REVISION 1 TO THE WENDT RANCH GHAD PLAN OF CONTROL

THE ANNEXATION OF THE ALAMO CREEK AND INTERVENING PROPERTIES INTO THE WENDT RANCH GEOLOGIC HAZARD ABATEMENT DISTRICT (GHAD) AND CHANGES WITHIN THE WENDT RANCH DISTRICT

SUBMITTED

TO

THE BOARD OF DIRECTORS

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 4063.1.050.01

MAY 10, 2005
REVISED MAY 24, 2005

ENGEO INCORPORATED

GEOTECHNICAL
ENVIRONMENTAL
WATER RESOURCES
CONSTRUCTION SERVICES

Project No.
4063.1.050.01

May 10, 2005
Revised May 24, 2005

Mr. Marshall Torre
Shapell Homes of Northern California
P.O. Box 361169
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Subject: Alamo Creek, Intervening Properties and Wendt Ranch
Contra Costa County, California

REVISION 1 TO THE WENDT RANCH GHAD PLAN OF CONTROL

Dear Mr. Torre:

Attached is the proposed Revision 1 to the Wendt Ranch Geologic Hazard Abatement District (GHAD) Plan of Control. The proposed amendment is intended to reflect the annexation of the Alamo Creek and Intervening Properties into the existing Wendt Ranch GHAD in addition to changes that have occurred within the existing Wendt Ranch GHAD and development since the initial Plan of Control was adopted.

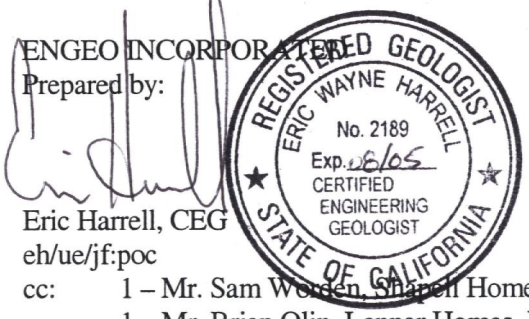
For the Alamo Creek development, this annexation fulfills Condition of Approval (COA) No. 129 that requires the establishment of a GHAD for the site prior to the issuance of the first building permit. Additional Condition of Approval requirements related to GHAD functions, including COA Nos. 21, 130, 131, 148, 166, 169, 171 and 177, are covered within this addendum or its attachments.

For the Intervening Properties site, this annexation satisfies the project Condition of Approval No. 111 that allows the Intervening Properties site will be annexed into the existing Wendt Ranch GHAD (SD 8002). Intervening Properties Condition of Approval requirements related to GHAD functions, described in this Plan of Control or attachments, include COA Nos. 128, 147, 149, 155 and 156.

If you have any questions or would like any additional information, please do not hesitate to contact us.

Very truly yours,

ENGEO INCORPORATED
Prepared by:



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I. AUTHORITY AND SCOPE

The Contra Costa County Board of Supervisors formed the Wendt Ranch Geologic Hazard Abatement District ("GHAD" or "District") on February 12, 2002, (Resolution 2002/59) under authority of the California Public Resources Code (Division 17, commencing with Section 26500).

For the Alamo Creek Project, Condition of Approval (COA) No. 129 requires the establishment of a GHAD prior to issuance of the first residential building permit. Under COA No. 111, a similar requirement has been imposed for the Intervening Properties development. To satisfy these requirements, the developers of Alamo Creek and Intervening Properties have elected to petition the Board of Directors of the Wendt Ranch GHAD to annex the Alamo Creek and Intervening Properties projects into the existing Wendt Ranch GHAD.

Section 26509 of the Public Resources Code requires a Plan of Control, prepared by a State Certified Engineering Geologist, as a prerequisite to formation of a GHAD. An Engineering Geologist, certified pursuant to Section 7822 of the Business and Professions Code, prepared the original Plan of Control for the Wendt Ranch GHAD. The Business and Professions Code requires a Plan of Control to describe, in detail, geologic hazards, their location, who is affected by them, and most significantly, a plan for the prevention, mitigation, abatement, or control thereof. In accordance with the requirements of the Public Resources Code, a proposed revision to the original Wendt Ranch Plan of Control was submitted to the Wendt Ranch GHAD Board of Directors with the petition to annex the Alamo Creek and Intervening Properties developments into the Wendt Ranch GHAD.

As used in this Plan of Control, and as provided in Section 26507, "geologic hazard" means an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth.

Property Identification

The proposed GHAD boundary including Wendt Ranch, Alamo Creek and Intervening Properties is shown in Figure 1. The GHAD annexation area includes the open space areas within the Alamo Creek and Intervening Properties projects. A portion of the current Alamo Creek development was included within the original Wendt Ranch GHAD boundary. For descriptive purposes within this Plan of Control, the current property limits of the Alamo Creek, Intervening Properties and Wendt Ranch developments are used and all of the Alamo Creek development is described as one, whether or not it was included within the original GHAD property limits.

A legal description of the land in the Wendt Ranch GHAD and the area to be annexed into the Wendt Ranch GHAD is included in Exhibit A.

II. BACKGROUND

Existing Site Conditions

Wendt Ranch. The site is located to the south of Camino Tassajara Road, near Blackhawk Drive in unincorporated Contra Costa County, east of Danville. The irregularly-shaped parcel is about 164.8 acres in area. One branch of the Alamo Creek traverses the site in a northeast to southwest direction, and another borders the western site boundary.

Mass grading on the Wendt Ranch site was completed by 2004. Residential construction at the site is ongoing with a planned total of 125 lots and a daycare facility. Ongoing GHAD monitoring activities by the developer on the Wendt Ranch site, including the detention basin, creek channel and slopes have been reported since as early as 2003.

Alamo Creek. The approximately 605-acre site is located south of Camino Tassajara Road, across from Blackhawk Drive, in an unincorporated portion of Contra Costa County. The Alamo Creek property abuts the eastern boundary of the existing Wendt Ranch GHAD. The irregularly-shaped property consists of a relatively level area near Camino Tassajara with surrounding hill slopes to the east, south and west. Prior to the current grading activities, elevations ranged from a low of about 720 feet above mean sea level (msl) near Camino Tassajara and in the swale areas of the site, to a high of about 1,050 feet above msl at the ridge top situated at the southernmost area of the site.

Camino Tassajara is located along the northern edge of the Alamo Creek property. The site is bounded on the west by the Wendt Ranch development. Undeveloped land is located east and south of the Alamo Creek site.

Intervening Properties. The 157-acre Intervening Properties site is located south of Camino Tassajara and east of Lawrence Road in Contra Costa County. The Intervening Properties project shares a common border with the existing Wendt Ranch along the western edge of the existing GHAD. Prior to current grading activities, the site topography included a central ridgeline with a maximum elevation of approximately 848 feet, surrounded by lower lying areas at elevations of 650 to 700 feet. The eastern side of the site is traversed by a tributary to Alamo Creek identified as Intervening Tributary in some reports for the site.

Camino Tassajara is located along the northern edge of the subject property. The site is bounded on the west by the Diablo Vista School. Residential developments are located west and east of the subject property. Residences within the Wendt Ranch development east of the site are under construction. Undeveloped land is located south and southeast of the Intervening Properties site.

Proposed Development

Alamo Creek. Current grading plans prepared by dk Associates show development for the Alamo Creek project, which will include 679 single-family lots, 125 townhome units, 123 senior units, an elementary school site, parks, soccer fields and open space. The native or graded slopes between the developed area and the southernmost area will be reserved for open space, which total 357 acres.

As shown on the Geotechnical Corrective Grading Plans, cuts up to 100 feet (30 meters) deep are anticipated at the ridge tops and hill slopes, and fills up to 70 feet thick will be placed in the low-lying areas. Graded slopes, up to 120 feet high, are proposed at a gradient of 3:1 (horizontal:vertical).

A Geotechnical Exploration was completed by ENGEO for the Alamo Creek development and the geotechnical corrective recommendations provided in this report have been incorporated into the Alamo Creek Geotechnical Corrective Grading Plans dated August 2004. Grading planned around the perimeter of the residential development will include cut or fill slopes extending from the adjacent open space (ungraded) areas. Final grading work at the site will have been completed prior to acceptance of the property by the GHAD.

Intervening Properties. Current grading plans for Intervening Properties show a total of 378 single-family residential lots and a building pad for 96 apartment units. Two of the 378 single-family residential pads will be developed around existing residences. The building pads and streets will be developed by cuts of up to about 100 feet, and placement of engineered fill up to approximately 90 feet thick from original grade. Playfields, about 15 acres in area, will be developed for the adjacent Diablo Vista School. The playfields will be located along the northwestern portion of the site adjacent to Camino Tassajara.

A Preliminary Geotechnical Exploration was completed by ENGEO for the site. Geotechnical corrective recommendations provided in these reports have been incorporated into plans labeled Preliminary Remedial Grading Plans, Intervening Properties, Danville, California and dated February 2004 (Draft). Grading planned around the perimeter of the residential development will include a water quality detention basin, two bioretention cells and cut or fill slopes extending from the adjacent open space (ungraded) areas. Final grading work at the site will have been completed prior to acceptance of the property by the GHAD.

GHAD Responsibilities

From a review of the existing Wendt Ranch Plan of Control, Conditions of Approval, site reports, grading plans and remedial plans for the Alamo Creek, Intervening Properties and

Wendt Ranch projects, the GHAD will assume monitoring and maintenance responsibilities for the following site improvements (Figure 2).

- Wendt Detention Basin
- Water Quality-Detention Basin "A"
- Maintenance roads associated with the detention basin
- Bioretention Basins "A", "B" and "C"
- Concrete-lined drainage ditches in open space area
- Debris benches
- Subdrains
- Storm drain inlets, outfalls and pipelines within the open space area
- Restored and unaltered creek channels including grade control structures
- Open space maintenance including trails (see below)
- Settlement Instruments
- Retaining Walls
- Slopes

The GHAD's maintenance, monitoring and repair responsibilities for slopes, which will include repaired or partially-repaired landslides, as shown on the attached remedial grading plans for each of the projects, are discussed below in additional detail.

Open Space. Title to the open space within the Wendt Ranch development, including the detention basin will be held by the Wendt Ranch GHAD. Maintenance of habitat features and values will be the responsibility of the natural lands manager. The governing documents of the Wendt Ranch HOA include provisions requiring cooperation and coordination with both the GHAD and natural lands manager such as allowing access to private property to allow for monitoring and mitigation activities of the GHAD.

Title for the open space within the Alamo Creek, Intervening Properties and Wendt Ranch projects, including the detention and water quality basins, will pass to the Wendt Ranch GHAD. As the open space within and immediately adjacent to subdivision tracts is an amenity that

benefits all of the property owners within those subdivisions, the funding of the maintenance of the open space should be shared by all current and future property owners within recorded subdivision tracts in the GHAD's boundaries.

The Wendt Ranch GHAD, as owner of the open space areas and basins within the Wendt Ranch Alamo Creek and Intervening Properties projects, will assume responsibilities that relate to it's position as a GHAD and also duties as a responsible land owner. The GHAD is charged with responsibilities that relate to the prevention, mitigation, abatement, or control of geologic hazards which includes the maintenance of facilities that enhance site stability such as drainage facilities and associated improvements. This may include the monitoring and maintenance of drainage facilities which, if subject to improper care, could result in decreased slope stability, the prime concern of the GHAD. As currently planned, the drainage facilities to be maintained by the GHAD include water quality detention basins, bioretention basins, concrete-lined drainage ditches, open space storm drain facilities and creek channels including grade control structures.

In addition, the GHAD will be responsible for maintenance of designated trails planned within the open space area. Improper maintenance of the trail system could facilitate erosion, a prime concern for the GHAD, to develop within the open space areas.

All activities in GHAD-owned open space parcels shall be subject to approval by the GHAD. Maintenance of habitat features and values will be the responsibility of the natural lands manager as shown on Table 1 in Section X. It is anticipated that the Perpetual Conservation Easement Deeds for open space areas in both the Alamo Creek and Intervening Properties will be granted initially to the Wildlife Heritage Foundation. The Conservation Easements, provided as an attachment to this report in Appendices B, C and D, are agreements between the property owners and the lands manager to undertake duties as defined in the Mitigation and Monitoring Plans. An endowment will be established to provide the funding for these duties which are not included

in the GHAD operations or budget estimates. The governing documents of the HOA will include provisions requiring cooperation and coordination with both the GHAD and natural lands manager.

The GHAD will mitigate or abate landslide or erosion hazards that could directly affect improved, developed and accepted properties (as defined in Section VII) within the Wendt Ranch, Alamo Creek and Intervening Properties Sites, in accordance with Section VI. The GHAD will assume other peripherally-related open-space responsibilities, such as basin maintenance, erosion control and selected other maintenance associated with open space. Maintenance of the basins and open-space drainage facilities shall be conducted by the GHAD in accordance with the Wendt Ranch, Intervening Properties and Alamo Creek – Operation and Maintenance Manual for GHAD-Maintained Drainage Facilities provided in Appendix A. The Operation and Maintenance Manual for GHAD-Maintained Drainage Facilities incorporates the elements of the referenced maintenance plans, which were prepared in accordance with Intervening Properties Conditions of Approval (COA) Nos. 128, 147, 155 and 156. The Operation and Maintenance Manual for GHAD Maintained Drainage Facilities is also based on the requirements contained within Alamo Creek COA Nos. 130, 131, 148 and 170 and Wendt Ranch COA Nos. 155, 161 and 162.

Proactive maintenance, assessment, repair and replacement of creek improvements (including vegetation control and armoring of channels), natural slope maintenance and desilting of detention basins will be the responsibility of the GHAD subject to the limitations of this Plan of Control. In addition, the GHAD shall have the right to approve any construction, maintenance or repair in the open space which the GHAD determines has the potential to impact geologic stability.

Shallow subdrains may be constructed that are located within the open space areas, or are located within privately owned parcels. Typically, these subdrains are located between about 1 to 4 feet below the ground surface. If the shallow subdrains are located across a private parcel or parcels, the GHAD should be notified by the responsible party if damage occurs so that the subdrain can be repaired by the GHAD. In addition, no other drainage pipelines should be connected to the shallow subdrain. A copy of each of the recorded Notice of Restriction regarding the existence of a shallow subdrain on a private lot shall be provided by the developer to the GHAD prior to the acceptance of these areas by the GHAD.

III. SITE GEOLOGY

Regional Geology and Geologic Maps

The Wendt Ranch, Alamo Creek and Intervening Properties sites are located within the Coast Ranges geologic province of California, a series of northwest-trending ridges and valleys. Bedrock in the province has been folded and faulted during regional uplift beginning in the Pliocene period, approximately 4 million years before present. Regional geologic maps were reviewed as part of the previous geotechnical exploration reports prepared for the subject properties. The regional mapping prepared by Graymer (1994) indicates that the sites are underlain by the Green Valley and Tassajara Formations, consisting of non-marine sandstone, siltstone and conglomerate. Undivided surficial deposits (colluvium and alluvium) are mapped within the lower-lying portions of the site. Regional mapping shows that bedrock units are striking in a general northwest-southeast trend and steeply dipping to the north.

The sites are not located within a State of California Earthquake Fault Zone for active faults (CDMG, 1982). The nearest mapped active faults are the Greenville fault, about 4.4 miles to the east, and the Calaveras fault, approximately 5 miles west of the site. Previous geotechnical exploration reports have not identified evidence of active faults on the site.

Site Geology

The geologic units mapped on the Alamo Creek, Intervening Properties and Wendt Ranch sites include bedrock and surficial deposits consisting of artificial fill, alluvium, colluvium and landslides that are described below. The geologic units described below are adapted from reports previously completed for the Alamo Creek, Intervening Properties and Wendt Ranch sites.

Geologic Units

Artificial Fill. Artificial fill encountered on the sites is in conjunction to the previous site grading related to development of the existing residences and improvements. The fill materials were described as loose to stiff mixtures of clay and rock fragments. Areas of artificial fill placed prior to the current grading activities are shown on the remedial grading plans for each of the sites.

Landslides. Landslide deposits consist of masses of unconsolidated material and/or bedrock that have moved downslope by sliding, falling or flowing. Landslides ranging in size from very small to relatively large occur along the sloping areas of the sites. The landslides have been mapped as debris flows, earth flows and combination earth slump/flow landslides that may include deeper-seated landslides.

Colluvium. Mantling the bedrock and filling swales at the sites are colluvial deposits. These sediments are derived from weathering of the underlying bedrock and consist mostly of a silty clay matrix with sand and rock fragments. This material generally is very highly to critically expansive. Where colluvium is located on sloping ground, it may be characteristically unstable. Within swales, the colluvial deposits tend to be relatively thicker and may be subject to flow or slip downslope.

Alluvium. With the exception of two bedrock areas forming hills within the central and northern portions of the Wendt Ranch development, alluvium is mapped beneath the remainder of the site. Alluvium underlies three areas of the Intervening Properties site. These alluvial areas include the northwestern corner of the site, the northeastern edge of the site and the eastern portion of the site adjacent to the Intervening Properties tributary to Alamo Creek. Alluvium within the Alamo

Creek project includes areas along the Main Branch of Alamo Creek and an eastern tributary. Alluvium was described as being composed of interbedded clay, silt and sand with trace amounts of gravel. Typically, the alluvium consists of a moist, very stiff silty clay.

Bedrock. Bedrock at the two sites was identified during subsurface explorations as claystone, siltstone and sandstone. The bedrock was described in the boring and exploratory test pit logs as friable to weak and moderately to highly weathered. As stated in the Geotechnical Reports, it is expected that the finer grained bedrock will have a high to critical expansion potential due to the montmorillenitic clay content. In general, bedding was described as striking to the northeast and dipping to the north.

Groundwater. At the time of subsurface work, groundwater was encountered between 1 and 18 feet below the ground surface in the low-lying alluvial areas of the three sites. Groundwater was not encountered in the higher areas of the sites with the exception of exploratory Boring 2 at the Intervening Properties site and Boring B-12 at the Alamo Creek site (Figures 2 and 3). In exploratory Boring B-2, groundwater rose to within several feet of the surface after the hole was open for a period of 24 hours. Within Boring B-12, groundwater was reported at a depth of 55 feet below the existing ground surface. Fluctuations in groundwater levels will occur seasonally and over a period of years because of precipitation, changes in drainage patterns, irrigation and other factors. Future irrigation will likely cause an overall rise in groundwater levels.

Seismic Sources. The nearest State-of-California-zoned, active[1] fault is the Greenville fault about 4.4 miles to the east of the site. While the probability of ground rupture is considered low,

[1] An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 10,000 years) (Hart, 1994). The State of California has prepared maps designating zones for special studies that contain these active earthquake faults.

as described in the Geotechnical Exploration reports, there is a high probability that the sites and any improvements will be subject to strong ground shaking during the lifetime of the project.

IV. SLOPE STABILITY CONSIDERATIONS DURING MASS GRADING

Mass grading has been completed for the Wendt Ranch development. During the site grading, corrective grading was undertaken based on remedial grading plans developed for the site. The As-Built Keyway and Subdrain Plan (Figure 7) show the surveyed locations of subdrains and keyways within the development. The referenced testing and observation reports document monitoring of the site during grading activities. Slope stability considerations identified for the Alamo Creek and Intervening Properties and anticipated to be addressed during site grading are discussed below.

As shown on the Remedial Grading Plans for Alamo Creek and Intervening Properties (February and August 2004), existing artificial fills within the graded area will be removed and as required, replaced with subdrained engineered fills. In graded or repaired areas, the unsuitable materials including alluvium, colluvium and/or landslide debris will be overexcavated to firm undisturbed materials below the unsuitable material as determined by the Geotechnical Engineer or Engineering Geologist at the time of grading. Surface and subsurface drains will be installed to collect the surface and subsurface waters which may have initially caused the instability. The configuration of each subdrainage system will be tailored to the individual area at the time of grading. The Geotechnical Engineer and/or the Engineering Geologist will determine the location and depths of subdrains at that time. The location and elevation of subdrains and outlets will be surveyed during construction. Each subexcavation then will be reconstructed to final grade by keying and benching below the landslide plane with compacted, drained engineered fill.

It is important to note that to preserve the natural topography, wildlife habitat and vegetation of the site, stabilization of landslide masses is currently planned only for landslides that directly threaten the proposed improvements. Slope instability in open-space parcels which does not

have the potential to directly affect the GHAD-accepted homesites, roadways, or other improvements will not be repaired, as provided in Section VI.

The cuts will be viewed by the project geologist during grading to provide mitigation schemes for unsuspected slope conditions which could decrease the slope stability. Such conditions include unfavorable bedrock attitudes and seepage conditions. A geology map will be prepared by the project geologist for use by the GHAD.

V. GEOLOGIC HAZARDS

Mass grading has been completed for the Wendt Ranch development. The following geologic hazards were identified for the sites in the previous studies within Alamo Creek, Intervening Properties and Wendt Ranch developments and are expected to remain to some extent after site grading has been completed.

- Slope instability
- Seismically-induced ground shaking
- Expansive soils
- Compressible soils
- Flooding

Slope Instability

Slopes. During mapping for the Geotechnical Exploration of the Alamo Creek and Intervening Properties projects, numerous landslides were mapped on the two sites. It is expected that landslides within the grading limits will be removed by the planned cuts or through subexcavation and replacement with engineered fill. Outside of the grading limits, in the open space areas, landslide removal is not planned as shown on the referenced remedial and corrective grading plans.

As shown on the Alamo Creek Geotechnical Corrective grading plans, residential lots and other site improvements that abut native slopes will be constructed with daylight keyways between the improvements and the unstable slopes. In addition to the daylight keyways, removal of landslide material and reinforcement of engineered fill or engineered fill with geogrid is also shown on the referenced plans. The keyways and corrective grading around the perimeter of the improved portion of the development are designed to protect the site improvements and are not intended to prevent additional slope instability outside of these areas.

Areas of the Alamo Creek project with additional slope concerns or maintenance issues are described in more detail in the table below. In general, the undisturbed areas identified in the right-hand column of Table V-1, where landslide material will remain after grading, are to limit the disturbance of existing natural slopes. Cross section identification labels are those shown on the Alamo Creek Geotechnical Corrective Grading Plan (Figure 4).

The Preliminary Remedial Grading Plan for Intervening Properties showing the location of each of the earth flows and landslides is included as Figure 3. The table below identifies each of the landslide areas, the proposed corrective measures and areas remaining undisturbed to maintain the existing slope profiles.

TABLE V-1
ALAMO CREEK/INTERVENING PROPERTIES/WENDT RANCH
Select Areas of Slope Instability

LOCATION	SLOPE INSTABILITY OR LANDSLIDE TYPE	PROPOSED CORRECTIVE MEASURES	UNDISTURBED AREAS TO MAINTAIN EXISTING SLOPE CONDITIONS OUTSIDE OF CORRECTIVE GRADING LIMITS
Native slope below Alamo Creek Lots 643-652.	Large slump-flow landslide complex.	The upper portions of the landslide will be removed and replaced with a subdrained keyway reinforced with geogrid. (Cross Section ZF-ZF')	Landslide material will not be removed below planned keyway.
Native slope below Alamo Creek Lots 630 and 667-670.	Large slump-flow landslide complex.	The upper portions of the landslide will be removed and replaced with a subdrained keyway and slope will be reinforced with geogrid. (Cross Section O-O')	Landslide material will not be removed below planned keyway.

LOCATION	SLOPE INSTABILITY OR LANDSLIDE TYPE	PROPOSED CORRECTIVE MEASURES	UNDISTURBED AREAS TO MAINTAIN EXISTING SLOPE CONDITIONS OUTSIDE OF CORRECTIVE GRADING LIMITS
Alamo Creek Mustang Soccer Fields and adjacent slopes	Large slump-flow landslide complex.	The landslide on the subject property will be removed and replaced with subdrained engineered fill.	The portions of the landslide that extend off site will not be repaired. Landslide debris from the off-site landslide may disturb portions of the slope or deposit on the soccer fields.
Off-site native slope above Alamo Creek Lots 309-324.	Large slump-flow landslide	The landslide on the subject property will be removed and replaced with subdrained engineered fill.	The portions of the landslide that extend off site will not be repaired. Landslide debris from the off-site landslide may be deposited on the debris bench or adjacent areas.
Off-site native slope above Alamo Creek Lots 328-329.	Earthflow landslide.	The landslide on the subject property will be removed and replaced with subdrained engineered fill.	The portions of the landslide that extend off site will not be repaired. Landslide debris from the off-site landslide may be deposited on the debris bench or adjacent slopes.
Native slope below Alamo Creek Lots 671-674.	Large slump-flow landslide complex.	The upper portions of the landslide will be removed and replaced with a subdrained keyway reinforced with geogrid. (Cross Section 1-1')	Landslide material will not be removed below planned keyway.
Base of engineered fill slope below Lots 56-57, 66-67, 76 and 77.	Earthflow and slump-type landslides.	Upper portions of the landslides will be removed and replaced during excavation of Keyway K-4 and adjacent slope.	Landslide material not removed below Keyway K-4.
Native slope below Lot 86.	Earthflow and slump-type landslides.	None	Landslide material not removed.

LOCATION	SLOPE INSTABILITY OR LANDSLIDE TYPE	PROPOSED CORRECTIVE MEASURES	UNDISTURBED AREAS TO MAINTAIN EXISTING SLOPE CONDITIONS OUTSIDE OF CORRECTIVE GRADING LIMITS
Base of engineered fill slope below Lots 118-124.	Colluvium subject to creep.	Upper portions of the colluvium filled swale will be removed and replaced during excavation of Keyway K-9 and adjacent slope.	Colluvium material below Keyway K-9 to remain in place.

In addition to the landslides listed above, areas of slope instability or landsliding will likely be identified during the life of the development. Since earth stability is the GHAD's prime geotechnical concern, this section describes several types of slope instability that may be within the GHAD's area of responsibility, subject to Section VI of this Plan of Control. Slope instability is not unique to this project, but is of importance for hillside projects throughout the San Francisco Bay Area. Future stability of these areas depends on various factors, including any introduction of natural or artificial groundwater, future grading and earthquake ground shaking.

A landslide is defined as a mass of rock, soil and other debris that has been displaced downslope by sliding, flowing, or falling. Landslides include cohesive block glides and disrupted slumps that have formed by displacement along a planar slip surface or rotation (displacement along a curved slip surface). Undercutting and erosion of hillside slopes trigger many slope failures.

Slope failures are also often triggered by increased pore water pressure due to the infiltration of rainwater. The resulting decrease of shear resistance (internal resistance to deformation by shearing) can cause the slope to move. The level of the groundwater table varies with the amount of rainfall for the area. If rainfall is higher than average during the winter season, the

water surface elevation will be higher than average on a hillslope and groundwater pressures may become dangerously high. Under these conditions, hillside movement can be activated.

Areas of thicker soil cover on the hillslopes are known as colluvium (Qc). Colluvial deposits are typically the result of soil creep and may be in a weak, unconsolidated state, making them susceptible to landsliding if undercut. Colluvium is generally approximately 5 to 20 feet in thickness. Landslides and colluvial deposits located within open space areas are natural landforms that do not require mitigation except where they affect man-made improvements. Potential mitigation and repair measures for GHAD areas near development are discussed in Section VIII.

The District shall also be concerned with erosion and sedimentation in open space affecting developed lots or improvements, subject to the provisions of Section VI. Erosion is defined as the process by which earth materials are loosened and removed by running water on the ground surface or in the subsurface. Sedimentation is the depositing or settling of soil or rock particles from a state of suspension in a liquid.

Hilly terrain open space either in a natural condition or particularly on excavated slopes can be subject to erosion. Landslide deposits which are sometimes in a loosened condition are particularly prone to erosion. Earth flow-, debris flow- and mud flow-type landslides typically have an area of deposition or accumulation (sedimentation area) at their base. Graded slopes in the District, particularly those in excess of 20 feet in vertical height or those not sufficiently vegetated, can be subject to erosion and therefore a source of transported sediment.

Creek Channel Erosion. As identified in the previous site reports, unimproved slopes in the area of the main branch of Alamo Creek and Intervening Properties tributary creek channel are not stable. The unstable bank condition has existed prior to the current site development activities.

The banks have been oversteepened by erosion and consist of relatively weak materials. A number of existing slope failures are identified that impact the creek channel and adjacent upslope areas.

The Wendt Ranch GHAD is responsible for maintenance of the creek channels including Alamo Creek and the Intervening Properties tributary. The Main Branch of Alamo Creek is located on the western edge of the Alamo Creek project. The Intervening Properties tributary is located on the eastern edge of the Intervening Properties site. Maintenance of the Intervening Properties Tributary shall be in accordance with the maintenance-monitoring plans provided to satisfy Intervening Properties Conditions of Approval 128 and 151 (ENGEO, May 2005).

A Restoration Plan has been developed for the Main Branch of Alamo Creek within the Alamo Creek project. The restoration of the creek channel will involve the reconstruction and armoring of the creek slopes in addition to the planting of vegetation. Included in the Performance Section of the referenced plans, which has a 5-year monitoring period, are requirements for plant survival, restored stability and restored geomorphology. It is expected that the developer will undertake the monitoring and maintenance of the creek for 5 years or until the performance criteria are met. It is anticipated that after the 5-year period, no routine maintenance will be required for the restored section of the creek channel related to the restoration materials; however, it is still expected that the channel will exhibit normal creek maturation and will be monitored, as will other unrestored sections of the creek channel within the GHAD limits.

Monitoring of the creek banks will be performed on a regular basis to identify areas of possible instability or future erosion. Proactive maintenance of creek banks will be performed at the discretion of the GHAD Manager. Maintenance of the creeks shall be conducted by the GHAD in accordance with the Wendt Ranch, Intervening Properties and Alamo Creek - Operation and Maintenance Manual for GHAD-Maintained Drainage Facilities. Creek bank erosion that does

not directly threaten site improvements or flood control capacity, as provided in Section VI, will not be repaired, and the creeks will be allowed to mature naturally. Any repair work required for creek bank erosion will utilize biotechnical repair techniques (Section XI) in favor of engineered structures, where practical.

Seismically-Induced Ground Shaking. As identified in the geotechnical reports, an earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past.

Seismic slope stability has been considered in the remedial grading and creek improvement plans; however, seismically-generated slope and creek bank failures could occur in open-space areas outside the development limits. Slope improvements including concrete-lined drainage ditches should be maintained to reduce the potential for impacts to the project from slope failures.

Expansive Soils. Colluvium, alluvium and fine-grained bedrock at the sites could exhibit a very high to critical potential for expansion. These potentially-expansive soils could impact the planned site development. Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. The potential for expansive soils has been identified in previous reports for the property. Shrink and swell of expansive soils on slopes is a portion of the mechanism of creep movement which can result in shallow slope instability. Corrective grading or structural repairs should consider the potential impacts from expansive soils on the site.

Compressible Soils. Compressible material was identified in the geotechnical report for the Alamo Creek project. As recommended the geotechnical report, areas to receive greater than

20 feet of fill that overlie alluvial deposits may be monitored for a period of 1 year to evaluate the settlement potential prior to the construction of site improvements.

As identified in the geotechnical report for Intervening Properties, the alluvial soils in the southeastern portion of the site will be subject to consolidation due to the placement of up to approximately 90 feet of engineered fill in this area of the site. It is our understanding that the developer will instrument this area to allow an evaluation of the settlement prior to construction of the site improvements. While we expect that the settlement will be substantially complete by the time the GHAD assumes responsibility for the Alamo Creek and Intervening Properties, the GHAD may assume some monitoring of the Intervening Properties settlement instruments as described in the maintenance and monitoring section.

Flooding: Areas within the 100-year flood zone for Alamo Creek were identified in the geotechnical exploration for the Alamo Creek project. It is anticipated that implementation of the restoration plan for the upper main branch of Alamo Creek and the raising of existing grades adjacent to the creek channel during mass grading will raise building pad elevations areas above the 100-year flood elevation.

A Letter of Map Revision (LOMR) has been filed with the Federal Emergency Management Agency to reflect that the proposed homesites are a minimum of 1 foot above the 100-year water surface elevation.

VI. CRITERIA FOR GHAD RESPONSIBILITY

In forming the GHAD and establishing the assessment levels and budgets for the District, it is important to define clearly the limits of the GHAD's responsibilities. The GHAD will accept responsibility for property as described in Section VII of this Plan of Control. However, the intent of this Plan of Control is not to extend the GHAD's responsibilities to every potential situation of slope instability; rather, the following are exclusions from GHAD responsibility.

1. Isolated or Remote Slope Instability

The GHAD shall not have responsibility to monitor, abate, mitigate or control slope instability, including creek bank, that does not involve damage to, or pose a significant threat to damage, site improvements or flood control capacity.

2. Single Property

The GHAD will not prevent, mitigate, abate or control geologic hazards which are limited in area to a single parcel of property unless the geologic hazard has damaged, or poses a significant threat of damage to site improvements located on other property within the GHAD boundaries. As used herein, the term "site improvements" means buildings, roads, sidewalks, utilities, improved trails, swimming pools, tennis courts, gazebos, cabanas, geologic stabilization features, flood control facilities, drainage features or similar improvements.

3. Geologic Hazards Resulting From Negligence of Property Owner

The GHAD may, in the general manager's sole discretion, decline to prevent, mitigate, abate or control geologic hazards which occurred or resulted from any negligence of the homeowner

and/or the homeowner's contractors, agents or employees in developing, investigating, grading, constructing, maintaining or performing or not performing any post-development work on the subject property so long as the geologic hazard is limited to a single lot, pursuant to exclusion No. 2.

4. Property Not Accepted

The GHAD shall not have responsibility to repair damage, which is situated on a parcel of real property, which the GHAD has not accepted in accordance with Section VII, below. The GHAD, however, may monitor, abate, mitigate or control slope instability on a parcel of real property which (1) the GHAD has not accepted in accordance with Section VII, below, and (2) is not excluded from GHAD responsibility by Paragraphs 1, 2 and 3; provided, however, that GHAD responsibility on such parcel shall be limited to the extent necessary to address damage or a significant threat to damage site improvements which are within a parcel of real property which the GHAD has accepted in accordance with Section VII, below.

5. Geologic Hazard Which Requires Expenditure in Amount Exceeding the Value of the Threatened or Damaged Improvement

The GHAD may elect not to prevent, mitigate, abate or control a geologic hazard where, in the general manager's sole discretion, the anticipated expenditure required to be funded by the GHAD to prevent, mitigate, abate or control the geologic hazard will exceed the value of the structure(s) and site improvement(s) threatened with damage or loss.

6. GHAD Funding or Reimbursement for Damaged or Destroyed Structures or Site Improvements

In the event a residence or any other structure, site improvement or landscaping is damaged or destroyed due to, or as a result of, a geologic hazard, the GHAD may fund or reimburse the property owner for the expenses necessary to repair or replace the damaged or destroyed structure, site improvement or landscaping. Unless authorized by the Board of Directors, the dollar amount of the GHAD funding or reimbursement may not exceed twenty percent (20%) of the costs incurred by the GHAD in preventing, mitigating, abating or controlling the geologic hazard responsible for the damage. In the event the geologic hazard damaged or destroyed a structure, site improvement or landscaping which violated any provisions of the County Building code or County Ordinance Code at the time of its installation or improvement, the GHAD may decline to provide any funding, or reimbursement to the property owner, for repair or replacement of the damaged structure, improvement or landscaping.

7. No Reimbursement of Expenses Incurred by Property Owners

The GHAD will not be obligated to reimburse a property owner for expenses incurred for the prevention, mitigation, abatement, or control of a geologic hazard absent a written agreement between the property owner and the GHAD to that effect, which agreement has been executed prior to the property owner incurring said expenses, and following an investigation conducted by the GHAD.

VII. ACCEPTANCE

1. Activation of Assessment

An annual assessment shall be promptly authorized on all annexed residential parcels in the GHAD. The assessment shall be levied by the GHAD on each individual residential parcel beginning the first fiscal year following issuance of a building permit for that parcel.

2. Responsibility for GHAD Activities

The party that, on the date each Final Map within the boundaries of the annexed portion of the GHAD is approved by Contra Costa County, owns the developable parcels shown on that Final Map shall have the responsibility to perform all the activities of the GHAD on property within that Final Map. Such responsibility shall automatically transfer to the GHAD at 9:00 a.m. on the day exactly four years after the first residential building permit is issued by Contra Costa County provided that the items listed under item No. 3 in this section have been completed. This turn-over date may be extended at the sole discretion of the project developer provided that the assessments shall continue to be levied during the extension period and that notice of such extension is delivered to the GHAD Manager at least 30 days prior to the turn-over date. The petitioners for formation of the GHAD intend that the approximately three-year period between the levying of the GHAD assessment and the GHAD becoming responsible to perform activities on property within each Final Map will allow the District to accumulate reserve funds without incurring significant expenses.

3. Process for Transferring Responsibility for GHAD Activities

After the Transfer Eligibility Date for parcel(s), the process for transferring responsibility for performing GHAD activities on such parcel(s) shall be as follows:

(a) In the calendar year of the Transfer Eligibility Date or in any subsequent year, at its discretion, the developer may apply to the GHAD ("Transfer Application") to transfer the responsibility for performing GHAD Activities for parcel(s) to the District.

(b) Within 45 days of receiving such notice, a representative of the GHAD shall verify that all the facilities for which the GHAD will have maintenance responsibility have been constructed and maintained according to the County-approved plans and specifications for the individual improvements, and that such facilities are operational and in good working order.

(c) Within 15 days of such inspection, the GHAD will send the developer a list ("Punch list") of all of the items that need to be constructed, repaired or otherwise modified in order to comply with the County-approved plans and specifications.

(d) The developer may notify the GHAD when it has completed the items identified on the Punch list.

(e) Within 30 days of receipt of such notice, the GHAD shall verify that all Punch list items have been completed and notify the developer that the District accepts responsibility for performing all future GHAD Activities on the parcel(s).

As part of the transfer activities the developer of parcel(s) to be transferred will provide the GHAD, for their use, copies of the applicable geotechnical exploration reports, grading plans, corrective grading plans, improvement plans, field-verified geologic maps, as-built subdrain plans or other pertinent documents as requested by the GHAD.

If the developers of the Alamo Creek elect to transfer the restored creek channel prior to the successful completion of the 5-year performance criteria, the following conditions will be required for the Wendt Ranch GHAD to assume maintenance and monitoring responsibilities for restored creek area.

- The responsible party will supply in writing to the Wendt Ranch GHAD, prior to the time of transfer, a report stating that the restored channel areas are in compliance with the recommendations and requirements of the approved restoration plan. The report shall be prepared under the direction of and signed by qualified engineering and biological professionals.

- Prior to the transfer of financial responsibility for the monitoring and maintenance of the restored creek channel, the GHAD may inspect the areas independently and will advise the developer, in writing, of any deficiencies that might exist to facilities that are to be maintained by the GHAD. Any deficiencies will be corrected prior to the GHAD assuming financial, maintenance or monitoring responsibilities for the restored creek areas.

- The GHAD will assume responsibility for monitoring and maintenance of restored creek channel areas after transfer from the developer and obtaining fees from the developer to provide these services. In the event that, after transfer, the mitigation plan is judged to not be successful as defined in the Performance Criteria section of the Alamo Creek Restoration Plan and it is required that the maintenance and monitoring program be continued for an additional period of time, the GHAD will continue its maintenance and monitoring responsibilities and will take actions as required to recover any cost incurred from the responsible party.

VIII. OPEN SPACE AND BASIN PLAN OF CONTROL

The GHAD shall be responsible for monitoring and maintenance for the following site improvements located within the Alamo Creek, Intervening Properties and Wendt Ranch projects.

- Wendt Detention Basin
- Water Quality-Detention Basin "A" at Intervening Properties
- Maintenance roads associated with the detention basin
- Bioretention Basins "A", "B" and "C"
- Concrete-lined drainage ditches in open space area
- Debris benches
- Subdrains
- Storm drain inlets, outfalls and pipelines within the open space area
- Restored and unaltered creek channels
- Open space maintenance including trails
- Settlement instruments
- Slopes
- Kawar Valley stock pond spillways

With the exception of shallow subdrains on private lots disclosed under the recorded Notification of Restriction, these improvements are located in common open space areas. The GHAD's maintenance responsibilities include prevention, abatement, and control of landslide and erosion hazards and vegetation control within the subdivision open space and hillsides, as provided in Section VI.

General maintenance of the surface drainage improvements in the open space and on the hillsides, such as the concrete V-ditches, will be the GHAD's responsibility. The GHAD is also responsible for general maintenance of storm drain inlets and outlets in open space and creek corridors and subdrain outlets. Potential geologic hazards such as landslides and slope erosion within the open space, including the unimproved hillsides, shall be the responsibility of the GHAD. Clearing of fire breaks and maintenance of the open space (other than hazard abatement) will also be the responsibility of the Wendt Ranch GHAD. The GHAD's creek maintenance duties will include

monitoring and proactive maintenance at the discretion of the GHAD manager and repair of substantial bank failures that directly damage or threaten actual site improvements (including buildings, utilities bridges and roads). Such creek bank repairs will be undertaken by the GHAD as necessary, and only to abate actual or threatened impact to site improvements. Biotechnical repair techniques will be the preferred method. Habitat management will be the responsibility of a natural lands manager. The GHAD, subject to the limitations of the conservation easement, will be able to enter into grazing leases.

Geotechnical Techniques for Mitigation of Landslide and Erosion Hazards

Landslide Mitigation for Existing Landslides. Proposed landslide repair areas with a higher potential for GHAD involvement during the life of the project are shown in Table VIII-1. The additional GHAD activities may include increased monitoring, maintenance or corrective work as described. General landslide mitigation measures are shown below.

TABLE VIII-1
Selected Mitigation Areas

LOCATION	SLOPE INSTABILITY OR LANDSLIDE TYPE	PROPOSED CORRECTIVE MEASURES	POTENTIAL GHAD MAINTENANCE OR MONITORING ACTIVITIES
Alamo Creek Mustang Soccer Fields and adjacent slopes	Large slump-flow landslide complex.	The landslide on the subject property will be removed and replaced with subdrained engineered fill	Observation of this area during periodic site monitoring events. Higher potential for corrective work in future if offsite landslide debris impacts slope or soccer fields. Removal of any accumulated landslide debris from improved sports field areas.

LOCATION	SLOPE INSTABILITY OR LANDSLIDE TYPE	PROPOSED CORRECTIVE MEASURES	POTENTIAL GHAD MAINTENANCE OR MONITORING ACTIVITIES
Off-site native slope above Alamo Creek Lots 309-324.	Large slump-flow landslide	The landslide on the subject property will be removed and replaced with subdrained engineered fill	Observation of this area during periodic site monitoring events. Higher potential for corrective work in future if off-site landslide debris impacts or deposits on debris bench or adjacent areas. Removal of any accumulated landslide debris from debris benches more likely than other areas on the site.
Off-site native slope above Alamo Creek Lots 328-329.	Earthflow landslide.	The landslide on the subject property will be removed and replaced with subdrained engineered fill	Observation of this area during periodic site monitoring events. Higher potential for corrective work in future if off-site landslide debris impacts or deposits on debris bench or adjacent slope areas. Removal of any accumulated landslide debris more likely than other areas on the site.

General Landslide Mitigation. The techniques which may be employed by the GHAD to prevent, mitigate, abate, or control geologic hazards include, but are not limited to, the following.

A. Removal of the unstable earth mass.

B. Stabilization (either partial or total) of the landslide by removal and replacement with compacted, drained fill.

C. Construction of structures to retain or divert landslide material or sediment.

D. Construction of erosion control devices such as gabions, riprap, geotextiles, or lined ditches.

E. Placement of drained engineered buttress fill.

F. Placement of subsurface drainage devices (e.g. underdrains, or horizontal drilled drains).

G. Slope correction (e.g. gradient change, biotechnical stabilization, slope trimming or contouring).

H. Construction of additional surface ditches and/or detention basins, silt fences, sediment traps, or backfill or erosion channels.

Potential landslide and erosion hazards can be mitigated best by controlling soil saturation and water runoff and by maintaining the surface and subsurface drainage system. Maintenance shall be provided for lined surface drainage ditches and drainage terraces including debris benches or drop inlets.

IX. PRIORITY OF GHAD EXPENDITURES

Emergency response and scheduled repair expenditures by the GHAD are to be prioritized by the General Manager, utilizing his discretion, based upon available funds and the approved operating budget. When available funds are not sufficient to undertake all of the identified remedial and preventative stabilization measures, the expenditures are to be prioritized as follows in descending order of priority:

A. Prevention, mitigation, abatement or control of geologic hazards that have either damaged or pose a significant threat of damage or flooding to residences, critical underground utilities or paved streets and bridges.

B. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage to ancillary structures, including but not limited to the detention basin, pool cabanas or restroom buildings.

C. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage to open space amenities.

D. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage limited to loss of landscaping or other similar non-essential amenities.

E. Prevention, mitigation, abatement or control of geologic hazards existing entirely on open-space property and which have neither damaged nor pose a significant threat of damage to any site improvements.

In performing its duties as described above, the GHAD shall seek all available reimbursements from any and all public and private entities including, but not limited to, FEMA, insurance companies, etc.

X. OPEN SPACE OWNERSHIP AND MANAGEMENT

Ownership, funding sources and maintenance responsibilities shall be as shown on following table.

TABLE X-1
ALAMO CREEK, INTERVENING PROPERTIES AND WENDT RANCH
Long-Term Management Matrix

FACILITY/FUNCTION	MAINTENANCE ENTITY	FUNDING	OWNERSHIP
1. Open Space included within a Conservation Easement			
a. Non irrigated – Vegetation	Land Manager	Endowment	GHAD
b. Irrigated Vegetation	HOA	HOA Assmt.	GHAD
c. Open Space including Trails	GHAD	GHAD Assmt.	GHAD
d. Fuel Transition Zones at Interface of Lots/Open Space	GHAD	GHAD Assmt.	GHAD
e. Conservation Easement	Land Manager	Endowment	GHAD
2. Open Space Outside of a Conservation Easement			
a. Non irrigated – Vegetation	GHAD	GHAD Assmt.	GHAD
b. Irrigated Vegetation	HOA	HOA Assmt.	GHAD
c. Open Space including Trails	GHAD	GHAD Assmt.	GHAD
d. Fuel Transition Zones at Interface of Lots/Open Space	GHAD	GHAD Assmt.	GHAD
3. Species Management	Land Manager	Endowment	GHAD
4. Detention Basins	GHAD	GHAD Assmt.	GHAD
5. Bioretention Facilities			
a. Basin Function	GHAD	GHAD Assmt.	GHAD
b. Landscaping	HOA	HOA Assmt.	GHAD
6. Creek Banks	GHAD	GHAD Assmt.	GHAD

The GHAD may also coordinate with the natural lands manager, whose responsibility includes preservation of the habitat values of the open space.

XI. BIOTECHNICAL RECOMMENDATIONS FOR PREVENTION AND MITIGATION OF EXISTING OR POTENTIAL EROSION HAZARDS

Fill slopes on this project may be expected to be as erodible as the cut slopes in bedrock. Therefore, maintenance of vegetative cover following grading is especially important on all slopes.

Vegetation provides a protective role on soil and exposed rock. It absorbs the impact of raindrops, reduces the velocity of runoff, and retards erosion. In many instances, adequate erosion protection for slopes can be accomplished solely with carefully selected and placed biological elements (plants) without the use of biotechnical structures.

Biotechnical slope protection may involve the use of mechanical elements or structures in combination with biological elements to provide erosion control and help prevent small-scale slope failures. Biotechnical slope protection may be utilized in both creek bank areas and less frequently on open space slope areas. Usually used within creek channels, crib walls, welded-wire walls, gabion walls, rock walls, riprap and reinforced earth walls used in combination with carefully selected and planted vegetation can provide high quality bank protection. The vegetation may be planted on the slope above a low retaining structure or toe wall, or the interstices of the structure can be planted.

Biotechnical solutions will be utilized before engineered structures are employed. Engineered structures will be used if there is an imminent danger to public improvements or human safety and, in the opinion of the GHAD manager, biotechnical solutions would not be sufficient.

XII. MAINTENANCE AND MONITORING SCHEDULE

The site inspections should be undertaken at appropriate intervals as determined by the GHAD manager using supporting documents including but not limited to the Wendt Ranch, Intervening Properties and Alamo Creek - Operation and Maintenance Manual. The GHAD budget should provide for four or more inspections in years of heavy rainfall. Generally, inspections should take place in October, prior to the first significant rainfall; mid-winter as necessary during heavy rainfall years; and in early April at the end of the rainy season. The frequency of the inspections should increase depending upon the intensity and recurrence of rainfall. Site inspections should increase sufficiently to provide for mitigation of potential hazards. The GHAD Manager shall keep these written monitoring reports on file in the records of the GHAD. As outlined in COA No. 171 for the Alamo Creek project, the GHAD will provide reports quarterly to the Contra Costa County Public Works Department (CCCPWD) documenting the monitoring and providing available reports for the events that were completed during the most recent quarter. The quarterly reporting will also document maintenance or repair activities completed during the most recent period. Annual reporting to the CCCPWD is specified in COA No. 162e. for the Wendt Ranch project and 113E. for the Intervening Properties project; therefore, the more frequent monitoring interval specified for in Alamo Creek COA 171. will also be used to satisfy these requirements. The following are guidelines for a monitoring plan. The actual scope and frequency of monitoring events shall be at the discretion of the GHAD manager based on schedules provided in the Wendt Ranch, Intervening Properties and Alamo Creek - Operation and Maintenance Manual provided in Appendix A.

- An engineer and/or geologist should carry out a geologic reconnaissance of the site slopes for indications of erosion or slope failures. Open space slope area monitoring would include observation of debris benches, trails and vegetation conditions related to fire suppression requirements.

- An engineer and/or geologist should carry out an inspection of lined surface ditches at least twice a year. One inspection should be in the fall prior to the onset of winter rains. The inspection shall check for sedimentation and cracking or shifting of the concrete-lined ditches. Repairs and maintenance as needed should be undertaken including removal of excess silt or sediment in ditches and patching or replacement of cracked or broken ditches, prior to the beginning of the next rainy season.

- Subsurface drain outlets and horizontal drilled drain outlets, if any, should be checked. Water flowing from these outlets should be measured and recorded during each inspection. The inspections should take place at least twice annually, preferably in the fall and spring. Any suspicious interruption in flow should signal a need to unplug or clean by flushing the affected drain.

- Piezometers to measure groundwater levels, or instruments such as inclinometers or tiltmeters measuring potential slope instability should be monitored quarterly, if installed.

- Settlement monitoring devices should be measured annually and tracked. In the event of anomalous readings or excessive settlement, the monitoring frequency should be increased to once per quarter.

- Inlets, outfalls or trash racks, if used, must be kept free of debris and spillways maintained. It is anticipated that initially at least once every year, cleanup of vegetation and removal of silt would be in order. At a minimum the facilities should be cleaned in October and as obstructed conditions are identified after heavy storm events. Attention should be given to plantings or other obstructions which may interfere with access by power equipment.

- The creek corridors should be inspected in accordance with the Wendt Ranch, Intervening Properties and Alamo Creek - Operation and Maintenance Manual for GHAD-Maintained Drainage Facilities a copy of which is provided in Appendix A.

- The designated trails should be inspected twice a year. Monitoring of the trail system should include observing the trial for excess vegetation growth, eroded areas or areas of instability. It is anticipated that mowing of the trails would occur annually in late spring and that recontouring of portions of the trail may be necessary approximately every 3 to 5 years.

- An annual inspection shall be made by the engineer and/or engineering geologist to assess the effectiveness of the preventive maintenance program and to make recommendations as to which landslide repair or erosion control measures should be undertaken in the next fiscal year. Any appropriate site-specific study of landslide or erosion conditions shall be determined at that time. Consultants, if necessary, will be retained to undertake the needed

studies. An annual inspection report to the GHAD Board of Directors shall be prepared by the GHAD Engineer and/or engineering geologist.

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GHAD BOUNDARY
ALAMO CREEK, INTERVENING PROPERTIES & WENDT RANCH PROJECTS

CONTRA COSTA COUNTY CALIFORNIA

dk ASSOCIATES, Inc.
CIVIL ENGINEERING-PLANNING-SURVEYING
1440 MARIA LANE, SUITE 200
WALNUT CREEK, CALIFORNIA 94596

MAY, 2005
SCALE: 1" = 1000'

SCALE: 1" =1000'

20 LSM 9
PARCEL 2

LLA LOT 2
2004-0254395

18191 OR 119
BLACK IRIS LAND

ALAMO CREEK
SUBDIVISION 8381 & 8382

WENDT RANCH
SUBDIVISION 8002, 8698 & 8847

INTERVENING PROPERTIES
SUBDIVISION 8331

13025 OR 906
WINDEMERE

BLACKHAWK DRIVE

CAMINO TASSAJARA

SEE DETAIL A

N05°33'28"W 1146.07'
N02°14'27"E 1660.66'
N72°31'09"W 248.70'
N19°55'23"E 485.76'
N19°04'32"W 310.76'
N07°28'37"E 231.10'
N14°22'57"W 352.47'
N13°32'28"E 520.13'
N37°00'00"E 220.00'
N66°45'00"E 552.17'
N07°30'00"W 160.52'
N05°30'00"E 1330.80'
N71°34'36"W 133.16'
N67°50'49"E 63.56'
N44°21'38"E 305.22'
N05°59'20"E 375.19'
N88°49'33"W 3897.41'
N78°02'16"W 840.37'
N88°41'01"W 918.99'
R=1950.20'
L=187.74'
Δ=05°30'56"
N03°16'26"E 52.33'
R=1950.21'
L=492.41'
Δ=14°28'00"
N79°26'29"E 948.20'
N74°24'09"W 1488.19'
N87°57'58"W 338.35'
N00°51'07"E 50.01'
N87°57'58"W 935.81'
N00°51'07"E 1400.45'
N01°12'32"E 2576.26'
N89°01'17"W 1310.78'
N00°49'06"E 2652.17'
N 79°26'06" W 129.83'
R=2296.66'
L=214.43'
Δ=05°20'58"
N78°02'16"W 347.00'
N 01°28'35" E 25.42'
N 01°28'35" E 14.90'
R=1950.20'
L=187.74'
Δ=05°30'56"

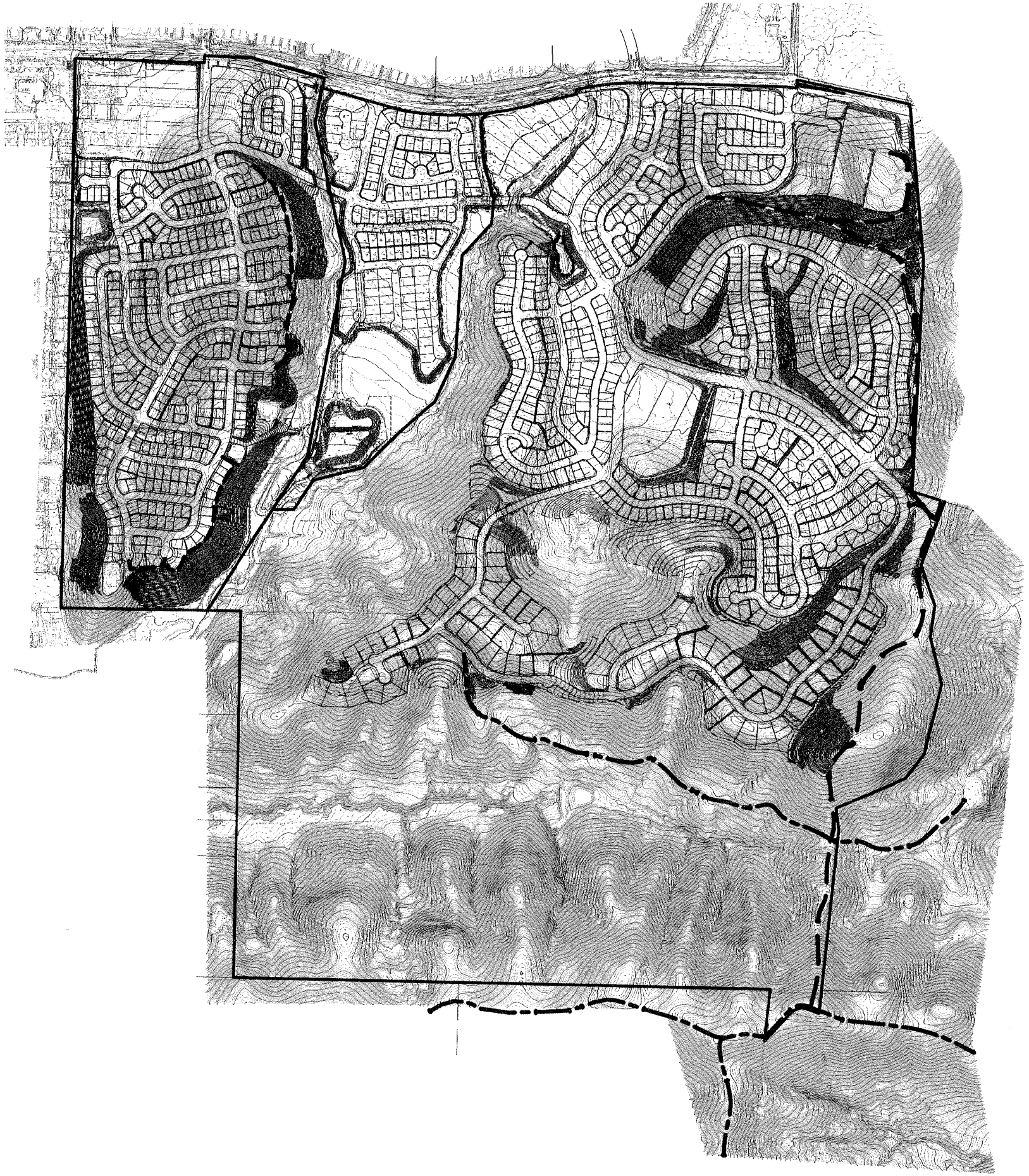
99 PM 30 PARCEL C
72 PM 17 PARCEL B
72 PM 17 PARCEL C
48 LSM 24 PARCEL A
65 PM 15 PARCEL B
(71 PM 26) PARCEL D

399 M 4 PARCEL B
402 M 20 SUBDIVISION 8171
SUBD 8165 (404 M 25)
PCL A | PCL 4 | PCL 3 | PCL 2 | PCL 1
18 LSM 23
36 PM 17

CASABLANCA ST.
GERBERA ST.

FIGURE 1
4063.1.050.01

DETAIL A
N.T.S.



LEGEND

- PROPOSED REGIONAL TRAIL
- ALTERNATIVE TRAIL LOCATION
- FIRE TRAIL
- SUBDIVSION BOUNDARY LINE

DK ASSOCIATES Inc.
CIVIL ENGINEERING · PLANNING · SURVEYING
1440 Maria Lane, Suite 200, Walnut Creek, California 94596
Phone: (925) 932-6868 Fax: (925) 932-0910

PROJECT MANAGER: ADP SCALE: 1" = 400' DATE: MAY 13, 2005

INTERVENING PROPERTIES
WENDT RANCH
PONDEROSA HOMES
ALAMO CREEK

CONTRA COSTA COUNTY CALIFORNIA

COMBINED TRAIL PLAN

ISSUED
MAY 16 2005
DK ASSOCIATES, INC.

