

# Exhibit D

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April 27, 2023

Ella Industries  
608-B Missouri Street  
San Francisco, CA 94107

Attention: Mr. Timothy Moore

Re: Vega Road Project Citation  
Restoration Challenges  
Watsonville, CA

Dear Mr. Moore:

This letter is in response to your request to evaluate the feasibility of restoring the site conditions to pre-disturbance conditions at the Vega Road project site (APNS: 117471003; 117471004; 117471007; & 117471016). We understand this request is in response to an administrative citation notice received from Monterey County, dated January 14, 2022 related to work performed in the fall of 2021.

Storesund Consulting was engaged in October of 2021 to assist in enhancing stormwater BMPs to stabilize onsite erosion as a result of elevated precipitation events (atmospheric rivers) experienced in October of 2021. Site development design was previously completed by Hogan Land Services, prior to our involvement under a permit initiated (PLN190155) in 2019.

In our opinion, there are three substantive factors that yield restoration of pre-2021 disturbance challenging.

First, the majority of the disturbance centers around the removal of invasive mature Eucalyptus trees. The project arborist (Ono Consultants) prepared an Oak Reforestation and Forest Management Plan (Exhibit A) which aimed to restore the property to a healthy and functioning Oak Woodland as possible. Replanting invasive Eucalyptus in lieu of restoring native Oak Woodland would not only exacerbate forest fire concerns but promote invasive species. Implementation of the proposed project would eliminate onsite invasive species and promote re-establishment of native Oak Woodland. This is the strongly recommended approach. A supportive letter from the project arborist is included in Exhibit B.

Second, re-establishment of onsite woodlands will take many years. This leaves the site vulnerable to enhanced stormwater and sediment runoff. The new proposed site grading will provide installation of a protective covering on the roadway to convey stormwater without erosion/scour of the highly mobile onsite fine sands and silts. Additionally, a series of stormwater infiltration ponds are proposed to be installed (Exhibit C). These infiltration ponds will capture stormwater and encourage controlled infiltration into the underlying soils and groundwater table.



Finally, we were unable to locate site-specific topographic information reliably establishing pre-disturbance conditions throughout the project area. Limited site surveying was completed by Hogan Land Services in 2019. The extents of their surveys are presented in Figure 1. Physical reconstruction of pre-disturbance geometry would be limited to the footprint associated with the Hogan 2019 survey, which is only a portion of the overall surficial site disturbance. The proposed site grading (associated with the current permit application) would also provide enhanced site stability as a result of construction of engineered slopes (especially steeper slope areas,  $\geq 25\%$ ).

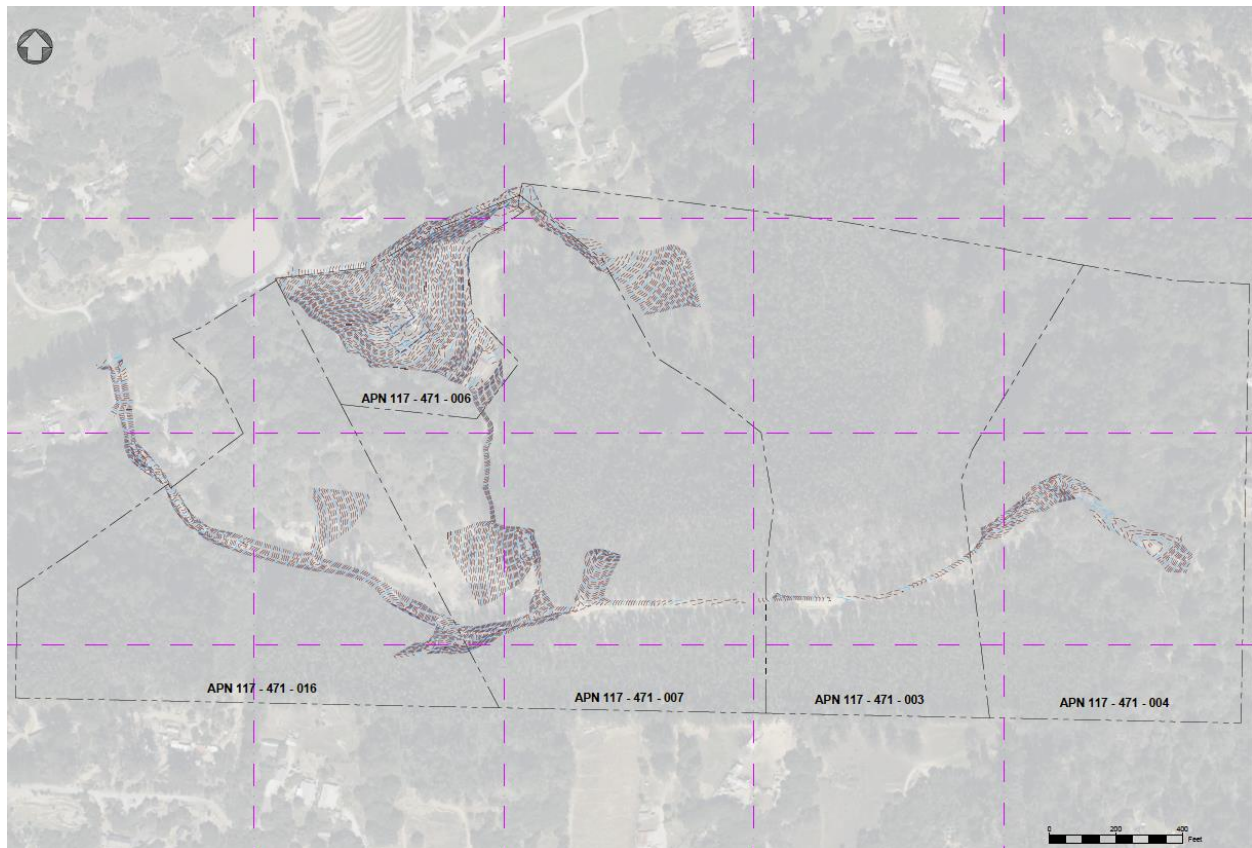


Figure 1: Overview of Hogan survey in 2019. Primarily focused on the existing jeep trail/access road.

Based on interviews of the project owner and review of video/photos of pre-disturbance conditions (Figure 2 through Figure 4) as well as review of available historical imagery (Figure 5 through Figure 14), it is apparent that the properties had an established access road prior to start of the limited grading activities in 2021. It was reported by the property owner that the substantial disturbance activity was the removal of invasive eucalyptus. This appears consistent with the available aerial imagery as well as the assessment of the project arborist (Ono Consulting).

Given the lack of pre-existing topography, and the documented existence of onsite access roads, it would be near impossible to reliably establish pre-disturbance topography and fully ‘restore’ the site. Additionally, the substantive restoration would consist of replanting the invasive and combustible eucalyptus, which would take decades to mature.

The owners are actively engaged in obtaining the required permits (resubmittal initiated in May 2022) and all site work (as of fall 2021), except maintenance of stormwater BMPs, has terminated until all permits have been secured. The proposed work will be a substantial improvement over the



existing conditions in that the work will include replanting of native oak trees, stabilization of the disturbed highly erodible onsite silts and fine sands, and includes formal, long-term stormwater management detention and infiltration basins to employ nature-based solutions for stormwater runoff. The proposed improvements would only take a season or two to fully implement.

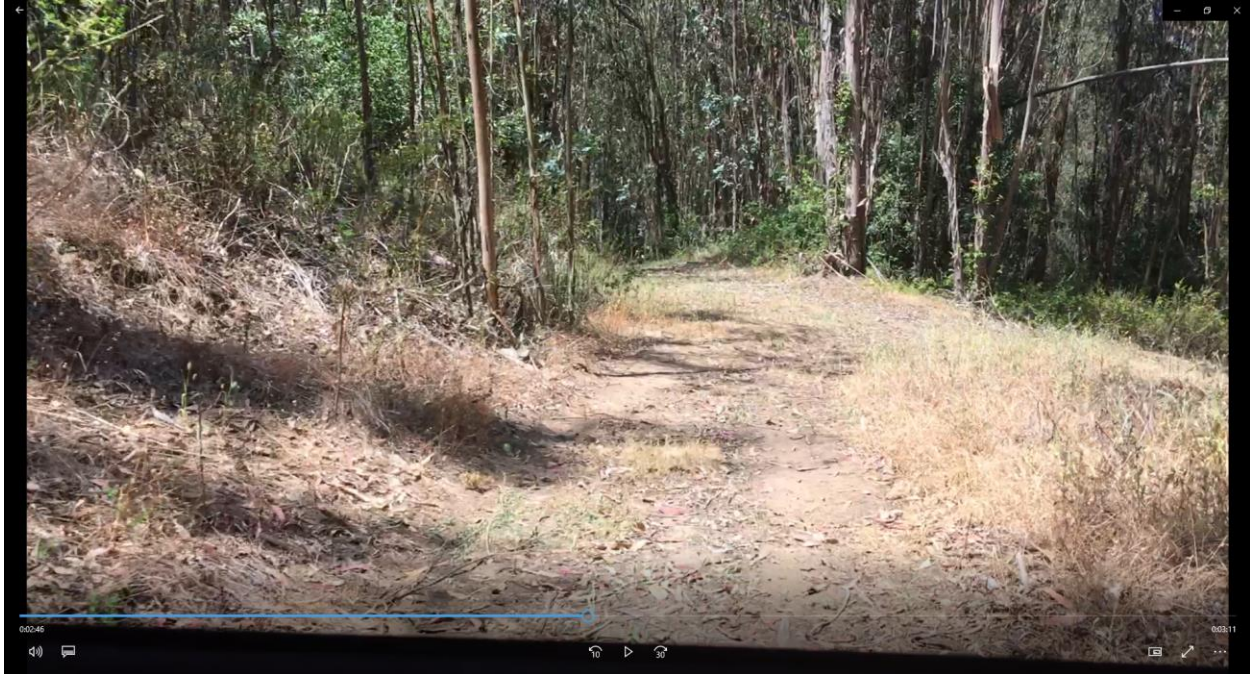


Figure 2: Screen capture of video taken by property owner in 2020 showing existing jeep trail/access road (36.886575N; 121.716222W, looking west).

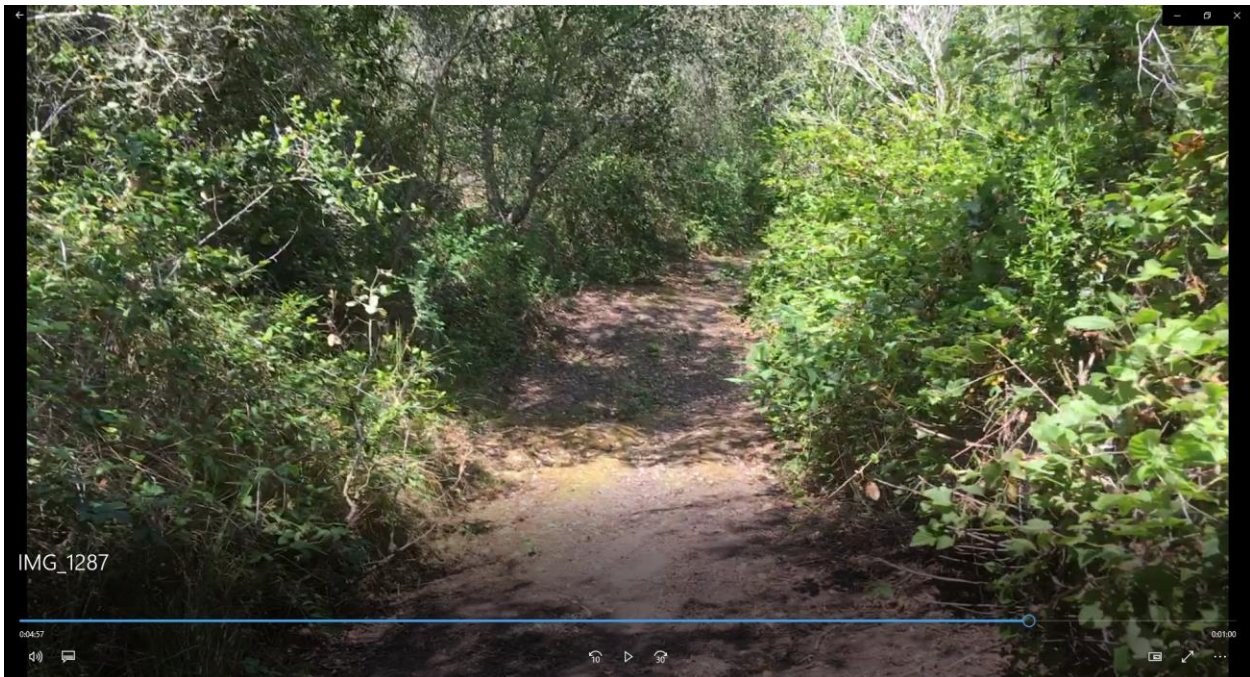


Figure 3: Screen capture of video taken by property owner in 2020 showing existing jeep trail/access road (36.887049N; 121.719776W, looking northwest).

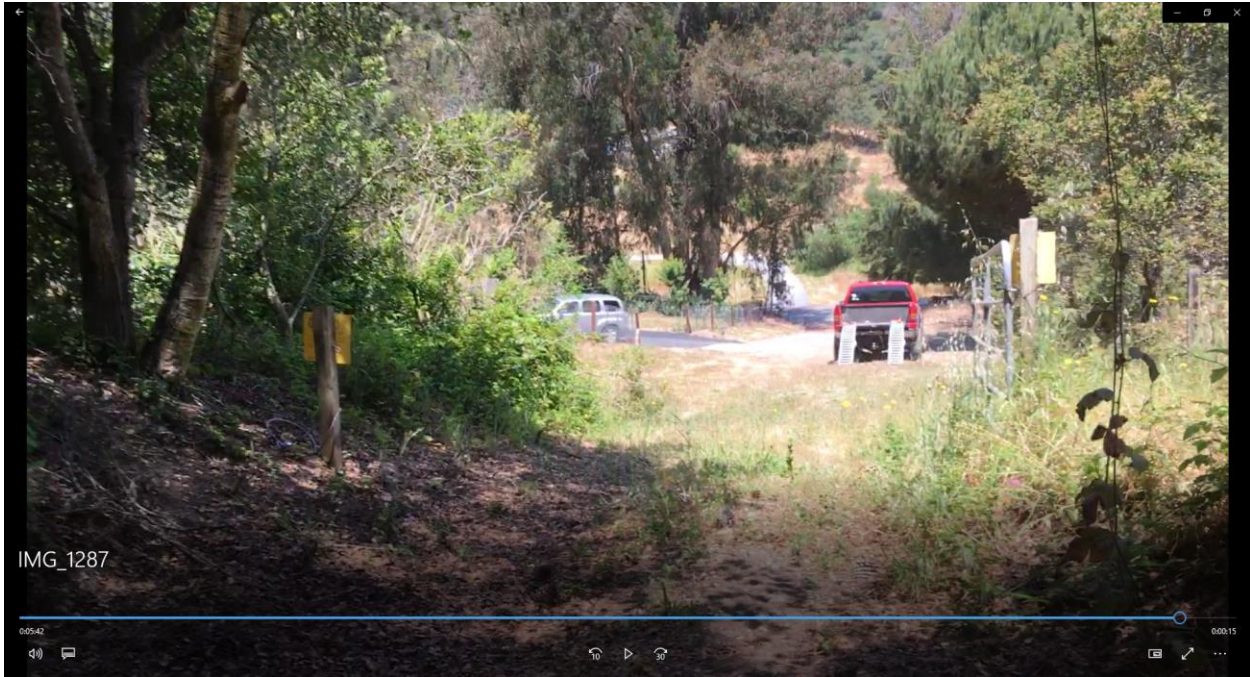


Figure 4: Screen capture of video taken by property owner in 2020 showing existing jeep trail/access road at the northern access point to Vega Road via the existing easement with adjacent neighbors (36.887727N; 121.720653W, looking north).



Figure 5: Aerial image from UCSB's Frame Finder showing site conditions in 1931. Vega Road is visible, but no observable development within the properties.

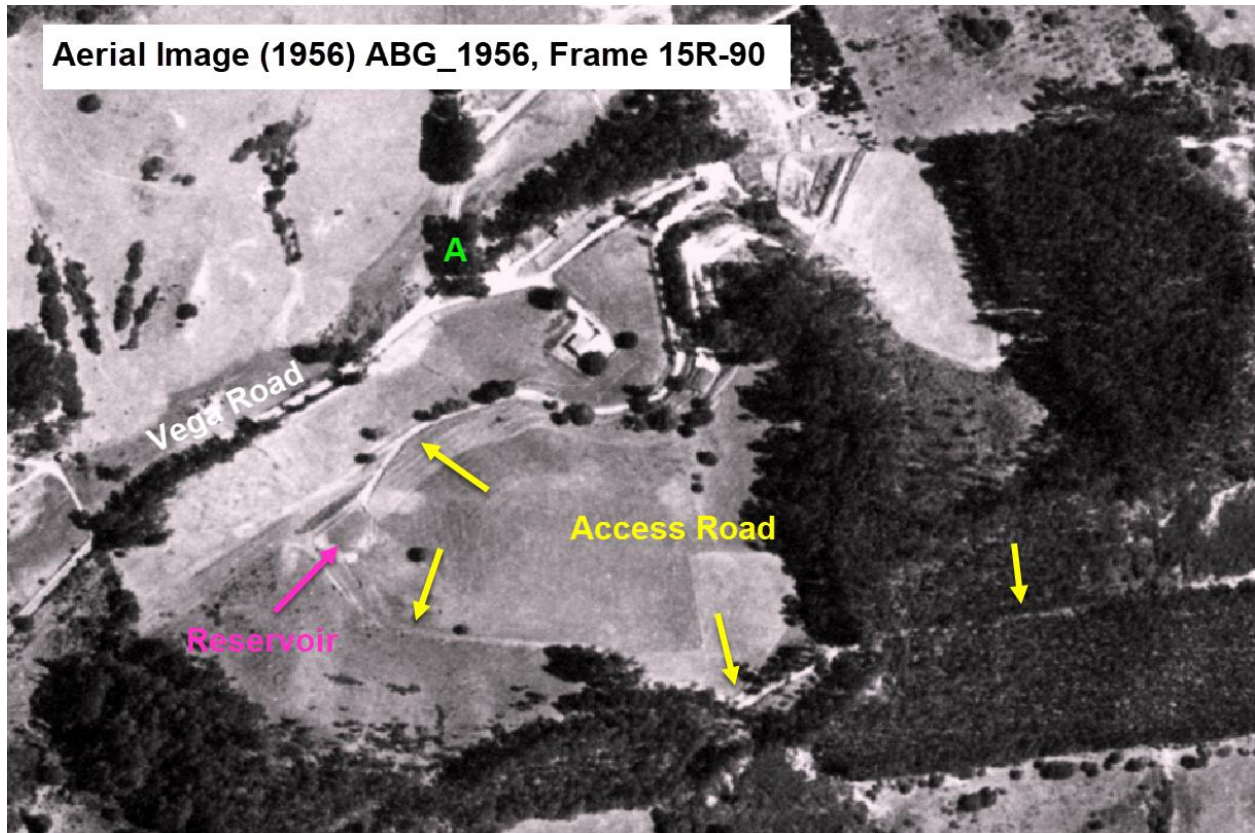


Figure 6: Aerial image from UCSB's Frame Finder showing site conditions in 1956. A residence has been constructed as well as a reservoir and access roads that traverse the property.

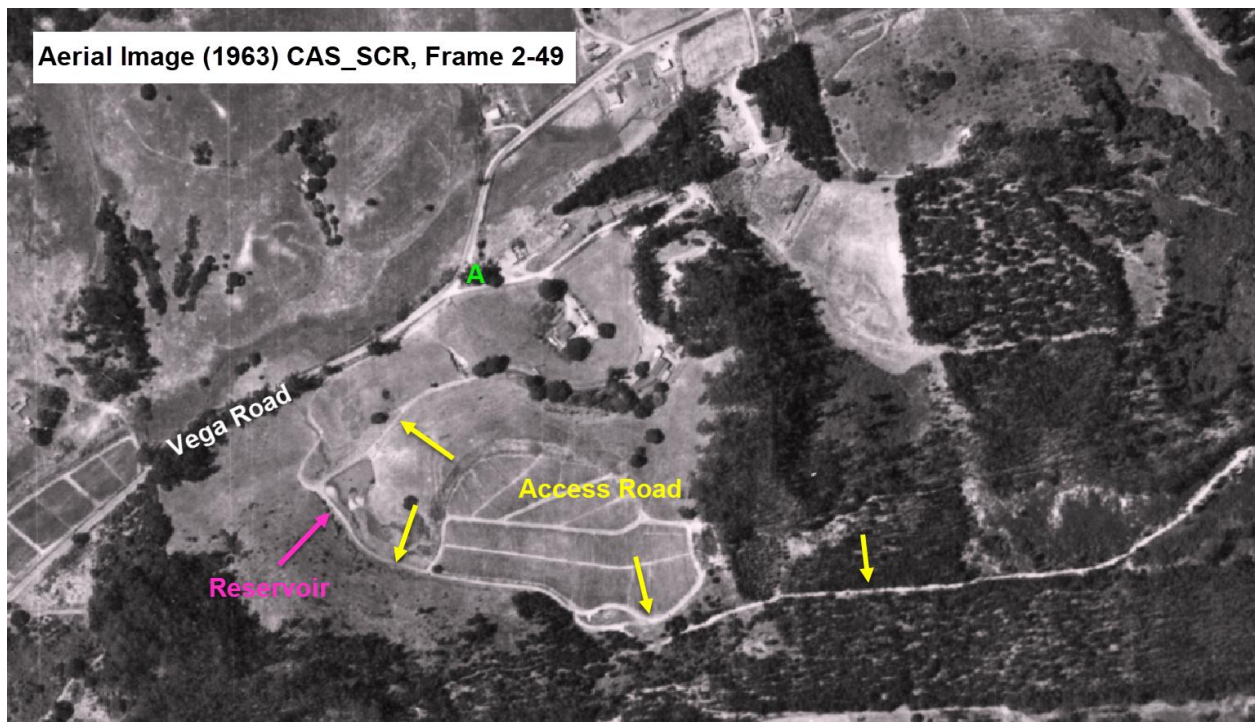


Figure 7: Aerial image from UCSB's Frame Finder showing site conditions in 1963. Access roads that traverse the property have been expanded.



Figure 8: Aerial imagery from Google Earth showing site conditions in 1993. Formal connection to Vega Road in between the two new parcels (132 Vega Road and 136 Vega Road) is visible, likely established in late 1970s/early 1980s during development of 132 Vega Road and 136 Vega Road. Images between 1963 and 1993 were not readily available.



Figure 9: Aerial imagery from Google Earth showing site conditions in 2005.





Figure 10: Southward looking view from Vega Road via Google Street View showing the unimproved access road via the access road to 132 and 136 Vega Road.

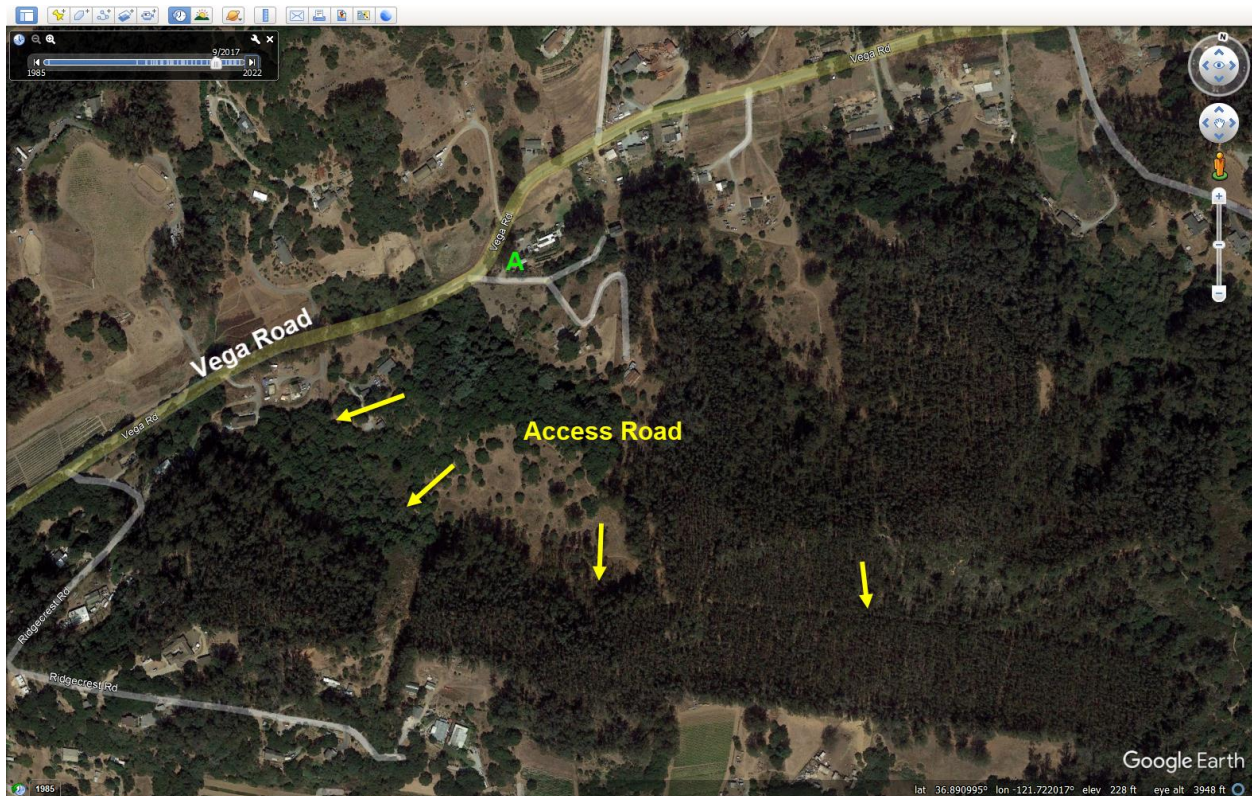


Figure 11: Aerial imagery from Google Earth showing site conditions in 2017.



Figure 12: Aerial imagery from Google Earth showing site conditions in 2019.

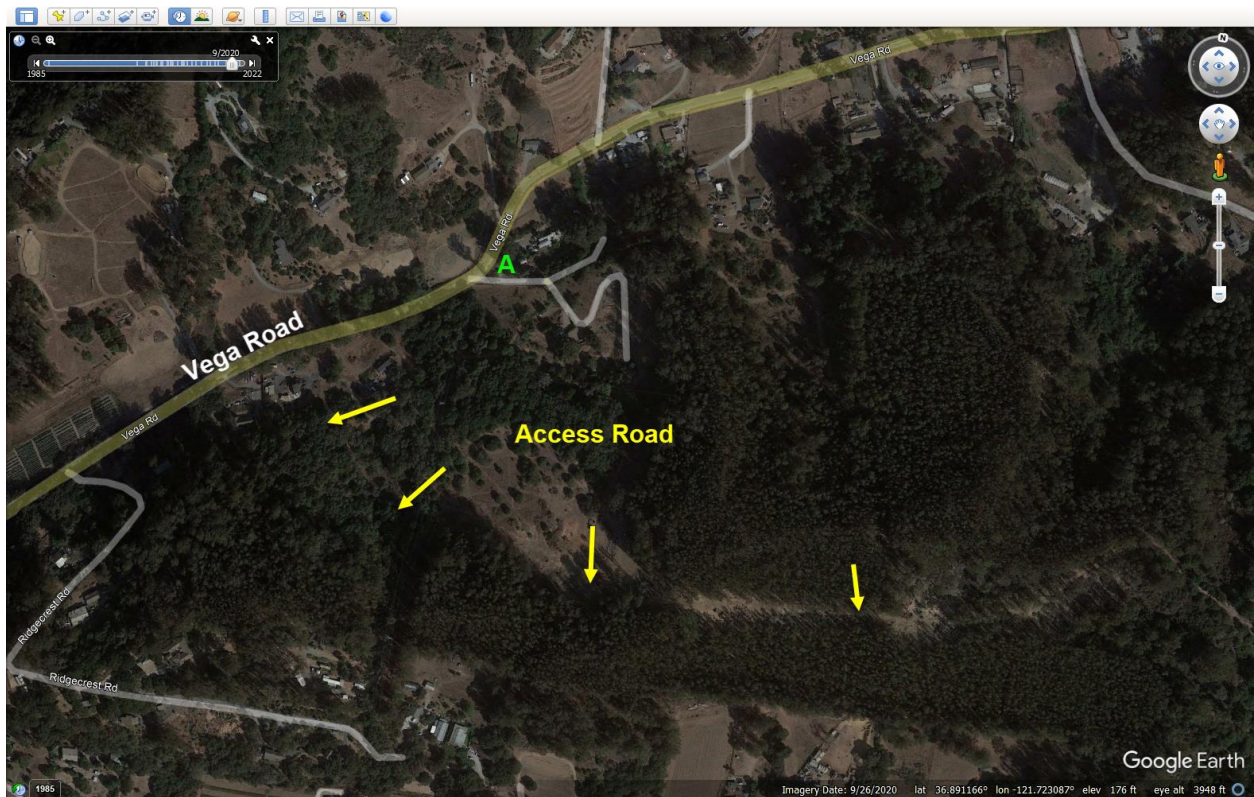


Figure 13: Aerial imagery from Google Earth showing site conditions in 2020.



### Aerial Drone - October 2021



Figure 14: Westward-looking aerial oblique taken in October 2021 by R. Storesund showing site work consisting primarily of eucalyptus removal via pre-existing access roads.

### **Limitations**

Our services consist of professional opinions, conclusions, and recommendations that are made in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

Reliance on this letter by others must be at their risk unless we are consulted on the use or limitations. We cannot be responsible for the impacts of any changes in standards, practices, or regulations subsequent to performance of services without our further consultation. We can neither vouch for the accuracy of information supplied by others, nor accept consequences for un-consulted use of segregated portions of this document.



**Closure**

We appreciate the opportunity to be of continued service. Please feel free to contact me with any questions or comments regarding the information presented in this report via phone (510) 526-5849 or email (rune@storekundconsulting.com).

Sincerely,

Rune Storesund, D.Eng., P.E., G.E.  
Consulting Engineer



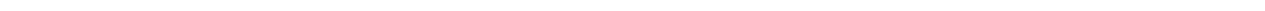


Storesund Consulting

154 Lawson Road, Kensington CA 94707  
510-225-5389 (cell) email: [rune@storesundconsulting.com](mailto:rune@storesundconsulting.com)

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# EXHIBIT A



**Ono Consulting**  
**International Society of Arboriculture**  
**Certified Arborist #WE-0536A**  
**Board Certified Master Arborist #WE-9388B**  
**ASCA Registered Consulting Arborist #744**  
**Society of American Foresters Professional Members**  
**311 Forest Ave, Box 14**  
**Pacific Grove CA, 93950**  
Telephone (831) 373-7086

March 8, 2022

Ella Industries Inc  
C/O Casey Marsh  
608 B Missouri St  
San Francisco CA 94107

RE: Oak Restoration and Forest Management Plan – 146 Vega Road  
APNs: 117-471-003-000, 117-471-004-000, 117-471-006-000. 117-471-007-000,  
and 117-471-016-000

Mr. Marsh;

We were Contacted by Mr. Rune Storesund who requested that we visit the above-referenced property (located at 146 Vega Road, Royal Oaks, CA 95076) to observe the site and forested conditions. Development in the form of a new road and the installation of a water system to serve five (5) future homes is proposed under county permit PLN190155 and construction are underway. During the County's inspection of the property, they raised concerns about tree removal on-site, specifically Heritage Eucalyptus and Monterey pine trees. We were asked to prepare a report addressing the removal of eucalyptus trees and provide recommendations to help transition the former eucalyptus plantation back to natural oak woodland. The following report contains our observations and recommended plan of action.

Sincerely,



Frank Ono  
Certified Arborist #WE-0536A  
ISA Tree Risk Assessment Qualified  
Society of American Foresters # 048004



Justin Ono  
ISA Board Certified Master Arborist #WE-9388B  
ASCA Registered Consulting Arborist #744  
ISA Tree Risk Assessment Qualified

# Oak Restoration/ Forest Management Plan 146 Vega Road

Prepared by Ono Consulting  
311 Forest Ave, Box 14  
Pacific Grove, CA 93950

## ASSIGNMENT/SCOPE OF WORK

I was asked to assess a stand of Eucalyptus trees located across the four parcels that comprise 146 Vega Road, Royal Oaks, CA 95076. The assignment is to determine a course of action to remove the existing Eucalyptus trees planted in a row plantation layout and transition the properties back to a native oak woodland environment.

## LIMITATIONS

This assignment is limited to the review of surveys submitted to me by dated May 9, 2019, to assess the proposed road and onsite vegetation conditions. The assessment has been made of these plans specifically and no other plans were reviewed. Ono Consulting and its representatives are not designers, engineers, or surveyors and this report is explicitly based on the plans given to us. Only minor grading and erosion details are discussed in this report as it relates to tree health. It is not the intent of this report to be a monetary valuation of the trees or provide a risk assessment for any tree on this parcel, as any tree can fail at any time. No clinical diagnosis was performed on any pest or pathogen that may or may not be present. In addition to an inspection of the property, Ono Consulting relied on information provided in the preparation of this report (such as surveyed tree sizes, property boundaries, and property ownership) and must reasonably rely on the accuracy of the information provided. Ono Consulting shall not be responsible for another's means, methods, techniques, schedules, sequence or' procedures, or for contractor safety or any other related programs; or another's failure to complete the work per the plans and specifications.

## BACKGROUND

We were contacted by Mr. Storesund after he was contracted by the owners to help with a grading permit for the properties. During the initial permit fact-finding process, the County of Monterey observed recent tree removal and related activities adjacent to the road being developed on the property. The county asked for a forest restoration/management plan to identify trees being removed and to ensure protected trees were not removed without county permits. Protected trees in the North County Land Use Plan include Coast live oak (*Quercus agrifolia*), Valley oak (*Quercus lobata*), Willows (*Salix spp.*), Black cottonwood (*Populus trichocarpa*), Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), Toyon (*Heteromeles arbutifolia*), Chinquapin (*Castanea pumila*), Madrone (*Arbutus menziesii*), California buckeye (*Aesculus californica*), California box elder (*Acer negundo*), and Bigleaf maple (*Acer macrophyllum*). Monterey pines (*Pinus radiata*) and Bluegum Eucalyptus (*Eucalyptus globulus*) trees over 36-inches in diameter are also considered Landmark trees are protected by the county. We have been requested to prepare a forest restoration/management plan for the identified removed trees. The plan is prepared to utilize strategies to bring the site back to pre-plantation levels of native tree coverage, and a more natural and native landscape.

