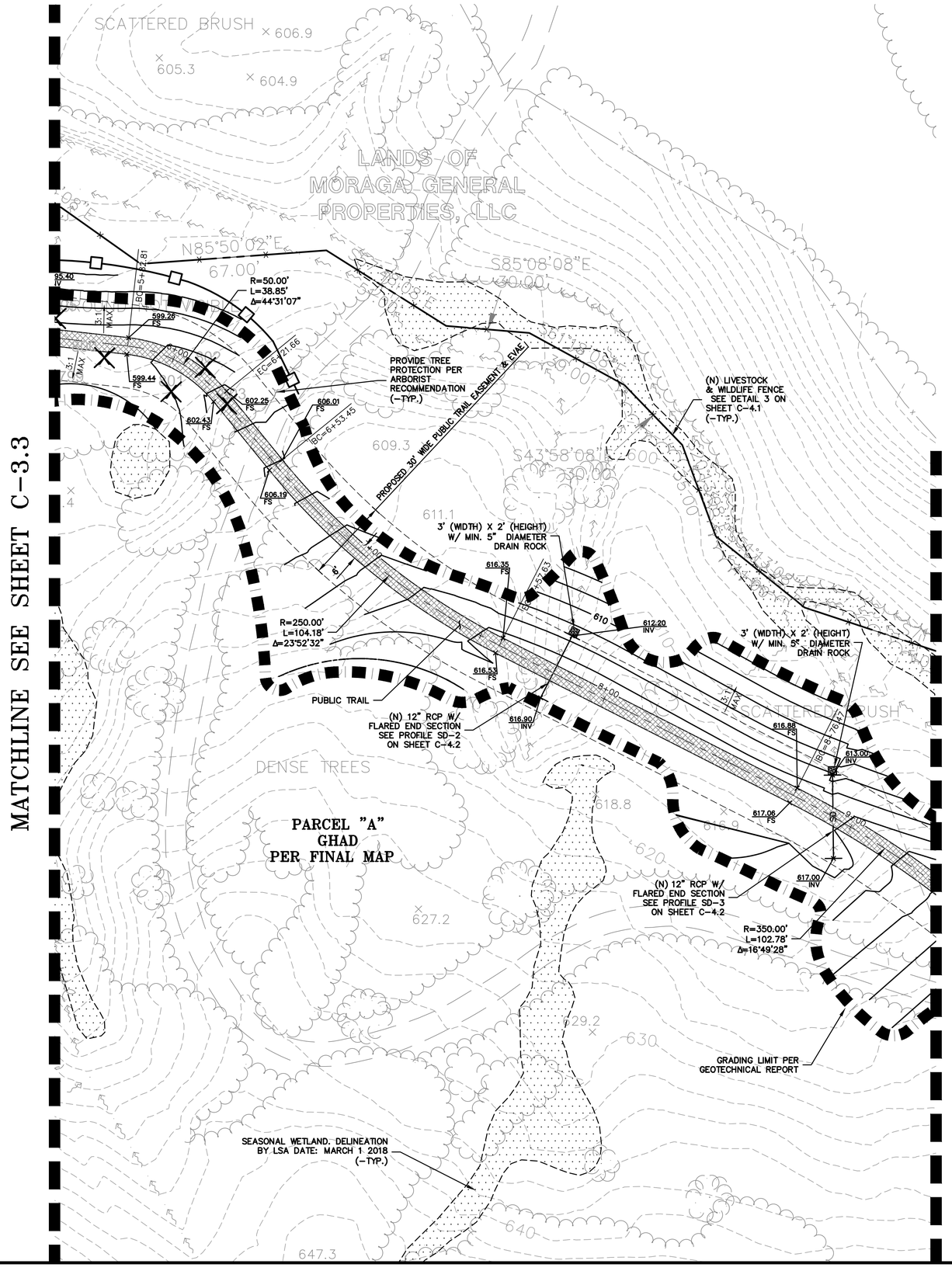
8	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-3.3



0 10 20 40

SCALE: 1" = 20'

LEGEND

DESCRIPTION

- (N) CONCRETE
- (N) AC PAVEMENT
- (N) DG PATH
- WETLAND
- PUBLIC TRAIL
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- GRADING LIMIT PER GEOTECHNICAL REPORT

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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY APN: 258-600-006-5

GRADING PLAN

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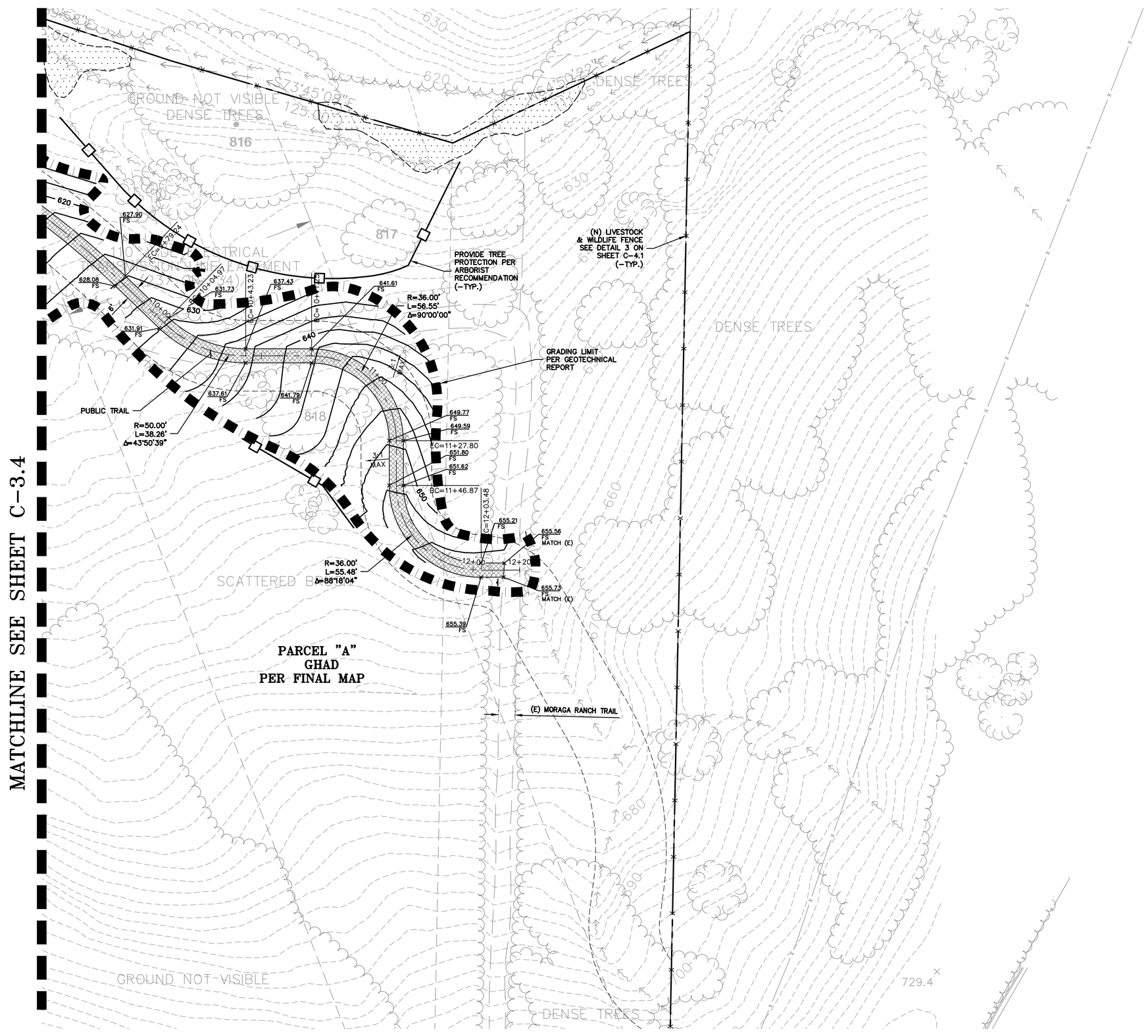
8	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-3.4

8 OF 22 SHEETS



0 10 20 40

SCALE: 1" = 20'

LEGEND

DESCRIPTION

- (N) CONCRETE
- (N) AC PAVEMENT
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GRADING PLANS SUBDIVISION 9051 HETFIELD ESTATES MORAGA, CALIFORNIA

CONTRA COSTA COUNTY

APN: 258-600-006-5

GRADING PLAN

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
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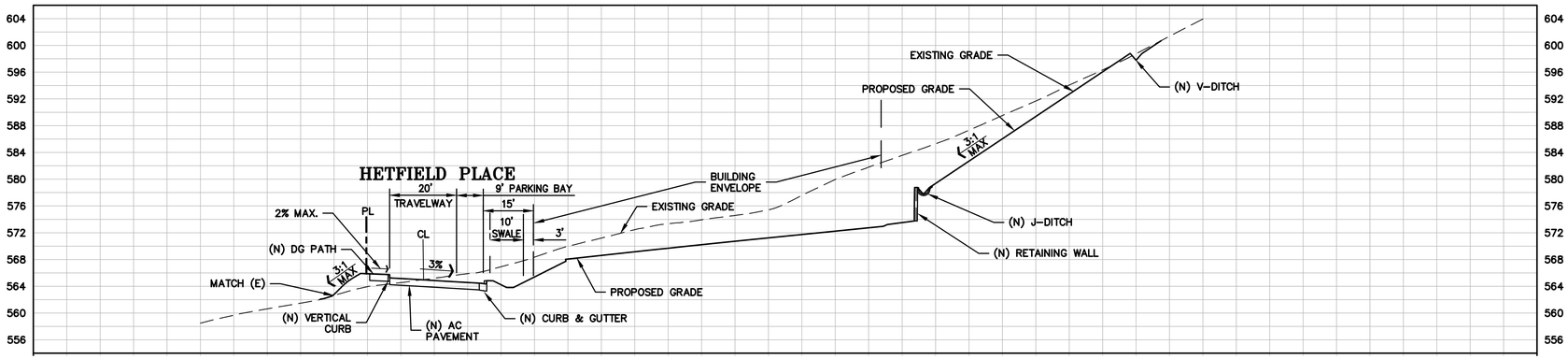
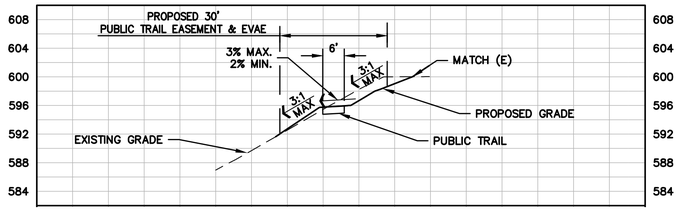
JOB NO:	2150582
DATE:	11-17-17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-3.5

9 OF 22 SHEETS



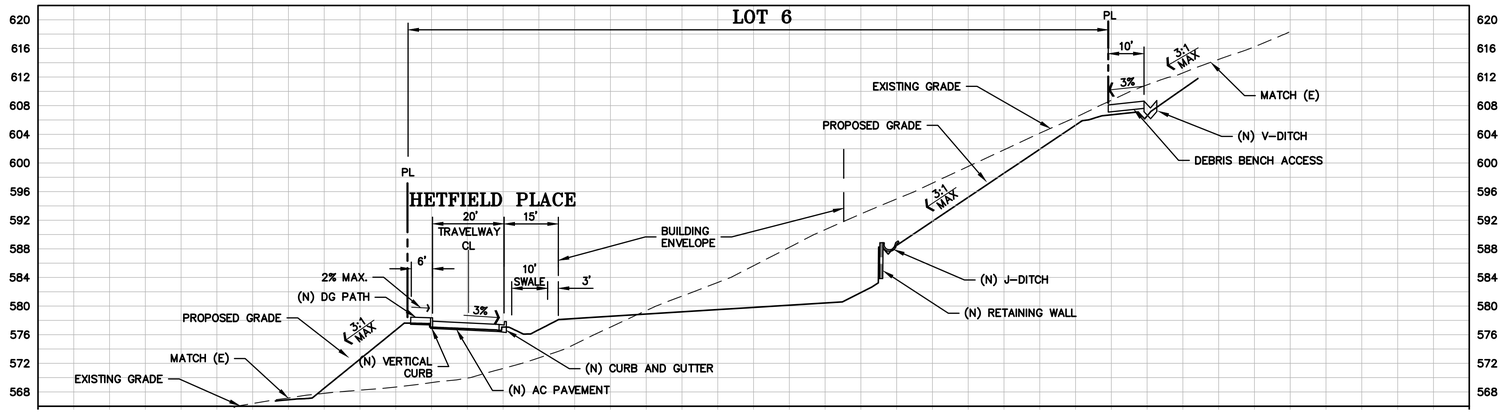
A C-4.0 **SECTION A**

SCALE: 1"=20' HORIZ 1"=10' VERT



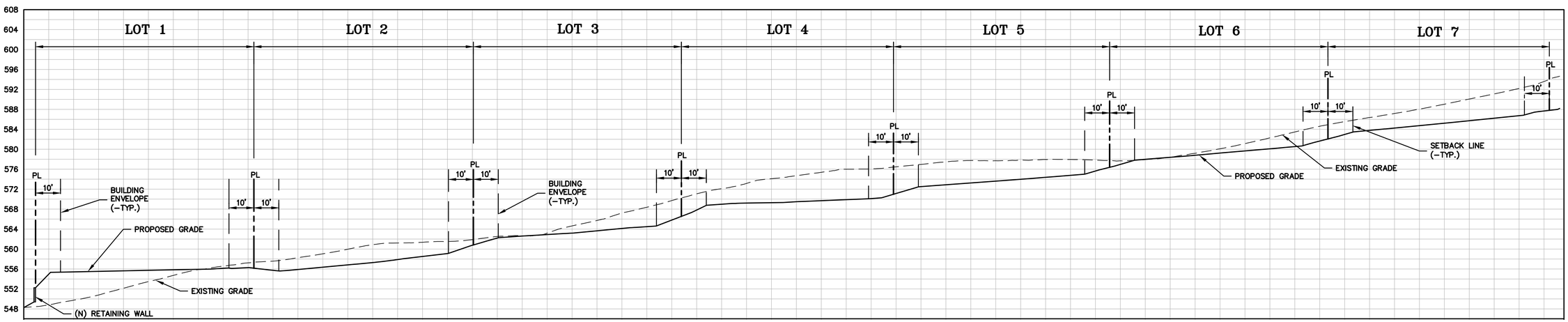
B C-4.0 **SECTION B**

SCALE: 1"=20' HORIZ 1"=10' VERT



C C-4.0 **SECTION C**

SCALE: 1"=20' HORIZ 1"=10' VERT



D C-4.0 **SECTION D**

SCALE: 1"=20' HORIZ 1"=10' VERT

REGISTERED PROFESSIONAL ENGINEER
JAMES TORA
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA
CONTRA COSTA COUNTY

APN: 258-600-006-5

SECTIONS

1	TOWN COMMENTS 3-26-18	MH
2	TOWN COMMENTS 6-15-18	MH
3	GEOTECH COMMENTS 8-8-18	MH
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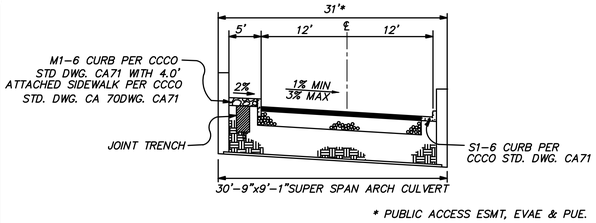
5	GEOTECH COMMENTS 6-25-19	MH
6	TOWN SUBMITTAL 4-30-21	MH
7	SITE UPDATE 7-6-21	MH
8	TOWN COMMENTS 12-3-21	MH
	REVISIONS	BY

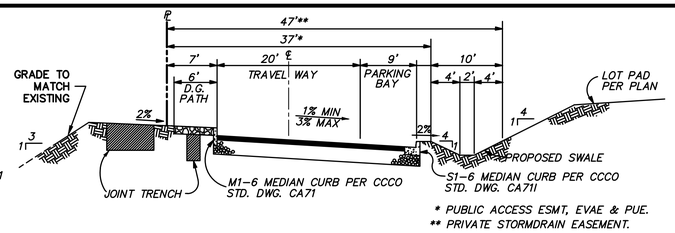
JOB NO: 2150582
DATE: 11-17-17
SCALE: NTS
DESIGN BY: JC
DRAWN BY: WM
SHEET NO:

C-4.0

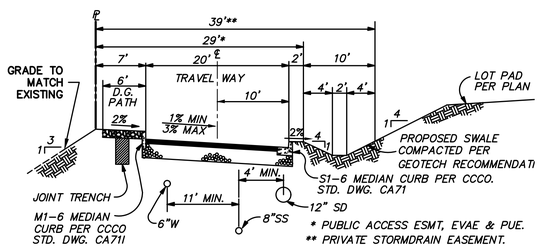
10 OF 22 SHEETS



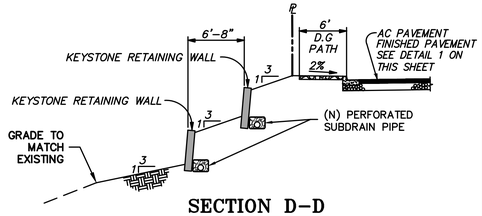
* PUBLIC ACCESS ESMT, EVAE & PUE.



* PUBLIC ACCESS ESMT, EVAE & PUE.
** PRIVATE STORMDRAIN EASEMENT.

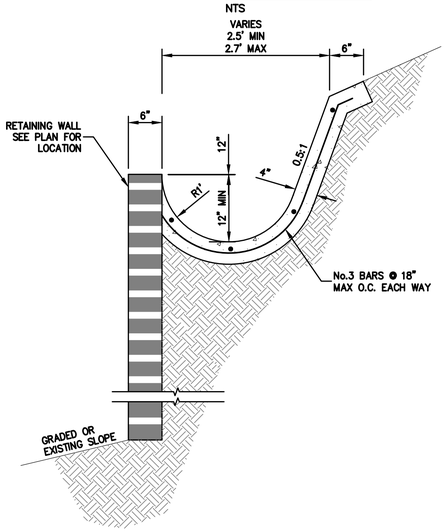


* PUBLIC ACCESS ESMT, EVAE & PUE.
** PRIVATE STORMDRAIN EASEMENT.



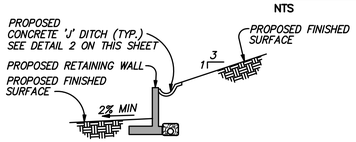
SECTION A–A

NTS



SECTION B–B

NTS



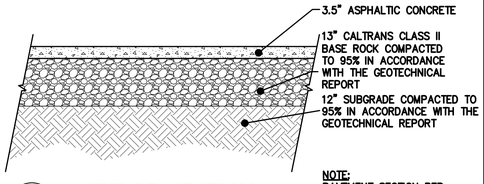
SECTION C–C

NTS

PAVEMENT SECTION TABLE		
		CLASS II AGGREGATE BASE
STREET	3.5" AC	13"
DG – PATH	6" DG	6"
PUBLIC TRAIL	6" DG	10"
DEBRIS BENCH ACCESS	N/A	10"
SIDEWALK	4" PCC CONCRETE	4"

SECTION D–D

NTS



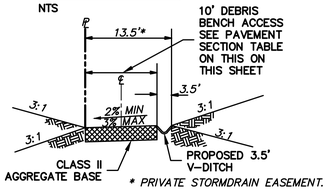
NOTE:
PAVEMENT SECTION PER GEOTECHNICAL REPORT.

1 C-4.1 **ASPHALT SECTION**

NTS

SECTION E–E

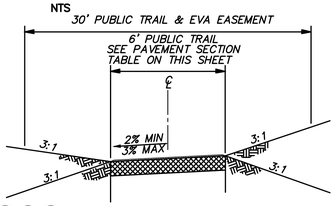
NTS



* PRIVATE STORMDRAIN EASEMENT.

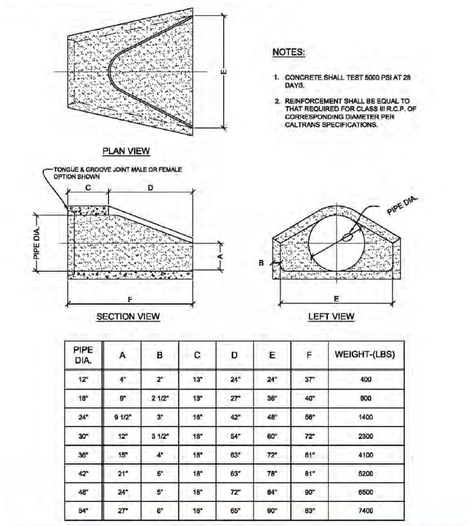
SECTION F–F

NTS

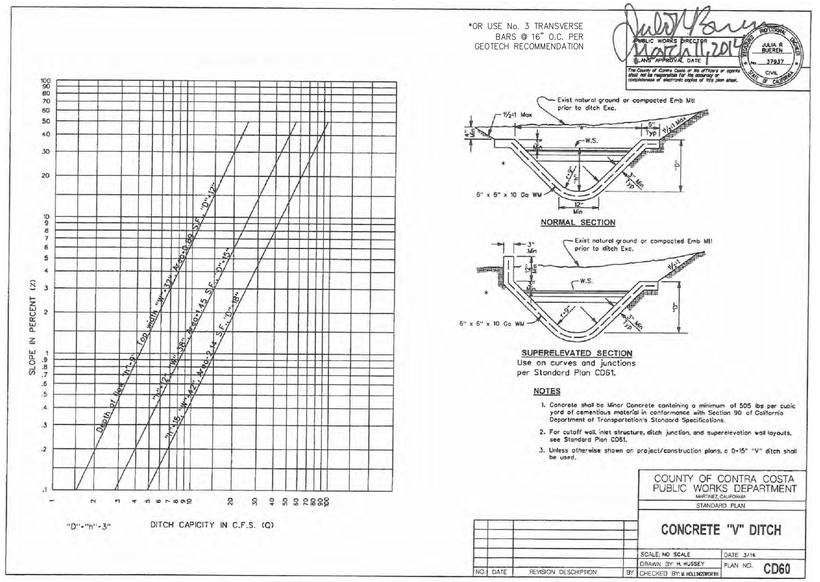


SECTION G–G

NTS



PIPE DIA.	A	B	C	D	E	F	WEIGHT-(LBS)
12"	4"	2"	13"	24"	24"	37"	400
18"	8"	2 1/2"	13"	27"	36"	40"	800
24"	9 1/2"	3"	16"	42"	48"	56"	1400
30"	12"	3 1/2"	18"	54"	60"	72"	2300
36"	15"	4"	18"	63"	72"	81"	4100
42"	21"	5"	18"	63"	78"	81"	5200
48"	24"	5"	18"	72"	84"	90"	6500
54"	27"	6"	18"	65"	90"	83"	7400

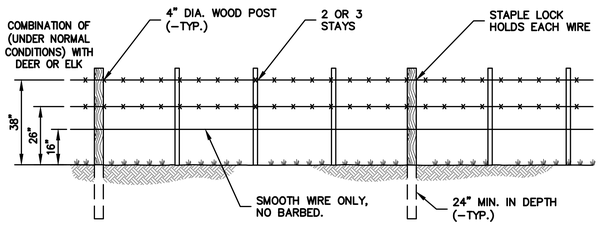


2 C-4.1 **"J" DRAINAGE DITCH**

NTS

KINDS OF USE COMBINATIONS

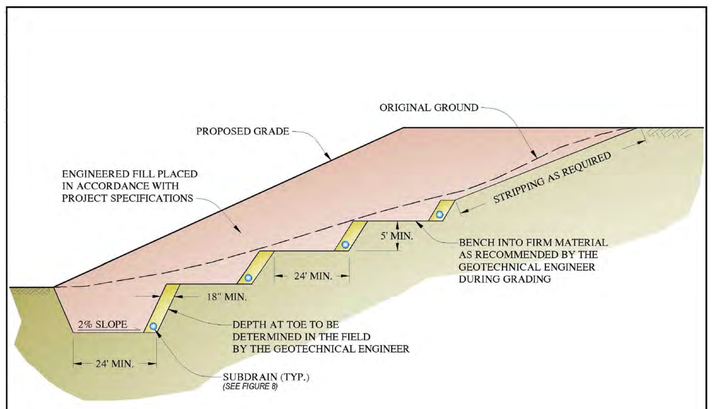
KINDS OF LIVESTOCK AND WILDLIFE	NUMBER OF WIRES	MAX. FENCE HEIGHT IN INCHES	WIRE SPACING (FROM GROUND UP, IN INCHES)	WIRE TYPE	NO. STAYS BETWEEN LINE POSTS W/ SPACING OF 16.5' –30'
CATTLE AND SHEEP (NORMAL CONDITIONS)	3	42"	16, 10, 12	BOTTOM STRAND SMOOTH, OTHERS BARBED	2 TO 3



NOTE:
THE 4" DIAMETER FENCE WOULD BE A 3 STRAND MIN. FENCE DESIGNED TO MEET ALL WILDLIFE AND GRAZING ADMINISTRATION STANDARDS. A SIMPLE AND EFFECTIVE STAPLE LOCK HOLDS WIRE TIGHT ON WOOD POSTS. THE WIRE WOULD BE AT HEIGHTS OF 38", 26" 16" FROM THE GROUND; THE BOTTOM WIRE WOULD BE SMOOTH AND THE TOP 2 WIRES WOULD BE BARBED. INCLUDE A 4" GAP FROM THE TOP OF THE POST IS STANDARD. SEE DETAIL ABOVE.

3 C-4.1 **LIVESTOCK AND WILDLIFE FENCE DETAIL**

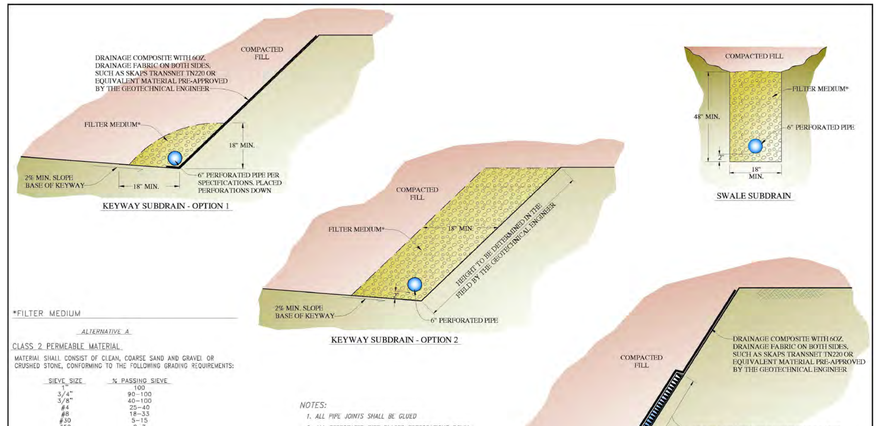
NTS



ENGEO Expect Excellence

TYPICAL KEYWAY DETAIL
HETFIELD ESTATES
MORAGA, CALIFORNIA

PROJECT NO: 5047.000.000	FIGURE NO.
SCALE: NO SCALE	7
DRAWN BY: LL CHECKED BY: RS	



*FILTER MEDIUM

ALTERNATIVE A

CLASS 2 PERMEABLE MATERIAL

MATERIAL SHALL CONSIST OF CLEAN, COARSE SAND AND GRAVEL OR CRUSHED STONE, CONFORMING TO THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	% PASSING SIEVE
1"	100
3/4"	90–100
3/8"	40–100
#4	25–40
#8	18–33
#30	5–15
#50	0–7
#200	0–3

ALTERNATIVE B

CLEAN CRUSHED ROCK OR GRAVEL WRAPPED IN FILTER FABRIC

ALL FILTER FABRIC SHALL MEET THE FOLLOWING MINIMUM AVERAGE ROLL VALUES UNLESS OTHERWISE SPECIFIED BY ENGEO:

GRAB STRENGTH (ASTM D–4632) ..... 180 lbs
MASS PER UNIT AREA (ASTM D–4751) ..... 6 oz/yd²
APPARENT OPENING SIZE (ASTM D–4751) ..... 70–100 U.S. STD. SIEVE
FLOW RATE (ASTM D–4491) ..... 83 gpl/min/ft
PUNCTURE STRENGTH (ASTM D–4833) ..... 80 lbs

NOTES:
1. ALL PIPE JOINTS SHALL BE GLUED
2. ALL PERFORATED PIPE PLACED PERFORATIONS DOWN
3. 1% FALL (MINIMUM) ON ALL TRENCHES AND DRAIN LINES

ENGEO Expect Excellence

TYPICAL SUBDRAIN DETAIL
HETFIELD ESTATES
MORAGA, CALIFORNIA

PROJECT NO: 5047.000.000	FIGURE NO.
SCALE: NO SCALE	8
DRAWN BY: LL CHECKED BY: RS	

REGISTERED PROFESSIONAL ENGINEER
JAMES TORA
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
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GRADING PLANS SUBDIVISION 9051 HETFIELD ESTATES MORAGA, CALIFORNIA

APN: 258–600–006–5

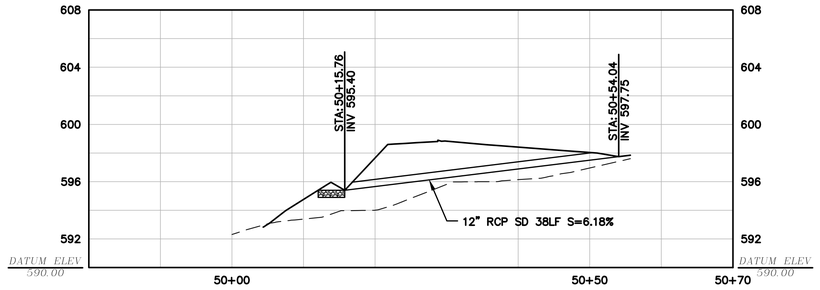
CONTRA COSTA COUNTY

SECTION & DETAILS

REVISIONS	BY
1 TOWN COMMENTS 3–26–18	MH
2 TOWN COMMENTS 6–15–18	MH
3 GEOTECH COMMENTS 8–8–18	MH
4 TOWN COMMENTS 5–8–19	MH
5 GEOTECH COMMENTS 6–25–19	MH
6 TOWN SUBMITTAL 4–30–21	MH
7 SITE UPDATE 7–6–21	MH
8 TOWN COMMENTS 12–3–21	MH

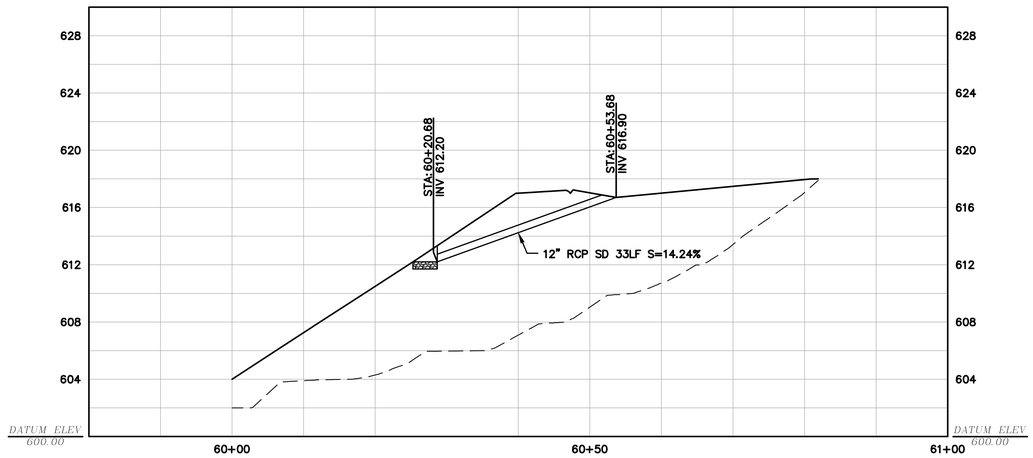
JOB NO:	2150582
DATE:	11–17–17
SCALE:	NTS
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	C-4.1

11 OF 22 SHEETS



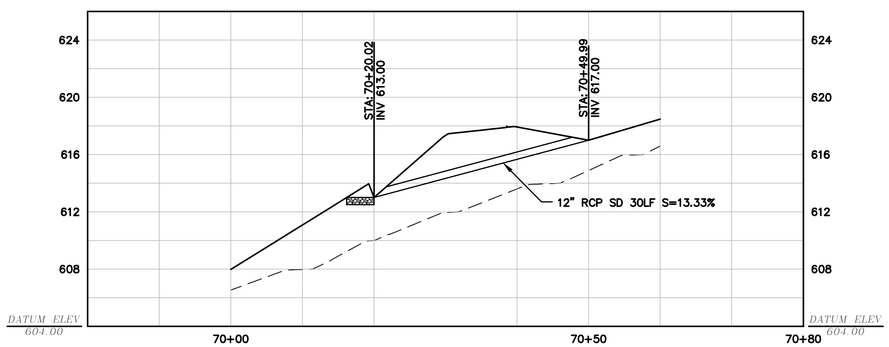
N-SD 1 OUTFALL PROFILE

SCALE: 1" = 10' HORIZ & VERT



N-SD 2 OUTFALL PROFILE

SCALE: 1" = 10' HORIZ & VERT



N-SD 3 OUTFALL PROFILE

SCALE: 1" = 10' HORIZ & VERT

REGISTERED PROFESSIONAL ENGINEER
JAMES TORRE
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STATE OF CALIFORNIA
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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY

APN: 258-600-006-5

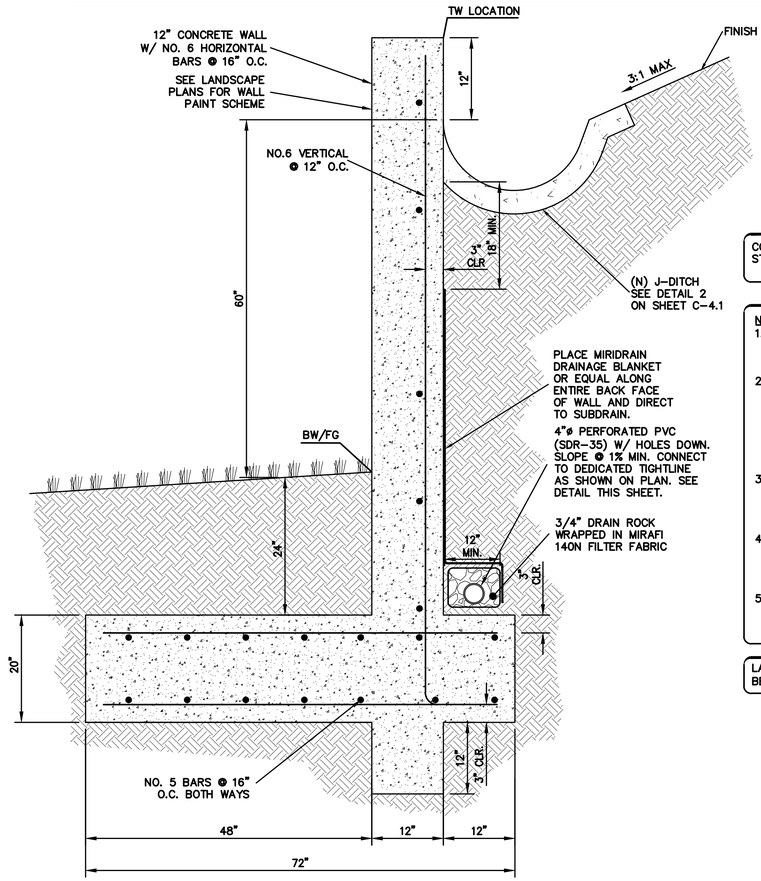
STORM DRAIN PROFILE

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
3 GEOTECH COMMENTS 8-8-18	MH
4 TOWN COMMENTS 5-8-19	MH
5 GEOTECH COMMENTS 6-25-19	MH
6 TOWN SUBMITTAL 4-30-21	MH
7 SITE UPDATE 7-6-21	MH
8 TOWN COMMENTS 12-3-21	MH

JOB NO: 2150582
DATE: 11-17-17
SCALE: NTS
DESIGN BY: JC
DRAWN BY: WM
SHEET NO:

C-4.2

12 OF 22 SHEETS

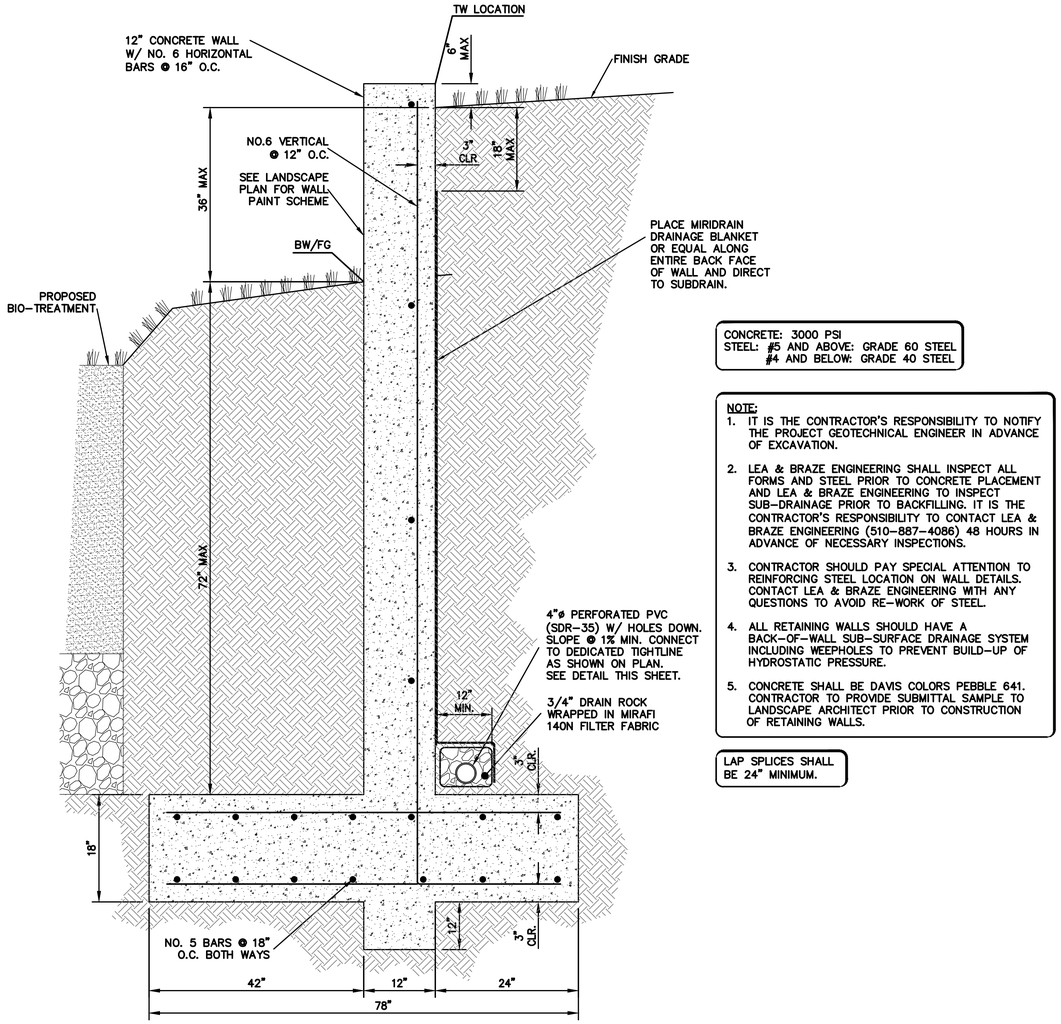


1 C-4.3 **5' MAX REAR WALL**
NTS

CONCRETE: 3000 PSI
STEEL: #5 AND ABOVE: GRADE 60 STEEL
#4 AND BELOW: GRADE 40 STEEL

NOTE:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT GEOTECHNICAL ENGINEER IN ADVANCE OF EXCAVATION.
2. LEA & BRAZE ENGINEERING SHALL INSPECT ALL FORMS AND STEEL PRIOR TO CONCRETE PLACEMENT AND LEA & BRAZE ENGINEERING TO INSPECT SUB-DRAINAGE PRIOR TO BACKFILLING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING (510-887-4086) 48 HOURS IN ADVANCE OF NECESSARY INSPECTIONS.
3. CONTRACTOR SHOULD PAY SPECIAL ATTENTION TO REINFORCING STEEL LOCATION ON WALL DETAILS. CONTACT LEA & BRAZE ENGINEERING WITH ANY QUESTIONS TO AVOID RE-WORK OF STEEL.
4. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT BUILD-UP OF HYDROSTATIC PRESSURE.
5. CONCRETE SHALL BE DAVIS COLORS PEBBLE 641. CONTRACTOR TO PROVIDE SUBMITTAL SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION OF RETAINING WALLS.

LAP SPLICES SHALL BE 24" MINIMUM.



2 C-4.3 **3' MAX NORTH WALL**
NTS

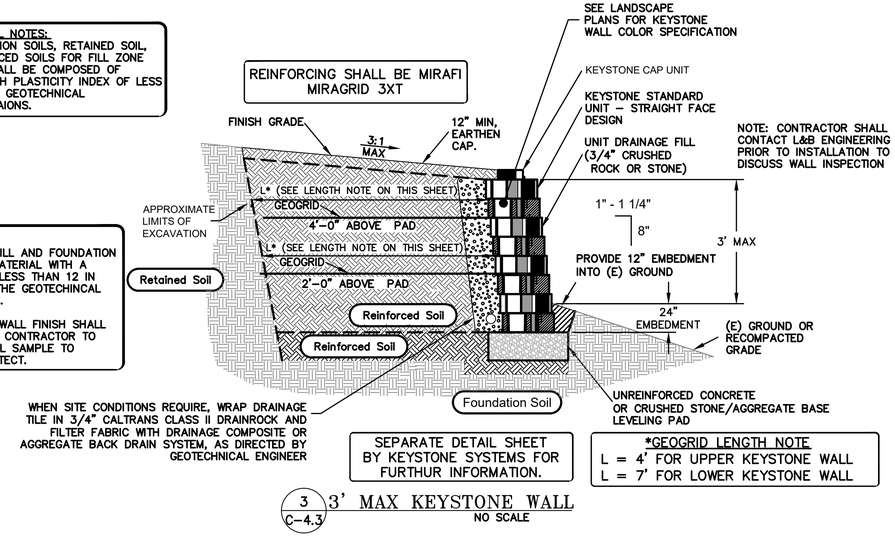
CONCRETE: 3000 PSI
STEEL: #5 AND ABOVE: GRADE 60 STEEL
#4 AND BELOW: GRADE 40 STEEL

NOTE:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT GEOTECHNICAL ENGINEER IN ADVANCE OF EXCAVATION.
2. LEA & BRAZE ENGINEERING SHALL INSPECT ALL FORMS AND STEEL PRIOR TO CONCRETE PLACEMENT AND LEA & BRAZE ENGINEERING TO INSPECT SUB-DRAINAGE PRIOR TO BACKFILLING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING (510-887-4086) 48 HOURS IN ADVANCE OF NECESSARY INSPECTIONS.
3. CONTRACTOR SHOULD PAY SPECIAL ATTENTION TO REINFORCING STEEL LOCATION ON WALL DETAILS. CONTACT LEA & BRAZE ENGINEERING WITH ANY QUESTIONS TO AVOID RE-WORK OF STEEL.
4. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT BUILD-UP OF HYDROSTATIC PRESSURE.
5. CONCRETE SHALL BE DAVIS COLORS PEBBLE 641. CONTRACTOR TO PROVIDE SUBMITTAL SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION OF RETAINING WALLS.

LAP SPLICES SHALL BE 24" MINIMUM.

GEOTECHNICAL NOTES:
ALL FOUNDATION SOILS, RETAINED SOIL, AND REINFORCED SOILS FOR FILL ZONE MATERIAL SHALL BE COMPOSED OF MATERIAL WITH PLASTICITY INDEX OF LESS THAN 12 PER GEOTECHNICAL RECOMMENDTAIONS.

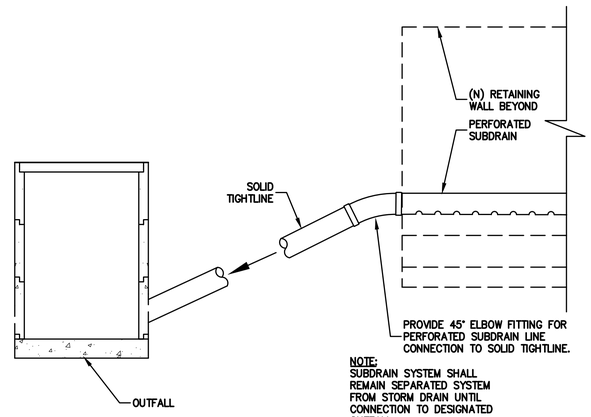
NOTE:
1. ALL REINFORCED FILL AND FOUNDATION FILL SHALL USE MATERIAL WITH A PLASTICITY INDEX LESS THAN 12 IN ACCORDANCE TO THE GEOTECHINCAL RECOMMENDATIONS.
2. KEYSTONE BLOCK WALL FINISH SHALL BE SIERRA BLEND. CONTRACTOR TO PROVIDE SUBMITTAL SAMPLE TO LANDSCAPE ARCHITECT.



SEPARATE DETAIL SHEET BY KEYSTONE SYSTEMS FOR FURTHUR INFORMATION.

*GEOGRID LENGTH NOTE
L = 4' FOR UPPER KEYSTONE WALL
L = 7' FOR LOWER KEYSTONE WALL

3 C-4.3 **3' MAX KEYSTONE WALL**
NO SCALE



NOTE:
SUBDRAIN SYSTEM SHALL REMAIN SEPARATED SYSTEM FROM STORM DRAIN UNTIL CONNECTION TO DESIGNATED OUTFALL

SUBDRAIN / TIGHTLINE CONNECTION
NTS

REGISTERED PROFESSIONAL ENGINEER
JAMES TORA
No. 63127
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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258-600-006-5
CONTRA COSTA COUNTY

WALL DETAILS

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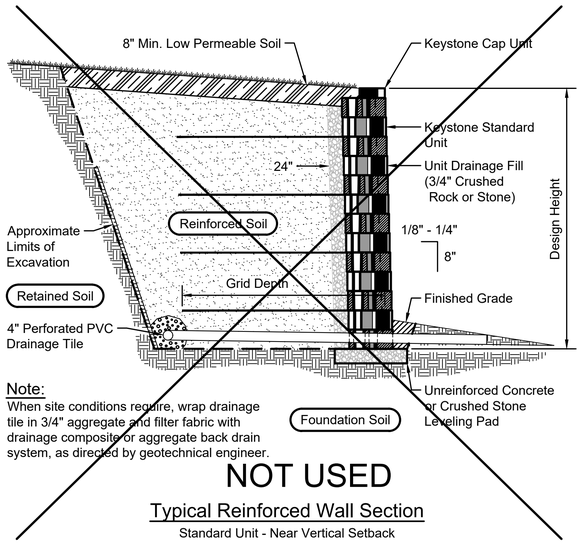
	REVISIONS	BY

JOB NO: 2150582
DATE: 11-17-17
SCALE: NTS
DESIGN BY: JC
DRAWN BY: WM
SHEET NO:

C-4.3

13 OF 22 SHEETS

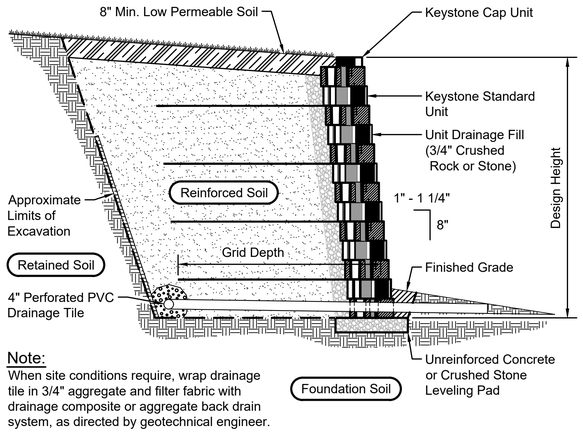


Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

NOT USED

Typical Reinforced Wall Section

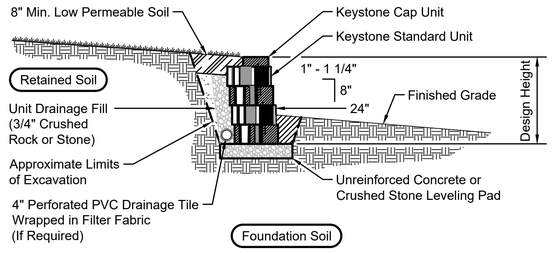
Standard Unit - Near Vertical Setback



Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

Typical Reinforced Wall Section

Standard Unit - 1" Setback



Typical Gravity Wall Section

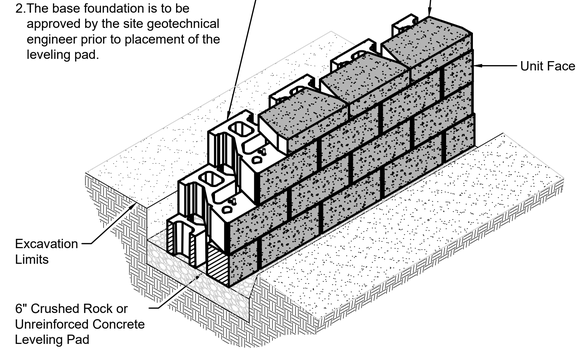
Standard Unit - 1" Setback

Base Leveling Pad Notes:

1. The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

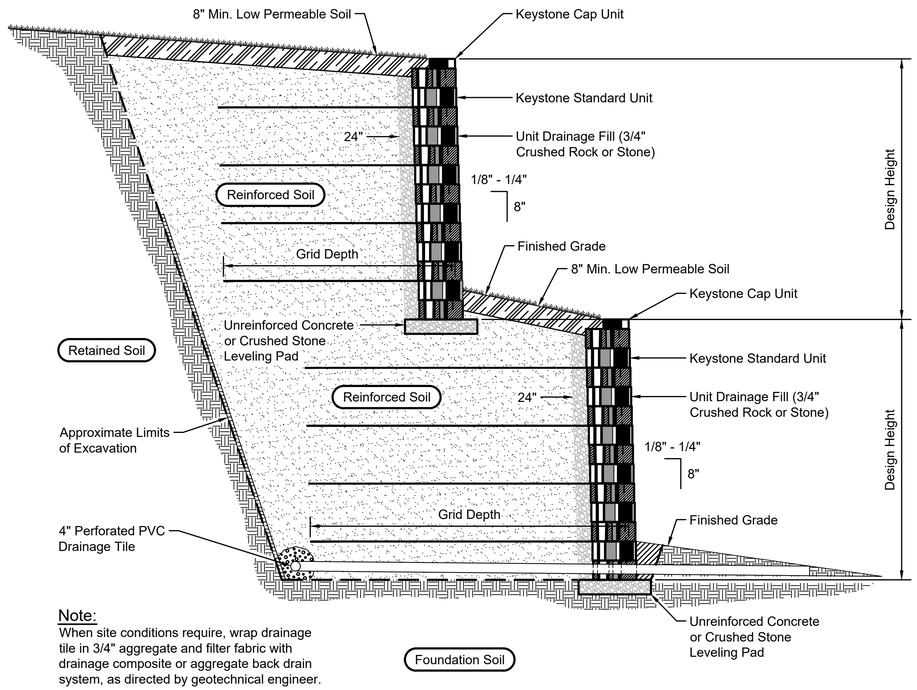
Standard Unit	
Width:	18"
*Depth:	18"
Height:	8"
*Weight:	108 lbs

Cap Unit	
Width:	18"
*Depth:	10 1/2"
Height:	4"
*Weight:	50 lbs



Standard Unit/Base Pad Isometric Section View

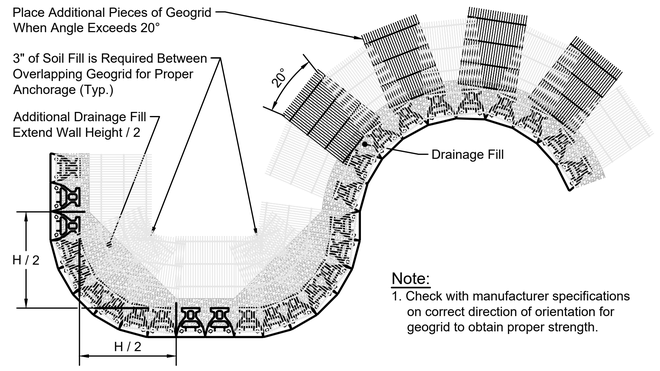
*Dimensions & Weight May Vary by Region



Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

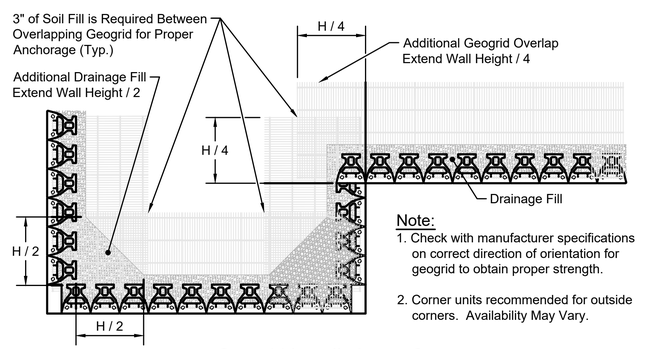
Typical Reinforced Tiered Wall Section

Standard Unit - Near Vertical Setback



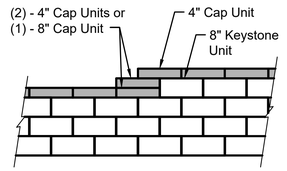
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

Geogrid Installation on Curves



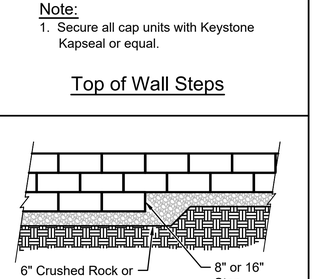
Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.
2. Corner units recommended for outside corners. Availability May Vary.

Geogrid Installation at Corners



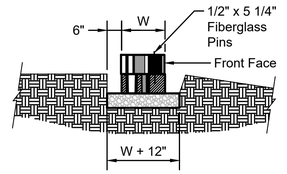
Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Wall Steps



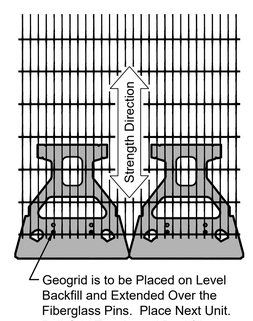
Elevation

Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.

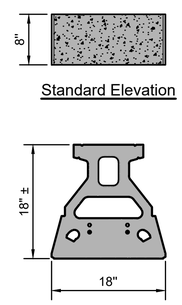


Section

Leveling Pad Detail



Grid & Pin Connection

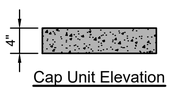


Standard Elevation

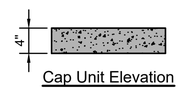
Standard Plan

Standard Unit

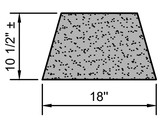
*Dimensions May Vary by Region



Cap Unit Elevation



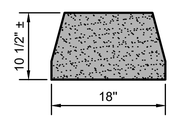
Cap Unit Elevation



Cap Unit Plan

Universal Cap Unit Option

*Dimensions & Availability Will Vary by Region



Cap Unit Plan

Straight Split Cap Unit Option

*Dimensions & Availability Will Vary by Region

Copyright 2003 Keystone Retaining Wall Systems

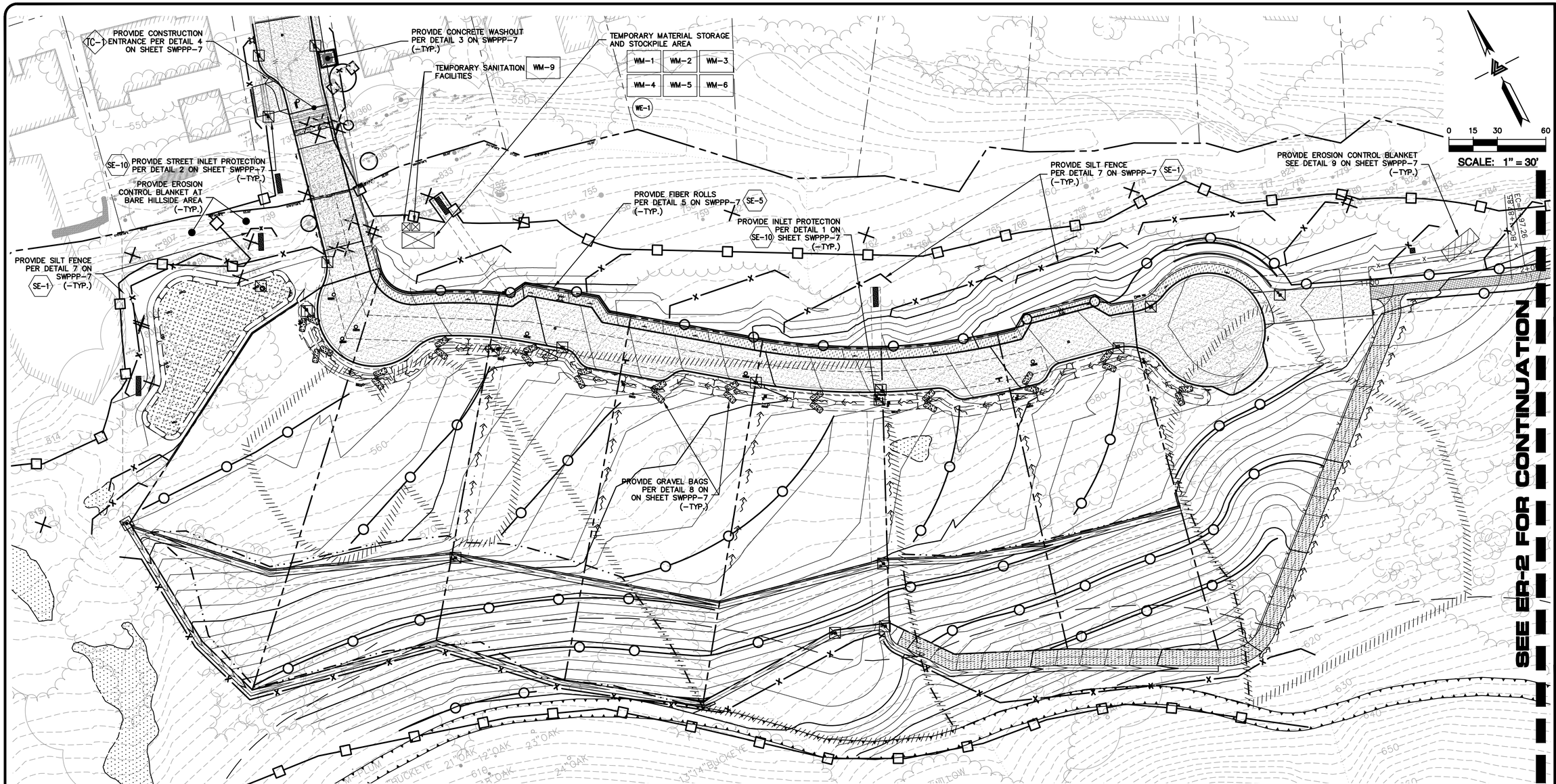
Design is for internal stability of the KEYSTONE wall structure only. External stability, including but not limited to foundation and slope stability is the responsibility of the Owner. The design is based on the assumption that the materials within the retained mass, methods of construction, and quality of materials conform to KEYSTONE's specification for this project.

This drawing is being furnished for this specific project only. Any party accepting this document does so in confidence and agrees that it shall not be duplicated in whole or in part, nor disclosed to others without the consent of Keystone Retaining Wall Systems, Inc.

No.	Date	Revision	By

KEYSTONE RETAINING WALL SYSTEMS
A CONTECH COMPANY
4444 W 78th Street
Minneapolis, MN 55435
952-897-1040

Designed By: RKM	Title: Standard Unit 18 - Straight Face Details		Date: 1-16-18
Checked By: CDM	Project: Keystone Retaining Wall Systems Typical Wall Details		Project No: 2150582
Scale: No Scale			Drawing No: C-4.4



EROSION CONTROL BMPS:

- EC-1 CONSTRUCTION SCHEDULING
- EC-6 STRAW MULCH
- EC-9 DRAINAGE SWALES
- WE-1 WIND EROSION CONTROL

SEDIMENT CONTROL BMPS:

- SE-1 SILT FENCE
- SE-4 GRAVEL BAG CHECK DAM
- SE-5 FIBER ROLLS
- SE-7 STREET SWEEPING AND VACUUMING
- SE-10 STORM DRAIN INLET PROTECTION

MATERIALS POLLUTION AND WASTE MANAGEMENT CONTROL BMPS:

- WM-1 MATERIAL DELIVERY AND STORAGE
- WM-2 MATERIAL USE
- WM-3 STOCKPILE MANAGEMENT
- MW-4 SPILL PREVENTION AND CONTROL
- WM-5 SOLID WASTE MANAGEMENT
- WM-6 HAZARDOUS WASTE MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY AND SEPTIC WASTE MANAGEMENT

TRACKING CONTROL BMPS:

- TC-1 STABILIZED CONSTRUCTION ENTRANCE

NON-STORMWATER CONTROL BMPS:

- NS-1 WATER CONSERVATION PRACTICES
- NS-3 PAVING AND GRINDING OPERATIONS
- NS-6 ILLICIT CONNECTION / DISCHARGES
- NS-7 POTABLE WATER / IRRIGATION
- NS-8 VEHICLE AND EQUIPMENT CLEANING
- NS-9 VEHICLE AND EQUIPMENT FUELING
- NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
- NS-12 CONCRETE CURING

EC-1 **NOTE:**
ALL SITE GRADING AND CONSTRUCTION OPERATIONS PREFORMED DURING THE RAINY SEASON (OCTOBER 01 TO APRIL 15) SHALL BE AT THE DISCRETION OF THE TOWN ENGINEER.

IF GRADING OR CONSTRUCTION ACTIVITIES ARE PERFORMED DURING THE RAINY SEASON, ADDITIONAL SITE BMPS MAY BE REQUIRED BY THE QSD/QSP BASED ON WEATHER CONDITIONS, SITE CONDITIONS, AND CONSTRUCTION ACTIVITIES BEING PREFORMED.

EC-6 WE-1 PROVIDE EROSION CONTROL BLANKET ON ALL EXPOSED AREAS NOT UNDER ACTIVE CONSTRUCTION. PROVIDE LANDSCAPE PLANTING FOR PERMANENT EROSION CONTROL IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION.
ENSURE THAT ALL VEGETATION IS HEALTHY AND FULLY ESTABLISHED PRIOR TO PROJECT COMPLETION.

CONSTRUCTION BEST MANAGEMENT PRACTICES

1. REFER TO THE CALIFORNIA STORMWATER QUALITY ASSOCIATION HANDBOOK FOR CONSTRUCTION BMP FACT SHEETS FOR A COMPLETE DESCRIPTION OF THE BEST MANAGEMENT PRACTICES TO BE USED.
2. CONSTRUCTION BMP FACT SHEETS FROM THE HANDBOOK FOR BMPS USED ON THIS PROJECT ARE LOCATED IN APPENDIX E OF THE EROSION POLLUTION PREVENTION PLAN.

NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP

EROSION CONTROL LEGEND

- GRAVEL BAG
- INLET PROTECTION
- STRAW ROLL
- SILT FENCE
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- TREE PROTECTION
- EROSION CONTROL BLANKET / MATTING

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GRADING PLANS
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CONTRA COSTA COUNTY

APN: 258-600-006-5

EROSION CONTROL PLAN

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5 GEOTECH COMMENTS 6-25-19	MH
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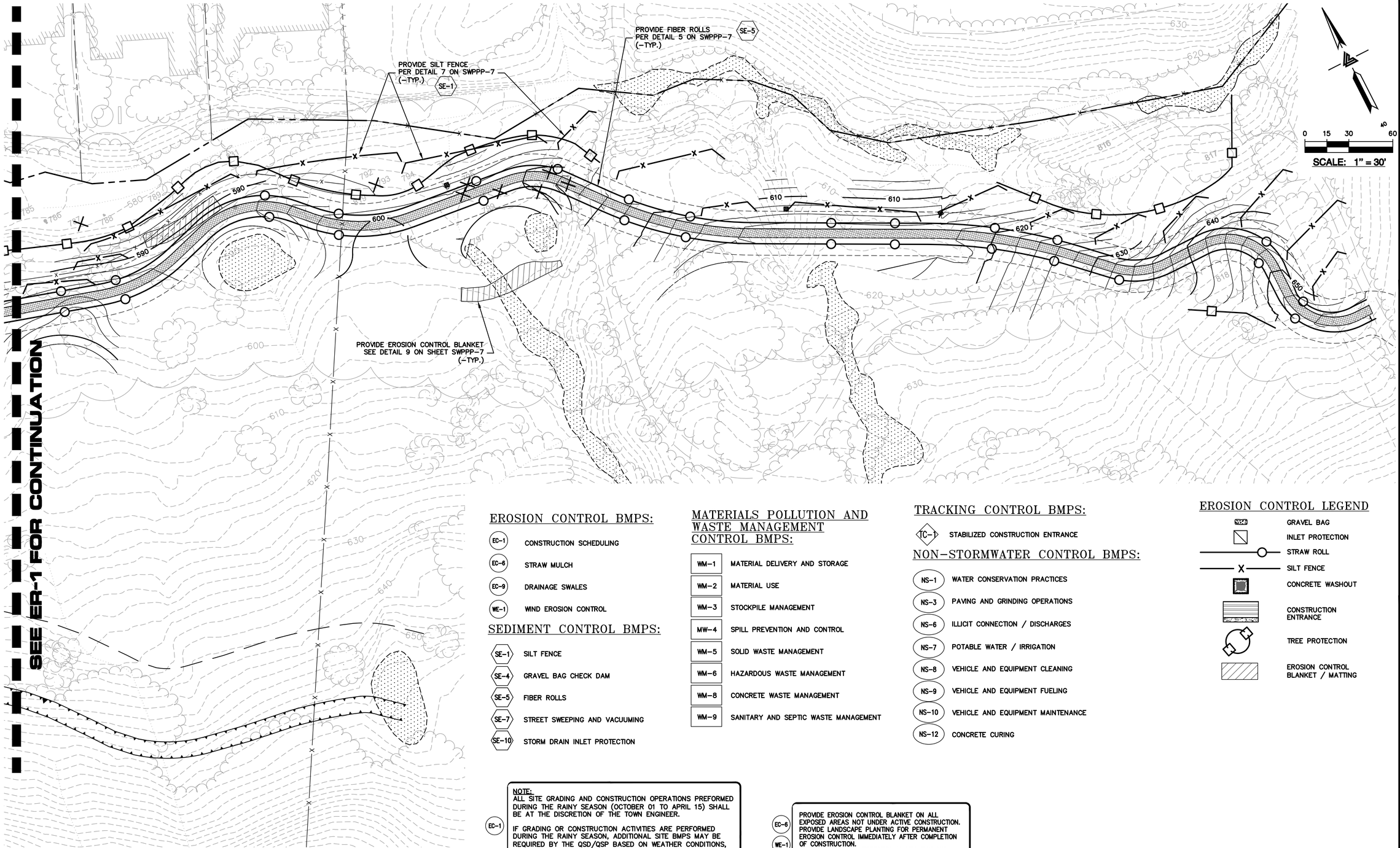
7 SITE UPDATE 7-6-21	MH
8 TOWN COMMENTS 12-3-21	MH

JOB NO:	2150582
DATE:	11-17-17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	ER-1

15 OF 22 SHEETS



EROSION CONTROL BMPS:

- EC-1 CONSTRUCTION SCHEDULING
- EC-6 STRAW MULCH
- EC-9 DRAINAGE SWALES
- WE-1 WIND EROSION CONTROL

SEDIMENT CONTROL BMPS:

- SE-1 SILT FENCE
- SE-4 GRAVEL BAG CHECK DAM
- SE-5 FIBER ROLLS
- SE-7 STREET SWEEPING AND VACUUMING
- SE-10 STORM DRAIN INLET PROTECTION

MATERIALS POLLUTION AND WASTE MANAGEMENT CONTROL BMPS:

- WM-1 MATERIAL DELIVERY AND STORAGE
- WM-2 MATERIAL USE
- WM-3 STOCKPILE MANAGEMENT
- MW-4 SPILL PREVENTION AND CONTROL
- WM-5 SOLID WASTE MANAGEMENT
- WM-6 HAZARDOUS WASTE MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY AND SEPTIC WASTE MANAGEMENT

TRACKING CONTROL BMPS:

- TC-1 STABILIZED CONSTRUCTION ENTRANCE

NON-STORMWATER CONTROL BMPS:

- NS-1 WATER CONSERVATION PRACTICES
- NS-3 PAVING AND GRINDING OPERATIONS
- NS-6 ILLICIT CONNECTION / DISCHARGES
- NS-7 POTABLE WATER / IRRIGATION
- NS-8 VEHICLE AND EQUIPMENT CLEANING
- NS-9 VEHICLE AND EQUIPMENT FUELING
- NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
- NS-12 CONCRETE CURING

EROSION CONTROL LEGEND

- GRAVEL BAG
- INLET PROTECTION
- STRAW ROLL
- SILT FENCE
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- TREE PROTECTION
- EROSION CONTROL BLANKET / MATTING

NOTE:
ALL SITE GRADING AND CONSTRUCTION OPERATIONS PREFORMED DURING THE RAINY SEASON (OCTOBER 01 TO APRIL 15) SHALL BE AT THE DISCRETION OF THE TOWN ENGINEER.

EC-1 IF GRADING OR CONSTRUCTION ACTIVITIES ARE PERFORMED DURING THE RAINY SEASON, ADDITIONAL SITE BMPS MAY BE REQUIRED BY THE QSD/QSP BASED ON WEATHER CONDITIONS, SITE CONDITIONS, AND CONSTRUCTION ACTIVITIES BEING PREFORMED.

EC-6 / WE-1 PROVIDE EROSION CONTROL BLANKET ON ALL EXPOSED AREAS NOT UNDER ACTIVE CONSTRUCTION. PROVIDE LANDSCAPE PLANTING FOR PERMANENT EROSION CONTROL IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION. ENSURE THAT ALL VEGETATION IS HEALTHY AND FULLY ESTABLISHED PRIOR TO PROJECT COMPLETION.

CONSTRUCTION BEST MANAGEMENT PRACTICES

1. REFER TO THE CALIFORNIA STORMWATER QUALITY ASSOCIATION HANDBOOK FOR CONSTRUCTION BMP FACT SHEETS FOR A COMPLETE DESCRIPTION OF THE BEST MANAGEMENT PRACTICES TO BE USED.
2. CONSTRUCTION BMP FACT SHEETS FROM THE HANDBOOK FOR BMPS USED ON THIS PROJECT ARE LOCATED IN APPENDIX E OF THE EROSION POLLUTION PREVENTION PLAN.

NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP

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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258-600-006-5
CONTRA COSTA COUNTY

EROSION CONTROL PLAN

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
3 GEOTECH COMMENTS 8-8-18	MH
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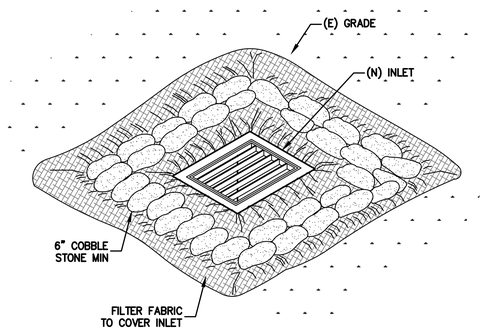
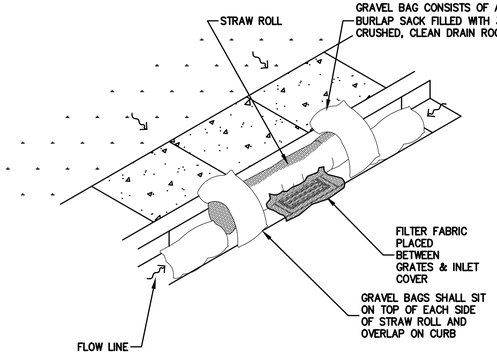
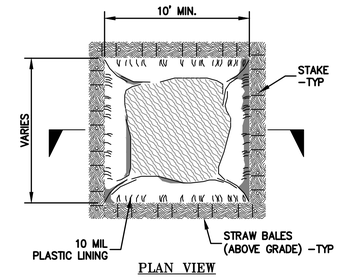


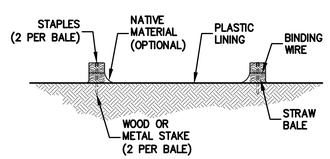
1 ER-3 **INLET PROTECTION**
NTS



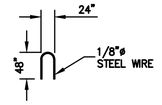
2 ER-3 **STREET INLET PROTECTION**
NTS



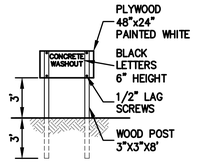
PLAN VIEW



SECTION



STAPLE DETAIL

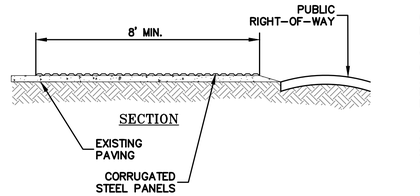


CONCRETE WASHOUT SIGN DETAIL

NOTES:
ACTUAL LAYOUT DETERMINED IN FIELD.

THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3 ER-3 **CONCRETE WASHOUT**
NTS



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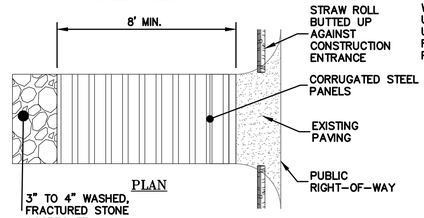


PLAN

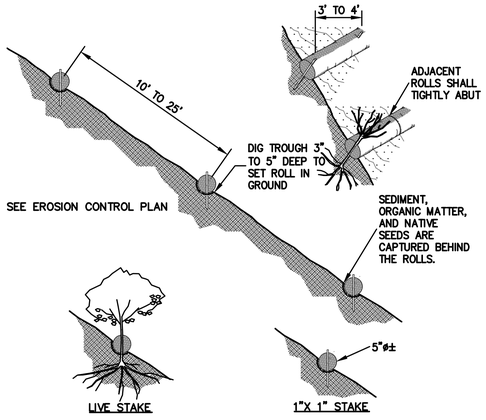
NOTES:
CORRUGATED STEEL PANELS SHALL BE A MINIMUM OF 8'.

WIDTH SHALL BE A MIN. OF 24' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.

3" TO 4" WASHED, FRACTURED STONE AGGREGATE MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12".

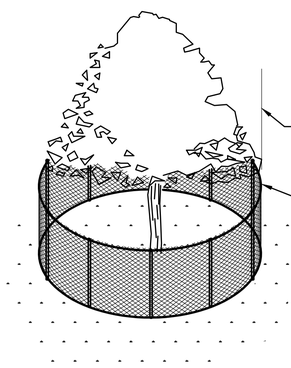
ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY.

4 ER-2 **STEEL PLATED CONSTRUCTION ENTRANCE**
NTS



NOTE:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

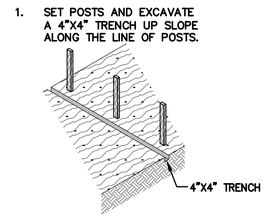
5 ER-3 **STRAW ROLLS**
NTS



NOTE:
REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR ADDITIONAL TREE PROTECTION INFORMATION.

NOTE:
LOCAL JURISDICTION MIGHT HAVE MORE STRINGENT REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING W/ INSPECTOR TO ENSURE PROPER PROCEDURES ARE BEING FOLLOWED.

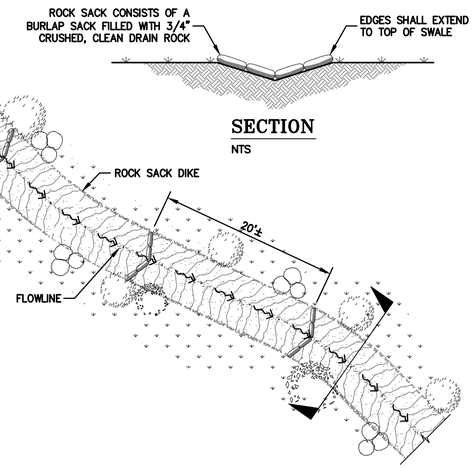
6 ER-3 **EXISTING TREE PROTECTION DETAIL**
NTS



NOTE:
PREMANUFACTURED SILT FENCE PRODUCTS MAY BE USED IN LIEU OF WIRE FENCE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN KEYING OF FABRIC PER THIS DETAIL.

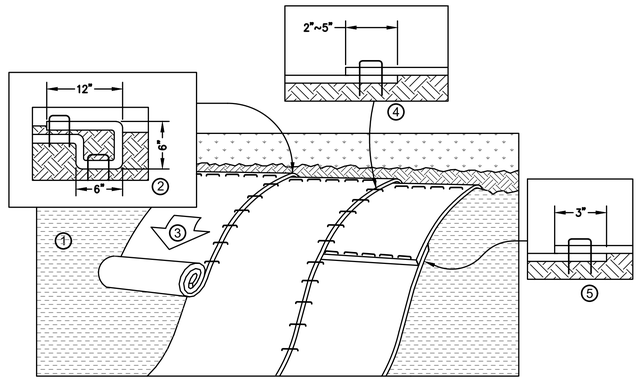
NOTE:
IT IS ESSENTIAL THAT THE WIRE/FABRIC BE FULLY EMBEDDED INTO THE GROUND SO RUN-OFF CANNOT FLOW FREELY UNDER FENCE.

7 ER-3 **SILT FENCE**
NTS



SECTION
NTS

8 ER-3 **ROCK SACK DIKE IN SWALE**
NTS



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   *NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACK FILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO PREPARED SOIL AND FOLD REMAINING 12" PORTION OF THE BLANKET BACK OVER SEED AND SOIL. SECURE BLANKET OVER SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH THE APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

EROSION CONTROL BLANKETS SHALL BE INSTALLED FOLLOWING MANUFACTURERS SPECIFICATIONS.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

9 ER-3 **EROSION CONTROL BLANKET FOR SOIL STABILIZATION**
NTS

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GRADING PLANS
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APN: 258-600-006-5
CONTRA COSTA COUNTY

EROSION CONTROL DETAILS

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DRAWN BY: WM
SHEET NO:

ER-3

17 OF 22 SHEETS

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY EROSION AND SEDIMENTATION. IT IS ALSO INTENDED TO PROTECT THE SITE, PUBLIC DRAINAGE FACILITIES AND NEIGHBORING PROPERTIES FROM OTHER POSSIBLE NON-STORMWATER POLLUTANTS. A DESCRIPTION OF POSSIBLE POLLUTANTS AND BEST MANAGEMENT PRACTICES IS PROVIDED IN THE PROJECT SWPPP.
ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

1. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS LONGER.
10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY CITY'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF SEDIMENT SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
14. EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 15TH.
15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 15 THRU APRIL 15, WHICHEVER IS GREATER.

EROSION CONTROL MEASURES:

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES. GRADING WORK BETWEEN OCTOBER 15 AND APRIL 15 IS AT THE DISCRETION OF THE LOCAL AGENCY BUILDING OFFICIAL.
2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
3. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
7. THE EROSION CONTROL MEASURES SHALL CONFORM TO THE COUNTY STANDARDS AND THE APPROVAL OF THE COUNTY'S ENGINEERING DEPARTMENT.
8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWNSLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY ENDBUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

SOURCE CONTROL MEASURES:

1. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
2. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASHWATER OF SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
3. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAIN ALL NECESSARY PERMITS.
4. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASHWATER IS CONTAINED AND TREATED.
5. DELINEATE WITH FIELD MARKERS LIMITS ON CLEARING, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DRAINAGE COURSES.
6. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
7. PERFORM CLEARING AND EARTH MOVING ACTIVITIES ONLY DURING DRY WEATHER.
8. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
9. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
10. AVOID TRACKING DIRT OR OTHER MATERIALS OFF-SITE. CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS.

SITE DESIGN MEASURES:

1. PROTECT SENSITIVE AREAS AND MINIMIZE CHANGES TO THE NATURAL TOPOGRAPHY.
2. MINIMIZE IMPERVIOUS SURFACE AREAS.
3. MINIMIZE IMPERVIOUS AREAS FROM BEING DIRECTLY CONNECTED TO THE STORM DRAIN SYSTEM WHERE FEASIBLE.
4. MAXIMIZE PERMEABILITY BY PRESERVING OPEN SPACE.
5. USE PERMEABLE PAVEMENT SURFACES WHERE FEASIBLE.
6. USE LANDSCAPE AREAS AND SWALES TO TREAT STORM WATER.
7. PROVIDE PERMANENT EROSION CONTROL MEASURES.
8. PROVIDE A STORM WATER DESIGN THAT DOES NOT INCREASE POST-CONSTRUCTION RUNOFF.

REFERENCES:

1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

NOTE:
ALL SITE GRADING AND CONSTRUCTION OPERATIONS PREFORMED DURING THE RAINY SEASON (OCTOBER 01 TO APRIL 15) SHALL BE AT THE DISCRETION OF THE TOWN ENGINEER.
IF GRADING OR CONSTRUCTION ACTIVITIES ARE PERFORMED DURING THE RAINY SEASON, ADDITIONAL SITE BMPS MAY BE REQUIRED BY THE QSD/QSP BASED ON WEATHER CONDITIONS, SITE CONDITIONS, AND CONSTRUCTION ACTIVITIES BEING PREFORMED.

PERIODIC MAINTENANCE:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
   A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
   B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
   C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
   E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   F. FILLS AND GULLIES MUST BE REPAIRED.
2. SAND BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE SAND BAG.
3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION.

DUST CONTROL GUIDELINES:

A. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANY TIME DURING THE COURSE OF THE PROJECT.

B. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE (ALL GRADED/DISTURBED AREAS, PRIVATE ROADS AND, IF APPLICABLE, PUBLIC COUNTY ROADWAYS) WHEN REQUIRED BY THE COUNTY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL ENGINEER, AND THE REGIONAL WATER QUALITY CONTROL BOARD.

NOTE:
ALL SITE GRADING AND CONSTRUCTION OPERATIONS PREFORMED DURING THE RAINY SEASON (OCTOBER 01 TO APRIL 15) SHALL BE AT THE DISCRETION OF THE CITY ENGINEER.
IF GRADING OR CONSTRUCTION ACTIVITIES ARE PERFORMED DURING THE RAINY SEASON, ADDITIONAL SITE BMPS MAY BE REQUIRED BY THE QSD/QSP BASED ON WEATHER CONDITIONS, SITE CONDITIONS, AND CONSTRUCTION ACTIVITIES BEING PREFORMED.

GENERAL CONSTRUCTION AND SITE SUPERVISOR GUIDELINES:

A. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30 AND AS NEEDED YEAR ROUND TO MAINTAIN EFFECTIVE STORMWATER MANAGEMENT. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF FIBER ROLLS AND/OR COIR NETTING, AND THE USE OF PASSIVE MEASURES, SUCH AS RE-VEGETATING DISTURBED AREAS WITH PLANTS NATIVE TO THE GENERAL AREA. CLEARING AND EARTH MOVING ACTIVITIES SHALL OCCUR ONLY DURING DRY WEATHER.

B. SEQUENCE CONSTRUCTION TO INSTALL SEDIMENT-CAPTURING DEVICES FIRST, FOLLOWED BY RUNOFF CONTROL MEASURES AND RUNOFF CONVEYANCES. NO CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL AFTER ALL PROPOSED MEASURES ARE IN PLACE.

C. MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ONE TIME (PHASED GRADING). CLEAR ONLY AREAS ESSENTIAL FOR CONSTRUCTION.

D. WITHIN FIVE DAYS OF CLEARING OR INACTIVITY IN CONSTRUCTION, STABILIZE BARE SOILS THROUGH EITHER NON-VEGETATIVE BMPS, SUCH AS MULCHING, OR VEGETATIVE EROSION CONTROL METHODS, SUCH AS SEEDING. VEGETATIVE EROSION CONTROL MEASURES SHALL BE ESTABLISHED WITHIN TWO WEEKS OF SEEDING/PLANTING.

E. CONSTRUCTION ENTRANCES AND ACCESS ROUTES SHALL BE LIMITED AND STABILIZED AT DESIGNATED ACCESS POINTS IMMEDIATELY AFTER GRADING AND FREQUENTLY MAINTAINED TO PREVENT EROSION AND CONTROL DUST.

F. AVOID TRACKING DIRT OR OTHER MATERIALS OFF-SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS.

G. CONTROL WIND-BORN DUST THROUGH THE INSTALLATION OF WIND BARRIERS SUCH AS HAY BALES AND/OR SPRINKLING.

H. SOIL AND/OR OTHER CONSTRUCTION-RELATED MATERIAL STOCKPILED ON-SITE SHALL BE PLACED AT A MINIMUM OF 200 FEET FROM ALL WETLANDS AND DRAIN COURSES. STOCKPILED SOILS SHALL BE COVERED WITH TARPS AT ALL TIMES OF THE YEAR.

I. INTERCEPT RUNOFF ABOVE DISTURBED SLOPES AND CONVEY IT TO A PERMANENT CHANNEL OR STORM DRAINS BY USING EARTH DIKES, PERIMETER DIKES OR SWALES, OR DIVERSIONS. USE CHECK DAMS WHERE APPROPRIATE.

J. PROVIDE PROTECTION FOR RUNOFF CONVEYANCE OUTLETS BY REDUCING FLOW VELOCITY AND DISSIPATING FLOW ENERGY.

K. INSTALL STORM DRAIN INLET PROTECTION THAT TRAPS SEDIMENT BEFORE IT ENTERS ANY ADJACENT STORM SEWER SYSTEMS. THIS BARRIER SHALL CONSIST OF FILTER FABRIC, STRAW BALES, GRAVEL, OR SAND BAGS.

L. PROTECTING ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.

M. INSTALL SEDIMENT TRAPS/BASINS AT OUTLETS OF DIVERSIONS, CHANNELS, SLOPE DRAINS, OR OTHER RUNOFF CONVEYANCES THAT DISCHARGE SEDIMENT-LADEN WATER. SEDIMENT TRAPS/BASINS SHALL BE CLEANED OUT WHEN 50% FULL (BY VOLUME).

N. USE SILT FENCE AND/OR VEGETATED FILTER STRIPS TO TRAP SEDIMENT CONTAINED IN SHEET FLOW. THE MAXIMUM DRAINAGE AREA TO THE FENCE SHOULD BE 0.5-ACRE OR LESS PER 100 FEET OF FENCE. SILT FENCES SHALL BE INSPECTED REGULARLY AND SEDIMENT REMOVED WHEN IT REACHES 1/3 OF THE FENCE HEIGHT. VEGETATED FILTER STRIPS SHOULD HAVE RELATIVELY FLAT SLOPES AND BE VEGETATED WITH EROSION RESISTANT SPECIES.

O. THROUGHOUT THE CONSTRUCTION PERIOD, THE APPLICANT SHALL CONDUCT REGULAR INSPECTIONS OF THE CONDITION AND OPERATIONAL STATUS OF ALL STRUCTURAL BMPS REQUIRED BY THE APPROVED EROSION CONTROL PLAN.

P. STORE, HANDLE AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

Q. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.

R. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DE-WATERING SITE AND OBTAIN ALL NECESSARY PERMITS.

S. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED.

T. DELINEATE WITH FIELD MARKERS CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES, AND DRAINAGE COURSES.

U. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

V. THE CONTRACTOR SHALL TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE CONSTRUCTION BEST MANAGEMENT PRACTICES, INCLUDING, BUT NOT LIMITED TO, THOSE LISTED ABOVE.

W. THE PROJECT CONTRACTOR SHALL TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE CONSTRUCTION BEST MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TO, THOSE LISTED ABOVE.

X. ADDITIONAL BEST MANAGEMENT PRACTICES, IN ADDITION TO THOSE SHOWN ON THE APPROVED PLANS, MAY BE REQUIRED BY THE BUILDING INSPECTOR TO MAINTAIN EFFECTIVE STORMWATER MANAGEMENT DURING CONSTRUCTION ACTIVITIES AND FOR POST-CONSTRUCTION SITE STABILIZATION. ANY WATER LEAVING THE SITE SHALL BE CLEAR AND RUNNING SLOWLY AT ALL TIMES.

REGISTERED PROFESSIONAL ENGINEER
JAMES TORR
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

APN: 258-600-006-5
CONTRA COSTA COUNTY

EROSION CONTROL NOTES

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
3 GEOTECH COMMENTS 8-8-18	MH
4 TOWN COMMENTS 5-8-19	MH
5 GEOTECH COMMENTS 6-25-19	MH
6 TOWN SUBMITTAL 4-30-21	MH
7 SITE UPDATE 7-6-21	MH
8 TOWN COMMENTS 12-3-21	MH

JOB NO:	2150582
DATE:	11-17-17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	ER-4

SUBDIVISION 9051 –HETFIELD ESTATES
LIPSON PROPERTY – 0 HETFIELD PLACE
MORAGA, CA

ITEM NO. DESCRIPTION

PLANNING STANDARD CONDITIONS AND PROJECT–SPECIFIC CONDITIONS

1 THIS APPROVAL AUTHORIZES THE FOLLOWING, AS APPROVED BY THE TOWN OF MORAGA TOWN COUNCIL ON MAY 21, 2014: HETFIELD ESTATES GENERAL DEVELOPMENT PLAN (GDP), VESTING TENTATIVE SUBDIVISION MAP (VTM), CONDITIONAL USE PERMIT (CUP) AND HILLSIDE DEVELOPMENT PERMIT. THE APPROVALS WOULD ALLOW FOR DEVELOPMENT OF SEVEN (7) SINGLE–FAMILY HOMES ON INDIVIDUAL LOTS, ONE COMMON AREA PARCEL, AND ASSOCIATED IMPROVEMENTS.

2 FURTHER APPROVALS NECESSARY TO ALLOW DEVELOPMENT OF THE SITE INCLUDE, BUT MAY NOT BE LIMITED TO A PRECISE DEVELOPMENT PLAN, FINAL MAP, IMPROVEMENT PLANS, BUILDING PERMIT PLANS, LANDSCAPE PLANS AND GRADING PLANS. ALL SUCH PLANS SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVALS LISTED IN CONDITION #1, ABOVE, AS APPROVED BY THE TOWN COUNCIL ON MAY 21, 2014 AND MORE FULLY DESCRIBED IN THE RESOLUTION AND ITS EXHIBITS AND AS MODIFIED BY THESE CONDITIONS OF APPROVAL. CONDITIONS OF APPROVAL REQUIRED AT SUBSEQUENT PROJECT STAGES NEED NOT BE SATISFIED PRIOR – TO APPROVAL OF THE PRECISE DEVELOPMENT PLAN OR FINAL MAP, BUT SHALL CONTINUE TO BE REQUIRED AT SUBSEQUENT DEVELOPMENT STAGES AS PROVIDED HEREIN,. UNLESS A CONDITION OR THE TIMING FOR ITS SATISFACTION IS MODIFIED AT THE REQUEST OF THE APPLICANT AND WITH THE APPROVAL OF THE PLANNING COMMISSION, OR APPROVED BY THE TOWN AS OTHERWISE SPECIFIED HEREIN.[CDP COA NO.7 AND 9]

3 EIR MITIGATION COMPLIANCE. ALL REQUIRED MITIGATION MEASURES IDENTIFIED IN THE CERTIFIED ENVIRONMENTAL IMPACT REPORT (SCH# 2009022086) ("EIR") SHALL BE IMPLEMENTED AND MONITORED IN ACCORDANCE WITH THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP). THE MITIGATION MEASURES IDENTIFIED BY MILLS ASSOCIATES IN THE FINAL MITIGATION MONITORING AND REPORTING PLAN (MARCH 23, 2012) OF THE FINAL EIR AND AS STIPULATED IN THE MITIGATION MONITORING AND REPORTING PROGRAM ADOPTED BY THE PLANNING COMMISSION AT ITS JULY 16, 2012 MEETING SHALL BE IMPLEMENTED. THE APPLICANT SHALL FUND A TOWN–CONTRACTED INDIVIDUAL TO MONITOR COMPLIANCE WITH MITIGATION MEASURES AND CONDITIONS OF APPROVAL. DURING GRADING AND CONSTRUCTION ACTIVITIES, A SIGN SHALL BE POSTED ON THE SITE WITH THE NAME AND CONTACT INFORMATION FOR THE MITIGATION AND CONDITION COMPLIANCE OFFICER. [COP COA NO.8 AND 89]

4 APPLICANT RESPONSIBLE FOR COMPLIANCE WITH CONDITIONS. THE APPLICANT SHALL ENSURE COMPLIANCE WITH ALL OF THE CONDITIONS SPECIFIED IN THESE CONDITIONS OF APPROVAL, INCLUDING SUBMITTAL TO THE TOWN REQUIRED APPROVAL SIGNATURES AT THE TIMES SPECIFIED. NOTICE OF FAILURE TO COMPLY WITH ANY CONDITION SHALL BE PROVIDED TO THE APPLICANT BY THE TOWN, AND A REASONABLE OPPORTUNITY TO GAIN COMPLIANCE PROVIDED. APPLICANT'S FAILURE TO COMPLY WITH ANY CONDITION MAY RESULT IN CONSTRUCTION BEING STOPPED, ISSUANCE OF A CITATION, AND/OR MODIFICATION OR REVOCATION OF THE PERMIT. [CDP COA NO. 2]

5 PRIOR TO APPROVAL OF THE PRECISE DEVELOPMENT PLAN (PDP), THE APPLICANT OR ITS SUCCESSORS SHALL PROVIDE A PLAN FOR THE IMPLEMENTATION OF AND VERIFICATION OF IMPLEMENTATION OF THE CONDITIONS OF APPROVAL. [CDP COA NO. 97]

6 TOWN STAFF (INCLUDING AUTHORIZED AGENTS) SHALL HAVE THE RIGHT TO ENTER THE SUBJECT PROPERTY TO VERIFY COMPLIANCE WITH THESE CONDITIONS. THE HOLDER OF ANY PERMIT ASSOCIATED WITH THIS PROJECT SHALL MAKE THE PREMISES AVAILABLE TO TOWN STAFF DURING REGULAR BUSINESS HOURS AND SHALL, UPON REQUEST, MAKE RECORDS AND DOCUMENTS AVAILABLE TO TOWN STAFF AS NECESSARY TO EVIDENCE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE PERMIT.

7 WHERE COMPLIANCE WITH THE CONDITIONS OF APPROVAL OR APPLICANT INITIATED CHANGES TO THE HETFIELD ESTATES SUBDIVISION REQUIRES ADDITIONAL STAFF WORK, THAT TIME SHALL BE BILLED AT THE TOWN'S ESTABLISHED BILLING RATES AT THE TIME ANY SUCH ADDITIONAL STAFF WORK MAY BE REQUIRED.

8 ALL NEW IMPROVEMENTS CONSTRUCTED ON THE SITE SHALL BE IN COMPLIANCE WITH ALL LOCAL STATE AND FEDERAL LAWS, STATUTES, ORDINANCES, REGULATIONS, RULES, ORDERS, JUDGEMENTS, DECREES, PERMITS, APPROVALS AND THE LIKE REQUIREMENTS APPLICABLE THERETO AND IN FORCE AT THE TIME THEREOF ("APPLICABLE LAW"). "LOCAL, STATE AND FEDERAL" APPLICABLE LAW SHALL INCLUDE WITHOUT LIMITATION, THE APPLICABLE LAW OF THE TOWN OF MORAGA; CONTRA COSTA COUNTY; MORAGA ORINDA FIRE DISTRICT, BAY AREA AIR QUALITY MANAGEMENT DISTRICT, SAN FRANCISCO BAY AREA REGIONAL WATER QUALITY CONTROL BOARD; CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, US ARMY CORPS OF ENGINEERS; STATE OF CALIFORNIA; AND UNITED STATES OF AMERICA.

9 THROUGHOUT ALL OF THE VARIOUS PHASES OF PROJECT CONSTRUCTION, EXISTING PUBLIC STREETS, TRAILS, SIDEWALKS, AND BIKE LANES MUST BE MAINTAINED IN A SAFE AND USABLE CONDITION OR A SAFE ALTERNATE ROUTE OR DETOUR PROVIDED IF CLOSURE IS NECESSARY DUE TO CONSTRUCTION. SUCH CLOSURES OR DETOURS SHALL BE ADDRESSED AS PART OF A TOWN–APPROVED CONSTRUCTION MANAGEMENT PLAN OR TRAFFIC MANAGEMENT PLAN FOR THE PROJECT. TRAILS, BIKE LANES AND SIDEWALKS SHALL BE CONSTRUCTED AT THE SAME TIME AS ANY OR ALL ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

10 DOCUMENTATION OF REMEDIAL ACTIONS. APPLICANT SHALL DOCUMENT IF ANY REMEDIAL ACTIONS ARE NECESSARY FOR LANDSLIDES THAT ARE NOT PROPOSED FOR DISTURBANCE BUT THAT ARE WITHIN 100 YARDS OF GROUND DISTURBANCE. THIS IS ESPECIALLY TRUE FOR MAPPED LANDSLIDE 1. DOCUMENTATION SHALL BE SUBMITTED TO THE TOWN GEOLOGIST WHO SHALL REVIEW AND APPROVE PRIOR TO APPLICANT UNDERTAKING REMEDIAL ACTIONS.

11 TIMING OF FUTURE APPROVALS. DESIGN REVIEW SHALL BE REQUIRED FOR THE RESIDENCES AND FOR THE DESIGN OF THE ACCESS ROADWAY BRIDGE. PRIOR TO APPROVAL OF INDIVIDUAL DESIGN REVIEW APPLICATIONS AND BUILDING PERMITS FOR ANY CUSTOM RESIDENCES, APPROVAL OF A PRECISE DEVELOPMENT PLAN SHALL BE OBTAINED.