FIGURE 2
4063.1.050.01

98-1009-20

EXPLANATION

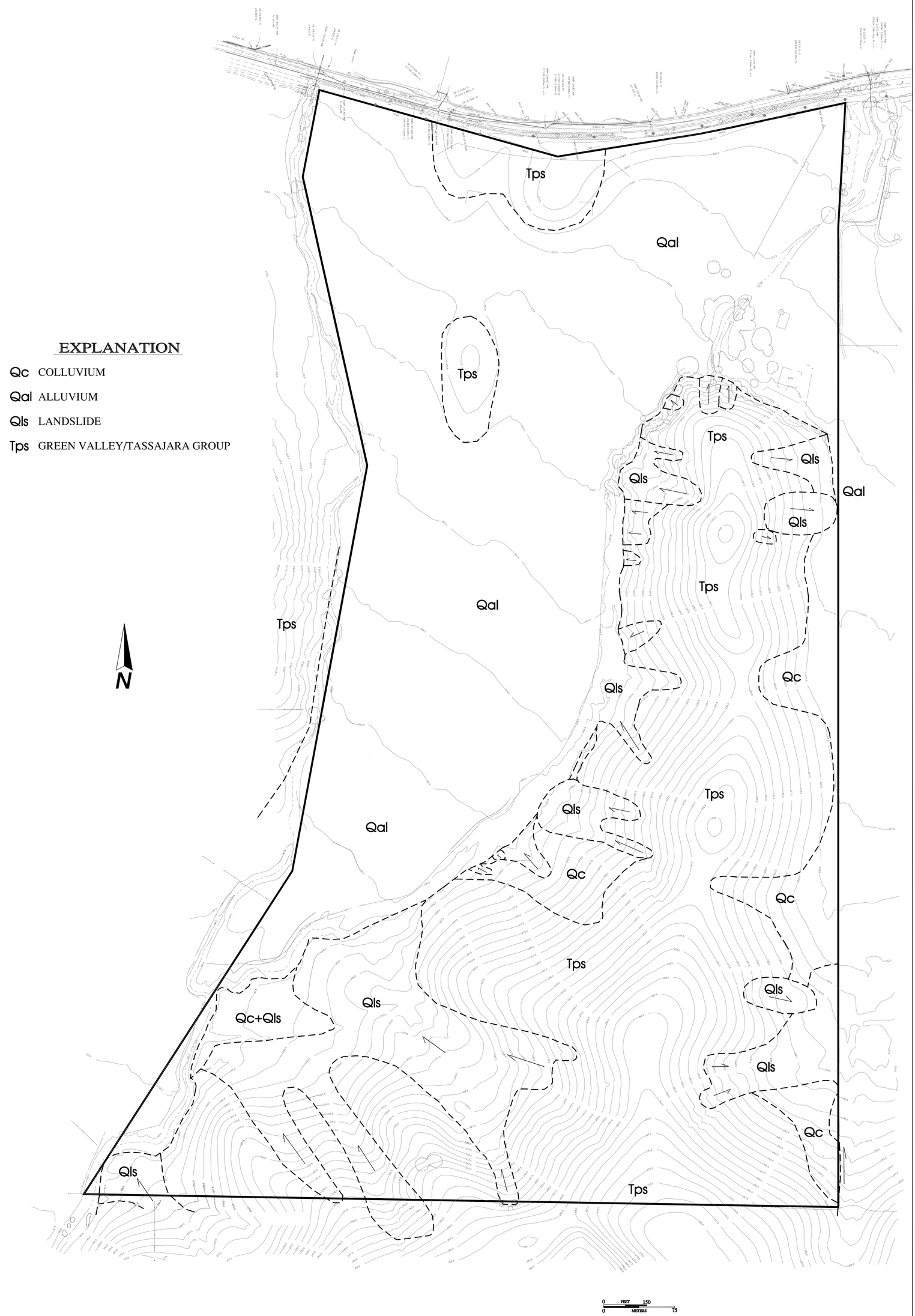
Qaf	EXISTING UNENGINEERED FILL
Qc	COLLUVIUM
Qal	ALLUVIUM
Tgvt	GREEN VALLEY/TASSAJARA GROUP
	GEOLOGIC CONTACT
	EARTHFLOW, RECENTLY ACTIVE
	EARTHFLOW
	DEEP-SEATED EARTH SLUMP/FLOW
B-3	APPROXIMATE LOCATION OF BOREHOLE (ENGEO, MAY 2004)
TP-15	APPROXIMATE LOCATION OF BOREHOLE (ENGEO, JUNE 2004)
B-7	APPROXIMATE LOCATION OF BOREHOLE (ENGEO, 1999)
B-50	APPROXIMATE LOCATION OF BOREHOLE (ENGEO, 1993)
B-6	APPROXIMATE LOCATION OF TEST PIT (ENGEO, JUNE 2004)
TP-13	APPROXIMATE LOCATION OF TEST PIT (ENGEO, 1999)
P-2	APPROXIMATE LOCATION OF TEST PIT (ENGEO, 1992)
	AXIS OF TASSAJARA SYNCLINE

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

GEOLOGIC MAP - INTERVENING PROPERTIES
WENDT RANCH GHAD
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO: 4063.1.050.01
DATE: APRIL 2005
DRAWN BY: PC CHECKED BY: EH

PLATE NO: 3



BASE MAP SOURCE: dk ASSOCIATES

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

GEOLOGIC MAP - WENDT RANCH
WENDT RANCH GHAD
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO: 4063.1.050.01
DATE: APRIL 2005
DRAWN BY: PC
CHECKED BY: EH

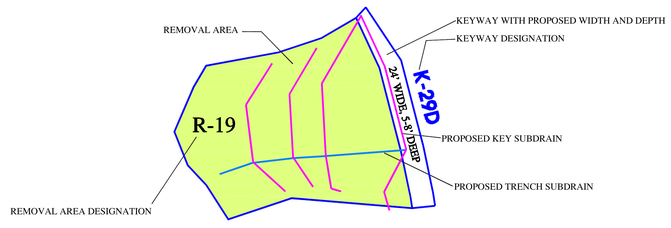
FIGURE NO: 4

EXPLANATION

- BEDROCK FAULT (NON-SEISMOGENIC), DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED (PUBLISHED SOURCES NOTED WHERE AVAILABLE)
- GEOLOGIC CONTACT
- AXIS OF ANTICLINE
- AXIS OF SYNCLINE
- 70 — STRIKE AND DIP OF BEDDING (DIP ANGLE INDICATED)
- 80 — STRIKE AND DIP OF JOINT (DIP ANGLE INDICATED)
- SHEAR PLANES
- STRIKE AND DIP OF OVERTURNED BEDDING
- **Qaf** — ARTIFICIAL FILL
- **Qal** — QUATERNARY ALLUVIUM; UNCONSOLIDATED SAND, SILT, GRAVEL AND CLAY SUBJECT TO FLUVIAL REWORKING
- **Qc** — QUATERNARY COLLUVIUM; UNCONSOLIDATED SAND, SILT AND CLAY; DEPOSITED BY GRAVITY
- **Tps** — PLIOCENE-SYCAMORE FORMATION, NON MARINE SEDIMENTARY ROCKS, POORLY CONSOLIDATED GREENISH-GRAY TO BROWN CLAYSTONE AND SILTSTONE, INTERBEDDED WITH MODERATELY TO WELL CONSOLIDATED BROWN TO TAN SANDSTONE, TRACEABLE WHITE TUFF, AND PEBBLE CONGLOMERATE. CONTAINS NUMEROUS FOLDS AND MINOR FAULTS. EXPANSIVE SOILS AND LANDSLIDES ARE COMMON
- **Qls** — LANDSLIDE SHOWING APPROXIMATE BOUNDARY, DIRECTION OF MOVEMENT AND SCARP, IF PRESENT
  - *A* DEBRIS FLOW OR ELONGATED EARTH FLOW; AVERAGE 2-10' DEPTH
  - *B* EARTH FLOW; AVERAGE 5-25' DEPTH
  - *C* EARTH FLOW/SLUMP; AVERAGE 10-50' DEPTH
  - *D* LARGE SLUMP FLOW COMPLEX; AVERAGE 25-75'+ DEPTH. PORTIONS MAY BE ACTIVE

- POND — POND (MANY ARE ARTIFICIAL STOCK PONDS)
- SOIL CREEP
- AREA OF MOISTURE SEEKING VEGETATION OR GREEN GRASS
- SPRING OR SEEP
- B-1 — APPROXIMATE LOCATION OF BOREHOLE (THIS STUDY)
- TP-1 — APPROXIMATE LOCATION OF BOREHOLE (THIS STUDY)
- B-15 — APPROXIMATE LOCATION OF BOREHOLE (1999)
- E-8 — APPROXIMATE LOCATION OF BOREHOLE (1996)
- B-36 — APPROXIMATE LOCATION OF BOREHOLE (1993)
- TP-27 — APPROXIMATE LOCATION OF TEST PIT (1999)
- TP-8 — APPROXIMATE LOCATION OF TEST PIT (1996)
- TP-10 — APPROXIMATE LOCATION OF TEST PIT (1993)
- REMOVE TO BEDROCK AND REPLACE WITH ENGINEERED FILL
- REMOVE COMPRESSIBLE MATERIAL AND REPLACE WITH ENGINEERED FILL
- CUT SLOPE REBUILD
- GEOGRID
- SUBDRAIN LINE
- KEYWAY LINE
- SWALE LINE
- TOE DRAIN
- OUTFALL LINE

- **C/F** — DENOTES CUT / FILL TRANSITION LOT TO BE TREATED PER DETAIL E
- **C** — DENOTES CUT LOT TO BE TREATED PER DETAIL E
- 762 — DIFFERENTIAL FILL LOT REMOVAL AREA (WITH ELEVATION)



N

0 FEET 150

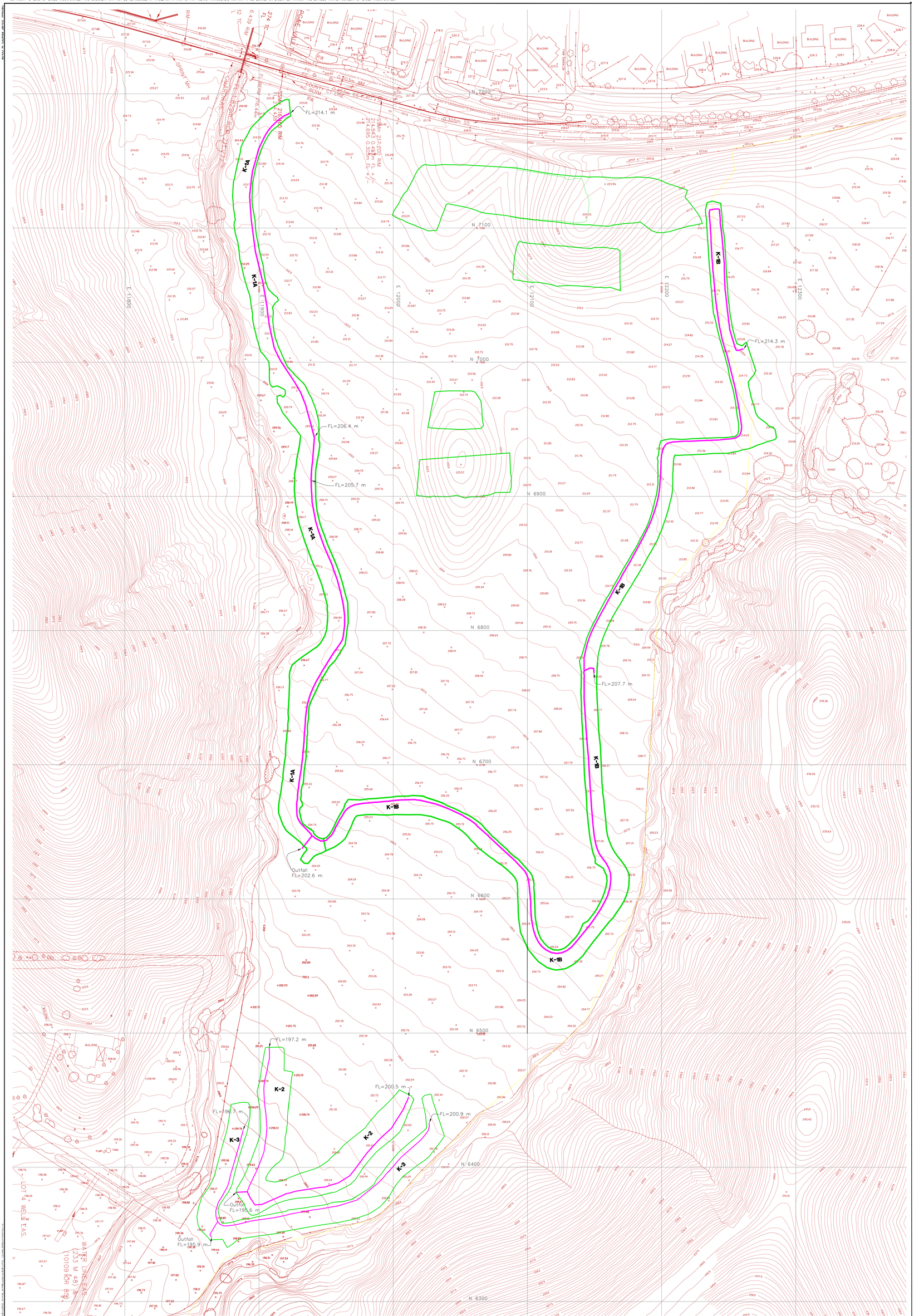
0 METERS 75

BASE MAP SOURCE: dk ASSOCIATES INC

ENGEO INCORPORATED — EXCELLENT SERVICE SINCE 1971

CORRECTIVE GRADING PLAN - ALAMO CREEK
WENDT RANCH GHAD
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO: 4063.1.005.01
DATE: APRIL 2005
DRAWN BY: PC
CHECKED BY: EH
FIGURE NO. 5



GRAPHIC SCALE

(IN FEET)
1 inch = 400 ft.

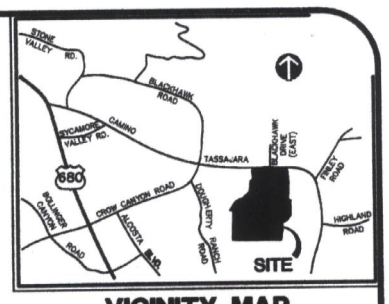
CONSERVATION EASEMENT
ALAMO CREEK, PONDEROSA, WENDT & INTERVENING SUBDIVISIONS 8381, 8382, 8331 & 8002

FOR

SHAPELL INDUSTRIES

CONTRA COSTA COUNTY, CALIFORNIA

MAY, 2005



VICINITY MAP
NOT TO SCALE

CONSERVATION EASEMENT

- OPEN SPACE WITH CONSERVATION EASEMENT
- OPEN SPACE WITHOUT CONSERVATION EASEMENT

CA ASSOCIATES Inc.
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PROJECT MANAGER: ADP SCALE: 1"=400' DATE: 5/13/05

FIGURE 8
4063.1.050.01

CONSERVATION EASEMENT EXHIBIT

LEGEND

LOCATION	OWNERSHIP	MAINTENANCE ENTITY	LANDSCAPE	IRRIGATION
CAMINO TASSAJARA AND MONTEROSSO STREET FRONTAGES AND MEDIANS; CASABLANCA STREET FRONTAGES	COUNTY*	LANDSCAPE DISTRICT LL-2	TREES, SHRUBS & GROUNDCOVERS - DROUGHT TOLERANT SPECIES	POTABLE WATER; INTERIM, RECYCLED WATER (PERM), PER DGA #63, 04 RAINMASTER CENTRAL CONTROL
RESIDENTIAL COMMON AREAS	HOA**	HOA	TREES, SHRUBS & GROUNDCOVERS - DROUGHT TOLERANT SPECIES; LAWN IN TOT LOT PARK	POTABLE WATER
OPEN SPACE TRANSITION AREAS	GHAD***	SLOPE STABILITY, EROSION PROTECTION & FUEL TRANSITION BREAK - GHAD TREES AND SHRUBS - HOA	NON-IRRIGATED EROSION CONTROL SEED MIX WITH NATIVE TREES AND SHRUB CLUSTERS (DGA #21)	POTABLE WATER
OPEN SPACE SLOPES	GHAD	SLOPE STABILITY & EROSION PROTECTION - GHAD TREES AND SHRUBS - HOA	NON-IRRIGATED EROSION CONTROL SEED MIX WITH NATIVE TREES AND SHRUB CLUSTERS (DGA #21)	POTABLE WATER
CONSERVATION EASEMENT TRANSITION AREAS	GHAD	SLOPE STABILITY, EROSION PROTECTION & FUEL TRANSITION BREAK - GHAD	NON-IRRIGATED EROSION CONTROL SEED MIX	NOT REQUIRED
CONSERVATION EASEMENT SLOPES	GHAD	SLOPE STABILITY & WEED ABATEMENT - GHAD	NON-IRRIGATED EROSION CONTROL SEED MIX	NOT REQUIRED
CONSERVATION EASEMENT, CREATED WETLANDS AND RIPARIAN ENHANCEMENT	GHAD	MITIGATION, PLANTING AND INITIAL MAINTENANCE - DEVELOPER LONG-TERM MAINTENANCE - CONSERVATION EASEMENT LAND MANAGER	NATIVE PLANTINGS PER CONSERVATION EASEMENT MANAGEMENT PLAN	POTABLE WATER
BIORETENTION	GHAD	FUNCTION - GHAD LANDSCAPE - HOA (SEE FENCING NOTE BELOW)	NATIVE PLANTINGS IN COORDINATION WITH PROJECT HYDROLOGIST (DGA #20, 14#)	POTABLE WATER
DETENTION BASIN	GHAD	FUNCTION - GHAD FENCING - GHAD	NON-IRRIGATED EROSION CONTROL SEED MIX	NOT REQUIRED
FRONTYARD LANDSCAPING & STREET TREES	PRIVATE HOMEOWNERS	PRIVATE HOMEOWNERS	25% MAXIMUM TURF; DROUGHT-TOLERANT SHRUBS AND GROUNDCOVERS (COUNTY ZONING ORD. #816-6.4)	POTABLE WATER-CONSERVING IRRIGATION SYSTEM
APARTMENTS	APARTMENT MANAGEMENT	APARTMENT MANAGEMENT	20% MAXIMUM TURF; DROUGHT-TOLERANT SHRUBS AND GROUNDCOVERS (COUNTY ZONING ORD. #816-6.4)	WATER-CONSERVING IRRIGATION SYSTEM (DGA #WR)
SCHOOL	SRVUSD****	SRVUSD	TURF, ARTIFICIAL TURF, TREES AND SHRUBS ON SITE PERIMETER	POTABLE WATER
OPEN SPACE TRAIL	GHAD	TRAIL STABILITY & WEED ABATEMENT - GHAD FENCE - CONSERVATION EASEMENT LAND MANAGER	4' TRAIL IN 8' CORRIDOR	NOT REQUIRED

NOTE: ALL FENCING TO BE DRAWN ON FENCING PLAN.

* COUNTY: COUNTY LL-2
** HOA: HOMEOWNERS ASSOCIATION
*** GHAD: GEOLOGICAL HAZARD ABATEMENT DISTRICT
**** SRVUSD: SAN RAMON VALLEY UNIFIED SCHOOL DISTRICT

N

0 FEET 120
0 METERS 60

BASE MAP SOURCE: MONTEROSSO PROPERTIES, JOHN NICOL & ASSOCIATES, INC.

NO SCALE

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

LANDSCAPE OWNERSHIP AND MAINTENANCE PLAN
INTERVENING PROPERTIES
WENDT RANCH GHAD
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 9
DATE: APRIL 2005		
DRAWN BY: PC	CHECKED BY: EH	

ORIGINAL FIGURE PRINTED IN COLOR

G:\Drafting\DRAFTING2_Dwg\4063\050\Wendt Ranch GHAD\4063105001-9LandScapeMaintenence-0405.

EXHIBIT "A"

BEING A PORTION OF SECTION 5, TOWNSHIP 2 SOUTH RANGE 1 EAST AND A PORTION OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 1 EAST, MOUNT DIABLO BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST ¼ CORNER OF SAID SECTION 5, THE CALIFORNIA STATE PLANE COORDINATION SYSTEM 1983 DATUM COORDINATE IS N 2,284,370.68, E 6,438,799.75; THENCE FROM SAID POINT OF BEGINNING
NORTH 01°12'32" EAST 2576.36 FEET; THENCE
NORTH 00°51'07" EAST 1400.45 FEET; THENCE
SOUTH 87°57'58" EAST 935.81 FEET; THENCE
NORTH 00°51'07" EAST 50.01 FEET; THENCE
SOUTH 87°57'58" EAST 338.35 FEET; THENCE
SOUTH 74°24'09" EAST 1488.19 FEET; THENCE
NORTH 76°26'29" EAST 948.20 FEET; THENCE
SOUTH 03°16'26" WEST 52.33 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 1950.21 FEET, A RADIAL LINE TO SAID POINT OF BEGINNING BEARS NORTH 12°59'15" WEST; THENCE
EASTERLY 492.41 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 14°28'00", A CHORD DISTANCE OF 491.10 FEET; THENCE
SOUTH 88°41'01" EAST 918.99 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 1950.20; THENCE
EASTERLY 187.74 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°30'56", A CHORD DISTANCE OF 187.67 FEET; THENCE
NORTH 01°28'35" EAST 14.90 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTH HAVING A RADIUS OF 2296.66 FEET, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 05°12'56" EAST; THENCE
EASTERLY 214.43 FEET ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°20'58", A CHORD DISTANCE OF 214.35 FEET; THENCE
SOUTH 79°26'06" EAST 129.83 FEET; THENCE
NORTH 78°02'16" WEST 347.00 FEET; THENCE
NORTH 01°28'35" EAST 25.42 FEET; THENCE
SOUTH 78°02'16" EAST 840.37 FEET; THENCE
SOUTH 05°33'28" EAST 1146.07 FEET; THENCE
SOUTH 02°14'27" WEST 1660.66 FEET; THENCE
SOUTH 72°51'09" EAST 248.70 FEET; THENCE
SOUTH 19°55'23" WEST 485.76 FEET; THENCE

SOUTH 19°04'32" EAST 310.76 FEET; THENCE
SOUTH 07°28'37" WEST 231.10 FEET; THENCE
SOUTH 14°22'57" EAST 352.47 FEET' THENCE
SOUTH 13°32'28" WEST 520.13 FEET; THENCE
SOUTH 37°00'00" WEST 220.00 FEET; THENCE
SOUTH 66°45'00" WEST 552.17 FEET; THENCE
SOUTH 07°30'00" EAST 160.52 FEET; THENCE
SOUTH 05°30'00" WEST 1330.80 FEET; THENCE
NORTH 71°34'36" WEST 133.16 FEET; THENCE
SOUTH 67°50'49' WEST 63.56 FEET; THENCE
SOUTH 44°21'38" WEST 305.22 FEET; THENCE
NORTH 05°59'20" EAST 375.19 FEET; THENCE
NORTH 88°49'33" WEST 3897.41 FEET; THENCE
NORTH 00°49'06" EAST 2652.17 FEET; THENCE
NORTH 89°01'17" WEST 1310.78 FEET

CONTAINING 831.68 ACRES MORE OR LESS

EXHIBIT "B" ATTACHED, AND BY THIS REFERENCE MADE APART HEREOF.

APPENDIX A

ENGEO INCORPORATED

Operation and Maintenance Manual for the GHAD-Maintained Drainage Facilities
Wendt Ranch Geologic Hazard Abatement District
Wendt Ranch, Intervening Properties and Alamo Creek
Contra Costa County, California
Project Nos. 4633.1.007.01 and 4063.1.050.01
May 10, 2005

OPERATION AND MAINTENANCE MANUAL

FOR
GHAD-MAINTAINED
DRAINAGE FACILITIES

PREPARED FOR:

GEOLOGIC HAZARD ABATEMENT DISTRICT REVISION 1
Wendt Ranch
Intervening Properties
and Alamo Creek
Contra Costa County, California

PREPARED BY:

ENGEO INCORPORATED
Project Nos. 4633.1.007.01 and 4063.1.050.01

May 10, 2005

TABLE OF CONTENTS

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TABLE OF CONTENTS (Continued)

1.0 INTRODUCTION

This Operations and Maintenance Manual (O&M Manual) is intended as a working document for use by the Wendt Ranch Geologic Hazard Abatement District (GHAD), in maintaining the drainage facilities, basins, and creeks outlined in the Revised GHAD Plan of Control. The existing Plan of Control includes only Wendt Ranch. The Revised Plan of Control encompasses three properties in Contra Costa County: the Alamo Creek project, the Wendt Ranch project and the Intervening Properties project. These properties collectively contain two detention basins, three bioretention facilities, two creek corridors and minor Kawar Valley improvements that will be managed by the GHAD as discussed in this document. This manual provides for specific activities that allow for monitoring and maintenance of the drainage facilities, basins and creeks.

1.1 Geologic Hazard Abatement District

The GHAD will undertake monitoring and maintenance of the creek channels, the detention basins and the bioretention facilities after construction is complete and after the facilities have been accepted by the GHAD in accordance with the Plan of Control. The GHAD will be the land owner and will provide secure and perpetual funding and maintenance for these facilities.

The water quality/detention basins, creeks and the bioretention cells are referred to by the term, "drainage facilities" in the Contra Costa County Conditions of Approval (COA) for all three properties. Long-term monitoring and maintenance, as called for in the COAs and as outlined in this document, will be undertaken by the GHAD in accordance with the GHAD Plan of Control.

An annual assessment will be authorized on all residential parcels in the GHAD. The assessment shall be levied by the GHAD on each individual residential parcel in accordance with the provisions of the Plan of Control. Subject to the provisions of the Plan of Control, the GHAD

will undertake any construction, maintenance or repair to the drainage facilities, as well as within open space which the GHAD determines to have a potential to impact geologic stability or degrade water quality in the Upper Main Branch of Alamo Creek or in Intervening Tributary. Open space areas will be managed by the Wildlife Heritage Foundation (Foundation) which holds a conservation easement for much of the open space. The Upper Main Branch of Alamo Creek is located along the eastern boundary of Wendt Ranch and adjacent to Alamo Creek property. Intervening Tributary to Alamo Creek is located along the western boundary of Wendt Ranch within the Intervening Properties (Figure 1).

1.2 Wendt Ranch

Wendt Ranch, Subdivision 8002, is a residential development located southwest of the intersection of Camino Tassajara Road and Blackhawk Drive, east of Danville, California. The entire site is about 165 acres in area. Grading of the project began in Fall 2001 with home construction expected to continue through approximately 2006. A permanent water quality and stormwater detention basin is located in the southwestern portion of the site as shown on Figure 4 and will service all three properties. This document provides for the management and maintenance of the basin.

1.2.1 Basin Clean Water Functions

The water quality portion of the Wendt basin is a permanent, structural best management practice (BMP) designed to reduce pollutant runoff from the residential community. The entire storm drain system for Wendt Ranch, and most of the drainage from Alamo Creek, will empty into the basin and not directly into Alamo Creek in order to allow urban contaminants to break down into less detrimental compounds or settle into the basin sediments. Intervening Properties will utilize on-site water quality facilities instead of the Wendt basin for water quality.

The water quality portion of the Wendt basin is sized appropriately for collecting stormwater runoff and reducing the contaminant loading to nearby creeks by allowing settlement of contaminants and sediment into the basin. In addition, the basin is intended to reduce summer flow into Alamo Creek by allowing these flows an opportunity to evaporate within the basin.

1.2.2 Basin Stormwater Functions

The stormwater function of the basin is designed to reduce post-development peak flows to predicted pre-development flow levels for a range of design storms, including the 2-year, 10-year and 100-year storms, at the downstream project boundary and at the County line. The entire storm drain system for Wendt Ranch, most of the drainage from Alamo Creek and a portion of the storm drainage from Intervening Properties will be routed directly into the basin. The basin is designed to drain in approximately 58 hours and in no more than 72 hours.

1.3 Alamo Creek Project

The Alamo Creek project is located directly east of the Wendt Ranch project. Development for the Alamo Creek project, which consists of approximately 236 acres (out of a total site area of approximately 610 acres), will include approximately 804 affordable, attached and market-rate detached single-family homes, 120 affordable senior housing units, a 10.8-acre school site, several parks, a community center, and a fire station. The project includes an additional 11-acre soccer field. Project open space within site boundaries will total approximately 297 acres, including approximately 269 acres preserved and managed under a perpetual conservation easement (see revised Plan of Control). Included in the perpetual conservation easement is a valley known as the Kawar Valley located to the south of the planned development, where mitigation wetlands, ponds and creek improvements are planned. Stormwater from the Alamo Creek project storm drain system will combine with those of the nearby Wendt Ranch and

Intervening Properties developments in the Wendt Basin. Discharges from the basin outlet directly into Upper Main Branch Alamo Creek after detention and water quality treatment.

Water quality treatment at the Alamo Creek project also includes an area planned as a bioretention cell (Figure 3). This water quality facility can treat the runoff from the water quality storm event (approximately 0.2 inch per hour storm). The Alamo Creek water quality bioretention cell will treat this volume of stormwater before outletting the treated water into a small tributary drainage that joins upper Alamo Creek.

Monitoring and maintenance are intended to protect the development improvements for the duration of the project, addressing proposed project impacts and mitigation to Waters of the State, and addressing public safety concerns in a responsible manner.

1.4 Intervening Properties

Intervening Properties is located directly west of Wendt Ranch. The Intervening Properties development consists of approximately 157 acres located on the south side of Camino Tassajara, east of the intersection with Lawrence Road in Contra Costa County, California (Figure 1). Project plans include construction of a total of 378 single-family homes (376 on new parcels and 2 on existing lots), 96 apartment units and a 15-acre school site. Large portions of the site on the east, southeast and southwest will remain as open space (Figure 2).

Camino Tassajara Road forms the northern property boundary. The site is bordered by an existing residential development on the west, undeveloped land to the south and the Wendt Ranch development on the east. Site topography is dominated by a north/south-trending ridge near the center of the property that drops to both the east and west. The Intervening tributary is located along the east side of the property and will be utilized for discharge of runoff from the northeastern portion of the site.

Most Intervening Properties (IP) surface drainage will be collected in a storm drain system. Structural stormwater treatment controls have been developed for the project in order to improve the quality of stormwater runoff and to mitigate hydrograph modification affecting downstream watercourses. The urban runoff water will be treated by the proposed on-site water quality facilities prior to release into project storm drains, as discussed below.

1. The western portion of the IP site will drain westerly towards Lawrence Road. A water Quality/Detention Basin will accommodate small-stormwater quality treatment and larger storm (up to 10-year) detention prior to release into the Town of Danville storm drain system. An existing Town of Danville storm drain system through the subdivision west of the site will carry the discharge west to Lawrence Road and then southward beneath the road to an unnamed tributary to Alamo Creek. Modeling has determined that post-development channel-forming discharge is less than pre-development channel-forming discharge to the Lawrence Road storm drain outfall.

2. A fork of Alamo Creek borders the eastern site boundary and is called the Intervening Tributary (Figure 3). The Intervening Tributary joins with the Upper Branch of Alamo Creek approximately 655 feet north of the southern IP boundary, thus the northern terminus of Intervening Tributary is at Camino Tassajara and the southern terminus is at its juncture with Upper Main Branch. The discharge from the northeastern portion of the site will join additional regional drainage before entering the Intervening Tributary at an outfall near its intersection with Camino Tassajara. The outfall will be improved as part of development at Intervening Properties. Bioretention Site B (NE) will treat small storm event runoff prior to release from this portion of the site.

3. A portion of the IP requiring detention will drain to the Wendt Ranch detention basin following development. The Wendt Ranch basin outlets into Alamo Creek near the junction of the Intervening Tributary and Alamo Creek. The basin is designed to reduce post-development peak flows to predicted pre-development flow levels for a range of design storms, down to and including the 2-year channel-forming storm, at the downstream Wendt project boundary and at the County line. Bioretention Site C (SE) will treat small storm event runoff for water quality prior to release into the Wendt basin.

2.0 POLICY, PERSONNEL, BUDGET

2.1 General Policy and Goals

This Operation and Maintenance Manual is based on the requirements of Contra Costa County Public Works and Flood Control Alamo Creek Conditions of Approval 130, 131, 148 and 170; Intervening Properties Conditions of Approval 128, 147, 149, 155 and 156 and Wendt Ranch Conditions of Approval 155, 161 and 162.

The GHAD shall maintain and manage the subject drainage facilities and focus on providing the services needed to accomplish drainage and water quality goals, performance standards and priorities. Funding for drainage facility maintenance is provided to administer programs and meet future needs through prudent planning. The objectives of the GHAD are intended to support NPDES elements and long-term Best Management Practices (BMPs) as well as project Conditions of Approval by maintaining safe, effective and high-quality drainage facilities.

The goals of the GHAD for the subject properties relative to operations and maintenance of drainage facilities are to:

- Maintain the water quality/detention basins and the bioretention sites as four-season, water quality and/or detention facilities.
- Preserve the structural integrity and intended capacity of these drainage facilities.
- Monitor these drainage facilities for public safety.
- Prepare sediment accumulation, hydraulic-function, maintenance and monitoring reports for these drainage facilities.
- Provide for repair work associated with maintenance of these drainage facilities.
- Monitor and maintain open space areas and creeks listed in the GHAD Plan of Control.

- Accomplish the goals listed above in accordance with the Plan of Control and within the approved budget.

This O&M manual provides a structured monitoring and maintenance plan. Included in the following sections are discussions regarding the frequency of monitoring, maintenance triggers and corrective measures, along with monitoring guidelines for erosion/slope protection, mosquito control, sediment accumulation, dust and wildlife hazards, trash/debris removal and monitoring for structural integrity. Drainage facility maintenance is an integral part of the process to provide proper functioning, promote public health and safety, and protect the development improvements from erosion and other natural processes. This document is intended to function as a manual for the three developments (Wendt, Alamo Creek and Intervening Properties) as they are presently proposed. It may be necessary to amend portions of this document to accommodate any potential land use changes or unforeseen conditions as long as modifications are consistent with the goals and intentions of the GHAD Plan of Control.

2.2 Personnel

2.2.1 General Manager

The GHAD's General Manager is responsible for carrying out the requirements of the Plan of Control. In addition, the General Manager also works with the GHAD Board of Directors and Assessor's Office to set the annual levying of assessment on the property tax rolls, and serves as official liaison between the GHAD and any regional external organization regarding drainage facilities management.

The GHAD General Manager (GGM) responsibilities under this manual can be summarized as follows:

1. Applying practices consistent with GHAD regulations, policies, standards and guidelines.

2. Maintaining GHAD compliance with applicable Federal, State and County regulations and legislative requirements.

3. Providing for completion and submittal of the required monitoring reports for the drainage facilities.

4. Selecting and supporting contractors during maintenance of the drainage facilities.

5. Communicating with homeowners, the Grazing Manager, the Open Space Preserve Manager and local officials.

6. Preparing and submitting drainage facility requirements and budget justifications to the GHAD Board of Directors.

7. Assisting in formal reviews of drainage system functions.

8. Developing and publicizing policies, procedures, standards and technical guidance for maintenance and monitoring of the drainage facilities.

2.3 Report on Budget

Each year, the proposed GHAD budget will include costs for the O&M of drainage facilities. The GHAD General Manager will report on the budget annually, and modify the budget as necessary to meet the goals of the O&M program, subject to the provisions of the Plan of Control.

2.4 Program Review

The GHAD should provide for annual review of the drainage facilities maintenance program to:

1. Establish and promote thorough planning at every level.

2. Conduct periodic reviews of the requirements of the drainage facilities to determine whether the system continues to meet the purposes for which it was originally constructed.

3. Explore alternate maintenance concepts to promote effective operation at the lowest cost through consideration of alternatives, costs, risks, and impacts.

4. Verify that performance goals are being attained or exceeded. If the drainage facilities are not performing satisfactorily, alternative measures will be proposed, reviewed, constructed and maintained.

5. Provide that appropriate maintenance requirements for the drainage facilities are identified, and appropriate maintenance efforts are undertaken.

Refinement of the O&M Program should be expected based on the recommendation and agreement of the GHAD General Manager, applicable resource agencies and the Contra Costa County Public Works Department.

3.0 CREEK PROGRAM - UPPER MAIN BRANCH

The following section describes the maintenance program for the Upper Main Branch of Alamo Creek, located between the Wendt Ranch and Alamo Creek projects and extending from Camino Tassajara on the north to the Wendt southern property line on the south (Figure 1). The primary objectives of the program are to monitor and evaluate the stormwater entering the creek from within the GHAD boundaries, the stability of the creek channel, and the integrity of the structural elements constructed near the creek, particularly the Casablanca crossing. Long-term monitoring will be undertaken by the GHAD, Grazing Manager and Open Space Preserve Manager. The monitoring program as proposed will include annual monitoring to provide an assessment on the performance of the creek system, and the response of the system to large flood events. The monitoring should also identify the need for periodic maintenance.

3.1 Basin Outfall Erosion Monitoring Protocol

The proposed program shall include monitoring for erosion related to the discharge from the Wendt detention basin. The outlet of the basin should be observed during each monitoring event. Monitoring should include observing the outlet area along with adjacent and immediately downstream areas for signs of erosion, sediment deposition or bank failure. The observations should be documented with digital photographs and presented within a semi-annual monitoring report to the County.

3.2 Sediment Supply and Creek Condition Monitoring

If erosion and sediment control BMPs identified in the Stormwater Management Plan (SWMP) for the project are functioning to the expected standard, sediment should not accumulate or be eroded from the creek at rates requiring maintenance. Sediment removal for maintenance is not expected given watershed characteristics. Sediment supply is important for proper creek

function and a properly functioning creek will continually move its sediment supply, depositing and reworking it. Typically, it is assumed that all bed-material sediment and some portion of the suspended sediment load are removed from flow by detention basins, thereby permanently removing them from the total load. This can cause scour downstream of detention basins while the sediment-starved water attempts to balance its sediment load by picking up additional load.

The Wendt detention basin was studied with respect to the phenomenon of downstream scour and it was determined that the detention basin will have little measurable impact on the water sediment carrying capacity in Main Branch since the percentage of water added to the system by the basin is significantly smaller than the total discharge of the watershed. The detention basin should accommodate most runoff from the proposed developments at Wendt Ranch, Alamo Creek and Intervening Properties, and retain and filter the runoff before releasing it to Main Branch Alamo Creek. The water entering the creek system from the detention basin should be nearly sediment free; however, the detention basin will be releasing only a small percentage of the total water in the watershed. The landslides located along the creek and tributary should supply ample sediment to the system to avoid creek scour downstream due to lack of sediment load.

In order to monitor the creek condition below the Wendt detention basin, creek condition and sediment supply monitoring is planned annually sometime between May and July with additional monitoring within two working days after significant storm events (i.e. one inch or more of rainfall in a 24-hour period) to evaluate the condition of the creek and adjacent improvements (Figure 7). In addition to the area directly below the Wendt basin, the entire creek corridor from Camino Tassajara to the southern Wendt property line will be walked and monitored during these annual monitoring events. The results will be included in the June monitoring report.

In particular, three pre-development steeper reaches or vertical discontinuities in the creek profile at approximately HEC-RAS Stations 9+00, 17+00 and 42+00 as shown on the Creek

Restoration Plans will be monitored to establish that these areas are remaining stable and not migrating upstream in such a way to endanger the Contra Costa County bridge structure at Casablanca crossing.

If monitoring indicates that areas of the creek are degraded, eroded, silted or failing to an extent capable of causing a hazard to the Waters of the State, nearby improvements or infrastructure, the GHAD should present plans for repairs and maintenance to correct the degradation, erosion, siltation or failure to the involved resource agencies for approval and permitting prior to implementing repairs for the GHAD Plan of Control.

3.3 Procedures for Upper Main Branch

Annual creek condition monitoring is planned once annually between May and July with additional monitoring within two working days after significant storm events (i.e. one inch or greater of rainfall in a 24-hour period) to evaluate the condition of the creek and adjacent improvements. The results will be included in the June and December monitoring reports.

The maintenance and monitoring procedures for Upper Main Branch should include:

1. Monitoring of creek vegetation cover.
2. Monitoring of sediment accumulation and/or debris within the Upper Alamo Creek channel.
3. Monitoring for creek bank stabilization and/or eroded areas or failures of the creek banks.
4. Monitoring of creek structures.

An annual review should be made to assess the effectiveness of the maintenance program and to make recommendations as to which measures should be modified. Any appropriate site-specific study or recommendation for remedial repair should be determined at that time. All repairs and maintenance to correct the degradation, erosion, siltation or failure should be presented to the involved resource agencies for approval and permitting prior to implementing repairs. Consultants, if necessary, will be retained to undertake the needed studies/repairs.

3.3.1 Emergency Response and Scheduled Remedial Repair

Emergency response and scheduled repair expenditures for Upper Main Branch are to be prioritized in coordination with the GHAD Geotechnical Engineer. Resource agencies will need to permit all emergency repairs. Repair tasks are to be prioritized as follows in descending order of priority:

1. Prevention, mitigation, abatement or control of hazards that have either damaged or pose a significant threat of damage to the creek and development improvements.

2. Prevention, mitigation, abatement or control of hazards which have either damaged or pose a significant threat of damage to ancillary structures, including but not limited to the inlet and outlet structures.

3. Prevention, mitigation, abatement or control of geologic hazards which have either damaged or pose a significant threat of damage to surrounding open space/creeks.

The general techniques which may be employed (upon review and permitting by the resource agencies) to prevent, mitigate, abate or control emergency hazards include, but are not limited to, the following:

1. Repair, maintenance or replacement of creek structures and creek improvements.

2. Stabilization (either partial or total) of eroded areas or failures of the creek banks by removal and replacement with appropriate materials similar to those shown on the Upper Main Branch restoration plans.

3. Construction of erosion control measures. Whenever feasible, bio-engineering techniques will be utilized and are preferred over hard armor.

Procedures for the following maintenance items are presented in subsequent sections:

- Sediment accumulation and/or debris removal
- Monitoring and replacement of creek vegetation
- Stabilization and/or repair of eroded areas or failures of the creek banks
- Monitoring and repair of creek structures

3.3.2 Monitoring and Replacement of Creek Vegetation

The vegetation along the Upper Main Branch will be monitored to provide that vegetative cover is fairly continuous and in a condition that provides for erosion protection of the creek bed and banks. The following performance criteria for the Upper Main Branch may be used as general guidelines during monitoring:

3.3.2.1 Performance Criteria for Vegetation

The creek channels shall not exhibit excessive erosion, nor shall the bank treatment serve as a location from which erosion and instability may be initiated and subsequently propagate through the rest of the creek system potentially damaging structures. An assessment of the need for potential remedial action will be triggered by either of the following circumstances: (1) visible erosion in excess of approximately one foot in depth over a distance greater than ten linear feet; or (2) rills of a diameter and depth of one foot or greater where planting treatments have been carried out.

3.3.2.2 Maintenance of Newly Planted Areas

The planted areas will be maintained following planting to allow the success of the planting program. A qualified restoration ecologist may be retained to provide maintenance recommendations to the extent necessary to allow that performance standards are achieved. Care must be taken during maintenance activities to minimize disturbance within and adjacent to the designated mitigation areas. Maintenance activities to be used as general guidelines are described in the following section.

- Non-Native Plant Control. Invasive, non-native, weedy species such as Ailanthus, mustard (Brassica sp.), fennel (Foeniculum vulgare), tree tobacco (Nicotiana glauca), star thistle (Centaurea solstitialis), castor bean (Ricinus communis) and cocklebur (Xanthium strumarium), as well as other herbaceous weeds competing with the newly planted trees and vegetation should be removed as necessary to provide for creek capacity. Methods for removal and control should employ mechanical hand-clearing techniques and/or spot application of EPA-labeled herbicides suitable for aquatic settings that will avoid harm to or loss of adjacent native vegetation and wildlife. If herbicides are used, all safety measures recommended by the manufacturer should be followed.

- Plant Replacement. Plant mortality exceeding the target values will be compensated by additional planting during the next planting season after plant mortality has been determined.

Replacement plantings will only be installed in the fall or winter. If the new planted areas are not meeting performance criteria due to low plant survival, plants will be replaced with plugs or seed collected from other areas on site or purchased from commercial nursery sources.

3.3.3 Clearing of Creek Channel and Banks

Creek channel and banks should be monitored for obstructing vegetation, trash and sediment. Maintenance should include only minor removal of debris obstructing proper flow characteristics, with appropriate consultation and permitting from the resource agencies. Only portions of vegetation that are obstructing channel flow should be trimmed or removed as necessary to allow creek function for conveying storm runoff. Some woody debris is allowed for habitat as long as it does not obstruct flow to an extent that causes flooding or erosion. Tree root masses within the channel and banks should be allowed to remain; however, trash and other undesirable debris should be removed from the creek areas as needed, or at least once per year.

3.3.4 Longitudinal Profile

The longitudinal profile of the creek system should remain fairly consistent, without excessive scour, erosion or deposition. Fresh scarps, nick points, drops or sediment bars should be noted during the monitoring. The creek corridor should be functioning as intended as an open-channel system. The meandering pattern should be allowed to remain, and the creek may alter its low-flow path from season to season. If sediment accumulation is noted, it should be estimated by depth and location. Significant erosion of bed or banks should be noted.

The creek profile at approximately HEC-RAS Stations 9+00, 17+00 and 42+00 as shown on the Restoration Plans should be monitored to establish that these areas are remaining suitably stable and not migrating upstream in such a way to endanger the bridge structure at Casablanca crossing. If these areas are migrating upstream, a proposed stabilization scheme should include

analyzing the creek equilibrium slope and designing biotechnical or strategically placed rock revetment to arrest or slow upstream migration. All proposed designs must be permitted by the resource agencies prior to construction.

Contra Costa County recommends the following areas for careful monitoring and treatment considerations (from CCCo Public Works; Review of Upper Main Branch Action Plan 2nd check; March 10, 2004) for channel instability or erosion:

1. The west side of the channel between Stations 2+00 and 6+00. If erosion is repeatedly noted here, consideration can be given to installing a floodplain terrace in this location.

2. The channel slope at Station 3+00 has a slope exceeding 3.3 percent providing an opportunity for additional biotechnical stabilization if a floodplain terrace is not constructed, and problems are repeatedly noted during monitoring.

3. Additional vegetative slope protection could be planted from Stations 6+00 to 12+00 on the east side of the channel, if erosion is repeatedly noted in this area.

4. The outfall of the Wendt Ranch detention basin should be monitored.

5. The shear stress at Station 14+95 is high and the invert slope at Station 19+00 is approximately 5.4 percent. Both of these stations might benefit from biotechnical stabilization measures, if erosion is repeatedly noted during monitoring.

6. Shear stresses and velocities are high at Stations 28+00, 30+00, 34+00 and 40+73. These areas should be targeted for careful erosion monitoring.

3.3.5 Stabilization and/or Repair of Eroded Areas or Failures of the Creek Banks

If unsuspected areas of bank weakness that could jeopardize nearby improvements are noted during the monitoring process, stabilization must be undertaken in a timely fashion. Any significant bank failures having the potential to affect nearby improvements identified along the creek can be corrected upon permitting by the resource agencies.

Monitoring of the channels should involve visual observation on an annual basis and after significant storm events. The banks should be observed for obvious signs of vertical and horizontal displacements, seepage or erosion caused by high creek levels. Any excessive slope displacement, seepage or erosion should be reported and addressed by maintenance as necessary. The GHAD may retain a geotechnical engineer and erosion control specialist as needed to determine appropriate remedial action necessary to correct the problem. The following guidelines are applied to all grading accomplished for construction of stabilization measures:

- Both an Engineering Geologist and Geotechnical Engineer should be consulted on significant bank repairs.
- Soil removal/placement should be limited to the minimum needed for erosion/flood protection as determined by an Erosion Control specialist.
- No material should be placed in any special aquatic site, including wetlands, without agency approval.
- Preference should be given to soft armor and bioengineering techniques whenever possible.
- No material should be placed in any location, or in any manner, so as to impair surface water flow into or out of any wetland area without proper resource agency permitting.
- No material should be placed in a manner that could allow it to be eroded by normal or expected high flows.
- No material should be placed permanently within a surrounding open space or conservation easement area.

3.3.6 Monitoring and Repair of Creek Structures

Stability of creek structures is important to the performance of the creek system and, therefore, an essential monitoring component of the program. Visual monitoring can be used to identify evidence of rock migration and erosion. The creek banks, armor-protected areas and channel are to be monitored on an annual basis. Grade control structures are to be inspected for structural

integrity and stability (Figure 15). The creek banks and channel near all structures should be free of erosion, rills, slumps or landslides. Irregularities should be reported in the monitoring report.

The Kawar Valley contains a tributary to Upper Main Branch. The Kawar Valley monitoring will be limited to pond spillway monitoring and drop structure monitoring. Please refer to the Improvement Plans for Upper Main Branch and Kawar Valley (ENGEO, 2005).

4.0 CREEK PROGRAM - INTERVENING TRIBUTARY to Juncture with Main Branch

4.1 Intervening Tributary Monitoring

The bed and banks of Intervening Tributary should be monitored by the GHAD on an annual basis sometime between May and July, with additional monitoring within two working days after significant rainfalls (one inch or greater in 24 hours). If monitoring indicates that areas of the creek are degraded, eroded, silted or failing to an extent capable of causing a hazard to the Waters of the State or the County infrastructure, the GHAD will implement repairs and maintenance to correct the degradation, erosion, siltation or failure to the satisfaction of involved agencies.

4.2 Procedures for Intervening Tributary

The maintenance and monitoring procedures for Intervening Tributary should include:

1. Monitoring of creek vegetation cover.
2. Monitoring of sediment accumulation and/or debris within the Intervening Tributary channel.
3. Monitoring for creek bank stabilization and/or eroded areas or failures of the creek banks.
4. Monitoring of creek structures.

The GHAD will implement repairs and maintenance to correct any degradation, erosion, siltation or failure to the satisfaction of involved agencies for areas that are capable of causing a hazard to the Waters of the State or the County infrastructure. Vegetative cover along the banks of Intervening Tributary will be maintained as an erosion control and slope stability measure. Native plants and ground covers that require minimal maintenance will be encouraged along creek banks and will be planted as necessary. Vegetative growth along the creek banks and in the creek beds will be monitored for health and the presence of aggressive non-native species or pests as part of the

yearly monitoring program. The stream bed will be monitored for buildup of excess sediment, scour, or erosion.

An annual review should be made to assess the effectiveness of the maintenance program and to make recommendations as to which measures should be modified. Any appropriate site-specific study or recommendation for remedial repair should be determined at that time. All repairs and maintenance to correct the degradation, erosion, siltation or failure should be presented to the involved resource agencies for approval and permitting prior to implementing repairs. Consultants, if necessary, will be retained to undertake the needed studies/repairs.

4.2.1 Emergency Response and Scheduled Remedial Repair

Emergency repairs in Intervening Tributary should be undertaken according to the description of such repairs in the Upper Alamo Creek section of this manual.

4.2.2 Monitoring and Repair of Creek Structures

Monitoring and/or repair of creek structures in Intervening Tributary should be undertaken according to the description of such repairs in the Upper Alamo Creek section of this manual.

4.2.3 Stabilization and/or Repair of Eroded Areas or Failures of the Creek Banks

Stabilization and/or repair of eroded or failed areas of creek banks in Intervening Tributary should be undertaken according to the description of such repairs in the Upper Alamo Creek section of this manual.

5.0 BIORETENTION FACILITY PROGRAM

Three bioretention facilities require monitoring and maintenance by the GHAD. One facility is located on the Alamo Creek project (Figure 3) and two are located on the Intervening project (Figure 2). This portion of the manual describes the operation of the bioretention facilities and outlines a monitoring and maintenance program for use on all three facilities.

The facilities on both Alamo Creek and Intervening properties are constructed to the approximate dimensions shown on the improvement drawings for each facility. Water enters each facility (inflow) at one location and leaves each facility at two locations. The bioretention inflows, inlet and outfalls must be maintained in working condition, free of obstruction and freely draining. Each bioretention facility has an outfall that services the subdrain beneath the sandy medium and an inlet that services the surface but connects to the subdrain outfall. The surface inlet for each facility should be visible and not surrounded by vegetation. The subdrain outfall should be free of obstruction and freely draining, without causing erosion or scour.

Facility function for urban pollutant filtering should be maintained; for this reason, vegetation is planned in the facilities to aid in biological and chemical reactions. Plants are important but should not be allowed to become so large that their root systems clog the subdrains, and pruning, removal and replacement with smaller specimens as well as normal plant care is anticipated to the extent that it does not hinder infiltration of water. The bioretention facilities are designed with a veneer (approximately four inches) of organic material such as well-drained mulch. The consistency of this medium should not be altered during maintenance unless specifically reviewed and accepted by the RWQCB.

Pesticides and herbicides should generally not be used within the facilities as these compounds would add significantly to the pollutant load treated and might cause adverse changes in the biotic mix necessary for proper facility function. Additionally, such chemicals simply add to the

pollutant load leaving the site. Pesticide use should be limited and only used if absolutely necessary for mosquito control, with input from Contra Costa Mosquito and Vector Control District, applicable resource agencies, and in conformance with all applicable rules and regulations.

The following general maintenance activities are considered appropriate for the bioretention facilities and will be discussed in more detail in following sections:

1. Landscape Maintenance - The bioretention facilities may require landscape maintenance to control vegetation growth and improve appearance. Maintenance should limit the vegetation height, allow for a neat appearance and provide for adequate surface flow capacity. Maintenance should be in keeping with generally acceptable landscape maintenance practices.

2. Plant Replacement - All plant replacement materials should be able to tolerate saturated soil conditions for the length of time anticipated in the design storm event (one hour), as well as other anticipated runoff constituents. The bioretention facility needs to be planted with vegetation having low water/fertilizer/pesticide requirements.

3. Debris Control - Litter and debris blocking the filters could contribute to flooding and should be removed. Regular debris removal along the length of the surface drainage system should be undertaken. This includes removal of woody vegetation blocking the flow path, removal of debris blocking facility outlets and inlets and removal of litter from all facilities.

4. Drainage Monitoring - An observation of the drainage system should be performed at least annually and additionally after major storm events. The monitoring should be used to record long-term changes in the system and highlight any needed maintenance to either surface or subdrainage, including the emergency spillway.

5. Filter Media Monitoring - Replacement of the sand or other media within sand filters should not be necessary as part of maintenance activities unless evidence of saturation/ponding is noted during repeated monitoring and the integrity of the discharge piping has been established as functional. The design life of the filter system is generally greater than 50 years (CELSOC, November 2004). Filter medium replacement would only be needed to improve aesthetics or repair systems damaged by high pollutant loads or excessive pesticide/herbicide accumulation. The original percentage of native soil in the sandy medium (specified on the Improvement Plans) should be repeated in any new medium placed in the facilities unless specifically approved by the RWQCB.

6. Access Road Monitoring - Gravel or other access roads should be monitored and maintained in a condition suitable for access vehicle travel. Maintenance should include reapplication of gravel surfacing as necessary to provide access to service vehicles.

As currently planned, the above maintenance will be undertaken by a combination of the HOA and Geologic Hazard Abatement District (GHAD) upon project completion. The GHAD can maintain and manage the bioretention facilities' water quality and drainage aspects and related drainage facilities including the creeks as soon as it takes ownership of these areas according to the GHAD Plan of Control. The HOA will provide landscape contracting, maintenance and litter control within common areas, including the bioretention facilities.

TABLE I
Bioretention Facility Maintenance Matrix

Facility	Ownership Entity	Property Maintenance Funding	Maintenance Entity
1.3. Bioretention Drainage	GHAD*	GHAD Assessment	GHAD
2.4. Bioretention Landscaping	GHAD	HOA**	HOA

* GHAD – Geologic Hazard Abatement District
**HOA - Home Owners Association

Long-term monitoring and maintenance of the bioretention facilities by these entities will generally be funded by tax revenues collected for that purpose.

5.1 Landscape Maintenance/ Plant Replacement

Vegetation may be planted or allowed to become established in the facilities; however, any planting should be irrigated by low-flow drip emitters only. Plant establishment is important because many of the chemical and biological processes that remove pollutants from the system are enhanced by plant growth. Landscape maintenance should include weekly applicable pruning, light feeding, drip irrigation maintenance, mowing and annual mulch placement.

A 4-inch minimum veneer of organic planting medium such as cobbles or mulch should be reapplied annually. The consistency of this medium should not be altered from that indicated on the Improvement Plans during landscape maintenance unless specifically reviewed and accepted by the RWQCB. The mulch layer is important to the bioretention facilities and serves as an important metals and bacterial removal function. The new layer of mulch can be applied over the older layer from the previous year.

Pesticides and herbicides should not be used within the facility as these compounds add significantly to the pollutant load treated in the facility and might cause adverse changes in the biotic mix necessary for proper facility function. Additionally, such chemicals simply add to the pollutant load leaving the site. Pesticide use should be limited and only used if absolutely necessary for mosquito control, with input from Contra Costa Mosquito and Vector Control District, and in conformance with all applicable rules and regulations.

Hardscape used in landscaping must not be continuous over the surface of the bioretention facilities, but can be incorporated into landscaping replacement maintenance. All plant replacement materials should be able to tolerate saturated soil conditions for up to approximately one hour and additionally should have low water/fertilizer/pesticide requirements. Plants can be pruned, and lightly fed as well as serviced with drip irrigation as long as the irrigation system is maintained in a proper working condition. Irrigation systems should not be allowed to leak or malfunction such that excess water is allowed to enter the water quality facilities. An observation of continuous flow in the outfall pipes could be an indication of irrigation system malfunction or overwatering and should be followed up with a system check for proper function.

In summary, the maintenance and monitoring procedures for landscape maintenance/plant replacement should include:

- Pruning, mowing, and light feeding as applicable.
- Checking for proper irrigation system function.
- Annual mulching.

5.2 Debris Control

Maintenance should include routine removal of litter and debris. This removal is anticipated as part of a routine maintenance program and can be incorporated into landscape maintenance.

5.3 Drainage and Filter Media Monitoring and Maintenance

Higher flow events will by-pass the facilities and enter the project storm drain system. If standing water or soggy, saturated soil media are noted during monitoring, it may be an indication of subdrain or outfall clogging and both the subdrain and outfall should be checked for integrity and proper function. The bioretention inflows, inlet and outfalls must be maintained in working condition, free of obstruction and freely draining. The bioretention facilities have an outfall that services the subdrain beneath the sandy media and an inlet that services the surface but connects to the subdrain outfall. The surface inlet for each facility should be visible and not surrounded by vegetation. The subdrain outfall should be free of obstruction and freely draining, without causing erosion or scour.

The bioretention facilities should be monitored for proper function and public safety. Of particular importance is maintaining the ability of the facilities to filter stormwater without clogging or becoming saturated. The facilities are designed to filter the 85th percentile runoff event (approximately the first 1 inch of rainfall runoff) and must function as water quality treatment facilities even if used additionally for recreational or aesthetic uses. To this end, the facilities must not be capped with clayey soils, paved, parked on for extended time or covered.

The surface of the facilities at the inflow locations must be regularly cleared of any excess clayey sediment and leafy litter to enable proper flow characteristics. Failure to do so can create the potential for inefficient functioning. It is anticipated that the gravel inflow apron may need

periodic maintenance and replacement if there is sediment buildup in this location. To replace the gravel apron, the filter fabric and gravel should be removed and the filter fabric replaced with fresh material equal to that specified on the Improvement Plans. The gravel can be reused if the cobbles are not coated with clayey soil.

The surface drainage and filter media function should be monitored twice yearly in May and November with additional monitoring within two working days after significant storm events (i.e. one inch or more of rainfall in a 24-hour period) to evaluate the function of the bioretention facilities. The results will be included in June and December monitoring reports. Inflow and outflow structures and subdrain cleanouts should additionally be checked for proper function and condition and repaired or replaced as necessary.

In summary, the maintenance and monitoring procedures for the surface, subsurface and medium drainage should include:

- Observing inflow, inlet, spillway and outfall locations for function.
- Checking for soggy or saturated soil medium.
- Repairing broken or blocked piping.
- Replacing the inlet gravel apron filter fabric every three years or as needed if sediment build up is visible.

Please refer to Figures 12 through 14 for typical Intervening Property bioretention designs and Bioretention Cell Improvement Plans (dk Associates, 2005) for both Alamo Creek and Intervening Properties bioretention facilities.

6.0 BASIN PROGRAM

Two water quality/detention basins, the Wendt basin and the western basin on Intervening properties, will require monitoring and maintenance by the GHAD. This portion of the manual describes the operation of the basins and outlines a monitoring and maintenance program for use on both basins.

6.1 Water Quality/Detention Basins

Both basins function as both water quality basins and detention basins. The water quality aspect of each basin is designed to treat low flow (2-inch/hr and less) stormwater for pollutants before releasing it downstream. The detention function of each basin is designed to hold higher flow stormwater for an amount of time appropriate for maintaining pre-development peak flows. The dual functions of the basins need to perform in harmony, with the lower few feet of storage reserved for water quality and the remainder of the upper storage reserved for detention.

The basins should be monitored to confirm that they are draining adequately, with residence time that does not significantly exceed the design criteria. The inlet and outlet structures are to be monitored to confirm proper functioning. Remedial procedures for the outlet should be taken immediately if water levels overtop an emergency spillway. Overtopping may indicate the basin outlet structure is ineffective or inoperable, and should be maintained/repaired to prepare for subsequent storm events.

As the basins fill, the rate of discharge from each basin should increase with increased water depth. If standing water is found within either basin during the late summer monitoring event, the basin may not be functioning properly. In that event, repair or redesign of the facility may be required so that the basin remains self-draining. In addition, the basin must be allowed to remain nearly dry for a period of at least six weeks, in order to prevent the breeding of mosquitoes.

The water quality function for urban pollutant settling and removal should be maintained. Vegetation should be promoted on the floor of the basin to aid in the trapping of pollutants and the breakdown of organic compounds. Herbicides will not be used in the basin unless absolutely necessary. Pesticide use will be limited and only used if absolutely necessary for mosquito control, with input from the Contra Costa Mosquito and Vector Control District.

The rate of sediment accumulation should be measured to identify potential need for removal. Some sedimentation is expected within the basin; however, it is a long-term goal of the BMPs to decrease sediment loads leaving the development, so the basin will function as a water treatment facility rather than as a sediment trap. If BMPs on the project are functioning to the expected standard, sediment should not accumulate at a rate requiring removal. Based on experience with similar developments, the volume of sediment leaving completely improved developments often stabilizes to a minimal level once soil is either covered or stabilized with vegetation upon project completion.

Sediment removal is planned only to the extent necessary for proper hydraulic function and should not exceed storm drain sediment removal rates in any other residential subdivision. Prior to sediment removal, the sediment will be observed for contaminants. Records of urban pollutants found in basin sediments will be maintained and forwarded to appropriate agencies.

6.2 Procedures for Basins

6.2.1 Procedures

The side slopes and embankment of the basins should be monitored as part of routine maintenance. The entire perimeter of the basins should be observed for evidence of erosion or slope failures. Any irregularities or failures should be reported immediately to the GGM and appropriate corrective measures employed within a time frame appropriate to the severity of the

problem. Irrigation systems, if present, are to be monitored for proper function. Leaking or malfunctioning irrigation systems will be repaired within two days of inspection.

Routine maintenance, including removal of litter and coarse debris, vegetation control, and cleaning of inlet and outlet structures should be performed as part of regularly scheduled monitoring or in a timely manner following monitoring visits. In addition to twice-yearly scheduled monitoring, special monitoring visits should be carried out during or after large precipitation events as necessary to maintain the facilities in proper functioning condition.

Twice-yearly monitoring of the basins is planned during May and November with additional monitoring within two working days after significant storm events, i.e. one inch or more of rainfall in a 24-hour period. Technicians retained by the GHAD will carry out site monitoring. The GGM will ultimately be responsible for determining the need for more frequent monitoring. All personnel and subcontractors involved in management of the drainage facilities will be educated on reading any gauges, proper pruning/cutting techniques and monitoring measures by the GGM. Sample Monitoring Reports are included at the end of this manual.

An annual review shall be made by the GGM to assess the effectiveness of the monitoring and maintenance program and to make recommendations to the General Manager as to which measures should be undertaken in the next fiscal year. The GGM should submit an annual Program Review report to the Board of Directors verifying that performance goals are being attained. Any appropriate site-specific study or request for remedial repair shall be determined at that time. If necessary, consultants will be retained to undertake the needed studies/repairs.

6.2.2 Maintenance Tasks

Procedures for the following basin maintenance items are presented in the following sections of this manual:

- Maintenance of access roads to basins.
- Monitoring any perimeter fencing for public safety.
- Sediment and vegetation management.
- Mosquito abatement.
- Monitoring water height in water quality/detention basins.
- Maintenance of the facility inlets.
- Maintenance of facility outflow/trash rack structures.
- Maintenance removal of standing or ponded water in facilities, if necessary.
- Repair tasks resulting from monitoring notes.
- Stabilization and/or repair of eroded or failed areas on the embankment surrounding the basin.
- Monitoring creek bank meandering in the vicinity of the Wendt basin and repair or restoration of creek banks that could affect basin stability.
- Monitoring and repair as necessary of the concrete slurry and geogrid revetment walls at the Wendt basin.

6.2.3 Maintenance of Access Roads

Maintenance of access roads is crucial to maintenance and monitoring operations. Maintenance of access roads will involve repair of excessive bumps, cracks and depressions such that maintenance vehicles can easily navigate the roads. The roadways will be inspected on a twice yearly basis in May and November and repaired through re-grading, weed removal or placement of additional gravel as necessary to assure all weather, easy vehicular access. Any damage to access roads or failures of the embankments near roads will be reported to the GGM immediately. If weed removal is necessary, it should be undertaken in the late Spring.

6.2.4 Fencing Repair

The Contra Costa County Conditions of Approval require installation of fencing and signage around all detention basins for public safety. Maintenance of fencing involves repair of all gaps, tears, sags and breaks such that public safety is provided. All perimeter fencing will be monitored twice yearly in May and November and maintained in good condition without breaks or damage. Figure 8 shows the general design for the Wendt basin chain link fence.