## SITE CONDITIONS

- 1) APNs: 117-471-003-000, 117-471-004-000, 117-471-006-000. 117-471-007-000, and 117-471-016-000.
- 2) Parcel sizes: 29.2, 22.08, 5.86, 27.58, and 21.23 Acres.
- 3) Existing Land Use: The parcels are zoned for low-density residential use.
- 4) Slope: The parcels are located along a ridge. Slopes range from 2 to over 25%.
- 5) Soils: The parcel is located on Arnold loamy sand and Arnold-Santa Ynez complex soil about 65-inches deep. Weathered sandstone bedrock is found generally at a depth of 48-79-inches. Runoff is low on the Arnold series soils and very high in the Santa Ynez soils. Erosion hazard is low to moderate. The majority of the parcels sit on Arnold loamy sand with a small finger in the southeast corner of the properties of Arnold-Santa Ynez complex.
- 6) Current Site Conditions and Former Woodland Nature: The area and surrounding landscape was historically managed as a rural residential community comprised of scattered oak woodlands with small farming and livestock production. The native vegetation is of an oak woodland type with scattered Coast live oak trees with an understory of native shrubs such as Poison oak (*Toxicodendron diversilobum*), Sticky Monkey flower (*Mimulus aurantiacus*), and Manzanita (*Arctostaphylos spp*). The area in and around the site is heavily populated by the introduced blue gum eucalyptus trees (*Eucalyptus globulus*) with invasive understory weeds including, Pampas grass (*Cortaderia selloana*), and Himalayan blackberry (*Rubus armeniacus*). The proposed road construction is currently underway, and several smaller eucalyptus trees have been removed and their root balls dug up and masticated.

## OBSERVATIONS

The following are observations taken on site:

- The site was planted as a Eucalyptus plantation as was evidenced by uniform row crop planting 10 to 20-feet on center. Over 60% of the parcels' acreage is taken up by eucalyptus planting. In the densest areas, 200-400 trees per acre were calculated.
- The existing Eucalyptus trees appear to have been harvested two to three times with multi-clustered stems ranging from 10-24-inches in diameter.
- Trees removed for roadway construction are all Eucalyptus under 30-inches in diameter.
- Very little native vegetation was observed around the planted eucalyptus trees due to Allelopathy.
- Along the road, in parcel 117-471-003-000 there is a small stand of Coast live oak trees in poor condition.
- Eucalyptus logs, both large and small cut pieces were left on site in piles.
- Only two (2) heritage Eucalyptus trees (greater than 36-inches in diameter) were observed on the sites. One in the clearing in parcel 117-471-003-000 upslope from the declining oak stand, and one off the road in parcel 117-471-004-000 where the landscape transitions from eucalyptus to more native plantings.



## DISCUSSION

The site was evaluated by looking at specific characteristics and establishing a benchmark to formulate an Oak Woodland site restoration plan as follows:

### Restoration Strategy

To restore the property as much to a healthy and functioning Oak Woodland as possible, the following actions must be taken. The first and most important goal is to remove and eradicate the existing Eucalyptus plantation while retaining enough plant coverage for soil stability. The second major goal is to reestablish the Oak canopy cover to promote native plant growth creating a condition similar to the pre-Eucalyptus woodlands. These goals can be accomplished through the following:

1. Remove Eucalyptus stump sprouts and treat with a woody herbicide to reduce the regrowth and allow space for planting new trees.
2. Eucalyptus stumps should be left in a mosaic pattern until their removal is necessary for development and/or proper native plant cover has been established to reduce the risk of erosion.
3. If Eucalyptus stumps are to be mechanically removed, a soil or grading erosion specialist will need to be consulted to avoid the risk of erosion.
4. The small number of landmark Eucalyptus trees observed can remain on site as they are outside of development areas. If the trees are proposed to be removed later, oak reforestation efforts will mitigate the removal of the landmark Eucalyptus.
5. Re-establish appropriate oak species in areas that did or could have supported oak woodlands previously and are now capable of supporting this vegetation type.
6. Manage remnant oak woodlands and restored stands to permit natural regeneration and maximize the cover and dominance of indigenous plant species while minimizing the cover of nonindigenous species and weeds outside of scenic easements.
7. Rehabilitate vigorously sprouting stumps and naturally recruited oak seedlings by pruning them to re-establish dominant canopies and regain proper structure through crown restoration.

## RESTORATION PLAN

### Restoration Action Plan

The following steps need to be implemented immediately to have success in site restoration;

1. The existing Eucalyptus trees will need to be removed or cut into logs and stacked, allowing growing space for replanted oak trees and reducing fuel load on the ground.
2. Downed Eucalyptus bark and leaves need to be removed to open up growing space and reduce fine fuels.
3. The Himalayan Blackberry and other invasive plants should be mowed and controlled to allow for a minimum of competition for the emerging oak seedlings.
4. Re-sprouting Eucalyptus stumps shall be treated with herbicide to prevent any sprouting of new trees, with stumps flush cut and left in the ground for slope stabilization.

5. Existing oak seedling/sapling identification should occur after the Eucalyptus logs are removed in case smaller seedlings are damaged during the tree work and mowing.
6. Whether trees are transplanted on-site or planted from nursery stock individual seedlings should not be planted within 10 feet of other seedlings, sprouted stumps, or mature trees.
7. Seedling/saplings will likely need to be hand-watered during the spring and summer months after planting, particularly if dry conditions prevail. Drip irrigation on an automatic timer is highly advised. Soils should be damp at the time of planting and during the initial establishment period for the juvenile oak trees.

### Planting Guidelines

Indigenous acorns from the properties should be collected in the Fall months when the nuts are mature. Seedlings can be propagated on-site, or by a local native plant nursery for the landowners. Acorns should be started in tall 1-gallon tree pots to promote root growth and viable seedlings should be out-planted during fall months before the onset of winter rain. Seedling development could take more than one growing season before the juvenile oaks are ready to be out planted. Ideally, acorns will be collected in Fall 2018 and seedlings out planted in late Fall 2019 or Winter 2020.

Individual seedlings should not be planted within 10 feet of other seedlings or mature oak trees. To recreate the pre-disturbance woodland the seedlings should be planted at a spacing of 15 – 25-feet on center to establish a tree count of 70-190- trees per acre to account for mortality and future thinning. Trees can be planted in clusters of 2-3 to mimic the natural multi-stemmed clusters of the oaks in the native region. A Certified Arborist or qualified forester should supervise the placement of seedling trees for the landowners.

### Tree Shelters for Seedlings

Seedlings should be planted in tree shelter cages to deter animal browsing, and each seedling should be marked and numbered for easy identification. A regular maintenance and monitoring program should be implemented by the landowners to maintain the area around each juvenile oak in a weed-free condition. Invasive annual grasses and thistles should be removed from the areas directly adjacent (within five to six feet) around newly planted seedlings.

## Success Criteria and Monitoring Schedule

Seedlings should be monitored regularly by the landowners and any signs of herbivory or weakness addressed immediately. A qualified Forester or Arborist should inspect the planted or regenerated trees annually after the seedlings are installed to ensure trees survival. Trees that have died should be replaced up to a threshold agreed upon by the forester and the landowners.

To help ensure the survivability and proper growth of planted replacement trees, a qualified professional (Monterey County approved Certified Arborist or forester) should assess the following

- Tree health and growth rates of new or relocated planting.
- Trees suffering poor growth rates or declining health are to be identified and documented as to the reason it was not successful.
- Invigoration Treatments will be recommended and implemented if deemed feasible.
- Dead trees or trees identified in an irreversible state of decline will be replaced after a written recommendation is made by a qualified forester or Certified Arborist identifying the type and location of replacement.

## Tree Removal and Bird Habitat

During Eucalyptus tree removal, the contractor shall verify absence of active animal or bird nesting sites prior to any work. If any active animal or bird nesting sites are found prior to tree removal, work shall be stopped until a qualified biologist is consulted for further recommendations.

## Tree Pruning

Future pruning of county protected trees shall conform to the following standards:

- Clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1-1/2 inch in diameter;
- Remove stubs, cutting outside the wound wood tissue that has formed around the branch;
- Interior branches shall not be stripped out.
- Reduce end weight on heavy, horizontal branches by selectively removing small-diameter branches, no greater than 3 inches, near the ends of the scaffolds. In some cases, larger diameters may be removed depending on the situation (where critical for safety).
- Pruning cuts larger than 4 inches in diameter, except for deadwood, shall be avoided, unless deemed crucial for safety (broken, cracked, crossing, rubbing, etc.).
- Pruning cuts that expose heartwood shall be avoided whenever possible.
- Pruning shall not be performed during periods of flight of adult boring insects because fresh wounds attract pests (generally spring). Pruning shall be performed only when the danger of infestation has passed.

- All pruning shall be performed by a qualified arborist or under the supervision of an ISA Certified Arborist or Tree Worker. Arborists are required to have a State of California Contractors License for Tree Service (C-61/D49) and provide proof of worker's compensation and general liability insurance.
- All pruning shall be per the Tree Pruning Guidelines (International Society of Arboriculture) and/or the ANSI A300 Pruning Standard (American National Standard for Tree Care Operations) and adhere to the most recent edition of ANSI Z133.1.
- No more than 20 percent of live foliage shall be removed from the trees.
- Brush shall be chipped, and chips shall be spread underneath trees within the tree protection zone to a maximum depth of 6 inches, leaving the trunk clear of mulch.

### Fire Defensible Space (PRC 4291 Amended January 1, 2021)

California's Department of Forestry and Fire Protection (CalFire) has instituted a set of rules and guidelines for vegetation management and fire safety for homes in the wildland-urban interface (WUI). These rules have been adopted to reduce the fuels around homes and allow firefighters a better chance to combat the increasing wildfires that have been occurring in California. Although there are no structures currently planned for the parcels at 146 Vega Road, fuel management procedures should be taken in accordance to California Public Resource Code to ensure proper fire defensibility of the sites. The law (Public Resource Code 4291) is as follows.

(a) A person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall at all times do all of the following:

(1) (A) Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line, except as provided in subparagraph (B). The amount of fuel modification necessary shall consider the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This subparagraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, with more intense fuel reductions being utilized between 5 and 30 feet around the structure, and an ember-resistant zone being required within 5 feet of the structure, based on regulations promulgated by the board, in consultation with the department, to consider the elimination of materials in the ember-resistant zone that would likely be ignited by embers. The promulgation of these regulations by the board is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for this purpose. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this subparagraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.

(B) A greater distance than that required under subparagraph (A) may be required by state law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the state law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of

wildfire to the structure. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.

(C) An insurance company that insures an occupied dwelling or occupied structure may require a greater distance than that required under subparagraph (A) if a fire expert, designated by the director, provides findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure. The greater distance may not be beyond the property line unless allowed by state law, local ordinance, rule, or regulation.

(2) Remove that portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe.

(3) Maintain a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood.

(4) Maintain the roof of a structure free of leaves, needles, or other vegetative materials.

(5) Before constructing a new building or structure or rebuilding a building or structure damaged by a fire in an area subject to this section, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code, and shall provide a copy of the certification, upon request, to the insurer providing course of construction insurance coverage for the building or structure. Upon completion of the construction or rebuilding, the owner shall obtain from the local building official, a copy of the final inspection report that demonstrates that the dwelling or structure was constructed in compliance with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code, and shall provide a copy of the report, upon request, to the property insurance carrier that insures the dwelling or structure.

(b) A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the consent of the owner of the property.

(c) (1) Except as provided in Section 18930 of the Health and Safety Code, the director may adopt regulations exempting a structure with an exterior constructed entirely of nonflammable materials, or, conditioned upon the contents and composition of the structure, the director may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding those structures.

(2) An exemption or variance under paragraph (1) shall not apply unless and until the occupant of the structure, or if there is not an occupant, the owner of the structure, files with the department, in a form as the director shall prescribe, a written consent to the inspection of the interior and contents of the structure to ascertain whether this section and the regulations adopted under this section are complied with at all times.

(d) The director may authorize the removal of vegetation that is not consistent with the standards of this section. The director may prescribe a procedure for the removal of that vegetation and make the expense a lien upon the building, structure, or grounds, in the same manner that is applicable to a legislative body under Section 51186 of the Government Code.

(e) (1) The board, in consultation with the department, shall develop, periodically update, and post on its internet website a guidance document on fuels management pursuant to this chapter. The guidance document shall include, but not be limited to, regionally appropriate vegetation

management suggestions that preserve and restore native species that are fire resistant or drought tolerant, or both, minimize erosion, minimize water consumption, and permit trees near homes for shade, aesthetics, and habitat; and suggestions to minimize or eliminate the risk of flammability of nonvegetative sources of combustion such as woodpiles, propane tanks, decks, and outdoor lawn furniture.

(2) On or before January 1, 2023, the board, in consultation with the department, shall update the guidance document to include suggestions for creating an ember-resistant zone within five feet of a structure, based on regulations promulgated by the board, in consultation with the department, to consider the elimination of materials in the ember-resistant zone that would likely be ignited by embers. The implementation of this paragraph is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for this purpose.

(f) (1) The department shall do both of the following:

(A) Recommend to the board the types of vegetation or fuel that are to be excluded from an ember-resistant zone based on the probability that vegetation and fuel will lead to ignition by ember of a structure as a part of the update to the guidance document pursuant to paragraph (2) of subdivision (e).

(B) Make reasonable efforts to provide notice to affected residents describing the requirements added by the amendments to paragraph (1) of subdivision (a) made in Assembly Bill 3074 of the 2019–20 Regular Session before the imposition of penalties for violating those requirements.

(2) The implementation of this subdivision is contingent upon an appropriation by the Legislature in the annual Budget Act or another statute for this purpose.

(g) (1) The requirement for an ember-resistant zone pursuant to paragraph (1) of subdivision (a) shall not take effect for new structures until the board updates the regulations, pursuant to paragraph (1) of subdivision (a), and the guidance document, pursuant to paragraph (2) of subdivision (e).

(2) The requirement for an ember-resistant zone pursuant to paragraph (1) of subdivision (a) shall take effect for existing structures one year after the effective date for the new structures.

(h) The department shall not change defensible space inspection practices and forms or enforcement to implement the requirement for an ember-resistant zone until the director makes a written finding, which the director shall post on the department’s internet website, that the Legislature has appropriated sufficient resources to do so.

(i) For purposes of this section, a structure for the purpose of an ember-resistant zone shall include any attached deck. This section does not limit the authority of the board or the department to require the removal of fuel or vegetation on top of or underneath a deck pursuant to this section.

(j) As used in this section, “person” means a private individual, organization, partnership, limited liability company, or corporation.

Detailed descriptions of the firebreaks described in section (A) and (B) of Public Resource Code 4291. These spacings are to be used in and around home sites.

### Zone 1

Zone 1 extends 30 feet out from buildings, structures, decks, etc.

- Maintain a non-combustible zone 0-5 feet from structures.
- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney.
- Relocate wood piles into Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks.
- Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

### Zone 2

Zone 2 extends 100 feet out from buildings, structures, decks, etc.

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal spacing between shrubs and trees.
- Create vertical spacing between grass, shrubs and trees.
- Remove all dead trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

Thank you and please feel free to contact us if you have any questions.

Sincerely,



Frank Ono  
Certified Arborist #WE-0536A  
ISA Tree Risk Assessment Qualified  
Society of American Foresters # 048004



Justin Ono  
ISA Board Certified Master Arborist #WE-9388B  
ASCA Registered Consulting Arborist #744  
ISA Tree Risk Assessment Qualified

## PHOTOGRAPHS



Evenly spaced Eucalyptus stumps adjacent to roadwork.







One of the larger stems observed removed. Approximately 22-inches.



Eucalyptus trees were planted in rows 10-feet on center.



Previous stumps have been dug up and masticated.



A small number of existing oaks are growing in a small island next to the road in parcels 007 and 003.



Large Landmark Eucalyptus can be left on site or removed if warranted by new development.



There are several smaller (< 36") Monterey pine trees in the eastern section of the lots.

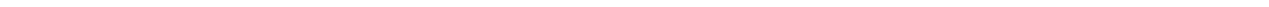


Storesund Consulting

154 Lawson Road, Kensington CA 94707  
510-225-5389 (cell) email: [rune@storesundconsulting.com](mailto:rune@storesundconsulting.com)

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# EXHIBIT B



**Ono Consulting**  
**International Society of Arboriculture**  
**Certified Arborist Municipal Specialist**  
**Board Certified Master Arborist #WE-9388BM**  
**ASCA Registered Consulting Arborist #744**  
**PO Box 508, Pacific Grove, CA 93950**  
Telephone (831) 402-2959

April 12, 2023

Ella Industries  
608-B Missouri Street  
San Francisco, CA 94107  
Attention: Mr. Timothy Moore

RE: Oak Restoration and Forest Management Plan – 146 Vega Road

Mr. Moore

We were informed that Monterey County has issued an Administrative Citation in response to some allegedly unpermitted grading that had occurred in and around the previously existing access road on the property. To resolve the Administrative Citation, the County has prepared a Stipulated Agreement that requires the impacted area to be restored to its pre-existing condition. The restoration would include restoring the previously existing eucalyptus plantation conditions.

As the County is aware, we prepared a Forest Restoration and Management Plan dated March 8, 2022, to address the prior tree removal that occurred at the property. Our report was intended to guide the restoration of the whole property, address “the removal of eucalyptus trees, and provide recommendations to help transition the former eucalyptus plantation back to natural oak woodland”. The previously existing eucalyptus plantation is not only a fire risk, but this species is also not conducive to native coast live oak regeneration or germination. The large overstory eucalyptus trees constantly shed leaves and bark, creating a very hostile environment for native tree seedlings. The end goal for the site needs to be the reduction if not eradication of the non-native eucalypts and replacement with native tree and shrub cover. Accordingly, we do not recommend restoring the property to the forested condition that existed prior to the allegedly unpermitted grading.

Thank you very much and please feel free to call if there are any questions or if I can be of further assistance.

Sincerely,



Justin Ono  
ASCA Registered Consulting Arborist #744  
ISA Board Certified Master Arborist #WE-9388BM  
ISA Certified Arborist Municipal Specialist  
ISA Tree Risk Assessment Qualified

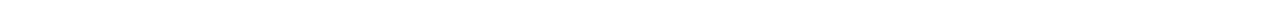


Storesund Consulting

154 Lawson Road, Kensington CA 94707  
510-225-5389 (cell) email: [rune@storesundconsulting.com](mailto:rune@storesundconsulting.com)

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# EXHIBIT C

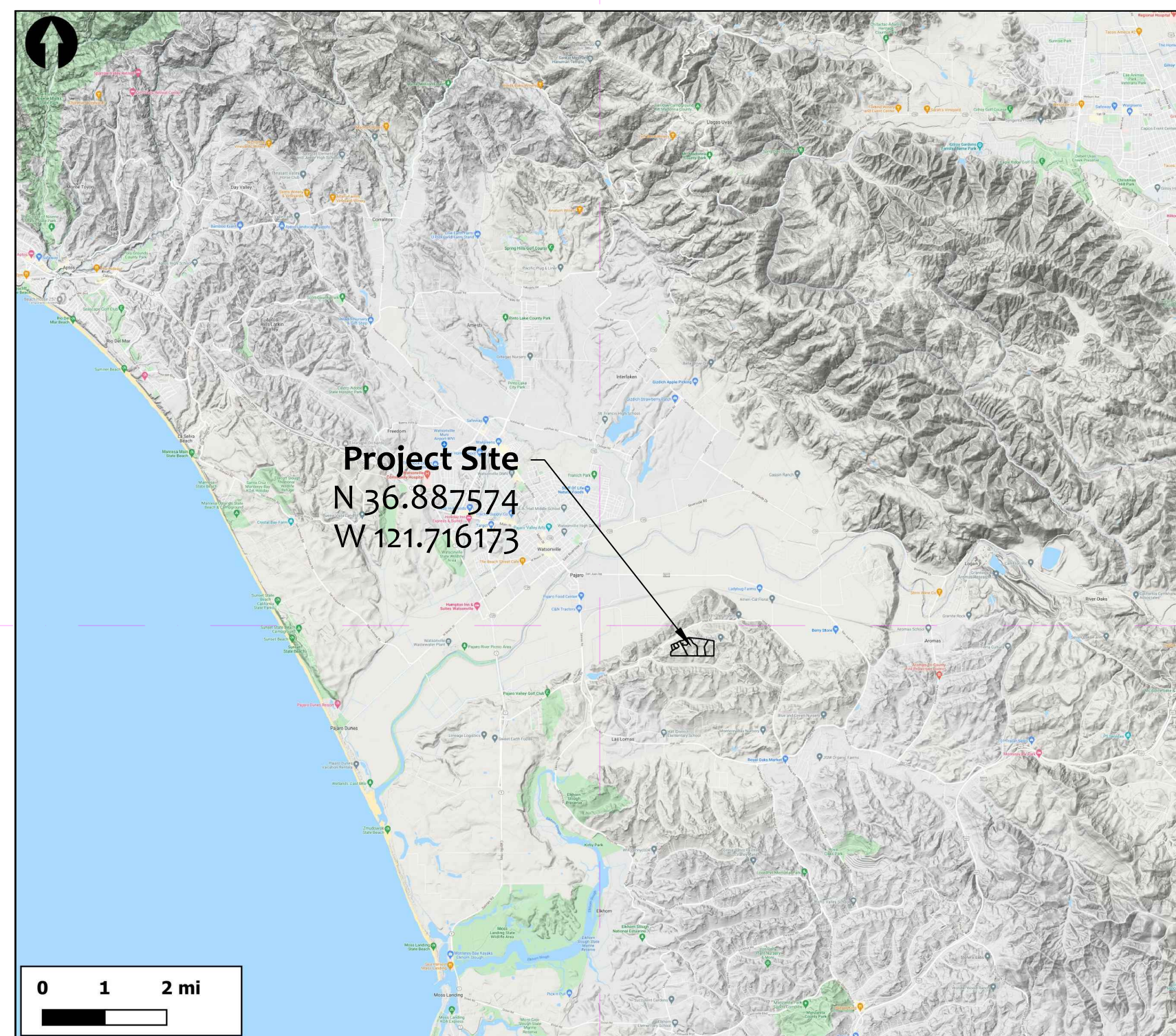




VEGA ROAD PROPERTIES PROJECT  
146 VEGA ROAD  
ROYAL OAKS, CA 95076

# VEGA ROAD PROPERTIES GRADING PROJECT

## GRADING PLANS MAY 10, 2022



VICINITY MAP

SHEET INDEX			
G-1	TITLE SHEET	C-11	ROADWAY PLAN & PROFILE
G-2	SYMBOLS & ABBREVIATIONS	C-12	ROADWAY PLAN & PROFILE
C-1	EXISTING CONDITIONS	C-13	ROADWAY PLAN & PROFILE
C-2	EXISTING SLOPES	C-14	ROADWAY PLAN & PROFILE
C-3	PROPOSED SLOPES	C-15	SECTIONS
C-4	PLANNED UTILITIES	C-16	SECTIONS
C-5	ROADWAY PLAN & PROFILE	C-17	DRAINAGE
C-6	ROADWAY PLAN & PROFILE	C-18	DRAINAGE DETAILS
C-7	ROADWAY PLAN & PROFILE	C-19	EROSION CONTROL
C-8	ROADWAY PLAN & PROFILE	C-20	GENERAL DETAILS
C-9	ROADWAY PLAN & PROFILE	C-21	NOTES
C-10	ROADWAY PLAN & PROFILE	C-22	ENVISIONED DEVELOPMENT

**OWNER**

ELLA INDUSTRIES, INC  
608B MISSOURI ST.  
SAN FRANCISCO, CA 94107  
(925) 389-6074

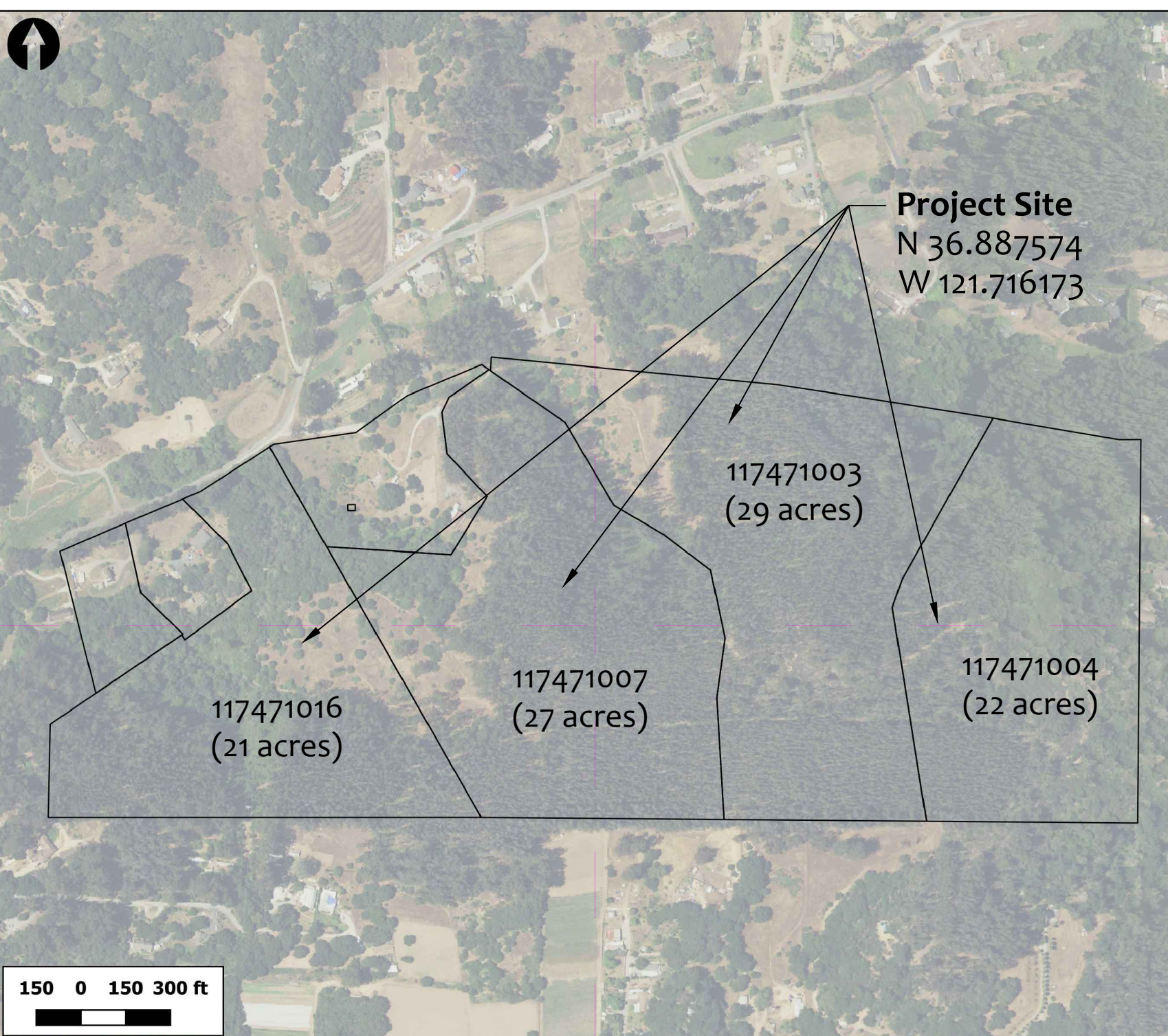
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**PROJECT OVERVIEW**

**Project Overview:** The purpose of this is to construct an access road and utilities for future service to un-developed residential parcels. The access road will be a private driveway to service the future construction of up to four (4) single family residences. The improvements will include installed utilities of electrical, potable water service, communication services, and storm water drainage. New grading and associated paving for the access road will include required fire service access and turn-outs/arounds. Construction anticipated summer and fall of 2022 (West) and 2023 (East).

**Earthwork Quantities:** Cut: 3,000 CY Fill: 2,300 CY Disturbed Area: 6 AC

Note: Approximate earth quantities provided for permit valuation. Contractor shall be responsible for determining all material takeoffs.



SITE MAP

MARK	DESCRIPTION	RS	DATE	APPR
1	GRADING PERMIT PLAN SET		05/10/2022	



DESIGNED BY:	DATE:	SOLICITATION NO.:	CONTRACT NO.:	FOR REDUCED PLANS ORIGINAL SCALE INCHES
DWN BY:	CHK BY:			0 1 2 3
SUBMITTED BY:				



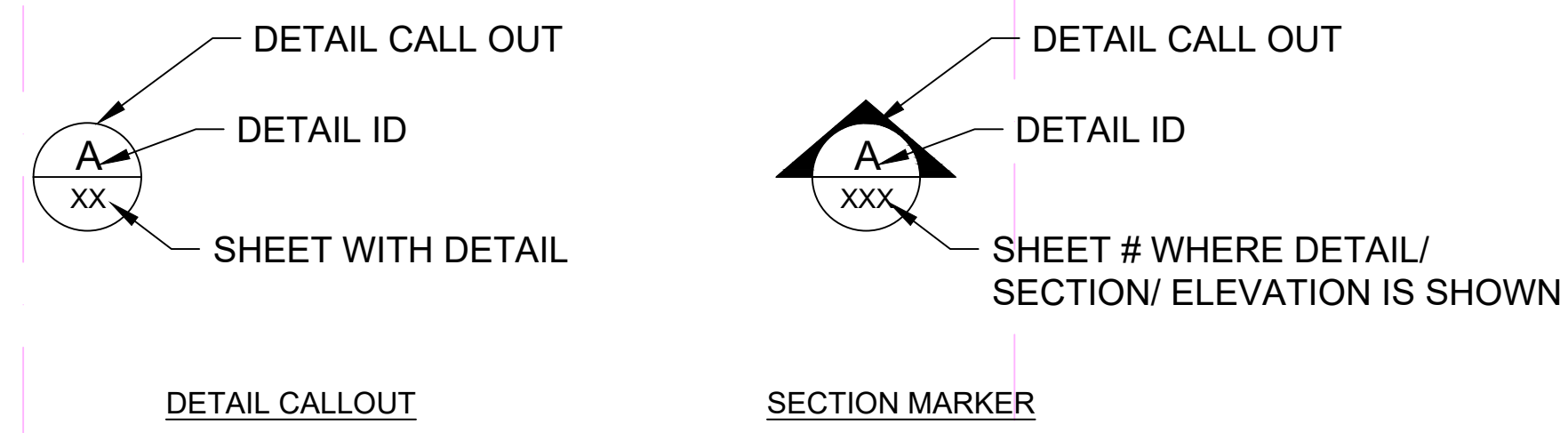
**TITLE SHEET**  
VEGA ROAD PROPERTIES PROJECT  
146 VEGA ROAD  
ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**G-1**  
SHEET 1 OF 24

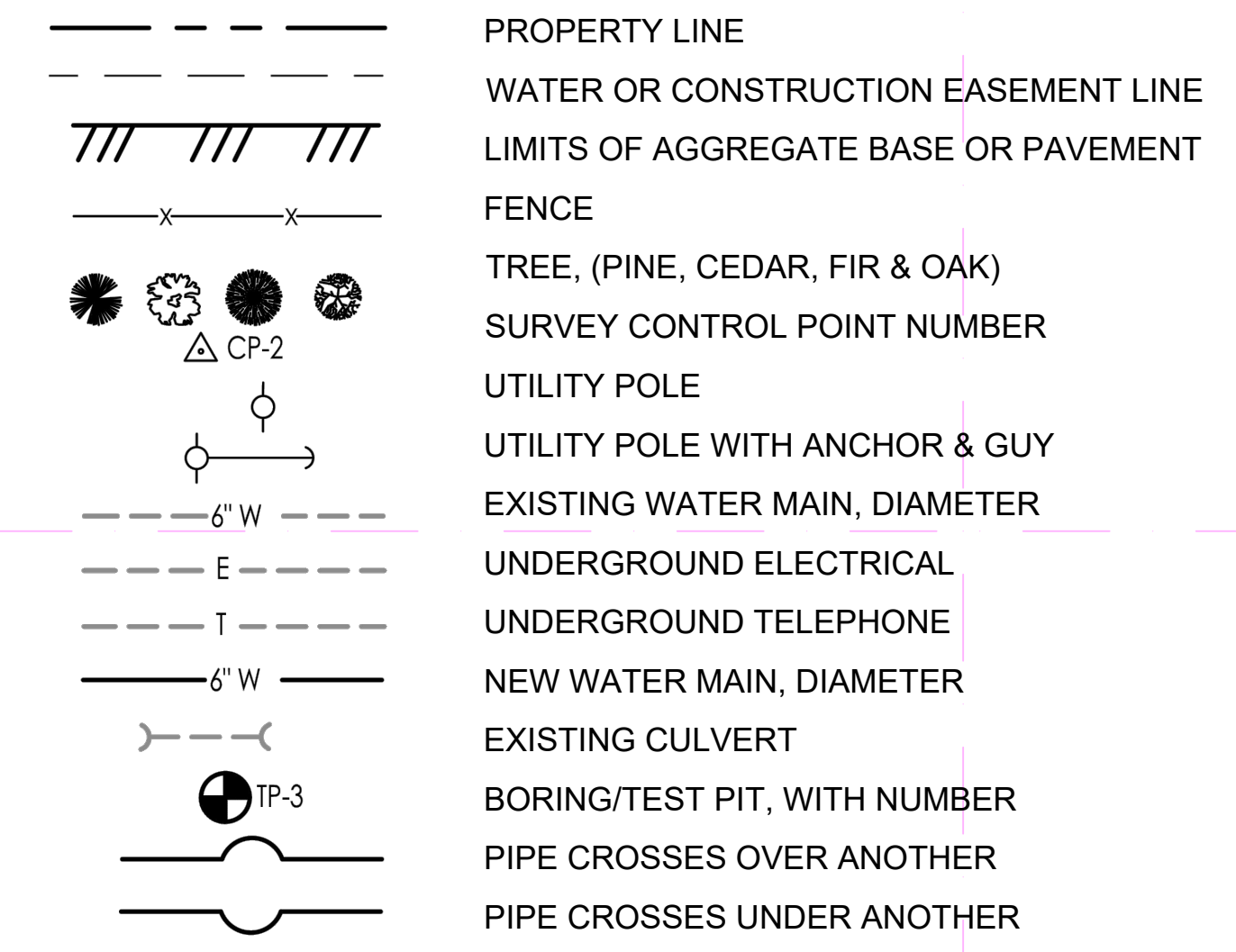
STANDARD ABBREVIATIONS:

<p>AB - ANCHOR BOLT  AC - ASPHALT CONCRETE or ALTERNATING CURRENT  ADH AB - ADHESIVE ANCHOR BOLT  AGG or AGGR - AGGREGATE  APPROX - APPROXIMATELY  AV - AIR VALVE  @ - AT  BFV - BUTTERFLY VALVE  BF - BLIND FLANGE  BKFL - BACKFILL  BLDG - BUILDING  BOTT - BOTTOM  BV - BALL VALVE  C or COND - CONDUIT  CIP - CAST IN PLACE  C or C/L - CENTERLINE  CL or CLR - CLEAR  CL2 - CHLORINE SOLUTION  CMP - CORRUGATED METAL PIPE  COMB - COMBINATION  CONC - CONCRETE  CONST - CONSTRUCTION  CONT - CONTINUOUS  CONTR - CONTRACTOR  CTR - CENTER  CORP - CORPORATION  CP - CONTROL POINT  CU - COPPER  D - DRAIN  DI - DUCTILE IRON  DIP - DUCTILE IRON PIPE  DIA - DIAMETER  DIM - DIMENSION  DIST - DISTANCE  DN - DOWN  DWG - DRAWING  EA - EACH  EG - EXISTING GROUND  ELEC - ELECTRIC  EL or ELEV - ELEVATION  ELB - ELBOW  EMBED - EMBED or EMBEDMENT  ENGR - ENGINEER  EP - EDGE OF PAVEMENT  EQ - EQUAL  EQUIP - EQUIPMENT  ESMT - EASEMENT  EW - EACH WAY  EXP AB - EXPANSIVE ANCHOR BOLT  EXT - EXTERIOR  (E) or EXIST - EXISTING  FBE - FUSION BONDED EPOXY  FCA - FLANGED COUPLING ADAPTER  FC - FLEXIBLE COUPLING  FF - FINISHED FLOOR or FAR FACE  FG or FIN GR - FINISH GRADE  FH - FIRE HYDRANT or FULL HEIGHT  FIN - FINISH  FL - FLOW LINE  FLG - FLANGE  FLR - FLOOR  FND - FOUNDATION  FTG - FOOTING  GAL - GALLON  GALV - GALVANIZED  GC - GROOVED COUPLING  GSP - GALVANIZED STEEL PIPE  GV - GATE VALVE  HC - HALF COUPLING  HORIZ - HORIZONTAL  HD - HOLDDOWN or HOT DIPPED  HDR - HEADER  HS - HIGH STRENGTH</p>	<p>HT - HEIGHT  ID - INSIDE DIAMETER  INT - INTERIOR or INTERMEDIATE  INV - INVERT  JT - JOINT  LF - LINEAL FOOT  MAX - MAXIMUM  MECH - MECHANICAL  MFR - MANUFACTURER  MIN - MINIMUM  MISC - MISCELLANEOUS  MJ - MECHANICAL JOINT  MRS - MECHANICAL RUBBER SEAL  MTL - METAL  MWS - MAXIMUM WATER SURFACE  (N) - NEW  NC - NORMALLY CLOSED  NO - NORMALLY OPEN  NIC - NOT IN CONTRACT  NPT - NATIONAL PIPE THREAD  NTS - NOT TO SCALE  Ø - DIAMETER  O/ - OVER  O/F - OVERFLOW  OC - ON CENTER  OD - OUTSIDE DIAMETER  OF - OUTSIDE FACE  OG - ORIGINAL GROUND  OPG or OPNG - OPENING  PE - PLAIN END  PL or PL - PLATE OR PROPERTY LINE  # - POUND  PP - POWER POLE  PRV - PRESSURE RELIEF VALVE  PSI - POUNDS PER SQUARE INCH  PW - POTABLE WATER  PVC - POLYVINYL CHLORIDE PIPE  R - RADIUS  RED - REDUCER  REINF - REINFORCEMENT STEEL, REBAR  REQ'D - REQUIRED  REST - RESTRAINED  RFCA - RESTRAINED FLANGED COUPLING ADAPTER  S - SLOPE  SCH or SCHED - SCHEDULE  SD - STORM DRAIN  SECT - SECTION  SGL - SINGLE  SH or SHT - SHEET  SHTG - SHEATHING, SHEETING  SIM - SIMILAR  SPEC'S - SPECIFICATIONS  SQ - SQUARE  SS - SANITARY SEWER  SSTL - STAINLESS STEEL  STD - STANDARD  STL - STEEL  STRUCT - STRUCTURAL  SYM - SYMMETRICAL  THK - THICK or THICKNESS  THD or THRD - THREADED  TOW - TOP OF WALL  TR - THRUST RESTRAINT  TYP - TYPICAL  UG - UNDERGROUND  UNO - UNLESS NOTED OTHERWISE  VERT - VERTICAL  VB - VALVE BOX  W - WATER  WM - WATER METER  WS - WATER STOP</p>
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GENERAL INFORMATION

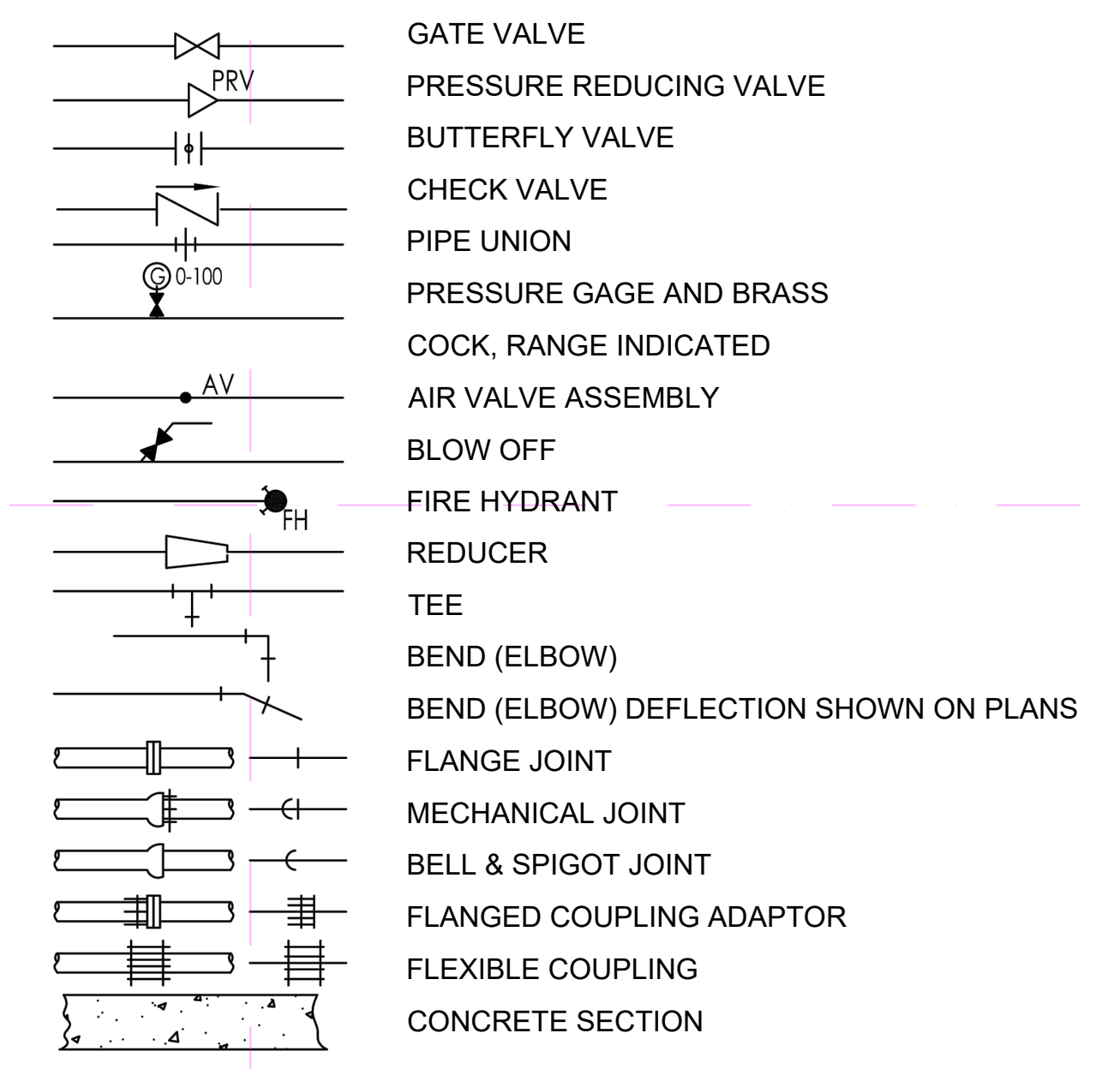


CIVIL LEGEND



NOTE: WHERE EXISTING & NEW FACILITIES ARE SHOWN TOGETHER, THE NEW FACILITIES WILL GENERALLY BE SHOWN IN BOLD

PIPING LEGEND



RS	DATE	APPL
1	05/10/2022	
DESCRIPTION		
1 GRADING PERMIT PLAN SET		
MARK		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CRD BY:	CONTRACT NO.:	2
SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES		
0 1 2			

**Storesund Consulting**  
STORESUND CONSULTING  
154 LAWSON ROAD  
KENNINGTON, CA 94707  
(510) 536-5849

**SYMBOLS & ABBREVIATIONS**  
VEGA ROAD PROPERTIES PROJECT  
146 VEGA ROAD  
ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**G-2**  
SHEET 2 OF 24

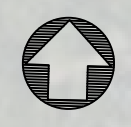
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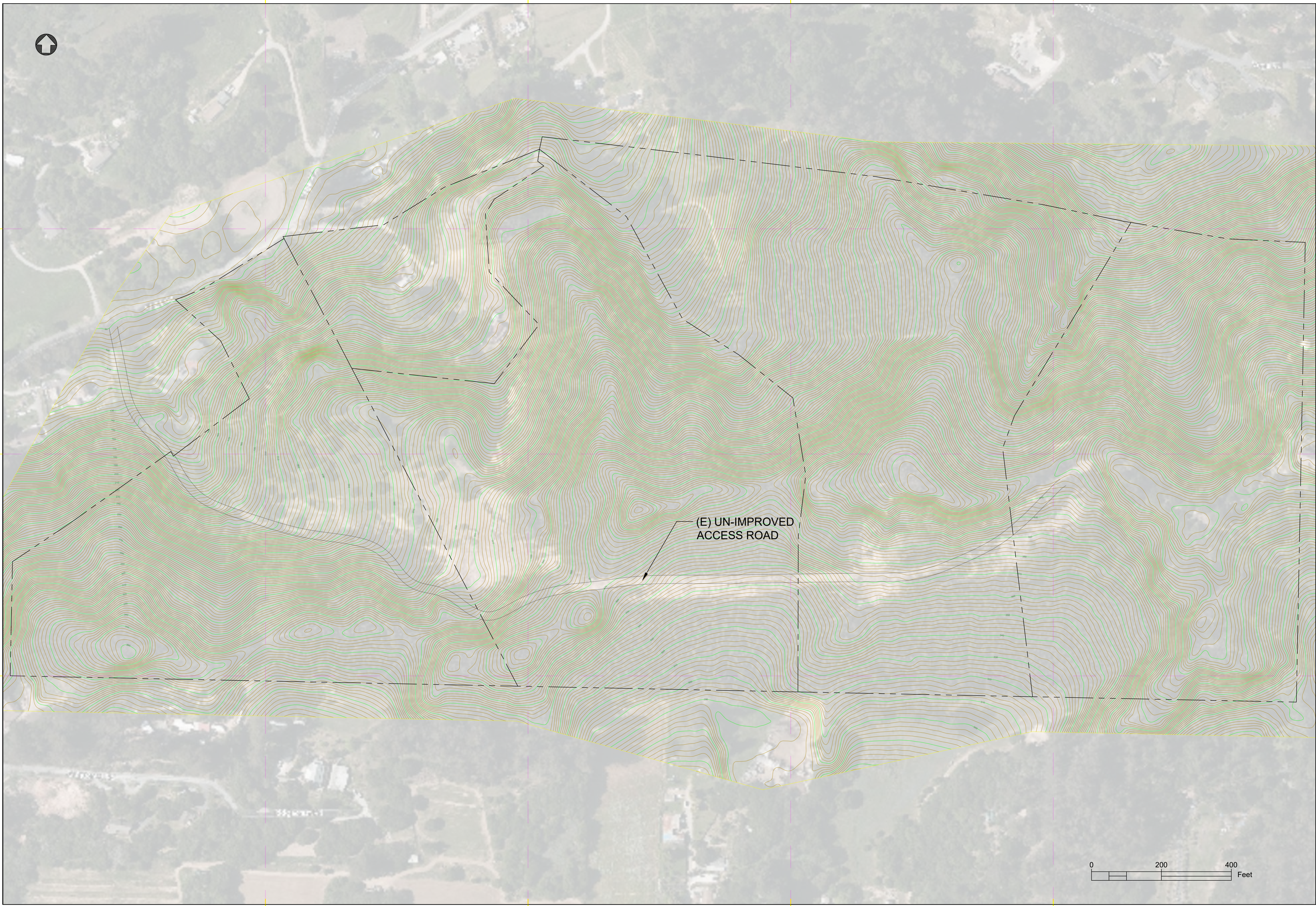


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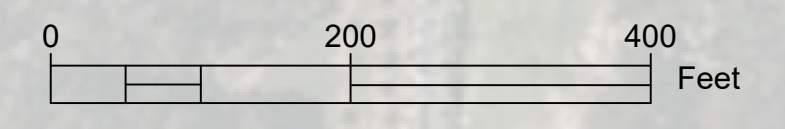
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(E) UN-IMPROVED ACCESS ROAD



MARK	DESCRIPTION	DATE	APPR.
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DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES		
	0	1	2

**Storesund Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 516-5849

**EXISTING CONDITIONS**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-1**  
 SHEET 3 OF 24

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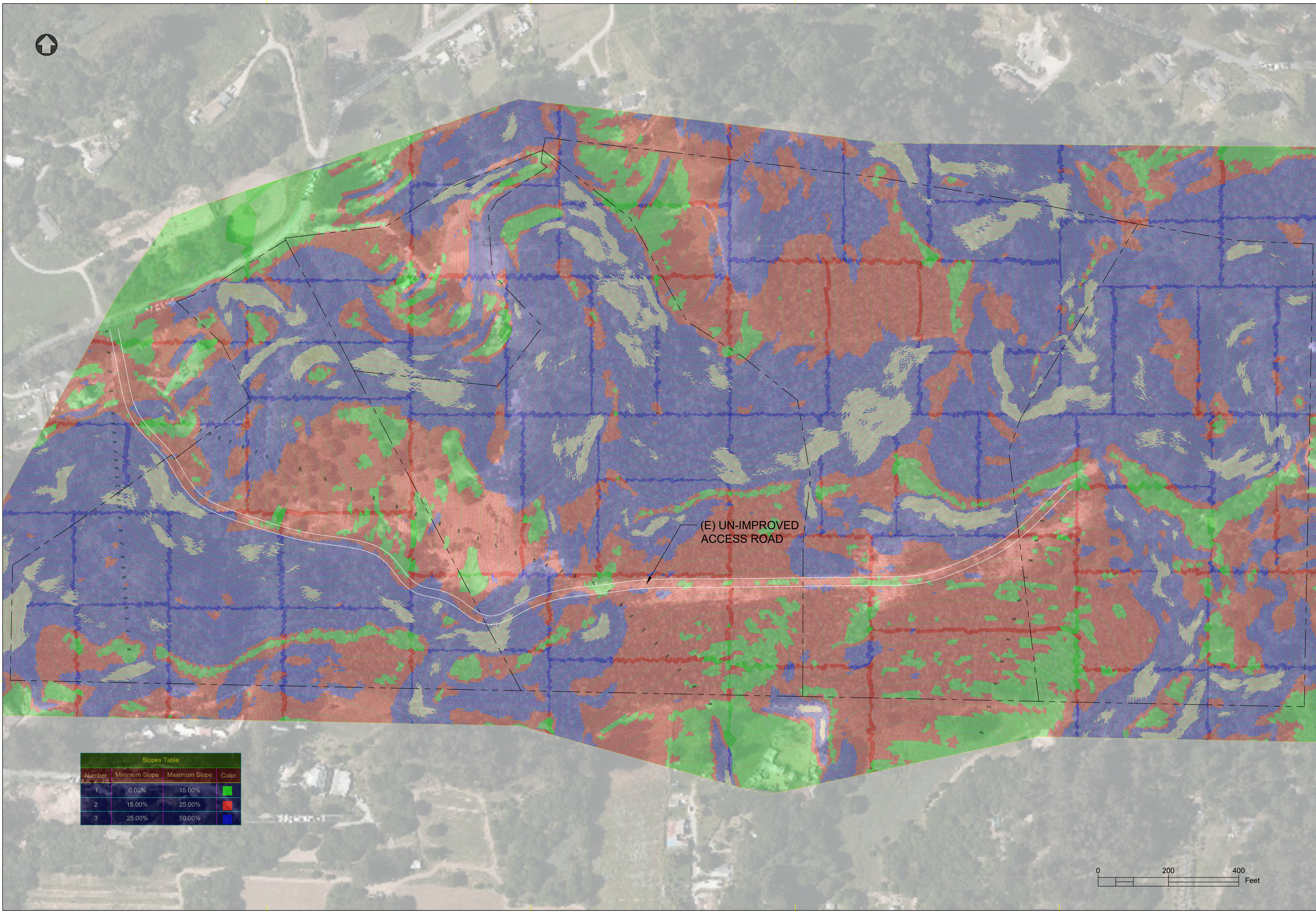
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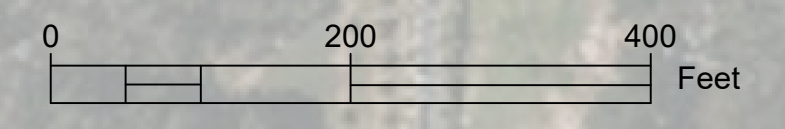
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Slopes Table			
Number	Minimum Slope	Maximum Slope	Color
1	0.00%	15.00%	Green
2	15.00%	25.00%	Red
3	25.00%	50.00%	Blue

(E) UN-IMPROVED  
ACCESS ROAD



MARK	DESCRIPTION	DATE	RS	APPR
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES		
	0	1	2

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 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-5849

**EXISTING SLOPES**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-2**  
 SHEET 4 OF 24

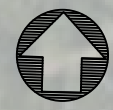
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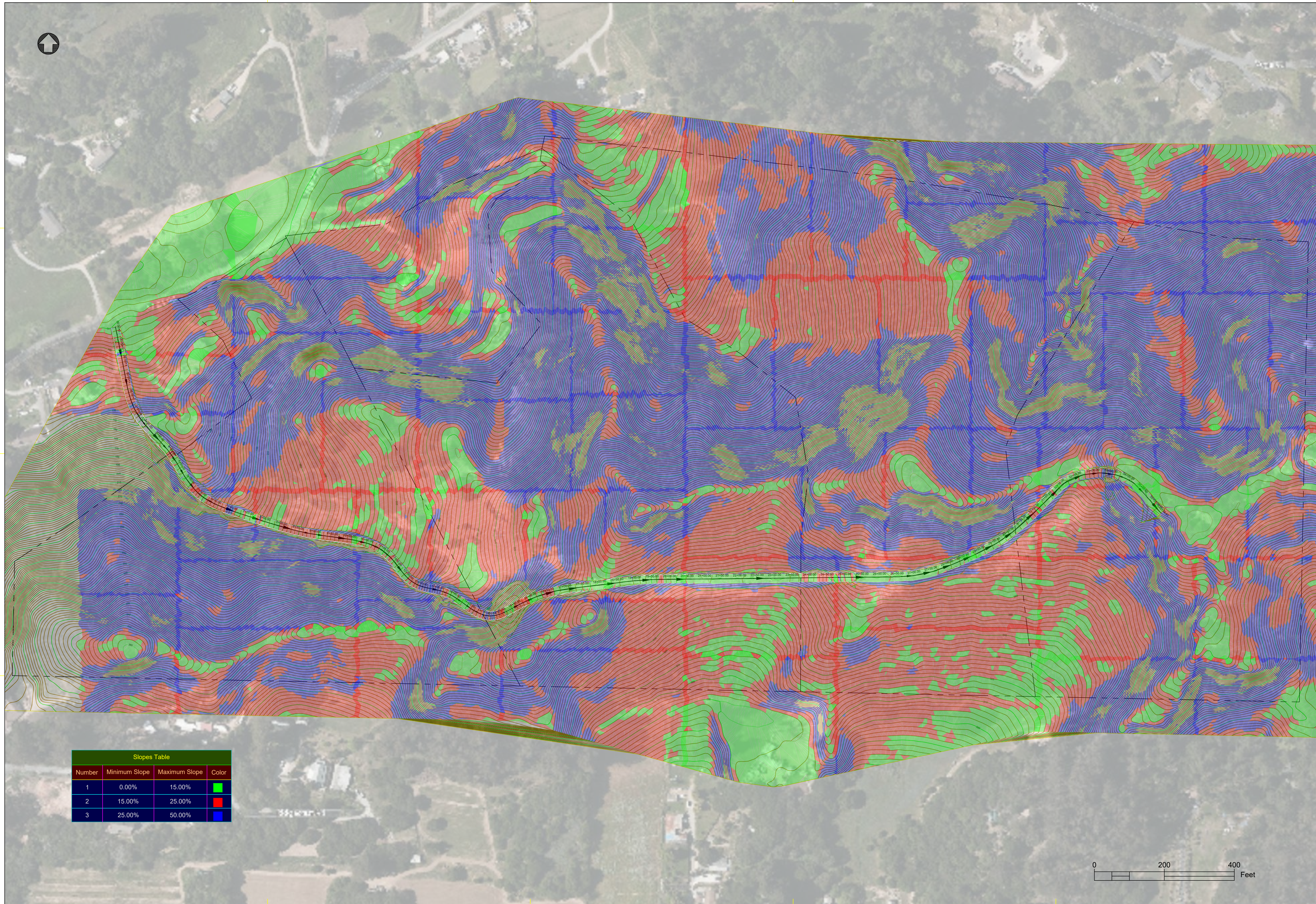


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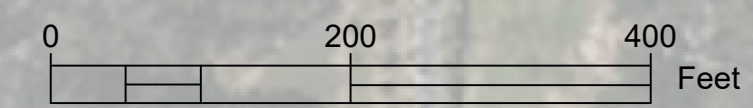
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Slopes Table			
Number	Minimum Slope	Maximum Slope	Color
1	0.00%	15.00%	Green
2	15.00%	25.00%	Red
3	25.00%	50.00%	Blue



MARK	DATE	DESCRIPTION	RS	APPR
1	05/10/2022	GRADING PERMIT PLAN SET		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CKD BY:	CONTRACT NO.:	2
SUBMITTED BY:			1
FOR REDUCED PLANS ORIGINAL SCALE INCHES			
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**Storvick Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-5849

**PROPOSED SLOPES**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-3**  
 SHEET 5 OF 24

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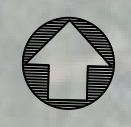
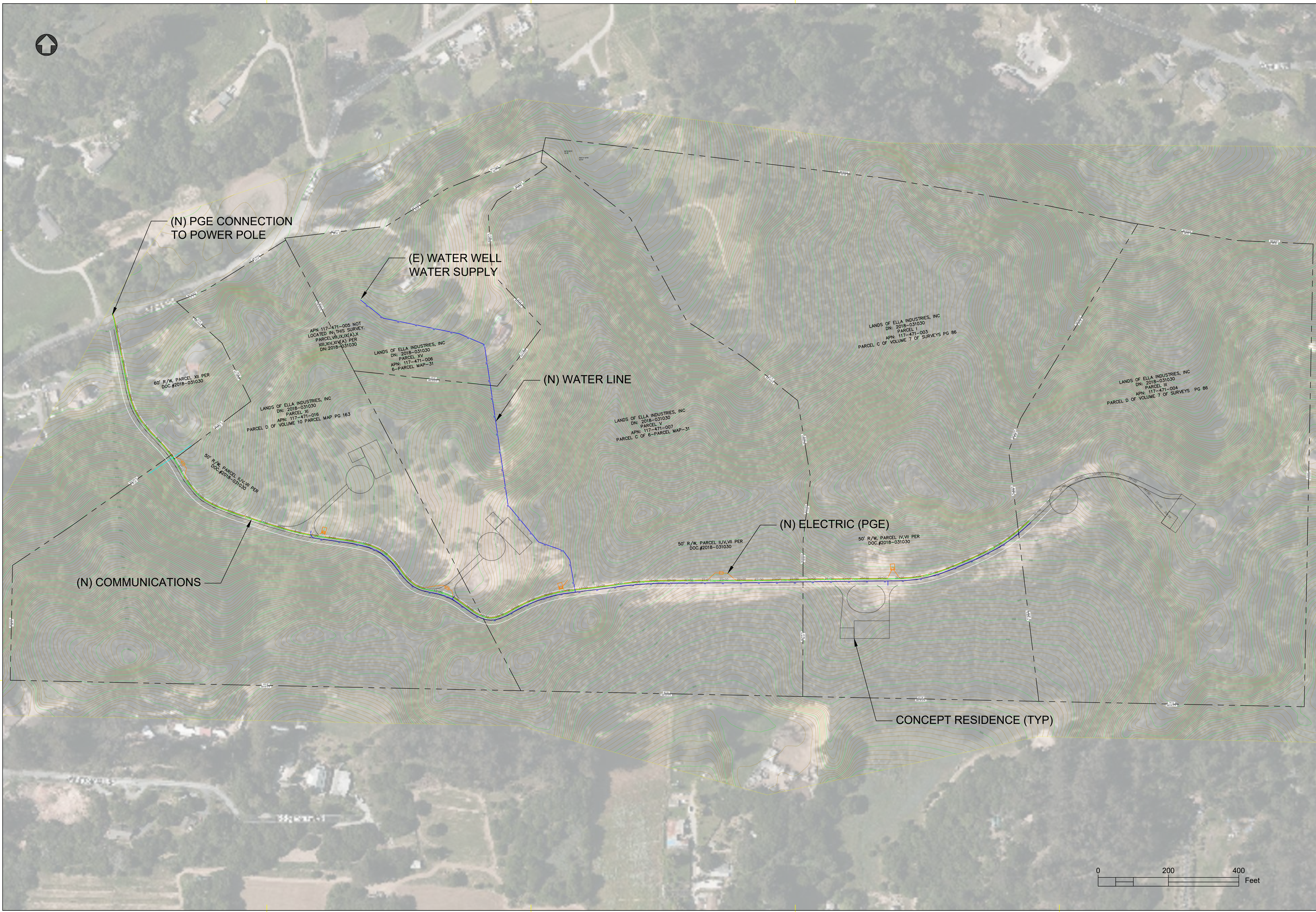
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MARK	DESCRIPTION	DATE	RS	APPX
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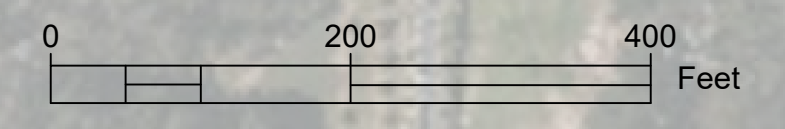


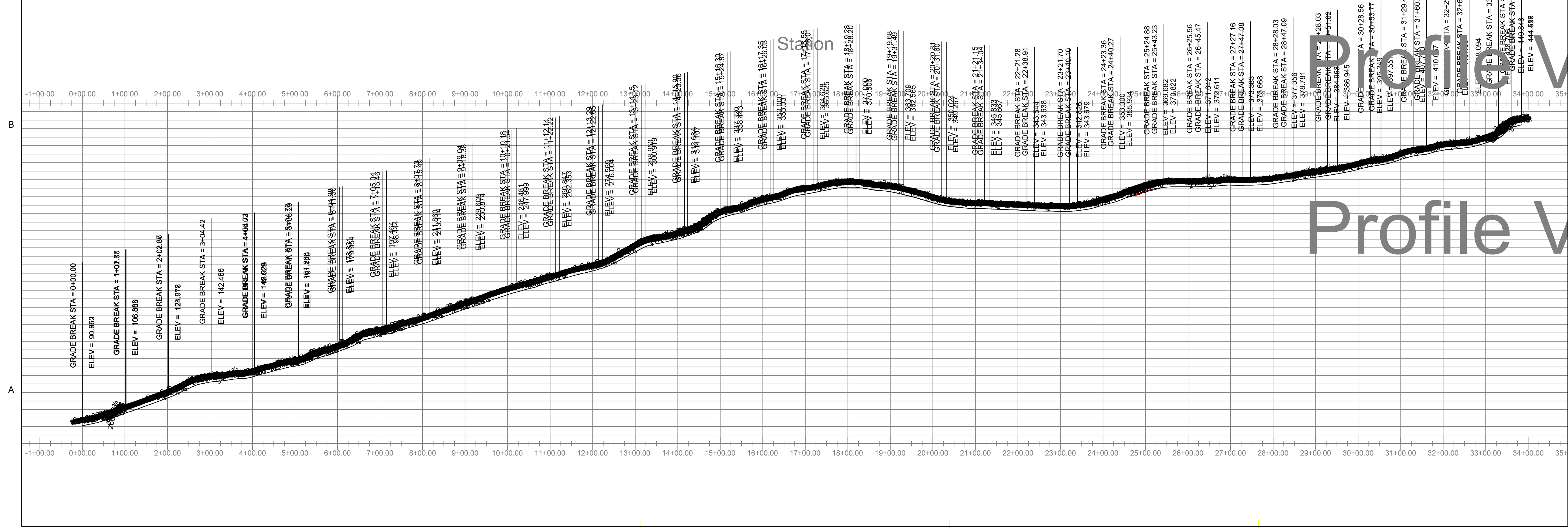
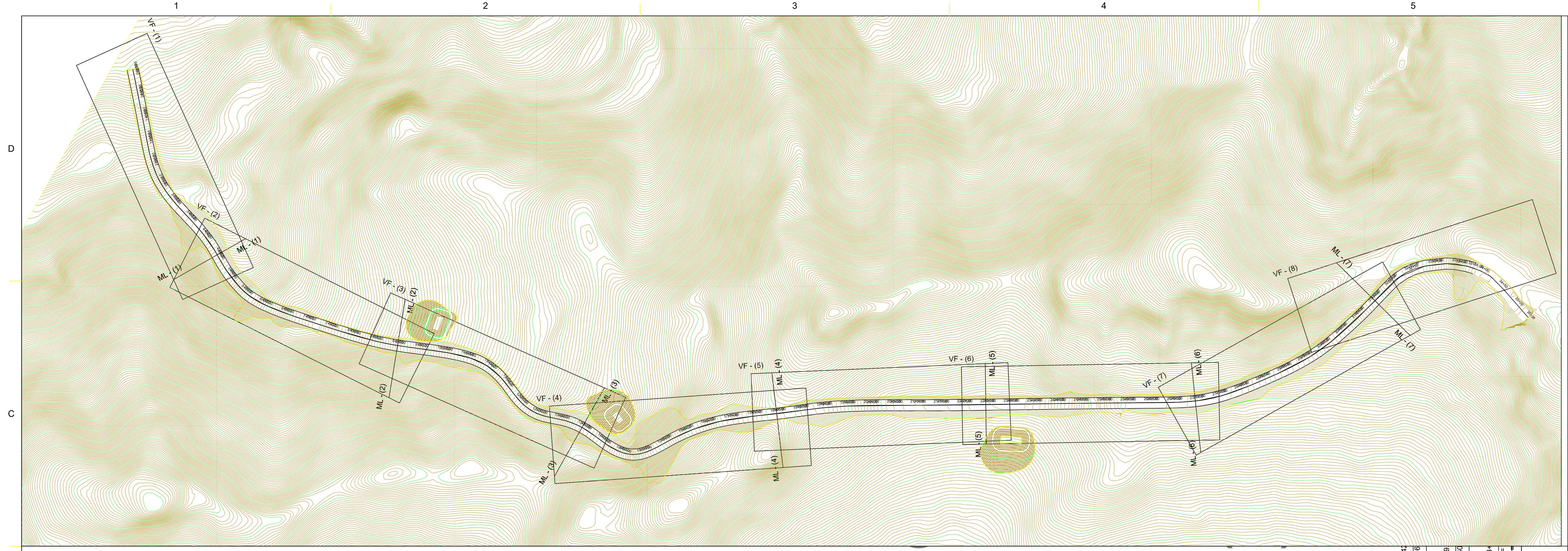
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SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES		
0 1 2 3			

**Storesund Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-5849

**PLANNED UTILITIES**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-4**  
 SHEET 6 OF 24





# Profile View

MARK	DESCRIPTION	DATE	RS
1	GRADING PERMIT PLAN SET	05/10/2022	



DESIGNED BY:	DATE:
DWN BY:	SOLICITATION NO.:
SUBMITTED BY:	CONTRACT NO.:
FOR REDUCED PLANS ORIGINAL SCALE INCHES	
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**Storvick Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-8449