12 A GRADING PERMIT (PURSUANT TO MMC 14.04.031) SHALL BE OBTAINED PRIOR TO, OR IN CONJUNCTION WITH THE REVIEW AND APPROVAL OF THE FINAL MAP AND PRECISE DEVELOPMENT PLAN. [MODIFIED COP COA NO. 10]

13 BOND. THE APPLICANT SHALL PREPARE A "BOND STUDY" PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP. THE BOND STUDY SHALL BE SUBJECT TO TOWN REVIEW AND APPROVAL AND SHALL ADDRESS THE FOLLOWING (AT A MINIMUM): COSTS SUCH AS RE–GRADING THE SITE TO MORE NATURAL CONTOURS AND REMOVAL OF PAVING AND RETAINING WALLS IF REASONABLE PROGRESS TO CONSTRUCT AT LEAST ONE SINGLE–FAMILY HOME WITHIN 2 YEARS OF APPROVAL OF THE GRADING PERMIT HAS NOT BEEN MADE; LANDSCAPING OF SITE TO RESTORE GRADED AREAS; SLIDE REPAIR AND CORRECTIVE GRADING TO ELIMINATE ANY RISKS FOR ADJOINING NEIGHBORS; COMPLETION OF THE SITE ACCESS ROAD, BRIDGE, STORM DRAINAGE SYSTEM AND EROSION CONTROL IMPROVEMENTS IF APPLICABLE; AND OTHER SIMILAR ITEMS. TIME LIMITS CAN BE EXTENDED UNDER UNUSUAL CIRCUMSTANCES AS ALLOWED BY THE TOWN PLANNING DIRECTOR AND/OR(TOWN ENGINEER. THE "BOND STUDY" SHALL IDENTIFY THE ITEMS THAT WILL BE COVERED BY THE BOND, THE AMOUNT TO BE DEPOSITED, AND CONDITIONS FOR USE OF BOND FUNDS. SEED MONEY SHALL ALSO BE PROVIDED TO ALLOW REPAIRS IF ANY DAMAGE OCCURS IN ASSOCIATION WITH LANDSLIDE1, 5 OR 6. BOND REQUIREMENTS SHALL BE STIPULATED AT THE TIME OF FINAL SUBDIVISION MAP APPROVAL. BOND MONEY SHALL BE AVAILABLE PRIOR TO ISSUANCE OF THE GRADING PERMIT. SEPARATE BONDS MAY BE REQUIRED A) FOR COMPLETION OF IMPROVEMENTS, AND B) FOR SITE RESTORATION OF THE SITE IF NOT DEVELOPED PER THE TIMELINES SPECIFIED IN THIS CONDITION.[CDP COA NO. 11]

14 TREE AND SHRUBBERY PLANTINGS. SHRUB AND/OR TREE PLANTINGS (MINIMUM HEIGHT AT MATURITY OF 5 FEET) SHALL BE PLANTED AT THE NORTHERN EDGE OF ALL LOTS WITH GRADED SLOPES THAT WILL BE VISIBLE FROM HOMES ON SANDERS DRIVE AS SHOWN IN THE GDP/VTM. THESE INCLUDE LOTS 1, 2 AND 3. TREES SHALL BE PLANTED FROM NO SMALLER THAN 15–GALLON CONTAINERS WITHIN ONE MONTH OF CONCLUSION OF CORRECTIVE GRADING. THIS LANDSCAPING CAN BE REMOVED WHEN INDIVIDUAL LOT DESIGNS ARE FINALIZED AND ACCEPTED AND THIS LANDSCAPING WOULD NOT BE SUBJECT TO THE REPLACEMENT RATIOS FOR TREES REMOVED FROM THE SITE. TREES AND SHRUBS PLANTED PRIOR TO INSTALLATION OF IRRIGATION SYSTEMS SHALL BE HAND WATERED UNTIL WATER PIPES AND AN AUTOMATIC IRRIGATION SYSTEM ARE INSTALLED AND OPERATIONAL TO PROVIDE FOR WATERING.[CDP COA NO. 13]

15 ROADS. AT THE TIME OF GRADING, A PRIVATE ONSITE ACCESS ROAD SHALL BE CONSTRUCTED TO TOWN AND MORAGA–ORINDA FIRE DISTRICT (MOFD) STANDARDS AND SHALL BE MAINTAINED BY THE APPLICANT UNTIL A HOMEOWNERS' ASSOCIATION IS ESTABLISHED AND SUFFICIENTLY FUNDED. THE PRIVATE ROAD SHALL PROVIDE PUBLIC ACCESS AND SHALL NOT BE GATED. SUBDIVISION IMPROVEMENTS (INCLUDING ROADS) SHALL BE REVIEWED AT THE TIME OF THE FINAL SUBDIVISION MAP APPLICATION TO ENSURE COMPLIANCE WITH IMPROVEMENTS SHOWN AT THE TIME OF THE VESTING TENTATIVE MAP. [MODIFIED COP COA NO. 14]

16 TRAILS AND TRAIL GATES. NO LOCKED GATES OR OTHER BARRIERS LIMITING PEDESTRIAN AND BICYCLIST ACCESS TO ONSITE TRAILS DESIGNATED FOR PUBLIC ACCESS SHALL BE ALLOWED. TRAILS SHALL BE MULTI–USE, I.E. ALLOWING BOTH BICYCLISTS AND PEDESTRIANS (PER EBRPD REQUEST). BARRIERS MAY BE ALLOWED FOR CATTLE GRAZING AND TO PREVENT UNAUTHORIZED MOTORIZED USE OF A FUTURE FIRE TRAIL OR EVA OR THE COMMON AREA PARCEL. THE TRAILS SHALL BE DESIGNED AND INSTALLED BY THE APPLICANT, AND MAINTAINED BY THE APPLICANT UNTIL THE RESPONSIBLE ENTITY (HOA OR GHAD) IS ESTABLISHED, SUFFICIENTLY FUNDED, AND ABLE TO ASSUME MAINTENANCE RESPONSIBILITIES. [MODIFIED COP COA NO. 16]

17 HOME SIZES. HOMES SHALL BE LIMITED IN SIZE TO A MAXIMUM OF 4,000 GROSS SQUARE FEET (INCLUDING GARAGES) AND SHALL BE BUILT WITHIN THE BUILDING ENVELOPES SHOWN ON THE GENERAL DEVELOPMENT PLAN. ALL HOMES SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL TO ENSURE COMPATIBILITY WITH NEIGHBORING RESIDENCES AND CONSISTENCY WITH APPLICABLE DESIGN GUIDELINES. [CDP COA NO. 40]

18 STORY POLES. AT THE TIME OF DESIGN REVIEW, STORY POLES FOR ALL HOMES (WITH RIDGELINES TAPED) SHALL BE REQUIRED. STORY POLES SHALL BE PLACED NO LATER THAN TWO WEEKS PRIOR TO THE SCHEDULED DRB MEETING. [MODIFIED COP COA NO. 45]

19 DEVELOPMENT STANDARDS: HOMES WITHIN THE PROJECT SHALL CONFORM TO THE FOLLOWING DEVELOPMENT STANDARDS:

A USABLE YARD SPACE. USABLE YARD SPACE (HAVING MINIMUM DIMENSIONS OF 25 FT. BY 40FT.) SHALL BE PROVIDED FOR EACH LOT.

B SETBACKS. THE FOLLOWING MINIMUM SETBACKS SHALL APPLY FOR PURPOSES OF DETERMINING BUILDING ENVELOPE, BUT SHALL NOT BE CONSIDERED A MAXIMUM; SETBACKS BEYOND THE MINIMUMS SPECIFIED BELOW MAY BE REQUIRED AS PART OF DESIGN REVIEW IF JUSTIFIED BY SPECIFIC DESIGN OR LOT–SPECIFIC CONDITION

i. SIDE YARD: MINIMUM 10FT.;

ii. REAR YARD SETBACKS: MINIMUM 10 FT. FROM THE RETAINING WALLS FOR THE 3:1 GRADED SLOPES.

C "FRONT YARD SETBACKS: MINIMUM OF 15 FEET FROM THE EDGE OF THE STREET RIGHT–OF WAY, CALCULATED AS AN AVERAGE FOR ALL LOTS.
"

D LOT SIZE. NONE OF THE LOTS FOR INDIVIDUAL HOMES SHALL BE SMALLER THAN 15,000 SQUARE FEET OR LARGER THAN 27,000 SQUARE FEET. THE "COMMON AREA" PARCEL THAT SHALL BE RETAINED AS PERMANENT OPEN SPACE SHALL BE APPROXIMATELY 54 ACRES.

20 BUILDING COLORS. COLOR SELECTION FOR BUILDING EXTERIORS AND ROOFS SHALL BE RESTRICTED TO COLORS THAT BLEND WITH THE LANDSCAPE DURING THE DRY SEASON (I.E., EARTHTONES, TANS AND LIGHT BROWNS). [MODIFIED COP COA NO. 61]

21 VISUAL MEASURES. TO MINIMIZE REFLECTIVE LIGHT AND GLARE, AND ENSURE LONG–TERM MAINTENANCE OF VISUAL QUALITY, DESIGN, MATERIALS AND ILLUMINATION SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL, AND PROJECT SHALL IMPLEMENT THE FOLLOWING PRIOR TO FINAL DESIGN REVIEW:

A USE NON–REFLECTIVE EXTERIOR MATERIAL AND FINISHES.

B ENSURE THAT ALL EXTERIOR LIGHTING SHALL BE REFLECTED DOWNWARD. NO MONUMENT SIGNS ARE ALLOWED, LIT OR UNLIT. ANY LIGHTING SHALL BE DARK SKY COMPLIANT, IN ACCORDANCE WITH INDUSTRY STANDARDS SUCH AS THOSE ESTABLISHED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA).

C PROVIDE SAFETY LIGHTING THAT INCORPORATES LOW VOLTAGE/LOW LUMOSITY LIGHTING AND/OR TREATMENTS DESIGNED TO REDUCE THE AMOUNT OF SPILLOVER INTO SURROUNDING AREAS. [MODIFIED CDP COA NO. 62 AND 101]

22 GREEN BUILDING. THE DESIGN REVIEW FOR THE PRECISE DEVELOPMENT PLAN SHALL INCLUDE A REVIEW OF ITS GREEN BUILDING PROGRAM COMPONENTS, WHICH SHALL DEMONSTRATE HOW IT IS EXPECTED THE PROJECT WILL OBTAIN A SCORE OF 90 POINTS (AT A MINIMUM) PURSUANT TO THE TOWN'S "BUILD IT GREEN PROGRAM" AND DEMONSTRATING ENERGY EFFICIENCY AND SUSTAINABILITY BEYOND CURRENT CODE REQUIREMENTS. PHOTOVOLTAIC PANELS SHALL BE OFFERED TO BUYERS AS AN OPTION. [MODIFIED CDP COA NO. 64]

23 GUEST PARKING. NO LESS THAN 2 GUEST PARKING SPACES SHALL BE PROVIDED ON EACH LOT, IN ADDITION TO THE MINIMUM NUMBER OF COVERED AND UNCOVERED PARKING SPACES ORDINARILY REQUIRED FOR SINGLE FAMILY HOME BY THE MORAGA MUNICIPAL CODE. GUEST PARKING MAY BE PROVIDED AS TANDEM SPACES SET WITHIN THE DRIVEWAY. [MODIFIED COP COA NO. 19]

24 STREET PARKING. A MINIMUM OF 7 ON–STREET PARKING SPACES, INCLUDING FOUR SPACES ALONG THE ACCESS ROADWAY; AND THREE SPACES WITHIN THE CUL–DE–SAC, SHALL BE PROVIDED AND SHALL BE IDENTIFIED PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP, AND WHICH SHALL PROVIDE OVERFLOW GUEST PARKING AS WELL AS PARKING FOR TRAIL USERS. SIGNAGE SHALL BE POSTED SAYING "NO OVERNIGHT PARKING" WHERE ON–STREET PARKING IS PROVIDED. THE APPLICANT MAY, AT APPLICANT'S DISCRETION, REVISE THE PARKING PLAN TO PROVIDE ADDITIONAL PARKING WITHIN THE STREET PRIOR TO THE CUL DE SAC SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF MORAGA. THESE SPACES MAY BE IN LIEU OF THE SPACES NOW SHOWN IN THE PARKING BAY ON THE PLAN AND SHALL NUMBER AT LEAST THREE (3) FOR AN ON–STREET TOTAL OF AT LEAST SEVEN (7) SPACES. [MODIFIED COP COA NO. 20]

25 WATER CONSERVATION. THE PROJECT APPLICANT AND/OR PROPERTY OWNERS SHALL COMPLY WITH APPLICABLE WATER CONSERVATION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO:

A THE PROJECT APPLICANT SHALL COMPLY WITH THE ASSEMBLY BILL 325, MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495) INCLUDING INSTALLATION OF DROUGHT–TOLERANT LANDSCAPING AND WATER EFFICIENT IRRIGATION SYSTEMS WITHIN RESIDENTIAL OUTDOOR YARDS THAT INCLUDE EFFICIENT SPRINKLER HEADS OR DRIP IRRIGATION.

B INSTALLATION OF ULTRA–LOW FLOW TOILETS AND OTHER WATER–EFFICIENT FIXTURES, AS REQUIRED BY THE CALIFORNIA BUILDING CODE.

C THE PROJECT APPLICANT SHALL COMMIT TO ADDITIONAL DEMAND REDUCTION MEASURES, COMMENSURATE WITH THE AMOUNT OF THE PROJECT'S WATER DEMAND, OR AS SPECIFIED IN THE TOWN'S "BUILD IT GREEN PROGRAM". [MODIFIED CDP COA NO. 57]

26 MAINTENANCE OF COMMON AREA FACILITIES. APPLICANT AND/OR HOMEOWNERS' ASSOCIATION SHALL MAINTAIN ALL COMMON AREAS SUCH AS STREETS, DRAINAGE FACILITIES, STORMWATER TREATMENT AREAS AND ANY RETAINING WALLS NOT SPECIFICALLY LOCATED ON INDIVIDUAL PROPERTIES UNLESS THIS RESPONSIBILITY IS IDENTIFIED AS PART OF THE GHAD PLAN. THIS SHALL INCLUDE LITTER CONTROL.

27 HOA. CREATION OF A "HOMEOWNERS' ASSOCIATION" (HOA) SHALL BE REQUIRED FOR MAINTENANCE OF COMMON FACILITIES. THE HOA SHALL BE ESTABLISHED PRIOR TO THE APPROVAL OF THE FIRST BUILDING PERMIT. THE HOMEOWNER'S ARTICLES OF INCORPORATION AND CONDITIONS, COVENANTS AND RESTRICTIONS (CC&R'S) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE TOWN ATTORNEY. THE HOMEOWNERS' ASSOCIATION (HOA) SHALL MAINTAIN ALL PRIVATE STREETS AT A MINIMUM PAVEMENT CONDITION INDEX OF 70 AS DETERMINED USING THE METROPOLITAN TRANSPORTATION COMMISSION (MTC) PAVEMENT MANAGEMENT CONDITION (PMC) RATING SYSTEM RATING SYSTEM. THE HOA SHALL UNDERTAKE THE RESPONSIBILITIES OF THE LANDSCAPE LIGHTING AND DISTRIBUTION OF COMMON AREAS SUCH AS BRIDGE AND ROADWAY LIGHTING. [MODIFIED CDP COA NO. 38 AND 93]

28 ACCESS ROAD TO DEBRIS BENCH. THE PDP SHALL SHOW THE ACCESS ROAD TO THE DEBRIS BENCH.[MODIFIED CDP COA NO. 47]

29 THE 3:1 SLOPE AREA. ANY LANDSCAPE PLANS FOR THE AREA IN WHICH 3:1 SLOPES WILL RESULT FROM GRADING WITHIN PRIVATE LOTS SHALL BE REVIEWED BY THE TOWN'S GEOTECHNICAL ENGINEER TO ENSURE THAT PLANTINGS WILL BE APPROPRIATE FOR THE AREA AND WILL NOT UNDERMINE THE GEOLOGIC STABILITY OF THE SLOPE, AND THAT IRRIGATION PROVISIONS WILL BE ADEQUATE FOR THE SAME REASON. SUCH REVIEW SHALL OCCUR AT THE TIME OF DESIGN REVIEW. [MODIFIED CDP COA NO. 43]

OTHER SPECIAL CONDITIONS

30 REPAIR OF SLIDES AND FINAL GEOTECHNICAL WORK. A DETAILED GEOTECHNICAL STUDY SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP. ADDITIONAL GEOTECHNICAL STUDIES MAY BE REQUIRED AT THE TIME OF DESIGN REVIEW. DURING GRADING, THE APPLICANT'S GEOLOGIST AND THE TOWN'S GEOLOGIST SHALL BE ON THE SITE TO MONITOR EXCAVATIONS AND TO VERIFY THAT ALL SLIDE HAZARDS HAVE BEEN REMEDIATED AS DOCUMENTED IN THE MOST RECENT GEOTECHNICAL STUDY. A MINIMUM OF A 20–FOOT SETBACK SHALL BE MAINTAINED FOR ANY DISTURBANCE IN THE VICINITY OF SLIDES THAT ARE NOT STABILIZED AS PART OF THE CORRECTIVE GRADING UNLESS MITIGATION MEASURES THAT HAVE BEEN REVIEWED AND APPROVED BY THE TOWN ARE INCORPORATED IN THE PROJECT PLANS. NO LAND DISTURBANCE SHALL BE ALLOWED IN THIS SETBACK AREA. AT TIME OF PRECISE DEVELOPMENT PLAN (PDP), FURTHER GEOLOGICAL BORINGS MAY BE REQUIRED AT THE REQUEST OF THE TOWN GEOLOGIST. SUCH BORINGS MAY BE LARGE DIAMETER BORINGS (VS. CORE BORINGS) ASSUMING THAT SAFETY FOR DRILLING OPERATORS WILL NOT BE COMPROMISED DUE TO PRESENCE OF GROUNDWATER AND CHANCES OF "CAVING" CONDITIONS. [MODIFIED CDP COA NO. 41 AND 44 AND 83]

31 THE PROJECT APPLICANT SHALL REQUEST AND THE TOWN SHALL FORM, OR ANNEX INTO, A GEOLOGIC HAZARD ABATEMENT DISTRICT (GHAD) OR OTHER TOWN–DESIGNATED ENTITY, TO BE FUNDED IN PERPETUITY BY THE PROPERTY OWNERS WITHIN THE PROJECT THROUGH DISTRICT ASSESSMENTS, WITH INITIAL FUNDING BY THE PROJECT APPLICANT. THE GHAD SHALL BE ESTABLISHED PRIOR TO THE FIRST BUILDING PERMIT AND SHALL BE FUNDED BY THE DEVELOPER UNTIL HOMEOWNERS CAN BE ASSESSED THE GHAD FEES. A "GHAD PLAN" SHALL BE SUBMITTED BY THE APPLICANT PRIOR TO APPROVAL OF THE FINAL SUBDIVISION MAP TO ADDRESS THE FOLLOWING ITEMS. EITHER THE GHAD OR THE HOA MAY OWN THE OPEN SPACE PARCEL AND MANAGEMENT AND MAINTENANCE RESPONSIBILITIES AND FUNDING STRUCTURED ACCORDINGLY AND AGREEMENTS PERTAINING THERETO SUBJECT TO REVIEW BY THE TOWN OF MORAGA TO ENSURE CONFORMANCE WITH THESE CONDITIONS OF APPROVAL. THE GHAD PLAN SHALL ADDRESS THE FOLLOWING:

A THE GHAD SHALL HAVE ITS OWN DISTRICT ENGINEER AND OTHER QUALIFIED PROFESSIONAL CONSULTANTS, INCLUDING A QUALIFIED ECOLOGIST/BIOLOGIST.

B EXCEPT AS OTHERWISE ASSIGNED TO THE HOA, THE GHAD SHALL BE RESPONSIBLE FOR THE FOLLOWING MANAGEMENT, MONITORING AND MAINTENANCE TASKS WITHIN LANDS UNDER ITS OWNERSHIP OR CONTROL: (I) GEOTECHNICAL STABILITY AND EROSION CONTROL; (II) STORMWATER CONTROL AND WATER QUALITY BASINS; (III) OPEN SPACE GRAZING, FIRE PROTECTION AND CONTROL, TRAILS AND EVA; AND (IV) INTERMITTENT DRAINAGE, SEASONAL WETLANDS, SEEPS AND BIOLOGICAL RESOURCES.

B GHAD OBLIGATIONS SHALL INCLUDE COMPLIANCE WITH THE FINAL (I) GEOTECHNICAL STUDY, (II) DRAINAGE PLAN, (III) OPEN SPACE MANAGEMENT PLAN, (IV) PUBLIC TRAIL SYSTEM PLAN, (V) FIRE PROTECTION PLAN, (VI) WETLAND/SPECIAL–STATUS SPECIES PLAN, (VII) REVEGETATION PLAN, AND (VIII) CONSERVATION EASEMENT (OR OTHER APPROPRIATE DEED RESTRICTION). ALL OF THE ABOVE PLANS SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL MAP.

C PRE–FORMATION COSTS OF THE GHAD SHALL BE PAID BY THE PROJECT APPLICANT.

D EXCEPT FOR FUNCTIONS ASSIGNED TO THE HOA, THE GHAD SHALL PROVIDE SUFFICIENT FUNDING, IN PERPETUITY, FOR THE ESTIMATED COSTS OF THE FOLLOWING FUNCTIONS FOR WHICH IT IS RESPONSIBLE INCLUDING: (A) MONITORING AND ANNUAL REPORTING, (B) WEEDING, TRAIL MAINTENANCE, EROSION CONTROL AND REPAIR, GRAZING MANAGEMENT, AND FENCE REPAIR, AND (C) DEVELOPMENT OF A PLAN OF CONTROL. FUNDING SOURCES FOR THE GHAD MAY INCLUDE SEED MONEY PROVIDED BY THE PROJECT APPLICANT, ANNUAL CONTRIBUTIONS FROM HOMEOWNERS, AND INCOME FROM GRAZING LEASES.

E THE ACTIONS OF THE GHAD IN MEETING ITS RESPONSIBILITIES, INCLUDING THE ADEQUACY OF PERMANENT FUNDING FROM THE PROJECT APPLICANT AND FUTURE HOMEOWNERS, SHALL BE SUBJECT TO REVIEW, DIRECTION AND CONTROL BY THE GHAD BOARD OF DIRECTORS. ALTERNATIVELY, THE PROJECT APPLICANT SHALL ESTABLISH AN ENDOWMENT TO PROVIDE FOR ITS MAINTENANCE AND MONITORING. NO GRADING OR BUILDING PERMITS SHALL BE ISSUED BY THE TOWN UNTIL THE FUNDING SOURCES HAVE BEEN AGREED UPON AND SECURED. [MODIFIED CDP COA NO. 50 AND 83 AND 86]

32 CONSERVATION EASEMENT FOR OPEN SPACE PARCEL. THE COMMON AREA PARCEL (APPROXIMATELY 54 ACRES OF THE PROJECT AREA) AS SHOWN ON SHEET 1 OF 6 OF THE GDP APPLICATION SHALL BE PRESERVED IN A CONSERVATION EASEMENT, OR ALTERNATE TYPE OF DEED RESTRICTION APPROVED BY THE TOWN ATTORNEY, AS OPEN SPACE MANAGED AND PRESERVED BY THE GHAD OR HOA. THE FORM OF THE CONSERVATION EASEMENT SHALL BE APPROVED BY THE TOWN ATTORNEY AND THE EASEMENT SHALL BE RECORDED WITH THE FINAL SUBDIVISION MAP. [MODIFIED CDP COA NO. 52 AND 86]

33 CONSERVATION EASEMENT AREA. HABITATS WITHIN THE CONSERVATION EASEMENT SHALL BE MONITORED IN THE SPRING AND FALL FOR NO LESS THAN FIVE YEARS FOLLOWING INSTALLATION OF FENCING. PRIOR TO ISSUANCE OF BUILDING PERMITS, AN EDUCATION BROCHURE SHALL BE PRODUCED FOR FUTURE HOMEOWNERS DESCRIBING THE PURPOSE OF THE CONSERVATION EASEMENT AND OTHER MITIGATION MEASURES, THE SPECIES AND HABITATS BEING PROTECTED, PROHIBITED ACTIVITIES, AND HOMEOWNER RESPONSIBILITIES. THIS ISSUE SHALL BE ADDRESSED AS PART OF THE OPEN SPACE MANAGEMENT PLAN. [MODIFIED CDP COA NO. 74]

34 ONSITE OPEN SPACE. THE COMMON AREA PARCEL OF THE PROPERTY SHALL BE SUBJECT TO AN OPEN SPACE MANAGEMENT PLAN FOR THE PROJECT THAT MAY INCLUDE GRAZING OF THE UNDEVELOPED APPROXIMATELY 54 ACRES OF THE PROPERTY AS A MEANS OF FIRE PROTECTION AND OPEN SPACE PRESERVATION. THE OPEN SPACE MANAGEMENT PLAN, PREPARED BY A QUALIFIED ECOLOGIST WHO IS EITHER SELECTED BY THE TOWN, OR WHOSE WORK SHALL BE SUBJECT TO PEER REVIEW BY A TOWN–SELECTED CONSULTANT,, SHALL BE CONSISTENT WITH RESOURCE AGENCY PERMIT CONDITIONS AND SHALL ALLOW FOR PUBLIC TRAIL ACCESS AS OTHERWISE SPECIFIED IN THESE CONDITIONS OF APPROVAL. THE PLAN SHALL BE CONSISTENT WITH AND INCORPORATE THE FIRE PROTECTION PLAN. THE FOLLOWING INFORMATION SHALL BE INCLUDED AS PART OF A FINAL OPEN SPACE MANAGEMENT PLAN THAT SHALL BE COMPLETED PRIOR TO APPROVAL OF THE FINAL MAP:

A A TOTAL OF APPROXIMATELY 54 ACRES OF GRASSLAND, SCRUB AND OAK WOODLAND SHALL BE DESIGNATED AS A PERMANENT CONSERVATION EASEMENT, OR OTHER SUITABLE DEED RESTRICTION, AND CONVEYED TO THE GHAD OR HOA AS APPROVED BY THE TOWN, USFWS AND CDFG FOR PRESERVATION IN PERPETUITY;

B THE ONSITE RIPARIAN AREA WITHIN THE CONSERVATION EASEMENT AREA SHALL BE PROTECTED FROM GRAZING BY A PERMANENT WILDLIFE–PASSABLE FENCE TO EXCLUDE LIVESTOCK FROM THE CHANNEL BANKS;

C EXISTING SPRINGS WITHIN ANY AREAS PROPOSED FOR GRAZING SHALL BE FENCED WITH WILDLIFE PASSABLE FENCING TO EXCLUDE LIVESTOCK. IF ACCESS TO WATER IS REQUIRED, WATER MAY BE PIPED FROM THE SPRINGS TO WATER TROUGHS OUTSIDE OF THE ENCLOSURE FENCING;

D RESTRICTIONS ON VEHICLE ACCESS SHALL BE IDENTIFIED, AND LONG–TERM RISK MANAGEMENT AND OTHER CRITERIA AS REQUIRED BY THE FIRE MARSHAL SHALL BE ADDRESSED; AND

E NO GRAZING SHALL BE ALLOWED WITHIN 350 FEET OF THE WESTERN PROPERTY BOUNDARY. [MODIFIED CDP COA NO. 7 AND 79 AND 80]

35 WETLANDS. THE WETLAND MITIGATION PLAN (AS DEFINED IN THE MMRP) SHALL BE REVIEWED BY THE TOWN BIOLOGIST MONITOR PRIOR TO SUBMITTAL TO THE USACE, CDFG, AND RWQCB FOR APPROVAL. APPROVAL OF THE WETLAND MITIGATION PLAN FROM APPLICABLE AGENCIES SHALL OCCUR PRIOR TO APPROVAL OF THE FINAL MAP AND SUBMITTAL OF THE WETLAND MITIGATION PLAN TO THE TOWN SHALL OCCUR PRIOR TO FINAL MAP APPROVAL. ALL WETLAND MITIGATION MEASURES IDENTIFIED IN THE ADOPTED MMRP SHALL BE COMPLETED. THE JURISDICTIONAL WETLANDS (RECREATED AND PRESERVED) SHALL BE INCORPORATED IN THE FINAL LANDSCA

C THE FIRE TRAIL SHALL BE CONSTRUCTED A) IF SO APPROVED BY THE TOWN COUNCIL OR B) IF THE SANDERS RANCH HOMEOWNERS ASSOCIATION AGREES TO COMPLETE A CONNECTION OF THE FIRE TRAIL TO SANDERS RANCH ROAD, DURING A PERIOD THAT SHALL END NO LATER 10 YEARS AFTER ISSUANCE OF THE FIRST BUILDING PERMIT. THE FUNDS SHALL BE HELD BY THE GHAD (OR THE TOWN OR OTHER ENTITY DESIGNATED BY THE TOWN COUNCIL) FOR A PERIOD OF TEN YEARS. DURING THIS PERIOD THE GHAD MANAGER (OR OTHER APPROPRIATE RESPONSIBLE AGENT FOR ANOTHER DESIGNATED ENTITY) SHALL BE REQUIRED TO SUBMIT A FORMAL REQUEST TO THE SANDERS RANCH HOMEOWNERS ASSOCIATION (SRHOA) AS TO WHETHER THE SRHOA IS WILLING TO COMPLETE A CONNECTION OF THE FIRE TRAIL FROM THE HETFIELD PROPERTY LINE WITH SANDERS RANCH TO SANDERS RANCH ROAD. SUCH REQUEST TO THE SRHOA SHALL BE SUBMITTED NO LATER THAN 30 DAYS FOLLOWING ISSUANCE OF THE FIRST BUILDING PERMIT, AND NOT LESS THAN ONCE EVERY TWO YEARS THEREAFTER, AND A COPY OF THE REQUEST PROVIDED TO THE TOWN. (FOR EXAMPLE, IF THE FIRST BUILDING PERMIT IS ISSUED ON OCTOBER 15 2015, A REQUEST TO THE SRHOA SHALL BE SUBMITTED NO LATER THAN NOVEMBER 15, 2015, AND AGAIN NO LATER THAN SEPTEMBER 15, IN THE YEARS 2017, 2019, 2021, 2023 AND 2025.) IN THE TENTH YEAR, SUCH REQUEST SHALL BE MADE NO LATER THAN SIX MONTHS PRIOR TO THE EXPIRATION OF THE TEN YEAR PERIOD, AND SHALL INCLUDE NOTICE OF THE DATE UPON WHICH THE FUNDING WILL NO LONGER BE AVAILABLE. UPON EXPIRATION OF THE TEN YEAR PERIOD, THE GHAD (OR TOWN OR OTHER ENTITY DESIGNATED BY THE TOWN COUNCIL) MAY RE-ASSIGN THE FUNDS FOR OTHER ALLOWABLE PURPOSES, BUT WHICH SHALL GENERALLY BE TO THE BENEFIT OF PUBLICLY-ACCESSIBLE FACILITIES SUCH AS THE ON-SITE TRAILS AND OPEN SPACE.

D IN THE EVENT THAT THE COST TO CONSTRUCT THE FIRE TRAIL IS LESS THAN THE FUND AMOUNT HELD BY THE GHAD, EXCESS FUNDS MAY BE RETURNED TO THE GHAD, FOR THE ABOVE-DESCRIBED PURPOSES. IN THE EVENT THAT THE COST TO CONSTRUCT THE FIRE TRAIL IS GREATER THAN THE FUND AMOUNT HELD BY THE GHAD, THE PROJECT HOA SHALL BE RESPONSIBLE FOR THE REMAINING COSTS. THE REQUIREMENT TO FUND THESE POTENTIAL ADDITIONAL COSTS SHALL BE INCLUDED IN THE PROJECT CC&RS.

MOFD CONDITIONS AND FIRE PROTECTION MEASURES

41 PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE MORAGA-ORINDA FIRE PROTECTION DISTRICT SHALL REVIEW AND APPROVE THE FINAL PLANS. SUFFICIENT ACCESS FOR FIRE EQUIPMENT SHALL BE PROVIDED AND REQUIREMENTS FOR VISIBLE ADDRESSING SHALL BE MET. THE APPLICANT SHALL SUBMIT THE DESIGN REVIEW FEE TO THE FIRE DISTRICT PRIOR TO OBTAINING APPROVAL. [MODIFIED CDP COA NO. 32]

42 WATER SUPPLY. THE DEVELOPER SHALL PROVIDE AN ADEQUATE AND RELIABLE WATER SUPPLY FOR FIRE PROTECTION. THE PROJECT SHALL COMPLY WITH THE 2013 FIRE CODE CHAPTER 5, SECTION 507 (OR AS SUBSEQUENTLY UPDATED) REGARDING FIRE FLOW REQUIREMENTS, INCLUDING APPENDIX B MOFD ORDINANCE 13-01. FIRE FLOW CALCULATIONS SHALL BE DESIGNED BY A FIRE PROTECTION ENGINEER OR A C-16 LICENSED CONTRACTOR. [CDP COA NO. 21]

43 AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES AT THE SITE

44 FIRE SPRINKLERS SHALL BE INSTALLED IN SINGLE FAMILY DWELLINGS IN ACCORDANCE WITH MOFD ORDINANCE 10-04 AND NFPA 13 OR AS REVISED AND AMENDED AS OF THE TIME OF BUILDING PERMIT APPLICATION.

45 FIRE HYDRANTS SHALL BE INSTALLED AT THE REQUIRED DISTANCES FOR RESIDENTIAL STRUCTURES. [MODIFIED CDP COA NO. 23]

46 FIRE APPARATUS ACCESS SHALL CONFORM TO MOFD STANDARD 2013.503. FIRE APPARATUS ROADWAYS IN EXCESS OF 150 FEET IN LENGTH SHALL MAKE PROVISIONS FOR APPROVED FIRE APPARATUS TURNAROUNDS.