6.2.5 Sediment and Vegetation Management

The floor of the water quality/detention basins must be cleared of excess sediment and excess vegetation as necessary to enable proper flow characteristics. Failure to do so can create flood hazards; however, a vegetative growth of less than 5 feet in height contributes to pollutant trapping and is valuable for the basins.

GHAD personnel are to monitor the sediment and vegetation accumulation on the floor of the water quality/detention basins on a twice-yearly basis in May and November. Sediment accumulation may be measured with installed staff gages or a measuring tape from a stationary point of reference, and vegetation accumulation can be measured with a measuring tape within the basin floor.

If sediment has accumulated in excess of 10 percent of the basin storage capacity the accumulated sediment should be removed. If vegetation in excess of 5 feet in height is present, it should be trimmed. Although vegetative growth is generally encouraged, excess vegetation (defined as shrub and tree growth in excess of 5 feet in height) must be trimmed or removed from the basin floor by pruning. Mechanical and hand weeding methods are preferred. In instances where mechanical control alone is not effective, systemic contact herbicides such as glyphosate may be necessary. All herbicides must be applied by a licensed operator, and must be

EPA-approved for the specific weed and situation (either wetland or upland). The project biologist must be present to supervise all spraying or wicking to ensure that the application avoids desired native plants. Areas where vegetation is removed or destroyed during maintenance should be seeded with a native grass seed mix (Table B) and covered with erosion control fabric.

Sediment will be removed in small sections, with as little disturbance to existing vegetation as possible. Prior to removal, the sediment will be observed by the GGM for odors or visual signs of the following:

- Phosphorus and nitrogen
- Oil and grease
- Title 22 metals
- Organophosphorus pesticides
- Chlorinated pesticides

Indications of these substances include excess algae or fungal growth, shiny or oily surfaces, distressed vegetation, or a significant absence of insects. If indications of these substances are present, the GGM will initiate sampling and testing of the sediment prior to removal. If soil sampling and testing are determined necessary by the GGM, the soil samples may be collected for transportation to a State-certified analytical laboratory for testing.

If the results of testing indicate that the sediment contains contamination above state regulatory thresholds of any contaminants including the above, the affected sediment shall be removed and transported off site for remediation/disposal. If no contamination is detected, the sediment can be disposed of in a legal manner or placed and spread evenly in open space areas reviewed by a Geotechnical Engineer. The sediment will not be placed within 20 feet of a designated wetland area, creek or drainage, including v-ditches. The sediment will not be placed on sloping ground.

After spreading, the sediment will be seeded with a native grass seed mix (Table B) and covered with straw mulch.

6.2.6 Mosquito Abatement

It is possible that mosquito abatement will not be required in the water quality/detention basins due to the drying cycle in the summer months; however, mosquito abatement and monitoring will be necessary year round in the creeks and streams by Contra Costa County Vector Control. If homeowner complaints are received by the GHAD, the GHAD will contact Contra Costa County Vector Control.

6.2.7 Water Quality/Detention Basin Inflow

It is of utmost importance that the inflow structure of the water quality/detention basin function properly, substantially free of debris or other obstructions. The basin inflow should be visually observed twice yearly in May and November and after all storm events generating one inch or more of rainfall in 24 hours. The inflow is to be maintained in good condition without obstruction. If any more that one-quarter of the inflow structure is obstructed, remedial maintenance should be performed immediately if possible. If immediate attention is not possible or additional equipment is needed, the repair or maintenance should be scheduled to take place within the shortest time possible. Figure 5 shows the general inflow design for the Wendt basin.

6.2.8 Water Quality/Detention Basin Outflow Structures

The basin outflow, trash rack and emergency spillway will be monitored twice yearly in May and November and after all storm events generating one inch or more of rainfall in any 24-hour period. The spillway should be additionally monitored after any event that causes flow over the spillway. The outlet and spillways will be maintained in good condition without obstruction.

The outlet should additionally be observed for signs of erosion at the edges of the structure. The outlet structure and trash rack should be cleaned both as part of routine maintenance as well as on an as-needed basis if any portion of the structure becomes obstructed. Any debris accumulating on the trash rack is to be removed. The grate will be removed if necessary to clean debris accumulated within the structure. The trash racks and emergency spillways will be maintained and repaired as necessary to allow proper function. Figure 6 shows the general outflow design for the Wendt basin. Figure 9 shows the general emergency spillway design for the Wendt basin. Please refer to the Improvement Plans for the basins (dk Associates) for detailed design information.

6.2.9 Maintenance Discharges

Maintenance discharges are limited to those approved by the GGM. Before approving the removal of water or sediment from the drainage facilities, the GGM will consider the following factors:

- The size and age of the facilities.
- The construction quality of the facility.
- The maintenance history.
- Whether the facility has been functioning at capacity and for how long.
- Present vs. original stormwater control needs.
- Whether sensitive/unique functions and values may be adversely affected.

Water removed from the drainage facilities for maintenance will be spread evenly in open space areas previously approved by the GGM, or trucked to an approved water disposal site. The water will not be directly released into Alamo Creek or its tributaries.

Soil removed for the maintenance of the facilities will be spread evenly in open space areas previously reviewed by a Geotechnical Engineer. The soil will not be placed within 20 feet of a designated wetland area, creek or drainage. The soil will not be placed on ground that has a

slope greater than 10 percent. After spreading, the soil will be hand-seeded with native mix and covered with straw mulch or erosion control fabric.

6.2.10 Repair Tasks

In determining the need for repairs to basins, embankments, spillways, inlets or outlets the GGM will consider the following factors:

- Any original mitigation required.
- The current environmental setting.
- Any adverse effects of the repair project that were mitigated in the original construction.

The GGM will immediately undertake maintenance for completion of any basin problems, provided that the GGM establishes a schedule for the identification, approval, development, construction and completion of the required repair in accordance with current policy.

6.2.11 Embankment Stabilization

The embankments of the water quality/detention basins must be maintained in a stable state. The water quality/detention basins were designed to remain stable throughout the life of the projects; however, if any areas of weakness, seepage or piping are noted during the monitoring process, stabilization must be undertaken in a timely fashion. The sides of the basins are to be monitored on a twice-yearly basis. Plantings and other vegetation are to be observed for health and vigor. The embankment sides should be free of erosion, rills, slumps or landslides. All embankment slope irregularities should be reported to the GHAD Board of Directors in the monitoring report. Irrigation systems, if present, are to be monitored for proper function. Leaking or malfunctioning irrigation systems will be repaired within two days of observation. The Wendt basin perimeter was designed with two additional structures that should be noted:

- A concrete slurry wall located north of the basin between the buffalo wetland and the basin for the purpose of minimizing subsurface water movement from the wetland towards the basin (Figure 10) and,

- A geogrid revetment wall constructed near the southwestern embankment between the basin and Intervening Tributary for the purpose of protecting the basin from lateral creek movements (Figure 11).

These two structures are both constructed below ground and monitoring events should note any changes to the ground surfaces in these general vicinities that could potentially affect the structural integrity or long term functioning of either the slurry wall or the geogrid revetment wall.

MONITORING AND MAINTENANCE SCHEDULE

The following schedule for monitoring and maintenance is recommended. The schedule is a guideline and may be modified as needed when conditions change in order to fulfill the overall creek maintenance goals. Complete stormwater monitoring visits can be performed on the following schedule:

TABLE A

MONITORING SITE	SCHEDULE	MONITORING TYPE
Bioretention Facilities	Twice annually in May and November and after 1.0 inch or more of rainfall in a 24-hour period	1. Plant health/need for replacement or pruning 2. Removing accumulated litter and debris 3. Monitoring for standing water 4. Monitoring inlets and outlets 5. Routine access roadway maintenance check
Upper Main Branch Alamo Creek; Intervening Tributary	Annually in May with additional monitoring within two working days after significant storm events, i.e. one inch or more of rainfall in a 24-hour period.	1. Bed and Bank Stability 2. Sediment Discharge Monitoring 3. Hydromodification Monitoring 4. Channel and Bank Monitoring 5. Structures 6. Vegetation Performance Criteria 7. Results compiled in June and December
Water Quality/Detention Basins	Twice annually in May and November and after at least 1.0 inch of rainfall in a 24-hour period post-construction	1. Maintenance of access roads to basins. 2. Monitoring any perimeter fencing for public safety. 3. Sediment and vegetation management. 4. Mosquito abatement. 5. Monitoring water height in water quality/detention basins. 6. Maintenance of the facility inlets. 7. Maintenance of facility outflow/trash rack structures. 8. Maintenance removal of standing or ponded water in facilities, if necessary. 9. Repair tasks resulting from monitoring notes. 10. Stabilization and/or repair of eroded or failed areas.
Kawar Valley	Annually in May	1. Pond spillway and creek grade control structures

June: Submit semi-annual reports for Hydraulic Function/ Creek Stability to Contra Costa County Public Works Engineering Services Division.

December: Submit semi-annual reports for Hydraulic Function/ Creek Stability to Contra Costa County Public Works Engineering Services Division.

TABLE B
Erosion Control Seed Mix

SCIENTIFIC NAME	COMMON NAME	QUANTITY
Elymus X Triticum	Regreen Hybrid Wheatgrass	80 lbs/acre
Fiber Mulch	Mulch	2,000 lbs/acre
Fertilizer (7-2-3)	Fertilizer	800 lbs/acre
Tackifier	Tackifier	200 lbs/acre

TABLE C

Wendt /Intervening Basins Maintenance Table

DESIGN CRITERIA	MAINTENANCE INDICATOR	FIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE ACTIVITY
Basin design drain time is no greater than 72 hours	Drains in more than 72 hours	Determine drain time based on discharge flow meter readings (if installed) or visual observation	After completion or modification of the facility, twice yearly in May and November and within 2 working days of a rainfall event of 1.0 inch or greater in any 24-hour period	• If time too long, open gate to discharge remaining volume, within 1 day of observation. Per direction from design engineer, modify holes on standpipe after basin drains, within 30 days of observation. • Remove and dispose of debris/trash from outlet structure while onsite conducting inspection.
Vegetation Height	Average plant height greater than 60-inches, or less than 70 percent coverage (see below)	Visual observation and random measurements throughout the planted areas	Twice yearly in May and November	Cut vegetation to an average height of 60-inches and remove trimmings or reseed/plant. Target completion period within 30 days.
Adequate vegetative cover	Less than 70 percent coverage	Visual observation	Twice yearly in May and November	Reseed/replant barren spots by Oct. 1. Scarify surface if needed. If after two applications (2 seasons) of reseeding/replanting growth is unsuccessful, an erosion blanket will be installed along bare areas.
Vector control	Standing water for more than 72 hours	Visual observation	Twice yearly in May and November and within 2 working days of a rainfall event of 1.0 inch or greater in any 24-hour period	Immediately notify VCD for vector abatement assessment.

DESIGN CRITERIA	MAINTENANCE INDICATOR	FIELD MEASUREMENT	MEASUREMENT FREQUENCY	MAINTENANCE ACTIVITY
Inlet and outlet structures should be free of accumulated trash and debris	Debris/trash present	Visual observation	Twice yearly in May and November and within 2 working days of a rainfall event of 1.0 inch or greater in any 24-hour period	Remove and dispose of trash and debris. Target completion period within 10 days.
Sediment Accumulation	Sediment depth averages 18-inches or 10 percent of basin volume which ever is less	Measure depth at apparent maximum and minimum accumulation of sediment. Calculate average depth	Twice yearly in May and November and within 2 working days of a rainfall event of 1.0 inch or greater in any 24-hour period	Prior to removal, GGM shall observe the sediment for odors or visual signs of pollutants. Remove and properly dispose of sediment per the Operation and Maintenance Manual. Regrade and revegetate if vegetation coverage drops below 70 percent during removal.
General Maintenance	Inlet structures, outlet structures, trash racks, side slopes or other features, significant erosion, seepage, emergence of trees or woody vegetation, graffiti or vandalism, fence damage, etc.	Visual observation	Twice yearly in May and November and within 2 working days of a rainfall event of 1.0 inch or greater in any 24-hour period	Within 10 working days, take corrective action. Consult engineers if immediate solution is not evident.

LIST OF FIGURES

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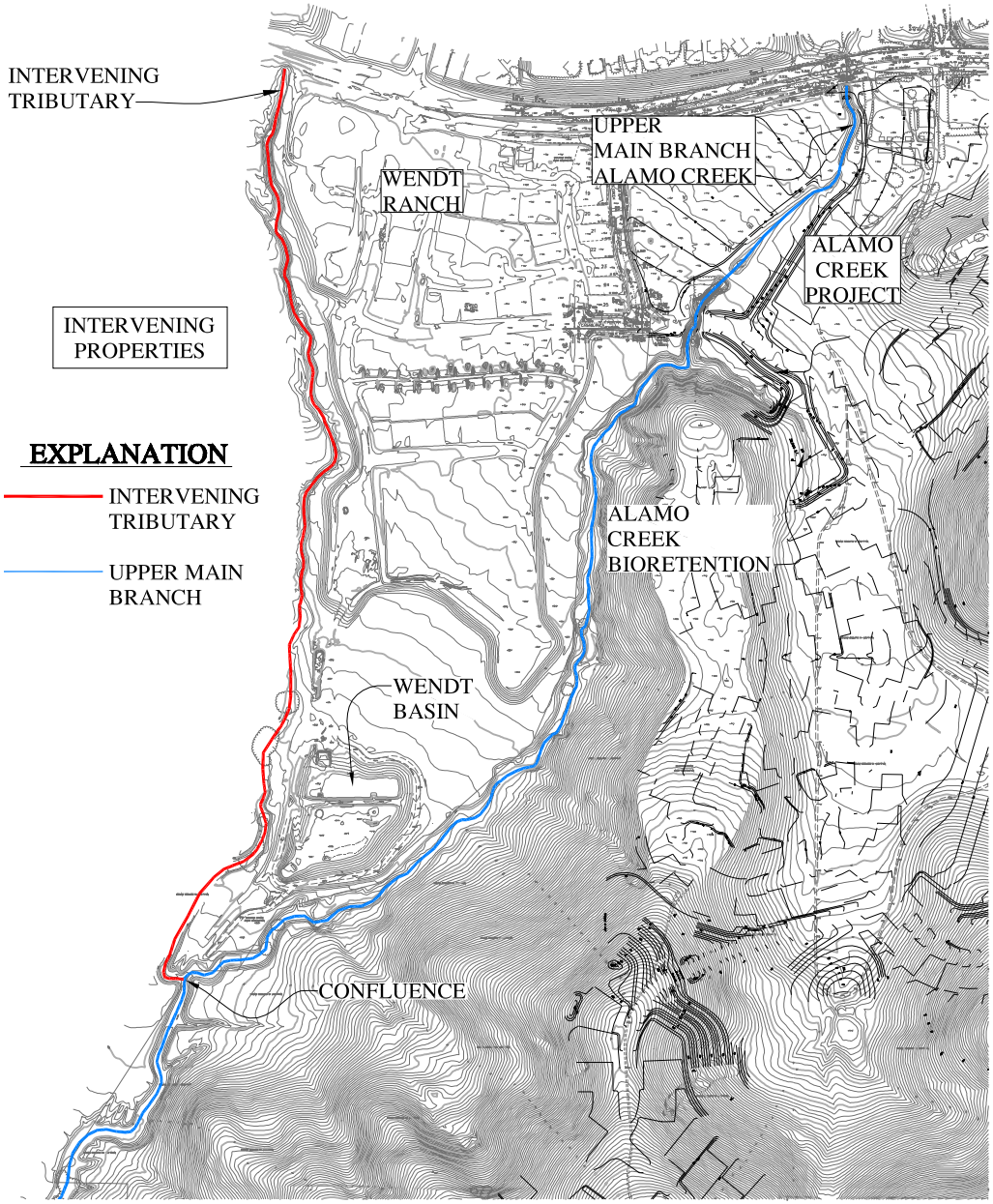

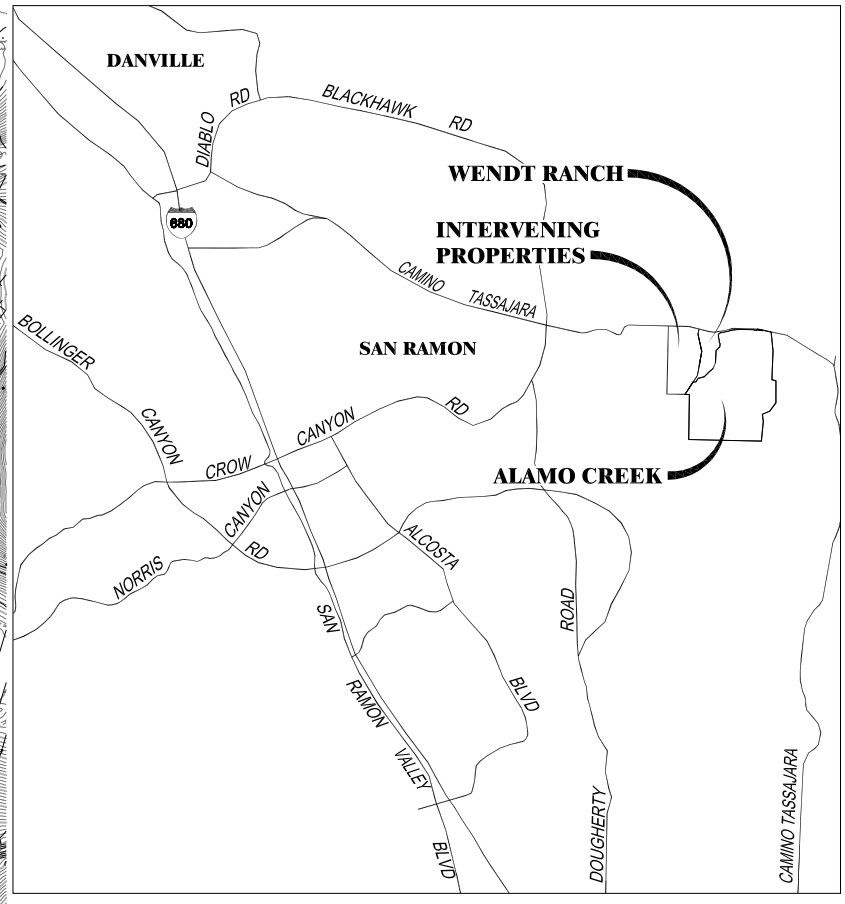

VICINITY MAP

BASE MAP SOURCE: dk ASSOCIATES

NO SCALE

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VICINITY MAP
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01	FIGURE NO. 1
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BASE MAP SOURCE: dk ASSOCIATES

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INTERVENING PROPERTIES WATER QUALITY FACILITIES

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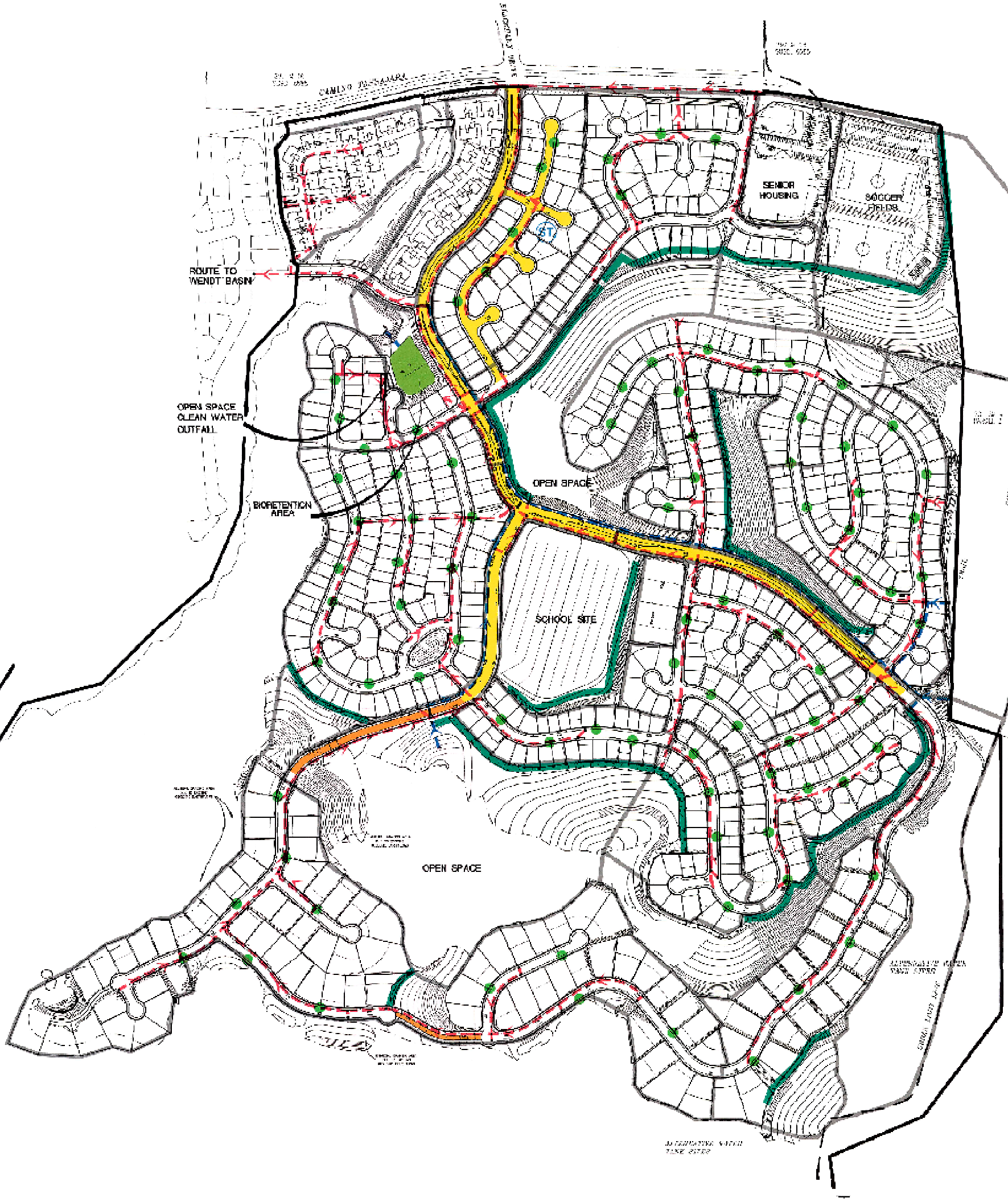

EXPLANATION

- WATERSHED BOUNDARY
- VEGETATED BUFFER STRIP
- DIRECTION OF FLOW, STORMDRAIN SYSTEM
- AREAS WHERE STREETS AND SIDEWALKS REDUCED/ROADSIDE BIOFILTER STRIPS ADDED
- AREAS WHERE HARDSCAPE REDUCED/NARROWED WITHOUT BIOFILTER STRIPS
- ALAMO CREEK BIORETENTION FACILITY LOCATION
- APPROXIMATE TREE WELL LOCATION

N

BASE MAP SOURCE: dk ASSOCIATES

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ALAMO CREEK WATER QUALITIES FACILITIES
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CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 3
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DK ASSOCIATES INC.

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WENDT RANCH BASIN
GHAD O&M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.3.050.01		FIGURE NO. 4
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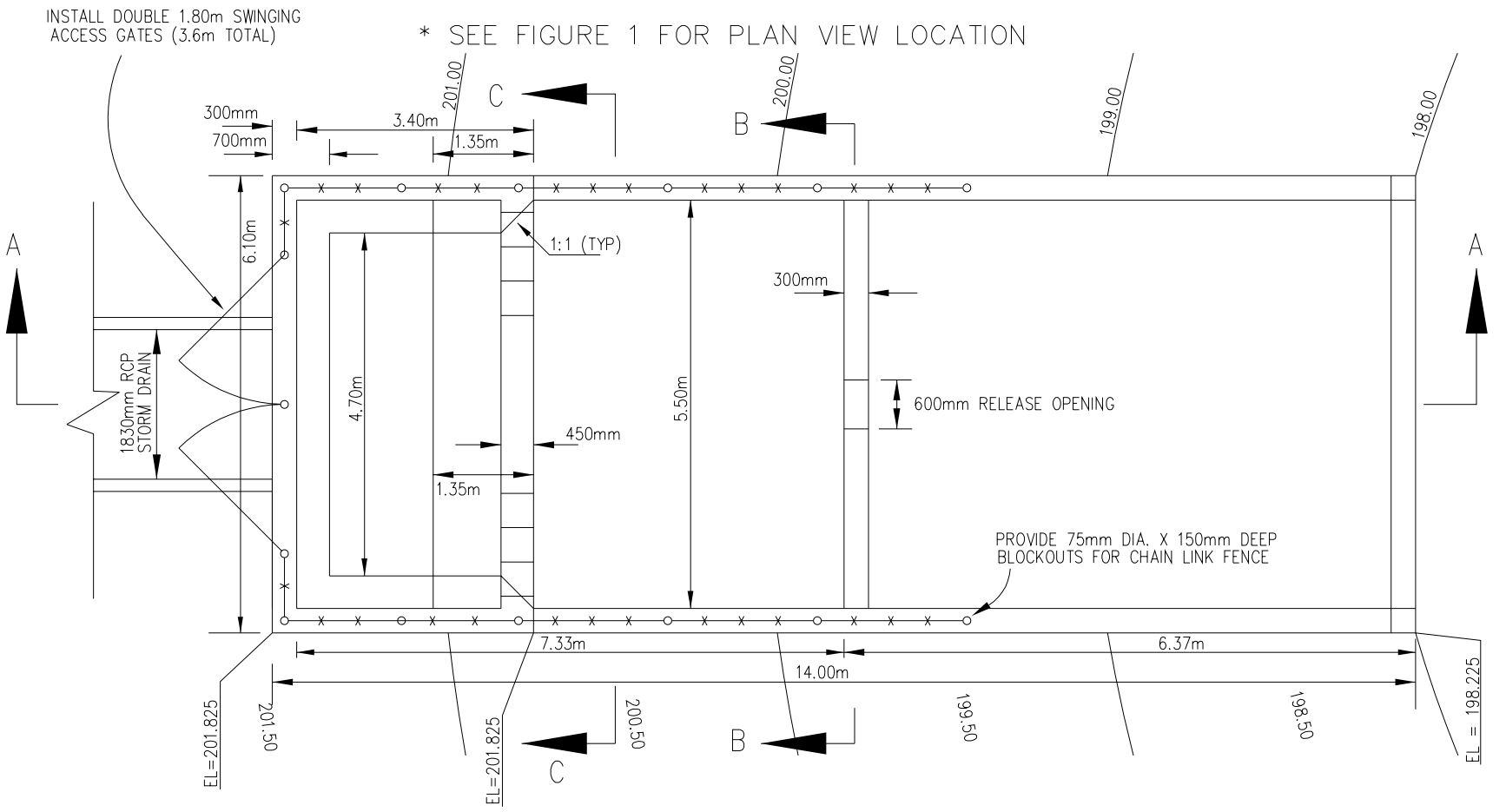
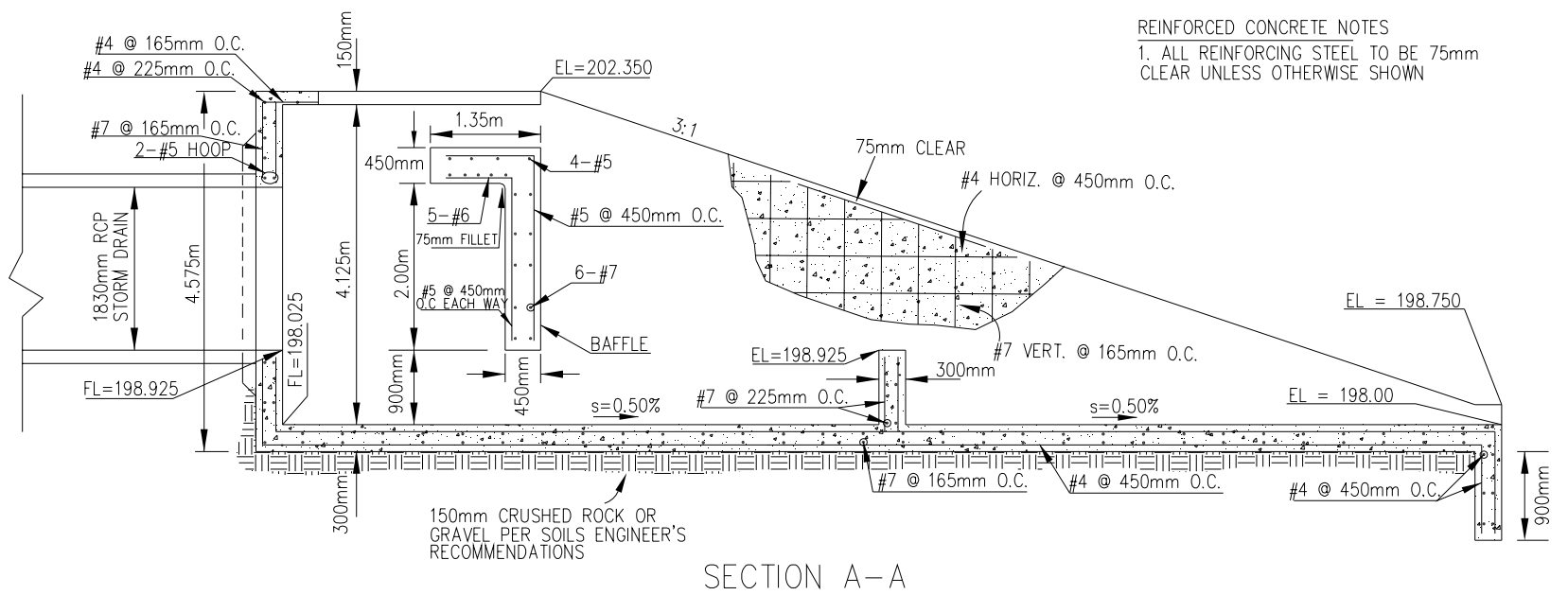
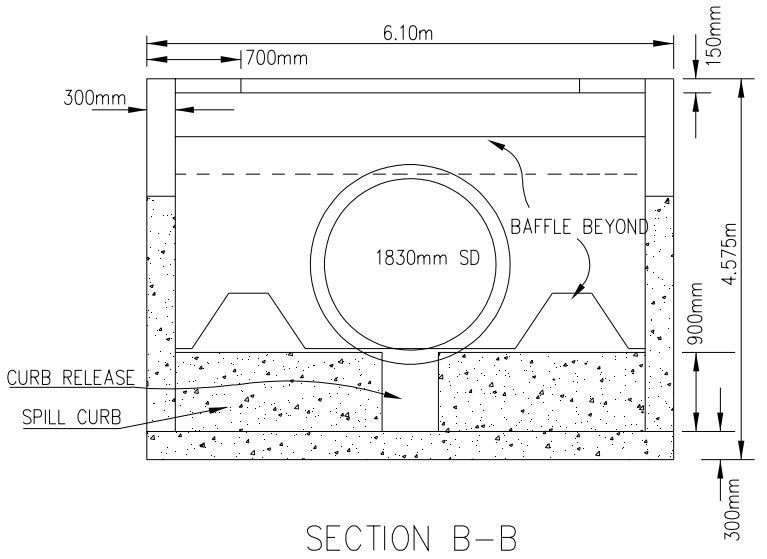


MATERIAL SPECIFICATIONS
f'_c = 3250 PSI (CONCRETE)
f_y = 60 KSI (REBAR)

REINFORCED CONCRETE NOTES
1. ALL REINFORCING STEEL TO BE 75mm CLEAR UNLESS OTHERWISE SHOWN



SECTION A-A



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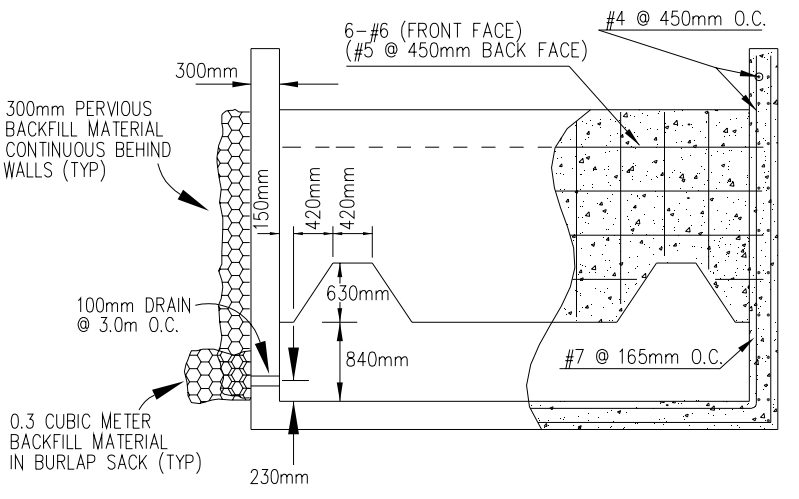

SECTION C-C

BASE SOURCE: dk ASSOCIATES

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WENDT STORM DRAIN OUTFALL TO BASIN
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CONTRA COSTA COUNTY, CALIFORNIA

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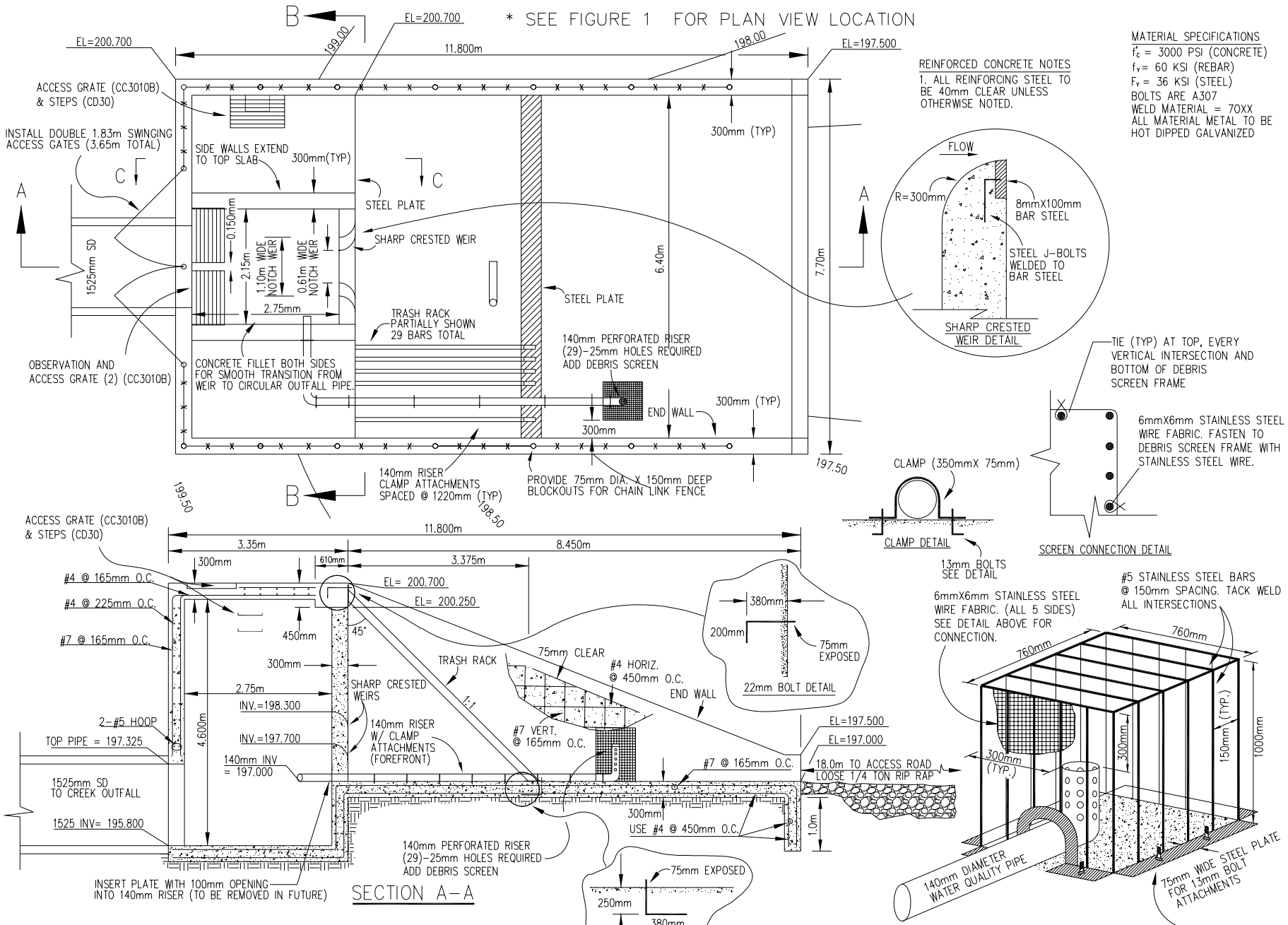

BASE SOURCE: dk ASSOCIATES

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INLET PIPE OUT OF DETENTION BASIN - WENDT RANCH
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

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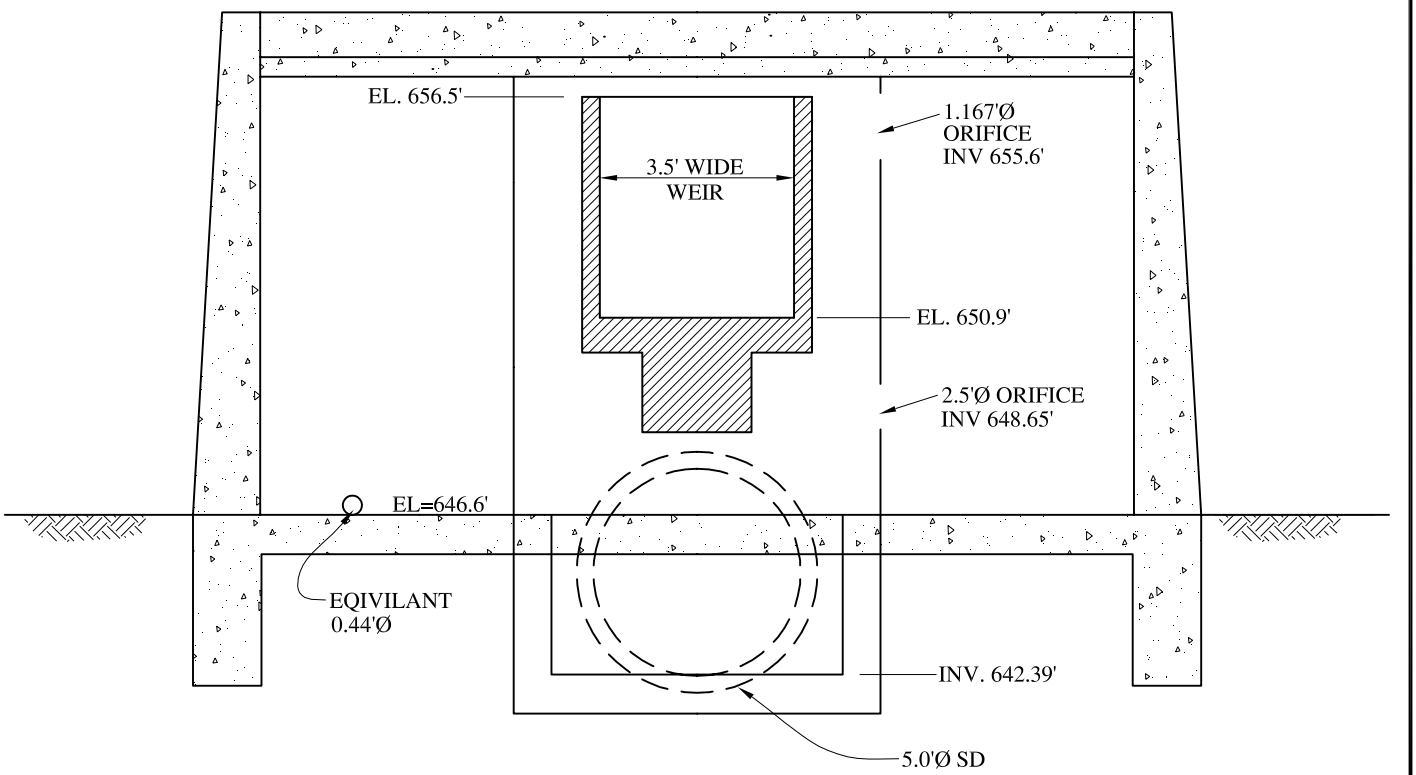

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WENDT BASIN OUTLET STRUCTURE

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CONTRA COSTA COUNTY, CALIFORNIA

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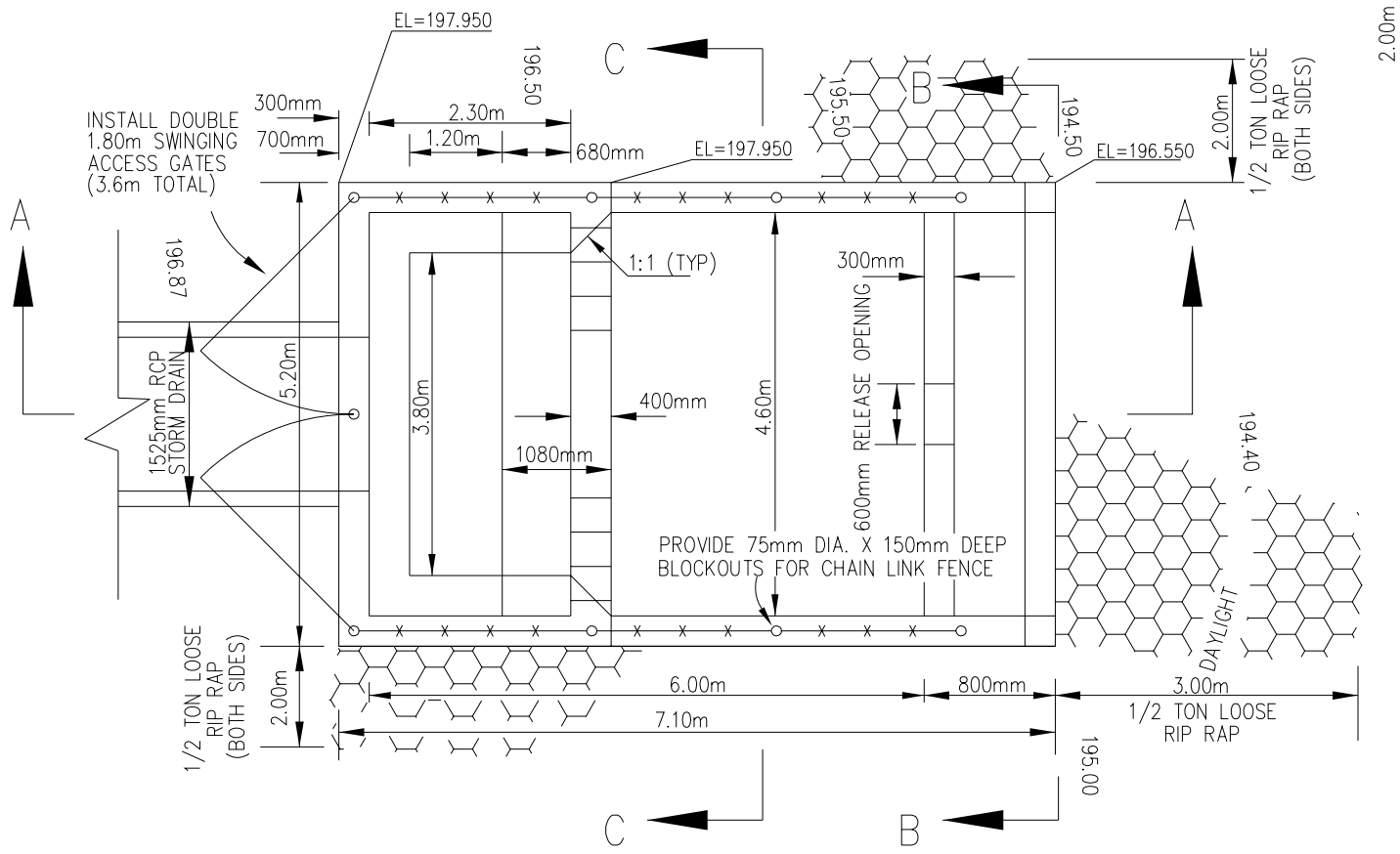


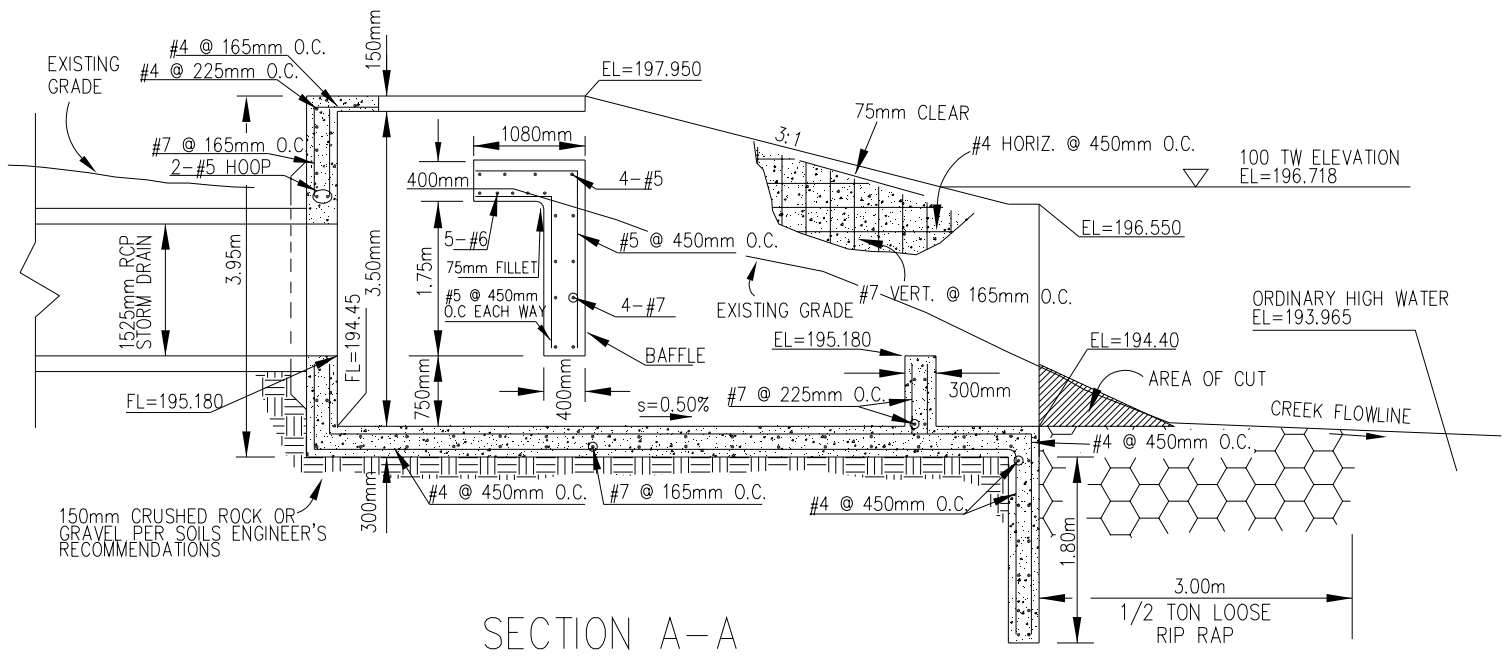
REINFORCED CONCRETE NOTES

1. ALL REINFORCING STEEL TO BE 75mm CLEAR UNLESS OTHERWISE SHOWN

MATERIAL SPECIFICATIONS

f'_c = 3250 PSI (CONCRETE)

f_Y = 60 KSI (REBAR)



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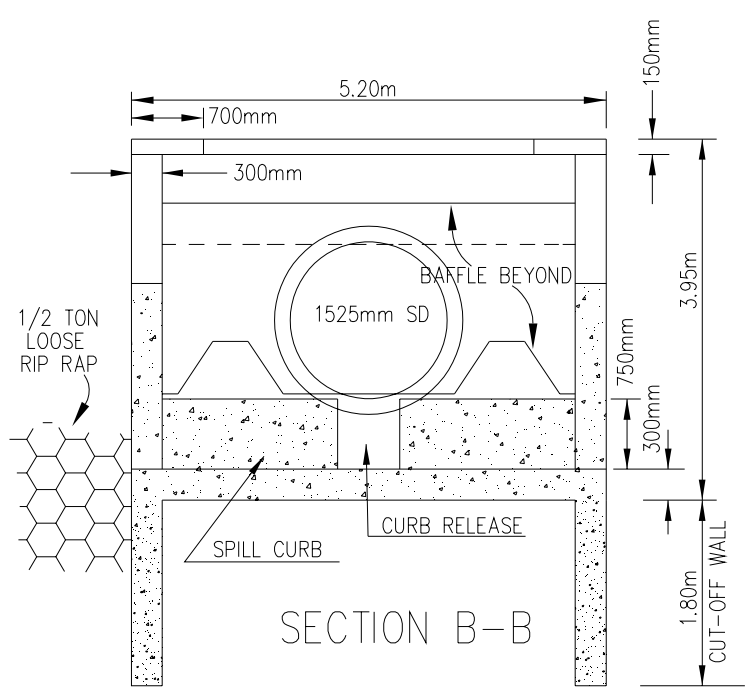

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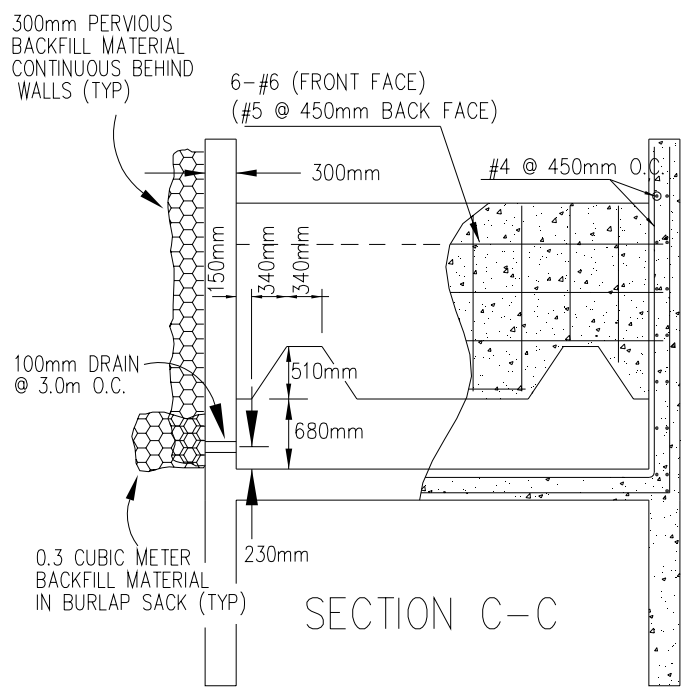

SECTION C–C

BASE SOURCE: dk ASSOCIATES

NO SCALE

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

CREEK OUTFALL - WENDT BASIN
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01	FIGURE NO. 7
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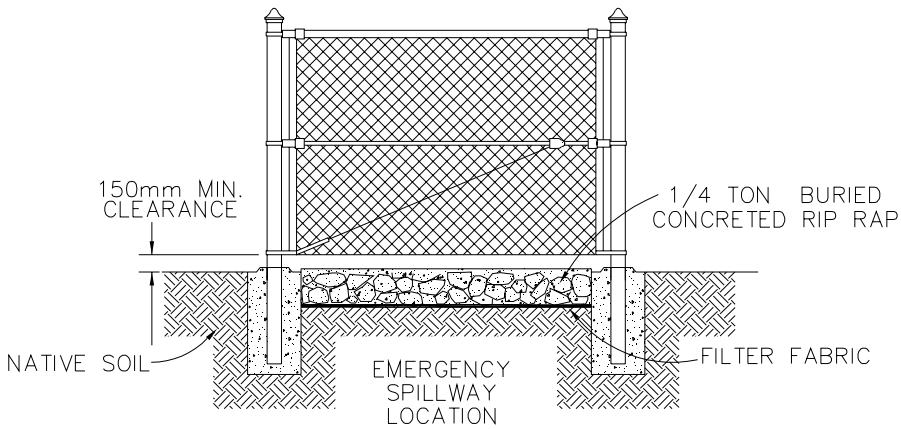

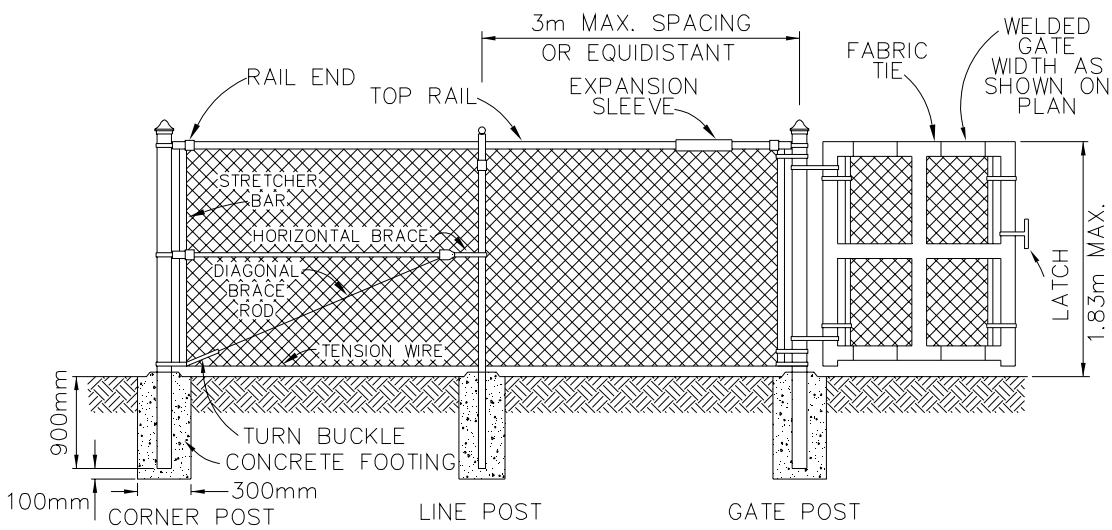

BASE SOURCE: dk ASSOCIATES

NO SCALE

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CHAIN LINK FENCE DETAIL - WENDT BASIN

GHAD O & M

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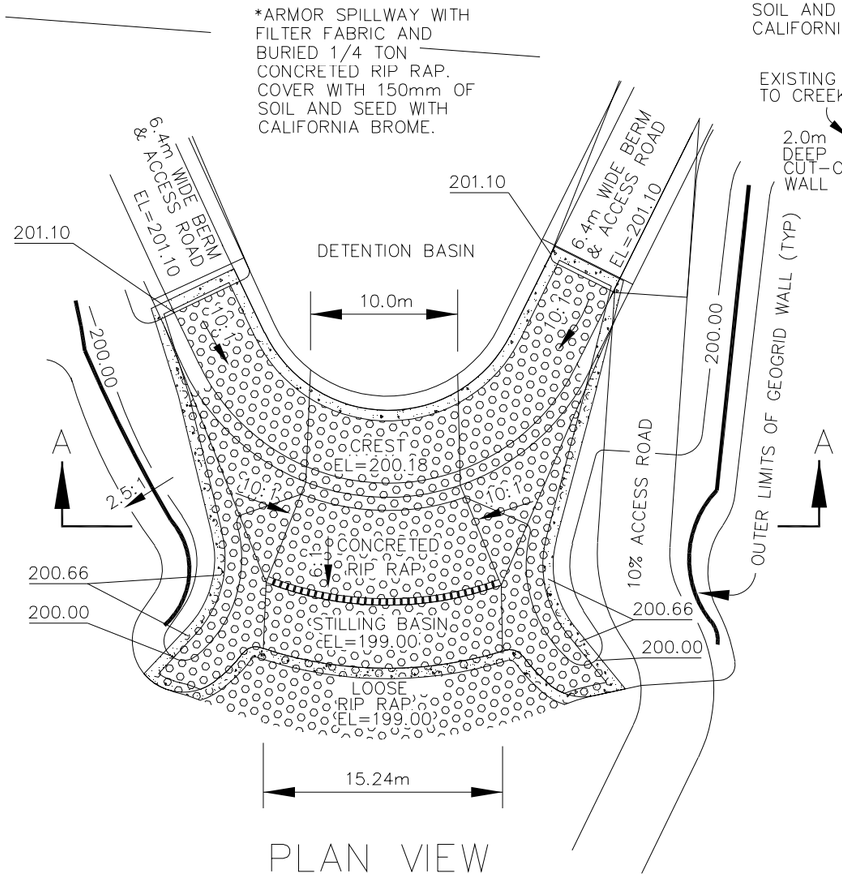
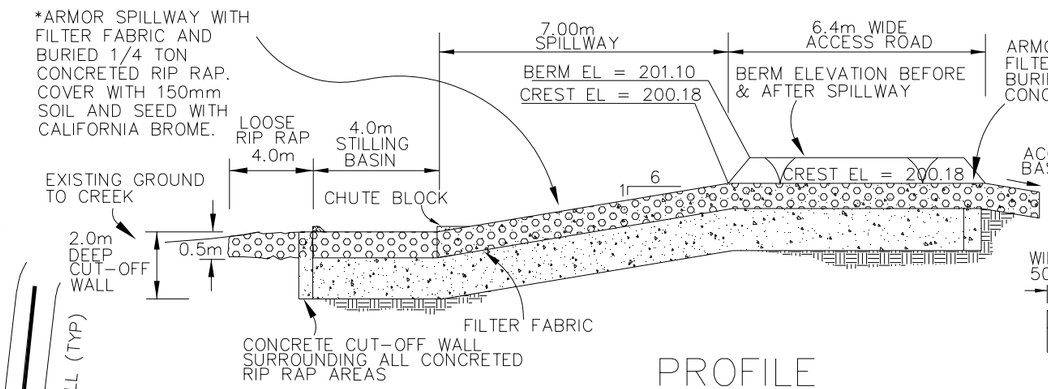
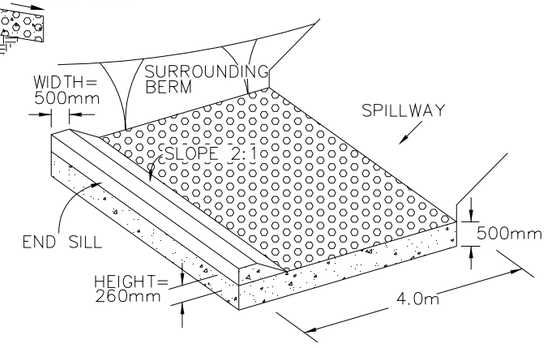


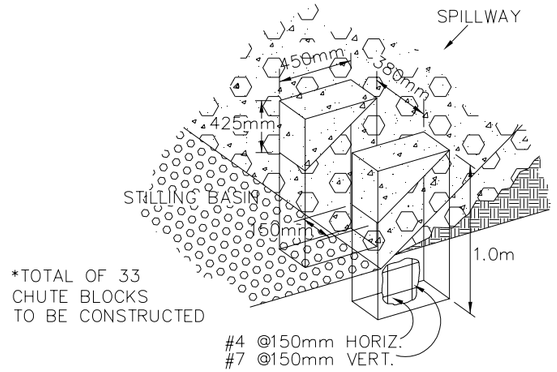
PLAN VIEW



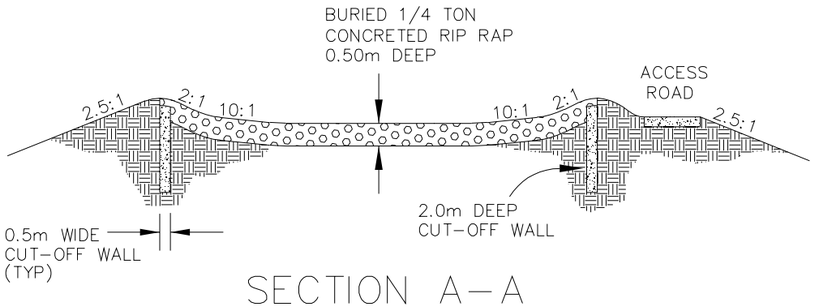
PROFILE



STILLING BASIN



CHUTE BLOCKS



SECTION A–A

BASE SOURCE: dk ASSOCIATES

NO SCALE

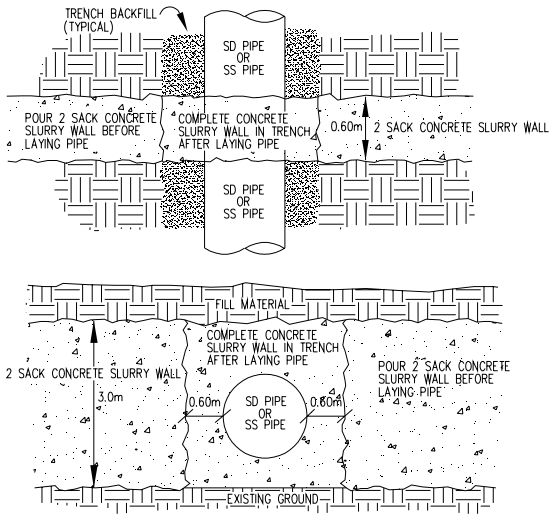
ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

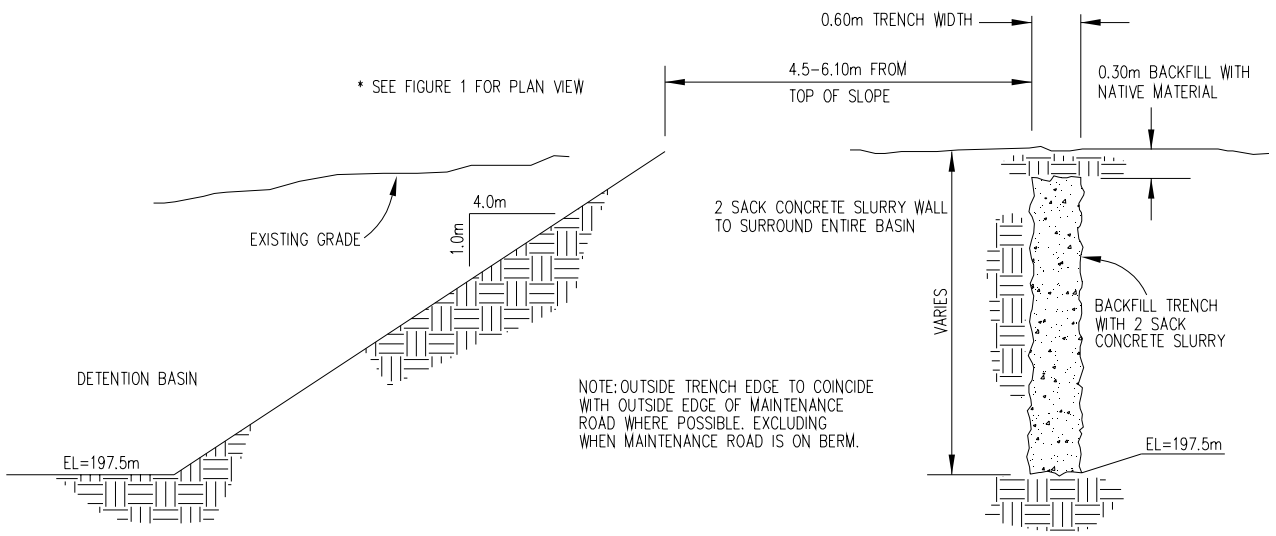
EMERGENCY SPILLWAY - WENDT BASIN
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 9
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	