**ROADWAY PLAN & PROFILE - OVERVIEW**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076





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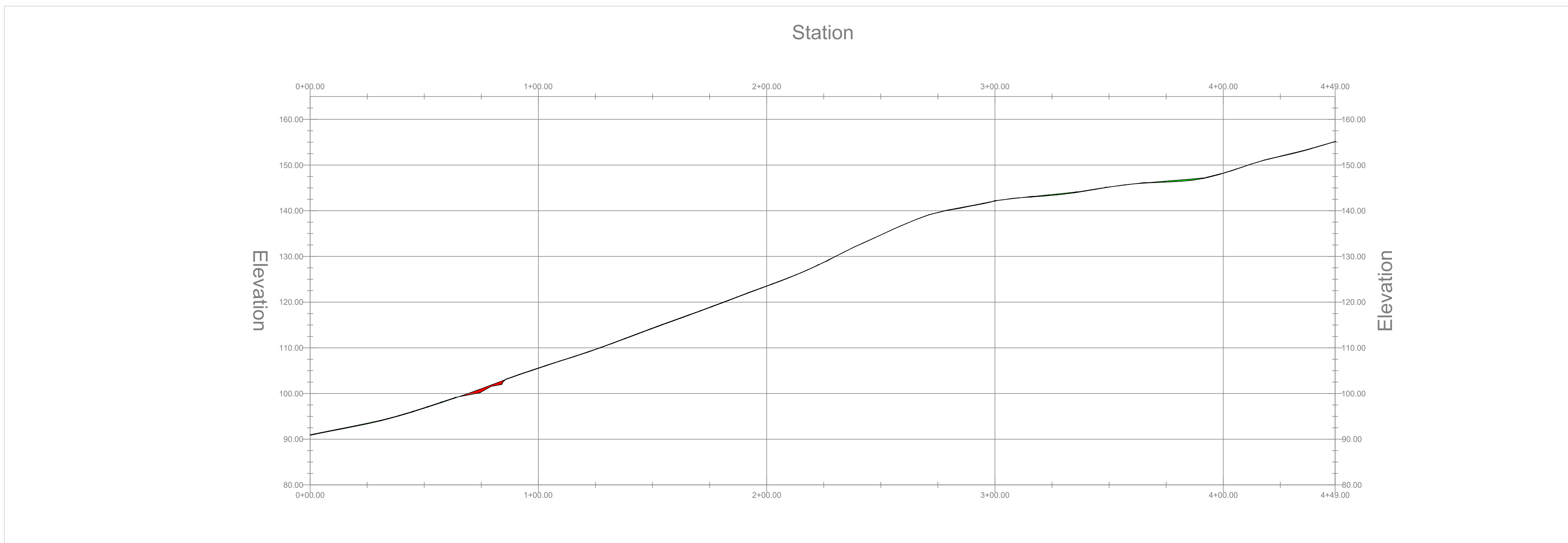
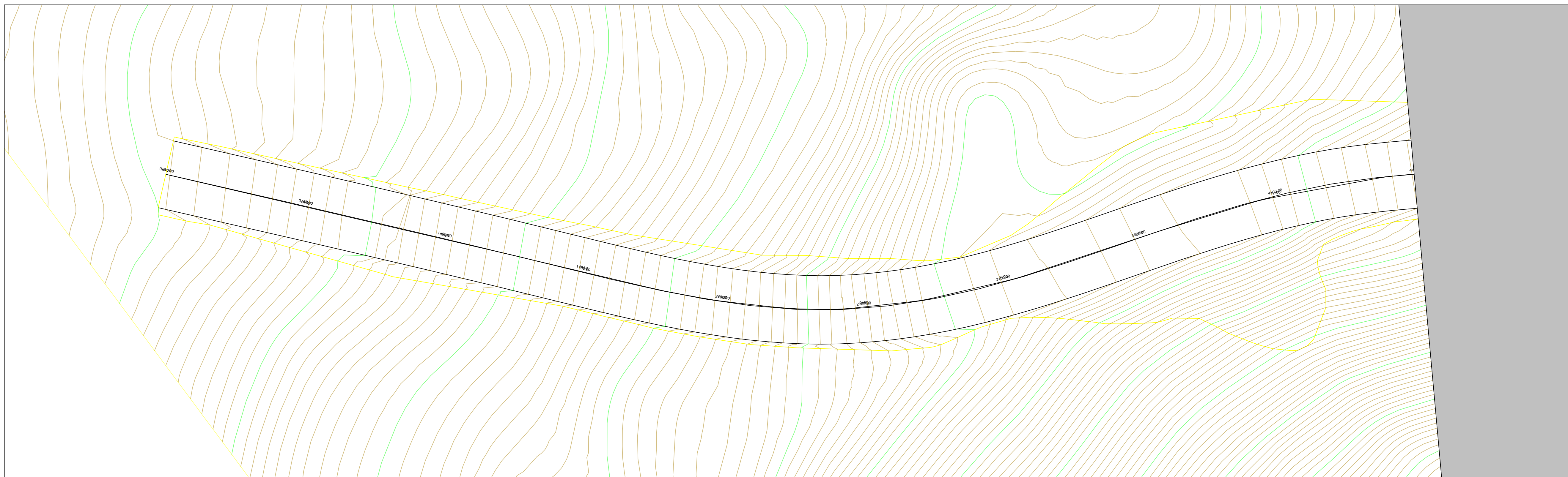
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MARK	DESCRIPTION	DATE	RS	APPR
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
SUBMITTED BY:		FOR REDUCED PLANS ORIGINAL SCALE INCHES	1
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**Storesund Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-5849

**ROADWAY PLAN & PROFILE**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-7**  
 SHEET 9 OF 24

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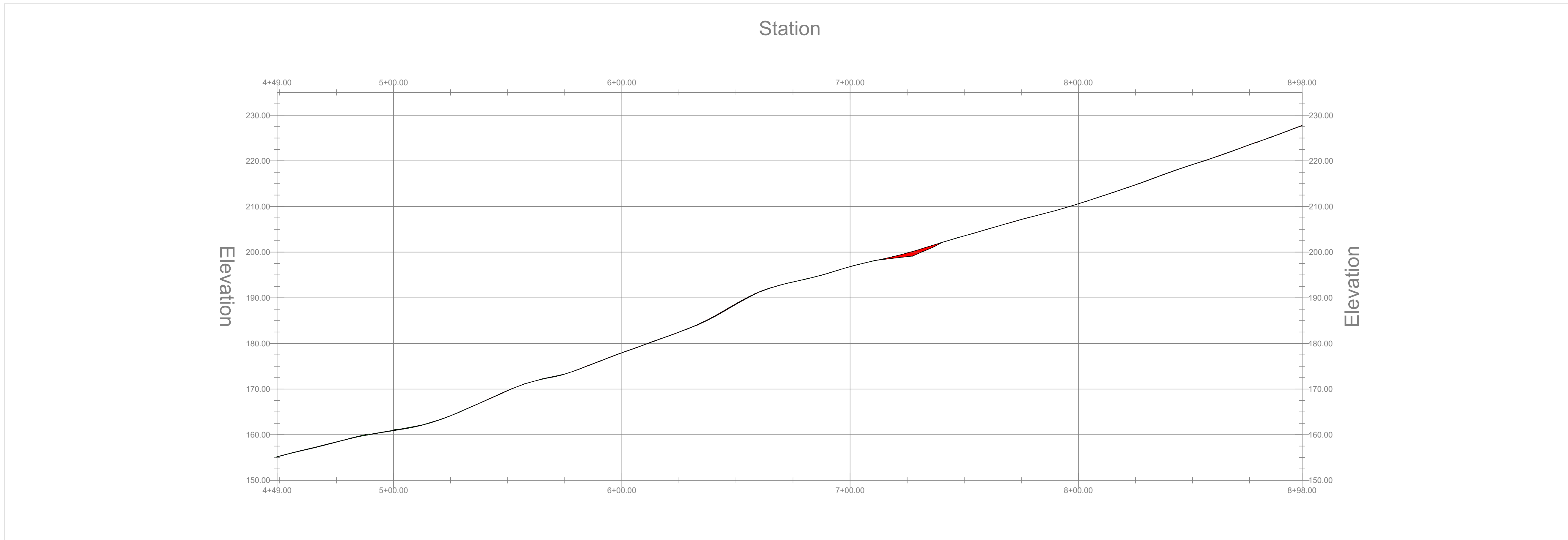
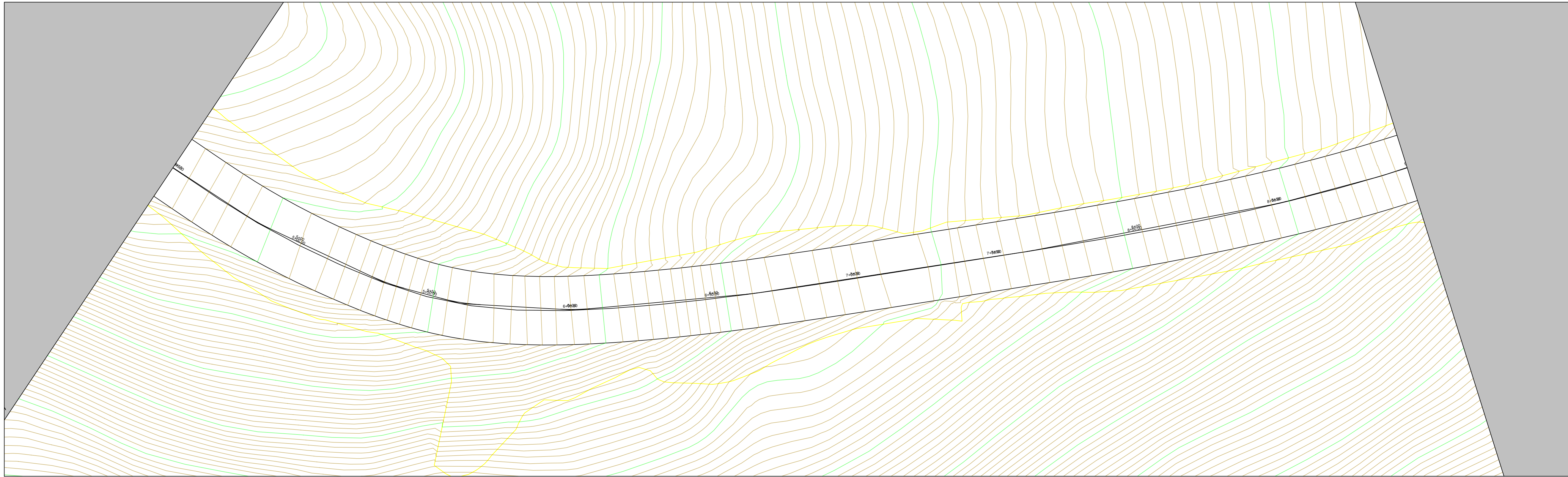
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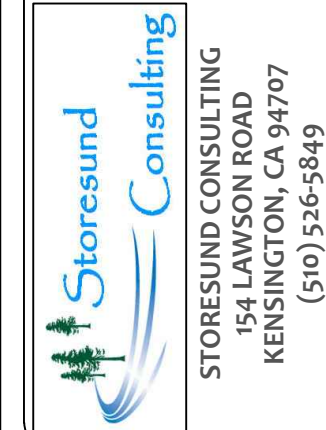
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MARK	DESCRIPTION	RS	DATE	APPR
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DESIGNED BY:	DATE:	SOLICITATION NO.:	CONTRACT NO.:
DWN BY:	CHK BY:		
SUBMITTED BY:			
FOR REDUCED PLANS ORIGINAL SCALE INCHES			
		1	2
		0	3



**ROADWAY PLAN & PROFILE**  
**VEGA ROAD PROPERTIES PROJECT**  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-8**  
 SHEET 10 OF 24

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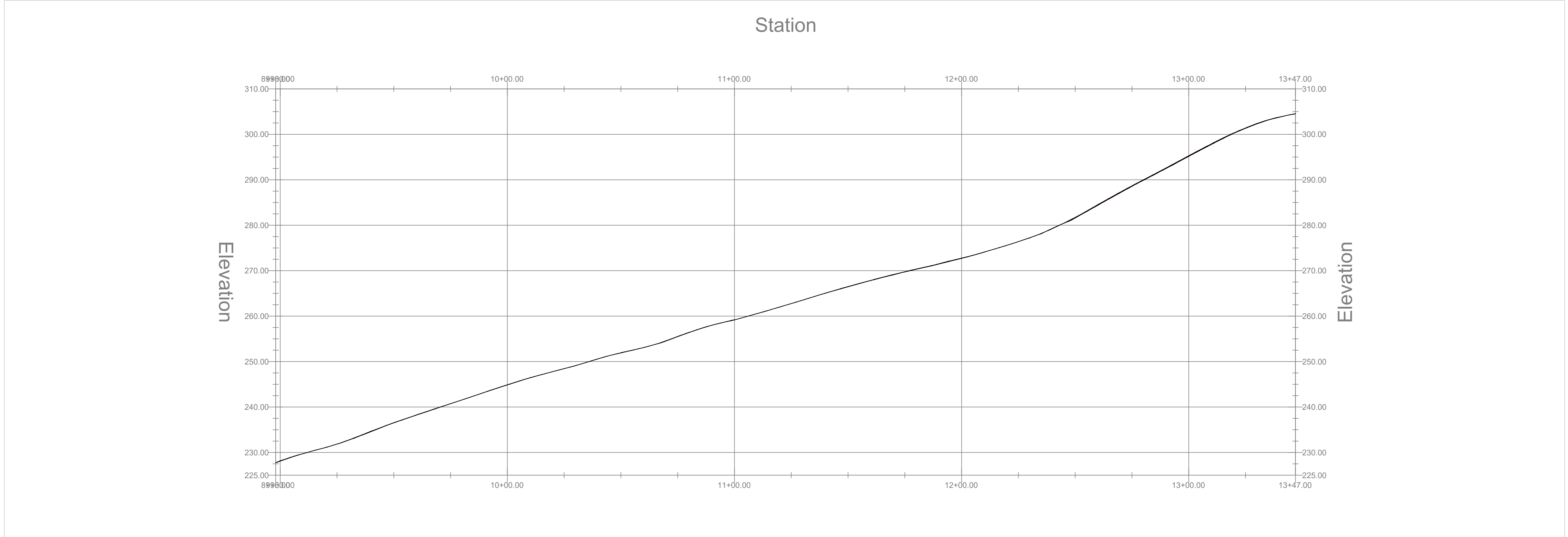
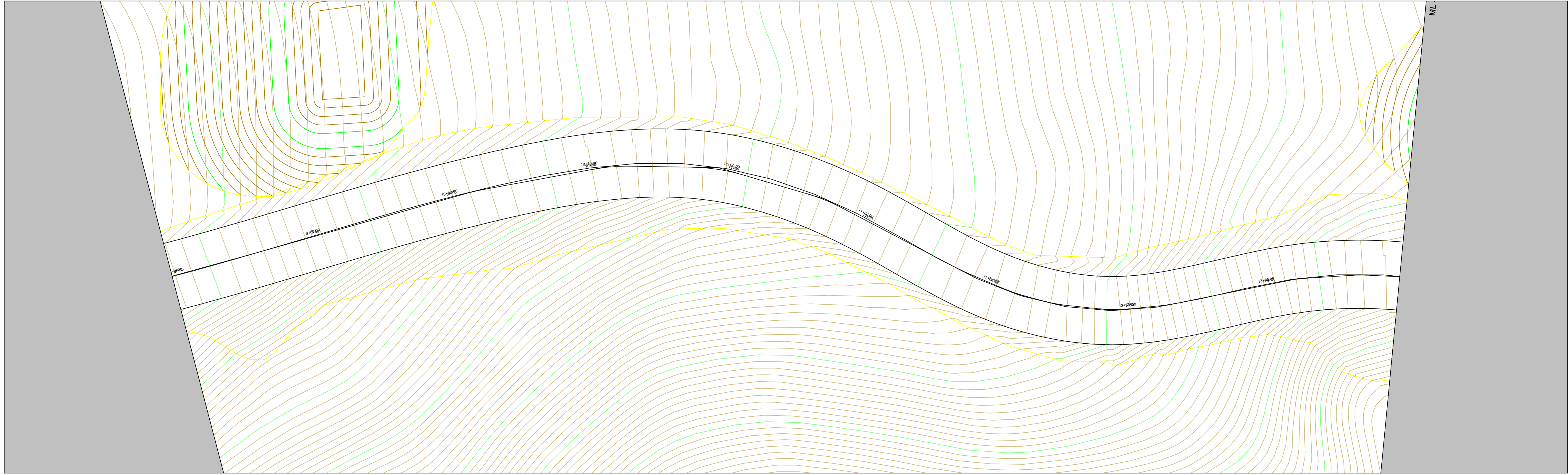
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MARK	DESCRIPTION	DATE	RS	APPX
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
SUBMITTED BY:		FOR REDUCED PLANS ORIGINAL SCALE INCHES	1
			0

**Storesund Consulting**  
 STORESUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 526-8449

**ROADWAY PLAN & PROFILE**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-9**  
 SHEET 11 OF 24

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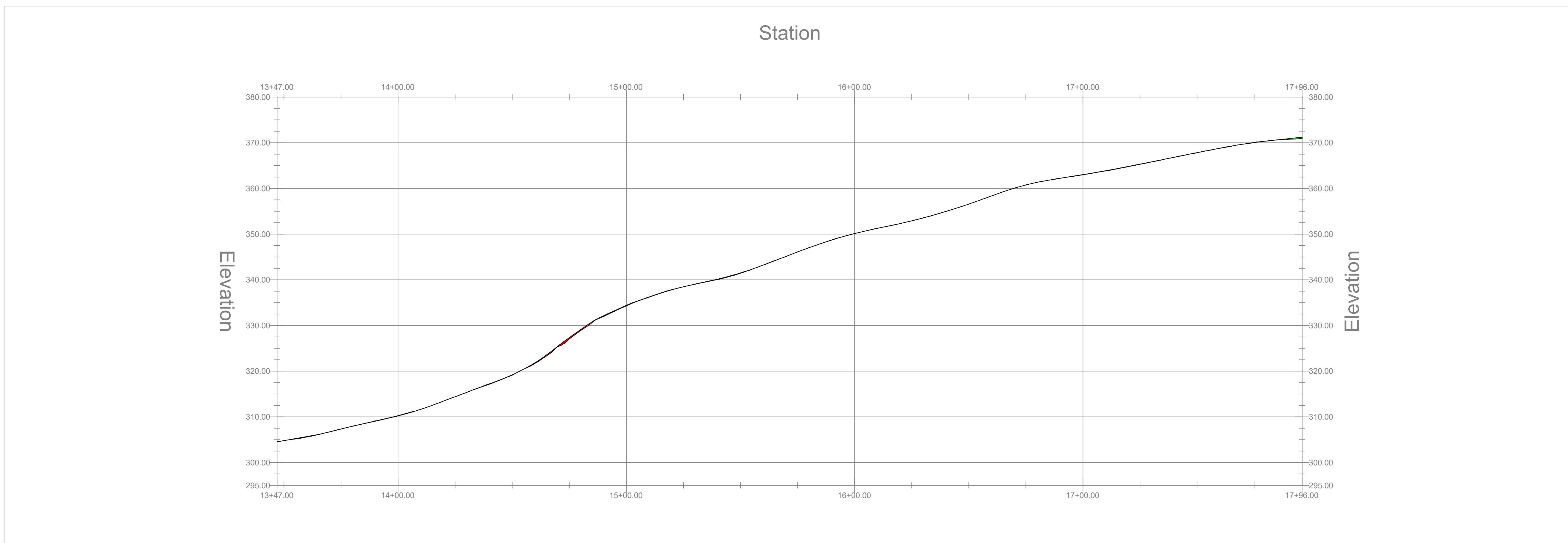
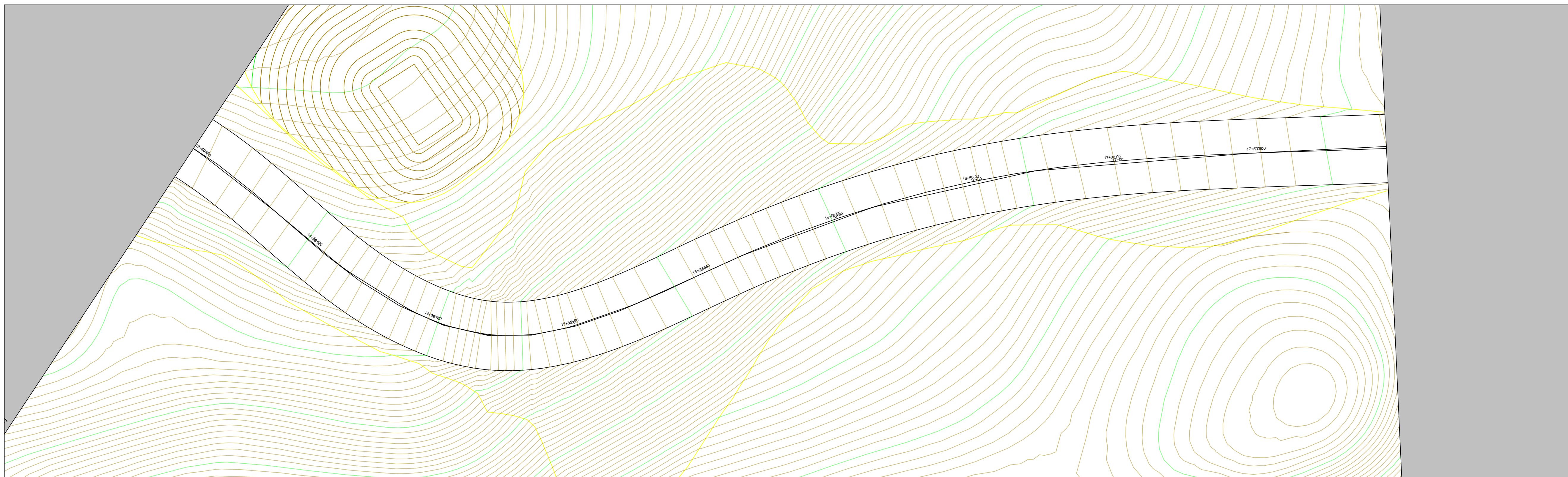
5

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C

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MARK	DESCRIPTION	DATE	RS	APPR
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
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SUBMITTED BY:		FOR REDUCED PLANS ORIGINAL SCALE INCHES	1
			0

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**ROADWAY PLAN & PROFILE**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-10**  
 SHEET 12 OF 24

1

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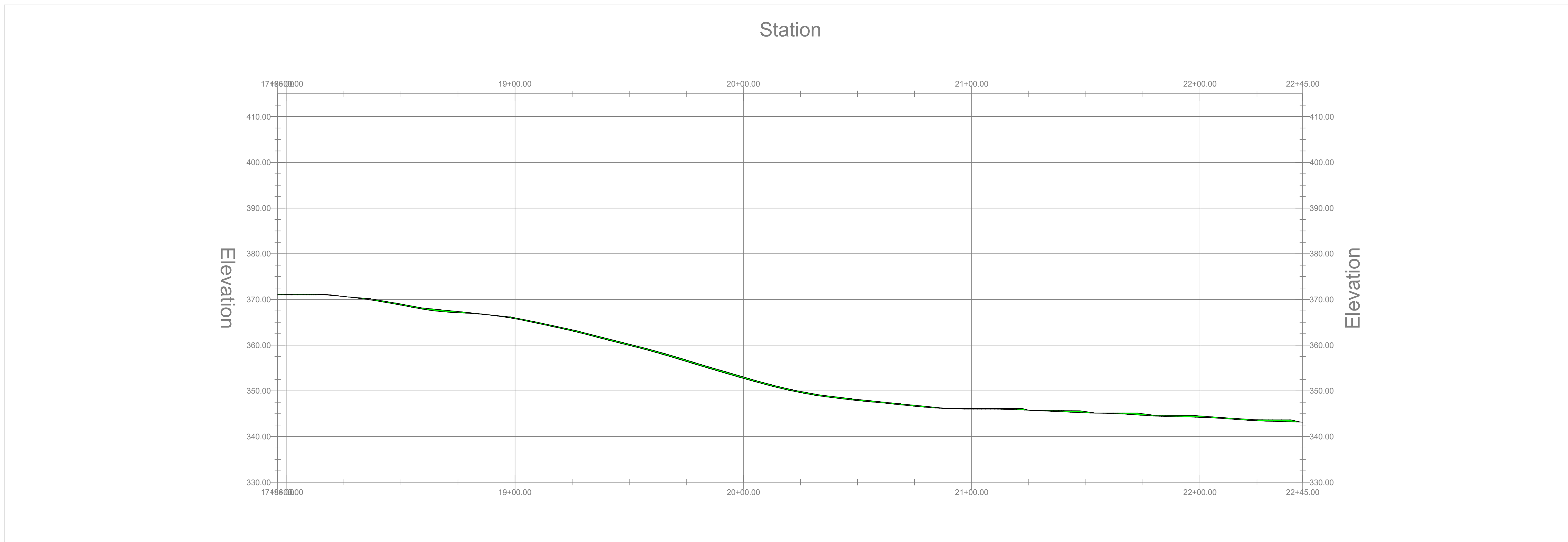
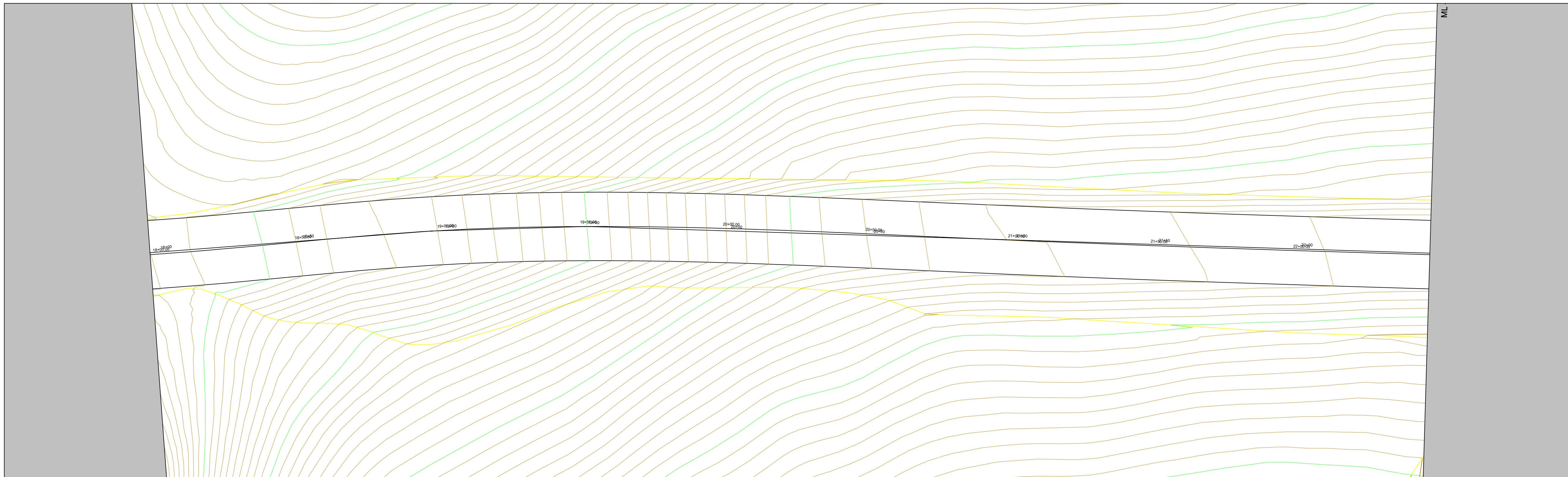
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CHK BY:	CONTRACT NO.:	FOR REDUCED PLANS ORIGINAL SCALE INCHES
SUBMITTED BY:		0 1 2 3



**ROADWAY PLAN & PROFILE**  
**VEGA ROAD PROPERTIES PROJECT**  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-11**  
 SHEET 13 OF 24

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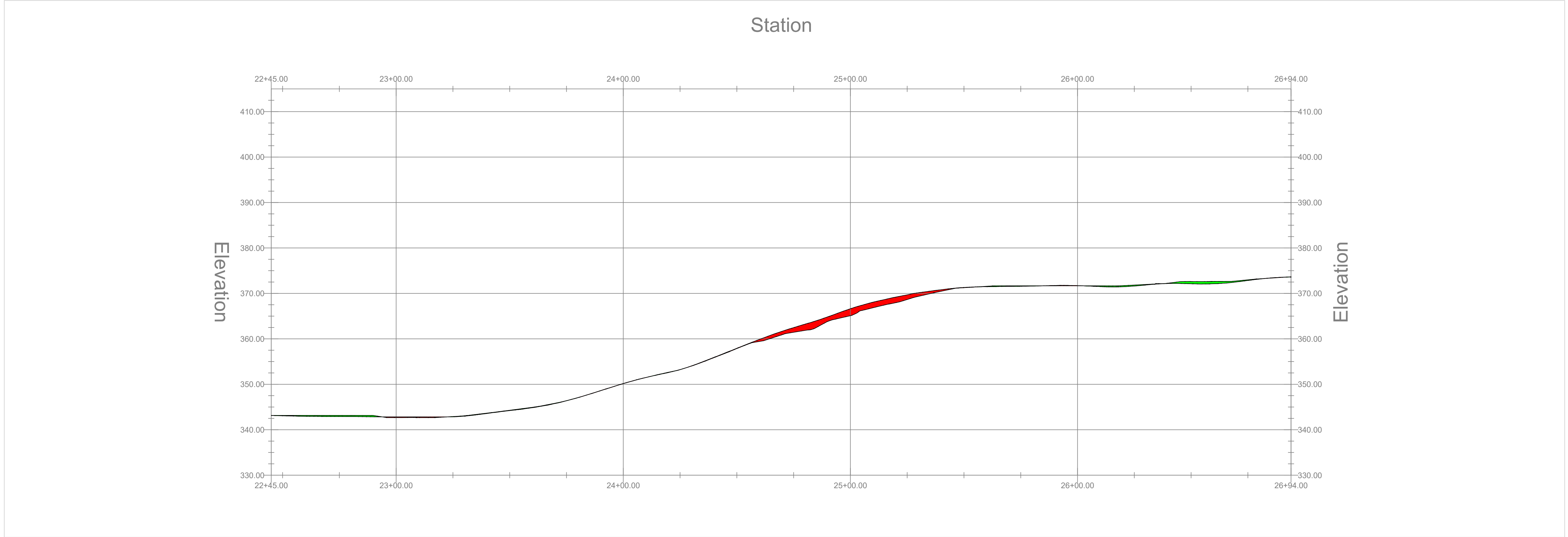
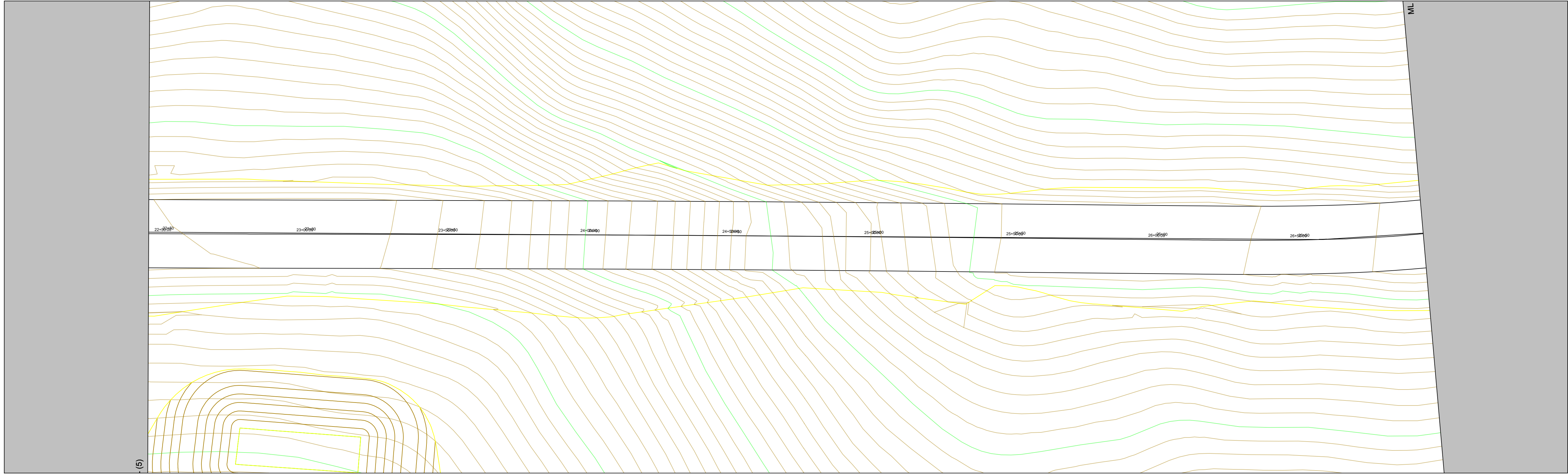
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MARK	DESCRIPTION	RS	DATE	APPR
1	GRADING PERMIT PLAN SET		05/10/2022	



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
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			0

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**ROADWAY PLAN & PROFILE**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-12**  
 SHEET 14 OF 24

1

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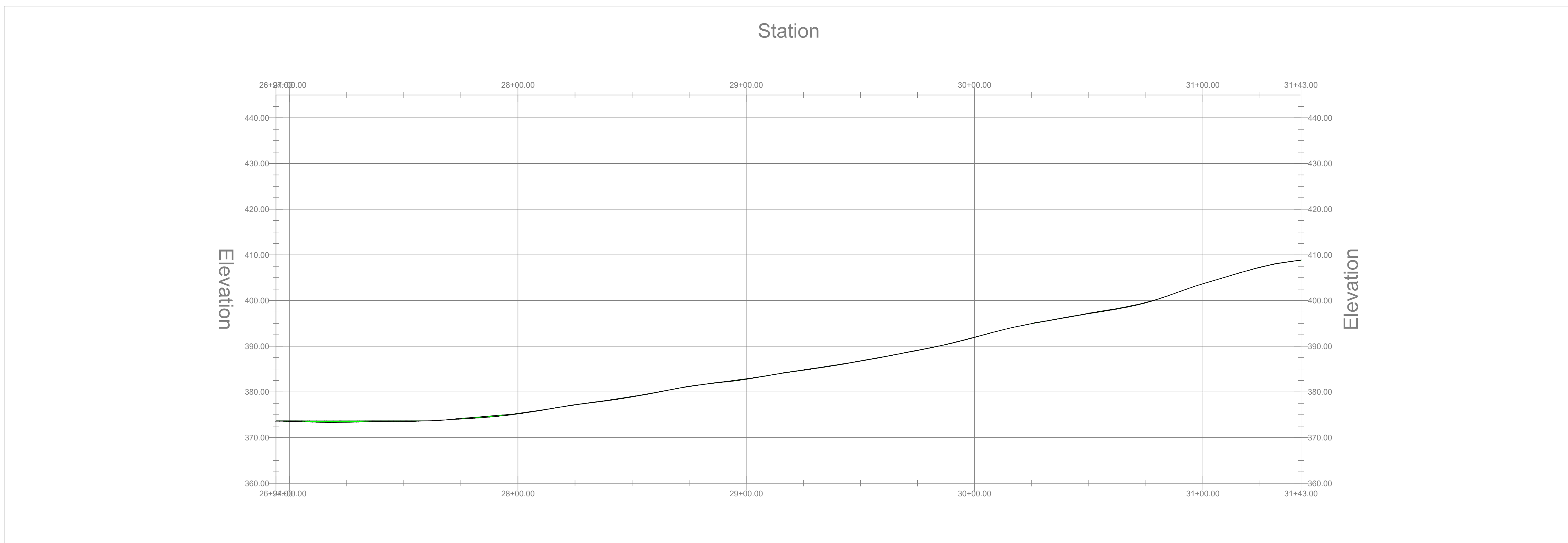
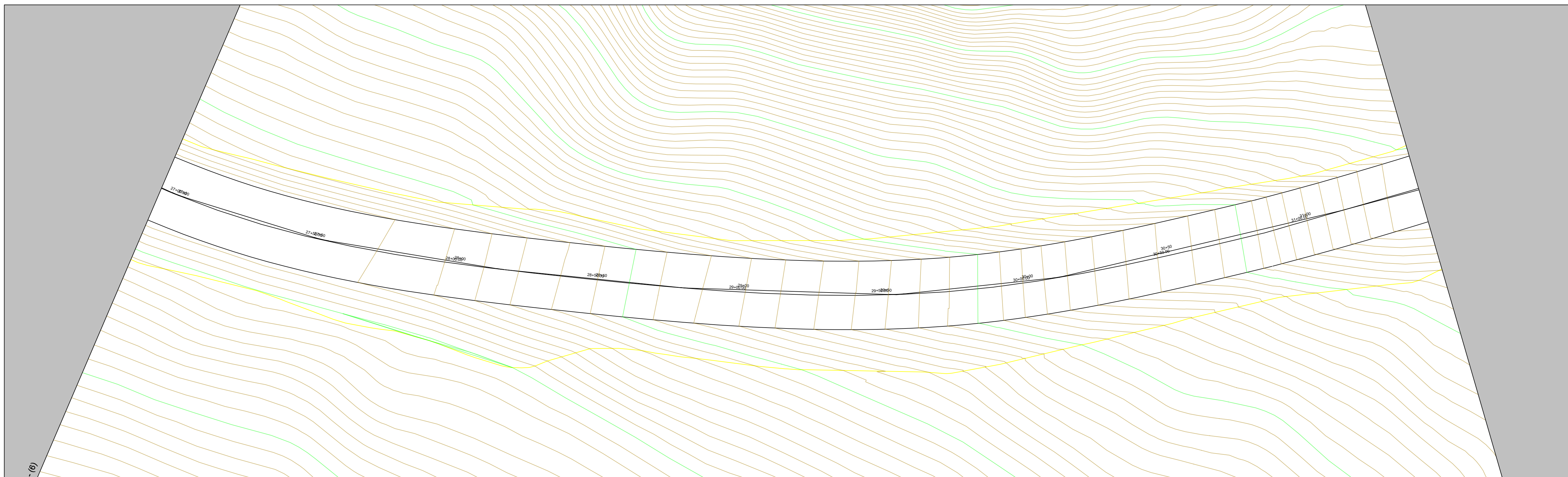
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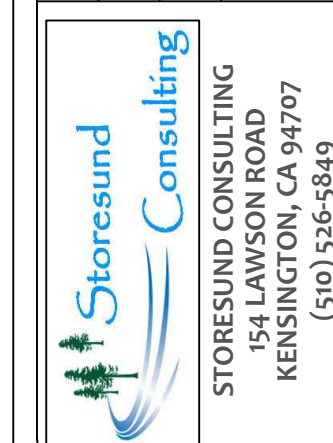
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MARK	DESCRIPTION	RS	DATE	APPR
1	GRADING PERMIT PLAN SET		05/10/2022	