47 THE DEVELOPER SHALL MAINTAIN ACCESS ROADWAYS (OTHER THAN THE EMERGENCY VEHICLE ACCESS [EVA]) WITH ALL-WEATHER DRIVING SURFACES (ASPHALT, CONCRETE OR ROAD PAVERS) OF NOT LESS THAN 20 FEET OF UNOBSTRUCTED WIDTH. ADEQUATE ACCESS FOR FIRE PROTECTION SHALL BE MAINTAINED DURING CONSTRUCTION. [MODIFIED CDP COA NO. 24]

48 FIRE ALARM AND NOTIFICATION DEVICES SHALL BE UL LISTED AND COMPLY WITH NFPA 72.

49 PROPOSED FIRE TRAIL (EVA) AND FIRE APPARATUS ROADWAYS. FIRE APPARATUS ROADWAYS (PUBLIC, PRIVATE STREETS, ROADS AND IN SOME INSTANCES DRIVEWAYS USED FOR VEHICLE ACCESS) SHALL EXTEND TO WITHIN 150 FEET OF ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY OF ANY BUILDING. FIRE APPARATUS ROADWAYS IN EXCESS OF 150 FEET IN LENGTH SHALL MAKE PROVISIONS FOR APPROVED FIRE APPARATUS TURNAROUNDS. FIRE APPARATUS ROADWAYS SHALL BE CAPABLE OF SUPPORTING THE IMPOSED WEIGHT OF FIRE APPARATUS (40,000 POUNDS) AND SHALL BE PROVIDED WITH A PAVED OR CONCRETE SURFACE (EXCEPT FOR THE EVA ON THE SITE). VEHICULAR USE OF THE EVA SHALL BE RESTRICTED TO EMERGENCY VEHICLE ACCESS ONLY.

AT SUCH TIME THAT AN EVA IS CONSTRUCTED, WHERE THE EVA CROSSES A SEASONAL WETLAND AREA WITH DRAINAGE, THE EVA SHALL BE CONSTRUCTED TO SUPPORT THE WEIGHT OF 15 TONS. [MODIFIED CDP COA NO. 28 AND 33]

50 FIRE HYDRANTS. THE DEVELOPER SHALL PROVIDE FIRE HYDRANTS AS SPECIFIED BY EAST BAY MUNICIPAL UTILITY DISTRICT AND THE FIRE DISTRICT. FINAL UTILITY MAP WITH HYDRANT LOCATIONS SHALL BE SUBMITTED TO THE FIRE DISTRICT FOR FINAL APPROVAL. ALL HYDRANTS SHALL BE WET BARREL, STANDARD STEAMER TYPE (1-4.5" AND 1-2.5") OUTLET.[MODIFIED CDP COA NO. 23]

51 ALL ELECTRONIC GATES CROSSING FIRE DISTRICT ACCESS WAYS SHALL COMPLY WITH ASTM F2200.

52 VEGETATION MANAGEMENT. THE APPLICANT SHALL MAINTAIN ALL VEGETATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE MORAGA-ORINDA FIRE DISTRICT FOR THE COMMON OPEN SPACE AND LOT AREAS UNTIL THE GHAD AND HOMEOWNERS ASSOCIATION ARE ESTABLISHED AND SUFFICIENTLY FUNDED. PRIVATE LOT VEGETATION MANAGEMENT WILL BE THE RESPONSIBILITY OF INDIVIDUAL PRIVATE LOT OWNERS AS EACH ACQUIRES THEIR RESPECTIVE LOTS. [MODIFIED CDP COA NO. 30]

53 FIRE PROTECTION PLAN. A FIRE PROTECTION PLAN SHALL BE INCLUDED AS PART OF THE OPEN SPACE MANAGEMENT PLAN AND SHALL BE APPROVED BY THE TOWN PRIOR TO APPROVAL OF THE FINAL MAP. FIREFIGHTING EQUIPMENT ACCESS SHALL BE PROVIDED TO ALL AREAS OF THE PROJECT SITE IN ACCORDANCE WITH FIRE ACCESS STANDARDS OF THE FIRE DISTRICT AND THE ADOPTED UNIFORM FIRE CODE AND THE TIME OF PROJECT APPROVAL. THE FIRE PROTECTION PLAN SHALL INCLUDE THE FOLLOWING PROVISIONS:

A ALL HOUSING SHALL BE CONSTRUCTED WITH FIRE RESISTANT EXTERIOR MATERIALS AND FIRE RETARDANT ROOFING AND INCLUDE INTERIOR SPRINKLERS.

B LANDSCAPING AROUND HOMES SHALL BE DESIGNED TO MINIMIZE THE INTERFACE BETWEEN GRASSLAND AREAS AND RESIDENCES (E.G., FIRE RESISTANT VEGETATION).

C AN ANNUAL INSPECTION REPORT FOR COMPLIANCE SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR APPROVAL. ANNUAL INSPECTION FEES SHALL BE PAID BY THE GHAD OR HOA.

D CONSISTENCY WITH THE TOWN'S EMERGENCY EVACUATION PLAN

E LIMITATIONS ON USE OF THE EVA INCLUDING RESTRICTIONS ON VEHICLE ACCESS TO EMERGENCY VEHICLES ONLY.[MODIFIED CDP COA NO. 30 AND 31 AND 79]

PUBLIC WORKS/ENGINEERING STANDARD CONDITIONS OF APPROVAL AND CONDITIONS SPECIFIC TO PROJECT RELATED TO ROADWAYS, GRADING, AND UTILITIES

54 IF THE COST OF THE PROJECT WILL BE MORE THAN $250,000 THE APPLICANT SHALL SUBMIT A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING WASTE MANAGEMENT PLAN WASTE MANAGEMENT PLAN AS REQUIRED BY MMC SECTION 8.156.080 PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT. THE PLAN SHALL INCLUDE A QUANTITATIVE ESTIMATE OF RECYCLABLE MATERIAL(S), A LIST OF RECYCLERS TO BE USED FOR THE PROJECT, A SCHEDULE FOR SUBMITTING RECEIPTS TO THE PLANNING DEPARTMENT AND A DESCRIPTION OF HOW THE RECYCLING WILL BE ACCOMPLISHED. THE APPLICANT SHALL ALSO SUBMIT A DEPOSIT IN COMPLIANCE WITH MMC SECTION 8.156.070 TO ENSURE COMPLETION OF THE WASTE MANAGEMENT PLAN AND SUBMITTAL OF THE RECEIPTS FROM DISPOSAL AND RECYCLING FACILITIES FOR THE PROJECT. THE AMOUNT OF THE DEPOSIT IS CALCULATED AS A PERCENTAGE OF THE PROJECTS TOTAL COST IN ACCORDANCE WITH THE FOLLOWING TABLE:

THE DEPOSIT MAY BE CASH, A CERTIFICATE OF DEPOSIT REQUIRING BOTH THE SIGNATURE OF THE APPLICANT AND THE TOWN FOR RELEASE OR A LETTER OF CREDIT. THE APPLICANT IS RESPONSIBLE TO MAKE SURE THAT CONTRACTORS WORKING ON THE PROJECT FOLLOW THE WASTE MANAGEMENT PLAN AND SUBMIT THE RECEIPTS FROM DISPOSAL AND RECYCLING FACILITIES FOR THE PROJECT, OTHERWISE THE DEPOSIT CANNOT BE RETURNED.

THE PROJECT IS NOT REQUIRED TO SUBMIT A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING WASTE MANAGEMENT PLAN UNLESS THE COST OF THE PROJECT EXCEEDS $250,000.00. NEVERTHELESS, THE TOWN ENCOURAGES ALL APPLICANTS TO DIVERT FIFTY-PERCENT (50%) OF ALL PROJECT WASTE FROM LANDFILLS BY REUSE AND/OR RECYCLING. THE APPLICANT SHOULD REVIEW THE CONTRA COSTA BUILDER'S GUIDE FOR A LISTING OF THE MATERIALS THAT CAN BE RECYCLED AND THE PLACES WHERE THEY CAN BE RECYCLED. [MODIFIED CDP COA NO. 76 AND 102]

55 WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, A SITE PLAN SHOWING THE FINAL "AS-BUILT" LOCATION OF ANY SUBDRAINS INSTALLED ON ANY PORTION OF THE LOT AND ALL DRAINAGE INLETS AND OUTLETS SHALL BE SUBMITTED TO THE TOWN ENGINEER AND PLANNING DIRECTOR.

PUBLIC STREETS AND PUBLIC UTILITY CONNECTIONS:

56 THE SUBDIVISION SHALL CONFORM TO THE PROVISIONS OF THE SUBDIVISION ORDINANCE (TITLE 9) AS ADOPTED AND AMENDED BY THE TOWN OF MORAGA WITH EXCEPTIONS AS NOTED AND APPROVED BY THE TOWN IN THESE CONDITIONS OF APPROVAL.

57 IMPROVEMENT PLANS PREPARED BY A REGISTERED CIVIL ENGINEER SHALL BE SUBMITTED, IF NECESSARY, TO THE PUBLIC WORKS DEPARTMENT ALONG WITH REVIEW AND INSPECTION FEES, AND SECURITY FOR ALL IMPROVEMENTS REQUIRED BY THE ORDINANCE CODE FOR THE CONDITIONS OF APPROVAL OF THIS SUBDIVISION. ANY NECESSARY TRAFFIC SIGNING AND STRIPING SHALL BE INCLUDED IN THE IMPROVEMENT PLANS FOR REVIEW BY THE PUBLIC WORKS DEPARTMENT.

58 ANY CURB AND GUTTER CRACKED AND DISPLACED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED NO LATER THAN THREE MONTHS AFTER ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY FOR THE NEW HOMES, UNLESS ALTERNATE TIMING IS APPROVED BY THE TOWN. CONCRETE SHALL BE SAW CUT PRIOR TO REMOVAL. EXISTING LINES AND GRADE SHALL BE MAINTAINED. NEW CURB AND GUTTER SHALL BE DOWELED INTO EXISTING IMPROVEMENTS.

59 SANDERS DRIVE, WHICH WILL SERVE AS THE PRIMARY CONSTRUCTION ACCESS ROUTE, SHALL BE ASSESSED IN TERMS OF PAVING CONDITIONS PRIOR TO GRADING OR CONSTRUCTION. AFTER GRADING IS COMPLETE, A "POST-CONSTRUCTION" PAVING STUDY SHALL BE COMPLETED AND THE APPLICANT AND/OR HOA SHALL BE RESPONSIBLE FOR RESTORING SANDERS DRIVE TO ITS "PRE-CONSTRUCTION" CONDITION. FOLLOWING THE COMPLETION OF CORRECTIVE GRADING, THE APPLICANT SHALL COMPLETE THE SANDERS DRIVE IMPROVEMENTS WITHIN 3 MONTHS UNLESS SITE LOT IMPROVEMENTS ARE UNDERWAY WITHIN THIS TIME. IF LOT IMPROVEMENTS ARE UNDERTAKEN WITHIN 3 MONTHS OF CORRECTIVE GRADING, THE SANDERS DRIVE IMPROVEMENTS CAN BE UNDERTAKEN AT THE COMPLETION OF THE LOT IMPROVEMENTS. IF GRADING IS COMPLETED MORE THAN 12 MONTHS PRIOR TO THE START OF HOME CONSTRUCTION, AN INTERIM PAVING STUDY SHALL BE COMPLETED ON SANDERS DRIVE AND THE PAVING SHALL BE RESTORED TO "PRE-GRADING STAGE" CONDITIONS.

60 PAVING REPAIRS ON STREETS, IF NECESSARY, SHALL TO BE EDGE GROUND AND OVERLAID WITH 2" OF CLASS 2 A.C. FROM STREET CENTERLINE TO THE NEW DRIVEWAY CURB CUT AND GUTTER.

61 ALL WORK TO BE UNDERTAKEN WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE SHOWN ON THE CONSTRUCTION PLANS (I.E. STORM DRAIN, JOINT UTILITY TRENCH, CURB AND GUTTER IMPROVEMENTS, ETC.) AND REVIEWED BY THE TOWN ENGINEER. ALL NEW UTILITY DISTRIBUTION FACILITIES INCLUDING ELECTRIC, TELEPHONE AND CABLE TELEVISION SYSTEMS SHALL BE INSTALLED UNDERGROUND FROM POINT OF CONNECTION. PRIOR TO UNDERTAKING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT.[MODIFIED CDP COA NO. 94]

62 ALL ON-SITE SUBDIVISION IMPROVEMENTS, INCLUDING PUBLIC UTILITIES AND DRAINAGE SYSTEMS THAT WILL BE PRIVATELY MAINTAINED, SHALL BE INSTALLED PRIOR TO THE OCCUPANCY OF ANY HOME IN THE SUBDIVISION UNLESS ALTERNATE TIMING IS APPROVED BY THE TOWN ENGINEER.

UTILITIES/UNDERGROUNDING:

63 APPLICANT SHALL UNDERGROUND ALL NEW UTILITY DISTRIBUTION FACILITIES. THE APPLICANT SHALL PROVIDE JOINT TRENCH COMPOSITE PLANS FOR THE UNDERGROUND ELECTRICAL, GAS, TELEPHONE, CABLE TELEVISION AND COMMUNICATION CONDUITS AND CABLES INCLUDING THE SIZE, LOCATION AND DETAILS OF ALL TRENCHES, LOCATIONS OF BUILDING UTILITY SERVICE STUBS AND METERS AND PLACEMENTS OR ARRANGEMENTS OF JUNCTION STRUCTURES AS A PART OF THE IMPROVEMENT PLAN SUBMITTALS FOR THE PROJECT. THE COMPOSITE DRAWINGS AND/OR UTILITY IMPROVEMENT PLANS SHALL BE SIGNED BY A LICENSED CIVIL ENGINEER. INDIVIDUAL LATERAL CONNECTIONS TO EXISTING PUBLIC STREETS SHALL BE AVOIDED WHERE POSSIBLE.[MODIFIED CDP COA NO. 22 AND 95]

64 TO REDUCE HAZARDS FROM UNDERGROUND UTILITY LINE BREAKAGE, FLEXIBLE CONDUITS AND PIPING SHALL BE UTILIZED IN FILL AREAS WHERE SETTLEMENT OR EARTHQUAKE MOVEMENTS COULD CAUSE A BREAK IN SERVICE LINES. TO REDUCE EARTHQUAKE HAZARDS, MANUAL SHUT-OFF VALVES FOR GAS AND WATER LINES SHALL BE INSTALLED, AND IN ACCORDANCE WITH THE APPROPRIATE UTILITY AGENCY'S REQUIREMENTS.

65 IF RELOCATION OF PACIFIC GAS AND ELECTRIC FACILITIES BECOMES NECESSARY, SUCH RELOCATION SHALL BE DONE AT THE APPLICANT'S EXPENSE.

66 THE APPLICANT SHALL COMPLY WITH REQUIREMENTS OF THE TELEPHONE AND TELEVISION SERVICE PROVIDERS FOR UNDERGROUND INSTALLATION OF TELEPHONE AND TELEVISION SERVICE AS FOLLOWS:

A THE APPLICANT SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING CONDUIT FOR THE SERVICE CONNECTION WIRE OR CABLE.

B THE APPLICANT SHALL PROVIDE AND PAY THE COST OF THE UNDERGROUND SUPPORTING STRUCTURE (USUALLY A TRENCH) FOR THE BURIED WIRE OR CABLE TO BE USED FOR THE SERVICE CONNECTIONS.

C THE APPLICANT MAY COLLECT ANY ALLOWABLE REIMBURSEMENTS AVAILABLE FROM CPUC TARIFFS OR OTHER PROGRAMS.

67 WATER SERVICE. IF REQUIRED BY EAST BAY MUNICIPAL UTILITY DISTRICT, A MAIN EXTENSION SHALL BE INSTALLED AT THE PROPERTY OWNERS' EXPENSE, TO SERVE THE PROPOSED DEVELOPMENT. FINAL PLANS FOR THE MAIN EXTENSION WILL BE PREPARED BY EBMUD AND ARE SUBJECT TO REVIEW AND APPROVAL BY EBMUD PRIOR TO INSTALLATION OF THE NEW LINE. THE APPLICANT SHALL BE RESPONSIBLE FOR PAYMENT OF ALL FEES LEVIED BY EBMUD ASSOCIATED WITH PREPARATION AND REVIEW OF SUCH PLANS FOR WATER CONNECTIONS FOR WHICH THE APPLICANT IS RESPONSIBLE.

68 THE APPLICANT SHALL COMPLY WITH THE REQUIREMENTS OF EAST BAY MUNICIPAL UTILITY DISTRICT'S (EBMUD) FOR WATER-EFFICIENCY MEASURES. (ALSO SEE CONDITION 25 THAT REQUIRES THE APPLICANT TO COMPLY WITH THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495)).

CENTRAL CONTRA COSTA SANITARY DISTRICT:

69 THE APPLICANT SHALL COMPLY WITH THE REQUIREMENTS OF THE CENTRAL CONTRA COSTA SANITARY DISTRICT (CCCSD) FOR SANITARY SEWER CONNECTIONS. THESE REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

A PRIOR TO THE ISSUANCE OF A GRADING PERMIT OR WORKING ON THE EXISTING PUBLIC SEWER THE APPLICANT MUST CONTACT CCCSD.

B CCCSD REQUIRES GRAVITY SEWERS IN PREFERENCE TO PUMPED SYSTEMS AND LOCATIONS IN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS.

C CC&RS SHALL ASSIGN RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE SIDE SEWERS TO INDIVIDUAL HOMES TO THE RESPECTIVE HOMEOWNER(S).

D TOXIC SUBSTANCES SUCH AS GASOLINE, OIL, PAINT, AND PESTICIDE RESIDUE ARE PROHIBITED FROM BEING INTRODUCED INTO THE CCCSD SEWER SYSTEM.

E THE APPLICANT SHALL SUBMIT CONSTRUCTION PLANS INVOLVING WORK ON THE PUBLIC SEWER FOR REVIEW AND APPROVAL BY CCCSD, PRIOR TO APPLYING FOR A BUILDING PERMIT.

F THE APPLICANT SHALL PAY FACILITIES CAPACITY FEES TO CCCSD AT THE TIME OF CONNECTION TO THE SEWER SYSTEM.

G THE APPLICANT SHALL BE RESPONSIBLE FOR INSTALLATION OF SIDE SEWERS TO THE HOMES.

H THE REQUIREMENTS LISTED IN THE CCCSD "HILLSIDE AND CREEK AREA SEWER POLICY" SHALL BE FOLLOWED WHEN CONSTRUCTION PLANS ARE PREPARED.

I THE APPLICANT SHALL SECURE A WILL SERVE LETTER THAT ADDRESSES TRANSMISSION CAPACITY. [MODIFIED CDP COA NO. 58 AND 85]

70 THE USE OF SANITARY SEWER EASEMENT SURFACES SHALL BE LIMITED TO PAVING, SHRUBBERY, GARDENS AND OTHER LANDSCAPING, EXCLUDING TREES. PARALLEL SURFACE DRAINAGE WAYS AND PERMANENT STRUCTURES INCLUDING, BUT NOT LIMITED TO, BUILDINGS, SWMMING POOLS, DECKS, AND RETAINING WALLS ARE NOT PERMITTED WITHIN THE EASEMENT AREA. THESE LIMITATIONS SHALL BE REFLECTED IN THE CC&RS FOR THE SUBDIVISION.

71 THE APPLICANT SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS IF DIRECTIONAL DRILLING OF THE SEWER LINE IS ALLOWED BY CCCSD TO AVOID DISTURBANCE TO ONSITE DRAINAGES OR LARCH CREEK:

A CONSTRUCTION SHALL BE UNDERTAKEN DURING THE DRY SEASON AND NO GRADING SHALL OCCUR BETWEEN OCTOBER 15 AND APRIL 15;

B UNDERCROSSING SHALL MEET WITH CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW) STANDARDS AND PERMITS FOR RIPARIAN HABITAT DISTURBANCE SHALL BE OBTAINED FROM CDFW IF NEEDED.

PRIVATE STREETS:

72 ACCESS ROADWAYS. EXCEPT AS OTHERWISE SPECIFIED FOR THE EVA, IF CONSTRUCTED IN THE FUTURE, ALL PUBLIC ACCESS (BUT PRIVATELY MAINTAINED) ROADWAYS SHALL BE CONSTRUCTED WITH ALL-WEATHER DRIVING SURFACES (ASPHALT, CONCRETE OR ROAD PAVERS) OF NOT LESS THAN 20 FEET OF UNOBSTRUCTED WIDTH. ACCESS ROADS SHALL NOT EXCEED 20 PERCENT GRADE, SHALL HAVE A MINIMUM INSIDE TURNING RADIUS OF 28 FEET AND A 48 FOOT OUTSIDE DIAMETER AND MUST BE CAPABLE OF SUPPORTING THE IMPOSED LOADS OF FIRE APPARATUS. ROADWAYS THAT ARE 20 FEET WIDE SHALL BE POSTED AS NO PARKING ON BOTH SIDES OF THE ROADWAY AS OUTLINED IN THE CALIFORNIA VEHICLE CODE FOR FIRE ACCESS. (PARKING MAY BE PROVIDED WITHIN DESIGNATED "BULB OUTS" OUTSIDE OF THE 20 FOOT ROAD WIDTH, AS SHOWN IN THE APPROVED PLANS.) THE PROPOSED BRIDGE MUST BE BUILT TO CALTRANS' H-20 DESIGN STANDARD. [MODIFIED CDP COA NO. 96]

73 PRIVATE ROAD AND GATES. NO ROAD GATES ON HETFIELD PLACE WHERE IT CONNECTS TO THE ONSITE PRIVATE ROAD SHALL BE ALLOWED. HETFIELD PLACE SHALL BE PRIVATELY MAINTAINED AND INSURED TO PROTECT LIABILITY. A PRIVATE ROAD MAINTENANCE PLAN SHALL BE SUBMITTED AND APPROVED PRIOR TO ISSUANCE OF A GRADING PERMIT. WHILE THE ROAD SHALL BE PRIVATELY MAINTAINED, PUBLIC ACCESS SHALL BE PERMITTED. [CDP COA NO. 26]

74 THE PRIVATE STREET IS BEING CONDITIONALLY APPROVED BASED ON THE ACCURACY OF THE INFORMATION SHOWN ON THE TENTATIVE MAP. APPROVAL OF THE PRIVATE STREET SHALL BECOME EFFECTIVE UPON FINAL MAP APPROVAL.

75 PRIVATE STREET NAMES ARE SUBJECT TO MODIFICATION PRIOR TO FINAL MAP APPROVAL, AND SHALL BE APPROVED BY THE PLANNING DIRECTOR.

76 THE APPLICANT SHALL DEDICATE A PRIVATE STREET RIGHT-OF-WAY AND INSTALL COMPLETE STREET IMPROVEMENTS FOR THE INTERNAL PRIVATE STREET AS SHOWN ON THE TENTATIVE MAP. STREETLIGHTS ARE NOT REQUIRED AS PART OF THIS PROJECT.

77 A PUBLIC ACCESS EASEMENT (PAE), PUBLIC UTILITY EASEMENT (PUE), EAST BAY MUNICIPAL UTILITY DISTRICT EASEMENT (EBMUD), SANITARY SEWER EASEMENT (SSE) AND EMERGENCY VEHICLE ACCESS EASEMENT (EVAE) ARE TO BE ESTABLISHED OVER THE ENTIRE PRIVATE STREET RIGHT-OF-WAY. THE PUE DEDICATION STATEMENT ON THE FINAL MAP IS TO RECITE THAT THE PUE IS AVAILABLE FOR, BUT NOT LIMITED TO, THE INSTALLATION, ACCESS AND MAINTENANCE OF SANITARY AND STORM SEWERS, WATER, GAS, ELECTRICAL AND COMMUNICATION FACILITIES.

78 THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE FACILITIES IN THE PRIVATE STREET WHICH ARE NOT MAINTAINED BY A PUBLIC UTILITY AGENCY, EXCEPT ALL UTILITY WORK RESULTING FROM BACKFILL FAILURE IS TO BE THE RESPONSIBILITY OF THE HOMEOWNERS' ASSOCIATION (HOA).

79 THE DESIGN OF THE PRIVATE STREET SHALL CONFORM TO THE FOLLOWING STANDARDS AND IS SUBJECT TO REVIEW AND APPROVAL BY THE TOWN ENGINEER PRIOR TO FINAL MAP APPROVAL:

A GRADING AND DRAINAGE IMPROVEMENTS SHALL GENERALLY CONFORM TO APPLICABLE PUBLIC STREET STANDARDS

B THE PRIVATE STREET PAVEMENT SHALL BE DESIGNED ON THE BASIS OF A TRAFFIC INDEX USING PREDICTED TRAFFIC GENERATION AND A THIRTY-YEAR PAVEMENT DESIGN LIFE. IN NO CASE SHALL THE TRAFFIC INDEX BE LESS THAN 5.5.

C ASPHALT CONCRETE SURFACING SHALL BE TREATED WITH A SEAL COAT OF THE TYPE AND AMOUNT REQUIRED BY THE TOWN ENGINEER. PAVEMENT DESIGN SECTIONS SHALL BE SUBJECT TO APPROVAL OF THE TOWN ENGINEER.

D THE NEW PRIVATE STREET IN THE SUBDIVISION SHALL BE CONSTRUCTED TO THE SPECIFICATIONS IN THE TOWN'S SUBDIVISION ORDINANCE, BUT NOT INCLUDING STANDARD SIDEWALKS. AN EXCEPTION HAS BEEN GRANTED TO ALLOW A MINIMUM WIDTH OF 20 FEET FOR THE TRAVEL WAY (WIDTH AT PARKING BAYS IS 28 FEET, AND 24 FEET AT THE BRIDGE). A DECOMPOSED GRANITE 6-FOOT WIDE PUBLIC PATH SHALL BE ADJACENT TO THE PRIVATE STREET. ANY FURTHER CHANGES IN THE TOWN STREET CONSTRUCTION STANDARDS PRIOR TO APPROVAL OF THE SUBDIVISION IMPROVEMENT PLANS SHALL BE APPLICABLE.

E ROLLED CURBS SHALL BE PROVIDED WHERE FEASIBLE AND ACCEPTABLE TO THE TOWN ENGINEER.

80 THE APPLICANT SHALL SUBMIT SIGNING AND STRIPING PLANS FOR TRAFFIC CONTROL DEVICES TO THE TOWN'S PUBLIC WORKS DEPARTMENT FOR APPROVAL AT THE TIME IMPROVEMENT PLANS AND FINAL MAP ARE SUBMITTED TO THE TOWN. THE COST OF REVIEW BY THE TOWN'S ENGINEERING CONSULTANT SHALL BE BORNE BY THE APPLICANT. THE FOLLOWING SIGNS SHALL BE INCLUDED:

A THE IMPROVEMENT PLANS SHALL INCLUDE THE INSTALLATION OF A STOP SIGN AT HETFIELD PLACE AT ITS INTERSECTION WITH SANDERS DRIVE PER THE TOWN OF MORAGA PUBLIC WORKS STANDARDS.

B THE IMPROVEMENT PLANS SHALL INCLUDE THE INSTALLATION OF A STOP SIGN AND SIGN READING, "NOT A THROUGH STREET" AT THE SOUTHBOUND INTERSECTION OF HETFIELD PLACE AND SANDERS DRIVE.[MODIFIED CDP COA 25]

RESTRICTED DEVELOPMENT AREAS:

81 THE CC&RS SHALL INCLUDE NOTIFICATION TO EACH PROPERTY OWNER OF ANY RESTRICTED DEVELOPMENT AREAS (E.G. OPEN SPACE EASEMENTS, CONSERVATION EASEMENTS, HIGH HAZARD AREAS, UTILITY EASEMENTS, DRAINAGE EASEMENTS) LOCATED ON THEIR PROPERTY AND WITHIN COMMON AREAS. THE NOTIFICATION SHALL INFORM FUTURE PROPERTY OWNERS OF SPECIFIC RESTRICTIONS ON USE AND DEVELOPMENT ASSOCIATED WITH EACH SUCH AREA, INCLUDING BUT NOT LIMITED TO PROHIBITION OF STRUCTURES, PERVIOUS SURFACES, PARKING AND SIMILAR USES AS REQUIRED BY THESE CONDITIONS OF APPROVAL, EIR MITIGATIONS, OR BY APPLICABLE UTILITIES AND AGENCIES.[MODIFIED CDP COA NO. 34]

MAINTENANCE OF FACILITIES:

82 THE HOA SHALL COVENANT AND BE RESPONSIBLE FOR THE MAINTENANCE, IN PERPETUITY, OF THE FOLLOWING, IN ADDITION TO ANY OTHER FACILITIES SPECIFICALLY NOTED IN OTHER CONDITIONS OF APPROVAL. SUCH MAINTENANCE SHALL EXCLUDE ALL FACILITIES OTHERWISE SPECIFIED TO BE MAINTAINED BY THE GHAD:

A COMMON AREA LANDSCAPING.

B LANDSCAPING AND RETAINING WALLS WITHIN THE COMMON AREA PARCEL.

C THE PRIVATE ROAD, AS INDICATED IN THESE CONDITIONS OF APPROVAL

D DRAINAGE AND WATER QUALITY FEATURES AND FACILITIES AS INDICATED IN THESE CONDITIONS OF APPROVAL OTHER THAN THOSE MAINTAINED BY THE GHAD.

E RETAINING WALLS LOCATED ON HOA OWNED PROPERTY.

83 A MAINTENANCE PLAN OF OPERATION FOR ALL HOA-MAINTAINED FACILITIES SHALL BE SUBMITTED FOR PUBLIC WORKS REVIEW, PRIOR TO RECORDATION OF THE FINAL MAP. THE TOWN WILL NOT ACCEPT THESE PROPERTIES OR FACILITIES FOR OWNERSHIP OR MAINTENANCE.

DRAINAGE CONDITIONS:

84 DRAINAGE FACILITIES SHALL BE DESIGNED IN ACCORDANCE WITH THE TOWN'S SUBDIVISION ORDINANCE AND PUBLIC WORKS STANDARDS. ALL STORM WATERS ENTERING OR ORIGINATING WITHIN THE SUBJECT PROPERTY SHALL BE COLLECTED AND CONVEYED TO THE NEAREST ADEQUATE MAN-MADE DRAINAGE FACILITY OR NATURAL WATERCOURSE. AS DOCUMENTED IN THE EIR, THE PROJECT, WITH INCORPORATION OF ON-SITE DRAINAGE IMPROVEMENTS WOULD NOT EXCEED THE DOWNSTREAM DRAINAGE CAPACITY OF LARCH CREEK. AN EXCEPTION HAS BEEN GRANTED TO ALLOW CLEARING THE NATURAL CHANNELS IN THE AREAS OF THE PROPOSED BRIDGE. DETAILED DRAINAGE PLANS SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO APPROVAL OF THE IMPROVEMENT PLANS. FINAL PIPE SIZES SHALL BE REVIEWED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT UPON SUBMITTAL OF IMPROVEMENT PLANS. THE APPLICANT SHALL ALSO P

87 THE APPLICANT SHALL SUBMIT TO THE TOWN COPIES OF ANY PLANS AND REPORTS PROVIDED TO REGULATORY AGENCIES, (E.G. CALIFORNIA FISH AND WILDLIFE (STREAMBED ALTERATION AGREEMENT), US FISH AND WILDLIFE SERVICE, ARMY CORPS OF ENGINEERS, THE REGIONAL WATER QUALITY CONTROL BOARD, ETC.,) IF REQUIRED, FOR PERMITS ASSOCIATED WITH WORK WITHIN CREEK CHANNELS. PROOF OF THE COMPLIANCE OF ANY CONDITIONS ASSOCIATED WITH SUCH PERMITS SHALL ALSO BE SUBMITTED TO THE PLANNING DIRECTOR.

88 THE APPLICANT SHALL COMPLY WITH ALL PERMITTING REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) FOR WORK WITHIN THE STREAM CHANNEL INCLUDING FILING A NOTICE OF INTENT (NOI) WITH THE RWQCB IF SUCH PERMITS ARE REQUIRED OR DETERMINED TO BE NECESSARY. UNDERCROSSING FOR WATER AND WASTEWATER LINES SHALL MEET WITH CALIFORNIA DEPT. OF FISH AND WILDLIFE (CDFW) STANDARDS AND PERMITS FOR RIPARIAN HABITAT DISTURBANCE SHALL BE OBTAINED FROM CDFW IF NEEDED; AND, CONSTRUCTION SHALL COMPLY WITH CCCSD'S HILLSIDE AND CREEK AREA SEWER POLICY.

89 THE APPLICANT SHALL CONSTRUCT DRAINAGE IMPROVEMENTS TO SATISFY THE COLLECT AND CONVEY PROVISIONS OF THE SUBDIVISION ORDINANCE PRIOR TO ISSUANCE OF A BUILDING PERMIT.

90 THE PROPERTY OWNER SHALL BE AWARE THAT THE CREEK BANKS ON THE SITE ARE POTENTIALLY UNSTABLE. THE PROPERTY OWNER SHALL EXECUTE A RECORDABLE AGREEMENT WITH THE TOWN WHICH STATES THAT THE APPLICANT/DEVELOPER AND THE PROPERTY OWNER AND THE FUTURE PROPERTY OWNER(S) WILL HOLD HARMLESS THE TOWN OF MORAGA AND THE CONTRA COSTA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT IN THE EVENT OF DAMAGE TO THE ON-SITE AND OFF-SITE IMPROVEMENTS AS A RESULT OF CREEK-BANK FAILURE OR EROSION.