ORIGINAL FIGURE PRINTED IN COLOR

G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-5_11WendtRanchBasinDtls-0505.dwg





BASE SOURCE: dk ASSOCIATES

NO SCALE

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

CONCRETE SLURRY WALL - WENDT BASIN

GHAD O & M

CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 10
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	

ORIGINAL FIGURE PRINTED IN COLOR

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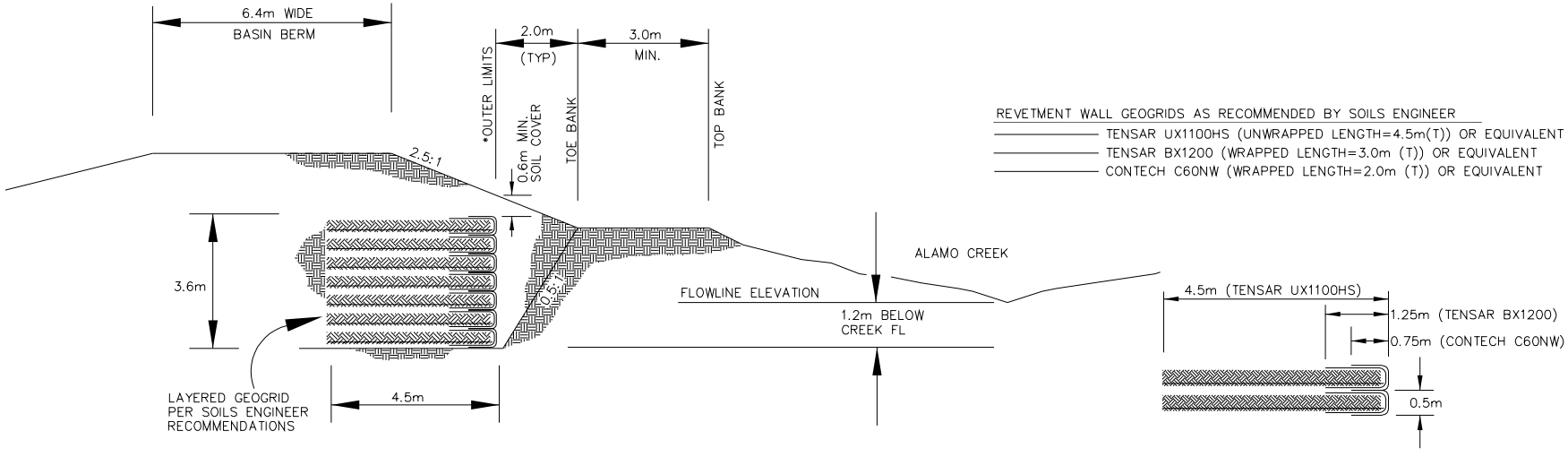


BASE SOURCE: dk ASSOCIATES

NO SCALE

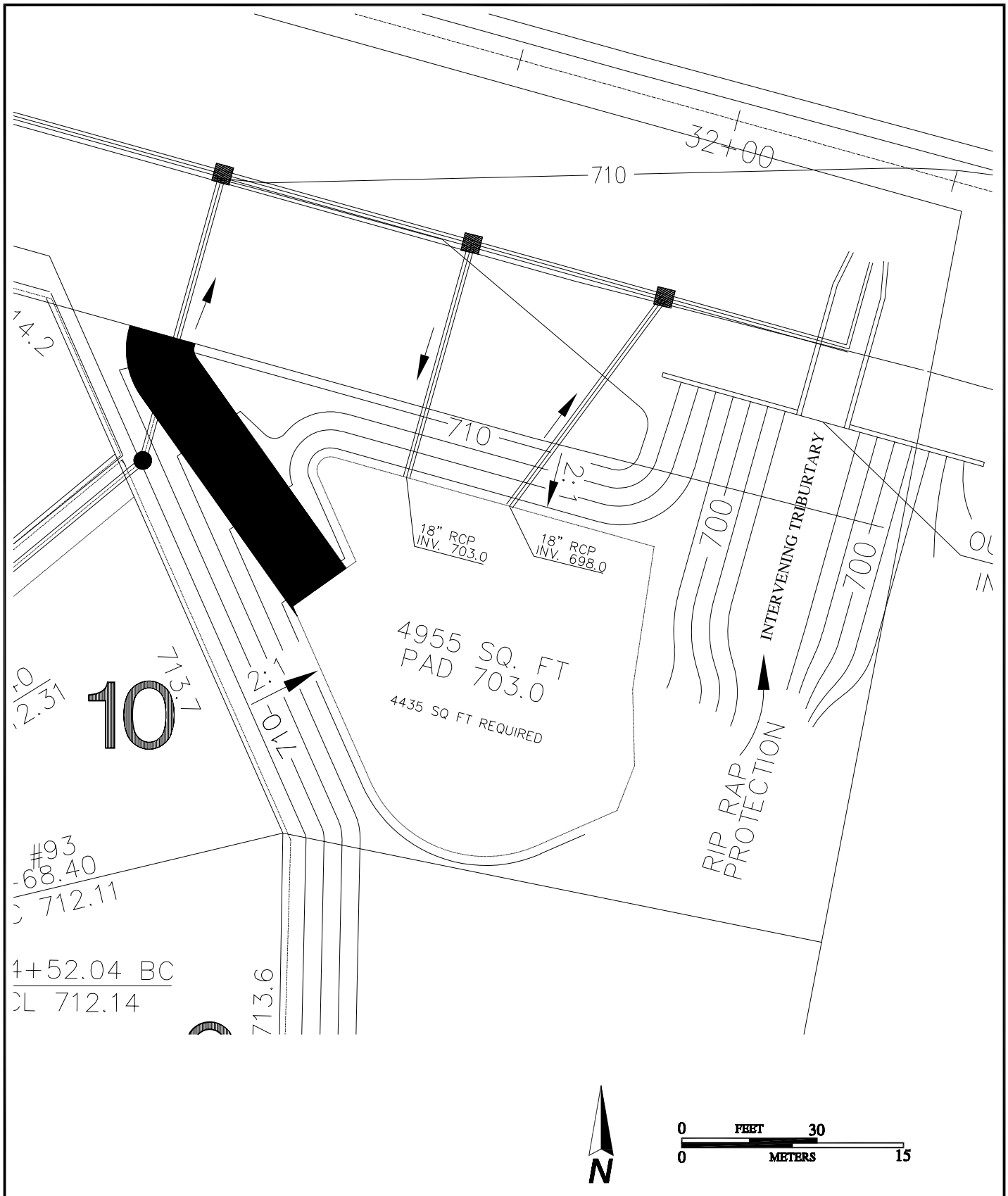
ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

GEOGRID REVETMENT WALL - WENDT BASIN

GHAD O & M

CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 11
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	

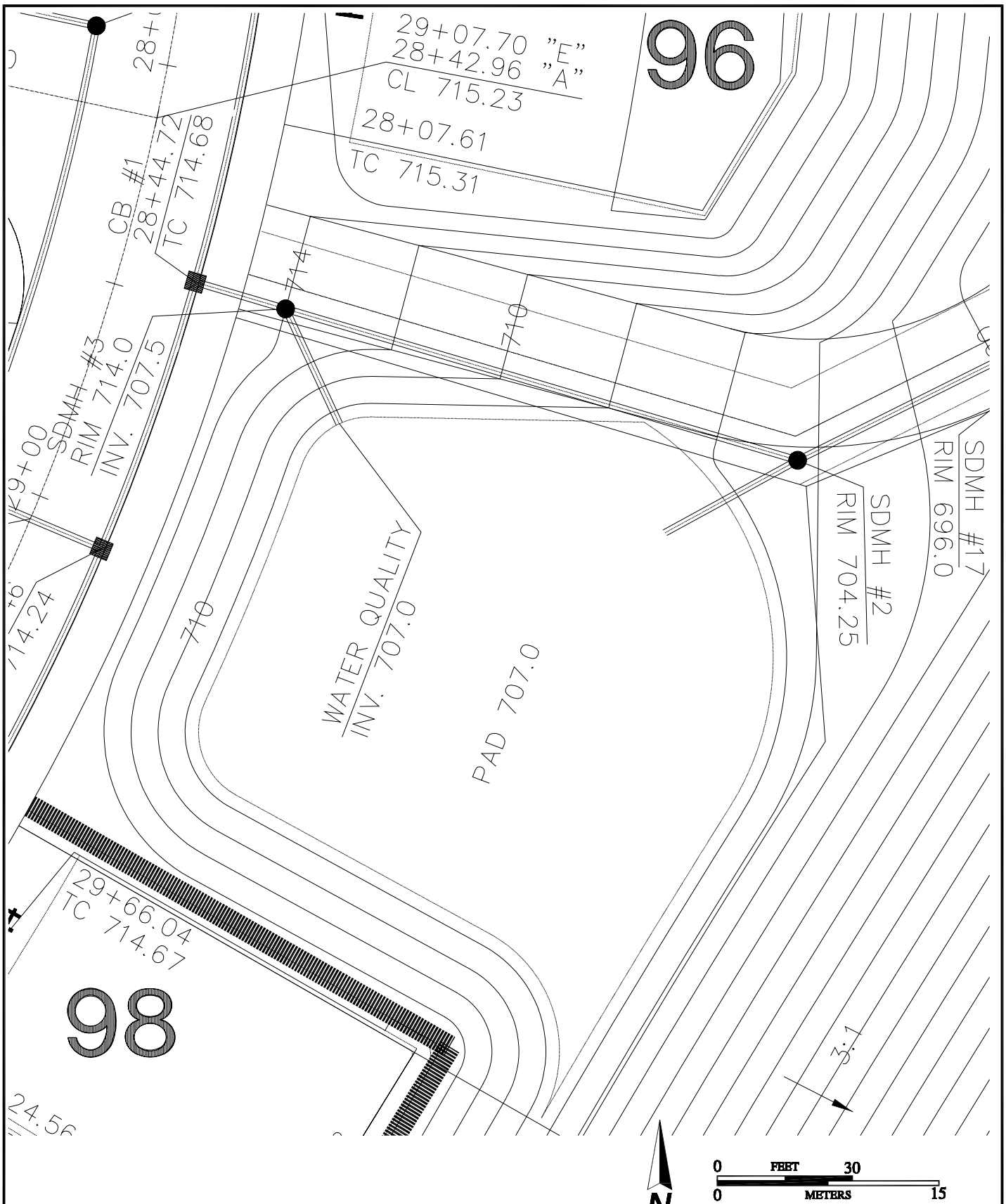


BASE MAP SOURCE: dk ASSOCIATES

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

INTERVENING PROPERTIES - NORTHEAST BIORETENTION CELL
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 12
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	



BASE MAP SOURCE: dk ASSOCIATES

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

INTERVENING PROPERTIES - SOUTHEAST BIORETENTION CELL
INTERVENING PROPERTIES
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 13
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	

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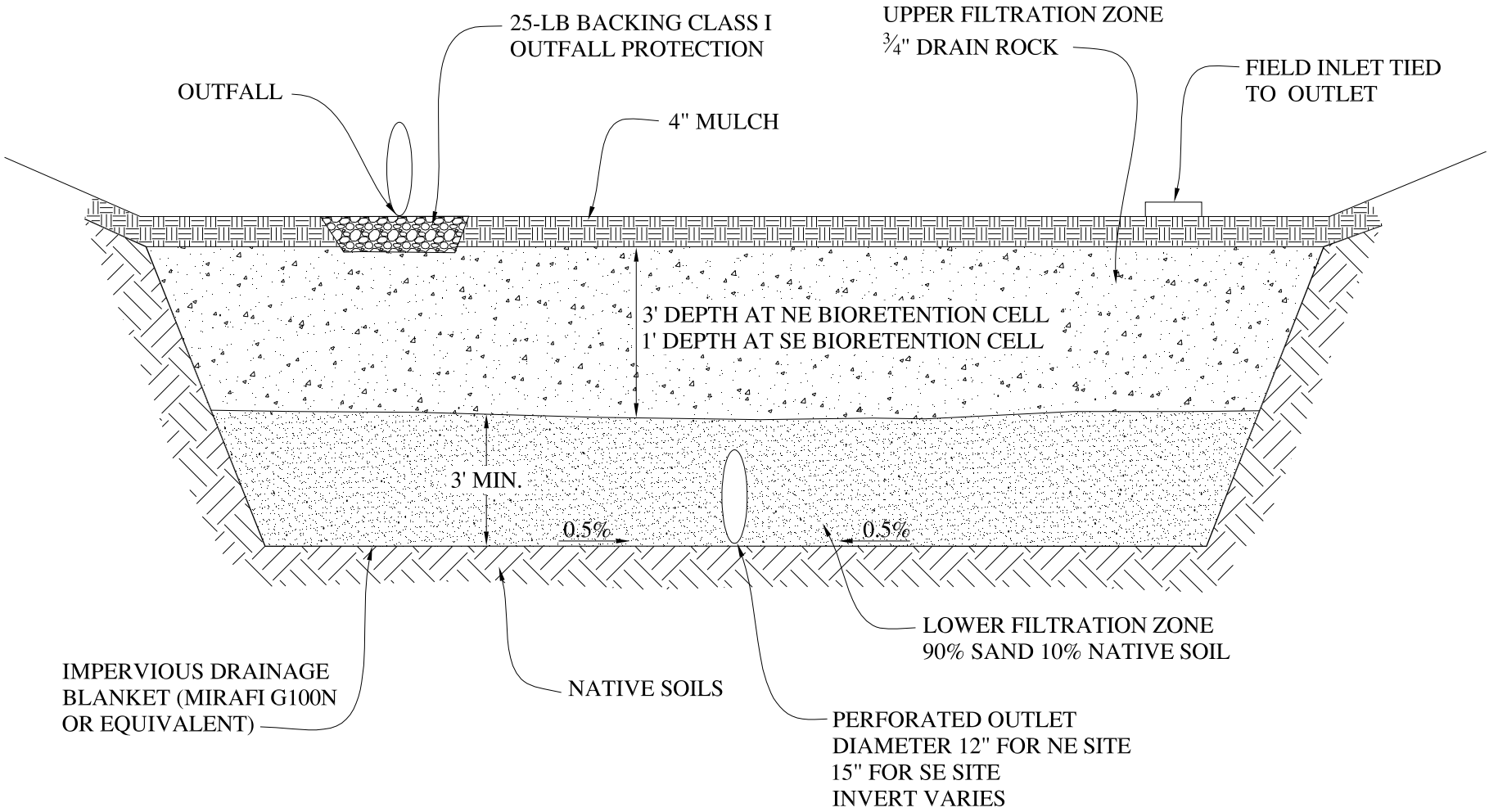
ORIGINAL FIGURE PRINTED IN COLOR



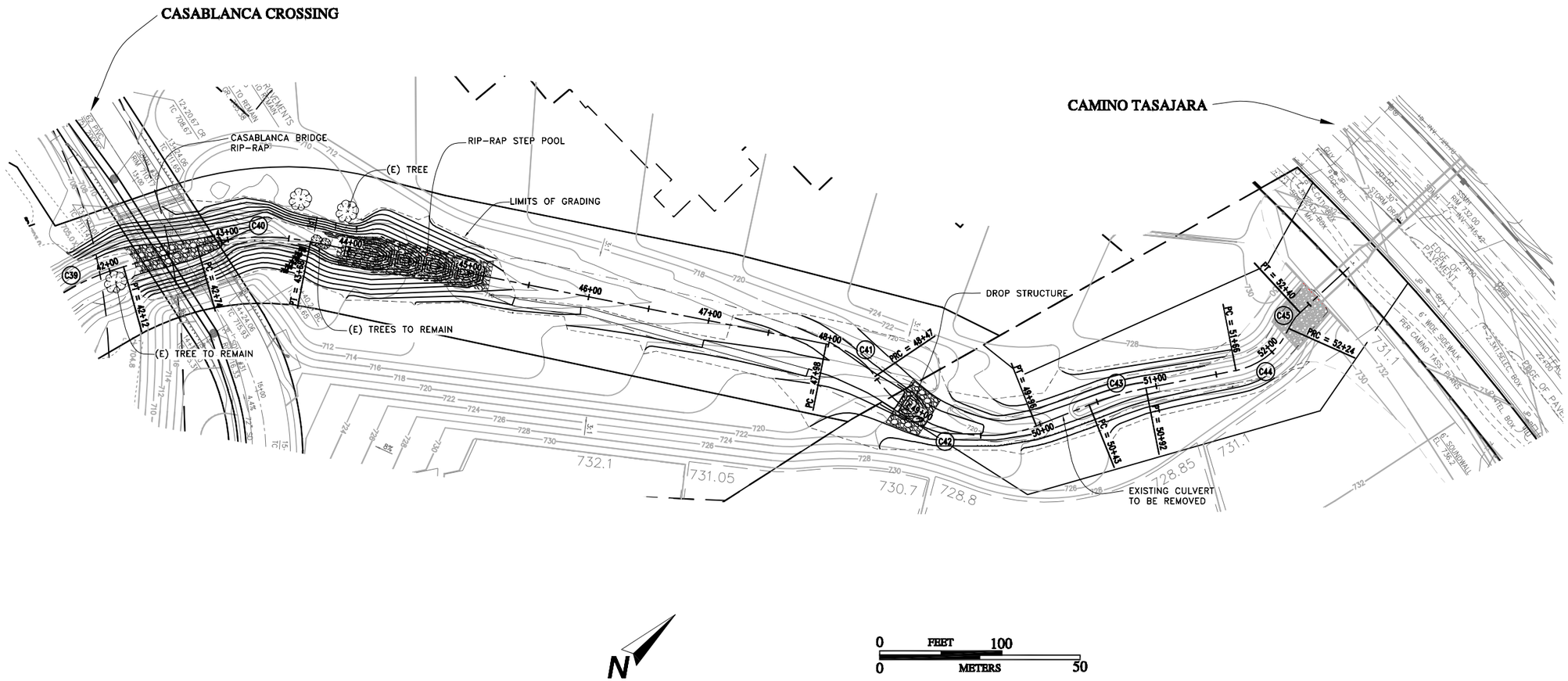
NO SCALE

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

INTERVENING PROPERTIES - BIORETENTION CELL DETAIL
GHAD O & M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01		FIGURE NO. 14
DATE: MAY 2005		
DRAWN BY: PC	CHECKED BY: EH	

G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-14BioretentionCell-0505.dwg 8-05-05 11:52:49 AM



ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971	UPPER MAIN BRANCH IMPROVEMENTS GHAD O & M CONTRA COSTA COUNTY, CALIFORNIA	PROJECT NO.: 4063.1.050.01 DATE: MAY 2005 DRAWN BY: PC CHECKED BY: EH	FIGURE NO. 15

G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-15UpperMainImprovements-0505.dwg 8-05-05 11:52:25 AM

ORIGINAL FIGURE PRINTED IN COLOR

APPROXIMATE LOCATION OF EXISTING
54" OUTFALL PIPE
FROM STA 36+92 TO STA 36+81

APPROXIMATE LOCATION OF
EXISTING 72" OUTFALL PIPE
FROM STA 36+75 TO STA 35+31

APPROXIMATE LOCATION OF 36'
LONG, 10' x 6' BOX CULVERT
EXTENSION FROM STA 35+31 TO
STA 34+95

APPROXIMATE LOCATION OF 1/4
TON OUTLET VARYING IN
THICKNESS FROM 1.7' TO 4.0'

37+04
36+92
36+81
36+75
35+31
34+94
34+63
34+26
34+12
34+03
33+34

FACE OF CURB

HEADWALL

APPROXIMATE LIMIT OF RIPRAP AT
STA 34+50

215.00
216.00
217.5
217.(

EXPLANATION

37+27 — APPROXIMATE LOCATION OF HEC-RAS CROSS SECTION

APPROXIMATE LOCATION OF 2004 SURVEY DATA (ENGEO)

APPROXIMATE LOCATION OF EXPOSED APRON RIPRAP (APPROXIMATELY 201 CY AND 1056 SF WITH AN AVERAGE WIDTH OF 33' AND LENGTH OF 32')

APPROXIMATE LOCATION OF BURIED APRON RIPRAP (APPROXIMATELY 33 CY AND 341 SF WITH AN AVERAGE WIDTH OF 33' AND LENGTH OF 13')

FUTURE BACKFILL; CURLEX EROSION CONTROL FABRIC UNTIL COMPLETION

APPROXIMATE LOCATION OF CURLEX EROSION CONTROL FABRIC

APPROXIMATE LOCATION OF ROCK RIP RAP

N

0 FEET 40
0 METERS 20

BASE MAP SOURCE: dk ASSOCIATES

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

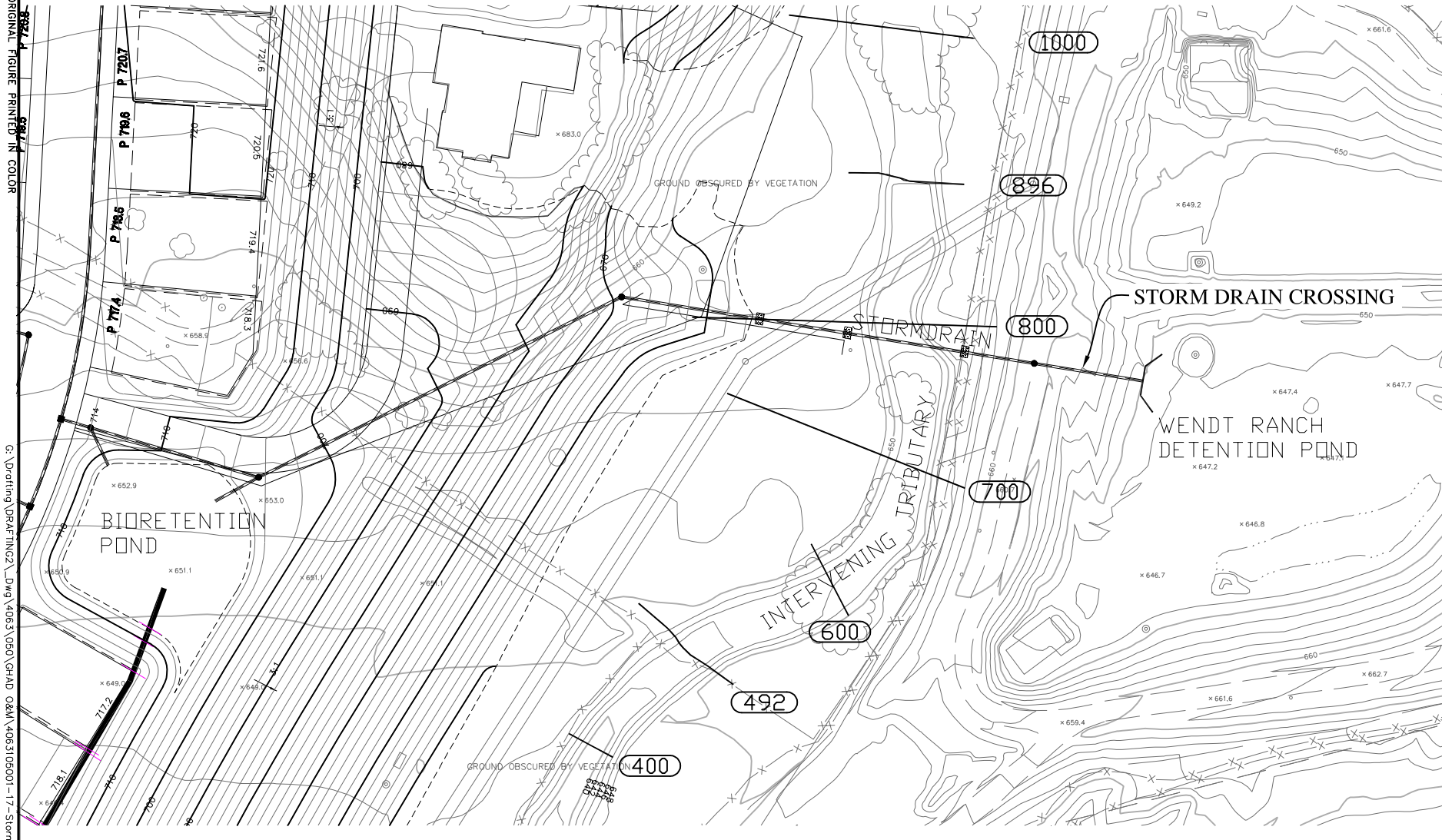
INTERVENING CAMINO TASAJARA REVETMENT
GHAD O&M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01
DATE: MAY 2005
DRAWN BY: CLL CHECKED BY: EH

FIGURE NO. 16

G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-16-ColoredSitePlanCaminoTassCulvert0505.dwg 8-05-05 11:51:30 AM

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

800 HEC-RAS CROSS SECTION

BASE MAP SOURCE: dk ASSOCIATES

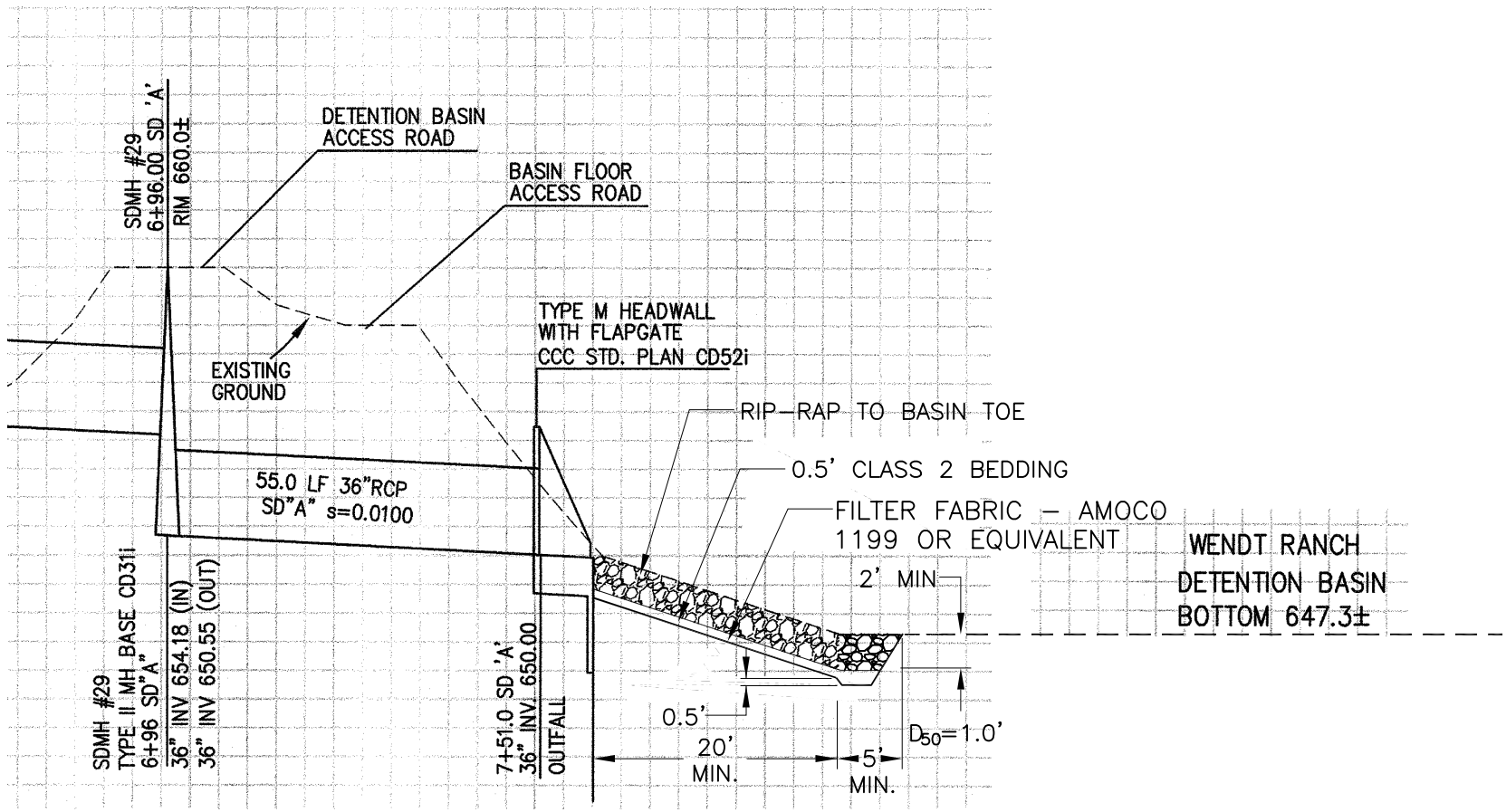
0 FEET 100
0 METERS 50

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

INTERVENING TRIBUTARY STORMDRAIN CROSSING
GHAD O&M
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01	FIGURE NO. 17
DATE: MAY 2005	
DRAWN BY: CQ	CHECKED BY: DC

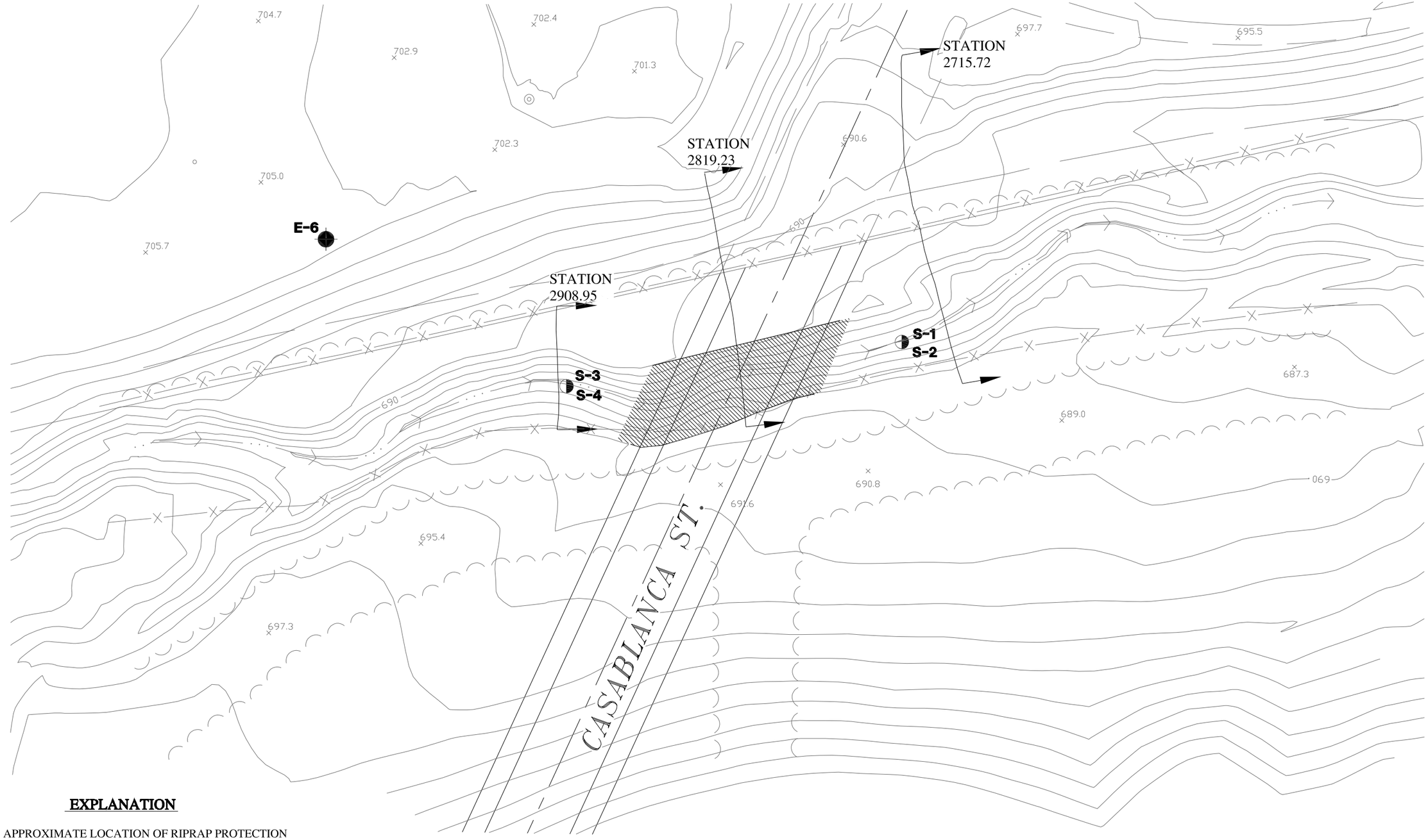
G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-17-StormDrainCrossing.dwg 8-05-05 11:51:07 AM



NO SCALE

ENGEO INCORPORATED EXCELLENT SERVICE SINCE 1971	**OUTFALL APRON** **WENDT RANCH - STORM DRAIN "A"** **CONTRA COSTA COUNTY, CALIFORNIA**	PROJECT NO.: **4063.1.050.01** DATE: **MAY 2005** DRAWN BY: DLB CHECKED BY: DC	FIGURE NO. **18**

G:\Drafting\DRAFTING2_Dwg\4063\050\GHAD O&M\4063105001-18_OutfallApron-StormDrainA-0505.dwg 8-05-05 11:50:50 AM



EXPLANATION

- APPROXIMATE LOCATION OF RIPRAP PROTECTION
- S-3 APPROXIMATE LOCATION OF SOIL SAMPLING (THIS STUDY)
- E-6 APPROXIMATE LOCATION OF BOREHOLE (ENGEO, 1996)
- B-23 APPROXIMATE LOCATION OF BOREHOLE (ENGEO, 1993)

0 FEET 50
0 METERS 25

BASE MAP SOURCE: dk ASSOCIATES

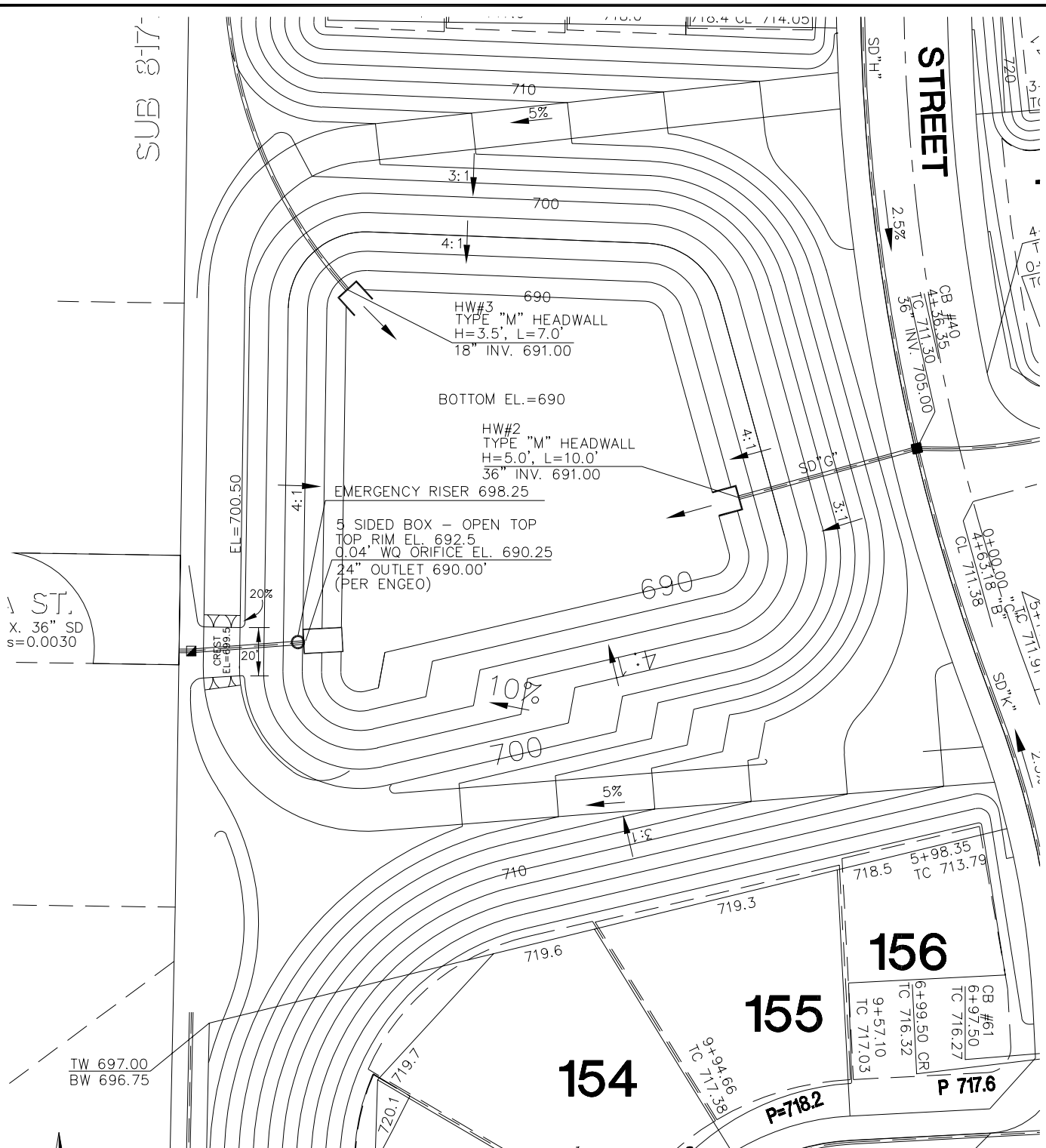
ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

GHAD O&M
CASABLANCA BRIDGE, INTERVENING PROPERTIES
CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01
DATE: MAY2005
DRAWN BY: CLL CHECKED BY: EH

FIGURE NO. 19

ORIGINAL FIGURE PRINTED IN COLOR



N

0 FEET 60

0 METERS 30

BASE MAP SOURCE: dk

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

INTERVENING PROPERTIES WQ / DETENTION BASIN

GHAD O&M

CONTRA COSTA COUNTY, CALIFORNIA

PROJECT NO.: 4063.1.050.01			FIGURE NO. 20
DATE: MAY 2005			
DRAWN BY: RAC	CHECKED BY: JT		

ORIGINAL FIGURE PRINTED IN COLOR

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MONITORING REPORT FORM (Part I)

GHAD Maintained Facilities
Contra Costa County, California
DRAINAGE FACILITIES MAINTENANCE PROGRAM

(TO BE COMPLETED SEMI-ANNUALLY IN MAY AND NOVEMBER AND AS NECESSARY DURING HEAVY RAINFALL, AND SUBMITTED IN THE SEMI-ANNUAL HYDRAULIC FUNCTION/WATER QUALITY REPORTS IN JUNE AND DECEMBER)

Inspector: _____ Date: _____
Weather Conditions: _____
Days since last rainfall:_____ Dry season?_____ Wet season?_____

_____
Approximate Basin/Creek Water Levels:_____
Noteworthy Sediment Accumulated since Last Monitoring Event:_____

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the facilities to drain and are they in satisfactory condition?				
2. Are access roads in satisfactory condition?				
3. Is all perimeter fencing in good condition without breaks, gaps or damage?				
4. Have any debris racks been cleaned and are they in good condition?				
5. Are embankments surrounding the basins in good condition without rills, seepage or failures?				
6. Is the vegetation less than 5 feet in height in the basins?				

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
7. Are the bed and banks of Intervening Tributary free from rills and erosion?				
8. Are the bed and banks of Upper Main Branch in a stable state free from rills and erosion?				
9. Are the spillway and grade control structures in Kawar Valley functional; without erosion/structural damage?				
10. Has sediment or water removal been undertaken from either the Wendt or Intervening basins in the last 3 months?				
11. If so, has it been tested as required?				
12. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the basins or bioretention sites?				
13. Do any basin devices require maintenance to provide more effective function?				
14. Are there signs of leaking irrigation systems?				
15. Is there standing water in the bioretention facilities?				

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
16. Are mosquitoes evident? If so, please contact the Contra Costa County Vector Control.				
17. Is the subsurface geogrid wall near the Wendt basin exposed?				
18. Are there remedial/repair tasks that should be undertaken in the near future?				
19. Is there any evidence or information received in the last 6 months to indicate problems with any drainage facility?				
20. Any other items of note?				

"No" answers to Items 1-9 or "Yes" answers to Items 10-20 may require a corrective action.

MONITORING REPORT FORM (Part II)

GHAD Maintained Facilities
DRAINAGE FACILITIES MAINTENANCE PROGRAM

CORRECTIVE ACTIONS UNDERTAKEN (If none required, enter date and "none")

DATE	DEFICIENCY NOTED	CORRECTIVE ACTION

APPENDIX B

Perpetual Conservation Easement Deed (Unrecorded)
Alamo Creek, Shapell Industries and Wildlife Heritage Foundation

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Sheppard, Mullin, Richter & Hampton LLP
Four Embarcadero Center, 17th Floor
San Francisco, CA 94111-4106
Attn: Robert J. Uram, Esq.

THIS SPACE ABOVE FOR RECORDER'S USE

PERPETUAL CONSERVATION EASEMENT DEED
(Including Third Party Beneficiaries)

THIS PERPETUAL CONSERVATION EASEMENT DEED (this "Easement Agreement") is entered into as of this ___ day of _____, 2004, by Shapell Industries, Inc. a Delaware corporation ("GRANTOR"), in favor of Wildlife Heritage Foundation, a California non-profit corporation ("GRANTEE").

RECITALS

A. GRANTOR is the sole owner in fee simple of certain real property located in Contra Costa County, California, consisting of approximately 505 acres, more particularly described on Exhibit A attached hereto and incorporated herein by this reference (the "Property");

B. GRANTOR wishes to establish on approximately 269 acres of the Property a natural resources conservation area;

C. In furtherance of that objective, GRANTOR desires to convey to GRANTEE a present easement over approximately 199 acres of the Property more particularly described on Exhibit B attached hereto and incorporated herein by this reference, and to amend this Easement Agreement in the future to add an additional approximately 70 acres at such time or times as the final boundaries of the conservation area are established. The easement area is hereinafter referred to as the "Protected Property";

D. GRANTEE is authorized to hold conservation easements pursuant to California Civil Code Section 815.3. Specifically, GRANTEE is a "qualified organization" within the meaning of Section 170(h) of the Internal Revenue Code of 1986, as amended (the "Code"), and is also a tax-exempt nonprofit organization under Section 501(c)(3) of the Code. GRANTEE is qualified to do business in the State of California and has as its primary purpose the preservation of land in its natural, scenic, forested or open-space condition or use;

E. The California Department of Fish and Game ("CDFG") is a public entity formed under the laws of the State of California, has jurisdiction pursuant to California Section 1802 of the Fish and Game Code over the conservation, protection and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of those species, and is authorized to issue a Lake or Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code. The United States Fish and Wildlife Service ("USFWS"), an agency within the United States Department of the Interior, is authorized by Federal law to administer the Federal Endangered Species Act and other laws and regulations. The California Regional Water Quality Control Board in the San Francisco Bay Region ("RWQCB"), an agency within the California Environmental Protection Agency, is authorized to regulate the discharge of fill and dredged materials pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The CDFG, USFWS, and RWQCB are hereinafter referred to collectively as the "Agencies";

F. The Protected Property possesses significant ecological and habitat values that benefit threatened, endangered and rare species (collectively, "Conservation Values"). These species and their habitats are of aesthetic, ecological, educational, historical and scientific value to the United States, the State of California and their people. The Protected Property contains open grassland, creeks, ponds and drainages and provides quality habitat for the California red-legged frog, San Joaquin kit fox and other species of plants and wildlife which GRANTOR and GRANTEE desire to conserve and protect pursuant to the Alamo Creek Mitigation and Monitoring Plan (LSA Associates, Inc. April 3, 2003 (**revise date when updated**)) ("MMP"), and the Alamo Creek Resource Management Plan (LSA Associates, Inc. _____, **2004**) ("RMP"), as each may be amended from time to time. The terms of the MMP and RMP are hereby incorporated into this Easement Agreement as if fully set forth herein and are hereinafter referred to collectively as the "Management Plan";

G. This Easement Agreement provides mitigation pursuant to Army Corps of Engineers Permit No. _____; California Department of Fish and Game 1602 Agreement, Notification No. _____; California Regional Water Quality Control Board Order No. R2-2004-0035; and the USFWS's Federal Endangered Species Act Biological Opinion, dated _____ ("Biological Opinion") (hereinafter referred to collectively as the "Permits"), and is being conveyed in order to enable GRANTOR to undertake its planned residential development on the balance of the Property ("the Project") for certain impacts of development of the Alamo Creek project located in the County of Contra Costa, State of California;

H. GRANTOR intends, upon completion of each phase of the Project, to convey fee title in the Protected Property for the completed phase to the Wendt Ranch Geological Hazard Abatement District or to any other public entity approved by USFWS (hereinafter referred to as the "GHAD"), which will assume all of GRANTOR's

obligations hereunder and such other obligations as may be agreed between the GHAD and GRANTEE;

I. GRANTOR and GRANTEE intend that the perpetual management and maintenance of the Conservation Values of the Protected Property will be funded through an endowment funded by GRANTOR pursuant to the terms of the Management Plan and this Easement Agreement; and

J. GRANTEE agrees by accepting this grant to honor the intentions of GRANTOR stated herein and to conserve and protect in perpetuity the Conservation Values of the Protected Property in accordance with the terms of this Easement Agreement.

Covenants, Terms, Conditions, and Restrictions

In consideration of the above recitals and the covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of California, including without limitation California Civil Code section 815 et seq., GRANTOR hereby voluntarily grants and conveys to GRANTEE a perpetual conservation easement over the Protected Property of the nature and character and to the extent hereinafter set forth.

1. PURPOSE

It is the purpose of this Easement Agreement to assure that the Protected Property will be retained forever in an open space condition and to prevent any use of the Protected Property that will impair or interfere with the Conservation Values of the Protected Property. GRANTOR intends that the easement granted herein: (i) will assure that the Protected Property will be used only for such activities as are consistent with the conservation purposes of this Easement Agreement; and (ii) will be implemented consistently with the Management Plan and the terms of this Easement Agreement.

2. RIGHTS OF GRANTEE

To accomplish the purpose of this Easement Agreement, GRANTOR hereby grants and conveys the following rights to GRANTEE:

a. To conserve and protect the Conservation Values of the Protected Property in a manner consistent with this Easement Agreement;

b. To enter upon and traverse the Protected Property at all reasonable times, subject to the approval of the property owner, which shall not be unreasonably withheld, to monitor compliance with and otherwise enforce the terms of this Easement Agreement and to perform all of GRANTEE's obligations and duties set forth herein; provided, that such entry shall not unreasonably impair or interfere with

GRANTOR's authorized use and quiet enjoyment of the Protected Property or unreasonably disturb natural resources on the Protected Property;

c. Subject to the exceptions contained in Paragraph 5 herein, to prevent any activity on or use of the Protected Property that is inconsistent with the conservation purposes of this Easement Agreement, and to undertake or require the responsible party to undertake the restoration of such areas or features of the Protected Property that may be damaged by any act, failure to act or use that is inconsistent with the purposes of this Easement Agreement; and

d. To utilize all mineral, air, water and groundwater resources required to protect and to sustain the biological resources of the Protected Property in accordance with the terms of this Easement Agreement.

3. PROHIBITED USES

Subject to the provisions of Paragraph 4 and the exceptions contained in Paragraph 5 herein, any activity on or use of the Protected Property inconsistent with the conservation purposes of this Easement Agreement is prohibited. Subject to the exceptions in Paragraph 5, and without limiting the generality of the foregoing, GRANTOR, its personal representatives, successors, assigns, agents and lessees are expressly prohibited from doing any of the following on Protected Property:

a. leveling, grading, landscaping, cultivating, or making any other alterations of existing topography for any purposes, including the exploration for, or development of, mineral resources, other than as required to comply with the terms of the Permits, to complete construction of the Project in accordance with the Permits and the Management Plan (including the Landscape Management Plan), to maintain the flood control and water quality improvements on the Protected Property, or to permit the GHAD to carry out the duties enumerated in Paragraph 6.c;

b. placing any new structures on the Protected Property, including buildings, signs and billboards, other than trail and other signage allowed by the Permits and described in the Management Plan;

c. discharging, dumping, burning, or storing of soils, rubbish, garbage, grass clippings, dredge material, bio-solids, household chemicals, or any other wastes or fill materials within the Protected Property;

d. building of any new roads or trails within the Protected Property, except the building of fire roads or any other road or trail provided for in the Management Plan;

e. the killing, removal, alteration, or replacement of any existing native vegetation, except as authorized under the Permits and the Management Plan;

f. undertaking any activities that may detrimentally alter the hydrology of the Protected Property and the associated watersheds, including but not limited to excessive pumping of groundwater, manipulation or blockage of natural drainages, inappropriate or unseasonal water applications or placement of storm water drains, diverting water onto the Protected Property and away from neighboring properties, etc., except as authorized under the Permits and the Management Plan;

g. utilizing incompatible fire protection activities;

h. using pesticides, herbicides, or rodenticides on the Protected Property or within the watershed that can contaminate the Protected Property except as authorized under the Permits and the Management Plan;

i. introducing any exotic species, including aquatic species; or

j. granting access to the land to any third party for off-road vehicle use, other than by the grazing tenant over those portions of the Protected Property subject to the grazing lease and by the Contra Costa County Sheriff's Department, the San Ramon Valley Fire Protection District, or other governmental entities in the performance of their duties.

4. DUTIES OF FEE OWNER

GRANTOR and its successor owners of fee title to the Protected Property shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Protected Property and, subject to the obligations of GRANTEE or GRANTEE's successors as set forth in Paragraph 6(b) and elsewhere in this Easement Agreement, shall be responsible to carry out the terms of the Management Plan, including without limitation those duties set forth in Paragraph 6(a) below, and otherwise to own, operate and maintain the Protected Property. In addition, GRANTOR shall undertake all necessary actions to perfect GRANTEE's rights under Paragraph 2 of this Easement Agreement, including, but not limited to, GRANTEE's water rights.

5. RIGHTS RESERVED TO FEE OWNER

GRANTOR reserves to itself, and to its personal representatives, heirs, successors, assigns, agents and lessees, all rights accruing from its ownership of the Protected Property, including but not limited to: (i) the right to engage in or invite others to engage in activity on or use of the Protected Property for the purpose of construction and maintenance of the Project and the flood control drainage and water quality improvements on the Protected Property in accordance with the Permits including, without limitation, grading, construction, restoration, improvement and maintenance of bioretention facilities, water quality ponds, water tanks, paved roads associated with water tanks, overhead and underground utilities, trails, storm drains, pump stations, creek

improvements, bridges, other improvements, geologic stability remediation and repair, pad grade adjustments, slope easements, and any other activity allowed or required under the Management Plan; (ii) construction and maintenance of pedestrian or vehicular bridges and related improvements; (iii) the right to engage in or invite others to engage in activity on or use of the Protected Property for the purpose of complying with the requirements of any governmental permits or authorizations including, but not limited to, the Permits and any other permits granted pursuant to the Federal Endangered Species Act, the California Endangered Species Act, Section 404 of the Clean Water Act, 33 U.S.C. § 1344, the Porter-Cologne Act, including Section 13623 of the California Water Code, or Section 1602 of the California Fish and Game Code; (iv) the right to grant the GHAD access to the Protected Property for the purpose of conducting prevention, mitigation, abatement and control of geologic hazards, as defined in the Plan of Control described in Paragraph 6.c; (v) the right to engage in or invite local governmental entities or utility companies or their agents, including but not limited to Contra Costa County, the Contra Costa County Flood Control and Water Conservation District, San Ramon Valley Fire Protection District, the Contra Costa Mosquito Abatement District, the Central Contra Costa County Sanitary District, EBMUD, Alamo Creek Homeowners' Association, and Pacific Gas & Electric Company to undertake maintenance or management activities on the Protected Property which are consistent with the Management Plan or other approvals and requirements, such as the maintenance of fire trails and fuel modification zones; (vi) the right to convey its fee simple interest in the Protected Property, in whole or in part, to the GHAD; (vii) the rights to all existing easements and rights-of-way over the Protected Property and to grant future non-exclusive easements over the Protected Property which are not inconsistent with the terms and conservation purposes of this Easement Agreement; (viii) the right to grant all development rights with respect to the Protected Property, subject to the terms of this Easement Agreement, to the County of Contra Costa or the GHAD; and (ix) the right to engage in, permit or invite others to engage in all uses of the Protected Property that are not expressly prohibited herein and are not inconsistent with the conservation purposes of the easement granted herein, including any activities that are needed to serve the Project.

6. CONSERVATION MANAGEMENT RESPONSIBILITIES

GRANTOR and GRANTEE agree that responsibility for management of the Protected Property, including without limitation completion of the initial improvements required by the Management Plan and ongoing monitoring and maintenance of the Conservation Values shall be shared as follows:

a. Fee Owner Obligations. GRANTOR or its successor owner of fee title to the Protected Property shall be responsible for the following activities:

(1) Taxes. GRANTOR shall pay all real property taxes, storm water/clean water fees and taxes and other assessments levied against portions of the Protected Property not yet conveyed in fee to the GHAD. Any assessments levied

against the Protected Property or any portion thereof owned by the GHAD or other successor owner shall be paid by such owner.

(2) Open Space Designation. GRANTOR shall take all reasonable steps to enable the Protected Property to receive any designation required under applicable County of Contra Costa ordinances to set aside the Protected Property as open space or its equivalent, including conveyance of a scenic easement over the Protected Property to Contra Costa County.

(3) Mechanics Liens. GRANTOR shall take all reasonable steps to maintain all portions of the Protected Property not yet conveyed to the GHAD free and clear of any mechanics liens. GRANTEE shall be responsible for maintaining all portions of the Protected Property conveyed to the GHAD free and clear of mechanics liens.

(4) Mitigation. GRANTOR shall conduct or cause to be conducted all habitat mitigation and enhancement activities required and shall perform or cause to be performed all mitigation monitoring required under the terms of the Permits, as provided more particularly in the Management Plan, until such time as the success criteria set forth in the Management Plan have been met for the applicable portion of the Protected Property.

(5) Trail Construction and Sign Installation. GRANTOR shall construct or cause to be constructed the trails, including without limitation all necessary access, boundary and environmental mitigation area signs, described in the Management Plan. The GHAD shall thereafter be responsible, at its own cost, for maintaining all such trails and related fences, gates, bollards, trail signs and other support facilities and GRANTEE shall be responsible for maintaining all other signage in accordance with Paragraph 6.b.1 below.

(6) Trash Removal. GRANTOR shall provide for the removal of any trash and debris existing on the Protected Property within three months following the date of execution of this Easement Agreement and shall provide for the ongoing removal of all trash and debris on a periodic basis thereafter until such time as GRANTEE becomes responsible for the maintenance and monitoring of the applicable portion of the Protected Property.

b. Easement Holder Obligations. GRANTEE or its successor shall be responsible for all maintenance and monitoring of the Protected Property required under the terms of the Management Plan commencing, with respect to each phase of the Project, on the date the success criteria for such phase have been achieved as defined in the Permits or such earlier date as the Protected Property, or portion thereof, is transferred to the GHAD. GRANTEE's duties include, without limitation, the following:

(1) Sign Installation and Maintenance. GRANTEE shall maintain all necessary access, boundary and environmental mitigation area signs required by the Management Plan or otherwise appropriate to protect the Conservation Values of the Protected Property, including without limitation signage identifying the boundaries of the Protected Property, permitted access points and the location of public trails.

(2) Patrolling. GRANTEE shall use all reasonable methods within its control to prevent unwarranted trespass on or illegal use of the Protected Property and otherwise to assure that no activities prohibited by the terms of this Easement Agreement are conducted on the Protected Property.

(3) Community Outreach. GRANTEE shall provide outreach to neighboring landowners, including residents of the Project, to increase understanding and appreciation of the Conservation Values of the Protected Property. Community outreach shall begin within 30 days following the first transfer of a portion of the Protected Property to the GHAD.

(4) Reporting and Plan Preparation. GRANTEE shall submit annual reports on or before the fifteenth (15^{th}) day of December of each year to the USFWS, the United States Army Corps of Engineers (the "CORPS"), CDFG and RWQCB as outlined in the Management Plan. GRANTOR or its successor owner of the Protected Property shall have the right to review and comment upon such annual reports thirty days prior to their submission to the above mentioned agencies and shall have the right to require GRANTEE to prepare such additional reports related to the Management Plan as the then owner of the Protected Property deems reasonably necessary.

(5) Accounting. GRANTEE shall maintain an accounting, using generally accepted accounting principles, of all funds received and expended for management and monitoring of the Protected Property. GRANTEE's books and records shall be audited annually by a qualified certified public accountant, at GRANTEE's expense. A copy of the annual audit shall be provided promptly to GRANTOR or the successor owner of fee title to the Protected Property. GRANTEE shall also make its books and records and the results of the audit available to all interested governmental agencies and the general public.

(6) Coordination. Until such time as GRANTOR has conveyed fee title to all of the Protected Property to the GHAD, GRANTOR and GRANTEE shall meet annually to coordinate activities on the Protected Property, including but not limited to sharing of any joint responsibilities, responding to environmental impacts to the Protected Property, controlling use of the Protected Property by the public, complying with the requirements of the Permits and such other matters as may affect the management and protection of the Conservation Values of the Protected Property. GRANTOR and GRANTEE shall also consult with Contra Costa County, and the Agencies as appropriate.

(7) Administration. GRANTEE shall be responsible for maintaining such offices and staffing, purchasing such equipment and hiring such contractors as may be needed to carry out its responsibilities under the terms of this Easement Agreement.

(8) Grazing Management. GRANTEE shall coordinate the grazing management guidelines described in the Management Plan with the GHAD and any grazing tenant or tenants on the Protected Property. In particular, GRANTEE shall review and provide comments to the GHAD on the terms of any cattle grazing lease, shall advise the GHAD and the grazing tenant on range management issues, shall coordinate grassland monitoring with the grazing tenant and shall prepare annual reports to the GHAD recommending modifications of the grazing plan and adjustment of the grazing season to maximize the objectives of the grazing program set forth in the Management Plan. GRANTEE shall allow the reasonable placement by the grazing tenant of new water troughs on the grazing areas of the Protected Property to replace those lost to development and to keep cattle out of preserved and created wetland features.

(9) Trail and Fence Maintenance. GRANTEE shall regularly inspect all trails and trail support facilities on the Protected Property and shall coordinate with the GHAD maintenance of all fences, gates, bollards and support facilities pertaining to the trail system.

(10) Perpetual Monitoring. GRANTEE shall conduct all perpetual monitoring activities specified in the Management Plan in accordance with guidelines prepared by the Agencies. In addition, GRANTEE shall conduct such other surveys as may be appropriate to assist it in managing the Protected Property.

(11) Trail Use Enforcement. GRANTEE shall enforce all restrictions on the use of the Protected Property by the public. Public use is generally limited to hiking or bicycling on designated trails, including open space trails detailed in the Management Plan. Limited equestrian use shall be allowed on the trails. No wheeled vehicle use other than bicycles and wheelchairs shall be allowed on the Protected Property for recreation by the public. GRANTEE shall report violations of appropriate trail use to the GRANTOR for enforcement action.

(12) Trash Removal. GRANTEE shall perform all required general maintenance activities, including trash and debris removal.

(13) Geologic Hazard Prevention and Flood Control Coordination. GRANTEE shall cooperate and shall coordinate its monitoring and maintenance activities with the geologic hazard prevention and control activities of the GHAD and the flood control and water quality management activities of Contra Costa County and other responsible governmental agencies.

c. GHAD Obligations. GRANTOR and GRANTEE acknowledge that the GHAD has been formed for the purpose of funding and assuming responsibility for certain maintenance activities pertaining to the Protected Property in accordance with the approved Plan of Control for Alamo Creek, subject to the oversight, as may be legally required, of the Agencies, which responsibilities may include:

(1) Drainage Improvements Maintenance. Maintenance of drainage improvements on the Protected Property, such as the concrete V-ditches.

(2) Drain Outlet Maintenance. Maintenance of the storm and sub-drain outlets, including removal of brush and debris.

(3) Geological Hazards Response. Prevention, mitigation, abatement and control of potential geological hazards, such as landslides and erosion, within the Protected Property.

(4) Firebreaks, Fence and Trail Repair. Clearing of firebreaks in coordination with the San Ramon Valley Fire Protection District requirements and other applicable laws (other than fuel modification zones adjacent to residential lots which are the responsibility of the Alamo Creek Homeowners' Association), repairing of fences and other trail support facilities and monitoring of the use of the Protected Property by the public.

(5) Creek Monitoring and Maintenance. Repair of creek bank failures causing damage to or threatening to cause damage to site improvements, including buildings, utilities, roads and trails.

7. FUNDING

It is intended that, following transfer of the Protected Property to the GHAD, all maintenance and monitoring activities required by the Management Plan and this Easement Agreement will be paid for by a non-wasting endowment account to be established by GRANTOR (the "Endowment"). GRANTEE will be responsible for maintaining and managing the Endowment and shall be entitled to use all interest generated by the Endowment to support its monitoring and management obligations with respect to the Protected Property. GRANTOR shall have no obligation to fund any of the maintenance and monitoring activities required hereunder upon making the required contributions to the Endowment and transferring fee title to the Protected Property to the GHAD. GRANTEE acknowledges that the Endowment is sufficient to carry out its obligations hereunder.

The Endowment will be funded in stages tied to construction activity for each phase of the Project. The first quarter of the Endowment for each phase shall be funded within ninety (90) days after execution of the final agreement for the long-term management of the Protected Property; the second quarter of the Endowment shall be

funded prior to completion of the two-hundreth (200th) unit of the Project; the third quarter of the Endowment shall be funded prior to completion of the four-hundreth (400th) unit of the Project; and the final quarter of the Endowment shall be funded prior to completion of the six-hundreth (600th) unit of the Project. GRANTEE acknowledges that GRANTOR will deposit with GRANTEE the sum of _____ for the first quarter of the Endowment, which funds GRANTEE holds in a segregated account (the "Endowment Account"). GRANTEE shall invest funds in the Endowment Account in a manner that conserves and/or maximizes the principal.