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
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**ROADWAY PLAN & PROFILE**  
**VEGA ROAD PROPERTIES PROJECT**  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-13**  
 SHEET 15 OF 24

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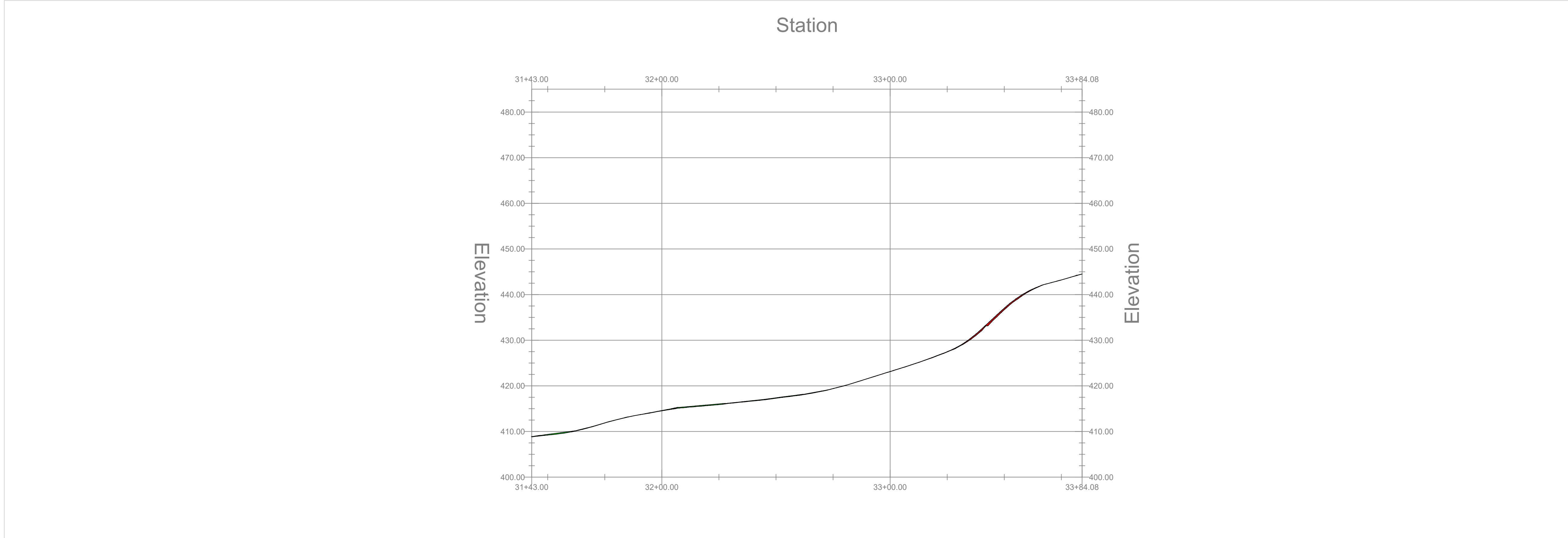
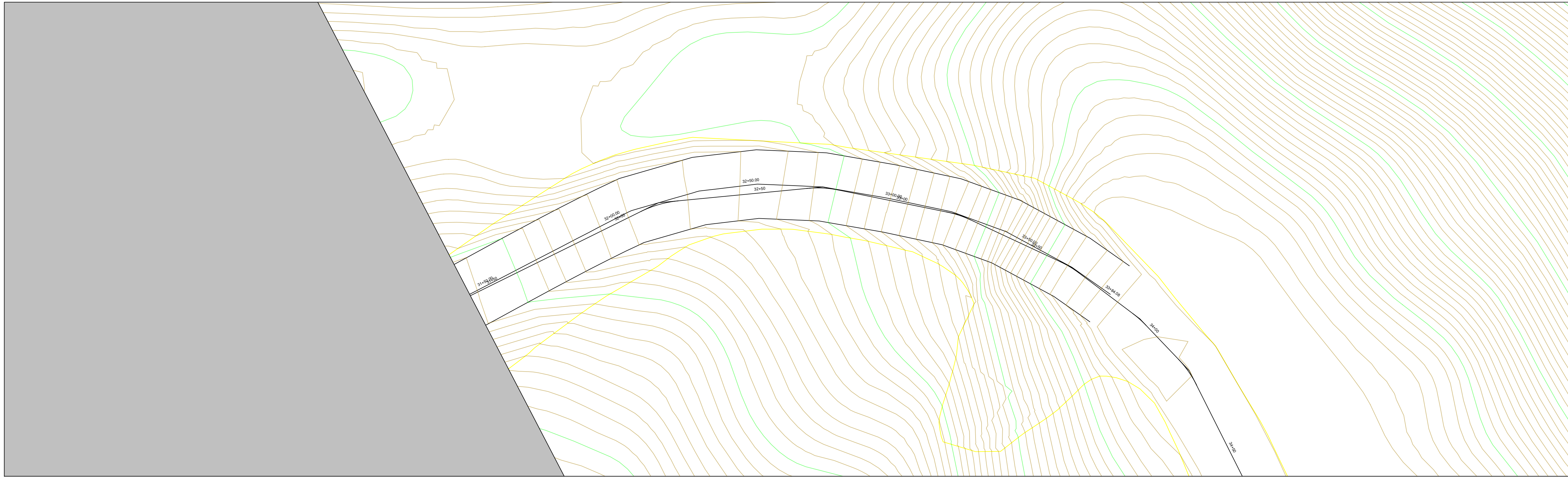
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D

C

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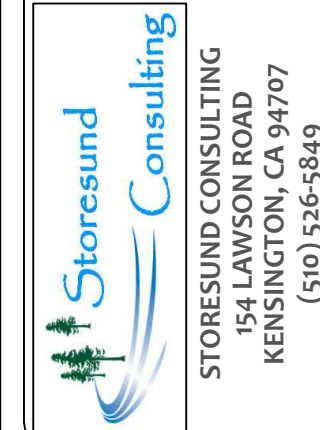
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MARK	DESCRIPTION	DATE	RS	APPR
1	GRADING PERMIT PLAN SET	05/10/2022		



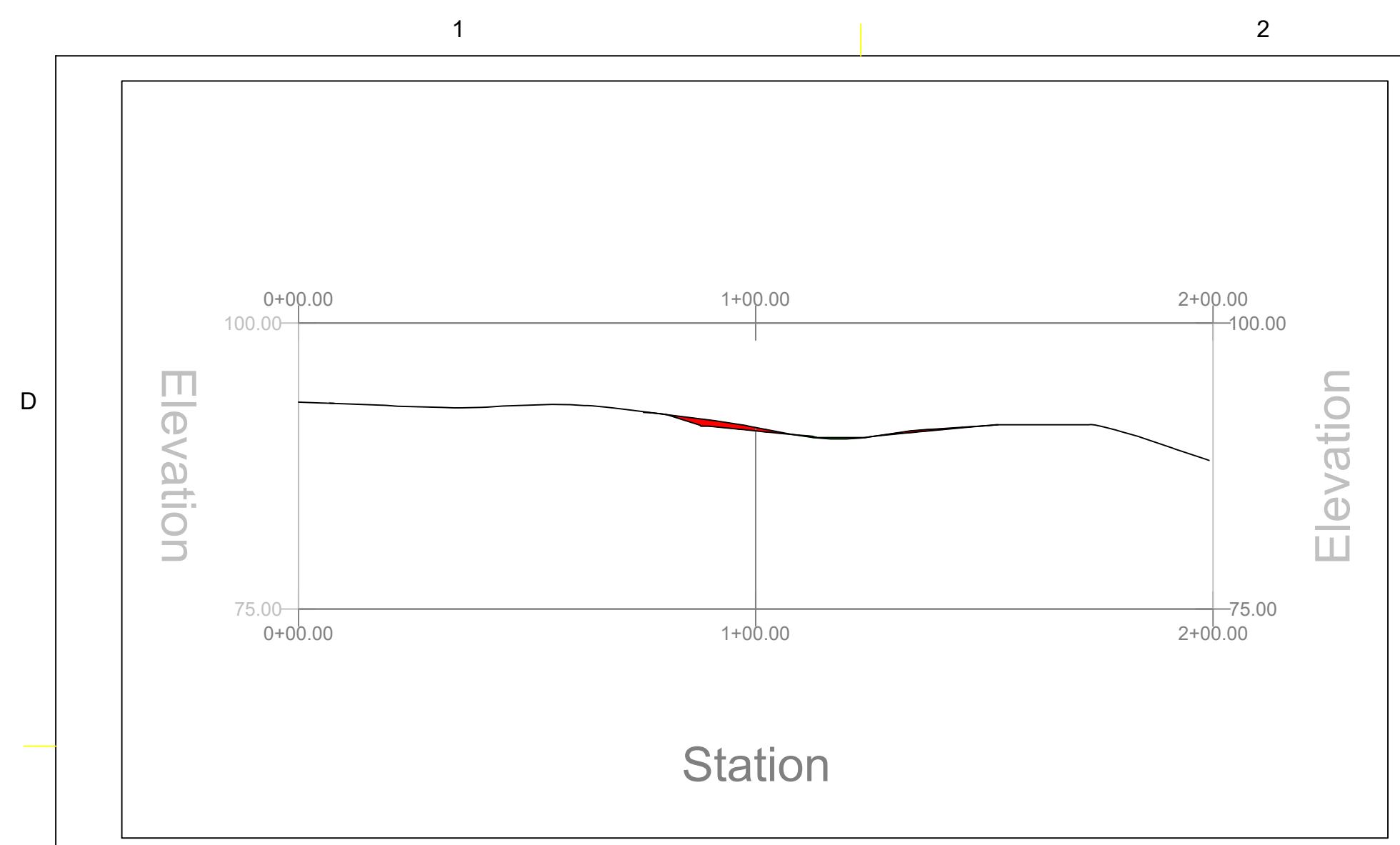
DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES	
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**VEGA ROAD PROPERTIES PROJECT**  
 146 VEGA ROAD  
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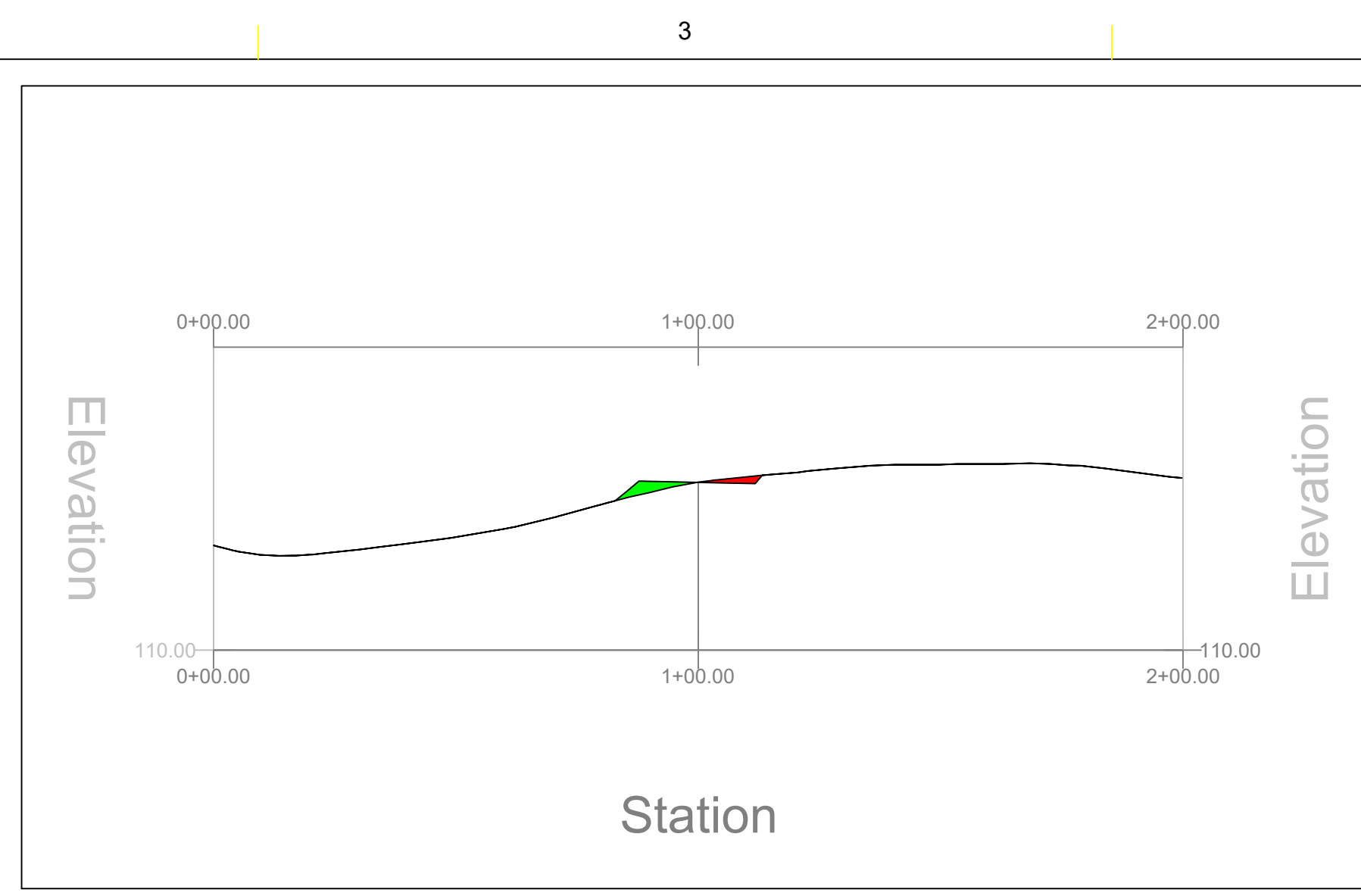
SHEET IDENTIFICATION  
**C-14**  
 SHEET 16 OF 24





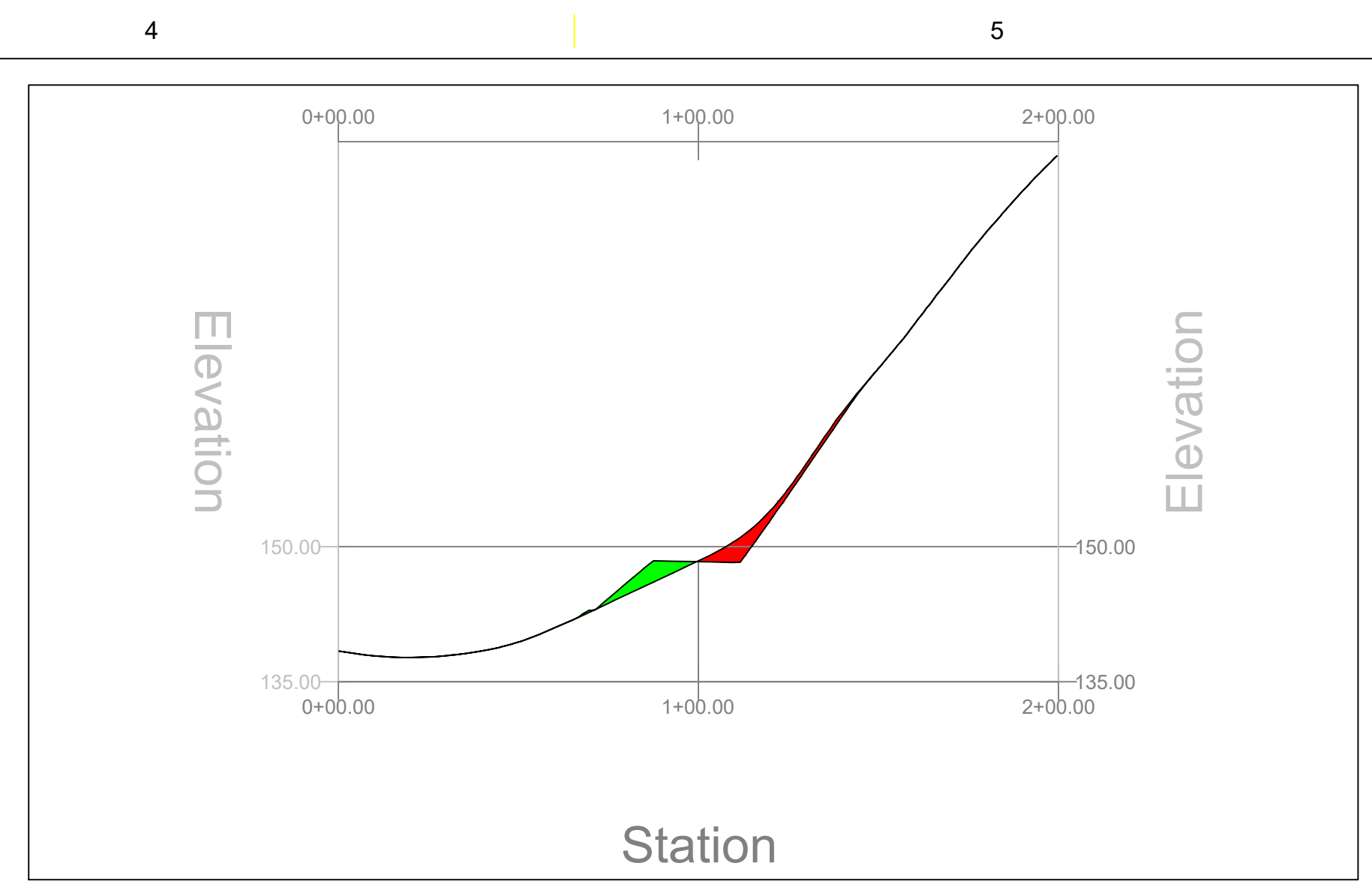
SECTION AT 0+00  
SCALE: AS SHOWN

**A**  
C-13



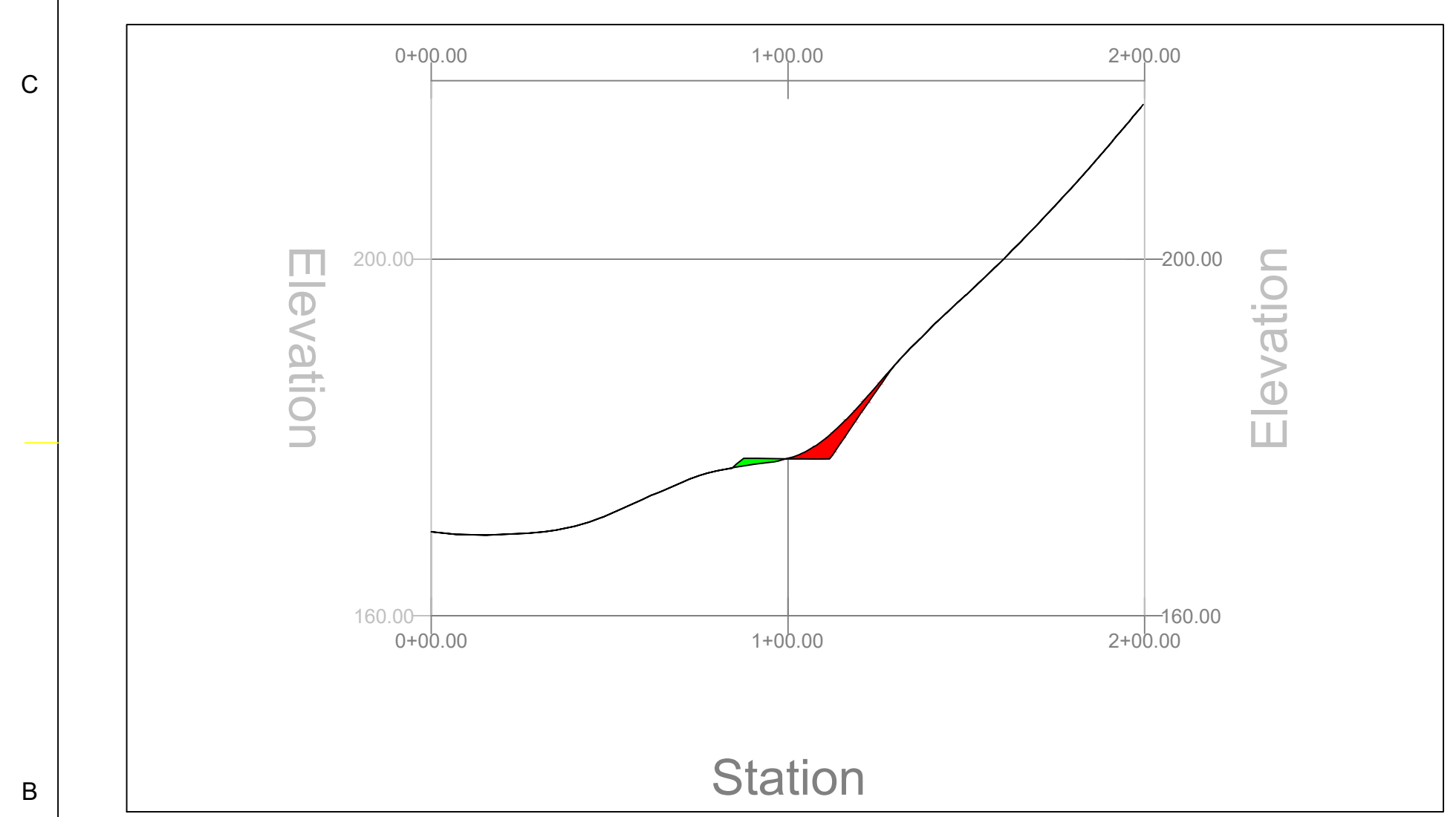
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**B**  
C-13



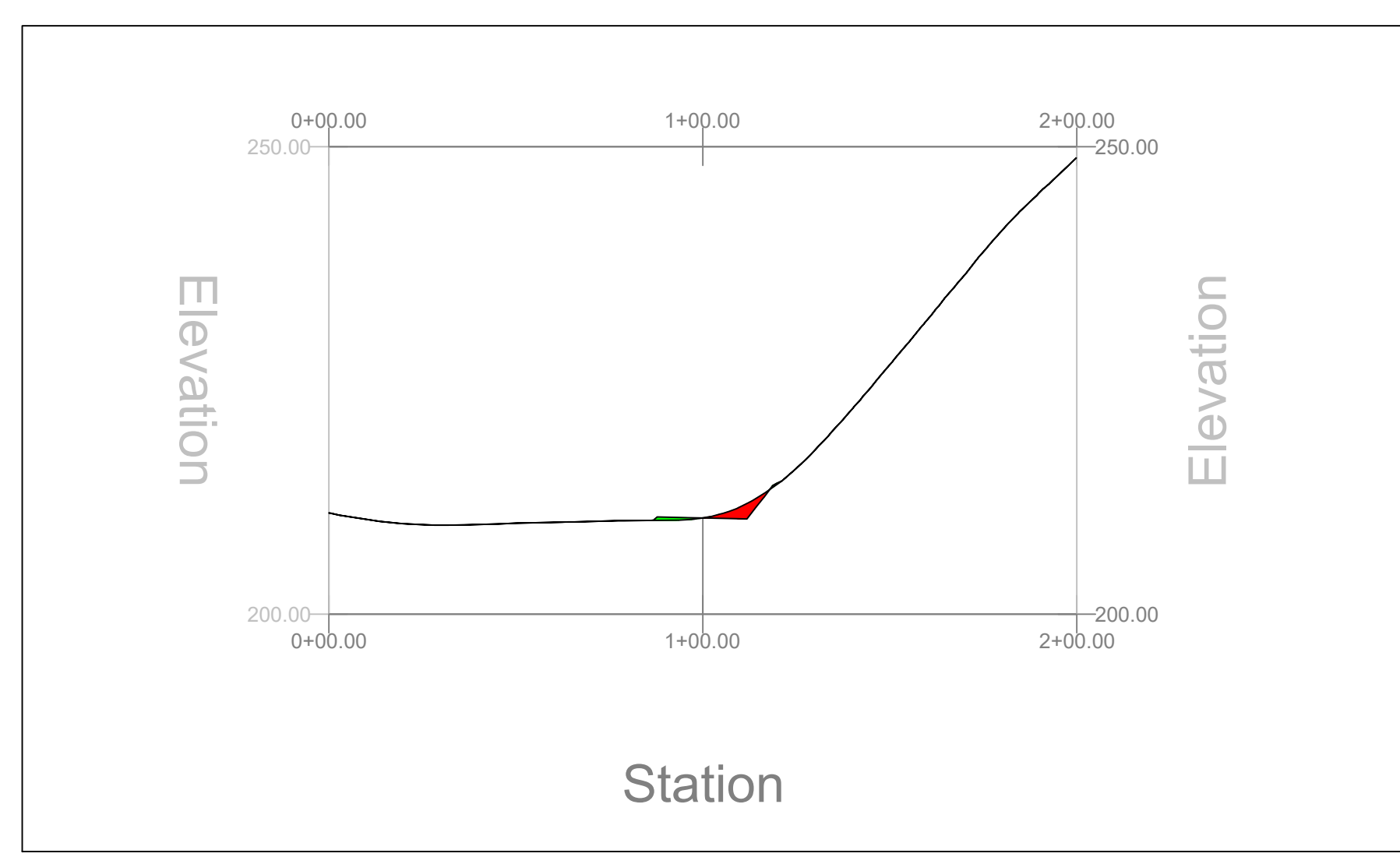
SECTION AT 4+00  
SCALE: AS SHOWN

**C**  
C-13



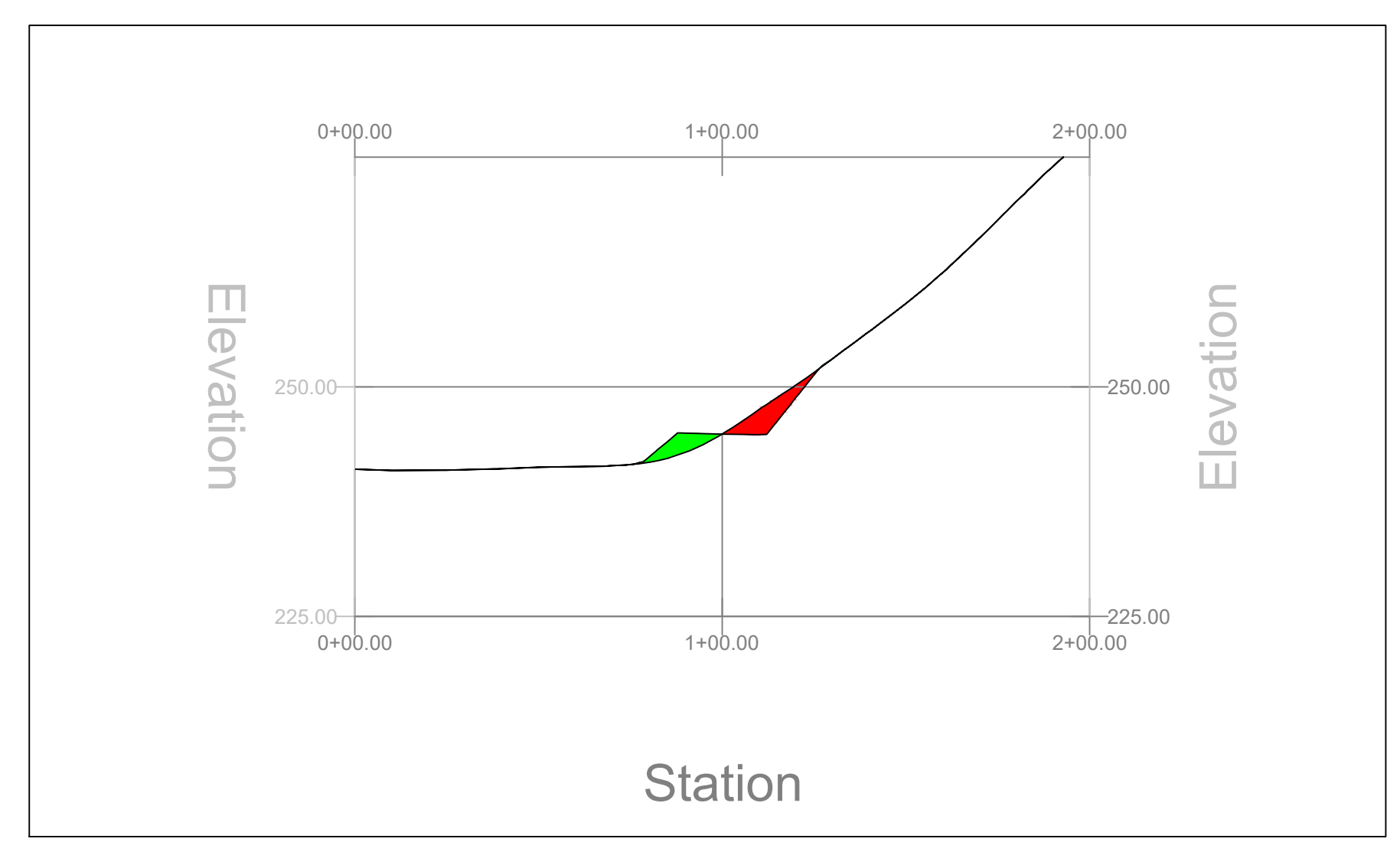
SECTION AT 6+00  
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**D**  
C-13



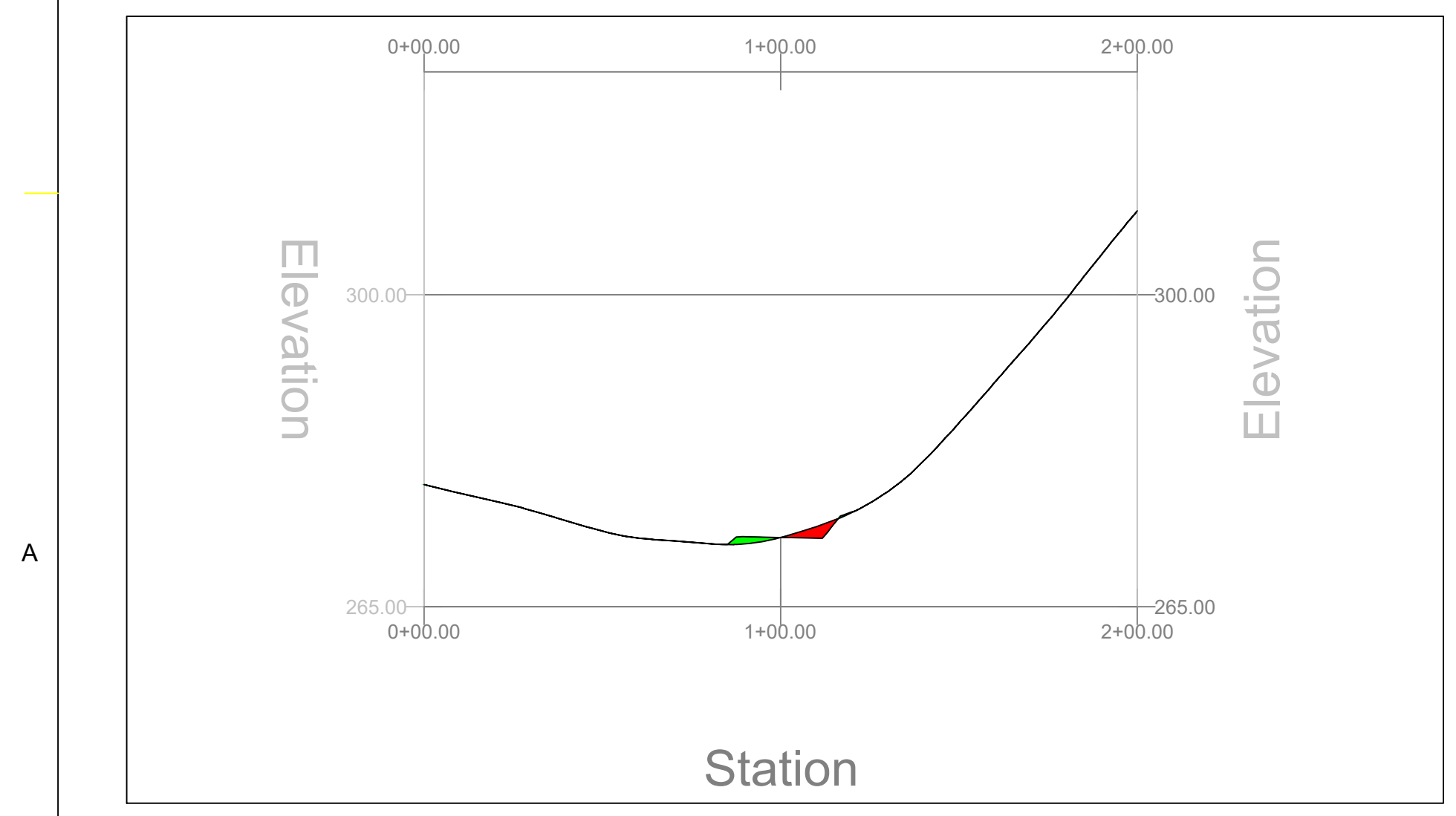
SECTION AT 8+00  
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**E**  
C-13