91 APPLICANT SHALL PREVENT STORM DRAINAGE FROM DRAINING ACROSS THE DRIVEWAY(S) IN A CONCENTRATED MANNER.

92 A PRIVATE STORM DRAIN EASEMENT SHALL BE DEDICATED OVER ANY PROPOSED STORM DRAIN LINE TRAVERSING THE SITE.

CREEK STRUCTURE SETBACKS AND CREEK PROTECTION:

93 APPLICANT SHALL RELINQUISH "DEVELOPMENT RIGHTS" OVER THAT PORTION OF THE SITE THAT IS WITHIN THE STRUCTURE SETBACK AREA OF LARCH CREEK, EXCEPT FOR THE CONSTRUCTION OF FACILITIES SHOWN ON THE APPROVED IMPROVEMENT PLAN, SUCH AS THOSE ASSOCIATED WITH BRIDGE CROSSINGS AND TRAILS. THE STRUCTURE SETBACK AREA SHALL BE DETERMINED BY USING THE CRITERIA OUTLINED IN CHAPTER 914-14, "RIGHTS OF WAY AND SETBACKS," OF THE CONTRA COSTA COUNTY SUBDIVISION ORDINANCE, AS ADOPTED BY THE TOWN OF MORAGA. "DEVELOPMENT RIGHTS" SHALL BE CONVEYED TO THE TOWN BY GRANT DEED HOWEVER, THE TOWN WILL NOT ACCEPT THESE PROPERTIES FOR OWNERSHIP OR MAINTENANCE, EXCEPT AS OTHERWISE AGREED FOR SPECIFIC PROPERTIES AND FACILITIES. THE STRUCTURE SETBACK AREA MAY BE REDUCED SUBJECT TO THE REVIEW OF PUBLIC WORKS AND THE REVIEW AND APPROVAL OF THE PLANNING DIRECTOR, BASED ON A HYDROLOGY AND HYDRAULIC STUDY AND GEOTECHNICAL ANALYSIS OF THE SOIL WHICH SHOWS THAT THE CREEK BANKS WILL BE STABLE AND NON-EROSIVE WITH THE ANTICIPATED CREEK FLOWS. THE HYDROLOGY AND HYDRAULIC STUDY SHALL BE BASED UPON THE ULTIMATE DEVELOPMENT OF THE WATERSHED.

94 THE APPLICANT SHALL SHOW THE CREEK STRUCTURE SETBACK LINE ON THE FINAL MAP IN ACCORDANCE WITH SECTION 914-14.012, "STRUCTURES SETBACK LINES FOR UNIMPROVED EARTH CHANNELS" OF THE CONTRA COSTA COUNTY SUBDIVISION ORDINANCE CODE, AS ADOPTED BY THE TOWN OF MORAGA, AND CONSISTENT WITH ATTACHMENT E.2 (CREEK SETBACK EXHIBIT) OF THE FEBRUARY 18, 2014 PLANNING COMMISSION STAFF REPORT.

95 CREEK CORRIDOR AND PUBLIC TRAIL. THE PUBLIC EASEMENT ALONG THE SOUTH SIDE OF LARCH CREEK SHALL BE IMMEDIATELY ADJACENT TO AND ATTACHED TO THE PAVED ONSITE ACCESS ROAD AND SHALL ALLOW BOTH PEDESTRIAN AND BICYCLE ACCESS. THIS 6-FT. WIDE PATH SHALL BE COMPOSED OF "DECOMPOSED GRANITE. DURING CONSTRUCTION OF THIS TRAIL, ORANGE FENCING AND STRAW BALES SHALL BE USED ON THE CREEK SIDE OF THE EASEMENT TO PREVENT EROSION AND SEDIMENTATION AND TO MINIMIZE DISTURBANCE OF THE CREEK CORRIDOR. NO EQUIPMENT SHALL DISTURB ANY AREAS OUTSIDE OF THE DESIGNATED EASEMENT. ANY RETAINING WALLS FOR LOTS OR THE ONSITE ACCESS ROAD SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL AND SHALL NOT BE PLACED CLOSER THAN 60 FEET TO THE CENTERLINE OF THE CREEK AND RETAINING WALLS WITHIN 100 FT. OF THE CREEK CENTERLINE SHALL BE LANDSCAPED TO SCREEN THE WALLS FROM OFFSITE LOCATIONS (WITH VINES OR OTHER MECHANISMS). [MODIFIED CDP COA NO. 46]

96 CREEK PROTECTION. THE LARCH CREEK CORRIDOR SHALL BE FENCED DURING ALL OF CONSTRUCTION ACTIVITY AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH AN APPROVED STORMWATER POLLUTION AND PREVENTION PLAN (SWPPP). [CDP COA NO. 35]

WATER QUALITY AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

97 PROJECT CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE FEDERAL CLEAN WATER ACT, WHICH PROTECTS THE QUALITY OF SURFACE WATERS THROUGH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), SUBJECT TO APPROVAL OF THE PUBLIC WORKS DEPARTMENT. THE APPLICANT SHALL PROVIDE EVIDENCE TO THE TOWN OF THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) APPROVAL OF THE SWPPP. STORM WATER DISCHARGES SHALL BE IN ACCORDANCE WITH THE TOWN OF MORAGA NPDES PERMIT. A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AND BE KEPT AT THE CONSTRUCTION SITE.

98 NPDES COMPLIANCE SHALL INCLUDE DEVELOPING LONG-TERM BEST MANAGEMENT PRACTICES (BMPS) FOR THE REDUCTION OR ELIMINATION OF STORM WATER POLLUTANTS. THE PROJECT DESIGN SHALL INCORPORATE WHEREVER FEASIBLE, THE FOLLOWING LONG-TERM BMPS IN ACCORDANCE WITH THE TOWN OF MORAGA AND CONTRA COSTA CLEAN WATER PROGRAM FOR THE SITE'S STORM WATER DRAINAGE:

. MINIMIZE THE AMOUNT OF DIRECTLY CONNECTED IMPERVIOUS SURFACE AREA.

. STENCILING ALL STORM DRAIN INLETS "NO DUMPING, DRAINS TO CREEK" (OR SIMILAR) USING THERMOPLASTIC TAPE.

. CONSTRUCT CONCRETE DRIVEWAY WEAKENED PLANE JOINTS AT ANGLES TO ASSIST IN DIRECTING RUN-OFF TO LANDSCAPED/PERVIOUS AREAS PRIOR TO ENTERING THE STREET CURB AND GUTTER.

. OTHER ALTERNATIVES COMPARABLE TO THE ABOVE AS APPROVED BY PUBLIC WORKS.

. SHALLOW ROADSIDE AND ON-SITE SWALES.[MODIFIED CDP COA NO. 99]

99 PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE PROJECT APPLICANT SHALL PREPARE A "SOURCE CONTROL PROGRAM" TO REMOVE NON-POINT SOURCE POLLUTANTS BEFORE THEY ARE PICKED UP BY STORM WATER RUNOFF DURING THE FUTURE OPERATION OF THE PROJECT. A REGISTERED CIVIL ENGINEER (OR OTHER LICENSED PROFESSIONAL ACCEPTABLE TO THE TOWN) SHALL PREPARE THE SOURCE CONTROL PROGRAM, SUBJECT TO APPROVAL BY THE PUBLIC WORKS DEPARTMENT. THE PROGRAM SHALL INCLUDE THE FOLLOWING PROVISIONS:

A A PAVEMENT MAINTENANCE PROGRAM, WHICH CONSISTS OF REGULAR SURFACE CLEANING FOR THE NEW DRIVEWAY AND PARKING AREA.

B LABELING ALL CATCH BASINS 'NO DUMPING-DRAINS TO CREEKS" (OR SIMILAR). MARK ALL STORM DRAINS WITH SIGNS TO PROHIBIT IMPROPER DISPOSAL OF ANY HAZARDOUS MATERIALS SUCH AS CLEANING SOLVENTS, PESTICIDES AND HERBICIDES.

C STRICTLY LIMITING THE USE OF NON-BIODEGRADABLE FERTILIZERS OR PESTICIDES IN THE LANDSCAPE MAINTENANCE PROGRAM.

100 CC&RS FOR THE SUBDIVISION SHALL REQUIRE:

A MATERIALS SUCH AS GASOLINE, OIL, SAND, PAINT, PESTICIDE RESIDUES, OR OTHER TOXIC SUBSTANCES ARE PROHIBITED FROM BEING INTRODUCED INTO THE STORM DRAIN SYSTEM OR THE CCCSD SEWER SYSTEM.

B LOT OWNER SHALL MAINTAIN HIS/HER LOT IN A NON-HAZARDOUS CONDITION WITH REGARD TO DRAINAGE.

C COLLECTED STORM DRAINAGE ORIGINATING FROM ROOF DOWNSPOUTS AND PAVED AREAS SHALL NOT BE DISCHARGED ACROSS SIDEWALKS OR OUT OF DRIVEWAYS.

D THE DISCHARGE OF CHLORINATED WATER FROM SWIMMING POOLS AND SPAS INTO STORM DRAINS OR CREEK CHANNELS IS PROHIBITED. (ALL WATER FROM SWIMMING POOLS AND SPAS SHALL BE DISCHARGED TO THE CCCSD SEWER SYSTEM IN ACCORDANCE WITH THEIR REQUIREMENTS.)

E DISTRIBUTION OF PUBLIC INFORMATION ITEMS REGARDING THE CLEAN WATER PROGRAM TO BUYERS AT TIME OF SALE

101 PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE FIRST RESIDENCE, THE APPLICANT SHALL SUBMIT A WRITTEN AGREEMENT FOR A STREET SWEEPING PROGRAM AND A STORM WATER SYSTEM CLEANING PROGRAM TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE PRIVATE ROAD, AND DRAINAGE FACILITIES LOCATED WITHIN COMMON AREAS AND OPEN SPACE EASEMENTS, EXCEPT FOR THOSE TO BE MAINTAINED BY THE GHAD. SUCH FACILITIES SHALL BE SUBJECT TO THE FOLLOWING MAINTENANCE SCHEDULE, WHICH MAY BE REFLECTED IN A CONSOLIDATED PLAN OF MAINTENANCE AND OPERATION FOR THE PROJECT:

A THE PRIVATE ROAD MUST BE SWEPT A MINIMUM OF SIX TIMES PER YEAR AND WHENEVER DIRT AND DEBRIS IS ON THE PRIVATE DRIVE OR AS DETERMINED BY THE TOWN'S PUBLIC WORKS DEPARTMENT. ONE PRIVATE DRIVE SWEEPING SHALL BE REQUIRED FOR INDIVIDUAL PROPERTIES IN LATE SEPTEMBER.

B ALL CATCH BASINS AND STORM DRAIN PIPES SHALL BE CLEANED TWO TIMES PER YEAR INCLUDING ONCE IN SEPTEMBER.

C INSPECTION AND CLEARING OF THE STORM DRAIN INLETS, DITCHES, AND CREEKS SHALL OCCUR ONCE EVERY YEAR, IN SEPTEMBER.

D THE PROGRAM SHALL GIVE AUTHORITY TO THE TOWN TO ENTER ONTO THE SITE TO VERIFY THAT THE PROGRAM IS BEING IMPLEMENTED

CONDITIONS RELATED TO PROVISION C.3: STORMWATER CONTROL FOR NEW AND REDEVELOPMENT:

102 THE APPLICANT SHALL BE REQUIRED TO COMPLY WITH ALL RULES, REGULATIONS AND PROCEDURES OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR MUNICIPAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES AS PROMULGATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD, OR ANY OF ITS REGIONAL WATER QUALITY CONTROL BOARDS (SAN FRANCISCO BAY - REGION II), SPECIFICALLY IN RESPECT TO PROVISION 'C.3" IN THE NPDES PERMIT.

103 STORMWATER. STORMWATER FROM ROOFS, PATIOS, STREETS AND SIDEWALKS SHALL BE TREATED BEFORE REACHING CREEKS OR PUBLIC STORM DRAIN SYSTEM. STORMWATER FROM NATURALLY VEGETATED AREAS (HILLSIDES, LANDSCAPES, ETC.) DOES NOT NEED TO BE TREATED AND MAY BE ROUTED TO THE STORMWATER SYSTEM OR CREEKS DIRECTLY. THE TWO TYPES OF RUN-OFF SHOULD NOT BE MIXED. BIOS ALES MAY BE USED TO TREAT RUNOFF FROM PAVED SURFACES. THE CONSTRUCTION PLANS SHALL INCLUDE DETAILED STORMWATER TREATMENT PLANS TO REFLECT THE SPECIFICS OF THE TREATMENT FACILITIES AREAS.

THIS PROJECT SHALL FULLY COMPLY WITH THE TOWN'S STORMWATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE, THE STORMWATER C.3 GUIDEBOOK, AND THE REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD. AS PART OF THESE REQUIREMENTS, THE APPLICANT SHALL INCORPORATE INTEGRATED MANAGEMENT PRACTICES (IMPS) OR BEST MANAGEMENT PRACTICES (BMPS) TO THE MAXIMUM EXTENT PRACTICABLE INTO THE DESIGN OF THIS PROJECT, IMPLEMENT THEM, AND PROVIDE FOR PERPETUAL OPERATION AND MAINTENANCE FOR ALL TREATMENT IMP/BMPS.[MODIFIED CDP COA NO. 36]

104 A PRELIMINARY STORMWATER CONTROL PLAN DATED OCTOBER 18, 2013 WAS REVIEWED AND DETERMINED TO BE PRELIMINARILY COMPLETE. ALTHOUGH THE STORMWATER CONTROL PLAN HAS BEEN DETERMINED TO BE PRELIMINARILY COMPLETE, IT IS SUBJECT TO REVISION DURING THE PREPARATION OF IMPROVEMENT PLANS, AS NECESSARY, TO BRING IT INTO FULL COMPLIANCE WITH C.3 STORMWATER REQUIREMENTS. THE APPLICANT SHALL SUBMIT TO THE PUBLIC WORKS DEPARTMENT A FINAL STORMWATER CONTROL PLAN THAT HAS BEEN CERTIFIED AND STAMPED BY A LICENSED CIVIL ENGINEER, ARCHITECT, OR LANDSCAPE ARCHITECT FOR THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT.[MODIFIED CDP COA NO. 37]

105 ALL CONSTRUCTION PLANS (INCLUDING, BUT NOT LIMITED TO, SITE, IMPROVEMENT, STRUCTURAL, MECHANICAL, ARCHITECTURAL, BUILDING, GRADING AND LANDSCAPING PLANS) SHALL COMPLY WITH THE PRELIMINARILY APPROVED STORMWATER CONTROL PLAN (SWCP) OR ANY SUBSEQUENTLY REVISED SWCP, THE TOWN'S STORMWATER MANAGEMENT AND DISCHARGE CONTROL ORDINANCE, THE "C.3 GUIDEBOOK" AND THE REQUIREMENTS OF THE REGIONAL WATER QUALITY CONTROL BOARD. ALL CONSTRUCTION PLANS SHALL INCLUDE DETAILS AND SPECIFICATIONS NECESSARY TO IMPLEMENT ALL MEASURES OF THE SWCP, SUBJECT TO THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT. TO INSURE CONFORMANCE WITH THE SWCP, THE APPLICANT SHALL SUBMIT A COMPLETED "CONSTRUCTION PLAN C.3 CHECKLIST" INDICATING THE LOCATION ON THE CONSTRUCTION PLANS OF ALL ELEMENTS OF THE SWCP AS DESCRIBED IN THE "C.3 GUIDEBOOK.

106 ANY PROPOSED WATER QUALITY FEATURES THAT ARE DESIGNED TO RETAIN WATER FOR LONGER THAN 72 HOURS SHALL BE SUBJECT TO THE REVIEW OF THE CONTRA COSTA MOSQUITO & VECTOR CONTROL DISTRICT.

107 ALL WATER QUALITY FEATURES SHALL BE LOCATED WITHIN PRIVATELY MAINTAINED STORM DRAIN OR OPEN SPACE EASEMENTS TO ALLOW TOWN ACCESS FOR ANY FUTURE INSPECTION AND/OR MAINTENANCE PURPOSES.

108 THE APPLICANT SHALL PROVIDE A STORMWATER CONTROL OPERATION AND MAINTENANCE (O&M) PLAN FOR THE REVIEW OF THE PUBLIC WORKS DEPARTMENT, AND RECORD AN OPERATION AND MAINTENANCE AGREEMENT, INCLUDING ANY NECESSARY RIGHTS-OF-ENTRY, PRIOR TO RECORDING OF THE FINAL MAP.

109 THE HOA AND GHAD FINANCIAL/OPERATING PLAN(S) SHALL INCLUDE PROVISIONS TO INSURE THAT ALL COSTS ASSOCIATED WITH THE OPERATION & MAINTENANCE, ADMINISTRATION AND REPORTING OF WATER QUALITY FEATURES (INCLUDING COSTS ASSOCIATED WITH ALL REQUIRED TOWN ADMINISTRATION, INSPECTION AND REPORTING) WILL BE ADDRESSED IN PERPETUITY. COST ESTIMATES FOR THE COMPLETE FINANCING AND PERPETUAL MAINTENANCE OF THE WATER QUALITY FEATURES PROPOSED SHALL BE PROVIDED FOR THE REVIEW AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT. THIS ESTIMATE SHALL INCLUDE ALL LONG TERM COSTS ASSOCIATED WITH THESE WATER QUALITY FEATURES INCLUDING, BUT NOT LIMITED TO, OPERATION AND MAINTENANCE, FINANCING, INFLATION INDEXING, AND REPLACEMENT COSTS.

110 PRIOR TO BUILDING PERMIT FINAL AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL PROVIDE AN OPERATION AND MAINTENANCE (O&M) PLAN AND EXECUTE ANY AGREEMENTS IDENTIFIED IN THE SWCP, WHICH PERTAIN TO THE TRANSFER OF OWNERSHIP AND/OR LONG-TERM MAINTENANCE OF STORM WATER TREATMENT OR HYDROGRAPH MODIFICATION BMPS.

GRADING CONDITIONS:

GENERAL GRADING CONDITIONS/PRIOR TO COMMENCEMENT OF GRADING

111 ALL GRADING OPERATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONDITIONS LISTED IN THIS SECTION AND IN CONFORMANCE WITH THE APPROVED GRADING PLAN. AN APPLICATION FOR A GRADING PERMIT, DEVELOPED IN ACCORDANCE WITH APPLICABLE TOWN APPROVALS, SHALL BE MADE TO THE CONTRA COSTA COUNTY BUILDING INSPECTION DEPARTMENT, AND SHALL BE ACCOMPANIED BY THE REQUISITE NUMBER OF PLAN SETS, DOCUMENTATION OF EARTHWORK QUANTITIES AND FEES IN ACCORDANCE WITH COUNTY REQUIREMENTS.

112 THE APPLICANT SHALL APPLY FOR AND PAY ALL APPROPRIATE FEES FOR THE GRADING PERMIT, EROSION CONTROL PERMIT, PLAN CHECKS AND INSPECTIONS AND ANY OTHER APPLICABLE FEES.

113 THE FINAL GRADING PLAN SHALL BE REVIEWED AND APPROVED BY THE TOWN ENGINEER PRIOR TO FILING THE FINAL MAP AND IMPROVEMENT PLANS. THE GRADING PLAN SHALL BE CONSISTENT WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION AND SHALL BE SIGNED FOR CONFORMITY BY THE APPLICANT'S SOILS ENGINEER.

114 PRIOR TO THE ISSUANCE OF A GRADING PERMIT BY CONTRA COSTA COUNTY, A CERTIFICATE OF INSURANCE SHALL BE PROVIDED TO THE TOWN TO VERIFY THAT BOTH THE APPLICANT AND THE GRADING CONTRACTOR HAVE PUBLIC LIABILITY INSURANCE. THE AMOUNT AND TYPE OF INSURANCE SHALL BE REVIEWED BY THE TOWN AND SHALL BE SUFFICIENT TO COVER DAMAGES THAT MAY RESULT FROM THE GRADING OPERATION.

115 GRADING OPERATIONS SHALL OCCUR BETWEEN APRIL 15 AND OCTOBER 15, IN ORDER TO AVOID SEASONAL RAINFALL, EXCEPT AS ALLOWED OUTSIDE THIS PERIOD IN ACCORDANCE WITH PROVISIONS OF THE GRADING ORDINANCE. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND DEEMED OPERATIONAL BY THE PROJECT ENGINEER, THE CONTRA COSTA COUNTY GRADING INSPECTOR AND TOWN ENGINEER PRIOR TO OCTOBER 1. [MODIFIED CDP COA NO. 67]

116 GRADING. NO GRADING SHALL OCCUR PRIOR TO APPROVAL OF A GRADING PERMIT. IT IS EXPECTED THAT ALL GRADED MATERIAL WILL BE BALANCED ON SITE BUT THIS SHALL BE VERIFIED AT THE TIME OF THE GRADING PERMIT, AT WHICH TIME THE APPLICANT SHALL VERIFY THE MAXIMUM AMOUNT OF OFF HAUL OF ANY CUT MATERIAL FROM THE SITE AND THE TRUCK TRIPS ASSOCIATED WITH ANY DIRT REMOVAL INFORMATION ON NUMBER OF TRUCK TRIPS, AND LENGTH OF TIME OF OFF HAUL SHALL BE POSTED ON THE SITE IN A LOCATION VISIBLE FROM THE HETFIELD DRIVE ACCESS POINT SO THAT NEIGHBORS ARE AWARE OF TRUCKS ASSOCIATED WITH ONSITE GRADING ACTIVITIES. CONTRACTOR CONTACT INFORMATION SHALL ALSO BE POSTED IF NEIGHBORS WISH TO REGISTER ANY COMPLAINTS. ALL GRADING ACTIVITY SHALL BE MONITORED AND DAILY RECORDS MAINTAINED THAT SHALL BE PROVIDED TO THE TOWN OF MORAGA ON A MONTHLY BASIS. ALL EXCAVATIONS (KEYWAYS, BENCHES, ETC.) FOR THE LANDSLIDE REMOVALS SHALL BE MAPPED AND APPROVED BY THE APPLICANT'S CERTIFIED ENGINEERING GEOLOGIST AND SHALL BE REVIEWED BY THE TOWN'S CONSULTING ENGINEERING GEOLOGIST. APPROVAL OF CORRECTIVE AND SITE PREPARATION GRADING SHALL BE SEPARATE FROM INDIVIDUAL LOT GRADING FOR HOME CONSTRUCTION. [MODIFIED CDP COA NO. 42]

117 CUT AND FILL. CUT AND FILL MATERIAL SHALL BE BALANCED ON-SITE TO THE MAXIMUM EXTENT FEASIBLE. IF THE PROPOSED PROJECT REQUIRES EXPORT OR IMPORT OF MORE THAN 500 CUBIC YARDS OF DIRT, A HAULING PERMIT SHALL BE REQUIRED IN ACCORDANCE WITH PC RESOLUTION 46-82. HOWEVER, EVEN IF THE VOLUME OF THE EXPORT OR IMPORT IS LESS THAN 500 CUBIC YARDS, A HAULING PERMIT SHALL ALSO BE REQUIRED, SUBJECT TO REVIEW AND APPROVAL BY THE TOWN ENGINEER.[CDP COA NO. 48]

118 CDFW AND RWQCB APPROVALS. PRIOR TO THE ISSUANCE OF GRADING PERMITS BY THE TOWN OF MORAGA, THE PROJECT APPLICANT SHALL PROVIDE EVIDENCE OF THE REQUIRED APPROVALS FROM THE CDFW AND RWQCB IN TERMS OF IMPACTS TO LARCH CREEK AND ONSITE WETLANDS. [CDP COA NO. 70]

119 PRIOR TO ISSUANCE OF A COUNTY GRADING PERMIT, THE PROJECT APPLICANT SHALL PREPARE A CONSTRUCTION MANAGEMENT PLAN (CMP), SUBJECT TO REVIEW AND APPROVAL BY THE PUBLIC WORKS DIRECTOR. THE CMP SHALL PROVIDE THE FOLLOWING INFORMATION:

A A PROJECT STAGING PLAN TO MAXIMIZE THE ON-SITE STORAGE OF MATERIALS AND EQUIPMENT;

B A SET OF COMPREHENSIVE TRAFFIC CONTROL MEASURES, INCLUDING SCHEDULING OF MAJOR TRUCK TRIPS AND DELIVERIES TO AVOID PEAK HOURS; LANE CLOSURE PROCEEDINGS; SIGNS, CONES AND OTHER WARNING DEVICES FOR DRIVERS; AND DESIGNATION OF CONSTRUCTION ACCESS ROUTES;

C PERMITTED CONSTRUCTION HOURS;

D LOCATION OF CONSTRUCTION STAGING;

E IDENTIFICATION OF PARKING AREAS FOR CONSTRUCTION EMPLOYEES, SITE VISITORS, AND INSPECTORS, INCLUDING ON-SITE LOCATIONS AND ALONG HETFIELD PLACE;

F PROVISIONS FOR STREET SWEEPING TO REMOVE CONSTRUCTION-RELATED DEBRIS ON PUBLIC STREETS; AND

G DESIGNATION OF AN ON-SITE CONSTRUCTION MANAGER AS A CONTACT FOR THE TOWN AND THE PUBLIC.

H REQUIREMENTS FOR PUBLIC NOTIFICATION FOR CONSTRUCTION AND GRADING ACTIVITY THAT MAY BLOCK OR IMPEDE ACCESS TO DRIVEWAYS. THE CMP SHALL REQUIRE BEST EFFORTS TO ENSURE THAT ACCESS TO PRIVATE DRIVEWAYS CAN OCCUR AT ALL TIMES, BUT IF THIS IS, NOT POSSIBLE, NOTICE SHALL BE PROVIDED TO AFFECTED PROPERTY OWNERS AT LEAST 48 HOURS IN ADVANCE OF ANY BLOCKAGE AND ITS EXPECTED HOURS AND DURATION.

THE ABOVE LIST REFLECTS THE MINIMUM REQUIRED CONTENTS OF THE CMP. THE TOWN MAY DETERMINE THAT OTHER PROVISIONS, NECESSARY TO SATISFY REQUIRED CONDITIONS OF APPROVAL OR EIR MITIGATION MEASURES SHOULD BE INCLUDED IN THE CMP.

120 TWO WEEKS PRIOR TO COMMENCEMENT OF THE PROJECT'S GRADING OPERATION, NOTICE SHALL BE SENT TO RESIDENTS IN THE VICINITY TO INFORM THEM OF THE DATE OF THE START-UP OF THE GRADING. THE NOTICE SHALL INCLUDE THE TELEPHONE NUMBER OF THE CONSTRUCTION SUPERVISOR AND/OR OTHER RESPONSIBLE PARTIES WHO MAY BE CONTACTED REGARDING THE GRADING OPERATION. A COPY SHALL BE SENT TO THE PLANNING AND PUBLIC WORKS DIRECTORS.

121 PRIOR TO COMMENCEMENT OF THE GRADING OPERATION, A SURVEY (SUCH AS A VIDEOTAPE) OF THE CONDITION OF SANDERS DRIVE AND OTHER LOCAL STREETS TO BE USED BY THE CONSTRUCTION EQUIPMENT SHALL BE PERFORMED BY THE APPLICANT AND PROVIDED TO THE TOWN ENGINEER FOR REVIEW. THE SURVEY SHALL INCLUDE ROADS ALONG PROPOSED HAUL ROUTE(S) OR ANY ALTERNATE ROUTE(S) THAT ARE PROPOSED TO BE UTILIZED BY THE HAULING OPERATION. ANY OFF-SITE DAMAGE TO PUBLIC STREETS, INCLUDING BUT NOT LIMITED TO POTHOLES, DEPRESSIONS, SPALLING, CURB AND GUTTER CRACKS, TRAFFIC STRIPING AND PAVEMENT MESSAGES THAT BECOME ILLEGIBLE, OBLITERATED, OR A HAZARD, WHICH IS DETERMINED BY THE TOWN ENGINEER TO BE THE RESULT OF THE CONSTRUCTION OPERATION SHALL BE CORRECTED BY THE APPLICANT AT THE APPLICANT'S EXPENSE. A COPY OF ALL PRE-PROJECT SURVEY WORK DOCUMENTATION SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK, AND IS SUBJECT TO TOWN VERIFICATION AND APPROVAL OF THE SURVEY FINDINGS. AT ITS OPTION, THE TOWN MAY REQUIRE THE APPLICANT TO EXECUTE A BONDED ROAD IMPROVEMENT AGREEMENT TO ASSURE THE ROADWAY REPAIRS.[MODIFIED CDP COA NO. 27]

122 PRIOR TO THE COMMENCEMENT OF THE GRADING OPERATION, A PRE-WORK MEETING SHALL BE HELD WITH THE GRADING CONTRACTOR, A REPRESENTATIVE OF THE APPLICANT, THE PROJECT GEOTECHNICAL ENGINEER, THE PROJECT ENGINEER, THE TOWN ENGINEER, THE TOWN'S CONSULTING GEOTECHNICAL ENGINEER, THE PLANNING DIRECTOR, THE CONTRA COSTA COUNTY GRADING INSPECTOR, AND THE VARIOUS UTILITY AGENCIES. THE PURPOSE OF THE MEETING SHALL BE TO REVIEW THE CONDITIONS OF APPROVAL AND TO ADVISE THE INDIVIDUALS PERFORMING THE WORK OF THE REQUIREMENTS OF THE TOWN.

123 WITHIN ONE YEAR OF THE EFFECTIVE DATE OF THE FINAL MAP, THE APPLICANT SHALL SUBMIT A DECLARATION OF DEED RESTRICTIONS FOR EACH LOT IN A FORM SATISFACTORY TO THE TOWN ATTORNEY. THE DECLARATION SHALL BE REVIEWED BY THE PLANNING DIRECTOR AND RECORDED WITH THE TITLE OF EACH LOT. A COPY OF THE RECORDED DECLARATION OF DEED RESTRICTIONS SHALL BE FILED WITH THE TOWN OF MORAGA. THE DECLARATION OF DEED RESTRICTIONS SHALL INCLUDE THE RECOMMENDATIONS AND EXHIBITS FROM THE PROJECT GEOTECHNICAL ENGINEER'S REPORTS:

A RECOMMENDED STRUCTURAL SETBACKS FROM THE BOTTOM AND TOP OF SLOPES, INCLUDING THE MINIMUM SETBACK REQUIREMENTS FROM THE TOE OF THE LANDSLIDE FEATURES IDENTIFIED ON THE BUILDING SITE.

B THE MAINTENANCE RESPONSIBILITIES REQUIRED OF THE LOT OWNER INCLUDE ANNUAL INSPECTION AND CLEANING OF BOTH SURFACE AND SUBSURFACE DRAINAGE FACILITIES EACH SEPTEMBER.

C A SITE PLAN SHOWING THE "AS-BUILT" LOCATION OF ANY SUBDRAINS INSTALLED ON ANY PORTION OF THE LOT AND ALL DRAINAGE INLETS AND OUTLETS.

124 EXISTING TREES, PLANTS AND GRASSES IN THE AREA TO BE GRADED SHALL BE LEFT UNDISTURBED, EXCEPT AS NEEDED FOR WEED CONTROL AND FUELS MANAGEMENT, UNTIL THE GRADING IS READY TO COMMENCE. TREE REMOVAL MAY BE AUTHORIZED BY THE TOWN PRIOR TO COMMENCEMENT OF GRADING IF SO DOING WOULD REDUCE POTENTIAL IMPACTS TO NESTING BIRDS AND OTHER SPECIES. ADDITIONAL SECURITY DEPOSITS MAY BE REQUIRED IN CONJUNCTION WITH SUCH AN AUTHORIZATION, AT THE DISCRETION OF THE TOWN.