8. REMEDIES

GRANTOR and GRANTEE may each communicate, at any time in writing or verbally, with the others about any concerns or suggestions any of the foregoing parties may have regarding the administration of lands subject to this Easement Agreement and shall work cooperatively to address such concerns and suggestions. If GRANTOR, GRANTEE, or any other party having rights to enforce the terms of this Easement Agreement determines that there is a violation of the terms of this EASEMENT or that a violation is threatened, such party shall give written notice to GRANTOR and GRANTEE of the violation and demand corrective action by the responsible party sufficient to cure the violation and, where the violation involves injury to the Protected Property resulting from any use or activity inconsistent with the purpose of the easement granted herein, to restore, in accordance with the Management Plan, the portion of the Protected Property so injured. Each of the parties to this Easement Agreement shall be responsible for repairing any damage to the Conservation Values or otherwise to the Protected Property caused by the entry or activities on the Protected Property by such party or its agents or representatives. If the responsible party fails to cure a violation within sixty (60) days after receipt of written notice thereof from any other party, or, under circumstances where the violation cannot reasonably be cured within a sixty (60) day period, fails to continue diligently to cure such violation until finally cured, the aggrieved party may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement Agreement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement Agreement or injury to the Conservation Values protected by this Easement Agreement, including damages for the loss of aesthetic, ecological, educational, historical, recreational or scientific values, and to require the restoration of the Protected Property pursuant to the Management Plan to the condition that existed prior to any such injury.

If a party, in its good faith and reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Protected Property, such party may pursue its remedies under this paragraph without waiting for the period provided for the cure to expire, provided that at least twenty-four (24) hours notice is provided to the defaulting party. Each party's rights under this paragraph apply equally in the event of either actual or threatened

violations of the terms of this Easement Agreement, and each party agrees that the other party's remedies at law for any violation of the terms of this Easement Agreement are inadequate and that such party shall be entitled to the injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which such party may be entitled, including specific performance of the terms of this Easement Agreement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Each party's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. Furthermore, the provisions of California Civil Code section 815 et seq., are incorporated herein by this reference and this Easement Agreement is made subject to all of the rights and remedies set forth therein.

If at any time in the future GRANTOR or GRANTEE or any subsequent transferee or assignee uses or threatens to use the Protected Property for purposes not in conformance with the provisions of this Easement Agreement, or releases or abandons this Easement Agreement in whole or in part, notwithstanding California Civil Code section 815 et seq., the California Attorney General, or any entity or individual with a justiciable interest in the preservation of the easement granted herein, shall have standing as interested parties in any proceeding affecting this Easement Agreement.

a. Costs of Enforcement. All reasonable costs incurred by either party, where it is the prevailing party, in enforcing the terms of this Easement Agreement, including without limitation costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by a violation of the terms of this Easement Agreement shall be borne by the defaulting party.

b. Parties' Discretion. Enforcement of the terms of this Easement Agreement shall be at the discretion of the respective parties, and any forbearance by any party to exercise their rights under this Easement Agreement shall not be deemed or construed to be a waiver by such party of such term or of any subsequent breach of the same or any other term of this Easement Agreement or of any of their rights under this Easement Agreement. No delay or omission by any party in the exercise of any right or remedy upon any breach by another party shall impair such right or remedy or be construed as a waiver.

c. Acts Beyond Parties' Control. Nothing contained in this Easement Agreement shall be construed to entitle any party to bring any action against GRANTOR or GRANTEE for any injury to or change in the Protected Property resulting from causes beyond their control, including, without limitation, fire, drought, flood, storm, and earth movement or any prudent action taken by GRANTOR or GRANTEE under emergency conditions to prevent, abate or mitigate significant injury to the Protected Property resulting from such causes.

9. **ACCESS**

GRANTEE, its successors, assigns, agents, invitees and licensees shall have a non-exclusive right to access the Protected Property at all times in a manner consistent with the terms of this Easement Agreement, but the terms hereof shall not be construed to convey a general right of access to the public to any portions of the Protected Property.

10. **INDEMNITY**

a. GRANTOR and any successor owner of Protected Property shall hold harmless, indemnify, and defend GRANTEE and its members, directors, officers, employees, agents and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "Grantee Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expense, causes of action, claims, demands, or judgments, including without limitation, reasonable attorneys' fees, arising from or in any way connected with: (1) injury to or the death of any person, or physical damage to any portion of the Protected Property, resulting from any act, omission, condition or other matter occurring on the Protected Property, unless caused by the acts or omissions of any of the Grantee Indemnified Parties; and (2) the existence or administration of this Easement Agreement, unless caused by the acts or omissions of any of the Grantee Indemnified Parties.

b. GRANTEE or its successor shall hold harmless, indemnify, and defend GRANTOR and its members, directors, officers, employees, agents and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "Grantor Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expense, causes of action, claims, demands, or judgments, including without limitation, reasonable attorneys' fees, arising from or in any way connected with any activities of the Grantee Indemnified parties, or any of them, on the Protected Property or otherwise pertaining to GRANTEE's administration of this Easement Agreement, unless caused by the acts or omissions of any of the Grantor Indemnified Parties.

11. **INSURANCE**

GRANTEE or its successor shall maintain the following insurance coverages:

a. Workers Compensation. Coverage A—statutory benefits and Coverage B—employer's liability, bodily injury, disease—$1 million each accident, each employee and policy limit;

b. Commercial Auto Liability. Auto liability limits of not less than $1 million each accident, combined bodily injury and property covering owned, hired, and non-owned vehicles; and

c. Commercial General Liability. Coverage at least as broad as ISO form CG00011093, insuring against claims for bodily injury (including death), property damage and personal injury liability occurring on the Protected Property or operations incidental or necessary thereto, such insurance to afford protection in an amount not less than $2 million for each occurrence.

The foregoing insurance shall name the owner of the Protected Property as an additional insured. GRANTEE or its successor shall provide a certificate of insurance or other satisfactory evidence of such coverage annually to GRANTOR or the successor owner of the Protected Property.

12. MODIFICATION

This Easement Agreement shall remain in full force and effect, except as it may be modified by written agreement of the GRANTOR and the GRANTEE, with the written consent of USFWS, which written agreement shall be recorded pursuant to Paragraph 18 below. Notwithstanding the foregoing, GRANTOR and GRANTEE may amend this Easement Agreement, without obtaining the prior approval of USFWS, solely to revise the acreage to the Protected Property encumbered by the terms of this Easement Agreement as final maps for each phase of the Project are recorded and the boundaries of the conservation area are established with certainty.

13. CONDEMNATION

The habitat conservation purposes described herein are presumed to be the best and most necessary public use as defined at California Code of Civil Procedure section 1240.680, notwithstanding California Code of Civil Procedure sections 1240.690 and 1240.700.

14. ASSIGNMENT BY GRANTEE

The rights and obligations of GRANTEE hereunder are transferable, provided GRANTEE gives GRANTOR, and USFWS at least thirty (30) days' prior written notice of the intended transfer. Such transfer may be made only to an organization that is: 1) approved by USFWS; 2) a public agency or a qualified organization at the time of transfer under section 170(h) of the Internal Revenue Code of 1954, as amended (or any successor provision then applicable), and the applicable regulations promulgated thereunder; and 3) authorized to acquire and hold conservation easements under California Civil Code section 815.3 (or any successor provision then applicable). As a condition of such assignment or transfer, the assignee or transferee shall agree in writing that the conservation purposes this grant is intended to advance

shall continue to be fulfilled and that the Management Plan will be followed. Notice of such assignment shall be recorded in the Official Records of Contra Costa County, California. In the event of the termination of GRANTEE's existence, or in the event GRANTEE fails to carry out its duties hereunder to the satisfaction of USFWS, USFWS shall retain a power of appointment, subject to the approval of GRANTOR or its successor, which approval shall not be unreasonably withheld, to assign the rights and obligations of GRANTEE to an organization that satisfies the requirements of California Civil Code § 815.3 (or any successor provision then applicable).

15. SUBSEQUENT TRANSFERS BY GRANTOR

a. GRANTOR agrees to incorporate the terms of this Easement Agreement in any deed or other legal instrument by which GRANTOR divests itself of any interest in all or a portion of the Protected Property, including, without limitation, a leasehold interest. GRANTOR further agrees to give written notice to GRANTEE at least fifteen (15) days prior to the date of any transfer of any interest in all or a portion of the Protected Property, except as provided for in subparagraph (b) below. The failure of GRANTOR or GRANTEE to perform any act required or permitted by this paragraph shall not impair the validity of this Easement Agreement or limit its enforceability in any way.

b. GRANTEE acknowledges that GRANTOR intends to transfer its fee interest in the Protected Property to the GHAD upon completion of the improvements and achievement of the monitoring benchmarks described in the Management Plan. GRANTEE further acknowledges that the transfer of the Protected Property may occur in phases as the monitoring benchmarks for each phase of the Project are achieved. GRANTOR agrees to give written notice to GRANTEE at least sixty (60) days prior to the date of any transfer of any phase during the initial transfer of the Protected Property. GRANTOR shall be released automatically from any and all obligations under this Easement Agreement pertaining to the portion of the Protected Property transferred upon recordation of the transfer instrument and thereafter shall have the status of an intended third party beneficiary with the rights provided in Paragraph 8 to enforce the provisions of this Easement Agreement against any successor GRANTOR.

16. ESTOPPEL CERTIFICATES

Within fifteen (15) days of any written request by GRANTOR, GRANTEE shall execute and deliver to GRANTOR any document, including an estoppel certificate, requested by GRANTOR which certifies GRANTOR's compliance with any obligation of GRANTOR contained in this Easement Agreement.

17. NOTICES

Any notice, demand, request, consent, approval, or communication that the parties desire or is required to give to the others shall be in writing and either served personally or sent by recognized overnight courier that guarantees next-day delivery or first class mail, postage prepaid, addressed as follows:

To GRANTOR: Shapell Industries of Northern California, Inc.
100 N. Milpitas Boulevard
Milpitas, CA 95036
Attn: Chris Truebridge, Division Manager

with a copy to: Robert J. Uram
Sheppard, Mullin, Richter & Hampton LLP
4 Embarcadero Center, 17th Floor
San Francisco, CA 94111

To GRANTEE: Wildlife Heritage Foundation
P.O. Box 1066
Lincoln, CA 95692
Attn.: Riley Swift
Facsimile: (530) 633-4911

To USFWS: United States Fish & Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825
Attn: Chief, Endangered Species Division
Facsimile: (916) 414-6713

or to such other address or the attention of such other officer, from time to time, as any party shall designate by written notice to the others. Notices shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, 5 days after deposit into the U.S. mail.

18. RECORDATION

GRANTOR shall submit an original, signed and notarized Easement Agreement to GRANTEE for signature and, upon execution by GRANTEE, shall promptly record this instrument in the Official Records of the County of Contra Costa, California.

19. GENERAL PROVISIONS

a. Controlling Law. The interpretation and performance of this Easement Agreement shall be governed by the laws of the State of California, the Federal

Endangered Species Act, and other applicable Federal laws. Notwithstanding references to laws as they exist on the date of this Easement Agreement, any law shall be applied as it exists on the date of the event that raises an issue under that law.

b. Construction. Any general rule of construction to the contrary notwithstanding, this Easement Agreement shall be liberally construed to effect the conservation purposes stated herein and the policy and purpose of California Civil Code section 815 et seq. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Easement Agreement that would render the provision valid shall be favored over any interpretation that would render it invalid.

c. Severability. If a court of competent jurisdiction voids or invalidates on its face any provision of this Easement Agreement, such action shall not affect the remainder of this Easement Agreement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Easement Agreement to a person or circumstances, such action shall not affect the application of the provision to other persons or circumstances.

d. Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the conservation easement granted herein and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement Agreement.

e. No Forfeiture/Time of the Essence. Nothing contained herein will result in a forfeiture or reversion of GRANTOR's title in any respect. Time is of the essence in the performance of all the terms and conditions of this Easement Agreement.

f. Successors. The covenants, terms, conditions, and restrictions of this Easement Agreement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Protected Property.

g. Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

h. Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

i. Third-Party Beneficiaries. GRANTOR and GRANTEE acknowledge that, following transfer of fee title to the Protected Property to the GHAD, the original GRANTOR are third-party beneficiaries of this EASEMENT, with the right

of access to the Protected Property and the right to enforce the terms and conditions of this Easement Agreement.

j. Termination of Rights and Obligations. A party's rights and obligations under this Easement Agreement shall terminate upon transfer of such party's interest in the easement granted herein or the Protected Property, except that liability for acts and omissions occurring prior to transfer shall survive transfer.

IN WITNESS WHEREOF, GRANTOR and GRANTEE have entered into this Easement Agreement as of the day and year first above written.

GRANTOR: Shapell Industries, Inc.,
a Delaware corporation

By: _____

Its: _____

By: _____

Its: _____

GRANTEE: Wildlife Heritage Foundation,
a California non-profit corporation

By: _____

Its: _____

Approved as to Form: United States Department of the Interior for the United States Fish and Wildlife Service

By: _____
Jim Monroe,
Its: Assistant Regional Solicitor

State of California)
)
County of _____)

On _____, 2004 before me, a Notary Public in and for said State, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____ (Seal)

State of California)
)
County of _____)

On _____, 2004 before me, a Notary Public in and for said State, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____ (Seal)

Exhibit A

Legal Description of Property

Exhibit B

Map of Protected Property

APPENDIX C

Perpetual Conservation Easement
Intervening Properties, Contra Costa Real Estate Investors
and Wildlife Heritage Foundation

4063.1.050.01
May 10, 2005
Revised May 24, 2005

FIRST AMERICAN TITLE COMPANY
HEREBY CERTIFIES THAT THIS IS A TRUE AND
CORRECT COPY OF THE ORIGINAL DOCUMENT

BY: [illegible]

RECORDED: APRIL 20, 2005

SERIES NO.: 2005 - 138107

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:
Ebbin Moser + Skaggs LLP
550 Montgomery Street, Suite 900
San Francisco, CA 94111
Attn: Shawn J. Zovod, Esq.

This space above for Recorder's use

PERPETUAL CONSERVATION EASEMENT

THIS PERPETUAL CONSERVATION EASEMENT DEED is made this 12th day of October, 2004, by CONTRA COSTA REAL ESTATE INVESTORS, a California limited liability corporation and Danville Tassajara Partners, a Delaware limited liability company (jointly referred to herein as "Grantor"), in favor of WILDLIFE HERITAGE FOUNDATION", a nonprofit California corporation ("Grantee").

RECITALS

A. Grantor is the owner in fee simple to certain real property located in the County of Contra Costa, State of California, generally known as the "Intervening Properties" ("Grantor's Property").

B. Grantor desires to transfer to Grantee in accordance with the provisions of California Civil Code section 815 et seq.; a conservation easement over a portion of Grantor's Property, as depicted on and legally described in Exhibit "A" attached hereto (the "Protected Property").

C. This Conservation Easement Deed ("Easement") is being executed and delivered pursuant to the Biological Opinion for Intervening Properties Development (1-1-02-F-0022) dated as of May 13, 2003 and prepared by the United States Fish and Wildlife Service ("USFWS") pursuant to Section 7 of the Federal Endangered Species Act ("ESA"), and as authorized in a permit issued in connection with the development of the Intervening Properties project (the "Project") pursuant to Section 404 of the Clean Water Act (U.S. Army Corps of Engineers File No. 24528S), water quality certification issued by the California Regional Water Quality Control Board Central Coast Region ("RWQCB"), Lake or Streambed Alteration Agreement (Notification No. 1600-2004-279-3) issued by the California Department of Fish and Game ("CDFG") pursuant to Section 1602 of the California Fish and Game Code (collectively, the "Conservation Instrument"), whereby conservation requirements may be satisfied through establishment of a conservation easement on the Protected Property. The Protected Property provides or is capable or providing significant ecological and habitat values that benefit endangered, threatened, and other species (collectively, "Conservation Values"), as set forth in the Conservation Instrument, including the preservation of the San Joaquin kit fox and California red-legged frog. This Easement provides mitigation for the Project pursuant to the Conservation Instrument.

D. The USFWS, an agency within the United States Department of the Interior, has jurisdiction over the conservation, protection, restoration, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of these species within the United States pursuant to the Endangered Species Act, 16 U.S.C. §§1531, et seq. ("ESA"), the Fish and Wildlife Coordination Act, 16 U.S.C. §§661-666c, the Fish and Wildlife Act of 1956, 16 U.S.C. §§742(f), et seq., and other provisions of Federal law. The CDFG is a public entity formed under the laws of the State of California, has jurisdiction pursuant to California Section 1802 of the Fish and Game Code over the conservation, protection and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of those species, and is authorized to issue a Lake or Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code. The RWQCB, an agency within the California Environmental Protection Agency, is authorized to regulate the discharge of fill and dredged materials pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act.

G. Grantor intends to convey to Grantee the right to preserve, protect, sustain, and enhance and/or restore the Conservation Values of the Protected Property in perpetuity.

H. Grantee is authorized to hold conservation easements pursuant to California Civil Code §815.3 and, as relevant to tax-exempt non-profit organizations, §501(c)(3) of the Internal Revenue Code.

E. The Protected Property will be maintained in accordance with the terms of this Easement and the management plan titled "Long-term Consolidated Management Plan for the Intervening Properties Conservation Areas, Danville, Contra Costa County, California," a copy of which is attached hereto as Exhibit "B" and any future amendments thereto (the "Management Plan") and in a manner that assures that the uses will not impair the Conservation Values of the Protected Property in perpetuity.

F. Grantee agrees by accepting this grant to honor the intentions of Grantor stated herein and to conserve and protect in perpetuity the Conservation Values of the Protected Property in accordance with the terms of this Easement and the Management Plan.

G. Grantor intends, upon completion of the Project, to convey fee title in the Protected Property to the Wendt Ranch Geological Hazard Abatement District or to any other public entity approved by USFWS (the "GHAD"), which will assume all of Grantor's obligations hereunder and such other obligations as may be agreed between the GHAD and Grantee.

COVENANTS, TERMS, CONDITIONS, AND RESTRICTIONS

In consideration of the above recitals and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of California and California Civil Code section 815 et seq., Grantor hereby voluntarily grants and conveys to Grantee a perpetual conservation easement over the Protected Property of the nature and character and to the extent hereinafter set forth.

1. PURPOSE: It is the purpose of this Easement to assure that the Protected Property will be preserved as finally established pursuant to the Management Plan, and to prevent any use of the Protected Property that will impair or interfere with the Conservation Values of the Protected Property. Grantor intends that this Easement will be implemented in accordance with the Management Plan to assure that the Protected Property will be used for such activities as are consistent with the purpose of this Easement.

2. RIGHTS OF GRANTEE: To accomplish the purpose of this Easement, the following rights are conveyed to Grantee:

(a) To conserve, protect, restore, and enhance the Protected Property in a manner consistent with this Easement and the Management Plan.

(b) To enter upon and traverse the Protected Property at all reasonable times, subject to the approval of the property owner, which shall not be unreasonably withheld, to monitor compliance with and to otherwise enforce the terms of this Easement and to perform all of Grantee's obligations and duties set forth herein; provided that such entry shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

(c) Subject to the exceptions contained in Paragraph 5 herein, to enjoin or prevent any activity on or use of the Protected Property that is inconsistent with the purpose of this Easement and to require the restoration of such areas or features of the Protected Property that may be damaged by any inconsistent activity or use.

(d) In exercising these rights Grantee shall have access to the Protected Property over legally dedicated public rights-of-way within Grantor's Property.

(e) All mineral, air and water rights necessary to preserve, protect and sustain the biological resources and Conservation Values of the Protected Property, unless specifically excluded from this Easement, including Grantor's right, title and interest in and to any waters consisting of: (a) any riparian water rights appurtenant to the Protected Property; (b) any appropriative water rights held by Grantor to the extent those rights are appurtenant to the Protected Property; (c) any waters, the rights to which are secured under contract between the Grantor and any irrigation or water district, to the extent such

waters are customarily applied to the Protected Property; and (d) any water from wells that are in existence or may be constructed in the future on the Protected Property or on those lands described as excepted from the Protected Property in the legal description, to the extent such waters are customarily applied to the Protected Property (collectively, "Easement Waters"). The Easement Waters are limited to the amount of Grantor's waters reasonably required to maintain the Conservation Values of the Protected Property.

(f) All present and future development rights allocated, implied, reserved or inherent in the Protected Property; such rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Protected Property, except as permitted by the Management Plan or this Easement.

3. PROHIBITED USES: Subject to the provisions of Paragraph 4 and the exceptions contained in Paragraph 5 herein, any activity upon or use of the Protected Property inconsistent with the purposes of this Easement is prohibited. Without limiting the generality of the foregoing, Grantor, Grantor's personal representative, heirs, successors, assigns, agents, and potential future lessees are expressly prohibited from doing any of the following on the Protected Property, other than as expressly permitted in the Management Plan or this Easement:

(a) Construction, reconstruction or placement of any building, structure, billboard, seating area or sign except as expressly permitted in this Easement or the Management Plan;

(b) Watering, degradation of water quality, use of herbicides, rodenticides, or weed abatement activities; incompatible fire protection activities; inappropriate placement of storm drains, and any and all other uses not consistent with the Management Plan which may adversely affect the purposes of this Easement;

(c) Depositing, discharging, dumping or accumulation of soil, trash, ashes, garbage, debris, waste, bio-solids, plant clippings or any other material except as required for fire breaks to protect the Protected Property;

(d) Filling, dumping, mining, excavating, dredging, or exploring for or removing of loam, gravel, soil, rock, sand or other material on or below the surface of the Protected Property, except as may be required by the GHAD in carrying out its duties and responsibilities;

(e) Planting, introduction or dispersal of non-native or exotic plant or animal species;

(f) Leveling, grading, landscaping or otherwise altering the existing topography or natural drainage of the Protected Property including building of roads, except as necessary to fulfill management responsibilities as set forth in the Management

Plan and/or for the installation or maintenance of any sanitary sewer improvements, to complete construction of the Project, or to permit the GHAD to carry out the duties enumerated in Paragraphs 5, 5(a) and 6;

(g) Removing, destroying, or cutting of trees, shrubs, or other native vegetation, except as required for existing or approved fire breaks, maintenance of existing foot trails or roads, activities permitted by Paragraph 5 of this Easement, or not involving clearing of vegetation or soil disturbance that could cause erosion or prevention or treatment of plant disease consistent with the Management Plan;

(h) Unseasonable watering or pumping of excessive water; use of fertilizers, herbicides, pesticides, biocides, or other agricultural chemicals; mosquito abatement activities; weed abatement activities; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of this Easement, except as permitted by this Easement and/or the Management Plan;

(i) Granting access to the land to any third party for off-road vehicle use, other than by the Contra Costa County Sheriff's Department, the San Ramon Valley Fire Protection District, or other governmental entities in the performance of their duties;

(j) Grazing or other agricultural activity of any kind, except those grazing and/or agricultural activities authorized by the Management Plan;

(k) Commercial or industrial uses, except those commercial uses that involve grazing or agricultural activities authorized by the Management Plan;

(l) Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing, except as permitted under the Management Plan or specifically permitted under this Easement;

(m) Discharging of firearms, nuisance activity or other conduct inconsistent with approved zoning for Grantor's Property;

(n) Engaging in any new manipulation, impoundment or alteration of a natural water course, body of water or water circulation on the Protected Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters; and

(o) Transferring any water right necessary to maintain or restore the biological resources on the Protected Property.

4. GRANTOR'S DUTIES: Grantor and its successor owners of fee title to the Protected Property shall undertake all reasonable actions to prevent the unlawful entry

and trespass by persons whose activities may degrade or harm the Conservation Values of the Protected Property. In addition, Grantor shall undertake all necessary actions to perfect Grantee's rights under section 2 of this Easement.

5. RESERVED RIGHTS: Grantor reserves to itself and to its personal representatives, heirs, successors, assigns, agents and lessees, all rights accruing from its ownership of the Protected Property, including but not limited to: (i) the right to engage in or invite others to engage in activity on or use of the Protected Property for the purpose of complying with the requirements of any governmental permits or authorizations including, but not limited to, the Conservation Instrument and any other permits granted pursuant to the ESA, the California Endangered Species Act, Section 404 of the Clean Water Act, 33 U.S.C. § 1344, the Porter-Cologne Act, including Section 13623 of the California Water Code, or § 1600 et seq. of the California Fish and Game Code; (ii) the right to grant the GHAD access to the Protected Property for the purpose of conducting prevention, mitigation, abatement and control of geologic hazards, as defined in the Plan of Control described in Paragraph 5a; (iii) the right to engage in or invite local governmental entities or utility companies or their agents, including but not limited to the Contra Costa County, San Ramon Valley Fire Protection District, the Contra Costa Mosquito Abatement District, Pacific Gas & Electric, Central Contra Costa Sanitation District, to undertake maintenance or management activities on the Protected Property which are consistent with Project approvals and requirements, such as the installation and maintenance of the easement described in Paragraph 5b; (iv) the right to convey its fee simple interest in the Protected Property, in whole or in part, to the GHAD; (v) the rights to all existing easements and rights-of-way over the Protected Property and to grant future non-exclusive easements over the Protected Property which are not inconsistent with the terms and conservation purposes of this Easement and the Management Plan; and (vi) the right to engage in, permit or invite others to engage in all uses of the Protected Property that are not expressly prohibited herein and are not inconsistent with the conservation purposes of the Easement, including any activities that are needed to serve the Project (collectively, the "Reserved Rights").

(a) **GHAD Activities:** Pursuant to sections 26500 et seq. of the California Public Resources Code ("GHAD Law"), the Protected Property may be annexed into the GHAD. In accordance with the GHAD Law, a Plan of Control must be prepared by a certificated engineering geologist, and approved by the GHAD Board of Directors. The Plan of Control will include certain mitigation, monitoring and other activities needed to prevent, abate, control and/or repair any geologic hazards on GHAD land, which may include the Protected Property. The GHAD is specifically permitted under this Easement to engage in all activities or actions necessary to abate, control, prevent or repair a geologic hazard, including those activities set forth in the Plan of Control, and any subsequent amendments thereto. Grantor shall provide the GHAD with access to the Protected Property consistent with the terms of the Plan of Control and GHAD Law (or subsequent legislation).

Except in an emergency, the GHAD will notify Grantee no less than twenty-four (24) hours before performing any activity that it believes could adversely affect the Conservation Values of the Protected Property, including, but not limited to the performance of any ground disturbing activity. The GHAD will also provide the Grantee with a written description of any activities that it believes adversely affected the Conservation Values of the Protected Property, including, any ground disturbing activities, within twenty-four (24) hours of performing such activity.

(b) **Central Contra Costa Sanitation District Easement and Access:** The Central Contra Costa Sanitation District ("CCCSD") may install, operate, maintain and from time to time upgrade, a wastewater utility pipe, access path and related improvements within the Protected Property ("CCCSD Easement"). The CCCSD Easement will be located in the area described in Exhibit "C" (legal descriptions). Grantor will allow CCCSD to construct an access path, and provide CCCSD with access to the Protected Property, as needed, for routine maintenance, repairs or upgrades, and for emergency purposes. To minimize any disturbance that may be caused by the installation of the sewer line and access path, the sewer line and access path will be installed at the time of, and as part of, grading the southeastern portion of the Project. The access path will be constructed of natural materials, such as crushed rock and fines, and will not include any curbs or structures which could constitute a barrier to movement of wildlife.

6. GEOLOGIC HAZARD PREVENTION. Grantee shall cooperate and shall coordinate its monitoring and maintenance activities with the geologic hazard prevention and control activities of the GHAD.

7. REMEDIES: If Grantor, Grantee, USFWS, and/or the U.S. Army Corps of Engineers ("ACOE") determine that there is a violation by any owner of fee title to any of the Protected Property ("Owner"), including Grantor or any other person, or by any other user of the Protected Property of the terms of this Easement, such entity shall give written notice to the individual or entity violating this Easement and to the other entities describing the violation and demanding corrective action sufficient to cure the violation and, where the violation involves injury to the Protected Property resulting from any use or activity inconsistent with the purpose of this Easement, to restore in accordance with the Management Plan the portion of the Protected Property so injured. If a party fails to cure a violation within sixty (60) days after receipt of notice thereof from the other party, or under circumstances where the violation cannot reasonably be cured within a sixty (60) day period, or fails to continue diligently to cure such violation until finally cured, the aggrieved party may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement or injury to any Conservation Values protected by this Easement. This shall include damages for the loss of aesthetic,

ecological, educational, historical, recreational or scientific values. The enforcing party may require the restoration of the Protected Property to the condition that existed prior to any such injury. If a party, in its good faith and reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Protected Property, such party may pursue its remedies under this paragraph without prior notice to the other party or without waiting for the period provided for the cure to expire. Each party's rights under this paragraph apply equally in the event of either actual or threatened violations of the terms of this Easement, and each party agrees that the other party's remedies at law for any violation of the terms of this Easement are inadequate and that such party shall be entitled to injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which such party may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Each party's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. Furthermore, the provisions of California Civil Code section 815 et seq., are incorporated herein by this reference and this Easement is made subject to all of the rights and remedies set forth therein. If at any time in the future Grantor, Grantee or any subsequent transferee or assignee uses or threatens to use such lands for purposes not in conformance with the provisions of this Easement, or releases or abandons this Easement in whole or in part, notwithstanding California Civil Code 815 et seq., the United States, including but not limited to the USFWS, shall have standing as interested parties, and as third party beneficiaries in any proceeding affecting this Easement.

(a) **Costs of Enforcement**: Reasonable costs incurred by any party enforcing the terms of this Easement, including without limitation, costs of suit and reasonable attorneys' fees, and any costs of restoration necessitated by a violation of the terms of this Easement shall be borne by the person or entity violating this Easement. If a party prevails in any action to enforce the terms of this Easement, such party's costs of any litigation or other legal enforcement action, including without limitation, attorneys' fees, shall be borne by the other party who did not prevail in the action. Recovery of attorneys' fees and costs from the federal government shall be governed by applicable federal laws and regulations.

(b) **Grantee's Discretion**: Enforcement of the terms of this Easement shall be at the discretion of Grantee and the USFWS, and any forbearance by Grantee or the USFWS to exercise their rights under this Easement shall not be deemed or construed to be a waiver by Grantee or the USFWS of such term or of any subsequent breach of the same or any other term of this Easement or of any of the enforcement rights under this Easement. No delay or omission by Grantee or the USFWS in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

(c) **Acts Beyond Owner's Control**: Nothing contained in this Easement shall be construed to entitle Grantee or any party to bring any action against Owner for any injury to or change in the Protected Property resulting from causes beyond Owner's control, including without limitation, fire not caused by Owner, drought, flood, storm, and earth movement caused by earthquake.

(d) **Third Party Beneficiary Right of Enforcement.** All rights and remedies conveyed under this Easement shall extend to and are enforceable by the USFWS. These rights of enforcement are in addition to, and do not limit, the rights of enforcement under the Conservation Instrument.

8. ACCESS: Upon prior notice to the Owner of a parcel of Protected Property that is reasonable under the circumstances and subject to the terms of this Easement, and specifically the limitations stated in Paragraph 2(b) hereof, Grantee, Grantee's successors, assigns, agents, invitees and licensees shall have the right to access the Protected Property. No public dedication for general public use is granted in the Protected Property, now or in the future, and the fee owner of each portion of Protected Property shall monitor access by members of the public and provide educational materials and programs to promote resident involvement in maintaining the restrictions and fulfilling the intent of this Easement.

9. COSTS AND LIABILITIES: Except as set forth in the Management Plan, this Easement, or as otherwise agreed in writing between the parties hereto, Grantor, their successors, assigns, agents shall retain all responsibilities and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Protected Property.

(a) **Taxes**: Grantor or its successors or assigns in interest shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Protected Property by competent authority, including any taxes imposed upon, or incurred as a result of, this Easement, and shall furnish Grantee with satisfactory evidence of payment upon request.

(b) **Hold Harmless**: Grantor or Grantor's successors shall hold harmless, indemnify, and defend Grantee directors, officers, employees, agents and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments, including without limitation, reasonable attorneys' fees, arising from or in any way connected with:

(i) injury to or the death of any person, or physical damages to any property, resulting from any act, omission, condition or other matter occurring on the Protected Property, unless caused by the acts or omissions of any of the Indemnified Parties;

(ii) the existence or administration of this Easement; and

(iii) the obligations, covenants, representations, and warrantics of this Easement relating to Costs and Liabilities of this Section 9.

10. NO HAZARDOUS MATERIALS LIABILITY. Grantor represents and warrants that it has no knowledge of any release or threatened release of hazardous materials in, on, under, about, or affecting the Protected Property. Without limiting the obligations of Grantor as otherwise provided in this instrument, Grantor agrees to indemnify, protect, and hold harmless the Indemnified Parties against any and all claims arising from or connected with any hazardous materials present, released in, on, from, or about the Protected Property, at any time, of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, unless caused solely by any of the Indemnified Parties.

11. BEST AND MOST NECESSARY USE. The habitat conservation purposes of the Conservation Easement are presumed to be the best and most necessary public use as defined in equity and pursuant to California Code of Civil Procedure §1240.680 notwithstanding Code of Civil Procedure §§1240.690 and 1240.700..

12. ASSIGNMENT. This Easement is transferable by Grantee, but the transferor shall give the other, Grantor and USFWS at least thirty (30) days prior written notice of the transfer. Grantee may assign or transfer its respective rights and obligations under this Easement only to an organization that is:

(i) approved by USFWS;

(ii) a public agency or a qualified organization at the time of transfer under section 170(h) of the Internal Revenue Code of 1954, as amended (or any successor provision then applicable), and the applicable regulations promulgated thereunder; and

(iii) authorized to acquire and hold conservation easements under California Civil Code section 815 et seq. (or any successor provision then applicable).

As a condition of such assignment or transfer, the Assignee or Transferee shall agree in writing that the Conservation Values that this grant is intended to advance shall continue to be fulfilled and that the Management Plan will be followed. In the event of the termination of existence of a future assignee of the Grantee, their successor or assigns, the rights and obligations of the Grantee hereunder shall, by that fact itself, and without any further action on the part of any entity, be re-assigned to another like entity by the Grantor, to hold under all the terms and conditions set forth herein.

13. SUBSEQUENT TRANSFERS: Grantor agrees to incorporate the terms of this Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Protected Property, including without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee and the USFWS at least thirty (30) days prior to the date of any property transfer. Grantee or the USFWS shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Easement **or** whenever a subsequent transfer will result in a merger of the Easement and Protected Property in a single property owner (thereby extinguishing the Easement) if no method or mechanism deemed adequate to preserve, protect, and sustain the Protected Property in perpetuity has been established. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

14. ESTOPPEL CERTIFICATES: Upon request by Grantor, Grantee shall within thirty (30) days execute and deliver to Grantor any document, including an estoppel certificate, which certifies Grantor's compliance with any obligation of Grantor contained in this Easement and otherwise evidences the status of this Easement as may be requested by Grantor.

15. NOTICES: Any notice, demand, request, consent, approval, or communication that the parties desire or are required to give to the others shall be in writing and either served personally or sent by first class U. S. mail, postage prepaid, addressed as follows:

To Grantor:

Contra Costa Real Estate Investors
4155 Blackhawk Plaza Circle, Suite 201
Danville, CA 94506-4613
Attn: Jeff Lawrence

Danville Tassajara Partners, LLC
c/o Lennar Communities
3130 Crow Canyon Place, Suite 310
San Ramon, CA 94583
Attn: Lynn Jochim

To Grantee:

Wildlife Heritage Foundation
3868 Cincinnati Avenue
Rocklin, CA 95765
Attn: Riley Swift

To USFWS: 2800 Cottage Way
Suite W-2605
Sacramento, CA 95825
Attn: Chief, Endangered Species
Division

With copy to: U.S. Department of the Interior
Office of the Solicitor
2800 Cottage Way
Sacramento, CA 95825

or to such other address or the attention of such other officer from time-to-time any party shall designate by written notice to the other.

16. RECORDATION: Grantee shall promptly record this instrument in accordance with the instructions for recordation in the Office of the Contra Costa County Recorder and may re-record it at any time as may be required to preserve its rights in this Easement.

17. FUNDING: For the purpose of fulfilling Grantor's obligation under this Easement, Intervening Properties Development shall fund the long-term operation and maintenance of the Protected Property. Separately and at the time of recordation of this Easement, Intervening Properties Development shall fund an endowment for the purpose of monitoring the Protected Property that will be supervised by the Grantee on behalf of the Grantor as detailed and set forth in Exhibit "D" attached hereto (the "Endowment Agreement").

18. WARRANTY: Grantor represents and warrants that there is no outstanding mortgage, lien, encumbrance, or other interest in the Property which has not been expressly subordinated to this Easement, and that, except for another conservation easement established in accordance with the Conservation Instrument and which is not adverse to this Easement established herein, the Protected Property is not subject to any other easement or interest that is adverse to or is not subordinate to this Easement.

19. ADDITIONAL INTERESTS. Except for another conservation easement established in accordance with the Conservation Instrument and which is not adverse to the Easement established herein, Grantor shall not grant any additional interest in the Protected Property, nor shall Grantor grant, transfer, abandon, or relinquish any water or water right associated with the Protected Property, including without limitation any Easement Waters, without the prior written authorization of Grantee and USFWS. Such consent may be withheld if the proposed interest or transfer is inconsistent with the purposes of this Easement and the Conservation Instrument or will impair or interfere with the conservation values of the Protected Property. This Section shall not prohibit

the transfer of a fee title or leasehold interest in the Protected Property that is otherwise subject to and complies with the terms of this Easement.

20. GENERAL PROVISIONS:

(a) **Controlling Law**: The interpretation and performance of this Easement shall be governed by the laws of the State of California, the Federal ESA, and other applicable Federal laws. Venue for any dispute or cause of action arising from this Easement or the Conservation Instrument shall be in Contra Costa County, California or the respective federal court having competent jurisdiction for the type of claim affecting the Protected Property.

(b) **Construction**: Any general rule of construction to the contrary notwithstanding, this Easement shall be construed in favor of the grant to give effect to the Conservation Purpose of this Easement and the policy and purpose of California Civil Code section 815 et seq. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) **Severability**: If any provision of this Easement, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) **Entire Agreement**: This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings or agreements relating to the Easement.

(e) **No Forfeiture**: Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) **Successors**: The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Protected Property.

(g) **Captions**: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

(h) **Counterparts**: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has

signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(i) **Third-Party Beneficiary**: Grantor and Grantee acknowledge that the USFWS is a third party beneficiary of this Easement with the right of access to the Protected Property and the right to enforce the terms and conditions of this Easement.

(j) **Amendments**: This Easement may not be modified or amended except by written instrument duly executed by Grantor, Grantee, and USFWS.

IN WITNESS WHEREOF, Grantor and Grantee have entered into this Easement the day and year first above written.

"GRANTOR"

CONTRA COSTA REAL ESTATE INVESTORS, a California limited liability corporation

By: _____

Its: _____

Danville Tassajara Partners, a Delaware limited liability company

By: _____

Its: Vice President

"GRANTEE"

WILDLIFE HERITAGE FOUNDATION, a non-profit California corporation

By: Patrick J. Shea

~~R.S Riley Swift~~ Patrick J. Shea

Its: ~~President~~ Vice President

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA)
)
COUNTY OF Yolo)

On October 18, 2004, before me, Laura Christensen, Notary Public, personally appeared Patrick J. Shea

☐ personally known to me - **OR** - ☒ proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/ ~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

WITNESS my hand and official seal.

LAURA CHRISTENSEN
Commission # 1346663
Notary Public — California
Yolo County
My Comm. Expires Mar 15, 2006

Laura Christensen
(SIGNATURE OF NOTARY)

OPTIONAL SECTION

THIS CERTIFICATE MUST BE ATTACHED TO THE DOCUMENT DESCRIBED AT RIGHT:

TITLE OR TYPE OF DOCUMENT: Perpetual Conservation Easement

NUMBER OF PAGES: 15

DATE OF DOCUMENT: 10/12/04

Though the data requested here is not required by law, it could prevent fraudulent reattachment of this form

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA)
)
COUNTY OF CONTRA COSTA)

On 2/22/05, before me, NANCY E. EMBREY, Notary Public, personally appeared

JEFF LAWRENCE

☒ personally known to me - **OR** - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

NANCY E. EMBREY
Commission # 1308083
Notary Public — California
Contra Costa County
My Comm. Expires Jun 8, 2005

Nancy E. Embrey
(SIGNATURE OF NOTARY)

OPTIONAL SECTION

THIS CERTIFICATE MUST BE ATTACHED TO THE DOCUMENT DESCRIBED AT RIGHT:

TITLE OR TYPE OF DOCUMENT: Perpetual Conservation Easement

NUMBER OF PAGES: ____

DATE OF DOCUMENT: 10/12/04

Though the data requested here is not required by law, it could prevent fraudulent reattachment of this form

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA)
)
COUNTY OF CONTRA COSTA)

On APRIL 15, 2005, before me, KAREN L. KEENAN, Notary Public, personally appeared

LYNN JOCHIM

☒ personally known to me - **OR** - ☐ ~~proved to me on the basis of satisfactory evidence~~ to be the person(~~s~~) whose name(~~s~~) is/ ~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~the~~y executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

WITNESS my hand and official seal.

KAREN L. KEENAN
Commission # 1378827
Notary Public - California
Contra Costa County
My Comm. Expires Oct 7, 2006

Karen L. Keenan
(SIGNATURE OF NOTARY)

OPTIONAL SECTION

THIS CERTIFICATE MUST BE ATTACHED TO THE DOCUMENT DESCRIBED AT RIGHT:

TITLE OR TYPE OF DOCUMENT: Perpetual Conservation Easement

NUMBER OF PAGES: _____

DATE OF DOCUMENT: _____

Though the data requested here is not required by law, it could prevent fraudulent reattachment of this form

EXHIBIT "A"

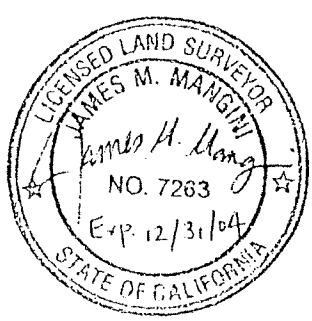
LEGAL DESCRIPTIONS AND MAPS OF PROPTECTED PROPERTY

CONSERVATION EASEMENT 1

A PORTION OF PARCEL "B", AS SAID PARCEL IS SHOWN ON THE RECORD OF SURVEY FILED OCTOBER 14, 1965 IN BOOK 37 OF LICENSED SURVEYORS MAPS AT PAGE 46, CONTRA COSTA COUNTY RECORDS, LYING IN UNINCORPORATED CONTRA COSTA COUNTY, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID PARCEL "B" (37 LSM 46); THENCE ALONG THE EAST BOUNDARY LINE OF SAID PARCEL "B" SOUTH 10°50'35" WEST 165.20 FEET TO THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING, CONTINUING ALONG SAID EAST BOUNDARY LINE SOUTH 10°50'35" WEST 165.73 FEET; THENCE SOUTH 12°35'35" WEST 438.00 FEET; THENCE LEAVING SAID EAST BOUNDARY LINE NORTH 65°14'00" WEST 204.79 FEET; THENCE NORTH 01°38'16" EAST 521.76 FEET; THENCE SOUTH 79°09'25" EAST 121.03 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING AN AREA OF 1.65 ACRES ±.



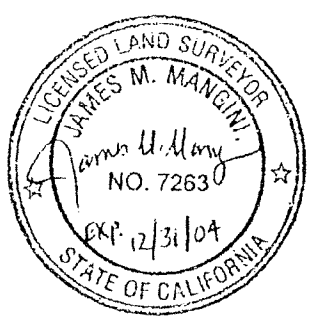
CONSERVATION EASEMENT 2

A PORTION OF PARCEL "B", AS SAID PARCEL IS SHOWN ON THE RECORD OF SURVEY FILED OCTOBER 14, 1965 IN BOOK 37 OF LICENSED SURVEYORS MAPS AT PAGE 46, CONTRA COSTA COUNTY RECORDS, LYING IN UNINCORPORATED CONTRA COSTA COUNTY, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL "B" (37 LSM 46); THENCE FROM SAID POINT OF BEGINNING ALONG THE SOUTH BOUNDARY OF SAID PARCEL "B" NORTH 88°58'04" WEST 365.10 FEET; THENCE LEAVING SAID BOUNDARY LINE NORTH 03°30'29" EAST 40.50 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 45.00 FEET, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 28°36'06" EAST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE 32.29 FEET THROUGH A CENTRAL ANGLE OF 41°06'50"; THENCE NORTH 47°08'07" EAST 84.70 FEET; THENCE NORTH 25°31'45" EAST 77.52 FEET; THENCE NORTH 14°38'43" WEST 46.01 FEET; THENCE NORTH 01°16'05" WEST 121.43 FEET; THENCE NORTH 07°22'52" EAST 56.29 FEET; THENCE NORTH 15°12'01" EAST 152.29 FEET; THENCE NORTH 15°53'18" WEST 116.99 FEET; THENCE NORTH 01°50'04" WEST 59.62 FEET; THENCE NORTH 53°28'45" EAST 25.17 FEET; THENCE NORTH 03°22'16" WEST 218.97 FEET; THENCE NORTH 01°56'52" WEST 66.73 FEET; THENCE NORTH 10°47'42" WEST 113.50 FEET; THENCE NORTH 15°41'35" WEST 155.27 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 53.00 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE 48.53 FEET THROUGH A CENTRAL ANGLE OF 52°28'04"; THENCE NORTH 25°06'30" WEST 81.52 FEET; THENCE NORTH 51°11'56" WEST 44.44 FEET; THENCE NORTH 45°02'28" WEST 149.17 FEET; THENCE SOUTH 74°36'31" WEST 38.26 FEET TO THE BEGINNING OF A NON TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 45.00 FEET, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 68°13'45" EAST; THENCE ALONG THE ARC OF SAID CURVE 91.34 FEET THROUGH A CENTRAL ANGLE OF 116°17'30" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 20.00 FEET, A RADIAL LINE TO THE BEGINNING OF SAID REVERSE CURVE BEARS SOUTH 08°00'26" EAST; THENCE WESTERLY ALONG THE ARC OF SAID CURVE 13.98 FEET THROUGH A CENTRAL ANGLE OF 40°03'18" TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 528.00 FEET, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 48°03'45" WEST; THENCE WESTERLY ALONG THE ARC OF SAID CURVE 6.80 FEET THROUGH A CENTRAL ANGLE OF 00°44'16"; THENCE NORTH 08°44'42" WEST 89.13 FEET; THENCE SOUTH 89°12'31" WEST 65.39 FEET; THENCE SOUTH 71°22'20" WEST 83.24 FEET;

THENCE NORTH 26°26'26" EAST 23.29 FEET; THENCE NORTH 71°22'20" EAST 55.88 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 170.00 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE 111.76 FEET THROUGH A CENTRAL ANGLE OF 37°40'03"; THENCE SOUTH 70°57'37" EAST 98.03 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 1970.00 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE 289.18 FEET THROUGH A CENTRAL ANGLE OF 08°24'38" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 2030.00 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE 95.08 FEET THROUGH A CENTRAL ANGLE OF 02°41'01"; THENCE SOUTH 65°14'00" EAST 250.60 FEET TO THE EAST BOUNDARY LINE OF SAID PARCEL "B" (37 LSM 46); THENCE ALONG SAID EAST BOUNDARY LINE SOUTH 12°35'35" EAST 511.50 FEET; THENCE SOUTH 10°28'23" WEST 860.63 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 12.17 ACRES ±.



CONSERVATION EASEMENT 3

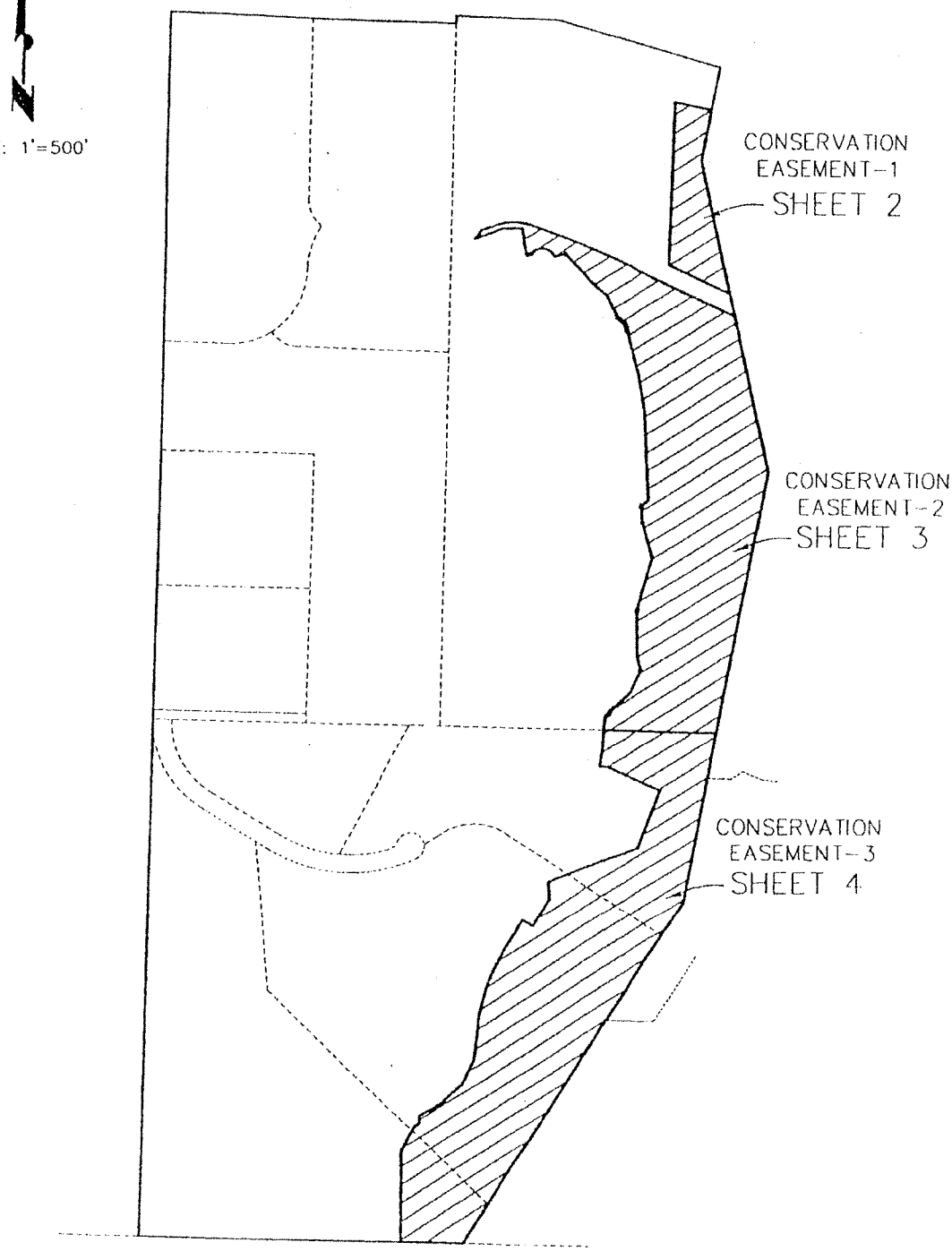
A PORTION OF LOTS 2, 3 AND 4, AS SAID LOTS ARE SHOWN ON THE MAP OF SUBDIVISION 5417 FILED DECEMBER 17, 1979 IN BOOK 233 OF MAPS AT PAGE 48, CONTRA COSTA COUNTY RECORDS, LYING IN UNINCORPORATED CONTRA COSTA COUNTY, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 4, AS SHOWN ON THE MAP OF SAID SUBDIVISION 5417 (233 M 48); THENCE ALONG THE SOUTH LINE OF SAID LOT 4 NORTH 88°58'18" WEST 204.84 FEET; THENCE LEAVING SAID SOUTH LINE NORTH 00°00'00 EAST 295.21 FEET; THENCE NORTH 26°42'29" EAST 88.41 FEET; THENCE NORTH 52°20'22" EAST 22.66 FEET; THENCE NORTH 00°09'05" WEST 24.42 FEET; THENCE NORTH 59°46'18" EAST 88.49 FEET; THENCE NORTH 46°58'01" EAST 91.93 FEET; THENCE NORTH 25°12'53" EAST 88.00 FEET; THENCE NORTH 06°54'49" EAST 76.66 FEET; THENCE NORTH 05°09'41" EAST 65.00 FEET; THENCE NORTH 13°01'41" EAST 50.35 FEET; THENCE NORTH 16°01'03" EAST 57.88 FEET; THENCE NORTH 24°16'18" EAST 57.90 FEET; THENCE NORTH 29°55'17" EAST 58.73 FEET; THENCE NORTH 31°36'34" EAST 122.63 FEET; THENCE SOUTH 60°11'04" EAST 37.71 FEET; THENCE NORTH 31°32'52" EAST 105.39 FEET; THENCE NORTH 04°17'30" WEST 56.85 FEET; THENCE NORTH 67°32'05" EAST 39.41 FEET; THENCE NORTH 69°06'38" EAST 280.11 FEET; THENCE NORTH 19°46'00" EAST 201.25 FEET; THENCE NORTH 65°56'33" WEST 185.79 FEET; THENCE NORTH 84°19'22" WEST 25.13 FEET; THENCE NORTH 08°58'44" EAST 53.90 FEET; THENCE NORTH 03°30'29" EAST 65.56 FEET TO THE NORTH BOUNDARY LINE OF LOT 2, AS SAID LOT IS SHOWN ON THE MAP OF SAID SUBDIVISION 5417 (233 M 48); THENCE ALONG THE EXTERIOR LINE OF SAID SUBDIVISION 5417 (233 M 48) SOUTH 88°58'04" EAST 365.10 FEET; THENCE SOUTH 10°28'23" WEST 567.68 FEET; THENCE SOUTH 32°49'40" WEST 1333.87 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 13.60 ACRES ±.

INTERVENING PROPERTIES

CONSERVATION EASEMENT



SHEET 1 OF 4

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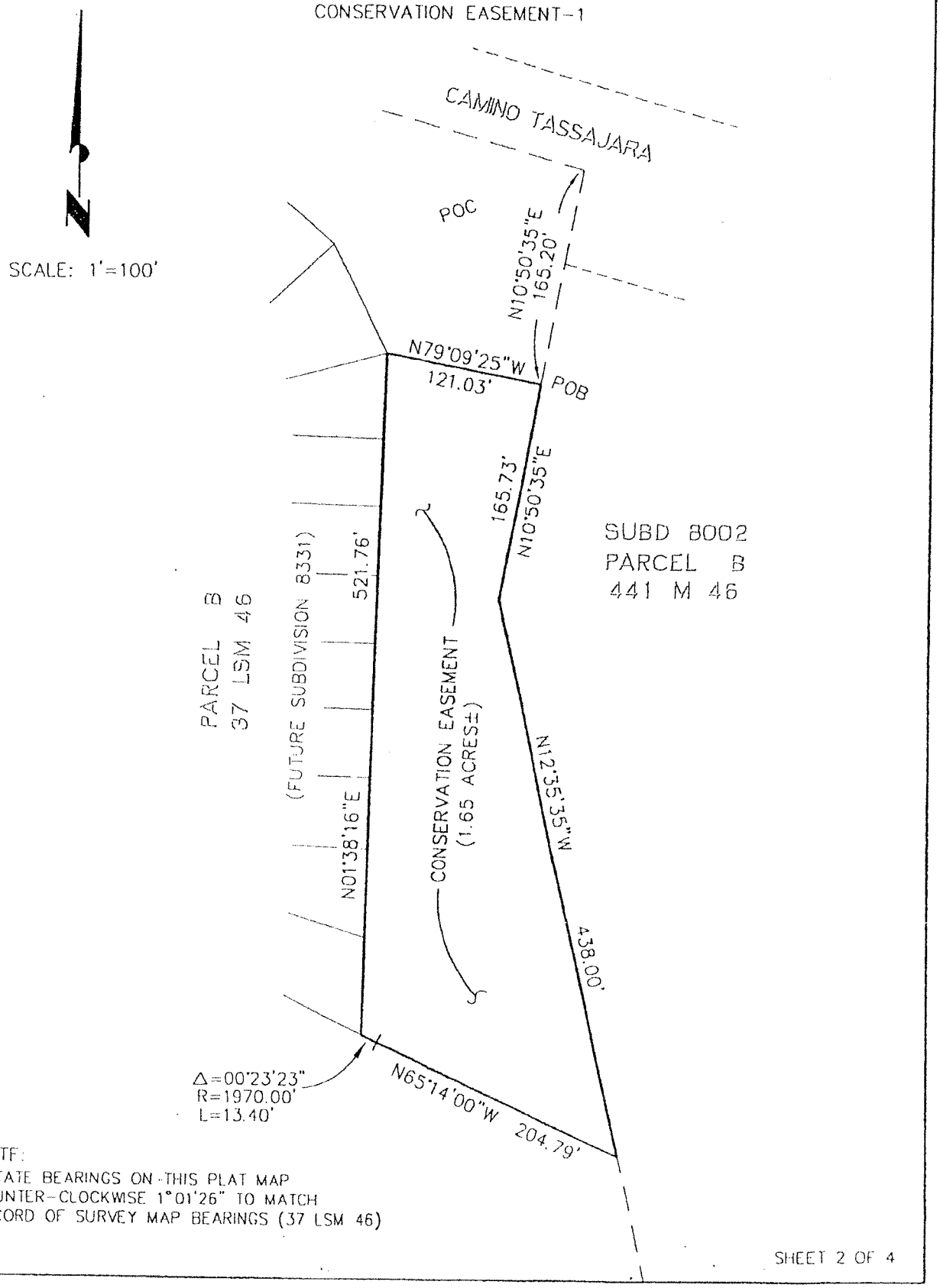
98-1042-30

INTERVENING PROPERTIES
CONSERVATION EASEMENT-1



NOTE:
ROTATE BEARINGS ON THIS PLAT MAP
COUNTER-CLOCKWISE 1°01'26" TO MATCH
RECORD OF SURVEY MAP BEARINGS (37 LSM 46)

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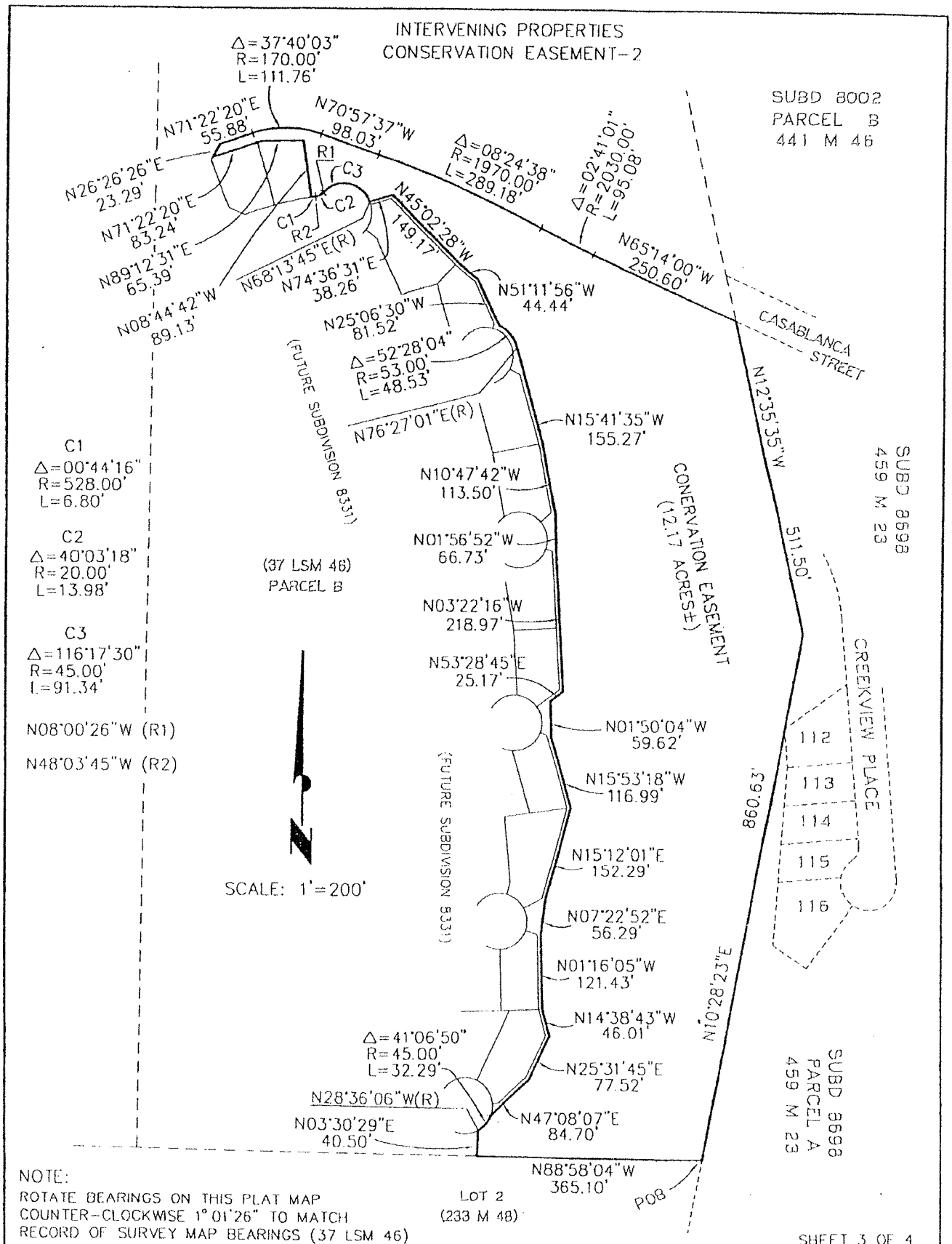
98-1042-30



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98-1042-30

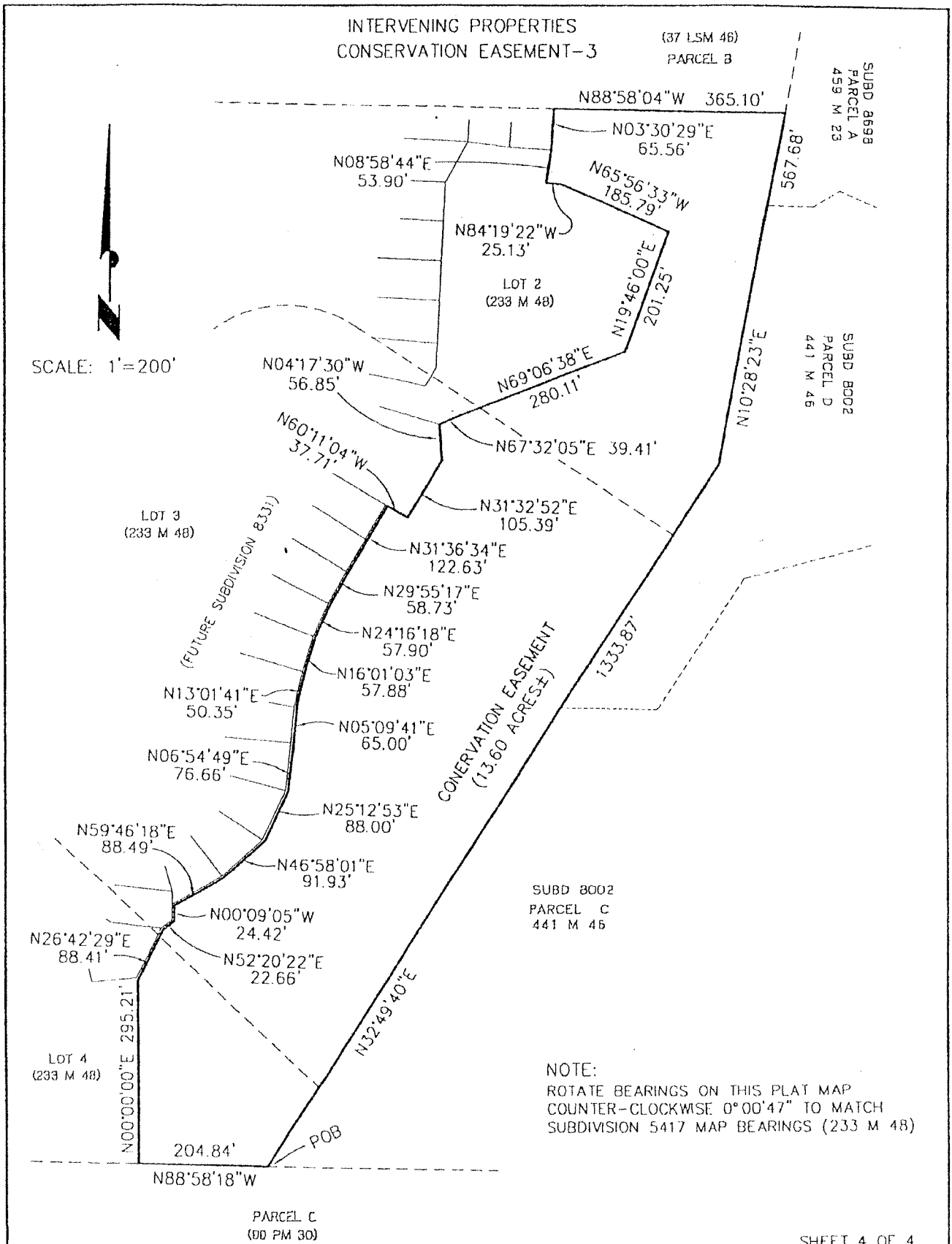

INTERVENING PROPERTIES
CONSERVATION EASEMENT-3
(37 LSM 46)
PARCEL B
SUBD 8698
PARCEL A
459 M 23
N88°58'04"W 365.10'
N03°30'29"E
65.56'
N08°58'44"E
53.90'
N65°56'33"W
185.79'
567.68'
N84°19'22"W
25.13'
LOT 2
(233 M 48)
N19°46'00"E
201.25'
SUBD 8002
PARCEL D
441 M 46
SCALE: 1"=200'
N04°17'30"W
56.85'
N69°06'38"E
280.11'
N10°28'23"E
N60°11'04"W
37.71'
N67°32'05"E 39.41'
N31°32'52"E
105.39'
LOT 3
(233 M 48)
(FUTURE SUBDIVISION 8331)
N31°36'34"E
122.63'
N29°55'17"E
58.73'
N24°16'18"E
57.90'
N16°01'03"E
57.88'
N13°01'41"E
50.35'
N05°09'41"E
65.00'
N06°54'49"E
76.66'
N25°12'53"E
88.00'
CONERVATION EASEMENT
(13.60 ACRES±)
1333.87'
N59°46'18"E
88.49'
N46°58'01"E
91.93'
SUBD 8002
PARCEL C
441 M 46
N00°09'05"W
24.42'
N26°42'29"E
88.41'
N52°20'22"E
22.66'
N32°49'40"E
LOT 4
(233 M 48)
N00°00'00"E 295.21'
204.84'
POB
N88°58'18"W
PARCEL C
(90 PM 30)
NOTE:
ROTATE BEARINGS ON THIS PLAT MAP
COUNTER-CLOCKWISE 0°00'47" TO MATCH
SUBDIVISION 5417 MAP BEARINGS (233 M 48)
SHEET 4 OF 4

EXHIBIT "B"

MANAGEMENT PLAN

Prepared for:
Braddock & Logan
4155 Blackhawk Plaza Circle, Suite 201
Danville, CA 94526
(925) 736-4000

Prepared by:
Sycamore Associates LLC
2099 Mt. Diablo Blvd., Suite 204
Walnut Creek, CA 94596
(925) 279-0580

September 29, 2004

LONG-TERM CONSOLIDATED MANAGEMENT PLAN FOR THE INTERVENING PROPERTIES CONSERVATION EASEMENT AREAS DANVILLE, CONTRA COSTA COUNTY, CALIFORNIA

The information provided in this document is intended solely for the use and benefit of Braddock & Logan Group, L.P.