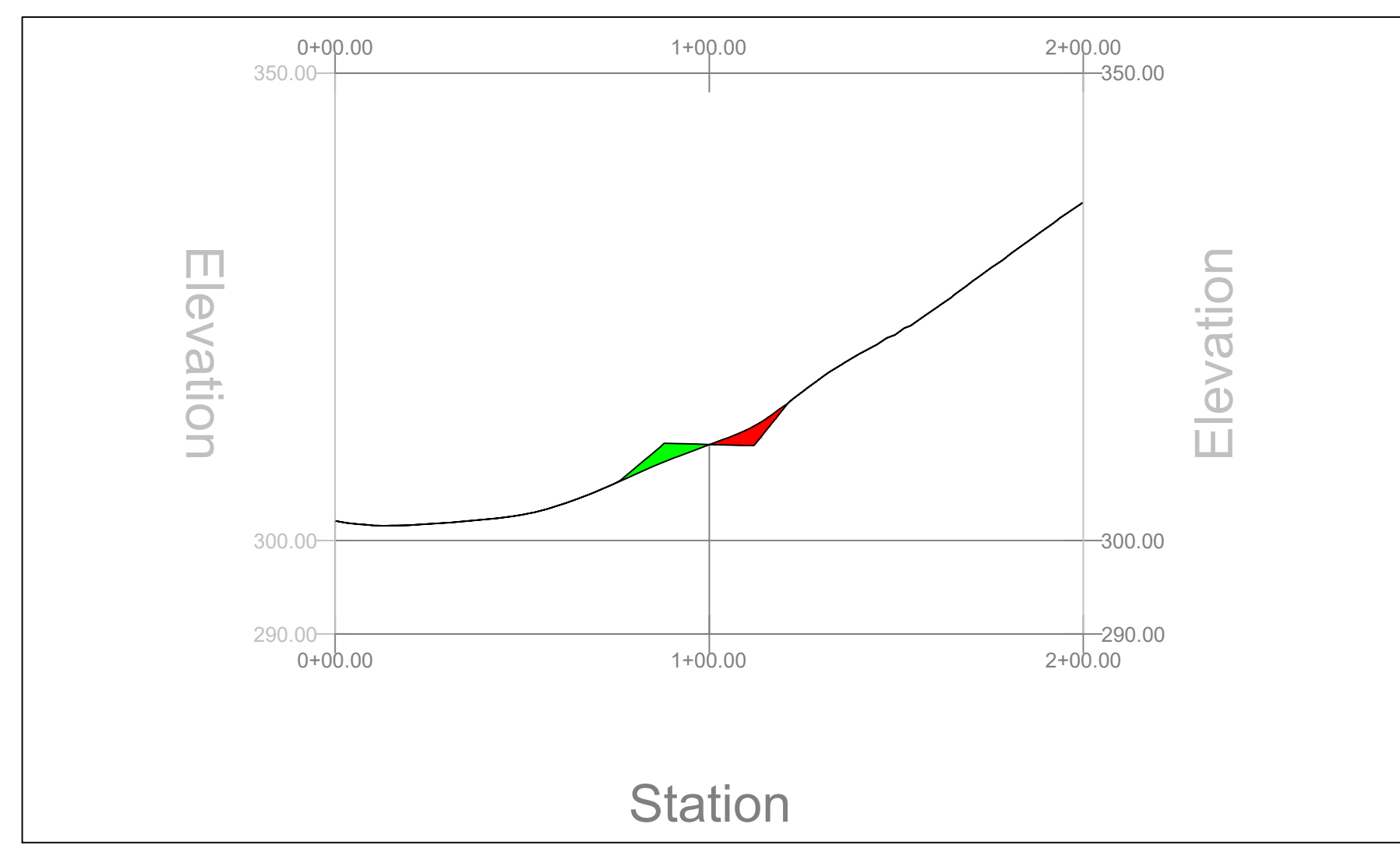
SECTION AT 10+00  
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**F**  
C-13



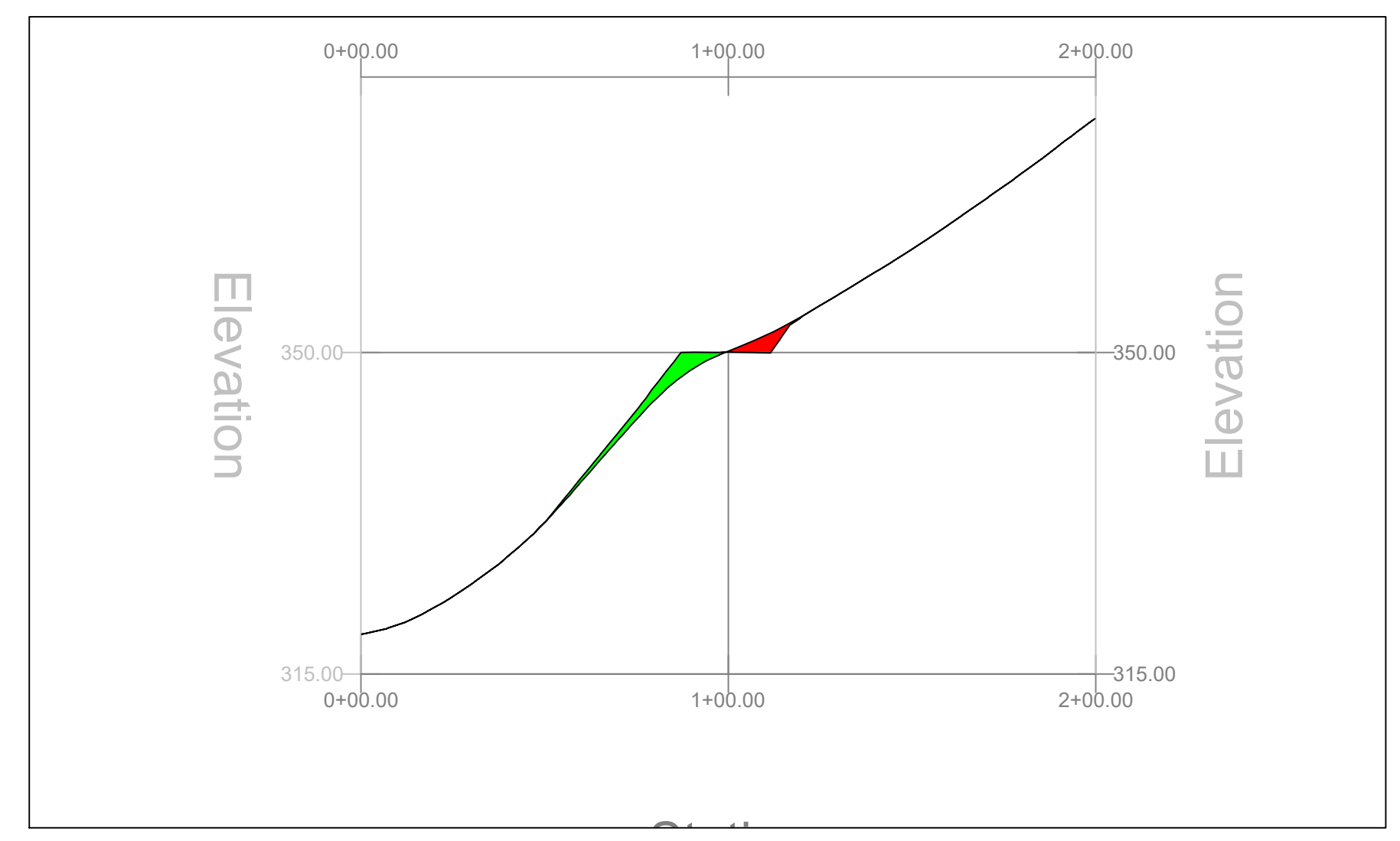
SECTION AT 12+00  
SCALE: AS SHOWN

**G**  
C-15



SECTION AT 14+00  
SCALE: AS SHOWN

**H**  
C-13



SECTION AT 16+00  
SCALE: AS SHOWN

**I**  
C-13

RS	DATE	APPR
1	05/10/2022	
MARK	DESCRIPTION	
	1 GRADING PERMIT PLAN SET	

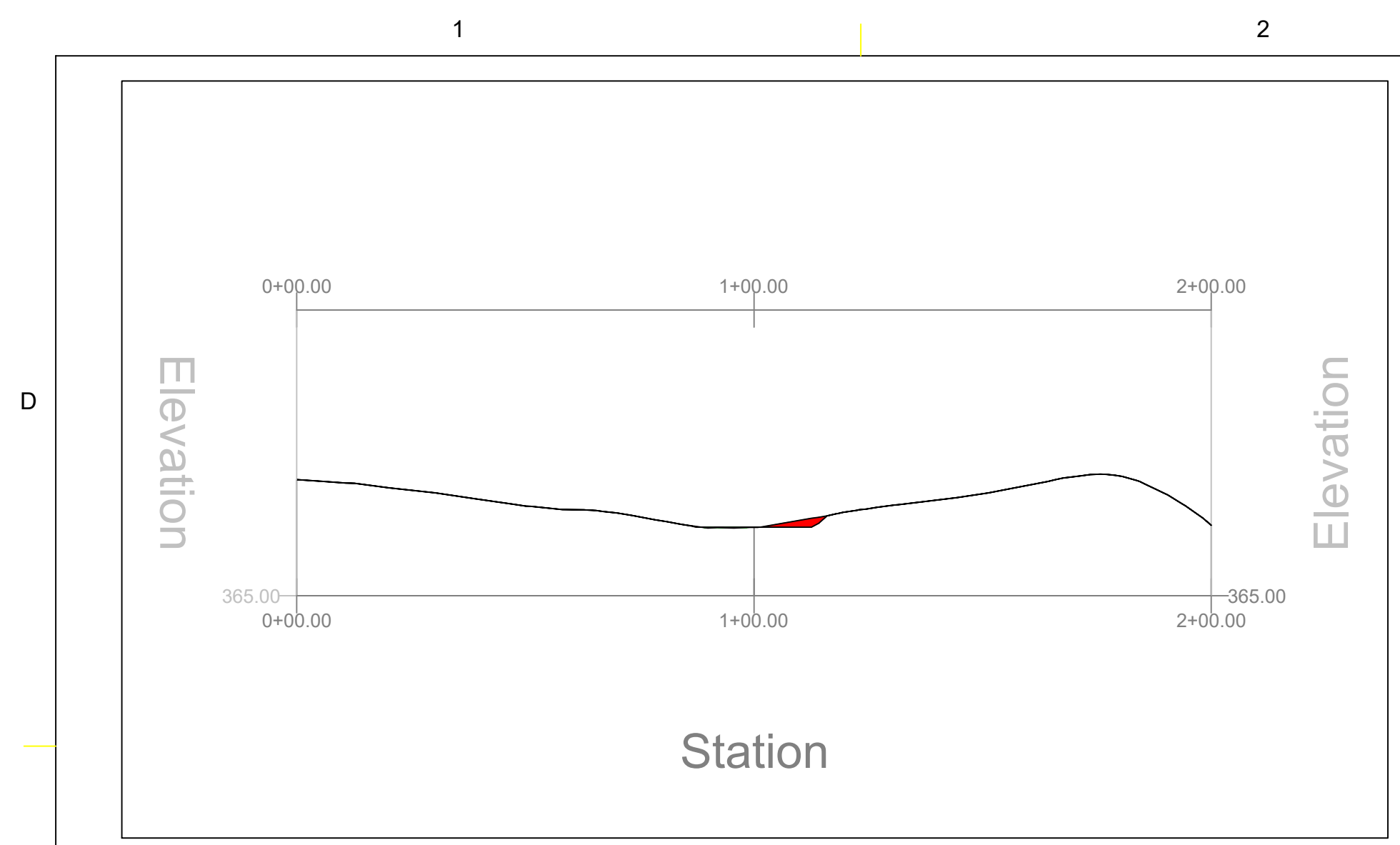


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		0	3

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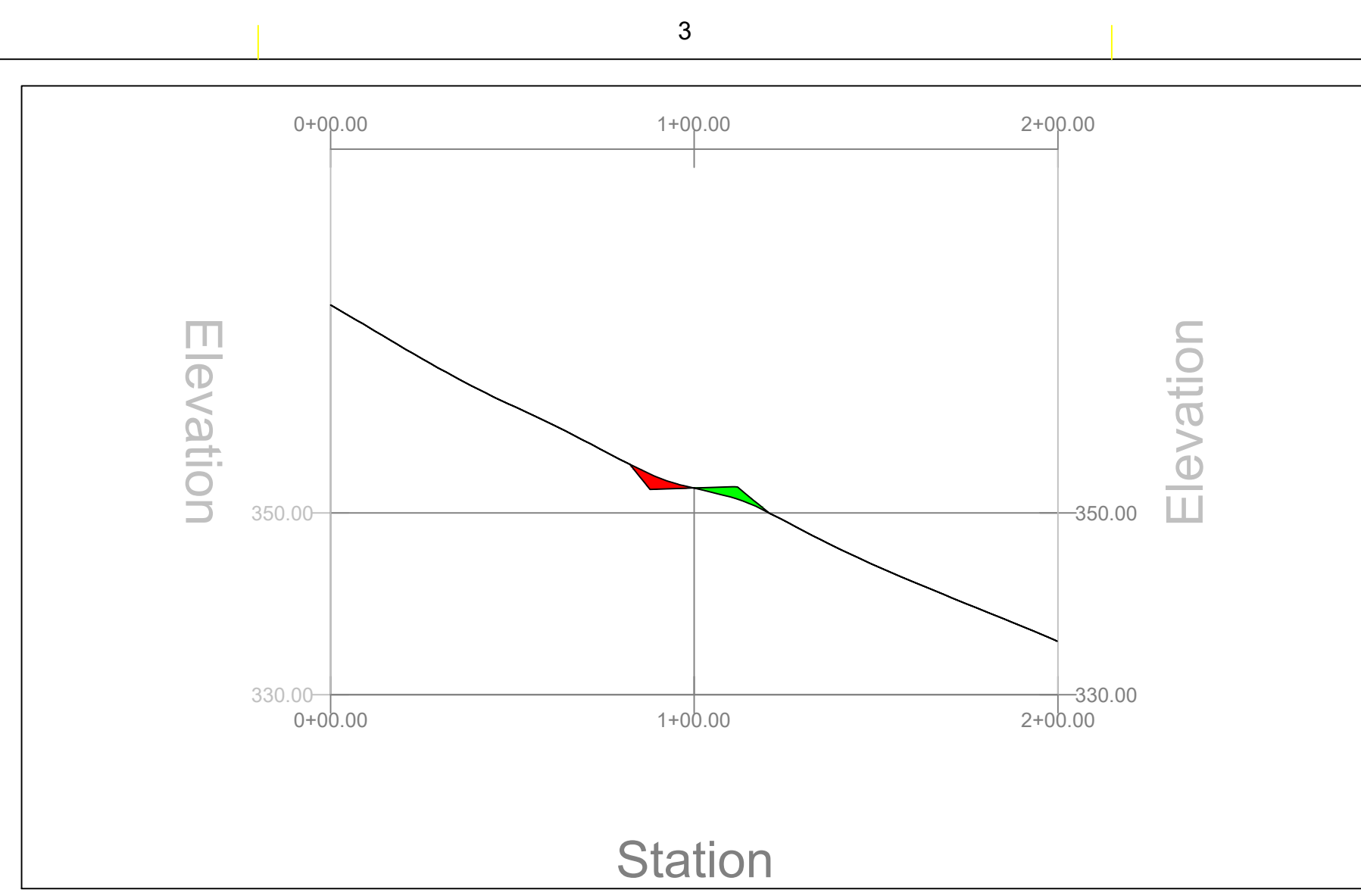
**SECTIONS**  
VEGA ROAD PROPERTIES PROJECT  
146 VEGA ROAD  
ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-15**  
SHEET 17 OF 24