125 RETAINING WALLS AND 3:1 SLOPES. AT THE TIME OF GRADING, SLOPES SHALL BE 3:1 AS SHOWN IN THE GRADING PLAN FOR THE CDP, AND RETAINING WALLS SHALL NOT BE CONSTRUCTED UNTIL DESIGN REVIEW HAS OCCURRED. RETAINING WALLS SHALL BE SUBJECT TO DESIGN REVIEW BOARD REVIEW AND APPROVAL. AT MINIMUM, SUCH RETAINING WALLS SHALL BE CONSISTENT WITH THE DESIGN GUIDELINES, SCREENED FROM VIEW BY THE RECOMMENDED SHRUBBERY AND TREE PLANTINGS. RETAINING WALL HEIGHT SHALL BE MINIMIZED TO THE MAXIMUM EXTENT POSSIBLE, BUT SHALL NOT EXCEED FIVE FEET IN HEIGHT. [CDP COA NO. 39]

DURING GRADING OPERATIONS

126 THE GRADING CONTRACTOR AND THE APPLICANT SHALL BE RESPONSIBLE FOR PREVENTING SPILLS OF SOIL, ROCK OR OTHER DEBRIS ONTO THE TOWN'S STREETS. IF ANY SPILLS OCCUR, THE GRADING CONTRACTOR AND THE APPLICANT WILL BE REQUIRED TO IMMEDIATELY CLEAN UP THE SPILL AND REPAIR ANY DAMAGE TO THE STREETS TO THE SATISFACTION OF THE PUBLIC WORKS DEPARTMENT AND THE GRADING INSPECTOR. PAVEMENT AND/OR BASE ROCK APRON (STABILIZED CONSTRUCTION ENTRANCE) SHALL BE PROVIDED AT THE ENTRANCE TO THE SITE TO MINIMIZE DIRT CARRIED ONTO THE TOWN STREETS. SPECIFICATIONS FOR THE PAVEMENT OR BASE ROCK APRON (STABILIZED CONSTRUCTION ENTRANCE) SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

145 THE EROSION CONTROL FACILITIES SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS ARE COMPLETED AND PROJECT LANDSCAPING OR A HEAVY GROWTH OF GRASS IS ESTABLISHED ON ALL EXPOSED SLOPES. A MINIMUM OF 4,000 POUNDS PER ACRE OF STRAW MULCH OR ALTERNATIVE ACCEPTABLE TO THE PUBLIC WORKS DEPARTMENT SHALL BE PLACED ON ALL SLOPES WHERE GRASS IS NOT FIRMLY ESTABLISHED EACH YEAR BEFORE OCTOBER 1. EROSION CONTROL FACILITIES MUST BE MAINTAINED AFTER EVERY STORM AND AS NEEDED IN BETWEEN STORMS, AND REPLACED WHENEVER NECESSARY.

146 EXPOSED SLOPES SHALL BE LANDSCAPED OR HYDRO SEEDED WITH A MIXTURE OF ANNUAL GRASSES, NATIVE GRASSES AND WILDFLOWERS (EXCEPT AS LIMITED BY THE MMRP), NO LATER THAN OCTOBER 1 OF THE YEAR DURING WHICH THE EXPOSED SLOPE HAS BEEN CREATED, IN ANTICIPATION OF THE RAINY SEASON. THIS APPLIES TO ROUGH GRADED SLOPES AS WELL AS AREAS WHERE GRADING HAS BEEN COMPLETED. THE LANDSCAPED OR HYDRO SEEDED AREAS SHALL BE MAINTAINED TO ENSURE ADEQUATE PLANT GROWTH AND ROOTING. IF AN AREA IS DISTURBED AFTER HYDRO SEEDING, THEN THE AREA SHALL BE REVEGETATED, OR PROTECTED FROM EROSION BY OTHER APPROVED METHODS. [MODIFIED CDP COA NO. 67]

NOISE: CONDITIONS PERTAINING TO CONSTRUCTION AND GRADING RELATED NOISE

147 NOISE-GENERATING CONSTRUCTION ACTIVITIES AND GRADING SHALL TAKE PLACE ONLY BETWEEN THE HOURS OF 8:00 AM AND 5:00 PM ON WEEKDAYS. CONSTRUCTION ACTIVITIES WITHIN PRIVATE AND PUBLIC STREET IMPROVEMENTS SHALL BE LIMITED TO THE HOURS OF 8:00 AM AND 4:00 PM MONDAY THROUGH FRIDAY. GRADING WORK MAY BE PERMITTED BY THE PLANNING DIRECTOR DURING A WEEKEND IF THE GRADING IS DEEMED NECESSARY BY THE PROJECT GEOTECHNICAL ENGINEER DUE TO A POTENTIALLY HAZARDOUS AND UNFORESEEN CONDITION THAT REQUIRES IMMEDIATE ATTENTION. OTHER CONSTRUCTION, SUCH AS INTERIOR WORK ON HOMES MAY ALSO BE PERMITTED OUTSIDE OF THESE HOURS WITH THE APPROVAL OF THE PLANNING DIRECTOR.

148 ALL CONSTRUCTION EQUIPMENT OPERATED AT THE PROJECT SITE SHALL BE EQUIPPED WITH MANUFACTURER'S STANDARD NOISE CONTROL DEVICES (I.E., MUFFLERS, INTAKE SILENCERS, AND/OR ENGINE ENCLOSURES). NEWER EQUIPMENT SHALL BE USED WHENEVER POSSIBLE.

149 EQUIPMENT USED FOR PROJECT CONSTRUCTION SHALL HAVE HYDRAULICALLY OR ELECTRICALLY POWERED IMPACT TOOLS (E.G., JACK HAMMERS, PAVEMENT BREAKERS, AND ROCK DRILLS) WHENEVER 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. THIS MUFFLER CAN LOWER NOISE LEVELS FROM THE EXHAUST UP TO ABOUT 10 DBA. EXTERNAL JACKETS ON THE TOOLS THEMSELVES SHALL BE USED WHERE FEASIBLE, THEREBY ACHIEVING A FURTHER REDUCTION OF 5 DBA. QUIETER PROCEDURES SHALL BE USED SUCH AS DRILLING RATHER THAN IMPACT EQUIPMENT, WHENEVER FEASIBLE.

150 CONSTRUCTION STAGING AREAS, MAINTENANCE YARDS AND OTHER CONSTRUCTION-ORIENTED OPERATIONS SHALL BE LOCATED AS FAR AS REASONABLY POSSIBLE FROM NOISE-SENSITIVE RECEPTORS.

151 STATIONARY NOISE GENERATING EQUIPMENT, SUCH AS AIR COMPRESSORS AND CONCRETE PUMPERS, SHALL BE LOCATED AS FAR AWAY FROM ADJACENT RESIDENCES AND NOISE-SENSITIVE RECEPTORS AS POSSIBLE. IF THEY MUST BE USED NEAR EXISTING HOMES, THEY SHALL BE ADEQUATELY MUFFLED.

152 GRADING EQUIPMENT AND TRUCKS USED FOR PROJECT CONSTRUCTION SHALL UTILIZE THE BEST AVAILABLE NOISE CONTROL TECHNIQUES TO MAINTAIN NOISE LEVELS WITHIN THE FOLLOWING STANDARDS SHOWN IN THE TABLE, BELOW

RECOMMENDED NOISE LIMITS FOR CONSTRUCTION EQUIPMENT

153 AS PART OF THE CONSTRUCTION MANAGEMENT PLAN, DEVELOPER/APPLICANT SHALL INCLUDE A CONSTRUCTION NOISE MANAGEMENT PLAN THAT IDENTIFIES MEASURES TO BE TAKEN TO MINIMIZE CONSTRUCTION NOISE ON SURROUNDING DEVELOPED PROPERTIES. SPECIFIC NOISE MANAGEMENT MEASURES SHALL BE INCLUDED IN THE PROJECT PLANS AND SPECIFICATIONS.

CONSTRUCTION CONDITIONS:[MODIFIED CDP COA NO. 78]

154 APPLICANT SHALL FURNISH PROOF TO PUBLIC WORKS OF THE ACQUISITION OF ALL NECESSARY RIGHTS OF WAY, RIGHTS OF ENTRY, PERMITS AND/OR EASEMENTS FOR THE CONSTRUCTION OF OFF-SITE, TEMPORARY OR PERMANENT, PUBLIC AND PRIVATE ROAD AND DRAINAGE IMPROVEMENTS. SUCH PROOF SHALL BE FURNISHED PRIOR TO FINAL MAP, ISSUANCE OF GRADING PERMIT, OR COMMENCEMENT OF CONSTRUCTION, WHICHEVER OCCURS FIRST. [MODIFICATION OF CDP COA 85]

155 PRIOR TO ISSUANCE OF GRADING PERMIT, THE APPLICANT SHALL POST A CASH DEPOSIT WITH THE TOWN OF MORAGA FOR EMERGENCY CLEANUP DURING CONSTRUCTION. THE AMOUNT OF THE DEPOSIT SHALL BE SATISFACTORY TO THE TOWN AS DETERMINED BY THE TOWN ENGINEER.[CDP COA NO. 12]

156 NOTIFICATION. THE PROJECT APPLICANT AND/OR PROJECT CONTRACTOR SHALL NOTIFY NEIGHBORS LOCATED ADJACENT TO THE CONSTRUCTION SITE OF THE CONSTRUCTION SCHEDULE IN WRITING. NOTIFICATION SHALL BE AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF GRADING/CONSTRUCTION.

157 DISTURBANCE COORDINATOR. THE APPLICANT AND/OR PROJECT CONTRACTOR SHALL DESIGNATE A "NOISE DISTURBANCE COORDINATOR" (SUBJECT TO TOWN OF MORAGA APPROVAL) WHO WILL BE RESPONSIBLE FOR RESPONDING TO ANY LOCAL COMPLAINTS ABOUT CONSTRUCTION NOISE. THE DISTURBANCE COORDINATOR WILL DETERMINE THE CAUSE OF THE NOISE COMPLAINT (E.G., STARTING TOO EARLY, BAD MUFFLER, ETC.) AND WILL REQUIRE THAT REASONABLE MEASURES WARRANTED TO CORRECT THE PROBLEM BE IMPLEMENTED. A TELEPHONE NUMBER FOR THE DISTURBANCE COORDINATOR SHALL BE POSTED IN A CONSPICUOUS LOCATION AT THE CONSTRUCTION SITE AND INCLUDED IN ANY NOTICES SENT TO NEIGHBORS REGARDING THE CONSTRUCTION SCHEDULE.

158 DEBRIS. DURING CONSTRUCTION, DEBRIS, WASTE DIRT, OR RUBBLE SHALL NOT BE DEPOSITED ON ADJACENT HABITATS DESIGNATED AS OPEN SPACE AREAS.

159 STAGING. STAGING AREAS FOR CONSTRUCTION EQUIPMENT, FOR CONSTRUCTION OCCURRING AFTER INSTALLATION OF THE BRIDGE, SHALL BE SCREENED OR LOCATED OUT OF SIGHT OF NEIGHBORS TO THE NORTH TO THE EXTENT FEASIBLE. STORAGE AREAS SHALL BE FENCED WITH SOLID SLAT FENCING TO SCREEN CONSTRUCTION MATERIALS FROM VIEW AND FOR SECURITY PURPOSES. LANDSCAPING MAY ALSO BE REQUIRED FOR THE FENCED AREA. THE STAGING AREA LOCATION AND FENCING SHALL BE APPROVED BY THE PLANNING DIRECTOR. (ALSO SEE CONDITION OF APPROVAL #127 REGARDING STAGING OF CONSTRUCTION EQUIPMENT AND VEHICLES ON PUBLIC STREETS).

160 APPLICANT SHALL LOCATE ANY VEHICULAR CONSTRUCTION ENTRANCE GATES A MINIMUM 40 FEET FROM THE EDGE OF PAVEMENT TO ALLOW VEHICLES TO QUEUE WITHOUT OBSTRUCTING THROUGH TRAFFIC. SUFFICIENT AREA SHALL BE PROVIDED OUTSIDE ANY GATE TO ALLOW A VEHICLE TO TURN AROUND AND RE-ENTER SANDERS DRIVE IN A FORWARD DIRECTION.

161 APPLICANT SHALL ONLY BE PERMITTED ACCESS AT THE LOCATIONS SHOWN ON THE APPROVED SITE/DEVELOPMENT PLAN.

LANDSCAPING

162 LANDSCAPING SHALL BE DESIGNED TO COMPLY WITH THE CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (DIVISION 2, TITLE 23, CALIFORNIA CODE OF REGULATIONS, CHAPTER 2.7, SECTIONS 490 THROUGH 495).

163 NATIVE AND PROTECTED TREES DESIGNATED FOR REMOVAL SHALL BE REPLACED AT THE RATIO OF 3:1 (I.E., 3 NEW TREES FOR EVERY 1 TREE REMOVED). A FINAL TREE REMOVAL AND REPLANTING PLAN SHALL BE SUBMITTED AND APPROVED BY THE TOWN PRIOR TO ISSUANCE OF A GRADING PERMIT, AND SHALL BE SUBSTANTIALLY IN CONFORMANCE WITH THE LANDSCAPE PLAN THAT IS PART OF THESE APPROVALS. THE PLAN SHALL REFLECT PROTECTIVE MEASURES SUCH AS FENCING TO PROTECT TREES IN THE VICINITY OF CONSTRUCTION ACTIVITY BUT PROPOSED TO BE PRESERVED. THE REMOVAL OF OTHER TREES NOT INCLUDED ON THE APPROVED TREE REMOVAL LIST, PROPOSED FOR FUTURE REMOVAL BY THE HOA, GHAD OR PRIVATE HOMEOWNERS SHALL REQUIRE ISSUANCE OF A TREE REMOVAL PERMIT, IN ACCORDANCE WITH THE MORAGA MUNICIPAL CODE. SUCH TREE REMOVAL SHALL BE MITIGATED AT THE SAME RATIO AS THAT SPECIFIED ABOVE.

164 LANDSCAPE BUFFERING AND SCREENING SHALL BE WITH BROADLEAF DECIDUOUS AND EVERGREEN TREES AND SHRUBS PLANTED SO AS TO REPLICATE THE NATURAL VEGETATION GROUPINGS ON AND ADJACENT TO THE SITE. THE LANDSCAPE FOR THE ACCESS STREET WILL BE COMPRISED OF NATIVE EVERGREEN AND DECIDUOUS TREES AND SHRUBS, INCLUDING OAK TREES, FOR A NATIVE WOODLAND APPEARANCE. THAT LANDSCAPE SHALL BE IN NATURAL VEGETATION GROUPINGS, CAREFULLY DESIGNED TO SCREEN THE HOUSES AND STREETS FROM THE VIEW OF THE SANDERS DRIVE NEIGHBORHOOD. THESE DETAILS IN THE FINAL LANDSCAPE DESIGN SHALL BE PROVIDED WITH THE FINAL SUBDIVISION MAP AND APPROVED BY THE PLANNING COMMISSION.

A LANDSCAPING SHALL SUPPLEMENT EXISTING VEGETATION ALONG LARCH CREEK WITH MEDIUM-SIZED BROADLEAF DECIDUOUS AND NATIVE EVERGREEN TREES, BUT THE TREE SPECIES SHALL NOT GROW SO TALL AS TO BLOCK UPPER HILLSIDE AND SKYLINE VIEWS FROM SANDERS DRIVE.

B THE PROPOSED DEBRIS BENCHES AT THE UPPER REACHES OF NEW LOTS SHALL INCLUDE LOW LYING LANDSCAPE AT THE PERIMETER THAT IS CONSISTENT WITH THE OPEN VIEWS OF THE LANDSCAPE PLAN FOR THE PROJECT BUT THAT DOES NOT PRECLUDE ACCESS FOR MAINTENANCE OF THE DEBRIS BENCHES.

C INVASIVE NON-NATIVE PLANT SPECIES KNOWN TO INVADE WETLANDS AND NATURAL AREAS SHALL NOT BE USED IN EITHER THE SUBDIVISION OR INDIVIDUAL LOT LANDSCAPING. UNDER NO CIRCUMSTANCES SHALL THE REVEGETATION OF GRADED OR FILLED AREAS INCLUDE ANY SPECIES APPEARING ON THE CALIFORNIA INVASIVE PLANT COUNCIL'S INVASIVE PLANT INVENTORY (AVAILABLE AT HTTP://WWW.CAL-IPC.ORG/PEST_PLANT_LIST/). A DEED RESTRICTION TO THIS EFFECT SHALL BE RECORDED ON EACH LOT PRIOR TO THE RECORDATION OF THE FINAL SUBDIVISION MAP AND ITS ENFORCEMENT MONITORED AND CONTROLLED BY THE HOA AND GHAD. [MODIFIED CDP COA NO. 60]

165 MINOR MODIFICATIONS TO THE APPROVED LANDSCAPING PLAN MAY BE APPROVED BY THE ZONING ADMINISTRATOR; SUBSTANTIAL CHANGES MAY BE REFERRED TO THE DESIGN REVIEW BOARD FOR REVIEW AND APPROVAL, AT THE DISCRETION OF THE ZONING ADMINISTRATOR.

166 NEW LANDSCAPING SHALL COMPLY WITH THE MORAGA-ORINDA FIRE DISTRICT'S FIRE SAFE LANDSCAPING GUIDELINES.

167 THE PROPERTY OWNER SHALL COMPLY WITH ANNUAL WEED ABATEMENT REQUIREMENTS FROM THE MORAGA-ORINDA FIRE DISTRICT TO PROVIDE A FIRE BREAK BETWEEN THE OPEN ACREAGE AND ADJACENT SINGLE FAMILY HOMES. IF DISKING OF THE SOIL OR MOWING OF THE GRASS IS NOT POSSIBLE DUE TO STEEP SLOPES, THEN ALTERNATIVES SUCH AS GRAZING SHOULD BE CONSIDERED TO REDUCE THE POTENTIAL FIRE HAZARD.

OTHER CONDITIONS

168 THIS ENTITLEMENT AND EACH CONDITION CONTAINED HEREIN SHALL BE BINDING UPON APPLICANT AND ANY TRANSFEROR, OR SUCCESSOR IN INTEREST. SUBSEQUENT APPROVALS SHALL BE SUBJECT TO ADDITIONAL CONDITIONS OF APPROVAL.

169 APPLICANT SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND (WITH LEGAL COUNSEL CHOSEN BY TOWN ("COUNSEL")) THE TOWN, ITS OFFICIALS, EMPLOYEES AND REPRESENTATIVES (THE "TOWN INDEMNITEES") FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES, LIABILITIES, ACTIONS OR PROCEEDINGS, INCLUDING ANY CEQA CHALLENGE, ARISING OUT OF THE TOWN'S APPROVALS ASSOCIATED WITH THE APPLICATION FOR THE HETFIELD ESTATES SUBDIVISION AND ENVIRONMENTAL IMPACT REPORT (THE "PROJECT APPROVALS"). APPLICANT SHALL ALSO PAY ALL FILING COURT COSTS AND SIMILAR OUT-OF-POCKET EXPENSES REQUIRED FOR TOWN AND APPLICANT TO DEFEND LITIGATION. [CDP COA NO. 90]

170 HAZARDOUS MATERIALS. THE PROJECT APPLICANT SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REGARDING USE OF HAZARDOUS MATERIALS AT CONSTRUCTION SITES.[MODIFIED CDP COA NO. 68]

171 SCHOOL FEES. THE APPLICANT/OWNER AGREES TO PAY TO THE SCHOOL DISTRICT THE MAXIMUM FEE AUTHORIZED BY LAW FOR THE CONSTRUCTION AND/OR RECONSTRUCTION OF SCHOOL FACILITIES. THE APPLICABLE FEE SHALL BE THE FEE ESTABLISHED BY THE SCHOOL DISTRICT THAT IS IN EFFECT AT THE TIME OF THE ISSUANCE OF A BUILDING PERMIT. SPECIFICALLY, THE APPLICANT/OWNER AGREES TO PAY ANY AND ALL FEES AND CHARGES AND COMPLY WITH ANY AND ALL DEDICATIONS OR OTHER REQUIREMENTS AUTHORIZED UNDER SECTION 17620 OF THE EDUCATION CODE; CHAPTER 4.7 (COMMENCING WITH SECTION 65970) OF THE GOVERNMENT CODE; AND SECTIONS 65995, 65995.5 AND 65995.7 OF THE GOVERNMENT CODE. [CDP COA NO. 82]

172 DISCLOSURE TO HOMEBUYERS. THE APPLICANT/OWNER SHALL DISCLOSE TO THE HOMEBUYER IN THE CONDITIONS, COVENANTS, AND RESTRICTIONS AND IN THE DEPARTMENT OF REAL ESTATE PUBLIC REPORT THAT PEDESTRIAN TRAILS AND STAGING AREAS ARE PLANNED IN AND AROUND THE PROJECT AREA, AND THAT THE PUBLIC USE ASSOCIATED WITH SUCH TRAILS AND RECREATIONAL FACILITIES (AND THE PRIVATE ROADS AND EVA) WILL BE PRESENT DURING VARIOUS TIMES, INCLUDING BUT NOT LIMITED TO EVENING AND NIGHTTIME HOURS. DISCLOSURE OF GEOLOGIC HAZARDS INCLUDING REMEDIATED, NON-REMEDIATED AND HIGH HAZARD AREAS SHALL ALSO BE PROVIDED. [CDP COA NO. 84]

173 TIME LIMIT ON GDP AND VTM APPROVAL. THE PROJECT APPROVAL SHALL REMAIN IN EFFECT FOR TWO YEARS FROM THE DATE OF APPROVAL OF THE GENERAL DEVELOPMENT PLAN BY THE PLANNING COMMISSION AND CONDITIONS SHALL APPLY TO THE VESTING TENTATIVE MAP (VTM) AND TIME LIMITS IN ACCORDANCE WITH THE VTM AS ALLOWED BY STATE LAW. IF A PRECISE DEVELOPMENT PLAN APPLICATION IS NOT SUBMITTED TO THE TOWN FOR PROCESSING PRIOR TO THE EXPIRATION DATE AND THE APPLICANT HAS NOT DEMONSTRATED SUBSTANTIAL PROGRESS TOWARDS DEVELOPMENT OF THE PROJECT, THE APPROVAL SHALL BE CONSIDERED NULL AND VOID. THE APPLICANT/OWNER MAY FILE AN APPLICATION FOR EXTENSION WITH THE PLANNING DEPARTMENT FOR AN EXTENSION NOT LESS THAN 30 DAYS PRIOR TO THE EXPIRATION DATE OF THE GENERAL DEVELOPMENT PLAN, ALONG WITH APPROPRIATE FEES AND NECESSARY SUBMITTAL REQUIREMENTS. THE CONDITIONAL USE PERMIT SHALL HAVE THE SAME EXPIRATION DATE AS THE GENERAL DEVELOPMENT PLAN AND VESTING TENTATIVE MAP.[MODIFICATION OF CDP COA NO. 88]

174 CONSULTANT COSTS. IF THE TOWN UTILIZES THE SERVICES OF CONSULTANTS TO PREPARE SPECIAL STUDIES OR PROVIDE SPECIALIZED DESIGN REVIEW OR INSPECTION SERVICES FOR THE PROJECT, THE APPLICANT SHALL REIMBURSE THE TOWN FOR ACTUAL COSTS IT INCURS IN UTILIZING THESE SERVICES, INCLUDING ADMINISTRATIVE COSTS FOR TOWN PERSONNEL. A DEPOSIT FOR THESE SERVICES SHALL BE PROVIDED PRIOR TO INITIATING REVIEW OF THE GENERAL DEVELOPMENT PLAN, OR ANY OTHER SUBSEQUENT PLANS AND MAPS FOR THE PROJECT SUBMITTED TO THE TOWN BY THE APPLICANT AND REQUIRING TOWN REVIEW. [CDP COA NO. 91]

175 TOWN INSPECTION. NO FINAL INSPECTION SHALL BE PERFORMED BY THE TOWN FOR ANY RESIDENCE UNTIL THE LANDSCAPING IS INSTALLED OR A BOND IS ISSUED TO THE TOWN FOR THE VALUE OF THE LANDSCAPE IMPROVEMENTS, IN AN AMOUNT AS DETERMINED BY THE TOWN.[CDP COA NO. 92]

176 ENCROACHMENT PERMIT. THE APPLICANT SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE TOWN PRIOR TO PERFORMING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

177 PUBLIC TRANSIT. PRIOR TO THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL PROVIDE BROCHURE INFORMATION TO ALL NEW HOME BUYERS THAT PROMOTES THE USE OF PUBLIC TRANSIT. [CDP COA NO. 98

178 FAILURE OF THE APPLICANT OR ANY SUCCESSOR TO COMPLY WITH ANY OF THE CONDITIONS OF THIS RESOLUTION OR APPLICABLE PROVISIONS OF THE TOWN OF MORAGA MUNICIPAL CODE OR THE LAWS, RULES AND REGULATIONS OF ANY OTHER GOVERNMENTAL ENTITY HAVING JURISDICTION OVER ANY OF THE ACTIVITIES CONDUCTED ON THE SITE MAY BE CAUSE FOR THE COMMENCEMENT OF PROCEEDINGS TO REVOKE THIS USE PERMIT. THE FAILURE BY THE TOWN TO PROCEED AGAINST THE APPLICANT OR ANY SUCCESSOR FOR ANY VIOLATION SHALL NOT CONSTITUTE OR BE DEEMED A WAIVER OF THE TOWN'S RIGHT TO PROCEED AGAINST THE APPLICANT FOR ANY SUBSEQUENT VIOLATION. NOTHING IN THIS USE PERMIT SHALL LIMIT IN ANY MANNER THE AUTHORITY TO THE TOWN OF MORAGA TO APPLY AND/OR ENFORCE ANY PROVISIONS OF THE MUNICIPAL CODE TO THIS USE PERMIT.[MODIFICATION OF CDP COA NO. 102 AND ALL OF CDP COA NO. 103]

179 THIS ENTITLEMENT AND EACH CONDITION CONTAINED HEREIN SHALL BE BINDING UPON APPLICANT AND ANY TRANSFEROR, OR SUCCESSOR IN INTEREST. SUBSEQUENT APPROVALS SHALL BE SUBJECT TO ADDITIONAL CONDITIONS OF APPROVAL.[CDP COA NO. 104]

180 CONDITIONS OF APPROVAL SHALL BE PRINTED ON THE INITIAL SHEET(S) OF EACH PLAN SET SUBMITTED FOR A BUILDING PERMIT OR GRADING PERMIT PURSUANT TO THIS PERMIT. SUCH CONDITIONS SHALL INCLUDE ALL RELEVANT CONDITIONS OF SUBSEQUENT APPROVALS INCLUDING THE PRECISE DEVELOPMENT PLAN, FINAL MAP AND DESIGN REVIEW. THE SHEET(S) CONTAINING THE CONDITIONS SHALL BE OF THE SAME SIZE AS THOSE SHEETS CONTAINING THE CONSTRUCTION DRAWINGS; 8-1/2" BY 11" SHEETS ARE NOT ACCEPTABLE"

REGISTERED PROFESSIONAL ENGINEER
JAMES TORA
No. 69127
CIVIL
STATE OF CALIFORNIA
DIGITAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
BAY AREA REGION
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
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SACRAMENTO REGION
3017 DOUGLAS BLVD, # 300
ROSEVILLE, CA 95661
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(F) (916)797-7363
WWW.LEABRAZE.COM

GRADING PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA

CONTRA COSTA COUNTY APN: 258-600-006-5

CONDITIONS OF APPROVAL

1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 6-15-18	MH
3 GEOTECH COMMENTS 8-8-18	MH
4 TOWN COMMENTS 5-8-19	MH
5 GEOTECH COMMENTS 6-25-19	MH
6 TOWN SUBMITTAL 4-30-21	MH
7 SITE UPDATE 7-6-21	MH
8 TOWN COMMENTS 12-3-21	MH
REVISIONS	BY

JOB NO:	2150582
DATE:	11-17-17
SCALE:	AS NOTED
DESIGN BY:	JC
DRAWN BY:	WM
SHEET NO:	COA-4

22 OF 22 SHEETS

ATTACHMENT L

Landscaping Plans

PLANTING LEGEND

TREES	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NATIVE	HEIGHT	SPREAD	EVERGREEN	DEER TOLERANT	FIRE RESIST	WATER USE	QUANTITY
AC	Aesculus californica	California Buckeye	Treepot 8	As Shown	YES	20'-0"	30'-0"	NO	YES	HIGH	VL	16
QA	Quercus agrifolia	Coast Live Oak	Treepot 8	As Shown	YES	40'-0"	20'-0"	YES	YES	HIGH	L	6
QA*	Quercus agrifolia	Coast Live Oak	24" Box	As Shown	YES	40'-0"	20'-0"	YES	YES	HIGH	L	38
QL	Quercus lobata	Valley Oak	Treepot 8	As Shown	YES	50'-0"	40'-0"	NO	YES	HIGH	L	7
CC	Cercis occidentalis	Western Redbud	Treepot 8	As Shown	YES	15'-0"	10'-0"	NO	YES	HIGH	L	29

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NATIVE	HEIGHT	SPREAD	EVERGREEN	DEER TOLERANT	FIRE RESIST	WATER USE	QUANTITY
AD	Arctostaphylos d. 'Sentinel'	Sentinel Manzanita	3 Gal	5'-0" O.C.	YES	4'-0"	5'-0"	YES	YES	HIGH	L	56
RI	Ribes indecorum	White Flowered Currant	5 Gal	4'-0" O.C.	YES	4'-0"	4'-0"	YES	YES	HIGH	L	65
RV	Ribes viburnifolium	Evergreen currant	5 Gal	5'-0" O.C.	YES	3'-0"	6'-0"	YES	YES	HIGH	L	50
RC	Rhamnus californica	Coffeeberry	3 Gal	6'-0" O.C.	YES	7'-0"	6'-0"	YES	YES	HIGH	L	30
RO	Rosa californica	California rose	3 Gal	5'-0" O.C.	YES	5'-0"	3'-6"	YES	YES	HIGH	L	88
SH	Salvia microphylla 'Hot Lips'	Hot Lips Sage	1 Gal	3'-0" O.C.	YES	3'-0"	3'-0"	YES	YES	HIGH	L	34
SB	Sisyrinchium bellum	Blue-eyed grass	1 Gal	2'-0" O.C.	YES	1'-0"	2'-0"	YES	YES	HIGH	L	109

WATER USE RATING LEGEND:
WUCOLS III CATEGORIES OF WATER NEEDS FROM: UNIVERSITY OF CALIF COOPERATIVE EXTENSION, CALIF DEPARTMENT OF WATER RESOURCES, U.S. BUREAU OF RECLAMATION
H = HIGH
M = MODERATE
L = LOW
VL = VERY LOW

TYPICAL VIEW - A-A



PLANT IMAGERY


COAST LIVE OAK

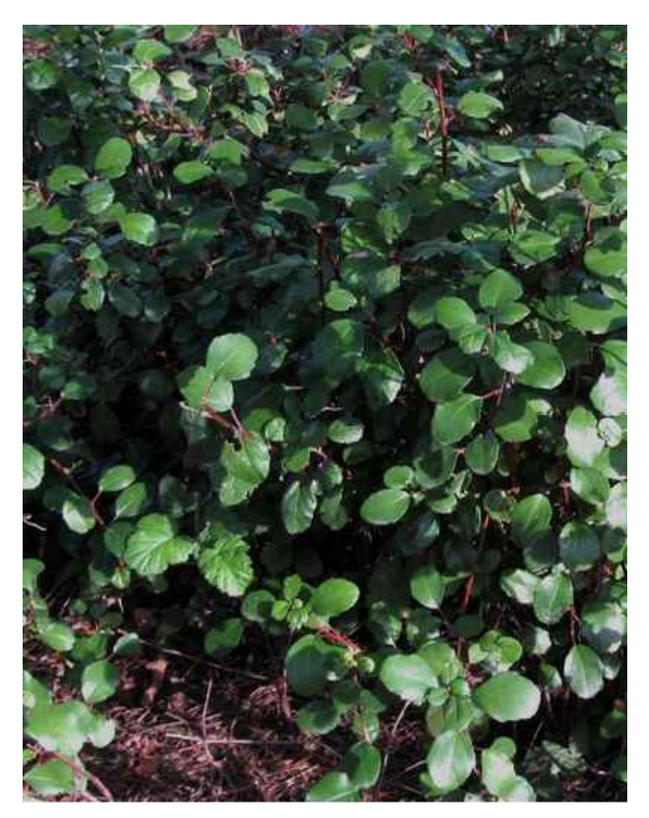

VALLEY OAK


CALIFORNIA BUCKEYE


WESTERN REDBUD


SENTINEL MANZANITA

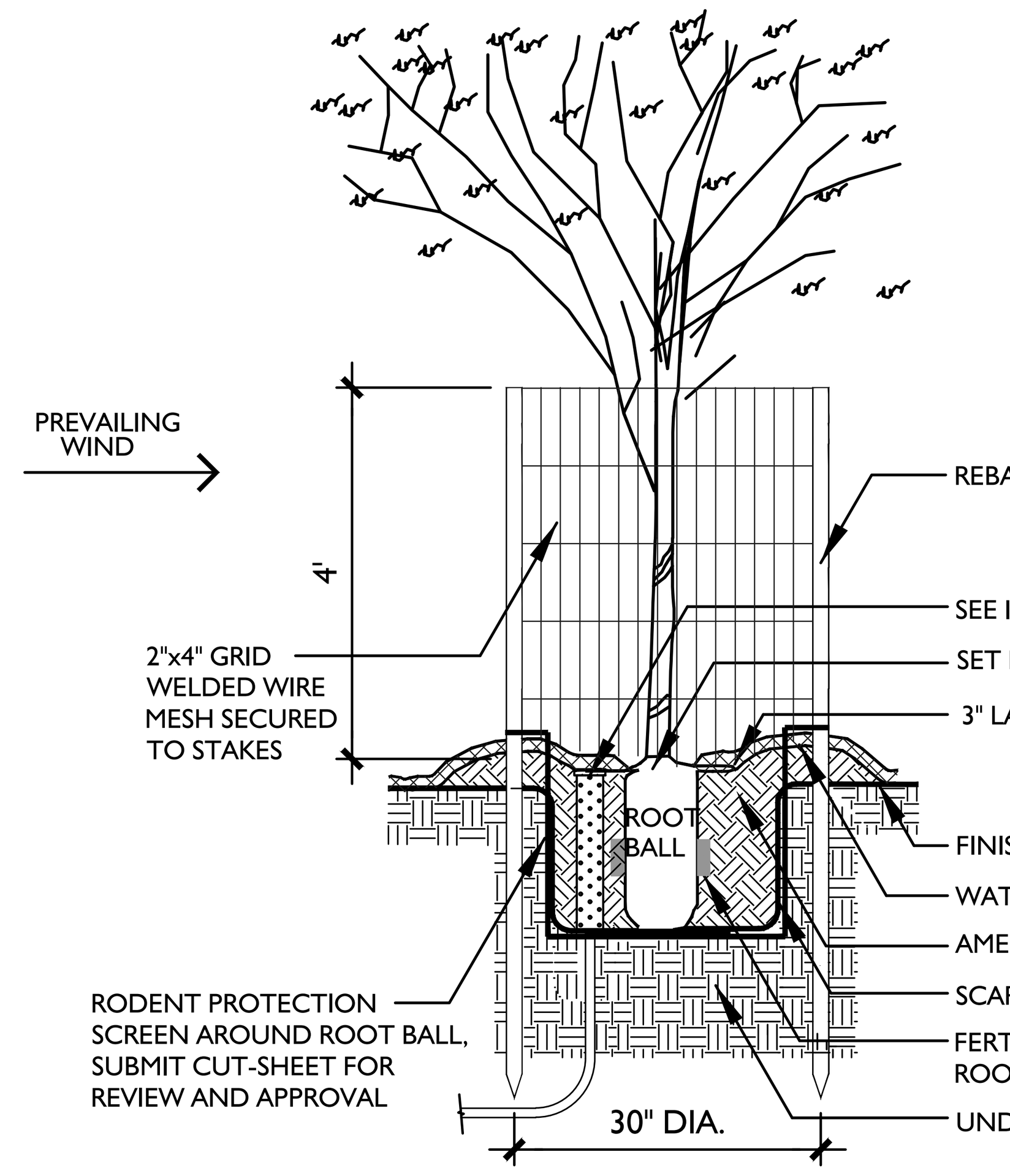

WHITE FLOWERED CURRANT


EVERGREEN CURRANT


COFFEEBERRY


CALIFORNIA ROSE


BLUE-EYED GRASS



NOTES:
1. SEE IRRIGATION DRAWINGS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO PLANTING. PERCOLATION RATE MUST BE 3" PER HOUR. IF RATE IS NOT 3" PER HOUR NOTIFY LANDSCAPE ARCHITECT.