No other person or entity shall be entitled to rely on the services, opinions, recommendations, plans or specifications provided herein, without the express written consent of Sycamore Associates LLC, 2099 Mt. Diablo Boulevard, Suite 204, Walnut Creek, CA 94596.

TABLE OF CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

As part of the mitigation for impacts to biological resources resulting from the Intervening Properties residential development, a Consolidated Long Term Management Plan for both the on-site and off-site conservation easements is necessary per conditions in the Biological Opinion (BO) issued by the U.S. Fish and Wildlife Service on May 13, 2003 (BO No. 1-1-02-F-0022). On April 26, 2004, Braddock & Logan provided the U.S. Fish and Wildlife Service, California Department of Fish and Game (and the Regional Water Quality Control Board) with a *Wetland and Special-Status Species Mitigation and Monitoring Plan for the Intervening Properties* (MMP) (Sycamore Associates, 2004). All information related to the implementation and initial five years of monitoring, habitat management and necessary remedial work is contained within that document and, therefore, will not be discussed here, but is hereby incorporated by reference. The initial five years of monitoring, habitat management and any necessary remedial actions shall be the responsibility of Braddock and Logan as will the annual reporting requirement for the five years of monitoring. A copy of the annual report will be provided to the Wildlife Heritage Foundation. This document is related only to those management activities anticipated to be necessary after the initial monitoring period is completed. The Consolidated Long Term Management Plan (Consolidated Plan) is broken into two categories, the on-site conservation easement area which encompasses the unnamed tributary to Alamo Creek and the setback, and the off-site conservation easement on the Jones property.

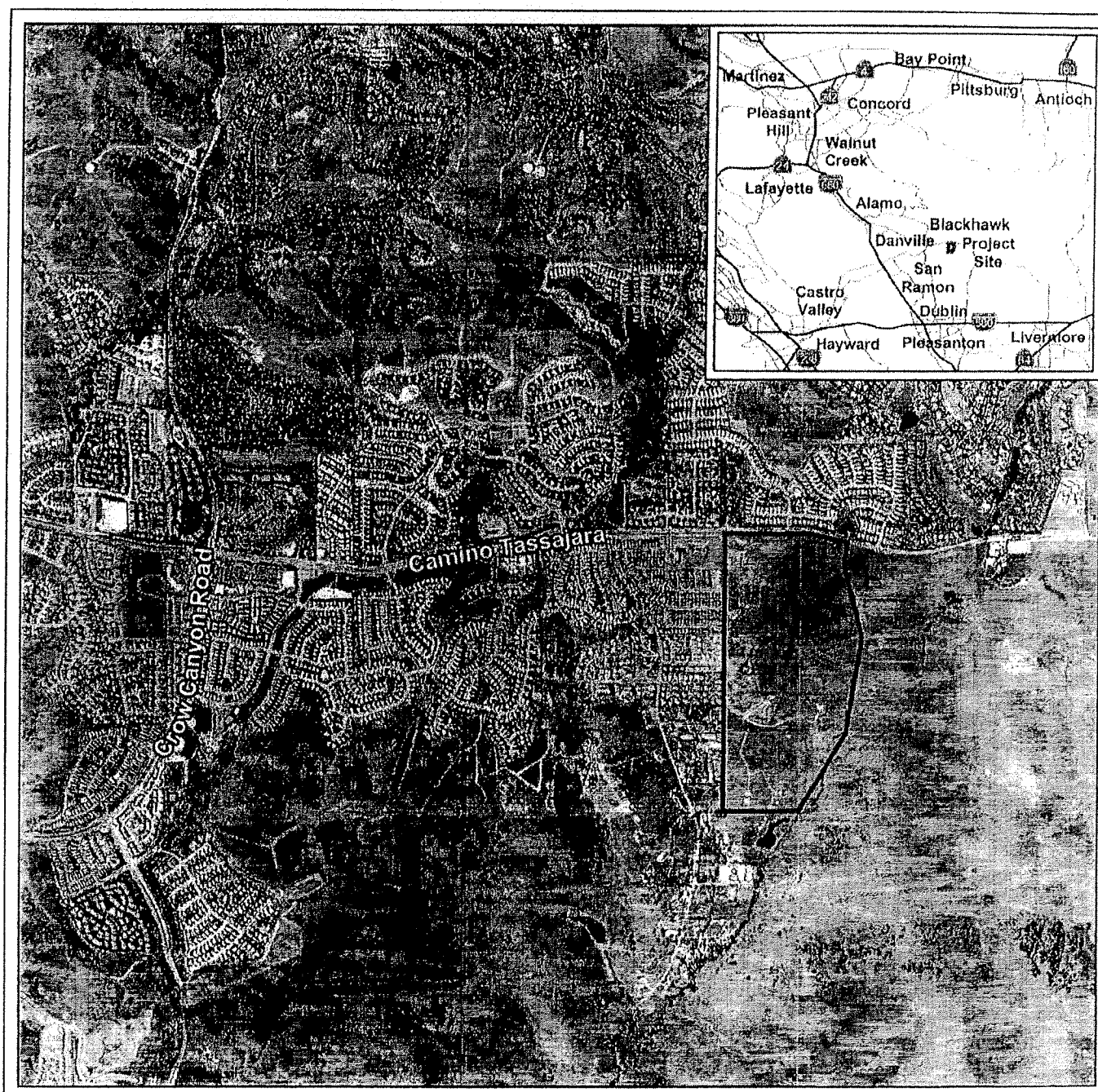
1.1 On-Site Conservation Easement Area

The on-site conservation easement area is located on the Intervening Properties project site, which is located on Camino Tassajara Road adjacent to the Town of Danville, Contra Costa County, California (Figure 1). The conservation easement area is approximately 27 acres and runs most of the length of an unnamed tributary to Alamo Creek. The unnamed tributary runs from north to south forming the easternmost boundary of the project site (Figure 2). The on-site easement is to be managed in perpetuity as aquatic and associated upland and dispersal habitat for California red-legged frog (*Rana aroura draytonii*), federally-listed Threatened. Special-status species occurrences near the Intervening Properties are shown on Figure 3.

As part of the Intervening Properties MMP, two on-channel created wetlands were established in the easement area. One wetland supporting seasonal freshwater marsh habitat of approximately 0.09 acre (4,000 square feet) will be created on-channel approximately 2,000 feet north of the confluence of the unnamed tributary and Alamo Creek. A second wetland of approximately 0.09 acre (4,000 square feet) supporting Central Coast riparian scrub habitat will be created on-channel just north of the confluence. Additionally, riparian plantings will be established along approximately 200 linear feet of the unnamed tributary (Figure 4).

This Consolidated Plan assumes that the mitigation areas have met their success criteria during the five-year monitoring period as described in the MMP. Also completed as part

of the Intervening Properties MMP implementation was the translocation of populations of Congdon's tarplant that could not be avoided on the Intervening Properties project site (Figure 5).



Legend

Project Boundary

Figure 1

Location of the Project Site

Braddock & Logan
Intervening Properties

Danville, California

1:24,000 6/18/04
1 inch equals 2,000 feet

0 2,000 4,000 Feet

N

This document provided for the sole use of Braddock & Logan. This document not intended for detail design work. Aerial Photos by HJW (May 2000).

Sycamore Associates LLC
2099 Mt. Diablo Blvd. Suite 204
Walnut Creek, CA 94596
925.279.0580
www.sycllc.com

S:\Projects\Braddock & Logan\Intervening\Graphics\GIS\MMP\Project Site 040204.mxd

Legend

- Project Boundary
- On-site Conservation Easement Area
- Site Plan
- USACE Jurisdictional Wetlands

Figure 2

On-site Conservation Easement Area

Braddock & Logan
Intervening Properties

Danville, California

N

1:7,200 6/9/04
1 inch equals 600 feet

0 600 1,200 Feet

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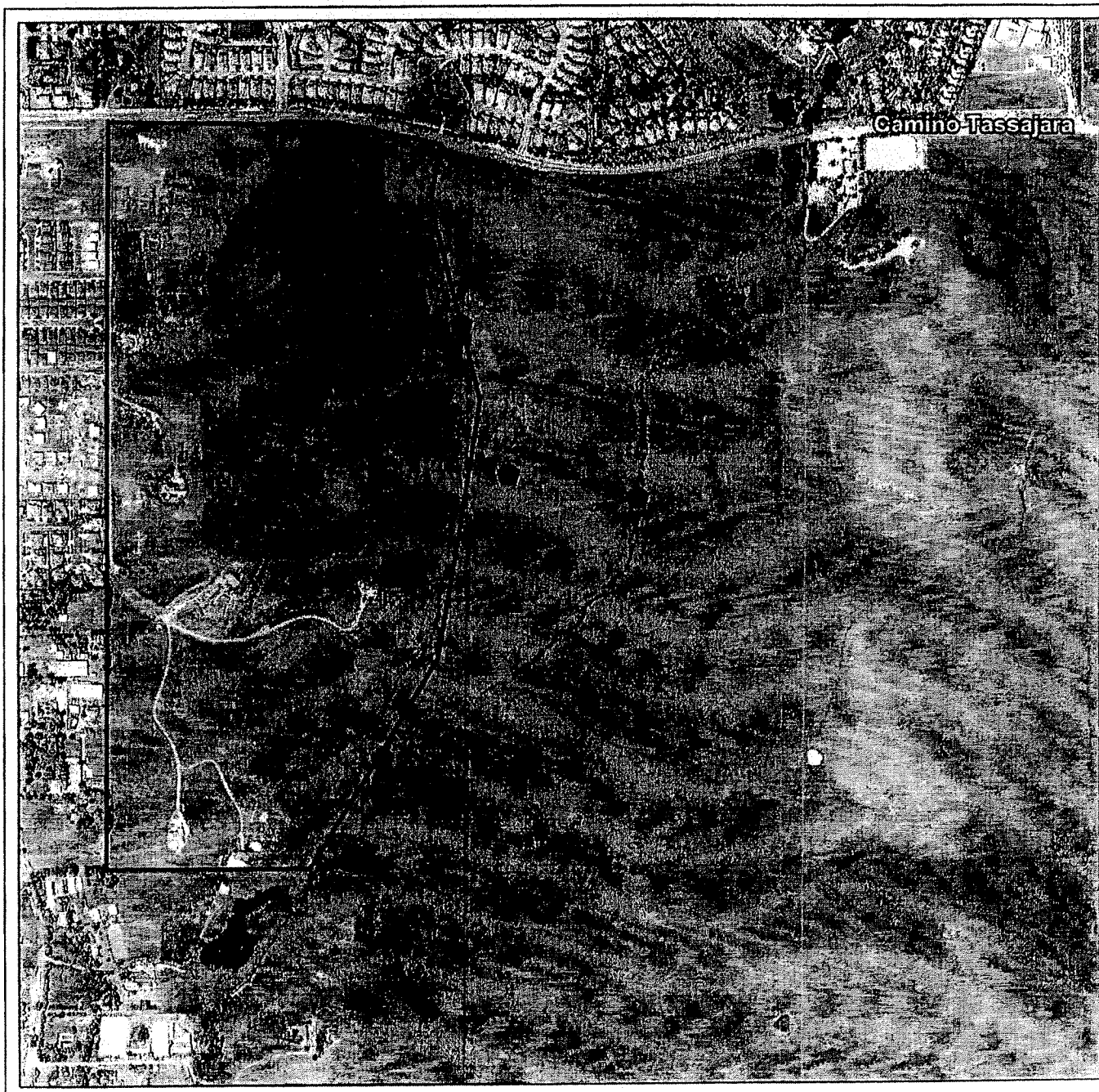

Legend

California Red-Legged Frog

Project Boundary

N

1:9,000 4/7/04

1 inch equals 750 feet

0 750 1,500 Feet

Figure 3

Special-Status Wildlife Occurrences On and Adjacent To the Project Site

Braddock & Logan Intervening Properties

Danville, California

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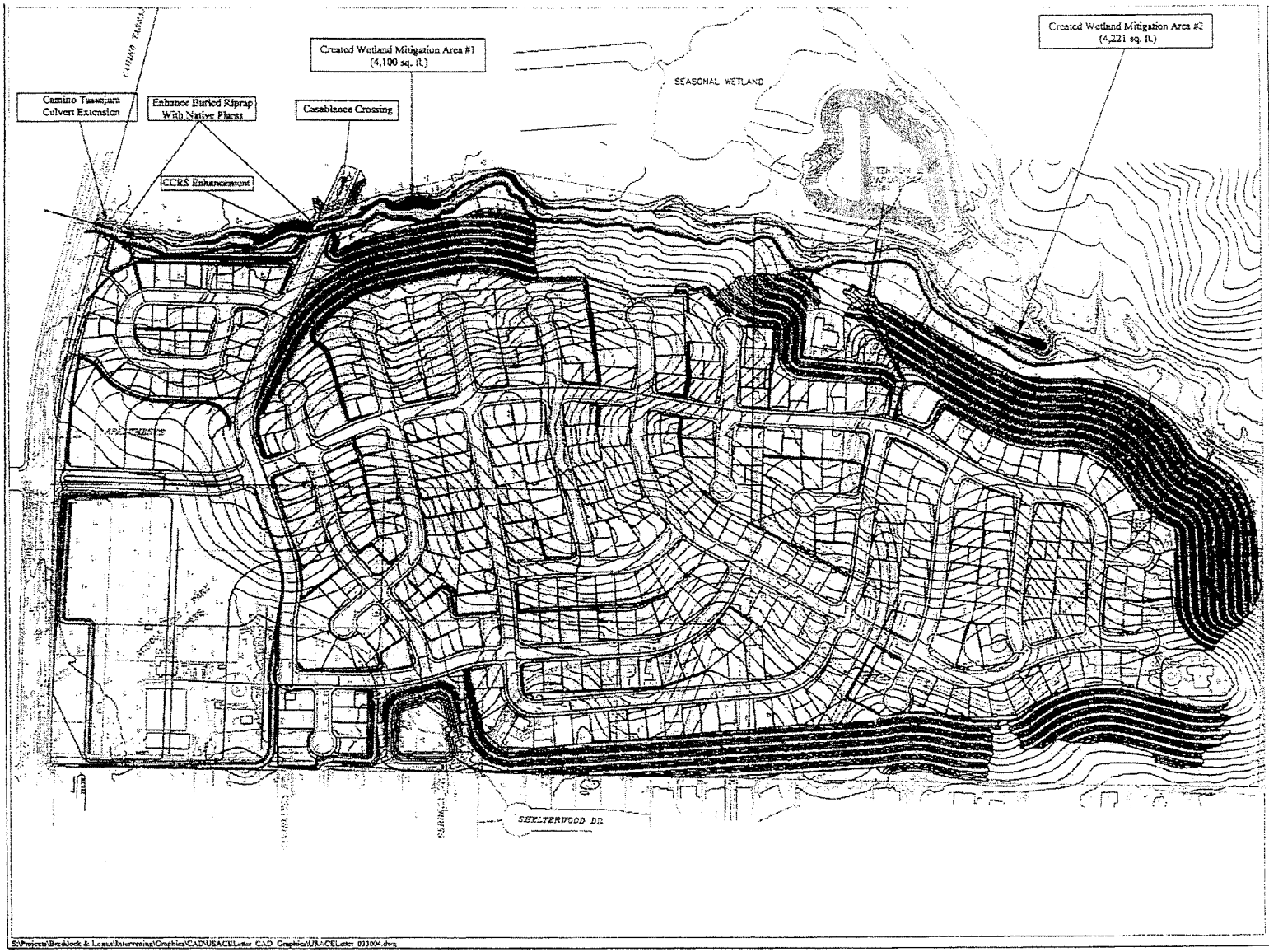

Figure 4

Created Wetland and Mitigation Planting Areas

Braddock & Logan Intervening Properties

Danville, California

April 12, 2004

Legend

Wetland Mitigation Areas

New Contours

Top of Bank per dk Assoc.

SCALE: 1" = 300 ft.
1:3600

N

For the exclusive use of Braddock and Logan.
Base map data provided by dk Associates.
This document not intended for street design work.
NOTE: Conditions may vary and may be monitored at a later date.

Sycamore Associates, LLC
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Walnut Creek, CA 94596
925.279.0580
www.sycllc.com

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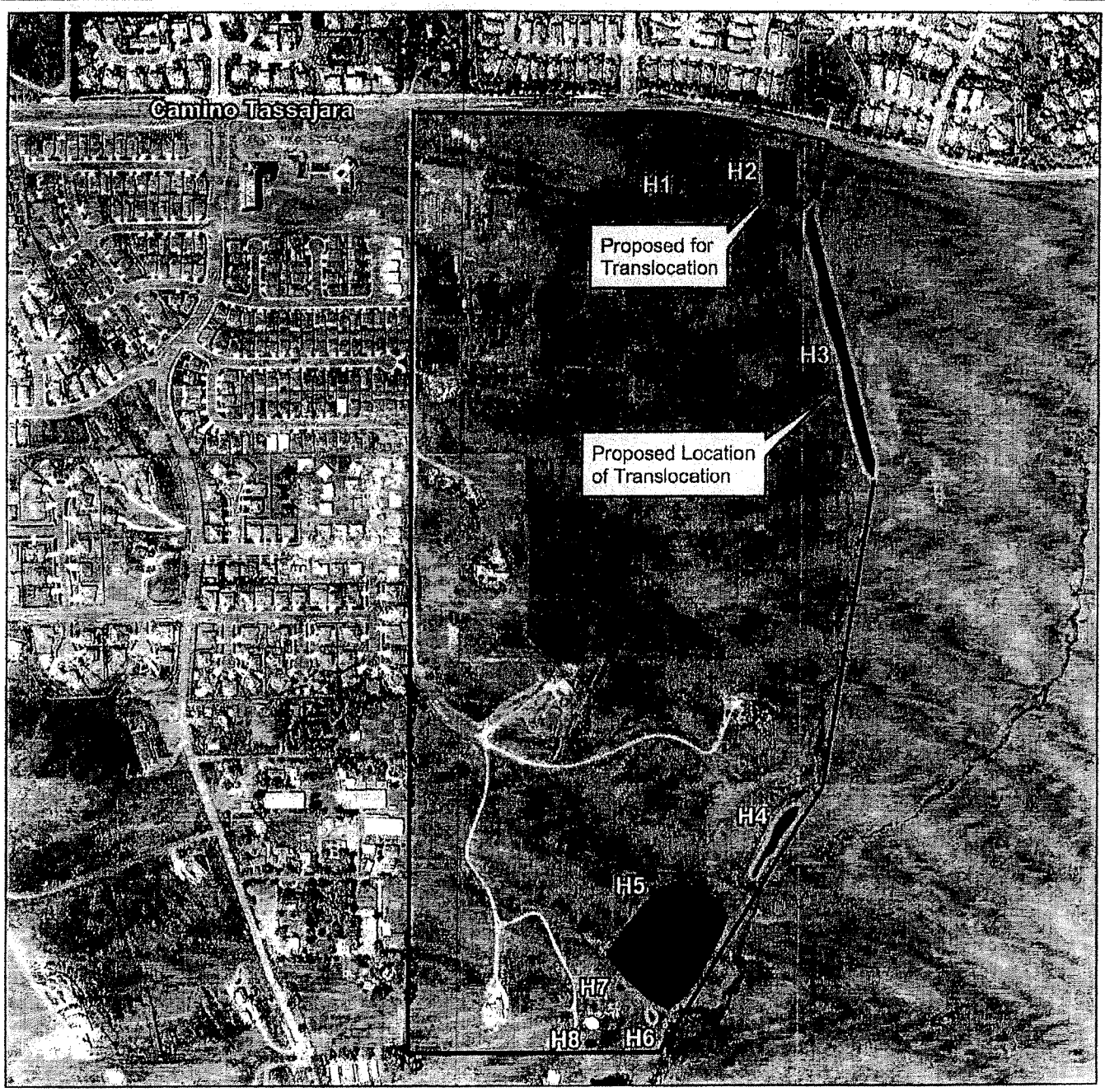

Legend

- Congdon's Tarplant
- Preserved Congdon's Tarplant
- Project Boundary

1:7,200 4/7/04
1 inch equals 600 feet
0 600 1,200 Feet

N

Figure 5

Locations of Congdon's Tarplant Preservation and Translocation

Braddock & Logan Intervening Properties

Danville, California

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1.1.1. Annual Administration and Oversight

As part of the Consolidated Plan, annual administration of the easement areas, endowment fund and accounting will be required. It is anticipated that this will include reviewing the annual accounting for the endowment fund, and processing fees and payments related to long-term management of the easement areas. Additionally management of the easement will require coordination of the annual site visit to be conducted by the Habitat Monitor (appointed by Wildlife Heritage Foundation), coordination of the bullfrog eradication program, maintaining records for both the site visits and bullfrog eradication program and the record keeping and employment of adaptive management measures as they are necessary. Agency interface will be conducted as needed and may include telephone calls, email or other correspondence related to management and coordination of the conservation easement.

The Wildlife Heritage Foundation will manage both the on-site and off-site conservation easement areas. The Wildlife Heritage Foundation has also agreed to manage the Wendt Ranch open space as well as the planned Alamo Creek open space areas. This will provide one comprehensive management entity for the open space areas adjacent to Alamo Creek. However, this Consolidated Plan addresses only activities related to the Intervening Properties conservation easement area.

1.1.2. Maintenance of Permanent Signage

A total of eight signs pertaining to the sensitive habitat within the conservation easement were installed every 500 feet over the approximate 4,000 linear feet running between the development and the conservation easement. The signs provide information regarding general habitat value of wetlands only. The signs do not draw attention to California red-legged frog. These signs will need to be checked during the annual visits by the Habitat Monitor. The Habitat Monitor will check the integrity of the signage for damage and legibility and make a determination on replacement requirements. It is anticipated that these signs will need to be replaced every five years. Monitoring results and replacement needs will be documented in a summary of field notes annually to provide cohesiveness in the management from year to year.

1.1.3. Bullfrog Eradication Program

As part of the on-site portion of the Consolidated Plan, the Wildlife Heritage Foundation will conduct annual bullfrog eradication according to the methodology described below. The introduced bullfrog (*Rana castesbeina*) has been implicated in the local extirpation of California red-legged frog populations. Bullfrogs are known predators of the California red-legged frog. However, both frog species can co-exist if bullfrog populations remain small in relation to the California red-legged frog populations. Environmental conditions such as a seasonal water supply can reduce the reproductive success of bullfrogs, thereby keeping their population numbers small (Cook 1997). Bullfrogs have been found on the project site.

Bullfrogs are known to occur in the detention basins for the Shadow Creek and Blackhawk developments upstream of the project site, and in the Siu pond downstream of the project site (Figure 3). The detention basins and pond are likely to serve as a population source for bullfrogs and as such they pose a threat to California red-legged frogs on site. To control bullfrog immigration and re-colonization from off-site sources, the Wildlife Heritage Foundation will conduct annual surveys to eradicate bullfrogs consisting of two nocturnal and two daytime survey visits. These surveys will continue in perpetuity.

For each survey, two biologists familiar with the local herpetofauna will walk the length of the unnamed tributary channel equipped with long-handled dip nets and, during nocturnal surveys, headlamps and/or flashlights. All species encountered will be properly keyed-out and identified to species, and all observed bullfrogs and other non-native species known to compete with California red-legged frog, including Louisiana red swamp crayfish, will be disposed of properly.

Bullfrog eradication efforts will be scheduled to accommodate the life history of the California red-legged frog on site. The U.S. Fish and Wildlife Service's *Guidance on Site Assessment and Field Surveys for California Red-legged Frogs (Rana aurora draytonii)* (1997) recommends that protocol-level focused surveys be conducted between May 1 and November 1 to minimize "disturbance of breeding frogs, eggs, or tadpoles," but at such a time that "frogs can be reliably detected." As such, the bullfrog eradication surveys will be scheduled to occur at either end of this window to minimize impacts to breeding California red-legged frog and/or their eggs and tadpoles. One nocturnal and one day survey will occur in October in anticipation of California red-legged frog breeding, and one nocturnal and one daytime survey will occur in May subsequent to their breeding activities.

Ensuring that the Bullfrog Eradication Program is implemented annually as described will be part of the administration and oversight requirements of the Wildlife Heritage Foundation. The Wildlife Heritage Foundation will review the results of the Bullfrog Eradication Program annually to determine its effectiveness and modify accordingly. Costs associated with the Bullfrog Eradication Program have been included in the endowment fund.

1.1.4 Trash Removal Program

Periodically (not less than three times per year) the Habitat Monitor will remove accumulations of trash and other unwanted debris from both terrestrial and aquatic habitats within the on-site easement area. The Habitat Monitor will also monitor for trash and unwanted debris in the off-site easement area and if it becomes a problem will work with the landowner to have it removed.

1.1.5 Invasive Species Control

Weed species should be controlled if they begin to threaten establishment of the natives or are invasive and have the ability to displace the natives. Innocuous, naturalized weeds

that do not threaten native species should be ignored. Some common invasive exotics that are currently within the project area that should always be controlled include: poison hemlock (*Conium maculatum*), yellow-star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), artichoke thistle (*Cynara cardunculus*), prickly ox-tongue (*Picris echioides*), black mustard (*Brassica nigra*), pampas grass (*Cortaderia jubata*), and eucalyptus (*Eucalyptus* spp.).

Weed seedlings can often be hand pulled, but established plants may require alternate treatments. Hand pulling of many weed species is ineffective, due to their ability to regenerate from root fragments. Invasive exotics that are allowed to establish frequently require repeated control efforts. Control efforts should always be undertaken before the weeds can bloom and set seed, but if they have begun blooming, flowers and/or seeds should be carefully bagged and legally disposed.

A wide array of treatments is available to control weeds, including manual methods, mechanical methods, the application of organic hot foam or the use of a flaming device, and in some cases localized conservative application of herbicides. Mechanical, manual and alternative methods of eradication of exotic species should take precedence over chemical eradication. When needed, herbicides should be used in conjunction with physical and/or mechanical or other non-chemical methods, rather than used as the sole management tool. This integrated approach helps minimize use of herbicides in the long-term, and enhances the efficacy of the lowest-risk chemical products and formulations because they are augmented with other methods. Spot-treatments rather than broadcast sprays are preferred in order to limit or avoid impacts on non-target organisms.

If chemical weed controls are employed, all applicable laws, regulations, safety precautions, and label directions must be followed. Application of any herbicide or chemical control should be conducted by a licensed pesticide applicator.

Costs associated with invasive species control have been included in the endowment established for long-term management of the on-site and off-site conservation easement areas.

1.1.6. Fencing

As part of the proposed Intervening Properties project, fencing will be installed along the entire length of the conservation easement for approximately 4,000 feet (Figure 6). The fencing is intended to discourage people and domestic pets from entering the conservation easement area. The Habitat Monitor will check the integrity of the fence during the annual site visit. Vinyl covered cyclone fencing will be used to separate the conservation easement from the development. While it is anticipated that overall, fencing will require replacement every 20 years, some portions of the fence may require repairs sooner than others. After the Habitat Monitor assesses the integrity of the fence, any areas requiring repair will be noted and appropriate measures will be taken to repair the fence as soon as possible. Monitoring of the fence integrity and any necessary repairs should be documented in an annual summary of field notes to provide cohesiveness in the management from year to year.

Legend

- Project Boundary
- Conservation Easement Exclusion Fencing
- Site Plan
- USACE Jurisdictional Wetlands

Figure 6

On-site Conservation Easement Exclusion Fencing

Braddock & Logan Intervening Properties

Danville, California

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1:7,200 8/5/04

1 inch equals 600 feet

0 600 1,200 Feet

N

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S:\Projects\Braddock & Logan\Intervening\Graphics\GIS\MMP\Conservation Easement Exclusion Fence 080504.mxd

1.1.7. Annual Habitat Monitoring

In addition to the activities described above, the Habitat Monitor will walk the entire easement area annually to determine if any prohibited activities as described in the Intervening Properties Biological Opinion have occurred. Prohibited activities within the conservation easement include the following:

1. Construction, reconstruction or placement of any building, structure, billboard, seating area or sign except as expressly permitted in the On-Site Conservation Easement or this Management Plan;
2. Watering, degradation of water quality, use of herbicides, rodenticides, or weed abatement activities; incompatible fire protection activities; inappropriate placement of storm drains, and any and all other uses not consistent with the Management Plan which may adversely affect the purposes of the On-Site Conservation Easement;
3. Depositing, discharging, dumping or accumulation of soil, trash, ashes, garbage, debris, waste, bio-solids, plant clippings or any other material except as required for fire breaks to protect the Protected Property;
4. Filling, dumping, mining, excavating, dredging, or exploring for or removing of loam, gravel, soil, rock, sand or other material on or below the surface of the Protected Property, except as may be required by the GHAD in carrying out its duties and responsibilities;
5. Planting, introduction or dispersal of non-native or exotic plant or animal species;
6. Leveling, grading, landscaping or otherwise altering the existing topography or natural drainage of the Protected Property including building of roads, except as necessary to fulfill management responsibilities as set forth in the Management Plan and/or for the installation or maintenance of any sanitary sewer improvements, to complete construction of the Project, or to permit the GHAD to carry out the duties enumerated in On-Site Conservation Easement;
7. Removing, destroying, or cutting of trees, shrubs, or other native vegetation, except as required for existing or approved fire breaks, maintenance of existing foot trails or roads, activities permitted by the Conservation Easements, or not involving clearing of vegetation or soil disturbance that could cause erosion or prevention or treatment of plant disease consistent with the Management Plan;
8. Unseasonable watering or pumping of excessive water; use of fertilizers, herbicides, pesticides, biocides, or other agricultural chemicals; mosquito abatement activities; weed abatement activities; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of the On-Site Conservation Easement, except as permitted by the On-Site Conservation Easement and/or this Management Plan;
9. Granting access to the land to any third party for off-road vehicle use, other than by the Contra Costa County Sheriff's Department, the San Ramon Valley Fire Protection District, or other governmental entities in the performance of their duties;

10. Grazing or other agricultural activity of any kind, except those grazing and/or agricultural activities authorized by this Management Plan;
11. Commercial or industrial uses, except those commercial uses that involve grazing or agricultural activities authorized by this Management Plan;
12. Recreational activities including, but not limited to, horseback riding, biking, hunting, fishing, except as permitted by this Management Plan or specifically permitted under the On-Site Conservation Easement;
13. Discharging of firearms, nuisance activity or other conduct inconsistent with approved zoning for Grantor's Property; and
14. Engaging in any new manipulation, impoundment or alteration of a natural water course, body of water or water circulation on the Protected Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

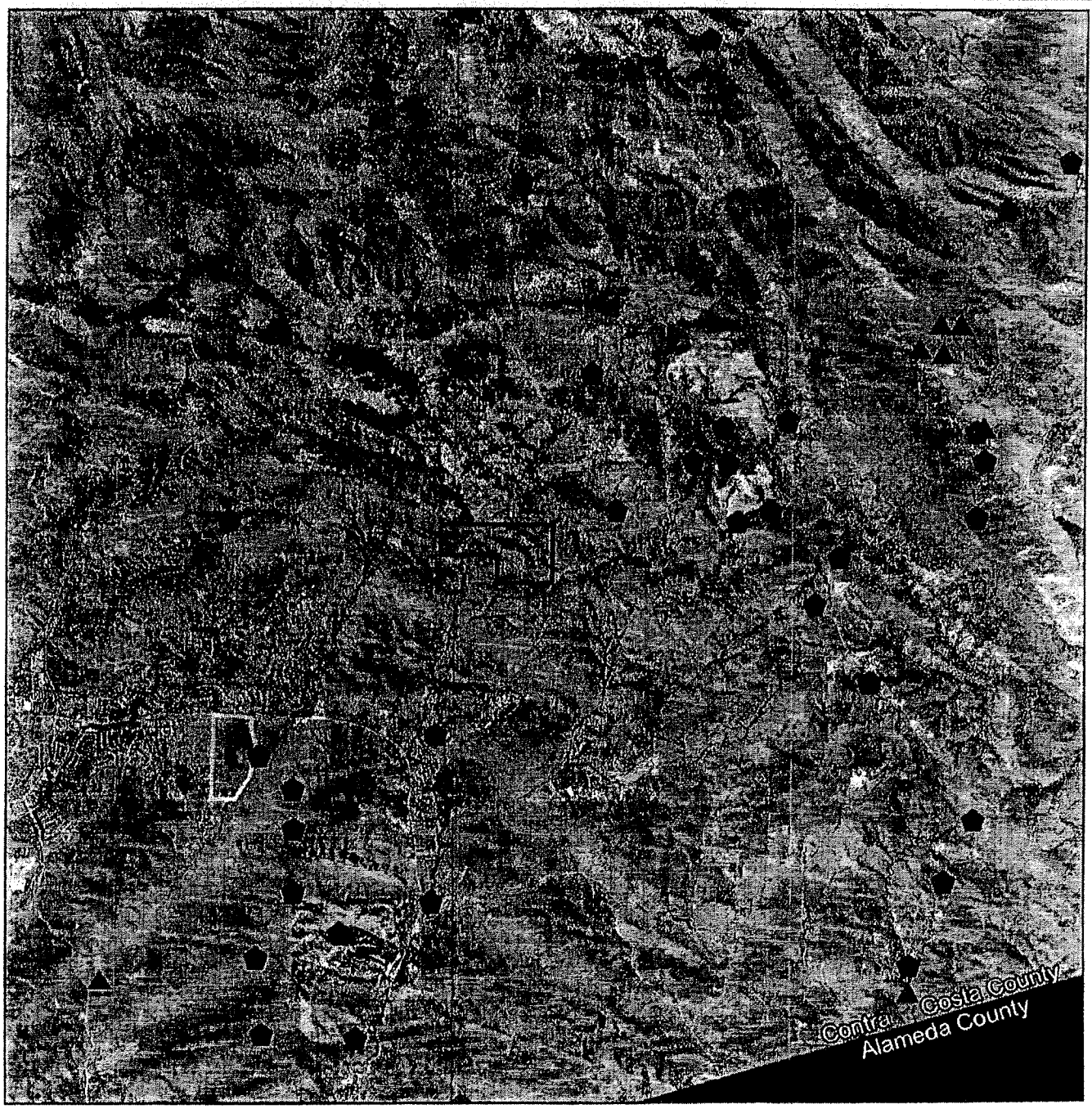
The Habitat Monitor shall walk the entire site annually to ensure none of the prohibited activities has, or is occurring on site. If, during the annual monitoring, the Habitat Monitor observes any of the prohibited activities, or evidence that a prohibited activity has occurred or is currently underway, he or she will document any problems requiring corrective action. Observations will be recorded on field notes. These observations will be analyzed and presented in the annual summary of field notes to provide cohesiveness in the management from year to year. The Habitat Monitor will also provide specific recommendations regarding corrective action to the Wildlife Heritage Foundation or landowner, whoever is appropriate under the circumstances.

1.1.8. Fire Breaks

Fire breaks located along the conservation easement and the development envelope are currently maintained by the San Ramon Valley Fire Protection District. These fire breaks are the responsibility of the property owner. If the San Ramon Valley Fire Protection District ceases to maintain fire breaks, responsibility for their continued maintenance remains with the property owner and is not the responsibility of the Wildlife Heritage Foundation.

1.2 Off-Site Conservation Easement Area (Jones Property)

The lack of available space and appropriate mitigation lands on the Intervening Properties project site required the acquisition of off-site mitigation lands. Mitigation land for impacts to California red-legged frog dispersal/watershed habitat and impacts to potentially suitable upland San Joaquin kit fox habitat (*Vulpes macrotis mutica*), federally-listed Endangered and state-listed Threatened, was achieved through acquisition of a 180-acre conservation easement parcel referred to as the Jones Property. This acquisition was approved by the U.S. Fish and Wildlife Service as appropriate mitigation land for impacts to California red-legged frog dispersal/watershed habitat and potential impacts to suitable San Joaquin kit fox upland habitat (Figure 7). The lands have been protected in a conservation easement and are preserved in perpetuity.



Legend

- California Red-Legged Frog
- San Joaquin Kit Fox
- Jones Property Boundary
- Intervening Property Boundary

1:79,200 4/7/04
1 inch equals 1.25 miles

0 1.25 2.5 Miles

N

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Figure 7

Special-Status Wildlife Occurrences On and Adjacent To the Jones Property

Braddock & Logan Intervening Properties

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The Jones Property is located approximately 2 ½ miles northeast of the Intervening Properties residential development site[1] at the end of Finley Road off Camino Tassajara (Figure 8). Based on the vegetation communities present on site, potentially jurisdictional U.S. Army Corps of Engineers and Regional Water Quality Control Board wetlands and other waters are located on site.

The site also has potential to support other special-status species including Alameda whipsnake (*Masticophis lateralis euryxanthus*), federally- and state-listed Threatened, and California tiger salamander (*Ambystoma californiense*), federally proposed Threatened and a California Species of Special Concern. Habitat for six additional California Species of Special Concern also occurs on site. These species include foothill yellow-legged frog (*Rana boylii*) (known to be breeding on site) (Michael Brandman Associates, 2001), western pond turtle (*Clemmys marmorata*), golden eagle (*Aquila chrysaetos*), Cooper's hawk (*Accipiter cooperi*), western burrowing owl (*Athene cunicularia hypugea*), loggerhead shrike (*Lanius ludovicianus*), and California horned lark (*Ermophila alpestris actia*) (Sycamore Associates, 2004). Additionally, several rare plant species have potential to occur on site, thereby increasing the property's value for mitigation purposes. Long-term maintenance of the off-site area is expected to be fairly straightforward as no wetland creation or predator control will be required.

The primary management goal for the Jones Property is to preserve high quality on-site habitats in their natural condition. Active management of the property in the form of habitat restoration or enhancement will not be necessary because the site will not be enhanced by the creation of wetlands, tree plantings or riparian enhancements. Due to the site conditions, invasive species and predator control programs are unnecessary and will not be implemented. Predator control, mainly bullfrog eradication, has been deemed unnecessary. Bullfrogs were not observed during the on-site biological surveys and the steep hills and fast moving streams on site render the property unsuitable for bullfrog breeding. Likewise, invasive species/exotic pest control management also was deemed unnecessary. There is no plan to enhance habitat by planting native species. Therefore, weeding will not be needed to maintain any re-vegetation efforts. Because the property will not be grazed, the high rate of exotic invasive species colonization that is usually associated with grazing is not anticipated on site. Thus, management of the site is generally limited to annual habitat monitoring. If, however, the Habitat Monitor determines that predator control or invasive species eradication is necessary to prevent the current habitat conditions from deteriorating, such programs may be implemented pursuant to the Adaptive Management Program described under Section 3.0 of this Plan.

[1] On May 13, 2003, the USFWS issued its Biological Opinion (BO) for *Formal Consultation on the Proposed Intervening Properties Development, Danville, Contra Costa County, California.* In that BO the USFWS stipulated that an appropriate off-site mitigation site between 152 and 188 acres, depending on the habitat quality, would be acquired for potential impacts to California red-legged frog and San Joaquin kit fox habitat. On August 18, 2003, the USFWS agreed to the acceptability of a 180-acre parcel known as the Jones property as mitigation for Intervening Properties.

1.2.1 Existing Conditions

The Jones Property is approximately eight air miles east of Highway 680 and eight and one-half air miles north of Highway 580 in an unincorporated portion of southern Contra Costa County. The property is located at the northern end of Finley Road, along the headwaters of Tassajara Creek. Topography on site consists of steep hillsides and canyons and ranges in elevation from 836 feet to 1,558 feet above mean sea level. Pronounced outcrops of sandstone are present at many locations within the property. The study area is bordered by public lands of the East Bay Regional Park District, and undeveloped private lands to the west and east. To the south, sparsely developed rural residential parcels are present along Finley Road. No grazing currently occurs on the property as steep terrain and minimal grassland do not provide abundant area for cattle grazing. Additionally, the landowner will live on the property and has no plans to raise or graze cattle.

The dominant hydrological feature on site is Tassajara Creek, flowing north to south, as well as several unnamed tributaries. The main channel of Tassajara Creek is sharply downcut, and consists principally of exposed bedrock along with recently deposited alluvial gravel. In addition to the creek channel, three seeps are located on the property.

On site, suitable California red-legged frog dispersal and refugia habitat includes riparian corridors and freshwater seeps. Thirty occurrences of California red-legged frogs have been reported within five miles of the study area; of which, 17 have been reported within three miles, and one within one mile of the study area. Along the northern portion of the study area along an east-west axis, riparian corridors characterized by patches of Central Coast riparian scrub are present. Along the margins of the lower reach of Tassajara Creek, Central Coast riparian scrub is characterized by discontinuous patches of red willow. The three freshwater seeps located on site consist of areas with permanently or seasonally saturated soils supporting few to several perennial and annual herbaceous hydrophytic plant species.

Although no San Joaquin kit foxes have been observed on site, the study area is geographically situated between three kit fox sightings or groups of sightings and contain potential dispersal habitat. Non-native annual grasslands, which provide potential kit fox habitat, characterize the upland slopes and knolls on site, as well as on the lands immediately south of the property. Due to the property's proximity to known San Joaquin kit fox occurrences and the presence of open non-native annual grassland habitat immediately south of property, there is potential for kit foxes to utilize the area for dispersal.

Other special-status species that have the potential to occur on site include Alameda whipsnake (*Masticophis lateralis euryxanthus*), federally- and state-listed Threatened, California tiger salamander (*Ambystoma californiense*), federally Threatened and a California Species of Special Concern, foothill yellow-legged frog (*Rana boylii*) (known to be breeding on site) (Michael Brandman Associates, 2001), western pond turtle (*Clemmys marmorata*), golden eagle (*Aquila chrysaetos*), Cooper's hawk (*Accipiter cooperi*), western burrowing owl (*Athene cunicularia hypugea*), loggerhead shrike

(*Lanius ludovicianus*), and California horned lark (*Ermophila alpestris actia*) (Sycamore Associates, 2004). Additionally, several rare plant species have potential to occur on site. The easement holder, Wildlife Heritage Foundation, may implement strategies to further encourage special status plants or wildlife under the Adaptive Management provision, below.

1.2.2. Annual Administration and Oversight

Similar to the on-site easement area, as part of the Consolidated Plan, annual administration of the easement area, endowment fund and accounting will be required. It is anticipated that this will include reviewing the annual accounting for the endowment fund, and processing fees and payments related to long-term management of the easement areas. Additionally, management of the easement will require coordination of the annual site visit to be conducted by the Habitat Monitor, maintaining records for site visits and the record keeping and employment of adaptive management measures as they are necessary. Agency interface will be conducted as needed and may include telephone calls, email or other correspondence related to management and coordination of the conservation easement.

As stated above, the Wildlife Heritage Foundation will manage both the on-site and off-site conservation easement areas.

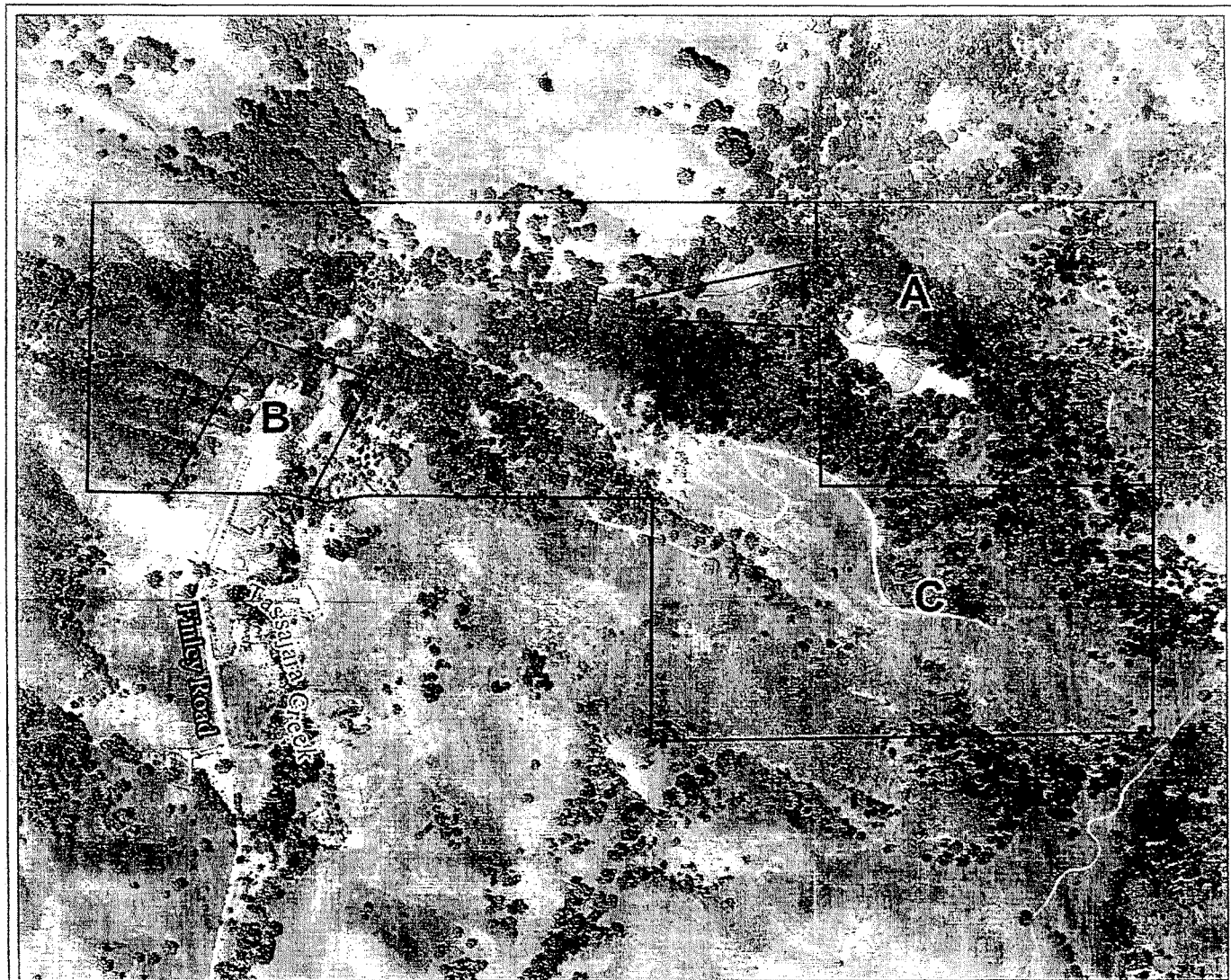

Figure 8

Jones Property Parcel Lines Depicting Conservation Easement

Braddock & Logan Intervening Properties

Danville, California

Legend

Jones Property Parcel Lines

- A - Existing Jones Ranch Area
- B - Existing Ranch House and Outbuildings
- C - Proposed Conservation Easement

1:6,000
1 inch equals 500 feet
0 500 1,000 Feet

N

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1.2.3. Fire Breaks

Fire breaks are located along existing [dirt/all weather gravel] roadways throughout the Jones site. Many of the roadways are easily seen in the aerial photograph attached as Figure 8. However, portions of the roadways are located below the tree canopy and cannot be easily viewed in the aerial photograph, but fire breaks along these areas will be maintained as well. Fire breaks are currently maintained by the San Ramon Valley Fire Protection District and are the responsibility of the property owner. If the San Ramon Valley Fire Protection District ceases to maintain fire breaks, responsibility for their continued maintenance remains with the property owner and is not the responsibility of the Wildlife Heritage Foundation.

1.2.4. Annual Habitat Monitoring

Long-term monitoring will commence once the initial five-year monitoring period is completed. Annual monitoring as described below will be funded through the endowment fund. The Wildlife Heritage Foundation will appoint and ensure a qualified Habitat Monitor walks the site annually using the monuments erected at each turn of the easement area as shot using a GPS coordinate system to determine if any prohibited activities as described in the Intervening Properties Biological Opinion are occurring. These activities include the following:

1. Construction, reconstruction or placement of any building, structure, billboard, seating area or sign except as expressly permitted in the Jones Property Conservation Easement or in this Management Plan;
2. Watering, degradation of water quality, use of herbicides, rodenticides, or weed abatement activities; incompatible fire protection activities; inappropriate placement of storm drains, and any and all other uses not consistent with this Management Plan which may adversely affect the purposes of the Jones Conservation Easement;
3. Depositing, discharging, dumping or accumulation of soil, trash, ashes, garbage, debris, waste, bio-solids, plant clippings or any other material except as required for fire breaks to protect the Protected Property;
4. Filling, dumping, mining, excavating, dredging, or exploring for or removing of loam, gravel, soil, rock, sand or other material on or below the surface of the Protected Property;
5. Planting, introduction or dispersal of non-native or exotic plant or animal species;
6. Leveling, grading, landscaping or otherwise altering the existing topography or natural drainage of the Protected Property including building of roads, except as necessary to fulfill management responsibilities as set forth in this Management Plan;
7. Removing, destroying, or cutting of trees, shrubs, or other native vegetation, except as required for existing or approved fire breaks, maintenance of existing foot trails or roads, activities permitted by Paragraph 5 of this Easement, or not involving clearing of vegetation or soil disturbance that

could cause erosion or prevention or treatment of plant disease consistent with this Management Plan;

8. Unseasonable watering or pumping of excessive water; use of fertilizers, herbicides, pesticides, biocides, or other agricultural chemicals; mosquito abatement activities; weed abatement activities; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of the Jones Conservation Easement, except as permitted by the Jones Conservation Easement and/or this Management Plan;
9. Granting access to the land to any third party for off-road use, other than by the Contra Costa County Sheriff's Department, the San Ramon Valley Fire Protection District, or other governmental entities in the performance of their duties;
10. Grazing or other agricultural activity of any kind, except those grazing and/or agricultural activities authorized by this Management Plan;
11. Commercial or industrial uses, except those commercial uses that involve grazing or agricultural activities authorized by this Management Plan;
12. Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing, except as permitted under this Management Plan or specifically permitted under the Jones Conservation Easement;
13. Discharging of firearms, nuisance activity or other conduct inconsistent with approved zoning for Grantor's Property; and
14. Engaging in any new manipulation, impoundment or alteration of any natural water course, body of water or water circulation on the Protected Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

The Habitat Monitor shall walk the entire site annually using the monuments erected at each turn of the easement boundary as located using a GPS coordinate system to ensure that none of the prohibited activities has, or is occurring on site. If, during the annual monitoring, the Habitat Monitor observes any of the prohibited activities, or evidence that a prohibited activity has occurred or is currently underway, he or she will document any problems requiring corrective action. Observations will be recorded on field notes. Observations will be analyzed and presented in the annual summary of field notes to provide cohesiveness in the management from year to year. The Habitat Monitor will also provide specific recommendations regarding corrective action to the conservation easement holder or landowner, whoever is appropriate under the circumstances.

2.0 ENDOWMENT FUND

An endowment fund agreed upon by the Wildlife Heritage Foundation and the project proponent has been established for both the on-site and off-site conservation easement areas. This endowment fund is intended to provide adequate funds to carry out the management activities described in the Consolidated Plan in perpetuity. A copy of the Endowment Cost Table showing an accounting of anticipated costs is located under Appendix A. As part of the annual administration, all activities relating to the management of the endowment fund will be conducted. This includes invoicing of all

maintenance and management activities to the fund, accounting and proper record keeping, coordination of the Bullfrog Eradication Program, Trash Removal Program, invasive species removal and processing of any fees or transactions as necessary. Activities related to the endowment fund will be the responsibility of the Wildlife Heritage Foundation.

3.0 ADAPTIVE MANAGEMENT

Unlike long-term management of the on-site conservation easement area, active weeding of exotic invasive species and bullfrog eradication are not currently considered necessary to maintain habitat quality on the Jones Property. As discussed above, weeding is currently not necessary to maintain any re-vegetation on the Jones Property, and because the Jones Property will not be grazed, it is unlikely that exotic invasive species will colonize on the site. Furthermore, the lack of bullfrog occurrence or suitable bullfrog breeding habitat on the Jones Property eliminates a current or foreseeable need for a bullfrog eradication program. However, these activities may become necessary if conditions on Jones Property change and will be implemented under the adaptive management approach.

Monitoring is the underpinning of adaptive management. Tracking of the mitigation site allows for timely remedial actions to be implemented. Decisions and suitable changes to the long-term management strategies can be implemented as deemed necessary by the Habitat Monitor and the Wildlife Heritage Foundation in order to ensure the continued success of the habitats in the conservation easement areas. Adaptive management techniques that may be used include, but are not necessarily limited to the following:

- Gazing of both the on-site and off-site areas as may become necessary over time to maintain health of grassland areas. Implementation of grazing will comply with any applicable local ordinances;
- Control of animals such as beavers and muskrats that are considered a potential threat to wetland areas. Animal damage control will be undertaken in accordance with any applicable regulatory requirements;
- Control of invasive exotic plant and animal species as may become necessary;
- The Wildlife Heritage Foundation may implement strategies that encourage the colonization of special status species or Species of Special Concern on the Jones Conservation Easement.

4.0 REFERENCES

Cook, D. 1997. Biology of the California red-legged frog: a synopsis. In M. Morrison (ed.), 1997 Transactions of the Western Section of the Wildlife Society (33): pg 79-82.

Michael Brandman Associates 2001. Assessment of Biological Resources for 3100-3101 Finley Road Three Lot Subdivision (APN 204-130-001, Contra Costa County, California, November 20.

Sycamore Associates, LLC, 2004. Wetland and Special-Status Species Mitigation and Monitoring Plan for the Intervening Properties, Danville, Contra Costa County, CA. April 26.

US Fish and Wildlife Service (USFWS). 1997. Guidance on Site Assessment and Field Surveys for California Red-legged Frogs (*Rana aurora draytonii).* Sacramento Field Office. February.

EXHIBIT "C"

MAP AND LEGAL DESCRIPTIONS OF CONTRA COSTA CENTRAL
SANITATION DISTRICT SANITARY SEWER EASEMENT

RECORDING REQUESTED BY
CENTRAL CONTRA COSTA
SANITARY DISTRICT
AFTER RECORDING RETURN TO
CENTRAL CONTRA COSTA
SANITARY DISTRICT
ENVIRONMENTAL SERVICES DIVISION
5019 IMHOFF PLACE
MARTINEZ, CA 94553-4392

Job No. 5436
Parcel No. 4
APN 206-220-004

GRANT OF IRREVOCABLE OFFER OF DEDICATION -- SEWER PURPOSES

For good and valuable consideration, **Braddock and Logan Group II LLC,** a California limited liability corporation, (hereinafter "Owner"), being the present title owner of record of the parcel of land described in Exhibit "A" (written legal description), attached hereto and by this reference made a part hereof, does hereby make an irrevocable offer of dedication to the **Central Contra Costa Sanitary District** (hereinafter "District"), a special district of the State of California, and its successors or assigns, of an **exclusive subsurface easement and nonexclusive surface easement** (characterized as an easement in gross for all purposes of this dedication), for the right to construct, reconstruct, renew, alter, operate, maintain, replace (with the initial or any other size) and repair such sewer line or lines as the District shall from time to time elect for conveying sewage, and all necessary maintenance access structures, laterals and appurtenances thereto, over and within such easement area as is described in said Exhibit "A" and shown on Exhibit "B" (plat), attached hereto, together with the free right of ingress, egress and emergency access to said easement over and across the remaining portion of the Owner's property, provided that said rights of ingress, egress and emergency access shall be limited to established roadways, pathways, avenues or other routes to the extent possible and as reasonably necessary for the proper use of the rights granted herein. This offer of dedication also includes the right to clear obstructions and vegetation from the easement as may be required for the proper use of the other rights granted herein.

The Owner reserves the right to: 1) grant a coincident "perpetual conservation easement" so long as said conservation easement does not unreasonably restrict the easement rights granted to CCCSD herein; and 2) to landscape or make such other use of the lands included within the easement as is consistent with CCCSD's use. Such use by the Owner, however, shall not include the planting of trees or construction of permanent structures, including but not limited to houses, garages, outbuildings, swimming pools, tennis courts, retaining walls, decks, patios, or other concrete architectural structures within or over the easement, or any other activity which may interfere with CCCSD's full enjoyment of the easement rights granted herein.

Maintenance access structures (manholes, rodding inlets, etc.) constructed within the easement shall not be covered by earth or other material and shall remain in an exposed and accessible condition at all times for routine and/or emergency maintenance that may be deemed necessary by the District from time to time.

It is understood and agreed that the District, and its successors or assigns, shall incur no liability with respect to such offer of dedication, and shall not assume any responsibility for the offered easement, or any improvements thereon or therein, until such offer has been accepted by appropriate action of the Board of Directors of the District, or its successors or assigns. Further, it is understood and agreed that the Owner shall indemnify, save and hold harmless the District for any costs or liability incurred by the District with respect to the easement in gross described herein, prior to the formal acceptance of said easement by the Board of Directors of the District.

The provisions of this irrevocable offer shall inure to the benefit of and be binding upon the heirs, successors, assigns, and personal representatives of the respective parties.

In witness whereof, these parties have executed this instrument this _____ day of _____, 20___.