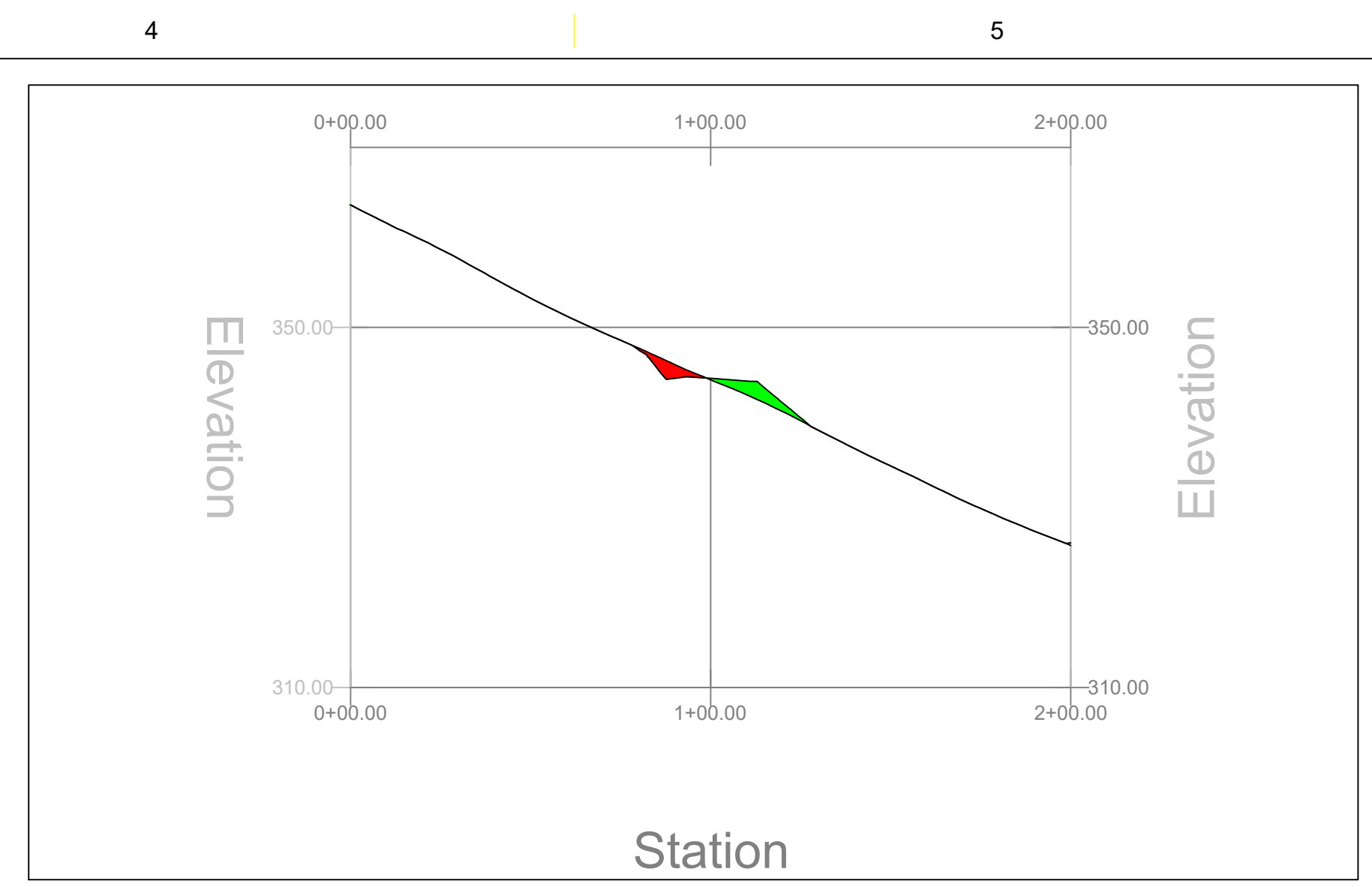
SECTION AT 18+00  
SCALE: AS SHOWN

J  
C-14



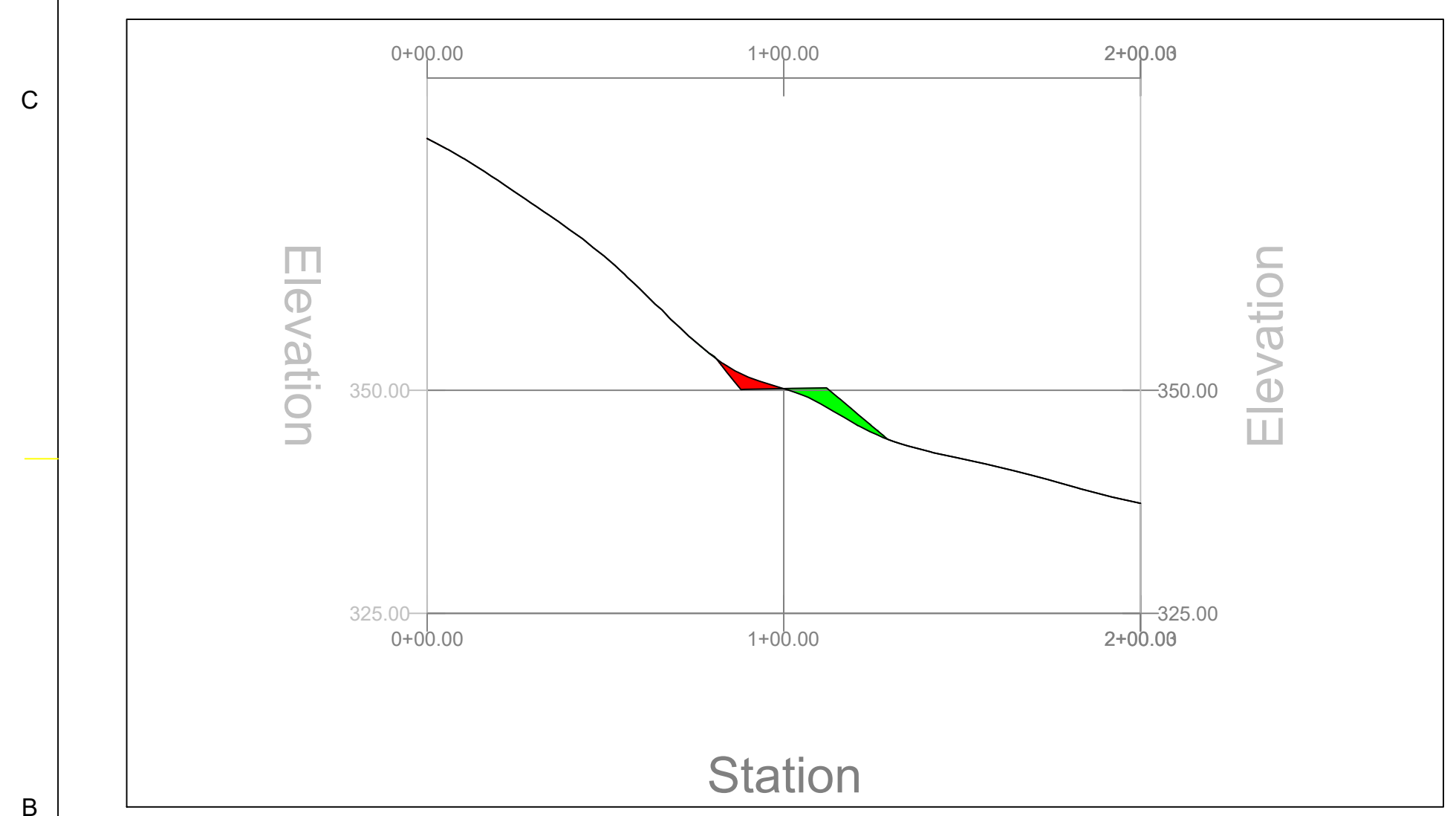
SECTION AT 20+00  
SCALE: AS SHOWN

K  
C-14



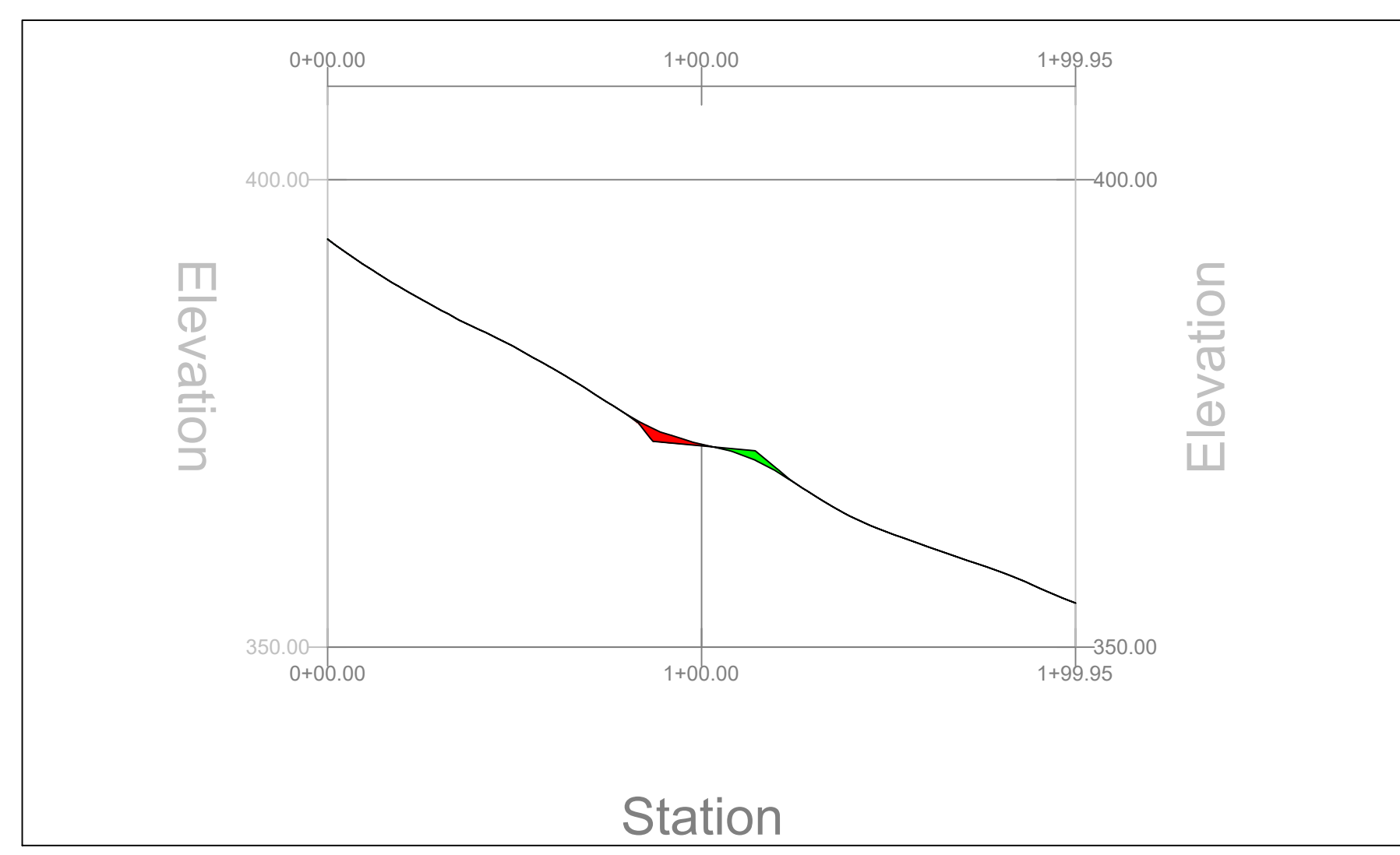
SECTION AT 22+00  
SCALE: AS SHOWN

L  
C-14



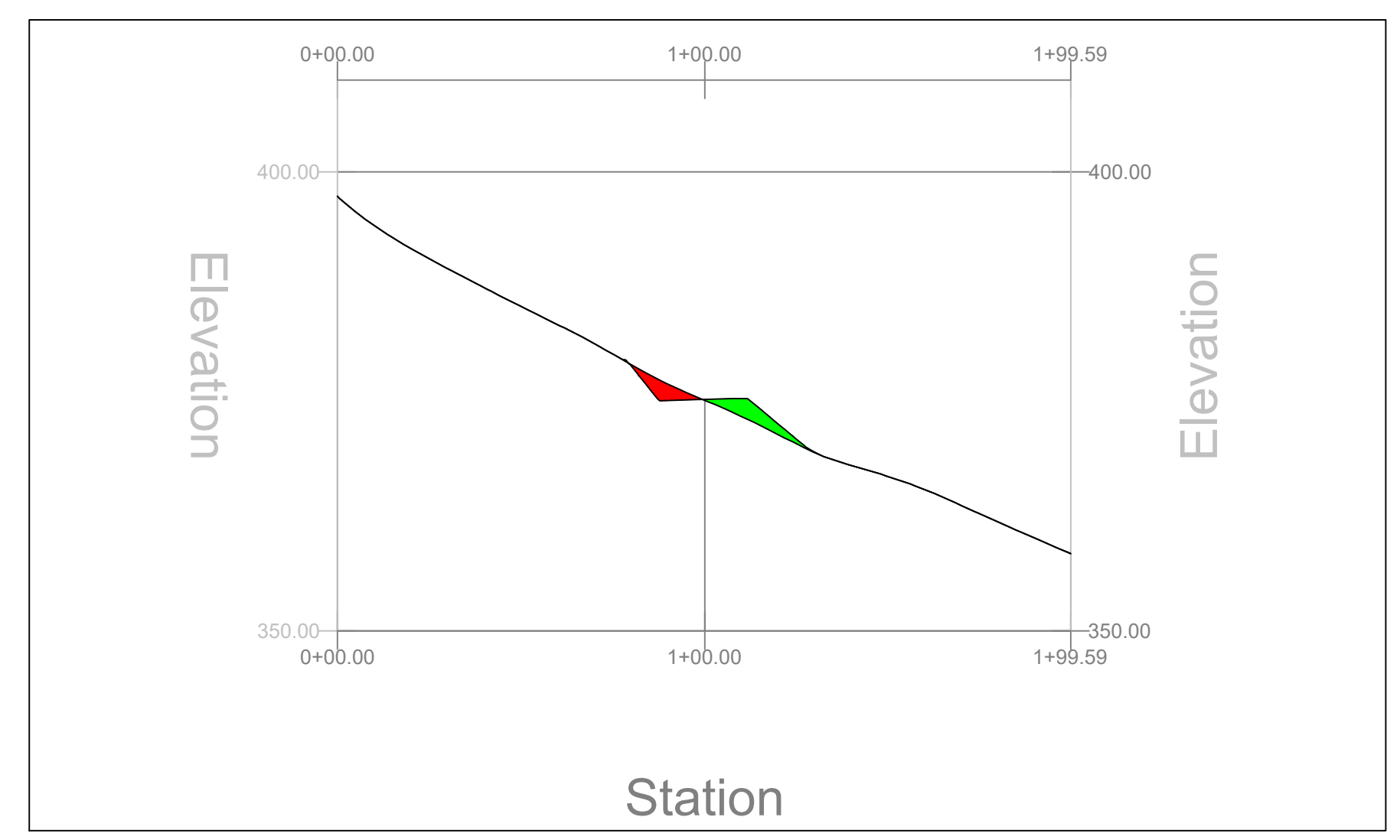
SECTION AT 24+00  
SCALE: AS SHOWN

M  
C-14



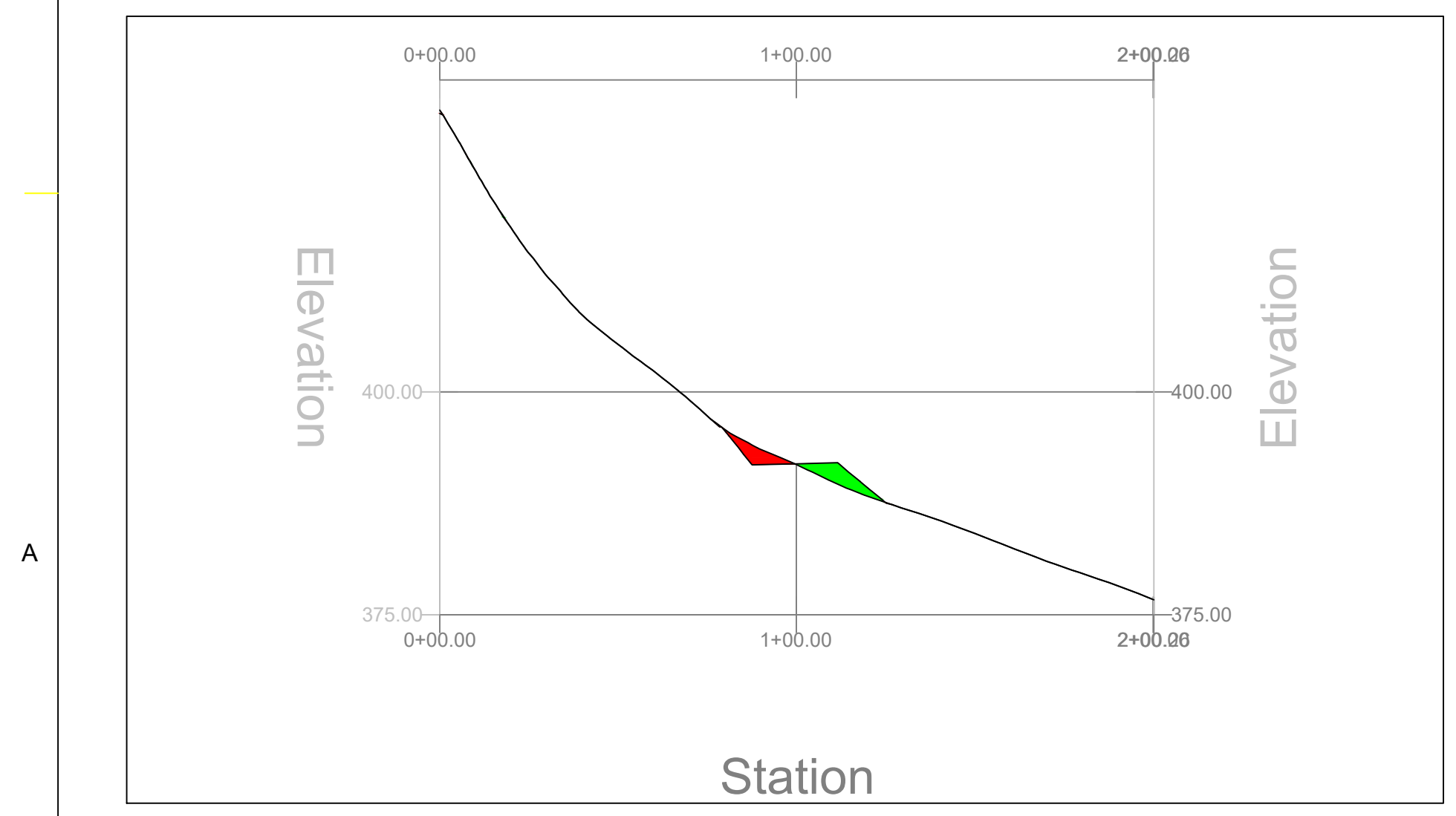
SECTION AT 26+00  
SCALE: AS SHOWN

N  
C-14



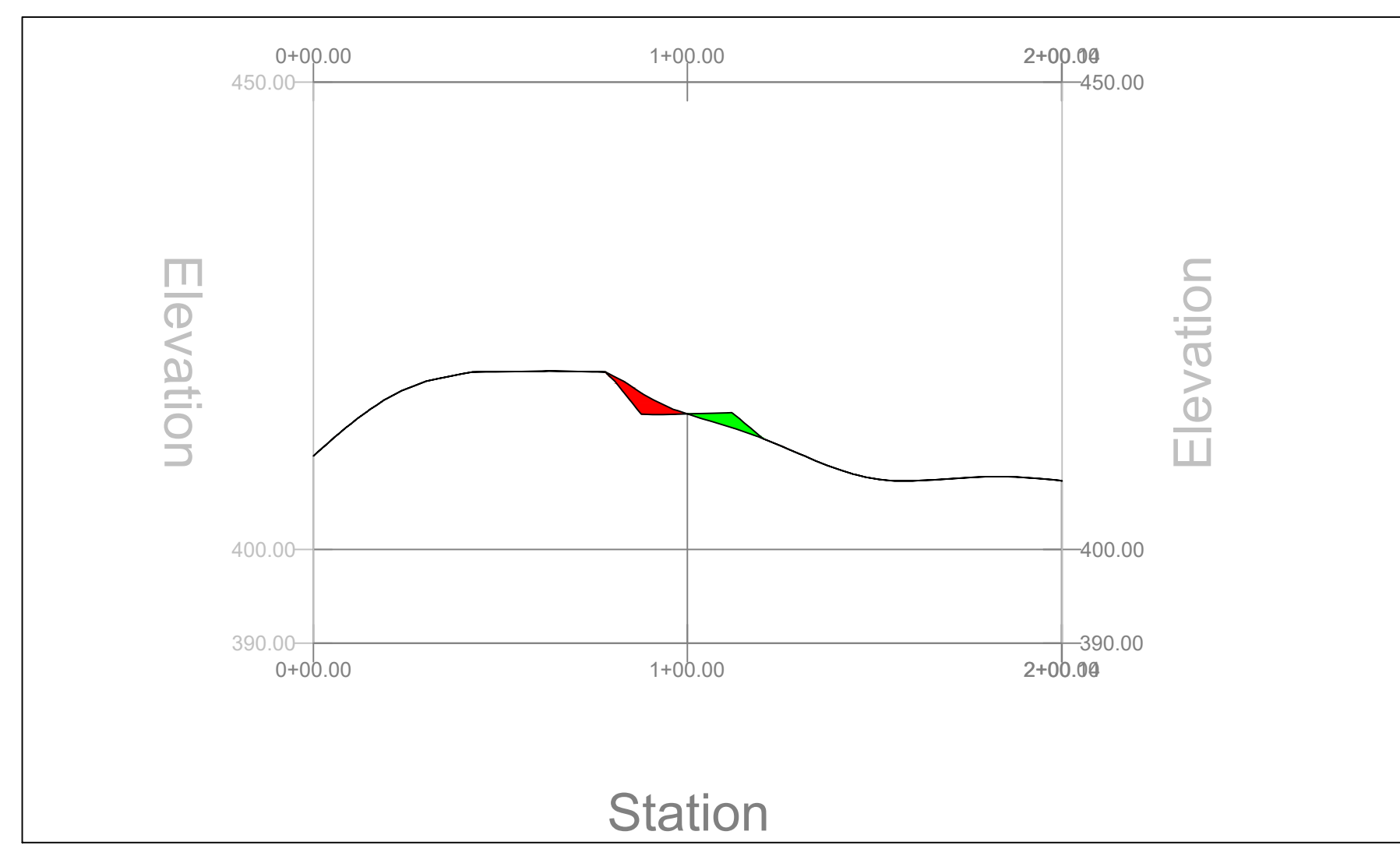
SECTION AT 28+00  
SCALE: AS SHOWN

O  
C-14



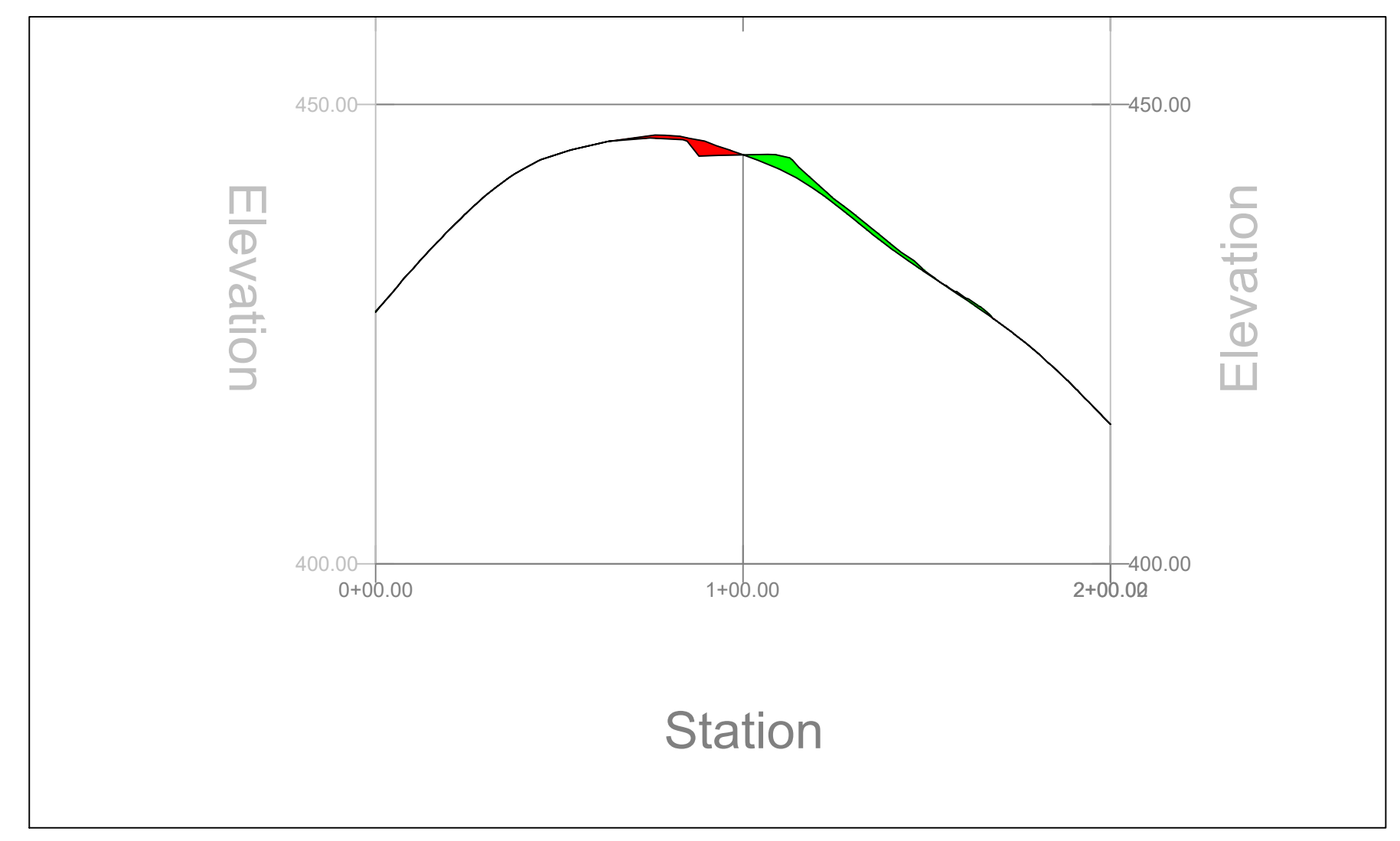
SECTION AT 30+00  
SCALE: AS SHOWN

P  
C-14



SECTION AT 32+00  
SCALE: AS SHOWN

Q  
C-14



SECTION AT 33+80  
SCALE: AS SHOWN

R  
C-14

RS	DATE	APPV
1	05/10/2022	
MARK	DESCRIPTION	
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**SECTIONS**  
VEGA ROAD PROPERTIES PROJECT  
146 VEGA ROAD  
ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-16**  
SHEET 18 OF 24

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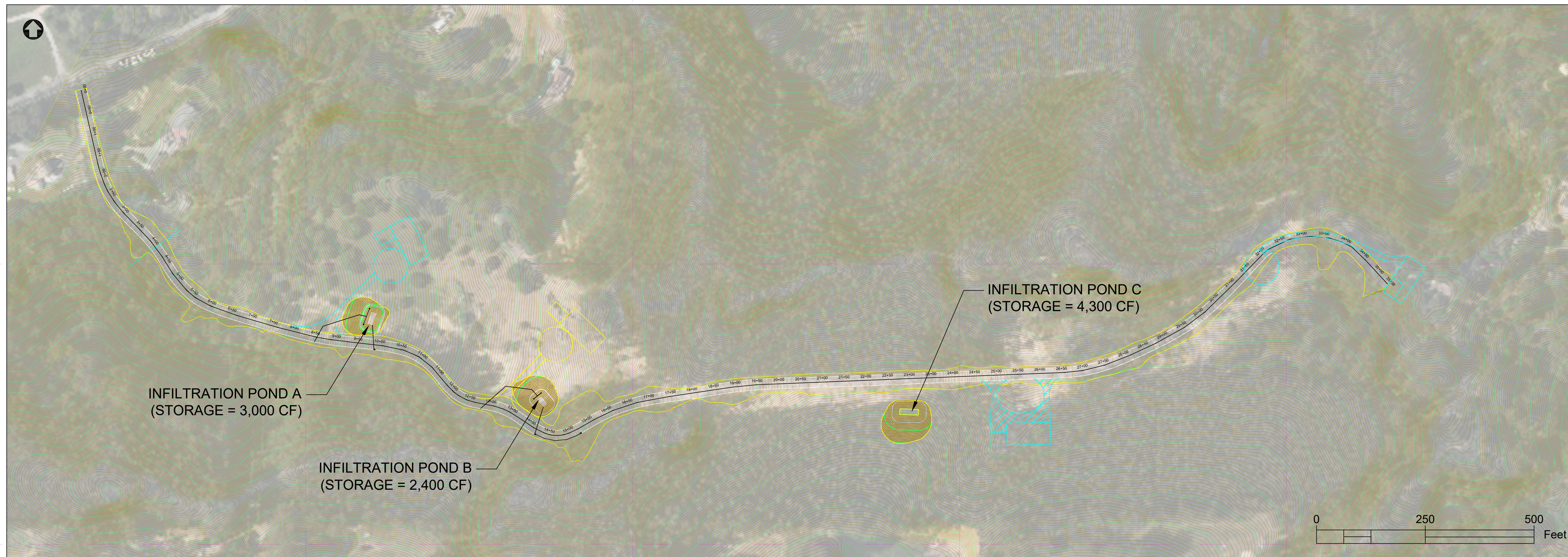
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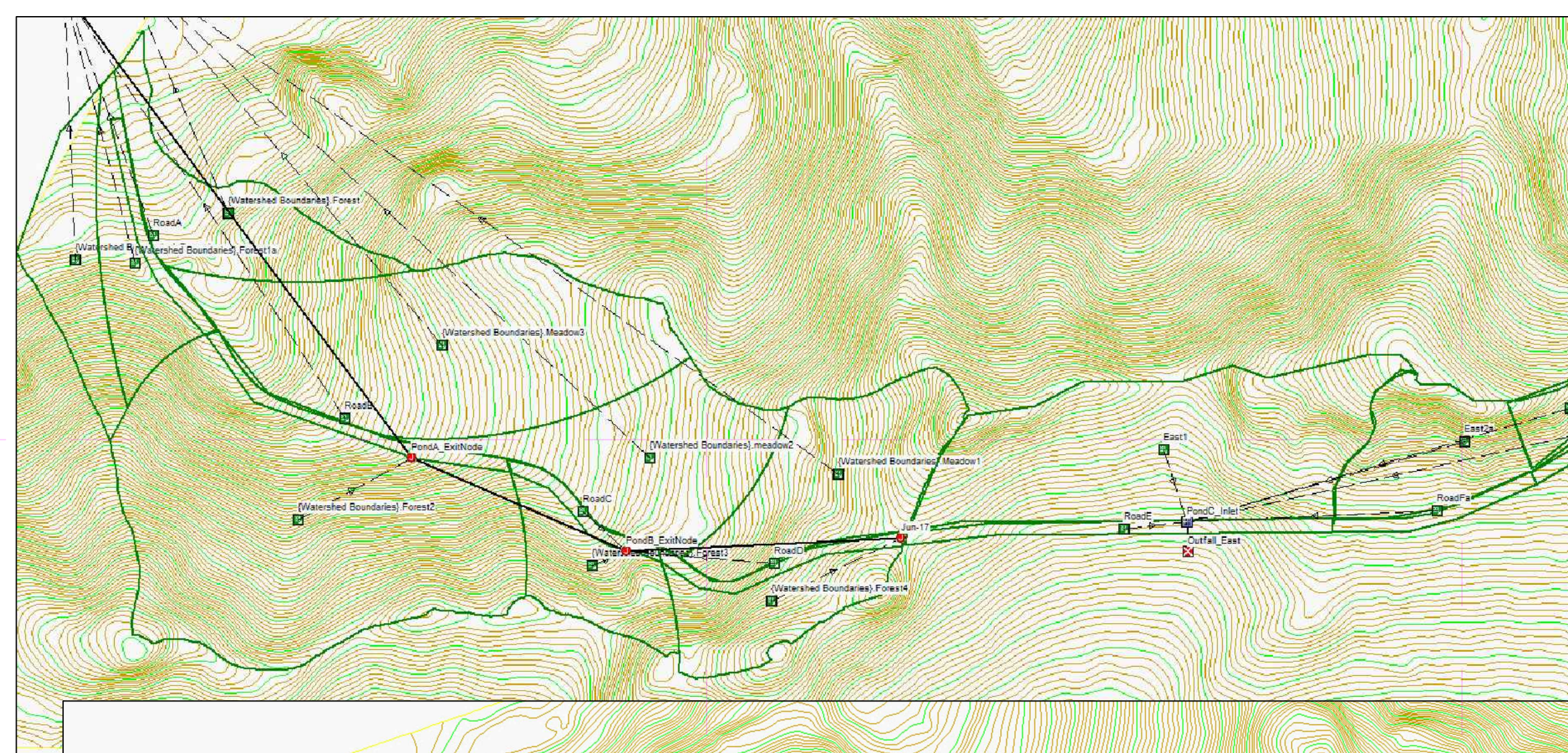
A



INFILTRATION TRENCH LAYOUT

SCALE: AS SHOWN

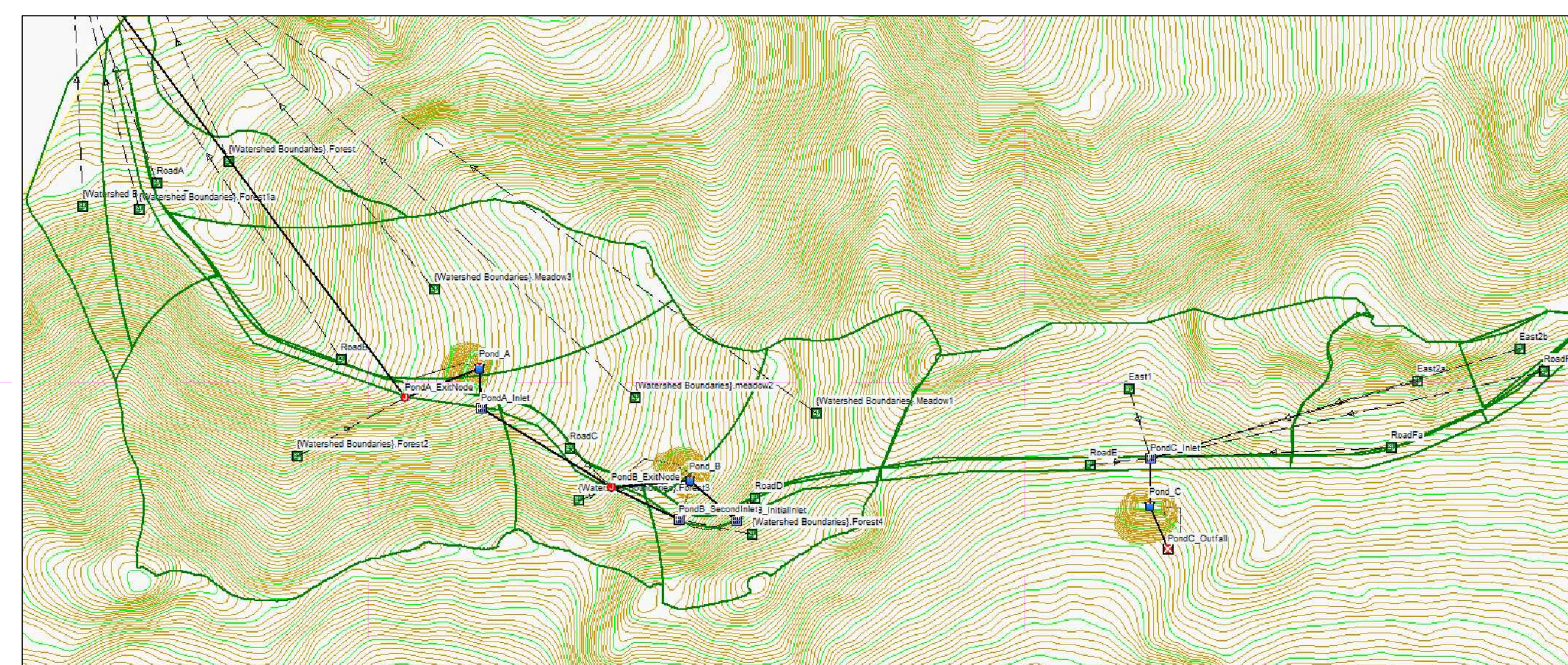
A  
C-16



SSA MODEL - EXISTING CONDITIONS

SCALE: AS SHOWN

B  
C-16



SSA MODEL - PROPOSED CONDITIONS

SCALE: AS SHOWN

C  
C-16

NOTE(S): HYDRAULIC ANALYSES WERE PERFORMED USING AUTODESK STORM AND SANITARY ANALYSIS MODULE (2019). HYDROLOGIC ANALYSES WERE PERFORMED FOR THE OCTOBER 2021 RAIN EVENT AS WELL AS THE 10-YEAR; 25-YEAR; AND 50-YEAR PRECIPITATION EVENTS. NET CHANGE IN IMPERVIOUS AREA (ROADWAY CONSTRUCTION) IS APPROXIMATELY 55,000 SF.

MARK	1	GRADING PERMIT PLAN SET	RS
DATE	05/10/2022	DESCRIPTION	APPZ



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**DRAINAGE**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-16**  
 SHEET 18 OF 24

**24-HR PRECIPITATION EVENTS (WATSONVILLE WTR WKS)**

2-YEAR: **2.70 IN** (0.225 FT)  
 10-YEAR: **4.10 IN** (0.342 FT)  
 25-YEAR: **4.98 IN** (0.415 FT)  
 50-YEAR: **5.68 IN** (0.473 FT)  
 100-YEAR: **6.40 IN** (0.533 FT)

SOURCE: [https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=ca](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)

**SOIL STORAGE CAPACITY**

ASSUME 80% OF 2-YEAR EVENT  
 STORAGE: 0.80 x 0.225 FT x 56,000 SF = **10,080 CF**

**IMPERMEABLE SURFACE OFFSET CALCULATIONS**

Pre-development impervious surface: **0 SF**  
 Post-development impervious surface: **3,000 ft x 18 ft = 54,000 SF**

Required onsite storage:  $[(55,000 \text{ SF}) / (100 \text{ SF})] \times 13.5 \text{ CF} = 7,425 \text{ CF}$

Infiltration Volume Pond A: **3,000 CF**

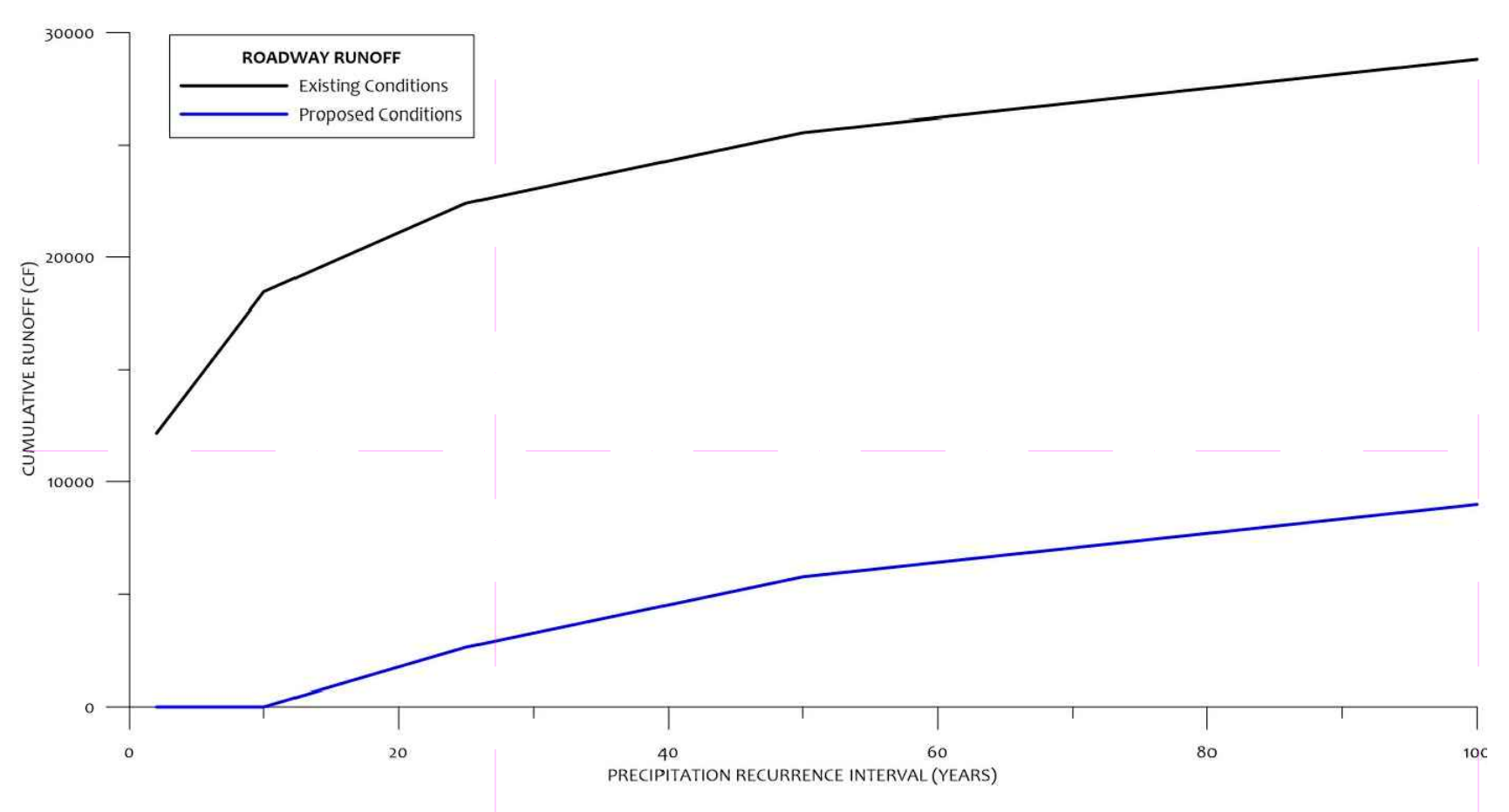
Infiltration Volume Pond B: **2,400 CF**

Infiltration Volume Pond B: **2,400 CF**

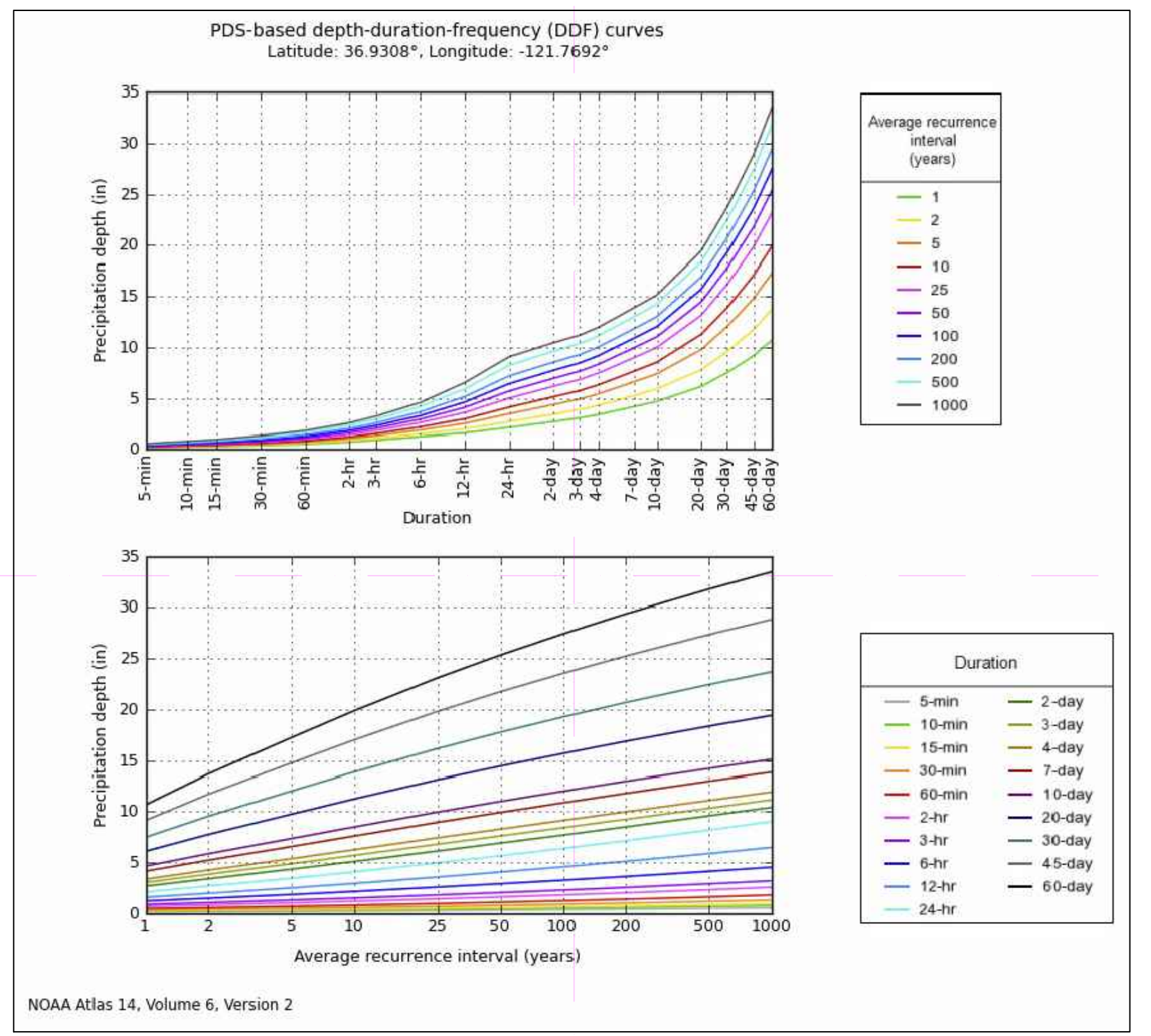
Total Infiltration Pond Volume:  $(3,000 \text{ CF} + 2,400 \text{ CF} + 2,000 \text{ CF}) = 7,400 \text{ CF}$

**COMPARISON OF EXISTING RUNOFF VS PROPOSED IMPERVIOUS SURFACE AND INFILTRATION PONDS**

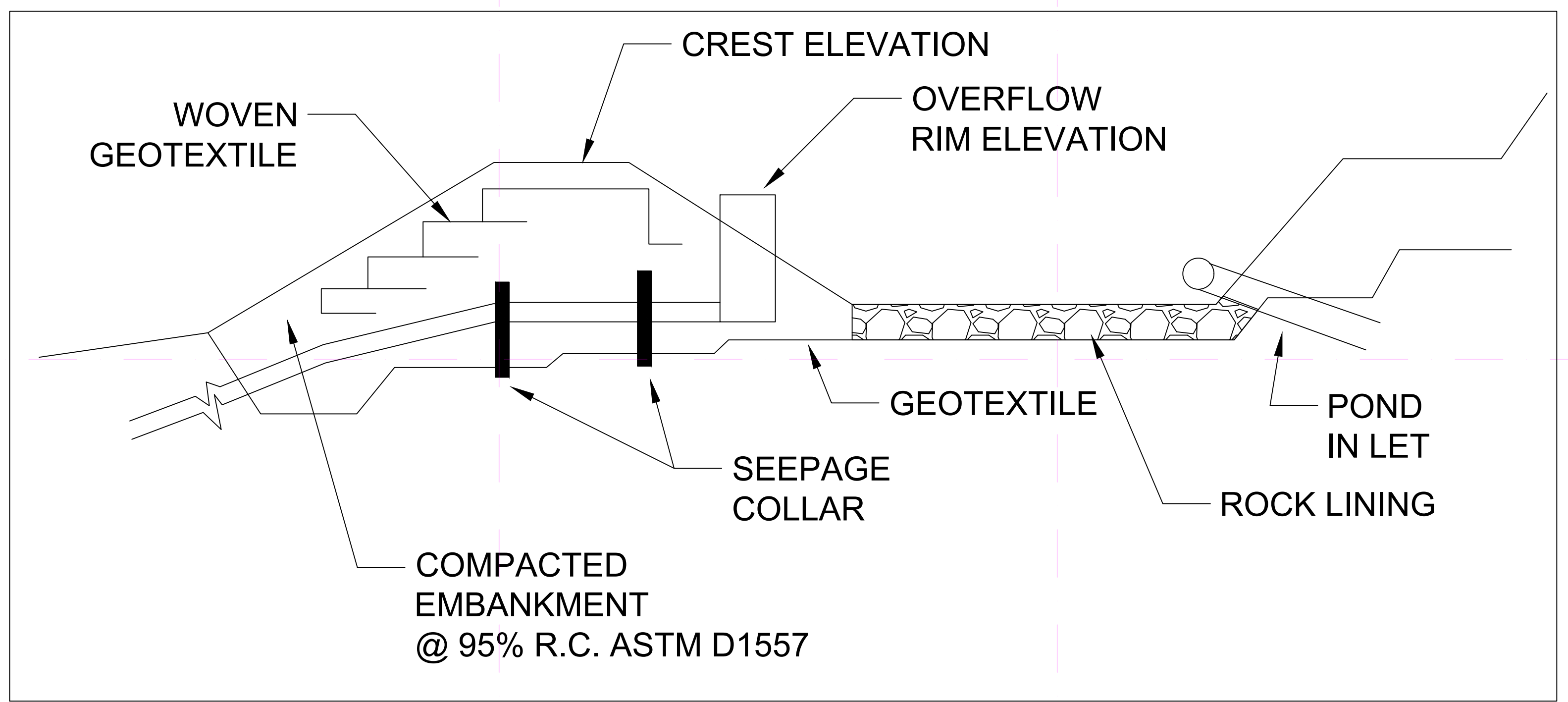
RECURRENCE	PRECIPITATION (IN)	RUNOFF (CF)	CF - ESTIMATED RUNOFF (EXISTING)	CF - ESTIMATED RUNOFF (PROPOSED)
2	2.70	12150	2070	0
10	4.10	18450	8370	0
25	4.98	22410	12330	2630
50	5.68	25560	15480	5780
100	6.40	28800	18720	9020



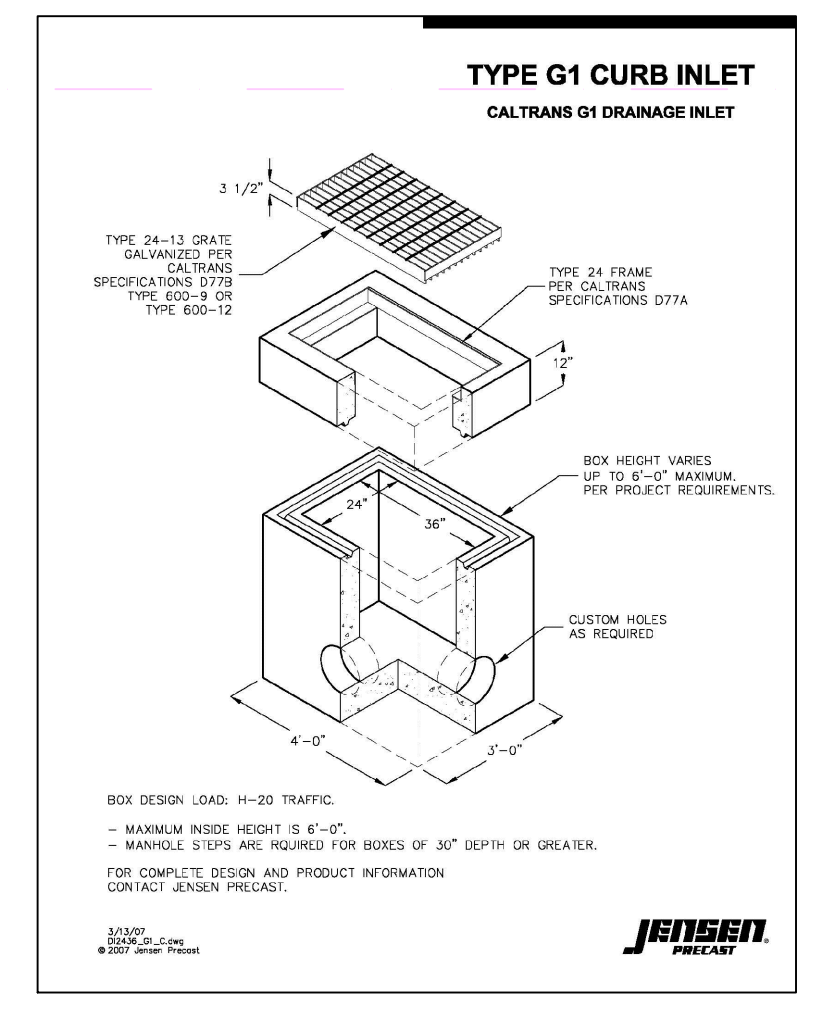
**RUNOFF ESTIMATES (EXISTING & PROPOSED)**  
 SCALE: N/A