TREE PLANTING WITH CAGE
SCALE: 1/2" = 1'-0"

NOTES

1. Native grass plants from the stand of creeping wildrye (Leymus triticoides) in the vicinity of proposed Lot 3 shall be salvaged and reused as part of revegetating graded slopes. Plants shall be salvaged before grubbing and initial grading, and stored intil replanted on the site. The salvage and replanting program shall be prepared by a qualified Biologist Consultant as part of the Wetland Mitigation Program. Per Report prepared by LSA Associates, dated October 2008 mitigation should be accomplished by fallowing steps:

A. Prior to grading of areas supporting creeping wildrye, soil plugs approximately 2 inches by 2 inches in size containing wildrye roots and above ground stems will be dug up for transfer to a nursery. A sufficient number of plugs will be collected to plant the perimeter of all wetland mitigation areas which were graded during wetland construction.

B. The wildrye plugs will be planted in nursery beds and maintained in these beds until needed for planting. They will be placed a minimum of 8 inches on center to allow rhizomes to establish new plants.

C. When wetland construction is complete the plugs and new plants will be transplanted to the disturbed areas surrounding the new wetlands. The plants will be spaced 9 inches on-center. Planting will occur in early October. The plugs will be irrigated the day they are planted.

D. When plug planting is complete a cover crop of California brome (Bromus carinatus) will be hydroseeded on all disturbed slopes surrounding the wetlands to provide erosion control while the wildrye is establishing.

E. Irrigation of the plugs will occur at one week intervals until winter rains have fully wetted the soil (a storm of at least one inch). Irrigation during the winter will resume if no storm resulting in ½ inch of rainfall occurs for a three week period. The plugs will then be irrigated at one week intervals until a storm resulting in ½ inch of rainfall again occurs. At the end of the winter rainfall season irrigation at two week intervals will resume for the following late spring, summer, and into the fall until the soils become fully wetted by the fall rains. Irrigation will be stopped at
this time.

F. The planting areas will be mowed, after the California brome seed has matured (July or August) to a height of 4 to 6 inches to encourage the spread of the wildrye plants by underground runners (rhizomes). This will occur once in the first summer after planting.

G. The wildrye plantings will be monitored semi-annually for five years to determine the percent cover of wildrye. The plantings will be considered successful if creeping wildrye constitutes 50 percent of the plant cover within the planted areas at the end of the five-year monitoring period. Monitoring will consist of measuring the percent cover of the creeping wildrye at randomly located meter-square plots, with at least two plots at each wetland mitigation site.

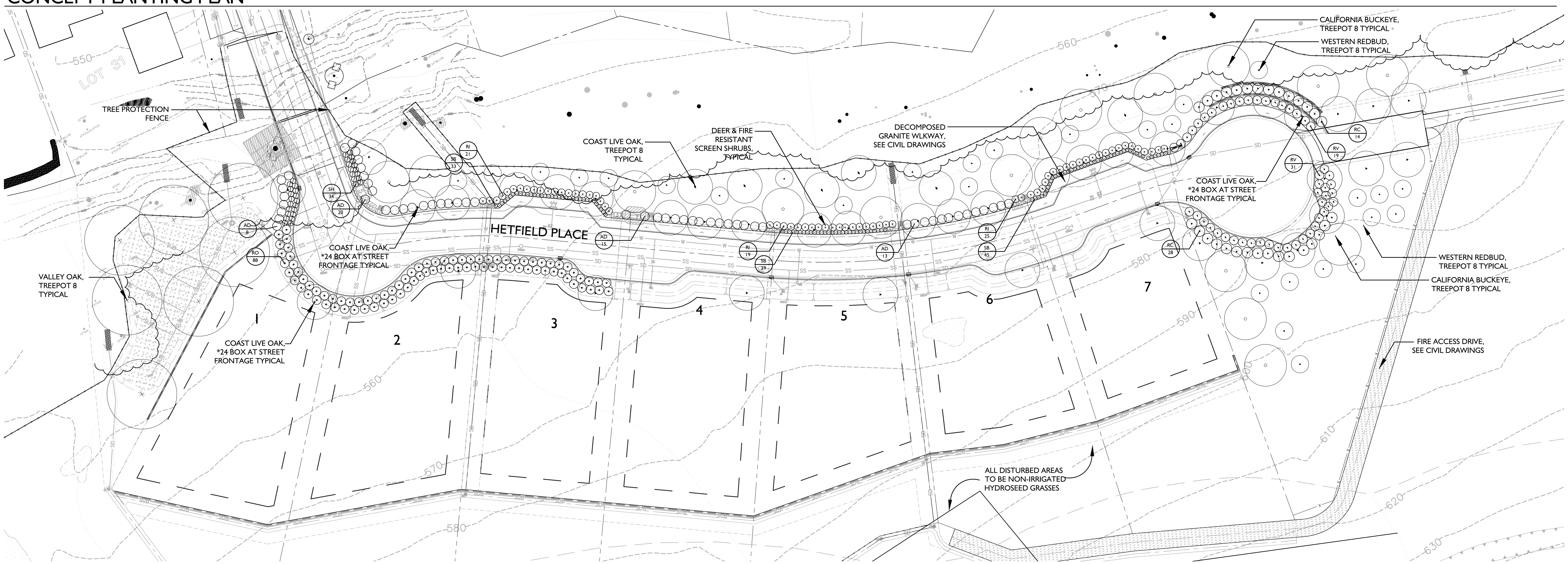
H. The progress of the wildrye plantings toward meeting the success criteria will be evaluated at the end of the third year of monitoring. If the percent cover does not reach from 25 percent to 30 percent of the total plant cover by the end of year 3, additional plantings will be made within the designated planting areas. If no expansion of the original wildrye planting occurs at a planting site and the total percent cover of all plantings is less than 25 percent wildrye, additional planting locations will be selected which are within the open space parcel. These new locations will be held to the success criteria described above.

2. The jurisdictional wetlands (recreated and preserved) shall be incorporated in the final landscape plan and mitigation implemented under the direction of a qualified restoration ecologist for the project. The GHAD or HOA shall be responsible for long-term management of jurisdictional wetlands. All restored jurisdictional wetlands, along with an appropriate upland buffer, shall be placed in a permanent Conservation Easement, or similar deed restriction, in favor of the Town or appropriate third party entity, preserved in perpetuity, and managed by the GHAD or HOA
3. The landscaping can be removed when individual lot designs are finalized and accepted and this landscaping would not be subject to the replacement ratios for trees removed from the site.
4. Trees and shrubs planted prior to installation of irrigation systems shall be hand watered until water pipes and an automatic irrigation system are installed and operational provide for watering.
5. The proposed debris benches at the upper reaches of new lots shall include low lying landscape at the perimeter that is consistent with the open views of the landscape plan for the project but that does not preclude access for maintenance of the debris benches.
6. Trees on the northern portion of lots 1, 2, and 3 may be removed/replaced when landscape plans for individual residencies are reviewed by the design review board.
7. Landscaping shall be designed to comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Section 490 through 495.
8. The Tree Removal and Planting Plan will be in conformance with the Landscape Plan.
9. Landscape plan shall comply with the requirements of and shall not include any species listed on the California Invasive Plant Council's Invasive Plant Inventory. A deed restriction to this effect shall be recorded on each lot prior to recordation of the Final Map.
10. The landscape plan shall comply with the Moraga-Orinda Fire District's Fire Safe Landscaping Guidelines.
11. The mitigation Measure requiring the incorporation of native creeping wildrye in the vicinity of proposed Lot 3 shall be incorporated into the Wetland Mitigation Plan.

WATER EFFICIENCY CALCULATIONS

				Eto			Conversion	ETAF	LA	(1-ETAF)	SLA			Gallons per year
Total landscape area				44.9			0.62	0.45	9,452	0.55	0			118,406
MAXIMUM APPLIED WATER ALLOWANCE														**118,406**
Estimated Total Water Use (ETWU)														
Station	Plant type	Hydrozone	Irrigation method	Area (sf)	% of LA	PR	Eto	Ks	Kd	Kmc	KL	IE	Conversion	Gallons per year
1	Shrubs	L	Bubblers	7,792	82.4%	.73"	39.8	0.3	1	1	0.3	0.81	0.62	71,213
2	Trees	L	Bubblers	1,160	12.3%	.73"	39.8	0.3	1	1	0.3	0.81	0.62	10,602
3	Trees	VL	Bubblers	500	5.3%	.73"	39.8	0.3	1	1	0.2	0.81	0.62	3,046
Total area				9,452										
Total water applied														84,861
Difference between MAWA & ETWU														**33545**
% ETWU is under MAWA														28%

CONCEPT PLANTING PLAN



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PLOT DATE: 1/6/2022 10:45 AM

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
2671 CROW CANYON RD. SAN RAMON, CA 94583
T 925.736.8176 www.dgates.com

HETFIELD ESTATES

MORAGA CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	CITY SUBMITTAL	2/14/2019
2	CITY SUBMITTAL	2/17/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT · CASEY CASE · No. 6032 · 6/30/2022 Renewal Date · 01/06/2022 Date · L.A. · STATE OF CALIFORNIA

PROJECT NUMBER:	5382
DRAWN:	JT,DB
CHECK:	LG
DATE:	01/06/2022
SCALE:	1"=20'-0"

0 10' 20' 40'

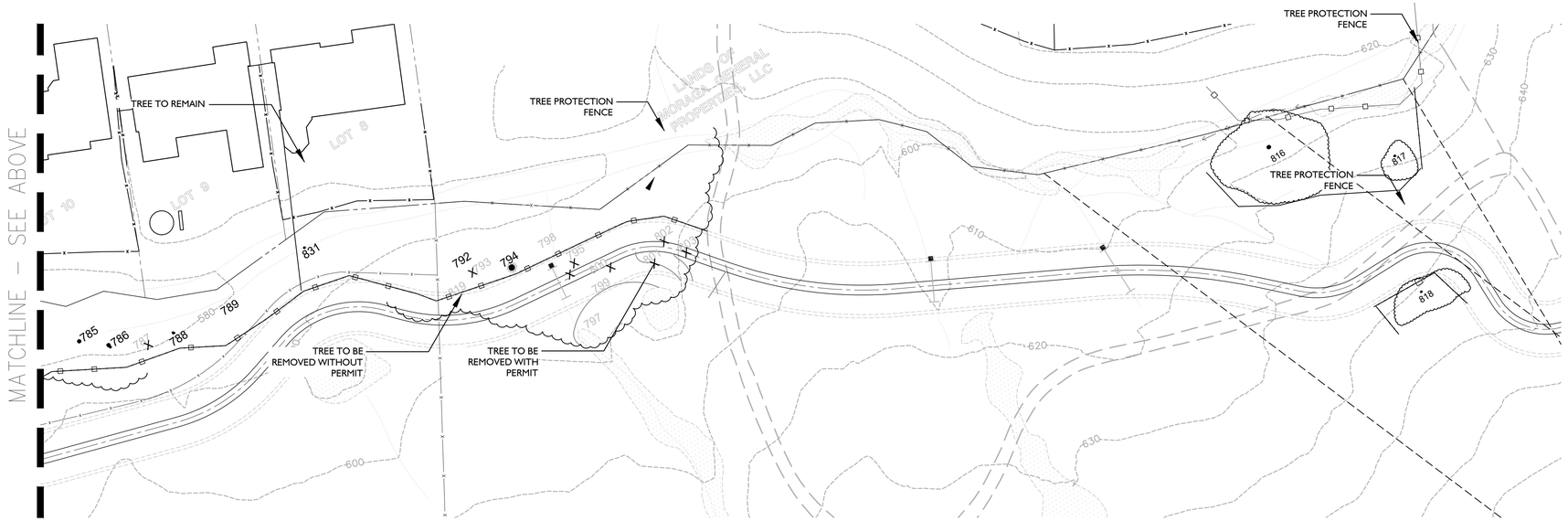
CONCEPT PLANTING PLAN

L1

of

TREE REMOVAL PLAN





TREE MITIGATION

TOTAL TREES TO BE REMOVED:	51
PROTECTED REMOVED TREES TO BE MITIGATED:	32
NEW TREES REQUIRED FOR MITIGATION:	96
NEW TREES:	96

TREE MITIGATION PLAN BASED ON ARBORIST REPORT BY TODD MCNEIL, THE WYRO COMPANY JULY 20, 2021.

NATIVE AND PROTECTED TREES DESIGNATED FOR REMOVAL SHALL BE REPLACED AT THE RATIO OF 3:1 PER MM IV-5A AND IV-5C

TREE LIST

Tree Number	Species	Diameter	Removals	Permit removals for Mitigation
727	Deodar Cedar	14		
728	Monterey Pine	34		
729	Coast Live Oak	11		
730/359	Coast Live Oak	8	x	x
731/358	Willow	38	x	x
732/360	Coast Live Oak	15	x	x
734	Coast Live Oak	7		
735	Willow	~28	x	x
737	Black Walnut	7	x	x
738	English Walnut	6	x	
739	Coast Live Oak	33		
740	Willow	11	x	x
741	Coast Live Oak	8	x	x
742	Coast Live Oak	14		
742A	California Buckeye	15,10		
743	Coast Live Oak	17	x	x
744	Coast Live Oak	10	x	x
745/363	Coast Live Oak	25	x	x
746	Coast Live Oak	8	x	x
747	Coast Live Oak	8	x	x
748	Coast Live Oak	10	x	x
749	Black Walnut	8		
750	Coast Live Oak	23		
751	Coast Live Oak	16		
752	Coast Live Oak	28, 29		
753	California Bay	4, 5, 6	x	x
754	Coast Live Oak	31		
755	Monterey Pine	~24	x	
756	Monterey Pine	36	x	
757	Monterey Pine	34	x	
758	Willow	6, 6, 6, 13, 22	x	
759	Coast Live Oak	23		
760	Coast Live Oak	21		
761	Coast Live Oak	17		
762	Black Walnut	9	x	x
763	Coast Live Oak	21		
764	Willow	12, 14, 14, 15	x	
765	Willow	13	x	
766	Coast Live Oak	17		
767	Coast Live Oak	10		
768	Willow	8	x	
769	Willow	9		
770	Coast Live Oak	7		
771	Willow	36	x	
772	Coast Live Oak	17		
773	Coast Live Oak	24		
774	Willow	14	x	x
775	Coast Live Oak	22, 24		
776	Monterey Pine	23		
777	Monterey Pine	27		
778	Monterey Pine	27	x	
779	Coast Live Oak	21		
780	Coast Live Oak	5, 6, 6	x	x
781	Coast Live Oak	7	x	x
782	Monterey Pine	36	x	
783	Monterey Pine	18		
784	Coast Live Oak	19		
785	Coast Live Oak	25		
786	Coast Live Oak	14, 25		
787	Coast Live Oak	6	x	x
788	Willow	5, 5, 6		
789	Coast Live Oak	11		
792	Coast Live Oak	3, 10		
793	Coast Live Oak	8	x	x
794	Coast Live Oak	42		
795	California Bay	10, 21	x	x
796	Willow	18	X	
797	Willow	10, 12, 12, 18	x	
798	California Bay	6, 6,	x	x
799	Willow	10	x	
800	Coast Live Oak	25	x	x
801	Coast Live Oak	14	x	x
802	Coast Live Oak	21	x	x
803	Coast live oak	9	x	x
804	Monterey Pine	26	x	
805	Monterey Pine	24	x	
806	Coast Live Oak	34	x	x
807	Coast Live Oak	8		
808	Coast Live Oak	12	x	x
809	Coast Live Oak	12	x	x
810	Coast Live Oak	15		
811	Coast Live Oak	13		
812	Coast Live Oak	14,14,14		
813	Coast Live Oak	12		
814	Coast Live Oak	10		
815	Coast Live Oak	7	x	x
816	Coast Live Oak	24,36		
817	Coast Live Oak	6,10		
818	Coast Live Oak	6,10		
819	Coast Live Oak	7		
821	California Bay	6,6,6,4	x	x
822	Coast Live Oak	7		
823	Coast Live Oak	9,6		
824	Coast Live Oak	~24		
825	Coast Live Oak	7		
826	Monterey Pine	~24	x	
827	Cypress spp	~10	x	
828	Cypress spp	~14	x	
829	Coast redwood	~24		
830	Coast redwood	~18		
831	Coast Live Oak	14		
832	Coast Live Oak	18	x	x
833	Coast Live Oak	10		

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HETFIELD ESTATES

MORAGA
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	CITY SUBMITTAL	2/14/2019
2	CITY SUBMITTAL	2/17/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
LANCE CASE No. 4583
6/30/2022
Renewal Date
01/06/2022
Date
STATE OF CALIFORNIA

PROJECT NUMBER:	5382
DRAWN:	JT.DB
CHECK:	LG
DATE:	01/06/2022
SCALE:	1"=20'-0"

0 10' 20' 40'

TREE REMOVAL PLAN

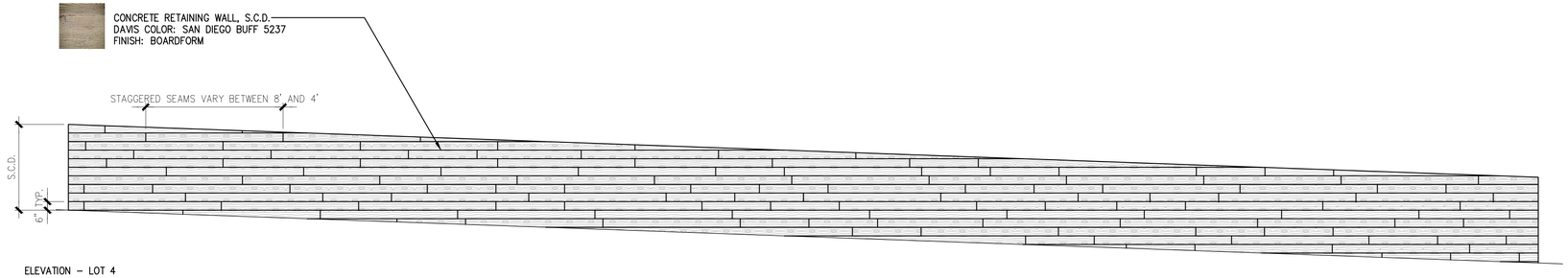
L2

of

PATH: P:\MORAGA\HETFIELD\ACAD\SHEETS_DG-SD-HETFILED.DWG
PLOT DATE: 1/6/2022 10:45 AM

NOTE:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS WITH SEAM SCORING PATTERN WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION
2. CONTINUE PATTERN ON ALL VISIBLE SIDES
3. TOP OF WALL TO BE SMOOTH TROWEL FINISH.



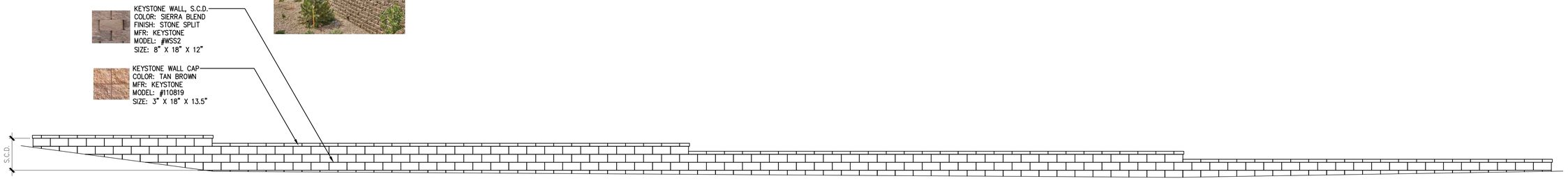


ELEVATION – LOT 4

2 BOARDFORM WALL ELEVATION

SCALE: 1/4" = 1'-0"





ELEVATION – LOT 1

1 KEYSTONE WALL ELEVATION

SCALE: 1/4" = 1'-0"

PATH: P:\MORAGA\HETFIELD\ACAD\SHEETS_DG-D.DWG
PLOT DATE: 1/6/2022 10:45 AM

GATES
+ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING • URBAN DESIGN
2671 CROW CANYON RD. SAN RAMON, CA 94583
T 925.736.8176 www.dgates.com

HETFIELD ESTATES

MORAGA
CALIFORNIA

ISSUE:	DESCRIPTION:	DATE:
1	CITY SUBMITTAL	2/14/2019
2	CITY SUBMITTAL	2/17/2021

NOT FOR CONSTRUCTION

REGISTERED LANDSCAPE ARCHITECT
CASEY CASE • No. 6032
6/30/2022
Renewal Date
01/06/2022
Date
L.A.
STATE OF CALIFORNIA

PROJECT NUMBER:	5382
DRAWN:	JT,DB
CHECK:	LG
DATE:	01/06/2022
SCALE:	SCALE

0 .5X 1X 2X

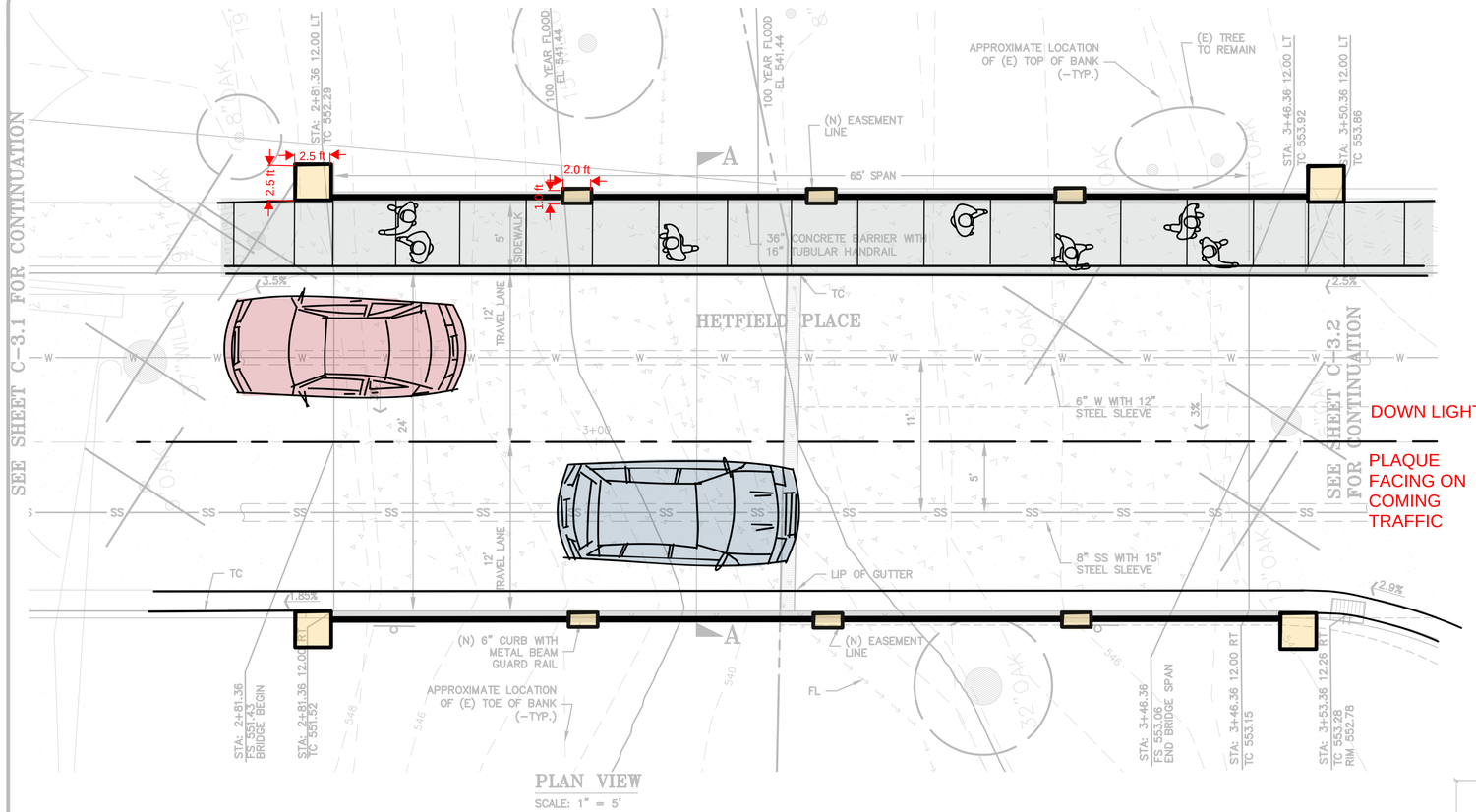
WALL ELEVATIONS

L3

of

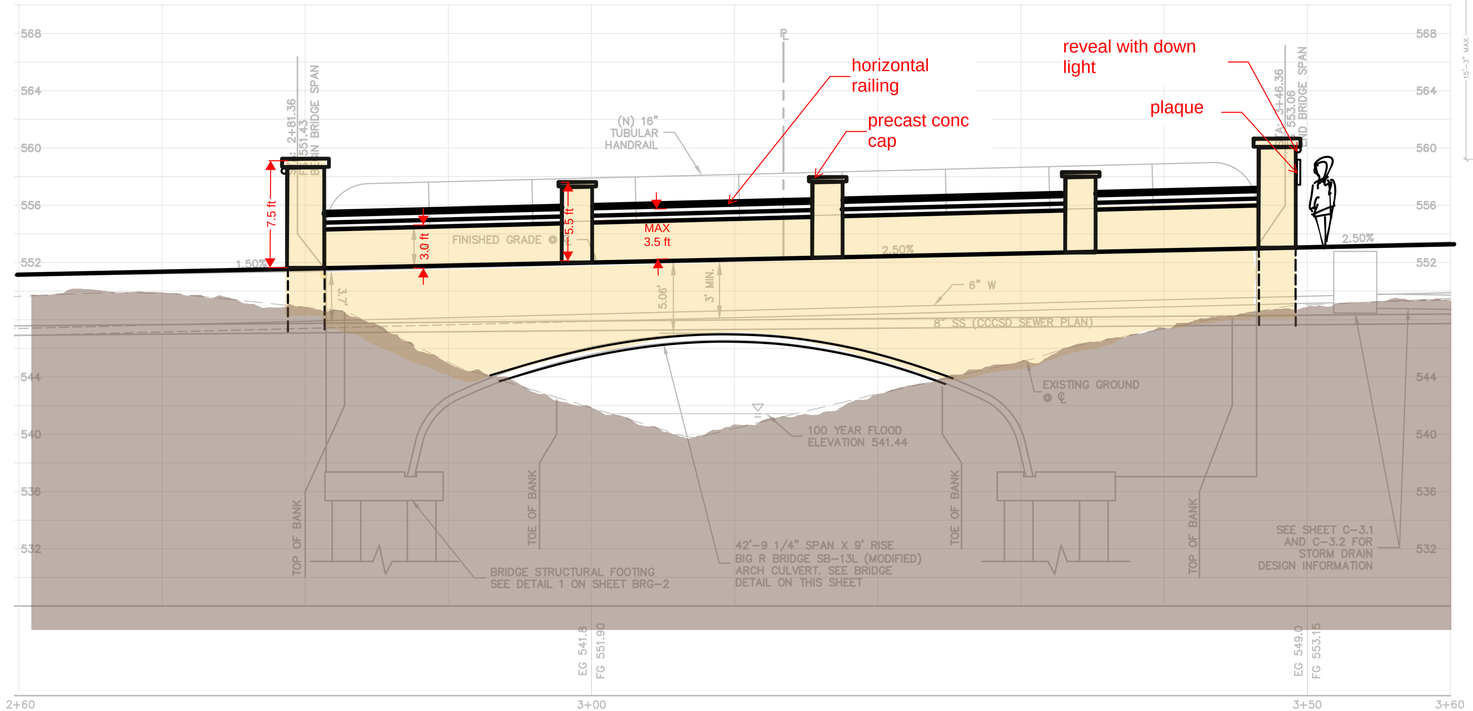
ATTACHMENT M

Bridge Plans



PLAN VIEW

SCALE: 1" = 5'



PROFILE VIEW

SCALE 1"=5' HORIZ; 1"=5' VERT

CAP OPTIONS

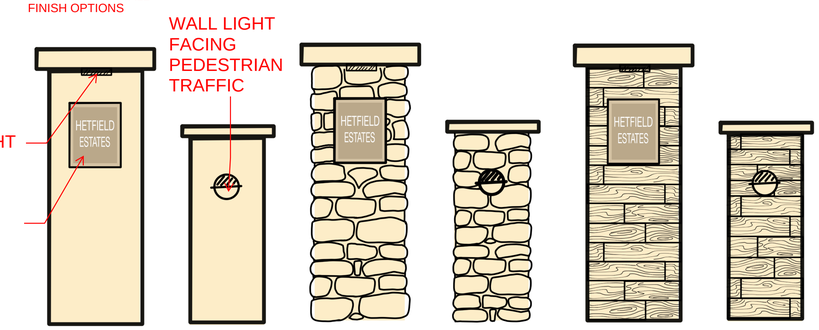


CHAMFERED PYRAMID SQUARED

0 2.5 5 10

SCALE: 1" = 5'

PILASTER AND WALL FINISH OPTIONS





STUCCO



STONER VENEER



STAMPED CONCRETE

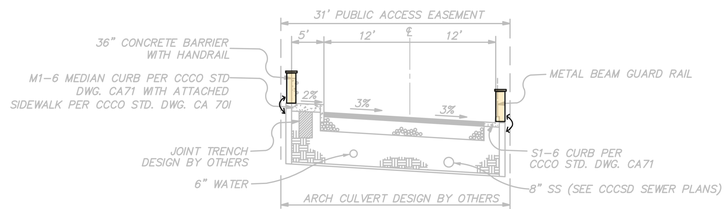
LIGHTING

RECESSED WALL LIGHT

REVEAL WITH DOWN LIGHT

BIG R BRIDGE DETAIL
MODEL SB-13L (MODIFIED)

NTS



SECTION A-A

NTS

REGISTERED PROFESSIONAL ENGINEER
JAMES TOBY
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS · LAND SURVEYORS
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HAYWARD, CALIFORNIA 94545
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(F) (510) 887-3019
SACRAMENTO REGION
3017 DOUGLAS BLVD. # 300
ROSEVILLE, CA 95661
(P) (916)966-1338
(F) (916)797-7363
WWW.LEABRAZE.COM

IMPROVEMENT PLANS
SUBDIVISION 9051
HETFIELD ESTATES
MORAGA, CALIFORNIA
APN: 258-600-006
CONTRA COSTA COUNTY

BRIDGE PLAN

REVISIONS	BY
1 TOWN COMMENTS 3-26-18	MH
2 TOWN COMMENTS 5-9-18	MH
3 BRIDGE REVISIONS 9-14-18	MH
4 TOWN COMMENTS 5-8-19	MH
6 TOWN COMMENTS 4-30-21	MH

JOB NO: 2150582
DATE: 11-17-17
SCALE: AS NOTED
DESIGN BY: JC/MH
DRAWN BY: WM
SHEET NO:
BRG-1
26 OF 31 SHEETS