BRADDOCK AND LOGAN GROUP II

By: _____
Signature

_____
Print Name

_____
Title

By: _____
Signature

_____
Print Name

_____
Title

CENTRAL CONTRA COSTA SANITARY DISTRICT
County of Contra Costa,
State of California

By _____
General Manager or Designee

"ATTACH NOTARY STATEMENT(S)"

CCCSD Job No. 5436
Parcel No. 4
APN 206-220-004

EXHIBIT "A"
LEGAL DESCRIPTION
PERMANENT SANITARY SEWER EASEMENT

A PORTION OF LOT 4 AS SHOWN ON THE MAP OF SUBDIVISION 5417 FILED DECEMBER 17, 1979, IN BOOK 233 OF MAPS AT PAGE 48, CONTRA COSTA COUNTY RECORDS, DESCRIBED AS FOLLOWS:

A STRIP OF LAND, BEING 4.572 METERS WIDE, LYING 2.286 METERS ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

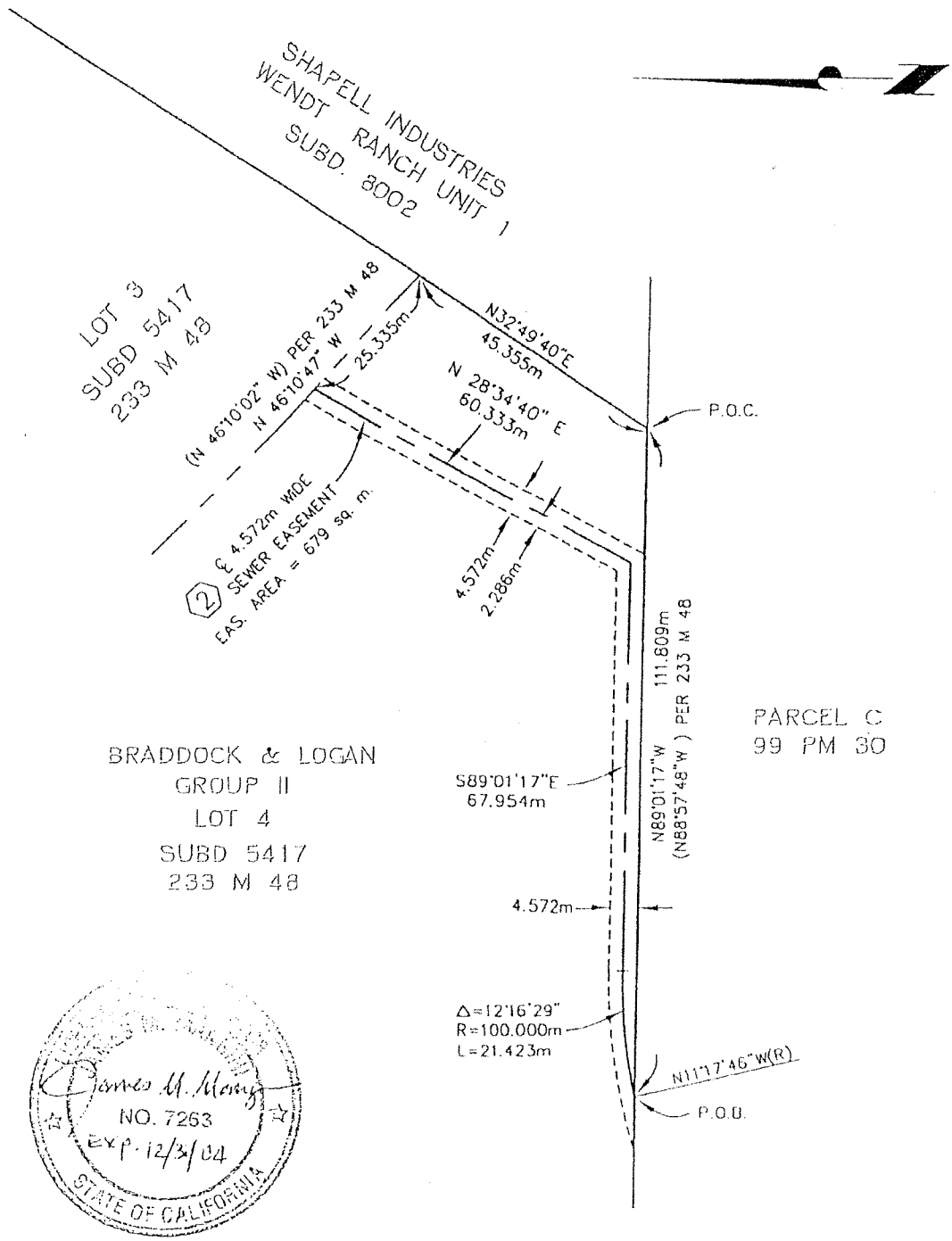
COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 4; THENCE FROM SAID POINT OF COMMENCEMENT ALONG THE SOUTH LINE OF SAID LOT 4 NORTH 89°01'17" WEST 111.809 METERS TO THE TRUE POINT OF BEGINNING SAID TRUE POINT OF BEGINNING BEING THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 100.00 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 11°17'46" WEST; THENCE FROM SAID TRUE POINT OF BEGINNING LEAVING SAID SOUTH LINE EASTERLY ALONG THE ARC OF SAID CURVE 21.423 METERS THROUGH A CENTRAL ANGLE OF 12°16'28"; THENCE SOUTH 89°01'17" EAST 67.954 METERS; THENCE NORTH 28°34'40" EAST 60.333 METERS TO THE NORTHERLY LINE OF SAID LOT 4.

ATTACHED HERETO IS A PLAT ENTITLED EXHIBIT "B" AND BY THIS REFERENCE MADE A PART HEREOF.

CENTRAL CONTRA COSTA SANITARY DISTRICT

RIGHT of WAY MAP for SEWER

EXHIBIT "B"



DRAWN BY	CHECKED BY	THOMAS BRO.	JOB:
J.M.	D.D.	103 C 1	5436
METRIC SCALE:	DATE	CO.ASSMT.NO.	PARCEL:
1: 1000	05-11-04	206-220-004	4

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2315-1/94

ALTERNATIVE No. 4

RECORDING REQUESTED BY
CENTRAL CONTRA COSTA SANITARY DISTRICT
AFTER RECORDING RETURN TO
CENTRAL CONTRA COSTA
SANITARY DISTRICT
ENVIRONMENTAL SERVICES DIVISION
5019 IMHOFF PLACE
MARTINEZ, CA 94553-4392

Job No. 5436
Parcel No. 5
APN 206-220-003

GRANT OF IRREVOCABLE OFFER OF DEDICATION -- SEWER PURPOSES

For good and valuable consideration, **Tassajara Meadows, a General Partnership,** (hereinafter "Owner"), being the present title owner of record of the parcel of land described in Exhibit "A" (written legal description), attached hereto and by this reference made a part hereof, does hereby make an irrevocable offer of dedication to the **Central Contra Costa Sanitary District** (hereinafter "District"), a special district of the State of California, and its successors or assigns, of an **exclusive subsurface easement and nonexclusive surface easement** (characterized as an easement in gross for all purposes of this dedication), for the right to construct, reconstruct, renew, alter, operate, maintain, replace (with the initial or any other size) and repair such sewer line or lines as the District shall from time to time elect for conveying sewage, and all necessary maintenance access structures, laterals and appurtenances thereto, over and within such easement area as is described in said Exhibit "A" and shown on Exhibit "B" (plat), attached hereto, together with the free right of ingress, egress and emergency access to said easement over and across the remaining portion of the Owner's property, provided that said rights of ingress, egress and emergency access shall be limited to established roadways, pathways, avenues or other routes to the extent possible and as reasonably necessary for the proper use of the rights granted herein. This offer of dedication also includes the right to clear obstructions and vegetation from the easement as may be required for the proper use of the other rights granted herein.

The Owner reserves the right to: 1) grant a coincident "perpetual conservation easement" so long as said conservation easement does not unreasonably restrict the easement rights granted to CCCSD herein; and 2) to landscape or make such other use of the lands included within the easement as is consistent with CCCSD's use. Such use by the Owner, however, shall not include the planting of trees or construction of permanent structures, including but not limited to houses, garages, outbuildings, swimming pools, tennis courts, retaining walls, decks, patios, or other concrete architectural structures within or over the easement, or any other activity which may interfere with CCCSD's full enjoyment of the easement rights granted herein.

Maintenance access structures (manholes, rodding inlets, etc.) constructed within the easement shall not be covered by earth or other material and shall remain in an exposed and accessible condition at all times for routine and/or emergency maintenance that may be deemed necessary by the District from time to time.

It is understood and agreed that the District, and its successors or assigns, shall incur no liability with respect to such offer of dedication, and shall not assume any responsibility for the offered easement, or any improvements thereon or therein, until such offer has been accepted by appropriate action of the Board of Directors of the District, or its successors or assigns. Further, it is understood and agreed that the Owner shall indemnify, save and hold harmless the District for any costs or liability incurred by the District with respect to the easement in gross described herein, prior to the formal acceptance of said easement by the Board of Directors of the District.

The provisions of this irrevocable offer shall inure to the benefit of and be binding upon the heirs, successors, assigns, and personal representatives of the respective parties.

In witness whereof, these parties have executed this instrument this _____ day of _____, 20___.

TASSAJARA MEADOWS,
a General Partnership

By: _____
Signature

_____
Print Name

_____
Title

By: _____
Signature

_____
Print Name

_____
Title

CENTRAL CONTRA COSTA
SANITARY DISTRICT
County of Contra Costa,
State of California

By _____
General Manager or Designee

"ATTACH NOTARY STATEMENT(S)"

CCCSD Job No. 5436
Parcel No. 5
APN 206-220-003

EXHIBIT "A"
LEGAL DESCRIPTION
PERMANENT SANITARY SEWER EASEMENT

A PORTION OF LOT 3 AS SHOWN ON THE MAP OF SUBDIVISION 5417 FILED DECEMBER 17, 1979, IN BOOK 233 OF MAPS AT PAGE 48, CONTRA COSTA COUNTY RECORDS, DESCRIBED AS FOLLOWS:

A STRIP OF LAND, BEING 4.572 METERS WIDE, LYING 2.286 METERS ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

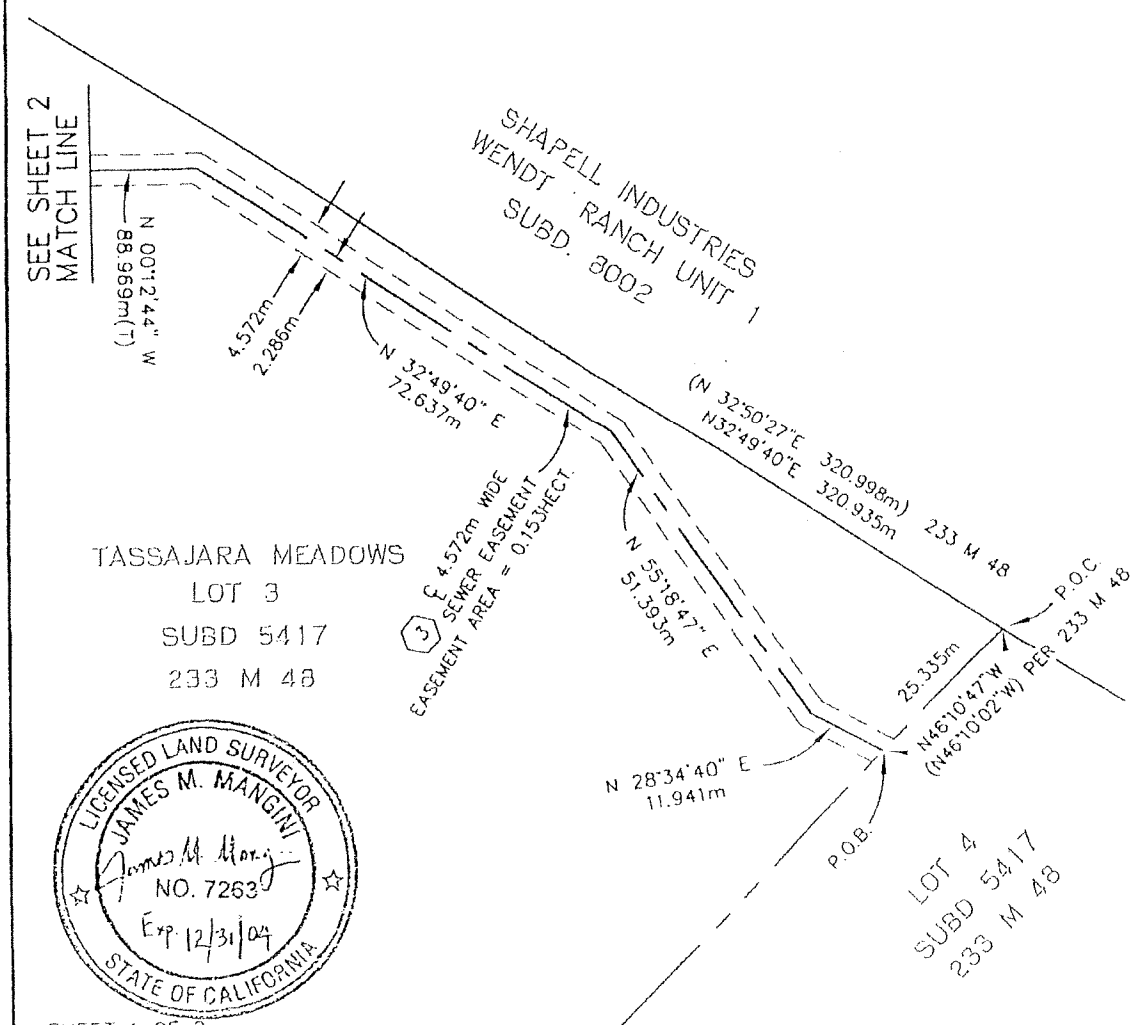
COMMENCING AT THE MOST SOUTHERLY CORNER OF SAID LOT 3; THENCE FROM SAID POINT OF COMMENCEMENT ALONG THE SOUTHWESTERLY LINE OF SAID LOT 3 NORTH 46°10'47" WEST 25.335 METERS TO THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING LEAVING SAID SOUTHWESTERLY LINE NORTH 28°34'40" EAST 11.941 METERS; THENCE NORTH 55°18'47" EAST 51.393 METERS; THENCE NORTH 32°49'40" EAST 72.637 METERS; THENCE NORTH 00°12'44" WEST 88.969 METERS; THENCE NORTH 32°49'40" EAST 109.491 METERS TO THE NORTHERLY LINE OF SAID LOT 3.

ATTACHED HERETO IS A PLAT ENTITLED EXHIBIT "B" AND BY THIS REFERENCE MADE A PART HEREOF.

CENTRAL CONTRA COSTA SANITARY DISTRICT

RIGHT of WAY MAP for SEWER

EXHIBIT "B-1"



LICENSED LAND SURVEYOR
JAMES M. MANGINI
NO. 7263
Exp. 12/31/04
STATE OF CALIFORNIA

SHEET 1 OF 2

DRAWN BY J.M.	CHECKED BY D.D.	THOMAS BRO. 103 C 1	JOB 5436
METRIC SCALE: 1: 1000	DATE 01-25-00	CO.ASSMT.NO. 206-220-003	PARCEL 5

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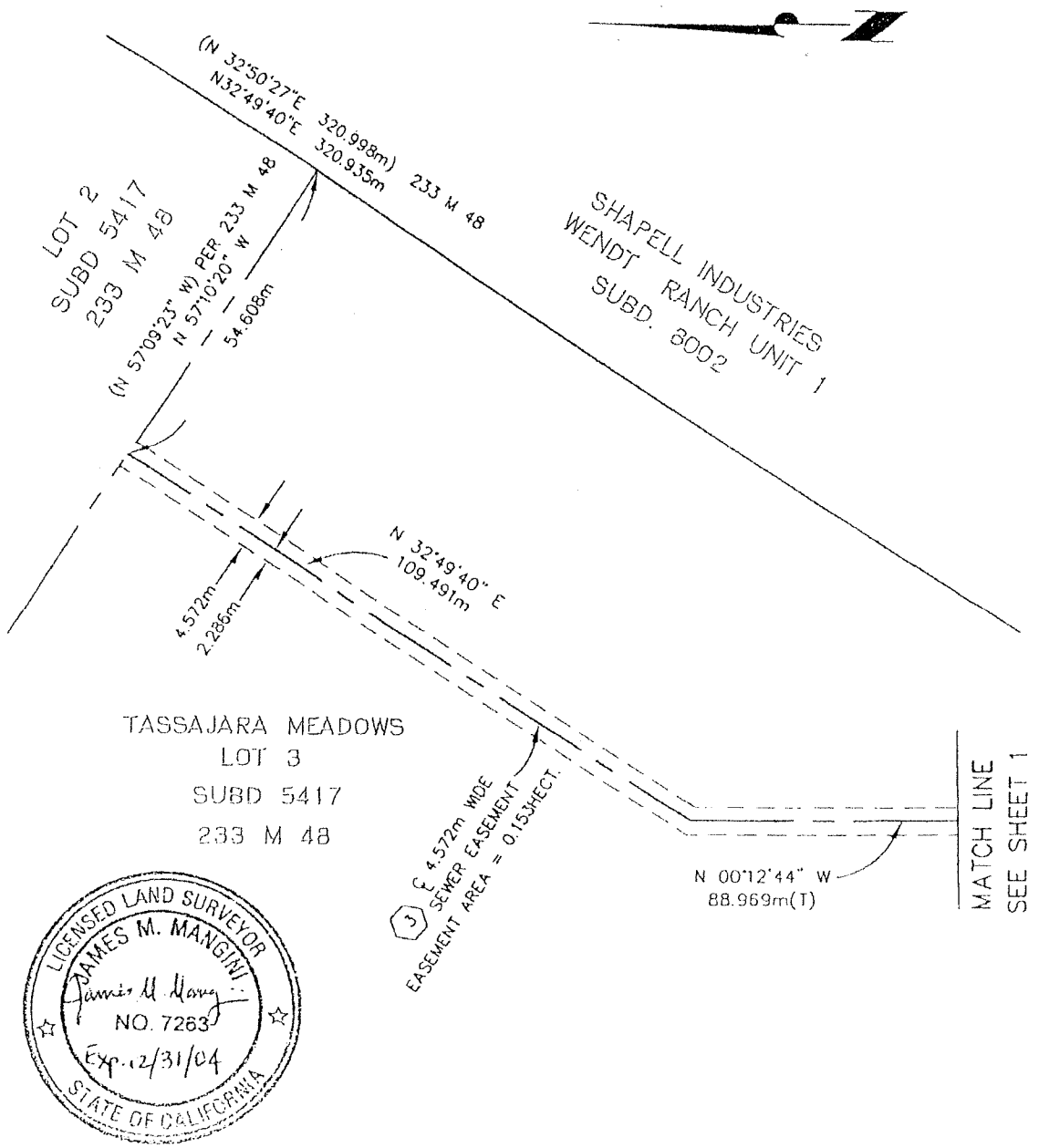
2315-1/94

CENTRAL CONTRA COSTA SANITARY DISTRICT

RIGHT of WAY MAP for SEWER

EXHIBIT "B-2"



LICENSED LAND SURVEYOR
JAMES M. MANGINI
NO. 7283
Exp. 12/31/04
STATE OF CALIFORNIA

SHEET 2 OF 2

DRAWN BY	CHECKED BY	THOMAS BRO.	JOB
J.M.	D.D.	103 C 1	5436
METRIC SCALE:	DATE	CO. ASSMT. NO.	PARCEL
1: 1000	01-25-00	206-220-003	5

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2315-1/94

RECORDING REQUESTED BY
CENTRAL CONTRA COSTA
SANITARY DISTRICT
AFTER RECORDING RETURN TO
CENTRAL CONTRA COSTA
SANITARY DISTRICT
ENVIRONMENTAL SERVICES DIVISION
5019 IMHOFF PLACE
MARTINEZ, CA 94553-4392

Job No. 5436
Parcel No. 6
APN 206-220-002

GRANT OF IRREVOCABLE OFFER OF DEDICATION -- SEWER PURPOSES

For good and valuable consideration, **Braddock and Logan Group II LLC,** a California limited liability corporation, (hereinafter "Owner"), being the present title owner of record of the parcel of land described in Exhibit "A" (written legal description), attached hereto and by this reference made a part hereof, does hereby make an irrevocable offer of dedication to the **Central Contra Costa Sanitary District** (hereinafter "District"), a special district of the State of California, and its successors or assigns, of an **exclusive subsurface easement and nonexclusive surface easement** (characterized as an easement in gross for all purposes of this dedication), for the right to construct, reconstruct, renew, alter, operate, maintain, replace (with the initial or any other size) and repair such sewer line or lines as the District shall from time to time elect for conveying sewage, and all necessary maintenance access structures, laterals and appurtenances thereto, over and within such easement area as is described in said Exhibit "A" and shown on Exhibit "B" (plat), attached hereto, together with the free right of ingress, egress and emergency access to said easement over and across the remaining portion of the Owner's property, provided that said rights of ingress, egress and emergency access shall be limited to established roadways, pathways, avenues or other routes to the extent possible and as reasonably necessary for the proper use of the rights granted herein. This offer of dedication also includes the right to clear obstructions and vegetation from the easement as may be required for the proper use of the other rights granted herein.

The Owner reserves the right to: 1) grant a coincident "perpetual conservation easement" so long as said conservation easement does not unreasonably restrict the easement rights granted to CCCSD herein; and 2) to landscape or make such other use of the lands included within the easement as is consistent with CCCSD's use. Such use by the Owner, however, shall not include the planting of trees or construction of permanent structures, including but not limited to houses, garages, outbuildings, swimming pools, tennis courts, retaining walls, decks, patios, or other concrete architectural structures within or over the easement, or any other activity which may interfere with CCCSD's full enjoyment of the easement rights granted herein.

Maintenance access structures (manholes, rodding inlets, etc.) constructed within the easement shall not be covered by earth or other material and shall remain in an exposed and accessible condition at all times for routine and/or emergency maintenance that may be deemed necessary by the District from time to time.

It is understood and agreed that the District, and its successors or assigns, shall incur no liability with respect to such offer of dedication, and shall not assume any responsibility for the offered easement, or any improvements thereon or therein, until such offer has been accepted by appropriate action of the Board of Directors of the District, or its successors or assigns. Further, it is understood and agreed that the Owner shall indemnify, save and hold harmless the District for any costs or liability incurred by the District with respect to the easement in gross described herein, prior to the formal acceptance of said easement by the Board of Directors of the District.

The provisions of this irrevocable offer shall inure to the benefit of and be binding upon the heirs, successors, assigns, and personal representatives of the respective parties.

In witness whereof, these parties have executed this instrument this _____ day of _____, 20___.

BRADDOCK AND LOGAN GROUP II

By: _____
Signature

_____
Print Name

_____
Title

By: _____
Signature

_____
Print Name

_____
Title

CENTRAL CONTRA COSTA SANITARY DISTRICT
County of Contra Costa,
State of California

By _____
General Manager or Designee

"ATTACH NOTARY STATEMENT(S)"

CCCSD Job No. 5436
Parcel No. 6
APN 206-220-002

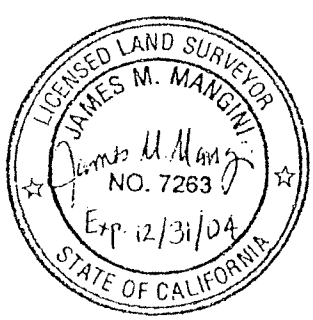
EXHIBIT "A"
LEGAL DESCRIPTION
PERMANENT SANITARY SEWER EASEMENT

A PORTION OF LOT 2 AS SHOWN ON THE MAP OF SUBDIVISION 5417 FILED DECEMBER 17, 1979, IN BOOK 233 OF MAPS AT PAGE 48, CONTRA COSTA COUNTY RECORDS, DESCRIBED AS FOLLOWS:

A STRIP OF LAND, BEING 4.572 METERS WIDE, LYING 2.286 METERS ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCING AT THE MOST SOUTHERLY CORNER OF SAID LOT 2; THENCE FROM SAID POINT OF COMMENCEMENT ALONG THE SOUTHWESTERLY LINE OF SAID LOT 2 NORTH 57°10'20" WEST 54.608 METERS TO THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING LEAVING SAID SOUTHWESTERLY LINE NORTH 32°49'40" EAST 58.437 METERS; THENCE NORTH 58°22'24" EAST 58.568 METERS TO THE EASTERLY LINE OF SAID LOT 2.

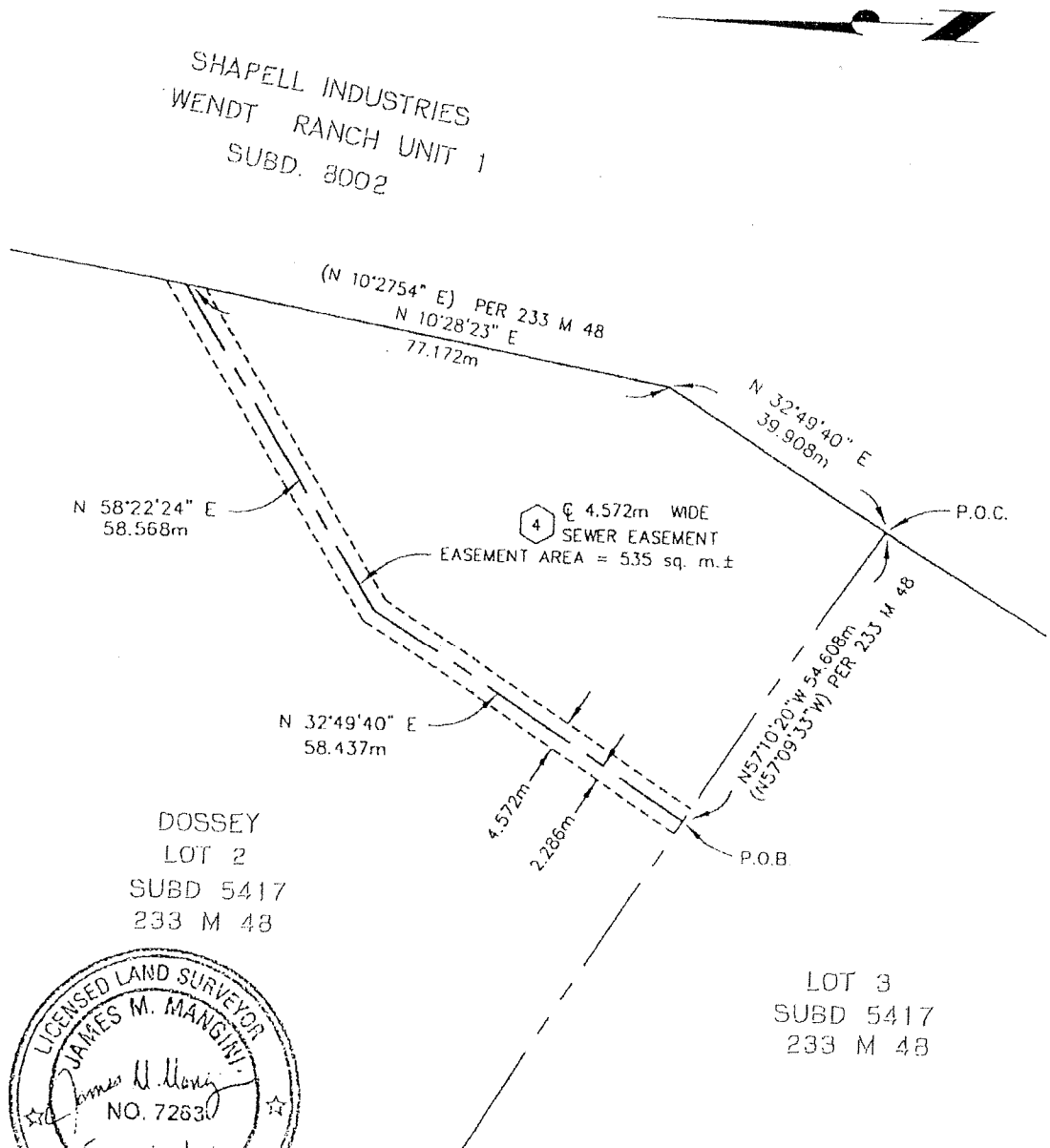
ATTACHED HERETO IS A PLAT ENTITLED EXHIBIT "B" AND BY THIS REFERENCE MADE A PART HEREOF.



CENTRAL CONTRA COSTA SANITARY DISTRICT

RIGHT of WAY MAP for SEWER

EXHIBIT "B"



LICENSED LAND SURVEYOR
JAMES M. MANGINI
NO. 7263
Exp. 12/31/04
STATE OF CALIFORNIA

DRAWN BY J.M.	CHECKED BY	THOMAS BRO. 103 C 1	JOB 5436
METRIC SCALE: 1: 1000	DATE 07-23-03	CO.ASSMT.NO. 206-220-002	PARCEL 6

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2315-1/94

EXHIBIT "D"

ENDOWMENT AGREEMENT

PERPETUAL CONSERVATION EASEMENT ENDOWMENT AGREEMENT

This Perpetual Conservation Easement Endowment Agreement ("Agreement") is made and entered into on August 12, 2004 (the "Effective Date") by and between Contra Costa Real Estate Investors ("Founding Contributor") and Wildlife Heritage Foundation ("Foundation").

WITNESSETH:

WHEREAS, Founding Contributor desires to have established in the Foundation an endowment fund designated "Intervening Properties Endowment Fund",

WHEREAS, Foundation is a non-profit California corporation exempt from taxation under Internal Revenue Code ("Code") section 501(c)(3), a public charity described in section 170(b)(1)(A)(iv) of the Code, and accordingly an appropriate institution within which to establish such a conservation easement endowment,

WHEREAS, this Agreement is being executed and delivered pursuant to the Biological Opinion for Intervening Properties Development (1-1-02-F-0022) dated as of May 13, 2003 and prepared by the United States Fish and Wildlife Service ("USFWS") pursuant to Section 7 of the Federal Endangered Species Act, and as authorized in a permit issued in connection with the development of the Intervening Properties project pursuant to Section 404 of the Clean Water Act (U.S. Army Corps of Engineers File No. 24528S), a water quality certification issued by the California Regional Water Quality Control Board Central Coast Region ("RWQCB") (RWQCB File No. 2118.03) and Lake or Streambed Alteration Agreement (Notification No. 1600-2004-279-3) issued by the California Department of Fish and Game ("CDFG") pursuant to Section 1602 of the California Fish and Game Code, whereby certain conservation requirements will be satisfied through establishment of the Intervening Properties Endowment Fund,

WHEREAS, Founding Contributor intends to grant to Foundation perpetual conservation easements pursuant to section 815 of the California Civil Code conserving approximately 27 acres of land located adjacent to the Intervening Properties project and approximately 155 acres of land commonly known as the "Jones parcel" (collectively, the "Conservation Easements"),

WHEREAS, Foundation is a non-profit California corporation authorized to hold the Conservation Easements pursuant to section 815.3 of the California Civil Code,

WHEREAS, Sycamore Associates LLC prepared a "Long-Term Consolidated Management Plan For The Intervening Properties Conservation Easement Areas" dated August 2004 ("Management Plan") which is attached hereto as Exhibit A, that provides for the perpetual conservation of the property subject to the Conservation Easements,

WHEREAS, the primary purpose of the Intervening Properties Endowment Fund shall be to fund the long-term management and monitoring activities described in the Management Plan,

WHEREAS, Foundation has determined that an endowment in the amount of Two Hundred Thirty Three Thousand Two Hundred Eighty Five Dollars ($233,285) will provide adequate funding for carrying out the long-term management and monitoring activities described in the Management Plan, and to pay for reasonable administrative costs and fees that Foundation may incur in implementing the Management Plan, and

WHEREAS, Foundation is willing and able to create and control the Intervening Properties Endowment Fund, subject to the terms and conditions set forth in this Agreement;

NOW THEREFORE, Foundation and Founding Contributor agree as follows:

1. Establishment of Endowment Fund. There is hereby established in the Foundation, and as a part thereof, a fund designated the "Intervening Properties Endowment Fund" (the "Fund") to receive contributions in the form of money, and to administer the same.

2. Purpose. The primary purpose of the Fund shall be to fund the activities described in the Management Plan.

3. Funding. The Founding Contributor shall transfer to the Foundation the amount of Two Hundred Thirty Three Thousand Two Hundred Eighty Five Dollars ($233,285) upon the recordation of the Conservation Easements, which shall be recorded no later than immediately following approval of the form of the Conservation Easements by the USFWS, CDFG and RWQCB. The Foundation has the discretion to accept additional funds acceptable to the Foundation from time to time from Founding Contributor and from other individuals, public and private entities, and other sources to be added to the Fund, all subject to the provisions hereof. All grants, bequests and devises to the Fund shall be irrevocable once accepted by the Foundation.

4. Distribution. The annual earnings allocable to the Fund, net of the fees and expenses reasonably incurred by Foundation shall be committed, granted or expended solely for the purposes described in the Management Plan. No distribution shall be made from the Fund to any individual or entity if such distribution will in the judgment of Foundation jeopardize the Foundation's tax exempt status. It is intended by the foregoing that at the time a distribution in made from the Fund, the distribution is being made for the purposes described in the Management Plan.

5. Assignment. If Foundation ceases to be a qualified charitable organization or if Foundation proposes to dissolve, this Agreement and the Fund may be transferred or assigned by Foundation. Foundation may assign or transfer its respective rights and obligations under this Agreement only to an organization that:

    (i) is approved by USFWS;

(ii) is a public agency or a qualified organization at the time of transfer under section 170(h) of the Internal Revenue Code of 1954, as amended (or any successor provision then applicable), and the applicable regulations promulgated thereunder;

(iii) is authorized to acquire and hold conservation easements under California Civil Code section 815 et seq. (or any successor provision then applicable); and

(iv) agrees in writing to fulfill the Management Plan.

6. Administrative Provisions. Notwithstanding anything herein to the contrary, Foundation shall hold the Fund, and all contributions to the Fund, subject to the provisions of the applicable California laws, and the Foundation's Articles of Incorporation and Bylaws. The Board shall monitor the distribution of the Fund, and shall have all powers of modification and removal specified in the United States Treasury Regulations section 1.170A-9(e)(11)(v)(B). Upon request by the Founding Contributor, Foundation will provide Founding Contributor with a copy of the annual examination of the finances of the Foundation as reported upon by independent certified accountants.

7. Conditions for Acceptance of Funds. Foundation shall not be responsible for any management or stewardship activities that are not contained in the Management Plan. However, if in Foundation's judgment, additional or other management or stewardship activities will promote the conservation purposes of the Management Plan or Conservation Easements, Foundation may, in its sole discretion, expend Funds for those activities.

8. Not a Separate Trust. The Fund shall be a component part of Foundation. All money and property in the Fund shall be held as general assets of Foundation and not segregated as trust property of a separate trust.

9. Accounting. The receipts and disbursements of this Fund shall be accounted for separately and apart from those of the other conservation endowment funds of the Foundation.

10. Investment of Funds. Foundation shall have all powers necessary or in its sole discretion desirable to carry out the purposes of the Fund, including, but not limited to, the power to retain, invest and reinvest the Fund and the power to commingle the assets of the Fund with those of other funds for investment purposes.

11. Costs of the Fund. It is understood and agreed that the Fund shall share a fair portion of the total investment and administrative costs of Foundation. Those costs annually charged against the Fund shall be determined in accordance with the then current fee schedules adopted by Foundation as applicable to funds of this type.

12. Definitions and Construction.

a. As used in this Agreement:

i. A "qualified charitable conservation organization" means an organization described in section 501(c)(3) and which is other than a private foundation under section 509(a) of the Internal Revenue Code.

ii. References to any provision of the Internal Revenue Code shall be deemed references to the U.S. Internal Revenue Code of 1986 as the same may be amended from time to time and the corresponding provision of any future U.S. Internal Revenue Code.

iii. It is intended that the Fund shall be a component part of the Foundation and that nothing in this Agreement shall affect the status of Foundation as an entity which is a qualified charitable conservation organization. This Agreement shall be interpreted in a manner consistent with the foregoing intention and so as to conform to the requirements of the Internal Revenue Code and any regulations issued pursuant thereto applicable to the intended status of Foundation.

IN WITNESS WHEREOF, the Founding Contributor has executed this Agreement and the Foundation has caused this Agreement to be approved by its Board of Directors and to be executed by a duly authorized officer, all as of the Effective Date.

WILDLIFE HERITAGE FOUNDATION By: Riley Swift Its: President	**CONTRA COSTA REAL ESTATE INVESTORS** By: Its: V.P

APPENDIX D

Perpetual Conservation Easement
Wendt Ranch, Shapell Industries, Inc. and Wildlife Heritage Foundation

4063.1.050.01
May 10, 2005
Revised May 24, 2005

39

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2002-0268425-00
Acct 6- First American Title
Thursday, AUG 01, 2002 08:00:00
MIC $1.00 MOD $39.00 REC $43.00
TCF $38.00
Ttl Pd $121.00 Nbr-0000979051
cgr/R2/1-39

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

Wildlife Heritage Foundation
P.O. Box 72055
Davis, CA 95617

First American Title

717478

SPACE ABOVE THIS LINE FOR RECORDER'S USE

THIS PERPETUAL CONSERVATION EASEMENT GRANT (this "***Conservation Easement***") is made this 25th day of March, 2002 (the "***Effective Date***"), by Shapell Industries, Inc., a Delaware Corporation ("***Grantor***"), in favor of the Wildlife Heritage Foundation, a California non-profit organization ("***Grantee***").

RECITALS

A. Grantor is the sole owner in fee simple of certain real property situated in an unincorporated area of Contra Costa County commonly known as Wendt Ranch, as shown and more particularly described and depicted on Exhibit A attached hereto (the "***Property***"). On the portion of the Property not included in the Protected Property (as defined below), Grantor will be developing a residential development composed of approximately 272 to 323 units ("***Development***"). The Development will be developed in phases and it is anticipated that construction will be completed within the next seven years.

B. Grantee is a tax exempt non-profit organization qualified to hold conservation easements for Conservation Purposes as identified in California Civil Code § 815 *et seq*.

C. "***Service***" is the United States Fish and Wildlife Service within the United States Department of Interior, which is authorized by federal law to administer the Federal Endangered Species Act and other Laws and regulations.

D. An 89.82 acre portion of the Property ("***Protected Property***") as shown and more particularly described in Exhibit B, possesses significant ecological and habitat values that benefit threatened, endangered and rare species (collectively, "***Conservation Values***"). These species and their habitats are of aesthetic, ecological, educational, historical and scientific value to the Nation and its people. These values include the East and West Fork Alamo Creek Channels, a spring, seasonal wetlands and uplands habitat intended to mitigate for development of the Wendt Ranch project, and to enhance California red-legged frog habitat, and are of great importance to both Grantor and Grantee.

E. Grantor intends to convey to Grantee the right to conserve and protect the Conservation Values of the Protected Property in perpetuity. Significant portions of the Property, have been presently identified as being occupied by species of native plants and wildlife which Grantor and Grantee desire to protect, restore and enhance, pursuant to that certain Management Plan entitled "Wendt Ranch On-Site Open Space Management Plan," ("***Management Plan***") dated March 9, 2001, prepared by LSA Associates, Inc.

F. Grantee agrees by accepting this grant to honor the intentions of Grantor stated in this Conservation Easement and to conserve and protect in perpetuity the Conservation Values of the Protected Property in accordance with the terms of this Conservation Easement and the Management Plan. The Management Plan is attached as Exhibit C.

G. This Conservation Easement provides mitigation for certain impacts located in the County of Contra Costa, State of California, described in a Federal Endangered Species Act Biological Opinion, dated November 6, 2001.

NOW THEREFORE, in consideration of the above and the mutual covenants, terms, conditions, and restrictions contained in this Conservation Easement, and pursuant to the laws of California and the California Civil Code section 815 *et seq.*, Grantor voluntarily grants and conveys to Grantee a perpetual conservation easement over the Protected Property of the nature and character and to the extent set forth below:

1. PURPOSE

It is the purpose of this Conservation Easement to ensure that the Protected Property will be retained forever in a natural condition and to prevent any use of the Protected Property that will impair or interfere with the Conservation Values of the Protected Property. Grantor intends that this Conservation Easement (i) will ensure that the Protected Property will be used for such activities as are consistent with the purpose of this Conservation Easement, and (ii) shall be implemented consistently with the Management Plan.

2. RIGHTS OF GRANTEE

To accomplish the purpose of this Conservation Easement, the following rights are conveyed to Grantee by this Conservation Easement:

(a) To preserve and protect the Conservation Values of the Protected Property in a manner consistent with the Management Plan.

(b) To enter upon and traverse all portions of the Protected Property at all times in order to have access to the Protected Property and to monitor Grantor's compliance with and otherwise enforce the terms of this Conservation Easement and to fulfill duties identified in the Management Plan; provided that such entry shall not unreasonably impair or interfere with Grantor's use and quiet enjoyment of the Protected Property or unreasonably disturb natural resources on the Protected Property.

(c) To prevent any activity on or use of the Protected Property that is inconsistent with the purpose of this Conservation Easement and to require the restoration of such areas or features of the Protected Property that may be damaged by any inconsistent activity or use.

(d) To conserve and protect all mineral, air and water rights necessary to protect and sustain the biological resources of the Protected Property.

(e) All present and future development rights.

3. PROHIBITED USES

Subject to the provisions of Paragraph 5 herein, any activity on or use of the Protected Property inconsistent with the purposes of this Conservation Easement is prohibited, except as stated in the Management Plan. Without limiting the generality of the foregoing, Grantor, its personal representative, heirs, assigns, agents, and potential future lessees are expressly prohibited from doing any of the following on Protected Property (except as required for the enhancement of the Conservation Values, including without limitation, the maintenance of California red-legged frog habitat):

(a) Leveling, grading, landscaping, cultivation, or any other alterations of existing topography for any purposes, including the exploration for, or development of mineral resources;

(b) Placement of any new structures, including buildings and billboards;

(c) Discharge, dumping, burning, or storing of rubbish, garbage, grass clippings, dredge material, household chemicals, or any other wastes or fill materials;

(d) Building of any new roads or trails;

(e) Killing, removal, alteration, or replacement of any existing native vegetation, except in approved prescribed burning situations;

(f) Activities that may alter the hydrology of the Protected Property and the associated watersheds, including but not limited to: excessive pumping of groundwater, manipulation or blockage of natural drainages, inappropriate water application or placement of storm water drains, etc.;

(g) Incompatible fire protection activities;

(h) Use of pesticides, herbicides, or rodenticides that can contaminate the Protected Property;

(j) The introduction of any exotic species, including aquatic species;

(k) Granting use of the land to any third party for off-road vehicle use; and

(l) Legally subdividing the Conservation Property, recording of a subdivision plan, partition, or any other division of the Conservation Property into two or more parcels, provided that such limitation shall not limit the rights of Grantor as described in Exhibit D.

4. GRANTOR'S DUTIES

Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Protected Property. In addition, Grantor shall pay the expense of, and perform the following actions described in the Management Plan: (a) the upland habitat enhancement; (b) the bullfrog eradication;(c) the preconstruction surveys; and (d) maintenance and monitoring of the Protected Property for five years, which shall be reported to the Service, the Army Corps of Engineers, and the California Department of Fish and Game for those five years. All other monitoring and maintenance and other actions that promote the Conservation Values shall be performed by the Grantee and paid for with funds derived from the Endowment described in paragraph 17.

5. RESERVED RIGHTS

Grantor reserves to itself, and to its personal representatives, heirs, successors, assigns, agents and present and potential future lessees, including, but not limited to the right to engage in or permit or invite others to engage in all uses of the Protected Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement.

6. COOPERATION WITH GRANTOR

Grantee shall conserve and protect the Conservation Values of the Protected Property and implement its responsibilities under the Management Plan in a manner that does not interfere with Grantor's construction of the Development, and consistent with the terms of this Conservation Easement, Grantee shall cooperate with Grantor to ensure no such interference occurs.

7. REMEDIES

If Grantor, Grantee or Service determines that there is a violation of the terms of this Conservation Easement or that a violation is threatened, such party shall give written notice to the other parties of such violation and demand corrective action sufficient to cure the violation and, where the violation involved injury to the Protected Property resulting from any use or activity inconsistent with the purpose of this Conservation Easement, to restore in accordance with the Management Plan the portion of the Protected Property so injured. If a party fails to cure a violation within sixty (60) days after receipt of notice thereof from the other party, or under circumstances where the violation cannot reasonably be cured within a sixty (60) day period, such party fails to continue diligently to cure such violation until finally cured, the aggrieved party may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Conservation Easement, to enjoin the violation, ex parte as necessary, by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Conservation Easement or injury to any conservation values protected by this Conservation Easement, including damages for the loss of aesthetic, ecological, educational, historical, recreational or scientific values, and to require the restoration pursuant to the Management Plan of the Protected Property to the condition that existed prior to any such

injury. A prevailing party may apply any damages recovered to the cost of undertaking any corrective action on the Protected Property.

If a party, in its good faith and reasonable discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Protected Property, such party may pursue its remedies under this paragraph without prior notice to the other party or without waiting for the period provided for the cure to expire. Each party's rights under this paragraph apply equally in the event of either actual or threatened violations of the terms of this Conservation Easement, and each party agrees that the other party's remedies at law for any violation of the terms of this Conservation Easement are inadequate and that such party shall be entitled to the injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which such party may be entitled, including specific performance of the terms of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Each party's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

Furthermore, the provisions of California Civil Code section 815 *et seq.*, are incorporated herein by this reference and this Conservation Easement is made subject to all of the rights and remedies set forth therein. If at any time in the future Grantor or Grantee or any subsequent transferee or assignee uses or threatens to use such lands for purposes not in conformance with the provisions of this Conservation Easement, or releases or abandons this Conservation Easement in whole or in part, notwithstanding California Civil Code section 815 *et seq.*, the Service shall have standing as interested parties, and as third party beneficiary in any proceeding affecting this Conservation Easement.

(a) Costs of Enforcement. If a party prevails in any action to enforce the terms of this Conservation Easement, such party's costs of suit including, without limitation, attorneys fees, shall be borne by the other party.

(b) Grantee's Discretion. Enforcement of the terms of this Conservation Easement shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any of Grantee's rights under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

(c) Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, drought, flood, storm, and earth movement.

8. THIRD PARTY BENEFICIARY

Grantor and Grantee acknowledge that the Service is a third party beneficiary of this Conservation Easement with the right of access to the Protected Property and the right to enforce the terms and conditions of this Conservation Easement.

9. ACCESS

Grantee, its successors, assigns, agents, invitees and licensees shall have the right to access the Protected Property at all times. This Conservation Easement does not convey a general right of access to the public.

10. COSTS AND LIABILITIES

Except as set forth in this Conservation Easement, or as otherwise agreed in writing between the parties hereto, Grantor retains all responsibilities related to the ownership of the Protected Property.

(a) Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Protected Property by competent authority, and shall furnish Grantee with satisfactory evidence of payment upon request.

(b) Hold Harmless. Grantor or its successor shall hold harmless, indemnify, and defend Grantee and its members, directors, officers, employees, agents and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "***Indemnified Parties***") from and against all liabilities, penalties, costs, losses, damages, expense, causes of action, claims, demands, or judgments, including without limitation, reasonable attorney's fees, arising from or in any way connected with the following, unless caused by the acts or omissions of the indemnified parties: (1) injury to or the death of any person, or physical damages to any property, resulting from any act, omission, condition or other matter related to or occurring on the Protected Property regardless of cause; (2) the existence or administration of this Conservation Easement; and (3) the obligations specified in paragraph 4 and this paragraph 10.

11. ASSIGNMENT

This Conservation Easement is transferable, but Grantee shall give Grantor and the Service at least thirty (30) days prior written notice of the transfer. Grantee may assign its rights and obligations under this Conservation Easement only to an organization that is (1) approved by the Service; and, (2) a public agency or a qualified organization at the time of transfer under section 170(h) of the Internal Revenue Code of 1954, as amended (or any successor provision then applicable), and the applicable regulations promulgated thereunder; and, (3) authorized to acquire and hold conservation easements under California Civil Code section 815 *et seq.* (or any successor provision then applicable). As a condition of such assignment or transfer, the Assignee or Transferee shall agree in writing that the conservation purposes that this grant is intended to advance shall continue to be fulfilled and that the Management Plan will be followed. Any assignee or transferee

of Grantee's rights and obligations shall be required to record the assignment in the Official Records of the County of Contra Costa, State of California.

12. SUBSEQUENT TRANSFERS

Subject to the terms of this paragraph, Grantor may at any time, at its sole discretion, transfer an interest in the Protected Property to a third party, so long as the transferred interest is subject to the terms of this Conservation Easement. In the event that Grantor transfers an interest in the Protected Property, Grantee, at Grantor's reasonable request, shall assist Grantor in effectuating the transfer. Grantor agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Protected Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee at least fifteen (15) days prior to the date of any property transfer. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this Conservation Easement or limit its enforceability in any way. Grantee and the Service shall have the right to prevent subsequent transfers in which prospective subsequent claimants are not given notice of the covenants, terms, conditions and restrictions of this Conservation Easement.

13. ESTOPPEL CERTIFICATES

Upon request by Grantor, Grantee shall within fifteen (15) days execute and deliver to Grantor any document, including an estoppel certificate, which certifies Grantor's compliance with any obligation of Grantor contained in this Conservation Easement and otherwise evidences the status of this Conservation Easement, as may be requested by Grantor.

14. NOTICES

Any notice required or permitted to be given hereunder shall be in writing and be deemed to have been delivered and given upon receipt by addressee if (i) delivered in person to the specified address, (ii) sent by registered or certified United States mail, return receipt requested, addressed to such party at the specified address, (iii) sent by Federal Express or other reputable overnight carrier for next day delivery, addressed to such party at the specified address, or (iv) by facsimile (with the original delivered by other means set forth herein). The specified addresses of the parties accompany their signatures at the end of this Agreement. From time to time either party may designate another address within California by giving the other party not less than thirty (30) days' advance written notice of such change of address in accordance with the provisions hereof.

To Grantor:
Shapell Industries
Attn: J. Christian Truebridge
100 North Milpitas Blvd.
Milpitas, CA 95035
Facsimile: (408) 946-2942

To Grantee:
Wildlife Heritage Foundation
Attn: Riley Swift
P.O. Box 72055
Davis, CA 95617
Facsimile: (530) 759-0152

To Service: United States Fish & Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825
Attn: Chief, Endangered Species Division
Facsimile: _____

15. AMENDMENT

This Conservation Easement may be amended by Grantor and Grantee by written agreement executed by Grantor, Grantee and the Service. Any such amendment shall be consistent with the purposes of this Conservation Easement and shall not affect its perpetual duration. Any such amendment shall be recorded in the Official Records of Contra Costa County, State of California.

16. RECORDATION

Grantor shall submit the original, executed and notarized Conservation Easement to Grantee and Grantee shall promptly record this instrument in the official records of Contra Costa County, California and may re-record it at any time as may be required to preserve its rights in this Conservation Easement.

17. FUNDING

Grantor has provided an endowment to Grantee for the purpose of fulfilling all of Grantor's long term maintenance, monitoring and reporting obligations as specified in the Management Plan. Funding shall be transferred to the appropriate transferee or assignee if the Conservation Easement is assigned or transferred. The cost estimate for the endowment is attached as Exhibit E.

18. ADDITIONAL EASEMENTS

Grantor shall not grant any additional easements, rights of way or other interests in the Protected Property (other than a fee or leasehold interest, undivided interest or security interests) or grant or otherwise abandon or relinquish any water agreement relating to the Protected Property without the prior written authorization of Grantee and the Service. Authorization shall not be unreasonably withheld or delayed and shall be given unless Grantee and the Service determine that the proposed interest or transfer will interfere with the Conservation Values of the Protected Property. This paragraph shall not prohibit: (i) transferring a fee or leasehold interest in the Protected Property that is subject to the terms of this Conservation Easement; or (ii) granting easements for the installation of any of the infrastructure for residential development shown on Exhibit D, including without limitation, sanitary sewers, utilities, storm drains, construction of a road and use of the road for access to the detention basin.

19. GENERAL PROVISIONS

(a) Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of California, the Federal Endangered Species Act, and other applicable Federal laws.

(b) Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be construed in favor of the grant to effect the Conservation

Purpose of this Conservation Easement and the policy and purpose of California Civil Code section 815 *et seq*. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability. If any provision of this Conservation Easement, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions of this Conservation Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement.

(e) No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as servitude running in perpetuity with the Protected Property.

(g) Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement shall terminate upon transfer of the party's interest in the Conservation Easement or Protected Property except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(h) Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction of interpretation.

(i) Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by the parties hereto; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF, Grantor and Grantee have entered into this Conservation Easement the day and year first written above:

GRANTOR:

SHAPELL INDUSTRIES, INC., a Delaware corporation

By: _____
J. Christian Truebridge

Its: Assistant Vice President

By: _____
Marie A. Cook

Its: Assistant Vice President

GRANTEE:

WILDLIFE HERITAGE FOUNDATION, a California non-profit organization

By: _____

Its: Riley J. Swift, President

APPROVED AS TO FORM:

United States Department of the Interior for the United States Fish and Wildlife Service

By: _____
Jim Monroe, Assistant Regional Solicitor

268425

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of SANTA CLARA } ss.

On 3/19/02 (Date) before me, JANICE T. KRUSE (Name and Title of Officer (e.g., "Jane Doe, Notary Public"))

personally appeared J. CHRISTIAN TRUEBRIDGE + MARIE COOK (Name(s) of Signer(s))

~~X~~ personally known to me
☐ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

JANICE T. KRUSE
Commission # 1318897
Notary Public - California
Santa Clara County
My Comm. Expires Aug 24, 2005

WITNESS my hand and official seal.

Janice T. Kruse
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: WENDT RANCH CONSERVATION EASEMENT

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

Certificate of Acceptance

This is to certify that the interest in real property conveyed by the conservation easement and deed by Shapell Industries, Inc., a Delaware Corporation, Grantor, dated March 25, 2002 to Wildlife Heritage Foundation, a California non-profit organization, Grantee, is hereby accepted by the undersigned officer on behalf of the Foundation.

GRANTEE:

Wildlife Heritage Foundation

By: _____

Title: President
Authorized Representative

Dated: 3/25/02

ALL-PURPOSE ACKNOWLEDGEMENT 268425

State of California
County of SACRAMENTO } SS.

On 4/1/02 (DATE) before me, TINA E. BANDY (NOTARY),

personally appeared Riley Swift (SIGNER(S))

☑ personally known to me - OR - ☐ proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/she/~~they~~ executed the same in his/her/~~their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

TINA E. BANDY
Comm. # 1182008
NOTARY PUBLIC - CALIFORNIA
Sacramento County
My Comm. Expires May 15, 2002

WITNESS my hand and official seal.

NOTARY'S SIGNATURE

OPTIONAL INFORMATION

The information below is not required by law. However, it could prevent fraudulent attachment of this acknowledgement to an unauthorized document.

CAPACITY CLAIMED BY SIGNER (PRINCIPAL)

☐ INDIVIDUAL
☑ CORPORATE OFFICER
PRESIDENT - WILDLIFE HERITAGE
TITLE(S)
☐ PARTNER(S)
☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

SHAPELL-WENDT RANCH - CONSERVATION EASEMENT GRANT
TITLE OR TYPE OF DOCUMENT

38
NUMBER OF PAGES

DATE OF DOCUMENT

OTHER

RIGHT THUMBPRINT OF SIGNER

Top of thumbprint here

268425

EXBIBIT "A"
LEGAL DESCRIPTION
SUBDIVISION 8002
BOUNDARY

ALL THAT REAL PROPERTY, SITUATE, LYING AND BEING IN THE COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF THE NORTH ½ OF SECTION 5, TOWNSHIP 2 SOUTH, RANGE 1 EAST, AND A PORTION OF THE SOUTH ½ OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 1 EAST, MOUNT DIABLO BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:

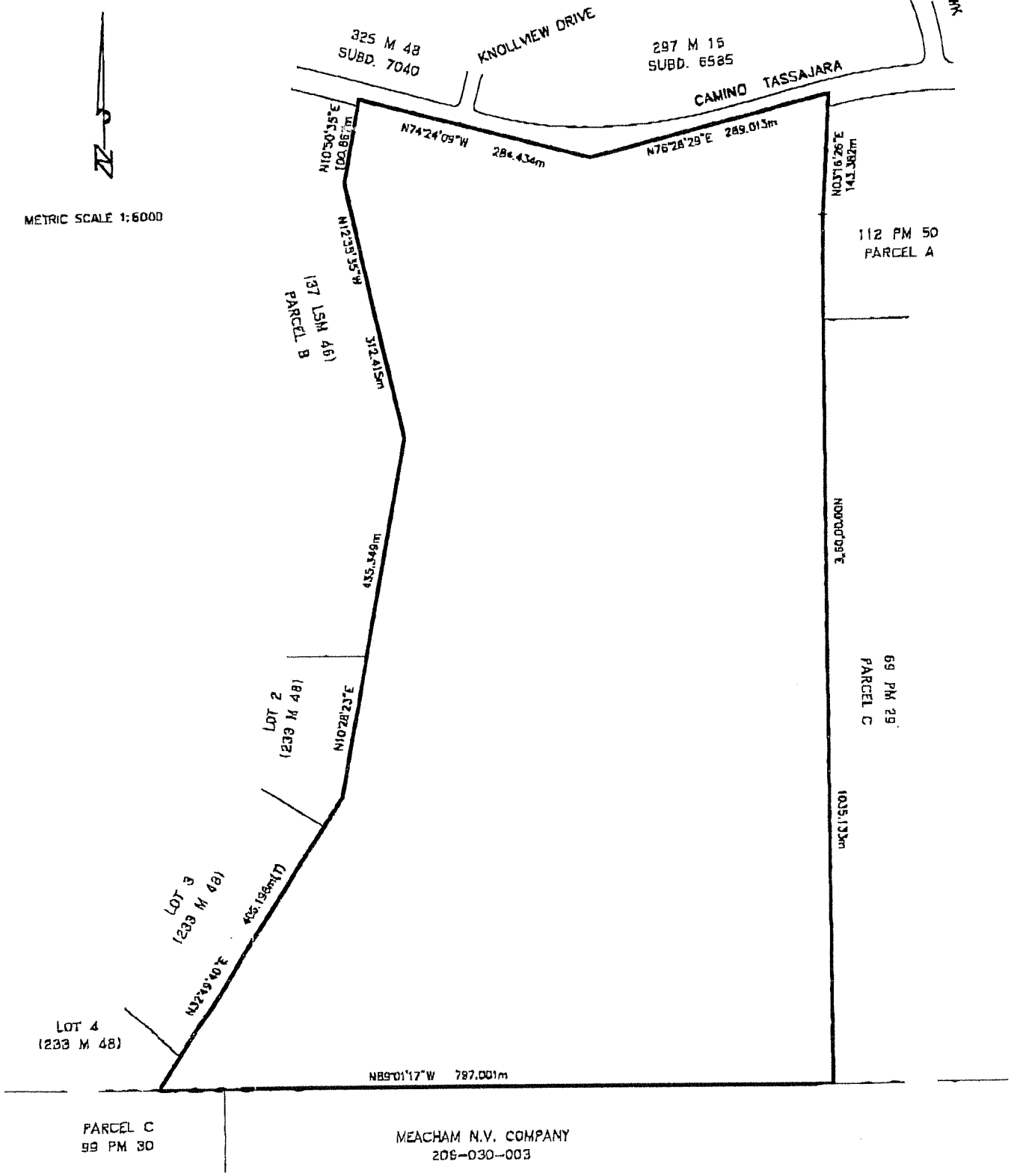
COMMENCING AT THE WEST ¼ CORNER OF SECTIONS 5 & 6 (T2S R1E); THENCE ALONG THE SOUTH LINE OF THE NORTH WEST ¼ OF SAID SECTION 5 SOUTH 89°01'17" EAST 324.010 METERS TO THE SOUTHEAST CORNER OF LOT 4 AS SHOWN ON THE MAP OF SUBDIVISION 5417 FILED ON DECEMBER 17,1979, IN BOOK 233 OF MAPS AT PAGE 48, BEING THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING ALONG THE EAST LINE OF SAID SUBDIVISION 5417 NORTH 32°49'40" EAST 406.198 METERS; THENCE CONTINUING ALONG SAID EAST LINE OF SUBDIVISION 5417 AND ALONG THE EASTERLY LINE OF PARCEL B AS SHOWN ON THE RECORD OF SURVEY FILED OCTOBER 14, 1965, IN BOOK 37 OF LICENSED SURVEYOR'S MAPS AT PAGE 46, NORTH 10°28'23" EAST 435.349 METERS; THENCE CONTINUING ALONG SAID EAST LINE OF PARCEL B NORTH 12°35'35" WEST 312.415 METERS; THENCE CONTINUING ALONG SAID EAST LINE OF PARCEL B NORTH 10°50'35" EAST 100.867 METERS TO THE CENTERLINE OF CAMINO TASSAJARA; THENCE ALONG SAID CENTERLINE OF CAMINO TASSAJARA SOUTH 74°24'09" EAST 284.434 METERS; THENCE CONTINUING ALONG SAID CENTERLINE OF CAMINO TASSAJARA NORTH 76°26'29" EAST 289.013 METERS; THENCE LEAVING SAID CENTERLINE SOUTH 03°16'26" WEST 143.382 METERS; THENCE SOUTH 0°00'09" WEST 125.535 METERS TO THE NORTHWEST CORNER OF PARCEL C AS SHOWN ON PARCEL MAP MS 342-77 FILED ON AUGUST 28, 1978, IN BOOK 69 OF PARCEL MAPS AT PAGE 29; THENCE ALONG SAID WEST LINE OF PARCEL C SOUTH 00°00'09" WEST 909.598 METERS TO THE SOUTH LINE OF THE NORTH ½ OF SAID SECTION 5; THENCE ALONG SAID SOUTH LINE NORTH 89°01'17" WEST 797.001 METERS TO THE TRUE POINT OF BEGINNING.

CONTAINING 66.520 HECTARES MORE OR LESS.

A.P.No. 206-030-006

EXHIBIT "A"
PLAT MAP
SUBDIVISION 8002
BOUNDARY

268425



268425

EXHIBIT "B"
LEGAL DESCRIPTION
AREA OF PRESERVED ON-SITE
RED LEGGED FROG HABITAT

A PORTION OF THE NORTH ½ OF SECTION 5, TOWNSHIP 2 SOUTH, RANGE 1 EAST, AND PORTION OF THE SOUTH ½ OF SECTION 32, TOWNSHIP 1 SOUTH, RANGE 1 EAST, MOUNT DIABLO BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:

PARCEL 1

BEGINNING AT THE NORTHERLY TERMINUS OF THE COURSE DELINEATED AS "N 13°37'01"W 312.415 METERS" BEING ON THE EASTERLY LINE OF PARCEL B OF THE RECORD OF SURVEY FIELD OCTOBER 14, 1965, IN BOOK 37 OF LICENSED SURVEYOR'S MAPS AT PAGE 46; THENCE FROM SAID POINT OF BEGINNING ALONG SAID EASTERLY LINE NORTH 10°50'35" EAST 78.632 METERS; THENCE LEAVING SAID EAST LINE SOUTH 74°24'09" EAST 31.759 METERS; THENCE SOUTH 37°26'25" WEST 27.338 METERS; THENCE SOUTH 15°35'51" WEST 35.253 METERS; THENCE SOUTH 05°23'04" EAST 56.156 METERS; THENCE SOUTH 10°22'52" WEST 18.500 METERS; THENCE SOUTH 79°37'08" EAST 30.500 METERS; THENCE SOUTH 10°22'52" WEST 7.260 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 7.600 METERS; THENCE SOUTHWESTERLY 7.814 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 58°54'24" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 13.700 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 20°42'44" WEST; THENCE SOUTHEASTERLY 34.499 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 144°16'49"; THENCE SOUTH 14°04'00" WEST 30.284 METERS; THENCE NORTH 65°14'00" WEST 10.965 METERS TO SAID EAST LINE OF PARCEL B (37 LSM 46); THENCE ALONG SAID EAST LINE NORTH 12°35'35" WEST 133.495 METERS TO THE POINT OF BEGINNING.

PARCEL 2

COMMENCING AT THE SOUTHWEST CORNER OF PARCEL A AS SHOWN ON PARCEL MAP MS 28-81 FILED NOVEMBER 1, 1984, IN BOOK 112 OF PARCEL MAPS AT PAGE 50' THENCE ALONG THE WEST LINE OF SAID PARCEL A NORTH 00°00'09" EAST 87.831 METERS TO THE TRUE POINT OF BEGINNING; THENCE FROM SAID TRUE POINT OF BEGINNING LEAVING

SAID WEST LINE SOUTH 35°13'00" WEST 129.020 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 9.100 METERS; THENCE SOUTHWESTERLY 5.981 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 37°39'33"; THENCE NORTH 59°13'00" WEST 28.556 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 159.150 METERS; THENCE WESTERLY 71.786 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 25°50'37" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 6.100 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 04°56'23" WEST; THENCE NORTHWESTERLY 8.502 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 79°51'36" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 159.150 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 84°47'59" EAST; THENCE NORTHERLY 10.005 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 3°36'07"; THENCE NORTH 75°15'28" EAST 34.914 METERS TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 271.386 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 70°50'49" WEST; THENCE NORTHERLY 37.787 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 7°58'40"; THENCE NORTH 82°47'27" EAST 17.576 METERS; THENCE NORTH 07°12'33" WEST 8.463 METERS; THENCE NORTH 82°47'27" EAST 20.509 METERS; THENCE NORTH 07°12'33" WEST 13.746 METERS; THENCE NORTH 82°47'27" EAST 12.991 METERS; THENCE NORTH 07°12'33" WEST 6.100 METERS; THENCE NORTH 82°47'27" EAST 6.100 METERS; THENCE NORTH 07°12'33" WEST 0.707 METERS; THENCE NORTH 78°34'59" EAST 21.628 METERS; THENCE NORTH 11°25'01" WEST 2.233 METERS; THENCE NORTH 78°34'59" EAST 6.100 METERS; THENCE SOUTH 11°25'01" EAST 6.100 METERS; THENCE NORTH 78°34'59" EAST 7.000 METERS; THENCE NORTH 11°25'01" WEST 8.297 METERS; THENCE NORTH 78°34'59" EAST 6.100 METERS; THENCE NORTH 11°25'01" WEST 15.250 METERS; THENCE SOUTH 78°34'59" WEST 6.100 METERS; THENCE NORTH 11°25'01" WEST 6.719 METERS; THENCE NORTH 78°34'59" EAST 20.426 METERS; THENCE NORTH 11°25'01" WEST 16.256 METERS; THENCE NORTH 73°06'10" EAST 28.238 METERS; THENCE NORTH 73°06'10" EAST 3.124 METERS; THENCE NORTH 16°53'50" WEST 14.326 METERS; THENCE SOUTH 73°06'19" WEST 2.233 METERS; THENCE NORTH 16°53'50" WEST 6.150 METERS; THENCE NORTH 70°43'30" EAST 23.714 METERS; THENCE NORTH 72°30'29" EAST 16.675 METERS TO SAID WEST LINE OF PARCEL A (112 PM 50); THENCE ALONG SAID WEST LINE SOUTH 03°16'26" WEST 80.388 METERS; THENCE CONTINUING ALONG SAID WEST LINE SOUTH 00°00'09" WEST 37.704 METERS TO THE TRUE POINT OF BEGINNING.

PARCEL 3

BEGINNING AT THE SOUTHWEST CORNER OF PARCEL C AS SHOWN ON PARCEL MAP MS 342-77 FILED ON AUGUST 28, 1978, IN BOOK 69 OF PARCEL MAPS AT PAGE 29; THENCE FROM SAID POINT OF BEGINNING NORTH 89°01'17" WEST 43.520 METERS; THENCE NORTH 50°41'10" WEST 46.398 METERS; THENCE NORTH 49°03'31" WEST 32.277 METERS; THENCE NORTH 50°33'50" WEST 38.480 METERS; THENCE NORTH 12°33'48" WEST 37.029 METERS; THENCE NORTH 03°56'20" WEST 50.311 METERS; THENCE NORTH 57°07'13" WEST 40.314 METERS; THENCE NORTH 28°49'45" EAST 5.820 METERS TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 6.367 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 67°57'46"WEST; THENCE NORTHEASTERLY 8.202 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 73°48'44" TO THE BEGINNING OF NON-TANGENT CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 13.700 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 00°56'34" EAST; THENCE NORTHERLY 21.502 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 89°55'24" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 6.100 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 89°08'02" WEST; THENCE NORTHERLY 5.798 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 54°27'25" TO THE BEGINNING OF A COMPOUND CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 56.500 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 36°24'33" WEST; THENCE NORTHEASTERLY 11.021 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 11°10'36"; THENCE NORTH 64°46'03" EAST 59.027 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 121.000 METERS; THENCE NORTHEASTERLY 17.789 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 8°25'25"; THENCE NORTH 73°11'28" EAST 77.457 METERS TO THE WEST LINE OF SAID PARCEL C; THENCE ALONG SAID WEST LINE SOUTH 00°00'09 WEST 271.479 METERS TO THE TRUE POINT OF BEGINNING.

PARCEL 4

BEGINNING AT THE SOUTHEAST CORNER OF LOT 4 AS SHOWN ON THE MAP OF SUBDIVISION 5417 FILED ON DECEMBER 17, 1979, IN BOOK 233 OF MAPS AT PAGE 48; THENCE FROM SAID POINT OF BEGINNING ALONG THE EAST LINE OF SAID SUBDIVISION 5417 NORTH 32°49'40" EAST

406.198 METERS; THENCE CONTINUING ALONG SAID EAST LINE OF SAID SUBDIVISION 5417 AND ALONG THE EAST LINE OF PARCEL B AS SHOWN ON THE RECORD OF SURVEY FILED OCTOBER 14, 1965, IN BOOK 37 OF LICENSED SURVEYOR'S MAPS AT PAGE 46, NORTH 10°28'23" EAST 388.121 METERS; THENCE LEAVING SAID EAST LINE SOUTH 79°31'37" EAST 0.045 METERS; THENCE SOUTH 04°37'55" EAST 18.501 METERS; THENCE SOUTH 04°34'45" WEST 87.298 METERS; THENCE SOUTH 55°24'00" EAST 20.237 METERS; THENCE NORTH 34°36'00" EAST 38.000 METERS TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 13.700 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 34°36'00" WEST; THENCE EASTERLY 17.149 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 71°43'13"; THENCE SOUTH 37°07'13" EAST 7.729 METERS; THENCE NORTH 85°22'05" EAST 52.802 METERS; THENCE SOUTH 59°19'05" EAST 6.261 METERS TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 13.700 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 59°19'05" WEST; THENCE SOUTHEASTERLY 33.749 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 141°08'46"; THENCE SOUTH 26°18'17" EAST 13.215 METERS; THENCE SOUTH 53°35'00" EAST 27.893 METERS; THENCE NORTH 85°22'05" EAST 17.047 METERS; THENCE SOUTH 04°37'55" EAST 55.508 METERS; THENCE SOUTH 31°32'00" EAST 14.667 METERS; THENCE NORTH 85°22'05" EAST 10.908 METERS; THENCE NORTH 41°26'21" EAST 39.417 METERS; THENCE NORTH 09°33'02" WEST 6.506 METERS TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 13.016 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 03°06'34" EAST; THENCE NORTHERLY 22.735 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 100°04'47" TO THE BEGINNING OF A COMPOUND CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 14.450 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 80°12'44" EAST; THENCE NORTHERLY 13.277 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 52°38'38" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 7.600 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 27°34'06" WEST; THENCE NORTHERLY 7.667 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 57°47'59"; THENCE NORTH 04°37'55" WEST 125.582 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 90.700 METERS; THENCE NORTHERLY 34.237 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 21°37'39" TO THE BEGINNING OF A COMPOUND CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 90.700, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 73°00'16" WEST; THENCE NORTHERLY 20.394 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 12°52'59"; THENCE NORTH 29°52'43"

EAST 37.083 METERS; THENCE NORTH 29°52'43" EAST 29.417 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 94.300 METERS; THENCE EASTERLY 49.390 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 30°00'32"; THENCE NORTH 00°07'49" WEST 17.779 METERS; THENCE NORTH 44°52'11" EAST 8.627 METERS; THENCE NORTH 89°52'11" EAST 45.600 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 140.850 METERS; THENCE EASTERLY 75.995 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 30°54'49"; THENCE SOUTH 59°13'00" EAST 19.129 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 6.100 METERS; THENCE SOUTHERLY 9.589 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°03'56" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 10,410.889 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 59°09'04" WEST; THENCE SOUTHERLY 23.823 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 0°07'52"; TO THE BEGINNING OF A COMPOUND CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 125.130 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 59°13'00" WEST; THENCE SOUTHERLY 11.484 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°15'31"; THENCE NORTH 81°55'46" WEST 26.352 METERS; THENCE SOUTH 23°43'09" WEST 19.427 METERS; THENCE SOUTH 08°35'31" WEST 18.564 METERS; THENCE SOUTH 03°56'35" WEST 22.277 METERS; THENCE SOUTH 01°51'15" EAST 18.387 METERS; THENCE SOUTH 07°51'29" WEST 15.973 METERS; THENCE SOUTH 08°26'02" WEST 16.690 METERS; THENCE SOUTH 07°41'51" WEST 20.026 METERS; THENCE SOUTH 06°22'18" WEST 22.285 METERS; THENCE SOUTH 12°03'40" EAST 19.301 METERS; THENCE SOUTH 16°34'59" WEST 16.098 METERS; THENCE SOUTH 10°43'36" EAST 18.089 METERS; THENCE SOUTH 13°32'30" EAST 18.128 METERS; THENCE SOUTH 19°31'13" EAST 16.567 METERS; THENCE SOUTH 29°05'56" EAST 23.374 METERS; THENCE SOUTH 29°39'19" EAST 15.453 METERS; THENCE SOUTH 10°13'22" EAST 14.285 METERS; THENCE SOUTH 00°57'16" WEST 16.181 METERS; THENCE SOUTH 22°20'20" WEST 14.757 METERS; THENCE SOUTH 24°53'59" WEST 18.522 METERS; THENCE SOUTH 26°00'37" WEST 16.037 METERS; THENCE SOUTH 24°11'39" WEST 18.512 METERS; THENCE SOUTH 26°32'51" WEST 16.048 METERS; THENCE SOUTH 31°09'50" WEST 19.239 METERS; THENCE SOUTH 32°27'33" WEST 24.913 METERS; THENCE SOUTH 02°12'30" WEST 25.356 METERS; THENCE SOUTH 03°13'38" EAST 43.790 METERS; THENCE SOUTH 27°30'05" EAST 23.252 METERS; THENCE SOUTH 36°25'00" EAST 20.387 METERS; THENCE SOUTH 49°30'09" EAST 24.733 METERS; THENCE SOUTH 66°21'13" EAST 38.026 METERS; THENCE SOUTH 70°09'12" EAST 42.436 METERS; THENCE SOUTH 73°11'28" WEST 15.472 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST

HAVING A RADIUS OF 145.000 METERS; THENCE SOUTHWESTERLY 21.318 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 8°25'25"; THENCE SOUTH 64°46'03" WEST 59.027 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 80.500 METERS; THENCE SOUTHWESTERLY 22.314 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 15°52'56" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE NORTH, HAVING A RADIUS OF 6.100 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS SOUTH 41°06'43" EAST; THENCE SOUTHWESTERLY 3.656 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 34°20'31" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 13.700 METERS A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 06°46'22" WEST; THENCE SOUTHERLY 24.017 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 100°26'40" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 6.342 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 67°46'29" EAST; THENCE SOUTHERLY 6.206 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 56°03'48"; THENCE SOUTH 28°49'45" WEST 10.073 METERS; THENCE NORTH 57°07'13" WEST 45.110 METERS; THENCE SOUTH 25°59'01" WEST 19.788 METERS; THENCE SOUTH 17°30'37" WEST 32.314 METERS; THENCE SOUTH 00°53'20" EAST 55.941 METERS; THENCE SOUTH 05°28'59" WEST 20.996 METERS; THENCE SOUTH 43°49'39" WEST 63.666 METERS; THENCE SOUTH 30°07'15" WEST 28.523 METERS; THENCE SOUTH 36°18'03" WEST 20.069 METERS; THENCE NORTH 89°01'17" WEST 476.065 METERS TO THE POINT OF BEGINNING.

PARCEL 5

BEGINNING AT THE SOUTHERLY TERMINUS OF THE COURSE DELINEATED AS "N 13°37'01" W 312.415 METERS " BEING ON THE EASTERLY LINE OF PARCEL B OF THE RECORD OF SURVEY FILED OCTOBER 14, 1965, IN BOOK 37 OF LICENSED SURVEYOR'S MAPS AT PAGE 46; THENCE FROM SAID POINT OF BEGINNING ALONG SAID EASTERLY LINE NORTH 12°35'35" WEST 155.896 METERS; THENCE LEAVING SAID EASTERLY LINE SOUTH 65°14'00" EAST 35.728 METERS TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 6.100 METERS; THENCE SOUTHERLY 8.834 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 82°58'30" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 118.544 METERS, A RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 72°15'34" WEST; THENCE SOUTHERLY 93.232 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 45°03'43" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE WEST, HAVING A RADIUS OF 81.446 METERS, A

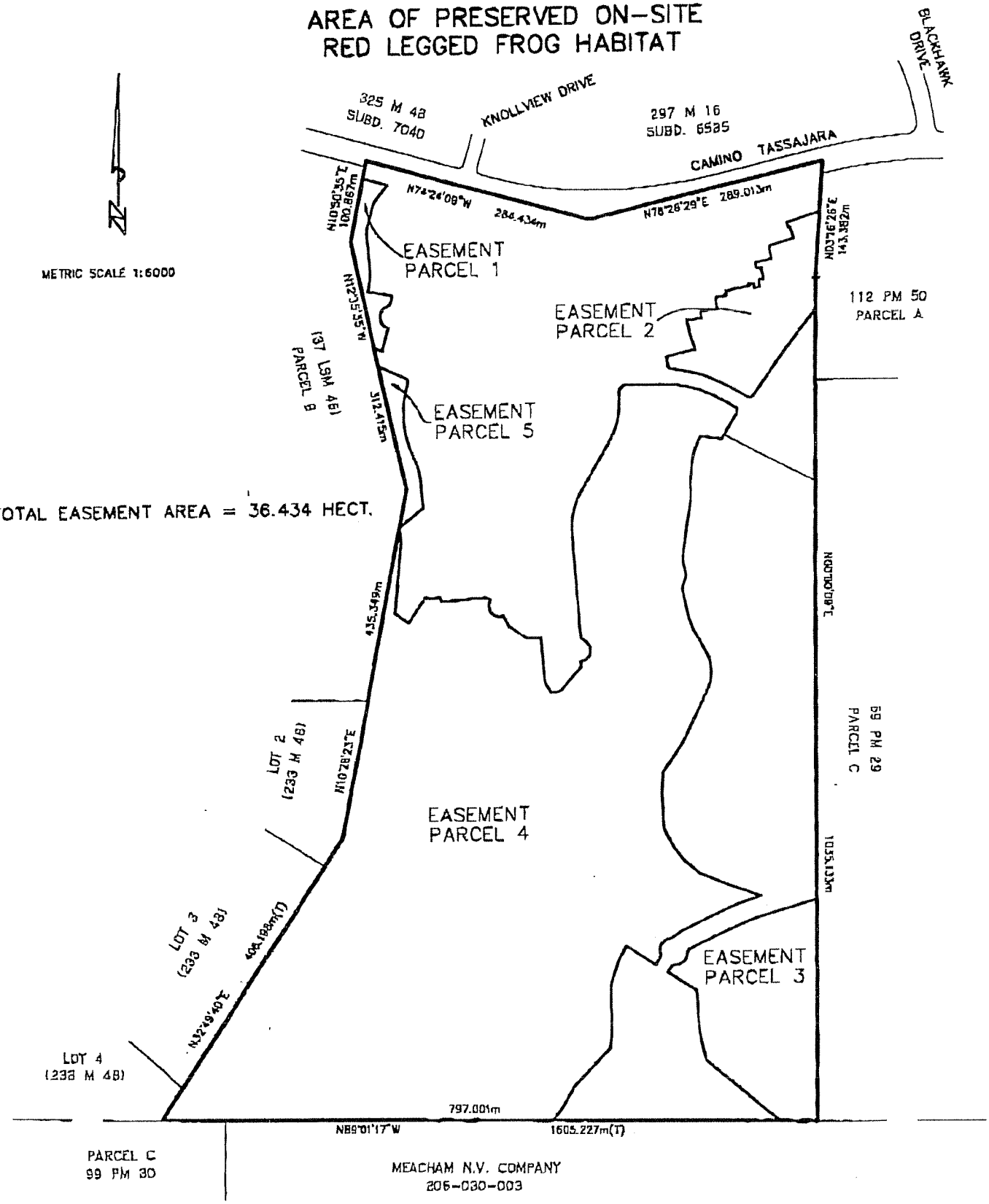
RADIAL LINE TO THE BEGINNING OF SAID CURVE BEARS NORTH 62°40'43" EAST; THENCE SOUTHERLY 32.253 METERS ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 22°41'22"; THENCE SOUTH 04°37'55" EAST 32.558 METERS; THENCE SOUTH 52°32'00" WEST 36.894 METERS; THENCE NORTH 79°31'37" WEST 0.045 METERS TO SAID EASTERLY LINE OF PARCEL B (37 LSM 46); THENCE ALONG SAID EASTERLY LINE NORTH 10°28'23" EAST 47.228 METERS TO THE POINT OF BEGINNING.

CONTAINING A TOTAL AREA OF 36.434 HECT. MORE OR LESS.

EXHIBIT "B"
PLAT MAP

268425

SUBDIVISION 8002
AREA OF PRESERVED ON-SITE
RED LEGGED FROG HABITAT



TOTAL EASEMENT AREA = 36.434 HECT.

EXHIBIT C 268425

WENDT RANCH ON-SITE OPEN SPACE MANAGEMENT PLAN

March 9, 2001

Prepared for:

Shapell Industries of Northern California
P.O. Box 361169
Milpitas, CA 95035

Prepared by:

LSA Associates, Inc.
157 Park Place
Point Richmond, California 94801
(510) 236-6810
LSA Project #SIN933

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TABLE OF CONTENTS

INTRODUCTION

The Wendt Ranch project contains 86.30 acres of on-site open space which will be managed as red-legged frog habitat. This consists of the East Fork of Alamo Creek and setbacks, setbacks from the West Fork of Alamo Creek, the 4.53-acre seasonal wetland (Buffalo wetland) and buffers, and upland grasslands located east of the east fork channel. These areas are shown on the attached mitigation exhibit. Their characteristics are described below.

MANAGEMENT UNITS

East Fork Alamo Creek

The East Fork of Alamo Creek flows across the property in generally a north to south direction. The East Fork channel will be retained in a natural condition with the only work within its banks limited to the construction of an outfall from the detention basin and the removal of introduced trees. A single bridge crossing of the creek will be constructed. The buffer zones upstream of the bridge crossing will be heavily planted on both sides of the creek with native riparian vegetation. This area contains the narrowest creek setbacks and the riparian planting is intended to visually buffer the creek zone while introducing woody riparian habitat.

Downstream of the bridge crossing the east and west buffers will be treated differently. The east side is a sloping hillside. It will be retained in its current condition of non-native grassland. The west side is part of the alluvial valley floor which separates the two forks of Alamo Creek. Valley and coast live oak will be planted within the setback area to create an oak savanna. A temporary irrigation system will be installed to provide water until the trees are established and can grow on their own. The irrigation system will be disconnected at that time. The buffer edge will be defined by an "open" fence.

West Fork Buffers

The West Fork of Alamo Creek flows adjacent to the western boundary of the property and the project includes a buffer zone from the creek. The buffer area is part of the alluvial valley bottom which separates the two forks of the creek. This area will also be planted with native oaks to create an oak savanna. A temporary irrigation system will be installed for tree establishment. This will be removed once the trees can grow on their own. The buffer edge will be defined by an "open" fence.

Buffalo Wetland

The project site contains a seasonal wetland located on the valley bottom portion of the property. The boundaries were determined through the jurisdictional delineation verified by the U.S. Army Corps of Engineers. The verified shape of the wetland resembles a buffalo, hence its name. The wetland was determined to be 4.53 acres in size. The project is preserving the wetland and establishing a minimum buffer of 50 feet from development. The

buffer edge will be defined by an "open" fence that prevents direct physical access. The wetland will be maintained in an undisturbed condition and will not be grazed. Piezometers have been installed in the wetland to monitor soil saturation levels. A water source will be installed to provide supplemental water if monitoring determines that development has resulted in a decrease in wetland area.

Upland Grassland

The project is preserving approximately 55.1 acres of non-native grassland located south and east of the East Fork of Alamo Creek. The plant cover in this area is almost entirely annual grassland. Two valley oak trees grow near the crest of a spur ridge at the southern end of the property and a seep with seasonal wetland vegetation is present on the slope above the creek. This area also contains the reach of Alamo Creek on the property downstream of its confluence with the East and West Forks. This area will be maintained in an undisturbed condition. Blue elderberry will be planted in the vicinity of the spring to create additional upland habitat for California red-legged frogs.

Detention Basin

The project includes a detention basin with a 21 acre foot storage volume located south of the Buffalo wetland. The basin will serve as a detention basin in the winter and an evaporation basin for nuisance flows the remainder of the year. This basin will be managed separately from the remainder of project open space by the Wendt Ranch Geologic Hazard Abatement District (GHAD).

MANAGEMENT ACTIVITIES

East Fork Alamo Creek and West Fork Buffer

The East Fork corridor and West Fork buffer will be managed as California red-legged frog habitat. Management will consist of the following:

The oak savanna/riparian plantings will be installed and maintained by Shapell Industries for a three- to five-year period until the plants are established and able to survive on their own. Maintenance activities will consist of irrigation, weed control, plant protection (if necessary), plant replacement and fence inspection and repair if necessary. The irrigation system will be disconnected and active maintenance stopped after a minimum of three and no more than five years, depending on plant performance. Successful establishment will be achieved when 75% of the trees are actively growing (adding 6 or more inches in height during the last growing season) with an irrigation frequency of once per month. Long-term maintenance can begin at this time.

Long-term maintenance will consist of monitoring the creek corridor to determine that habitat conditions are being maintained and protective fencing is in place. No active management is anticipated. Long-term maintenance activities will include removal of non-native woody

plant seedlings (eucalyptus, tree of heaven, others) and other non-native plants (Arundo, Himalaya berry, Vinca sp., etc.), inspection of fencing and repair as necessary, and trash removal.

Once established, woody oak savanna/riparian plants will be allowed to grow with no further care. Plant protection cages will be removed when tree height exceeds six feet. Natural regeneration will be relied on to replace individual plants.

Buffalo Wetland

The buffalo wetland will be monitored for a ten-year period. The purpose of the monitoring will be to determine if site development results in a reduction in the surface area of the wetland. Monitoring will consist of taking regular piezometer readings (every two weeks) during the rainy season and annual vegetation sampling. Piezometer data will provide information on the length of time saturated conditions are present in the surface soils. Vegetation sampling will establish the edge of dominance by hydrophytic plant species. This will allow us to determine how wetland boundaries change over time. The wetlands monitoring program is described in more detail in Attachment 1.

If monitoring determines that sufficient water to maintain the wetlands surface area is not present, a mitigation plan designed to provide supplemental water will be prepared for review and approval by the Regional Water Quality Control Board. Implementation of this plan will be the responsibility of the long-term manager of the open space.

Upland Grassland

The rear yards of the homes adjacent to the upland grassland will be fenced. Fence maintenance will be the responsibility of the individual homeowners. The homeowners association will be responsible for maintaining a 50-foot-wide fuel break adjacent to the rear lot lines. The fuel break will be maintained by mowing. Native trees will be planted within the fuel break area and drip/bubbler irrigation system installed to provide water to them. Shapell Industries will install 18 blue elderberry at the site of the hillside seep and monitor their survival for three years. Monitoring will also include annually measuring the height of each plant at the end of August. Any plant that dies during this period will be replaced. Monitoring will end when 12 or more plants have survived for three years and have doubled their height.

Grazing will be stopped in this area when home construction begins. The potential for amending this plan to allow grazing east of the creek will be considered in conjunction with management of the Alamo Creek open space if that project is approved. Fencing of the creek zone would be necessary if that is allowed.

Detention Basin

The detention basin will not be included in the regular management and maintenance of project open space. This will be performed by the Wendt Ranch GHAD. Open space management activities within the basin will be limited to bullfrog eradication as described in the following section.

Bullfrog Eradication

The project will participate in regional bullfrog eradication efforts. Specifically, Shapell will eradicate bullfrogs on the Wendt Ranch property and, subject to the approval of the County flood control district, the stormwater detention pond located north of Camino Tassajara Road in the Shadow Creek subdivision.

Eradication efforts for the first two years will require multiple visits (10) to the creek and detention pond. During all visits adult and juvenile bullfrogs will be removed whenever possible. During the spring months specific visits will be made to search for bullfrog egg masses. When found, egg masses will be removed from the water. Daytime and nighttime visits will be made to maximize effectiveness of the eradication efforts.

After the first two years of intensive eradication, follow-up visits will be made on an annual basis to remove any remaining bullfrogs, their eggs, and to ensure recolonization does not occur. Four visits will be made each year (3 spring, 1 mid-summer) to accomplish this maintenance requirement. This is an ongoing requirement that will be conducted in perpetuity.

Eradication work will be coordinated with other projects within the Alamo Creek watershed including Gale Ranch, Windemere, and the Alamo Creek and Intervening properties if approved.

MANAGEMENT RESPONSIBILITY

Short-term

Short-term management activities include:

1. Oak tree monitoring and maintenance
2. Buffalo wetland monitoring
3. Elderberry monitoring
4. Bullfrog eradication

Shapell Industries will be responsible for ensuring short-term management activities are conducted.

Long-term

268425

Long-term management activities include:

1. Oak tree cage removal
2. Fence inspection and repair
3. Trash removal
4. Removal of exotic woody plant seedlings.
5. Application of water to Buffalo wetland if necessary.
6. Follow-up bullfrog eradication

Long-term management will be the responsibility of the open space manager.

LSA ASSOCIATES, INC.

268425

ATTACHMENT

WENDT RANCH WETLAND MONITORING PLAN

LSA ASSOCIATES, INC.

Wetland Monitoring Plan
Wendt Ranch Project, Contra Costa County, California
Corps File No. 23199S; RWQCB File No. 2118.04 (KRH)

268425

Introduction: This monitoring plan will document annual hydrological and vegetation conditions within the preserved 4.5-acre seasonal wetland area, known as the "Buffalo Wetland," as shown on the attached figure. The purpose of this monitoring will be to determine if hydrological and biological conditions of the Buffalo Wetland undergo any significant changes under post-project conditions.

Existing Hydrological Conditions: The Buffalo Wetland relies on three sources of water inflow - direct rainfall, groundwater upwelling, and surface runoff. Groundwater and direct rainfall are likely to play more significant roles in the wetland's overall hydrology than does surface runoff.

Topography limits the contribution of surface runoff. The wetland is located on a terrace between two forks of Alamo Creek (see attached figure). The creek forks serve to intercept surface runoff from the surrounding area located to the south, east and west. Limited surface runoff reaches the wetland from the area located immediately to the north. The watershed area to the north is approximately 8-10 acres, and discharges mostly to the two creek forks. The percentage of northern runoff reaching the wetland is likely to be low because topographic conditions promote lateral runoff into the creeks rather than southward runoff toward the Buffalo Wetland.

Groundwater plays a role in sustaining the Buffalo Wetland due to the site's underlying geology. The site is underlain by near-vertical rock beds in the Sycamore Formation that is folded along an east-west orientation, with dips of 70-90 degrees to the north. Groundwater within the more permeable bedrock is forced upward by pressure, similar to upwelled artesian conditions. This occurs at hillside seeps and at several locations within the Buffalo Wetland (Contra Costa County 1996), where recent piezometer data demonstrated an upward groundwater gradient (Engeo 2000a).

Direct rainfall is in the moderate range for the Bay Area (mean 19.3 inches annually) but is probably adequate to sustain the facultative and facultative-wet vegetation types that dominate the Buffalo Wetland (*e.g.*, *Hordeum marinum* ssp. *gussoneanum*, *Lolium perenne*).

The Buffalo Wetland forms a shallow, slightly concave basin with poorly draining soils, emulative of vernal marsh wetlands. Direct rainfall is fully captured and held until it is lost through slow downward percolation and evapotranspiration. Seasonal wetlands with this type of "vernal marsh/pool" hydrology can sustain extended periods of soil saturation and/or surface waters based solely on direct rainfall.

Existing Biological Conditions: The Buffalo Wetland is characterized by saturated soils during the rainy season but is not inundated. As such, it does not support an aquatic macro-

or microfaunal community, but rather supports fauna associated with the surrounding grasslands, such as common garter snake (*Thamnophis couchii*), western toad (*Bufo boreus*) and tree frog (*Hyla regilla*). Vegetation is a mix of hydrophytic and upland grasses and herbs typically associated with seasonal wetland areas. Dominant plant species are meadow barley, perennial rye grass, wild barley (*Hordeum leporinum*), sedges (*Carex* spp.) and bristly oxtongue (*Picris echioides*).

Potential Impacts: The proposed Wendt Ranch project is not expected to impact the hydrology or biology of the Buffalo Wetland. The two most important sources of inflow to the Buffalo Wetland will be unchanged. Direct rainfall, probably the most important source, will be unaffected. Groundwater upwelling will also not be affected as the operation of the stormwater detention basin is not anticipated to cause any significant impact to local groundwater conditions. The third source of inflow, surface runoff from the watershed to the north, will be impacted because of the residential development in this area. However, given the probable insignificance of surface runoff to the Buffalo Wetland's hydrology, this impact is considered to be negligible. Vegetation in the Buffalo Wetland is adapted to the seasonal nature of the hydrology. As long as the hydrology remains unchanged, the vegetation is not expected to change.

Monitoring Approach: The fundamental hydrological monitoring approach will be as follows:

1) document pre-project hydroperiods in the Buffalo wetland during the 2000-2001 rainy season;
2) relate these hydroperiods to a normal hydrological year, based on recorded rainfall data, and prepare a set of baseline (reference) hydrographs
3) conduct annual rainy season monitoring of post-project conditions for a 10-year period;
4) compare post-project hydrographs to the baseline hydrographs to determine if any significant changes have occurred.

The fundamental biological monitoring approach will be as follows:

1) conduct baseline monitoring of vegetation cover at the end of the 2000-2001 rainy season;
2) map baseline wetland boundaries in 2000-2001, using Corps Section 404 jurisdictional criteria (Corps 1987), prior to the start of project construction; survey wetland boundaries.
3) conduct annual vegetation cover monitoring and wetland boundary mapping of post-project conditions for a 10-year period;
4) compare post project vegetation cover and wetland boundaries to baseline conditions to determine if any significant changes have occurred.

Methods:

1. Hydrology - Hydroperiods (*i.e.*, the length of interval during which seasonal wetlands maintain saturation and/or inundation) shall be measured at eleven locations in the Buffalo Wetland. Sampling locations will consist of replicates in the center of the marsh, mid-marsh and marsh edge, using shallow piezometers (<3 feet). Piezometers will consist of slotted, two-inch diameter, 32-inch long PVC pipes, inserted into a 3.25-inch diameter augered hole. The pipes will be installed to depths of 24 inches with 8 inches (non-slotted) above ground. Augured holes will be backfilled with sand, and sealed with bentonite. An oversize PVC cap will be placed atop each piezometer to exclude rainwater.

Ground water depths will be recorded at two week intervals through the rainy season each year for an 11-year period (pre-project year plus ten post-project years). The observer shall record the date on which the seasonal wetland first becomes thoroughly saturated, and the date on which saturation ceases in the upper 12 inches of the soil profile. Hydroperiod shall be calculated as the length of interval during which saturation was maintained.

Hydrographs (plots of water level vs. time) will be averaged for each set of replicates (center marsh, mid marsh and edge of the marsh). Baseline (pre-project) hydrographs will be "normalized" using recorded precipitation data from the Mt. Diablo (North Gate) recording station. This will entail adjusting baseline water levels by the percentage of mean normal precipitation levels recorded for the baseline monitoring year.

2. Vegetation - Two permanent intercepting transects will be established across the center of the wetland. The transects will be placed at 90 degrees to one another so that the north-south and east-west wetland boundaries are intercepted. Along each transect, 1 meter^2 cover plots will be placed starting and ending at points approximately 10 meters outside the baseline wetland boundaries (see attached Figure).

Absolute vegetation cover in each plot will be estimated for all observed species using Braun-Blanquet unequal cover classes as follows: less than 5 percent, 5-15 percent, 16-25 percent, 26-50 percent, 51-75 percent, 76-100 percent for each species (native and non-native). Cover estimates will be averaged to determine overall cover for the entire mitigation area. Unequal cover class intervals will be used because such intervals allow for an easier estimation of species-cover to area relationships than do equal class intervals (Mueller-Dombois and Ellenberg 1974).

3. Wetlands Boundaries - During the baseline monitoring year (2000-2001), wetland boundaries will be determined in accordance with Corps guidelines (Corps 1987) and the boundary surveyed and mapped. In subsequent monitoring years, the edge of dominance by hydrophytic vegetation (Reed 1988) will be ascertained along each vegetation transect. These data will be combined with piezometer data to ascertain if hydrology and vegetation continue to meet the Corps definition of wetlands, or if the boundary has contracted or expanded. Soil information may be needed if hydrology data do not clearly establish an aquic moisture regime or if boundaries appear to have expanded.

Reporting and Interpretation of Results: An annual report will be prepared and submitted to the Board. The report shall include tables and hydrographs for each of the three locations in the Buffalo Wetland (represented by the averaged data from the three piezometer replicates). A textual summary and analysis of results will be provided, as well as recommendations for any adjustments in the monitoring approach and any recommended remedial actions.

Baseline and post-project annual hydrographs will be compared for each of the three averaged replicate locations (center marsh, mid marsh and edge of the marsh). If the annual hydrographs are significantly different from the baseline hydrographs for one or more location, then results will be discussed with respect to annual precipitation conditions (*e.g.*, abnormally dry or wet years) and whether the differences may be due to changed hydrology resulting from project construction. Changes in hydrology will also be discussed with regard to whether or not the changes represent a beneficial, neutral or negative potential impact on the habitat value of the Buffalo Wetland.

Significant differences shall be defined as any of the following:

1. A 10 percent or greater deviation from normalized baseline conditions (not attributable to abnormal rainfall conditions) with respect to the early rainy season onset of initial wetland hydration.
2. A 10 percent or greater deviation from normalized baseline conditions (not attributable to abnormal rainfall conditions) with respect to early dry season drawdown.
3. A 10 percent or greater deviation from normalized baseline conditions (not attributable to abnormal rainfall conditions) with respect to mean groundwater levels.

Vegetation differences will be considered significant under any of the following conditions:

1. If the mean percent cover by hydrophytic species declines to below 50 percent absolute cover.
2. If there is a significantly higher variance in percent cover by hydrophytic species between baseline and post-project monitoring years, reflecting a possible shift to upland species in some vegetation plots. "Significant" will mean a greater than 10 percent increase in the standard error of the mean.
3. If the wetland boundaries have contracted, and such contraction cannot be attributed to abnormally dry rainfall conditions.

Potential Mitigation (if needed):

If monitoring results suggest that hydrological or biological conditions have significantly changed, and that these changes are likely to cause adverse impacts to the Buffalo Wetland, then one or more of the following potential mitigation actions can be implemented, subject to the prior review and approval of the Board:

1. If the wetland has become significantly drier, then it will be supplied with additional water from an upstream source. The method, timing and amount will be detailed in a mitigation plan which will be reviewed and approved by the Regional Water Quality Control Board prior to the addition of any water. The design of the augmentation system will allow inflows through several discharge points along the wetland's northern edge.

2. If the wetland has become significantly wetter, and this has been determined to be detrimental, then piezometer data will be analyzed to determine where the additional inflows are derived from. If the detention basin is the cause, then additional impervious lining shall be installed in the basin. as needed. If the source is nuisance seepage from the development, than a subsurface intercept and conveyance system will be installed between the wetland and development, to convey water away from the wetland and into the detention basin.

3. If either of the above circumstances occur in year 10 of the monitoring period, then annual monitoring will continue until such time that mitigation actions have been determined to be effective, as defined by the absence of any further significant differences between the baseline and annual monitoring results.

Timing: Baseline monitoring shall be conducted each rainy season and early dry season (approximately November-May) between 2000 and 2011. Annual reports shall be submitted to the Board no later than August of each monitoring year.

References:

Contra Costa County. 1996. Draft Environmental Impact Report Wendt Ranch General Plan Amendment and Related Actions. County File #GP-95-0012, Rezoning #RZ963037, Subdivision #SD958002, SCH# 96013041. August 1996.

Engeo, Inc. 2000a. August 11, 2000 Letter to Katie Hart, Regional Water Quality Control Board entitled "Wetland Ground-Water Summary." Prepared by Uri Eliahu.

Engeo, Inc. 2000b. June 1, 2000 Letter to Katie Hart, Regional Water Quality Control Board entitled "Response to Regional Water Quality Control Board." Prepared by Uri Eliahu.

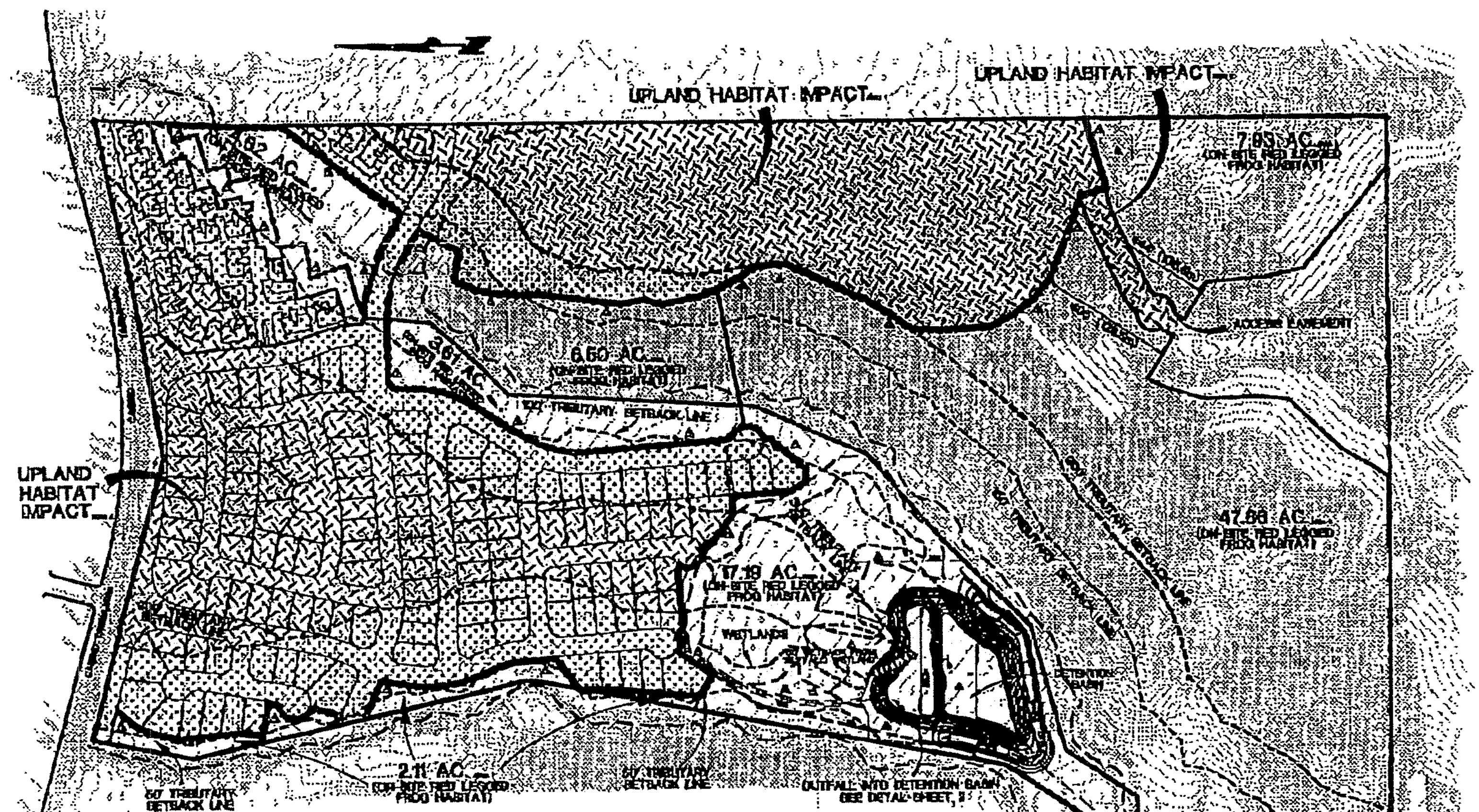
Mueller-Dombois, D. and H. Ellenberg. 1974. Aims and methods in vegetation ecology. John Wiley & Sons, Inc., New York.

Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). U.S. Fish Wildlife Service Biol. Rep. 88(26.10).

U.S. Army Corps of Engineers (Corps). 1987. Wetland Delineation Manual. Technical Report Y-87-1. Waterways Experiment Station, Vicksburg, Miss.

EXHIBIT "D"

268425



AREA OF ENCROACHMENT INTO 300' TRIBUTARY SETBACK

EAST FORK = 14.42 AC.
WEST FORK = 9.59 AC.
TOTAL = 24.01 AC.

AREA OF UPLAND HABITAT IMPACT(BEYOND 300' SETBACK)

AREA 1 = 19.47 AC.
AREA 2 = 22.08 AC.
AREA 3 = 0.90 AC.
TOTAL = 42.45 AC.

AREA OF PRESERVED ON-SITE RED LEGGED FROG HABITAT

AREA 1 = 47.86 AC.
AREA 2 = 17.19 AC.
AREA 3 = 7.93 AC.
AREA 4 = 6.50 AC.
AREA 5 = 4.62 AC.
AREA 6 = 3.61 AC.
AREA 7 = 2.11 AC.
TOTAL = 89.82 AC.

OPEN SPACE FENCING
FENCING OPTIONS:
WELDED WIRE
VINYL CLAD CHAIN LINK

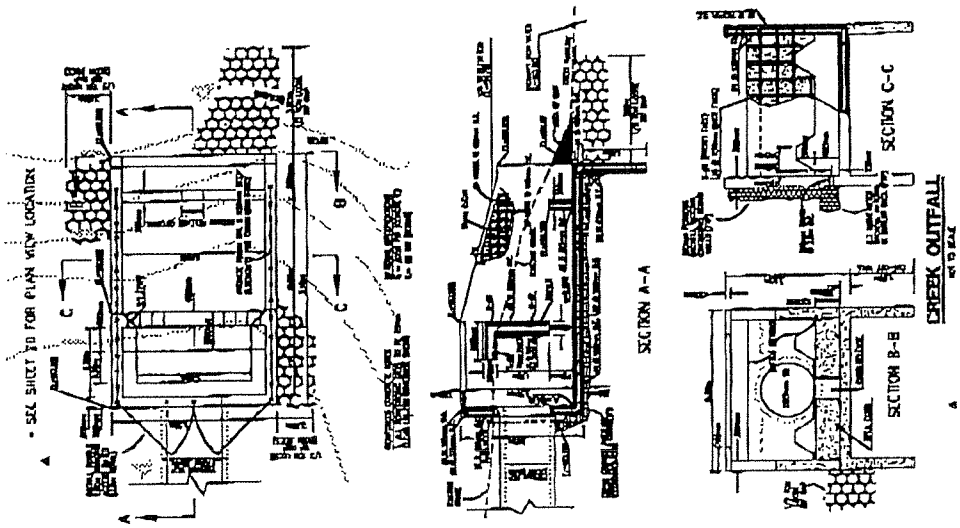
ASSOCIATES

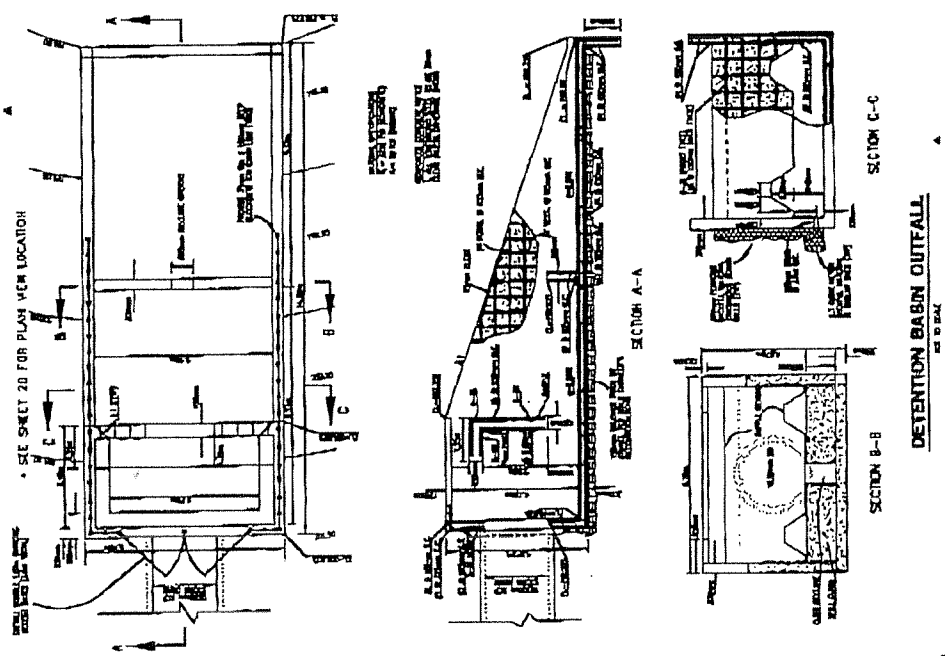
SHAPELL INDUSTRIES
WENDT RANCH
CONTRA COSTA COUNTY CALIFORNIA

SUBDIVISION 8002
MITIGATION EXHIBIT

SHEET 1

268425





SHAPELL INDUSTRIES
WENDT RANCH
CONTRA COSTA COUNTY CALIFORNIA

SUBDIVISION 8002
MITIGATION EXHIBIT

SHEET 2

END OF DOCUMENT

AUG 0 1 2002

APPENDIX E

GHAD Responsibility Analysis Letter
Dated May 18, 2005

Daniel J. Curtin, Jr.
Direct Phone: (925) 975-5351
daniel.curtin@bingham.com
Our File No.: 2722720045

Via Mail and Facsimile

May 18, 2005

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94596-1270

925.937.8000
925.975.5390 fax

bingham.com

Uri Eliahu
President
Engeo Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA 94583-4634

Re: Revision 1 to Wendt Ranch GHAD Plan of Control

Dear Mr. Eliahu:

I have reviewed Revision 1 to the Wendt Ranch GHAD Plan of Control which will cover the Alamo Creek and Intervening Properties, which are proposed to be annexed into the Wendt Ranch Geological Hazard Abatement District ("GHAD"). I understand that this Revision 1 replaces the original Plan of Control in its entirety. Under the provisions of this Revision, the GHAD would assume additional monitoring and maintenance responsibilities for site improvements within the Alamo Creek and Intervening Properties projects. Those are listed in the Revised Plan of Control dated May 10, 2005. Also, with respect to the title for the open space, including the detention basin and bioretention basins, the Revision shows that such title will pass to the GHAD. You have asked whether or not those additional GHAD responsibilities and ownership fall within the purview and provisions of the California Geologic Hazard Abatement District law as set forth in Public Resources Code sections 26500 *et seq.* In my opinion, they do.

Analysis

A GHAD is empowered to acquire, construct, operate, manage, or maintain improvements on public or private lands. "Improvement" is defined to mean any activity that is necessary or incidental to the prevention, mitigation abatement, or control of a geologic hazard, including, but not limited to, all of the following:

- Acquisition of property or any interest therein;
- Construction;
- Maintenance, repair, or operation of any improvement;

- Preparation of geologic reports required for multiple projects within an earthquake fault zone or zones;

- Issuance and servicing of bonds, notes, or debentures issued to finance the costs of the improvements (specified in subdivisions (a), (b), (c), and (d). (§ 26505)

Further, the GHAD may acquire property or an interest in property. (§ 26577) Also, the GHAD may acquire, construct, operate, manage or maintain improvements on public or private lands and accept improvements undertaken by anyone. (§ 26580)

In forming a GHAD, after notice and a public hearing, a plan of control is adopted. The plan of control prepared by a certified engineering geologist, describes geologic hazards, their location, the affected areas, and a plan for prevention, mitigation, abatement, and control of these hazards. (Section 26509) The plan of control serves as a "constitution" for the GHAD and addresses the GHAD's ongoing activities, including the monitoring of geologic conditions, identification of geologic hazards, construction of needed improvements, and the maintenance, repair, and replacement of facilities. The plan of control is the controlling document. *See* "Geologic Hazard Abatement Districts: California's Experience with Hazard Mitigation through Special Districts," Daniel J. Curtin, Jr. and Shawn J. Zovod, Land Use Law & Zoning Digest, Vol. 55, No. 6, June 2003.

The plan of control can be amended or revised if the procedures in the law for adopting the original plan are followed. If the provisions of the plan of control show a nexus and explain that the improvements and maintenance of the improvements and the ownership of certain properties are necessary to handle geologic hazards, then such work can legally be done by the GHAD as long as there is a relationship between the duties, goals and the objectives of the GHAD. The Revision 1 to the existing Plan of Control contains the required nexus or relationship. Therefore, these additional duties and responsibilities of the Wendt Ranch GHAD fall within the purview of the state law.

If you have any questions, please advise.

Sincerely yours,

Daniel J. Curtin, Jr.

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APPENDIX F

Maintenance of Detention Basin on Wendt Ranch
Dated April 20, 2005

Writer's Direct Line: 415-774-2977
efoley@sheppardmullin.com

April 20, 2005

Our File Number: 0SPL-061333

VIA FEDERAL EXPRESS

Ms. Teri Rie
Contra Costa Public Works Department
255 Glacier Drive
Martinez, CA 94553

Re: Maintenance of Detention Basin on Wendt Ranch

Dear Ms. Rie:

At the request of our client, Shapell Industries of Northern California, we are writing to provide our opinion regarding (1) whether maintenance of the Wendt Ranch Detention Basin ("the Detention Basin") is an authorized activity under the conservation easement affecting the area in which the Detention Basin is located and (2) whether the ordinary maintenance activities require any additional authorizations from state and federal natural resource agencies. Our opinion is based on our review of the Wendt Conservation Easement and the authorizations issued by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Regional Water Quality Control Board and the California Department of Fish and Game ("the Natural Resource Permits") for Shapell's Wendt Ranch and Alamo Creek Projects ("the Projects"). Based on our review of these documents and discussions with agencies during the permitting of the Projects, we believe that all necessary authorizations for typical Detention Basin maintenance, including sediment removal and bank repair, have been procured. Accordingly, no further action is required to continue operation and maintenance of the Detention Basin.

I. Background

The Detention Basin was constructed as part of Shapell Industries' Wendt Ranch Development Project, a master planned residential community located on a 157 acre parcel in Contra Costa County that includes approximately 272 units and 86 acres of designated open space. The Detention Basin is designed to reduce the magnitude of storm water flows and provide water quality treatment for the Wendt Ranch Project and for a portion of Shapell's adjacent Alamo Creek Project. It also provides stormwater detention for runoff from the

Intervening Properties Project. The Detention Basin is located in the Wendt Ranch Project open space area which is protected by a conservation easement.

The Wendt Ranch Geological Hazard Abatement District ("GHAD") will be responsible for the long term maintenance of the Detention Basin. Pursuant to the *Operation and Maintenance Manual for GHAD Maintained Drainage Facilities* (Engeo, February 2005), the Detention Basin will be monitored at least twice annually during May and November and after any storm event which results in at least 1.0 inch of rainfall in a 24-hour period. Regular maintenance is anticipated to include removal of litter and coarse debris, vegetation control and cleaning of inlet and outlet structures. Silt removal and bank repair/stabilization will be conducted as necessary.

A. Wendt Ranch Approvals

Because development of the Wendt Ranch Project involved minor impacts to waters of the U.S. resulting from construction of an outfall structure associated with the Detention Basin (impacts to less than 0.1 acres of waters of the U.S.), the Project obtained authorization from the U.S. Army Corps of Engineers pursuant to Section 404 Nationwide Permit Numbers 7, 8, and 33 . As part of its permitting decision, the Corps reviewed a long term management plan for the conservation areas, which includes the Detention Basin; the long term management plan contemplated long term maintenance of this facility by the GHAD.

Prior to issuance of the Nationwide Permit verification, the Corps consulted with the U.S. Fish and Wildlife Service to determine, as required under Section 7 of the Endangered Species Act, whether the Project would jeopardize the continued existence of California red-legged frog or the San Joaquin kit fox or result in adverse modification of then designated critical habitat for the red-legged frog.[1] On November 6, 2001, the Service issued a Biological Opinion for the Project (Service File No. 1-1-01-F-244).[2] In the Biological Opinion, the Service considered the potential impacts to listed species associated with use and long term maintenance of the Detention Basin. It found that: "use of the detention pond by red-legged frogs could subject individuals to toxic environmental contaminants, urban adapted predators and periodic desilting projects, resulting in chronic impacts to individuals within the project area." Bio. Op. No. 1-1-01-F-244, at 15. It determined that the Wendt Ranch Project, including the maintained Detention Basin, would not result in jeopardy to any listed species or adverse modification of designated critical habitat. The Biological Opinion specifically authorizes take of California red-

[1] Subsequent to issuance of the Wendt Ranch Project's biological opinion, the red-legged frog critical habitat designation was vacated.

[2] The Service issued an earlier Biological Opinion on June 28, 2000, which considered the impacts of the Wendt Ranch Project and the Detention Basin on the California red-legged frog. The relevant analysis in both the 2000 and 2001 Biological Opinions is the same.

legged frog caused by "human related disturbance from the long term management of the detention basin." *Id.* at 18. The Service did not include any mandatory conditions or recommended conservation measures relating to operation or maintenance of the Detention Basin.

The Wendt Ranch Project also received water quality certification from the Regional Water Quality Control Board (File No. 2118.04) which found that construction of the Project, including the Detention Basin would not violate any state water quality standard. The certification specifically required that the Project applicant finalize a management plan addressing long term maintenance of the Detention Basin prior to use of the basin as a storm water treatment facility. The Basin Management Plan Program, Wendt Ranch (February 22, 2002) was submitted to the Regional Board.

Finally, the Wendt Project entered into a Lake or Streambed Alteration Agreement with the Department of Fish and Game (Notification No. R3-2000-0284). Under this Agreement, Shapell was authorized to install the Detention Basin outfall structure in Alamo Creek.

B. Alamo Creek Project Approvals

As previously noted, the Wendt Ranch Detention Basin was designed to provide stormwater treatment for runoff from a portion of the Alamo Creek Project. The Alamo Creek Project is located on approximately 609.5 acres adjacent to the Wendt Ranch Project and involves the construction of a master planned residential community comprised of approximately 920 residential units and 269 acres of permanent open space.[3] Because the Project involved the placement of fill into 0.9 acres of jurisdictional aquatic areas, the Project was reviewed and approved by the Corps, the Service, the Regional Board and the CDFG. To ensure that the Project's impacts were minimized and mitigated, the natural resource agencies required Shapell to prepare a Mitigation and Monitoring Plan describing all of the mitigation measures associated with the project and the methods which would be utilized to monitor and maintain these areas.

Included in the Final Mitigation and Monitoring Plan, Alamo Creek Project (LSA, July 2, 2004) is the Storm Water Quality and Hydrograph Management Plan, Alamo Creek (Engeo, April 14, 2004) which describes the monitoring and maintenance activities associated with the Project's storm water treatment facilities including the Detention Basin. The Final Mitigation and Monitoring Plan was submitted to and approved by the natural resource agencies. *See* Corps Permit No. 2432S (stating that the project is "to be carried out in accordance with the 'Mitigation and Monitoring Plan, Alamo Creek Project' prepared by LSA, dated July 2, 2004");

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[3] The Alamo Creek Open Space Area will be managed under a conservation easement held by the Wildlife Heritage Foundation. The Wildlife Heritage Foundation will manage the Wendt Ranch Open Space and the Alamo Creek Open Space jointly.

Formal Endangered Species Consultation and Conference on the Effects of the Proposed Alamo Creek Residential Development Contra Costa County, California (Service File No. 1-1-03-F-0301)(describing the Storm Water and Hydrograph Management Plan as part of the Project and requiring that the Project be implemented as described in the Biological Opinion); Waste Discharge Requirements and Water Quality Certification for: Shapell Industries of Northern California and Pondersoa Homes Alamo Creek Project, Order No. R2-2004-0035 (noting that storm water from the Project will be treated in the Detention Basin and requiring implementation of the Storm Water Management Plan[4]); and Lake and Streambed Alteration Agreement, Notification No. 1600-2004-0549-3 (prepared August 8, 2004)(requiring that the Project be implemented as described in the Final MMP).

II. DISCUSSION

A. Maintenance of the Detention Basin Is An Authorized Activity under the Conservation Easement

As described above, the Detention Basin is located in the Wendt Ranch open space area ("the Protected Property"), an area protected by a conservation easement granted to the Wildlife Heritage Foundation and recorded in the Contra Costa Co. Recorder Office (Doc – 2002-0268425) on August 1, 2002 ("Conservation Easement"). The purpose of the Conservation Easement is to "ensure that the Protected Property will be retained forever in a natural condition and to prevent any use of the Protected Property that will interfere with [significant ecological and habitat values that benefit threatened, endangered, and rare species (collectively defined as the Conservation Values)] of the Protected Property." *See* Conservation Easement at ¶ 1. Activities that do not interfere with the Conservation Values of the Protected Property are not prohibited.

Specifically, the Conservation Easement provides that the activities contemplated in the *Wendt Ranch On-Site Open Space Management Plan* (LSA, March 9, 2001) ("the Management Plan") are authorized within the easement area. *See* Conservation Easement ¶ E ("Grantor and Grantee desire to protect, restore and enhance [the Protected Property] pursuant to that certain Management Plan entitled 'Wendt Ranch On-Site Open Space Management Plan.'") & ¶ 3 (listing activities that are prohibited on the Protected Property "*except as stated in the Management Plan.*")(emphasis added). The Management Plan divides the Protected Property

[4] The Order required that Shapell submit some additional information with regard to the operation and maintenance of all the storm water treatment facilities associated with the site prior to commencement of construction, with a particular focus on the bioretentention facilities installed on the Alamo Creek site. Shapell satisfied these conditions prior to commencing construction in August of 2004.

into five management units, four of which are to be maintained as red-legged frog habitat. The fifth management unit is the Detention Basin. The Detention Basin is not subject to the open space management requirements established for the other units, with the exception of the Project's bullfrog eradication program which is to be implemented in the five units. The Management Plan provides that the GHAD is responsible for all other management and maintenance activities for the Detention Basin. *See* Management Plan at 2 & 4. Accordingly, GHAD maintenance of the Detention Basin is an authorized activity under the Conservation Easement.

Additionally, the Conservation Easement includes an attachment, Exhibit D, which identifies some of the retained rights of the Grantor, Shapell, including rights associated with the Detention Basin. *See* Conservation Easement, ¶ 3 (l)(prohibiting the subdivision of the Protected Property except as it pertains to the rights of the Grantor described in Exhibit D). Exhibit D, entitled "Mitigation Exhibit," consists of a map identifying the location of the Detention Basin within the Protected Property and a detailed description of the Detention Basin outfall. The Conservation Easement provides that Shapell retains the right to grant easements allowing for the installation of the infrastructure necessary for the Wendt Ranch Project and shown on exhibit D, including without limitation, sanitary sewers, utilities, storm drains, *construction of a road and use of a road for access to the detention basin. See* Conservation Easement, ¶ 18 (emphasis added). The access road would be established for the sole purpose of allowing maintenance access to the Detention Basin. Accordingly, regular maintenance of the Detention Basin is a contemplated use of the Protected Property.

B. Typical Maintenance Activities Associated with the Detention Basin Do Not Require Further Authorization From the Natural Resource Agencies.

The Wendt Ranch Project, including the Detention Basin, has been reviewed and approved by all of the state and federal natural resource agencies with jurisdiction over the Project, including the Corps, the Service, the Regional Board, and the CDFG. Each of these agencies specifically authorized construction of the Detention Basin as part of the Wendt Ranch Project. Additionally, each of these agencies approved the Alamo Creek Mitigation and Monitoring Plan which included a plan for monitoring and maintaining the Project's stormwater facilities including the Detention Basin.[5] Moreover, the Service considered potential impacts to

[5] Even if the Detention Basin was not specifically authorized under the Projects Natural Resource Permits, maintenance within the basin would not require a Corps permit or water quality certification as these types of urban treatment facilities are not considered waters of the United States. *See* 33 CFR § 328.3(a)(8)(facilities installed to provide treatment of urban runoff are not waters of the United States) & Regional Board Order No. 94-102, "Policy on the use of constructed wetlands for urban runoff pollution control" (providing that so long as a facility is operated and regularly maintained as a urban runoff treatment system, maintenance and other work completed in it do not require water quality certification).

listed species associated with maintenance of the Detention Basin and approved the Project as proposed. Therefore, no further authorization is required.

III. Conclusion

Based upon the aforementioned discussion, we conclude that: 1) maintenance and management of the Detention Basin, as well as access to the Detention Basin, are contemplated and authorized uses of the Protected Property; and 2) the regular maintenance of the Detention Basin does not require any additional authorizations from the Natural Resource Agencies..

If you have any questions, please do not hesitate to contact me.

Very truly yours,

Ella Foley-Gannon

for SHEPPARD MULLIN RICHTER & HAMPTON LLP

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cc: Marshall Torre, Shapell
Robert Smith, USACE
Kathryn Hart, CRWQCB
Nicole Kozicki, CDFG
Ryan Olah, USFWS
Patrick Shea, Wildlife Heritage Foundation