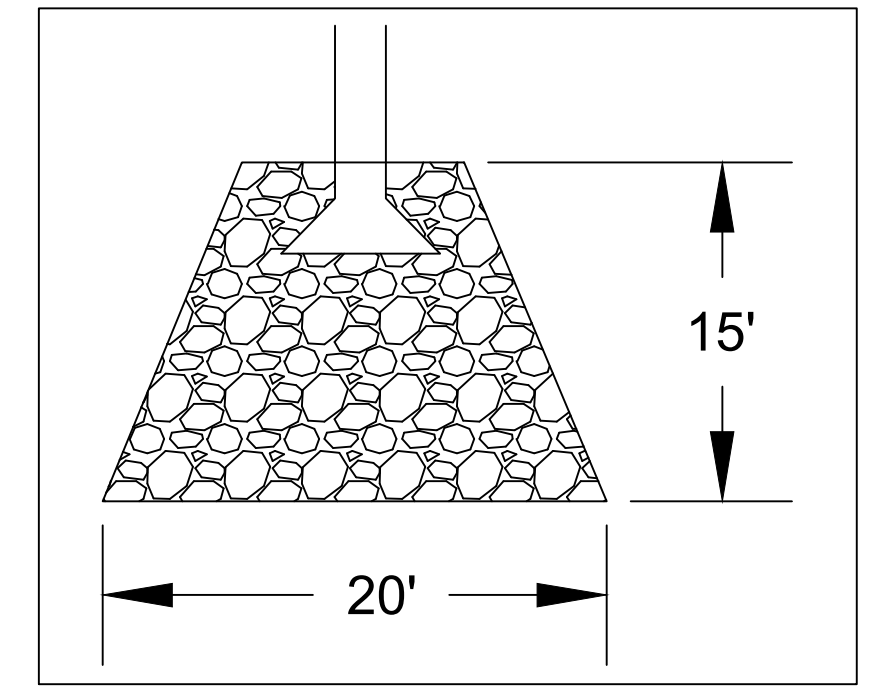
**NOAA ATLAS 14 PRECIPITATION FREQUENCY**  
 SCALE: N/A



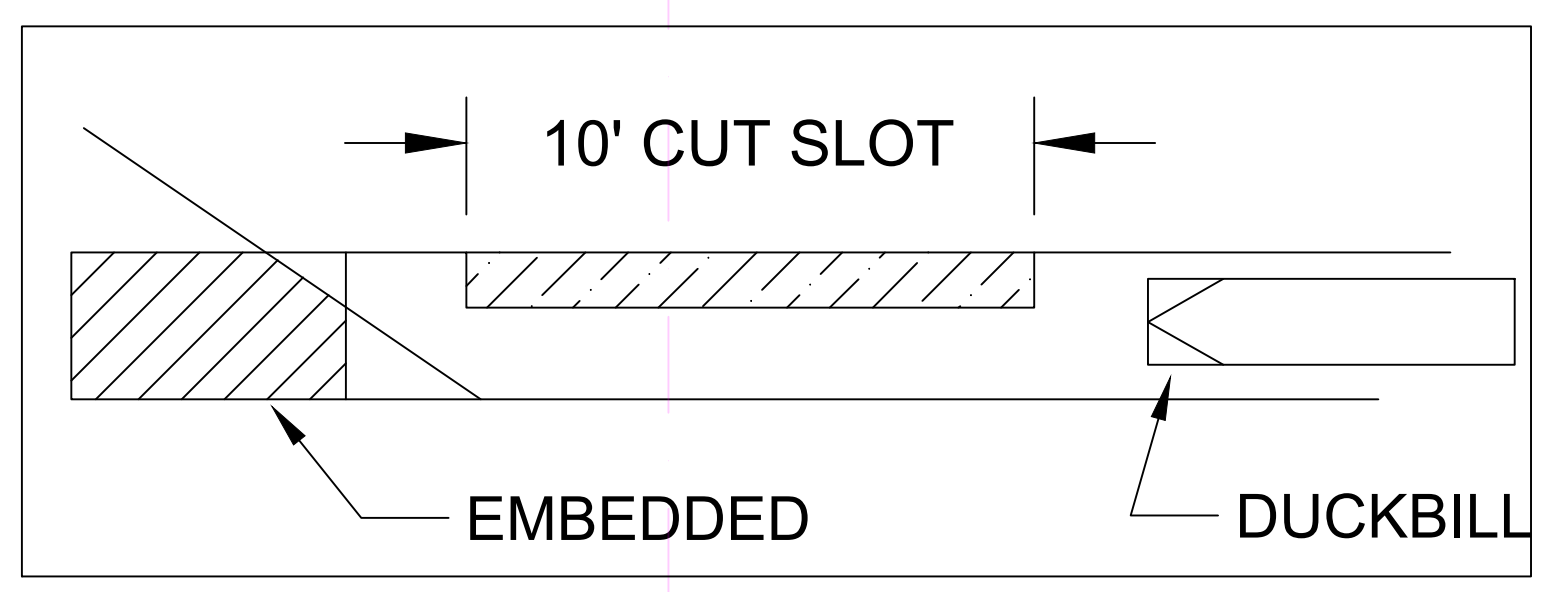
**TYPICAL POND SECTION**  
 SCALE: N/A



**TYPICAL CATCH BASIN**  
 SCALE: N/A



**RIP RAP OUTLET APRON**  
 SCALE: N/A



**INFILTRATION POND INLET**  
 SCALE: N/A

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			1
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**DRAINAGE DETAILS**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-18**  
 SHEET 20 OF 24

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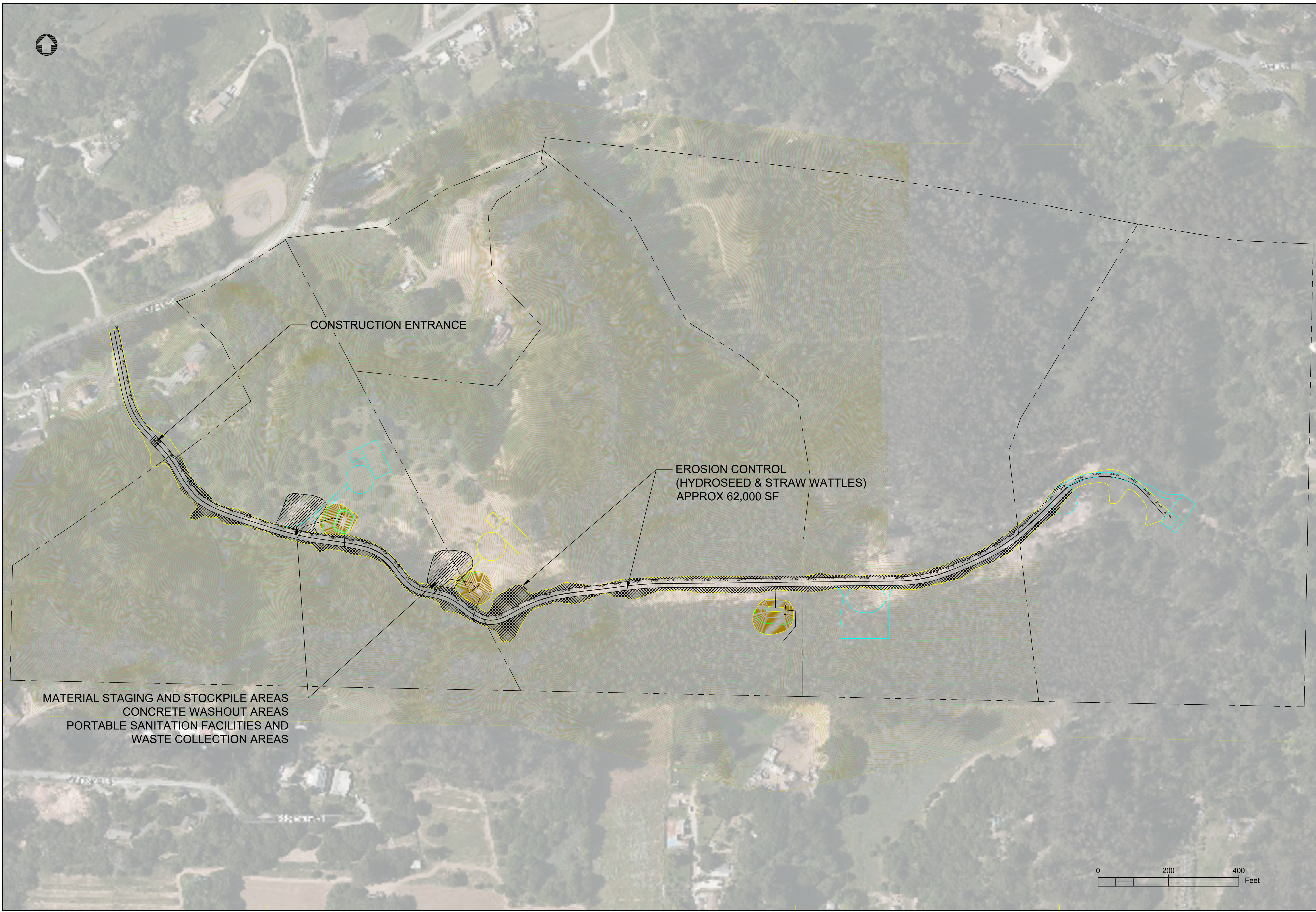
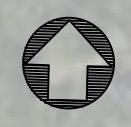
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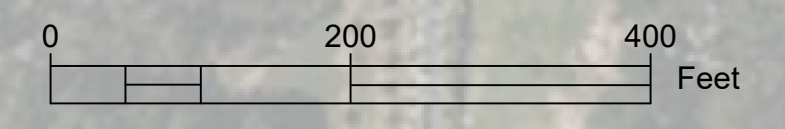
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CONSTRUCTION ENTRANCE

EROSION CONTROL  
(HYDROSEED & STRAW WATTLES)  
APPROX 62,000 SF

MATERIAL STAGING AND STOCKPILE AREAS  
CONCRETE WASHOUT AREAS  
PORTABLE SANITATION FACILITIES AND  
WASTE COLLECTION AREAS



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SUBMITTED BY:			

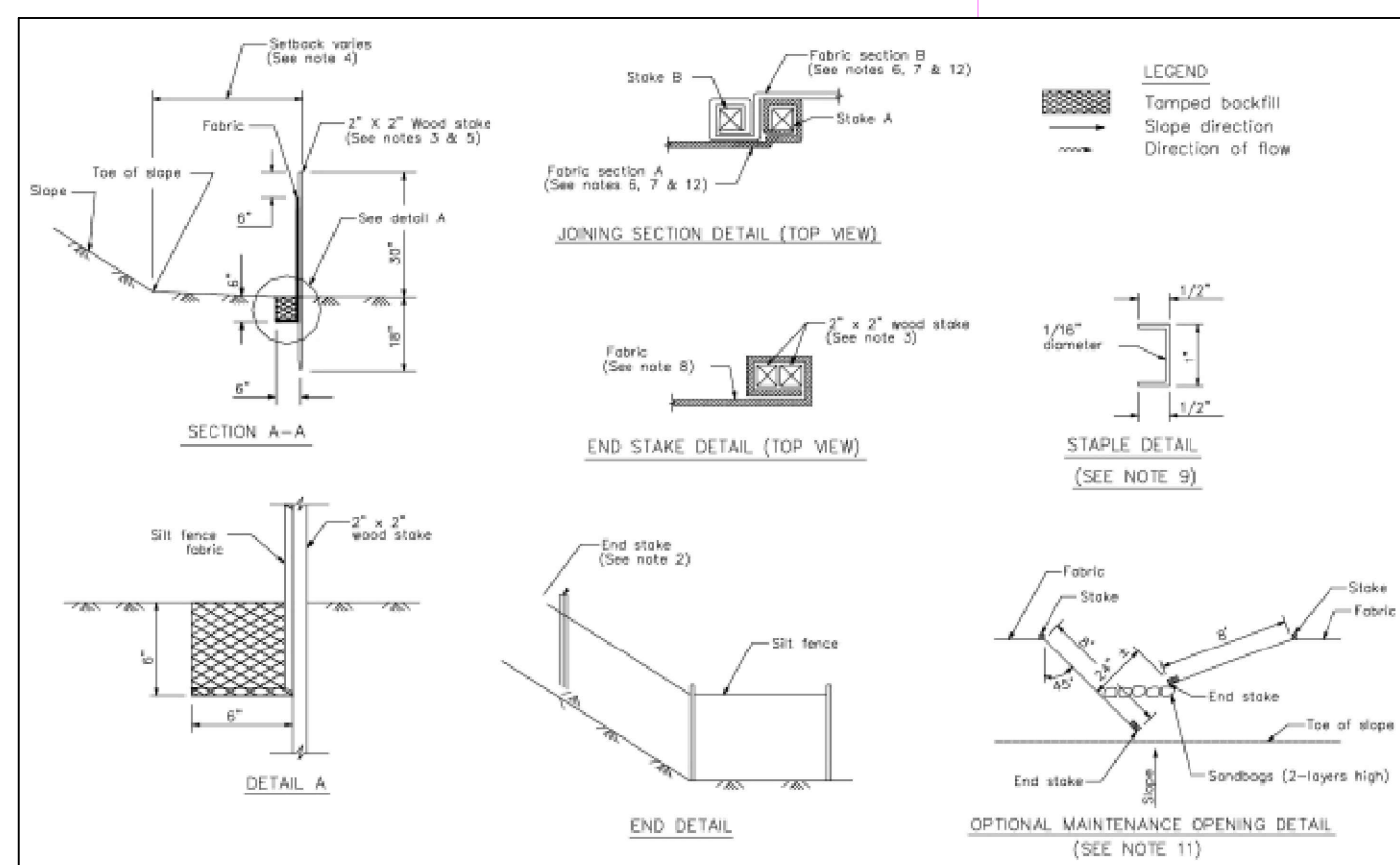
FOR REDUCED PLANS ORIGINAL SCALE INCHES

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**EROSION CONTROL**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

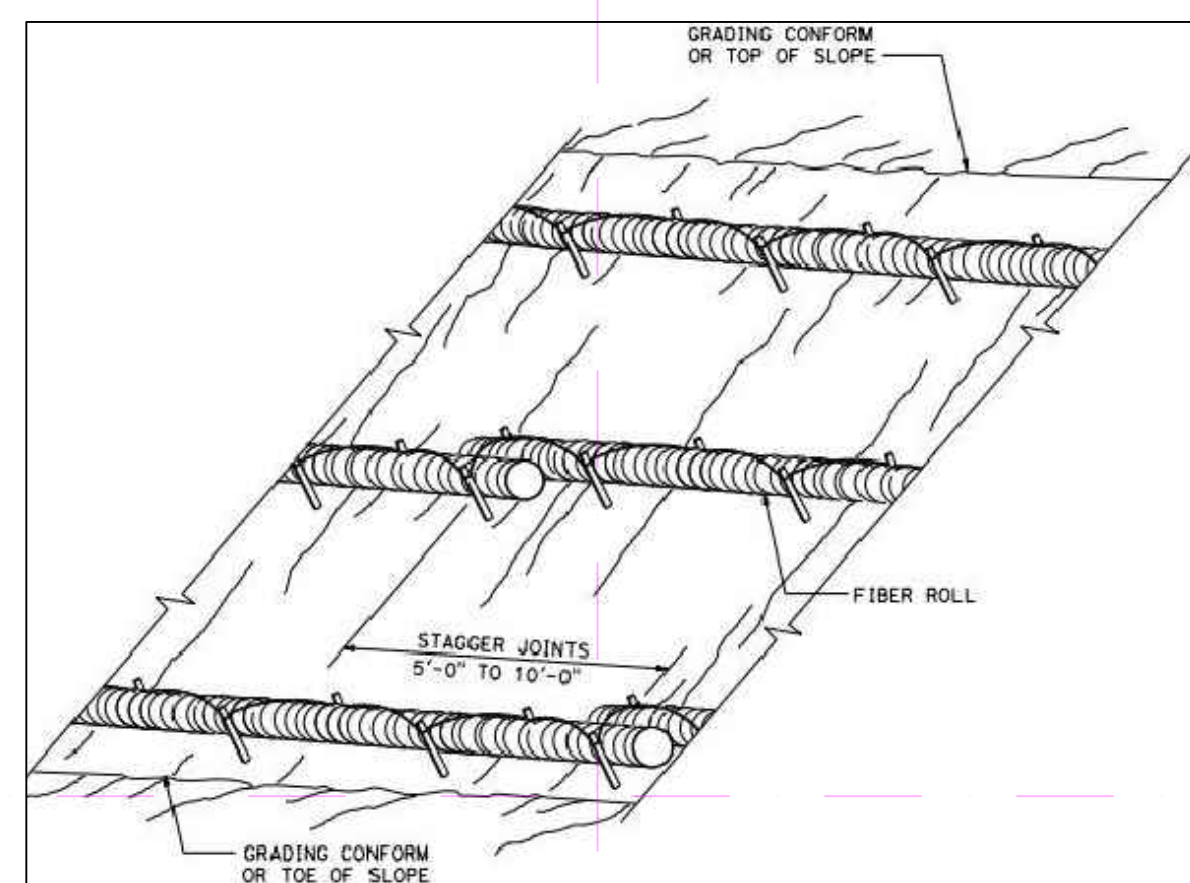
SHEET IDENTIFICATION  
**C-19**  
 SHEET 21 OF 24



SILT FENCE DETAILS (TYP)

SCALE: AS SHOWN

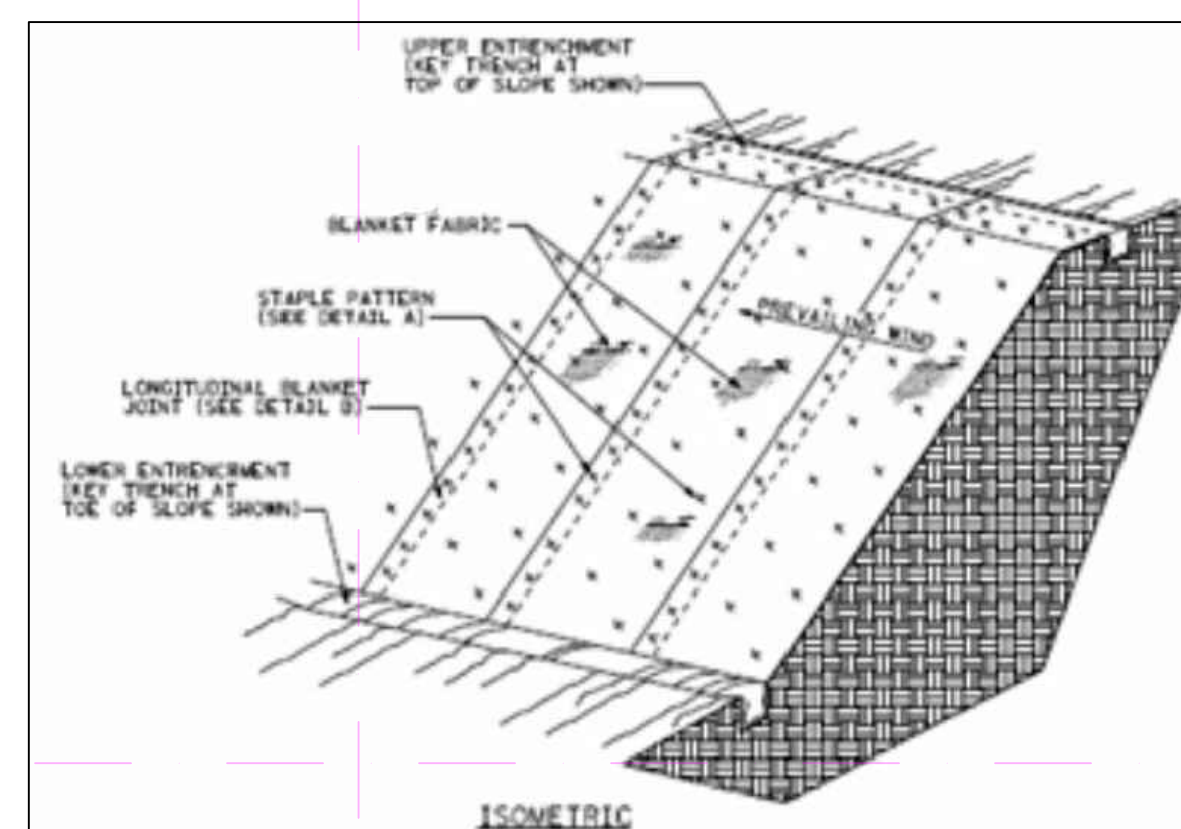
A  
C-19



STRAW WATTLE DETAILS (TYP)

SCALE: AS SHOWN

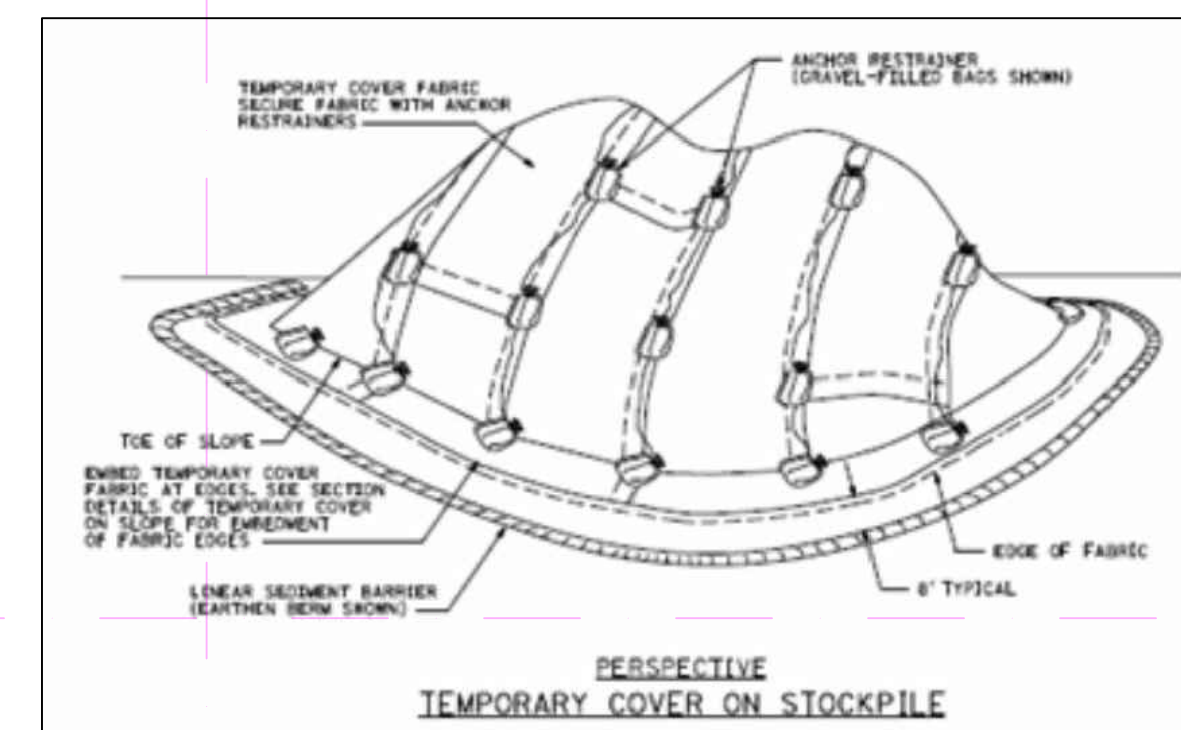
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C-19



HILLSIDE SEEDING W/ JUTE NET

SCALE: AS SHOWN

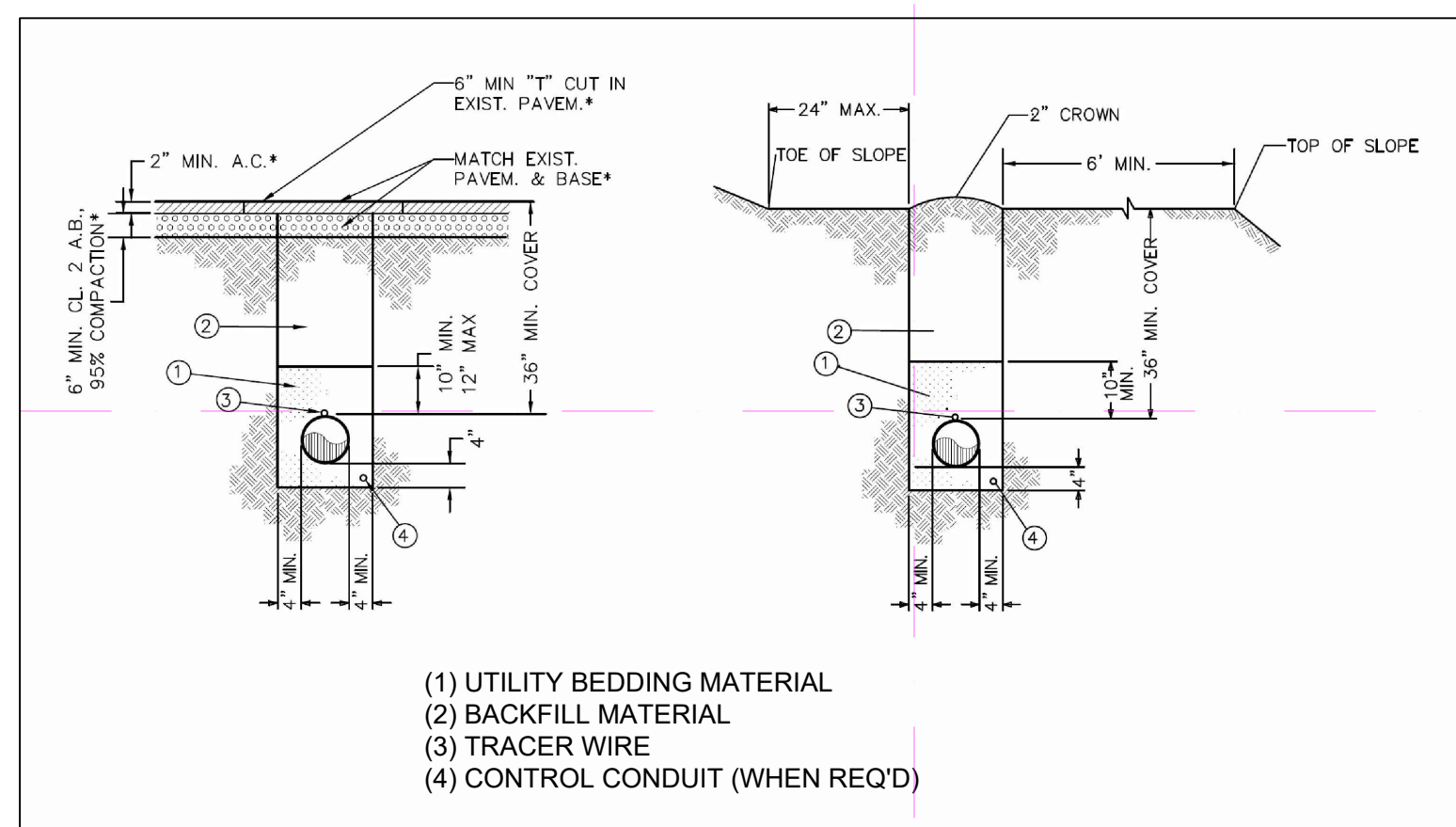
C  
C-19



STOCKPILE COVERING

SCALE: AS SHOWN

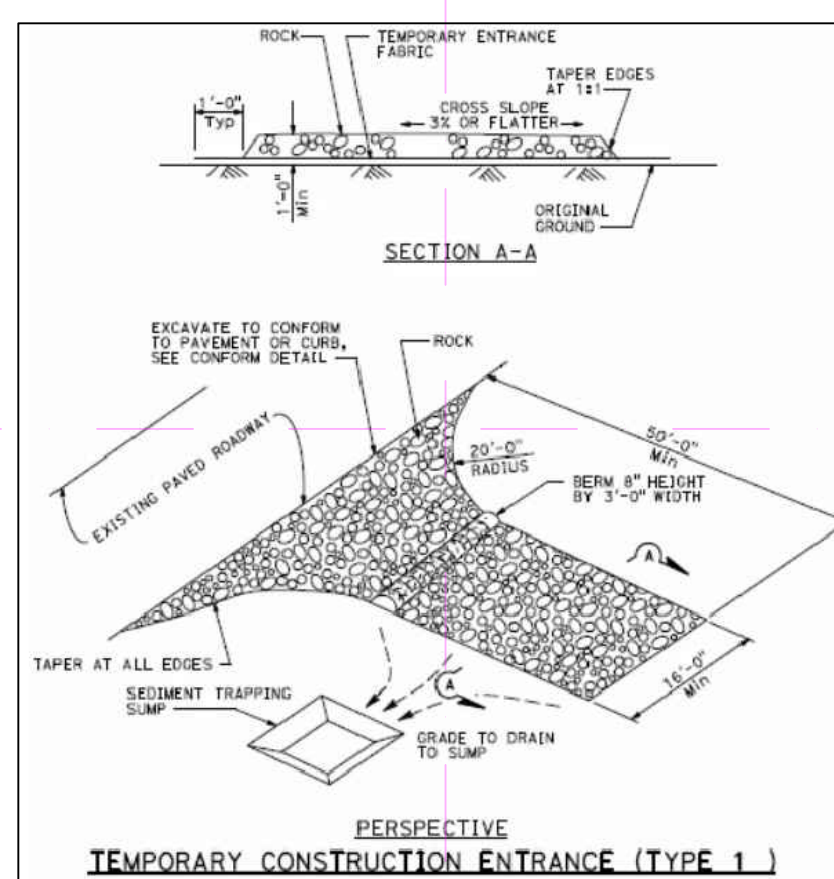
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C-19



WATER LINE TRENCH

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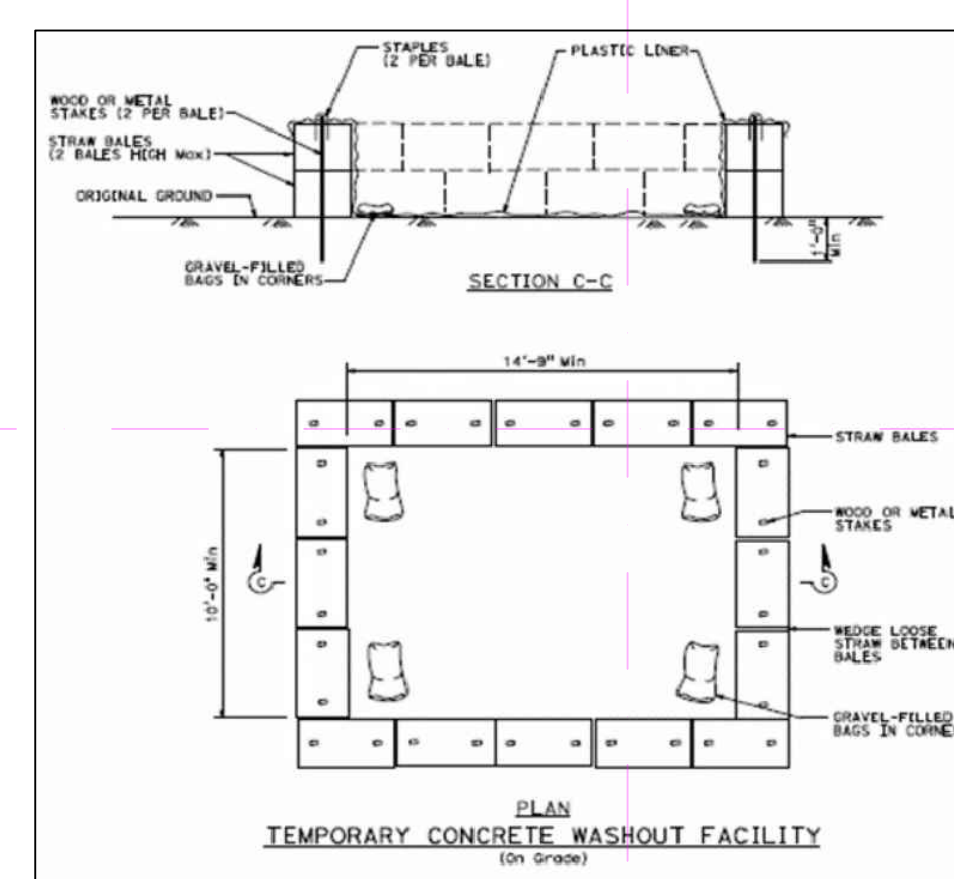
E  
C-19



STABILIZED ENTRANCE

SCALE: AS SHOWN

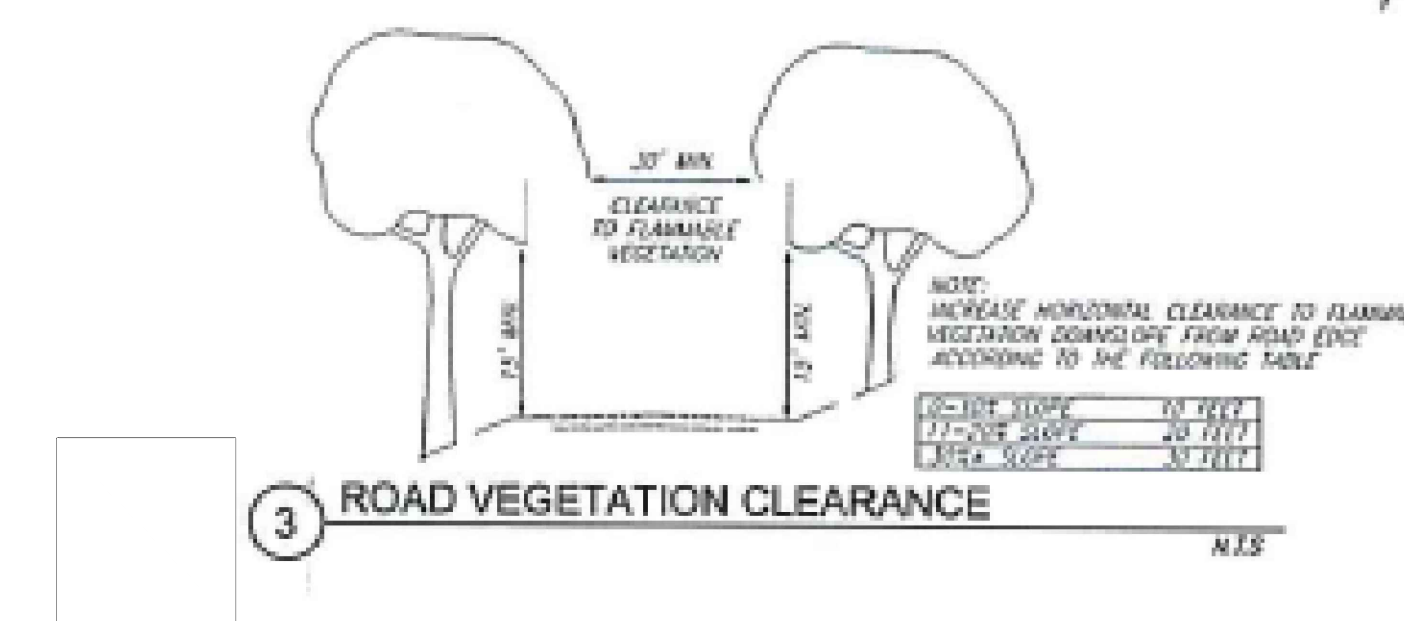
F  
C-19



CONCRETE WASHOUT

SCALE: AS SHOWN

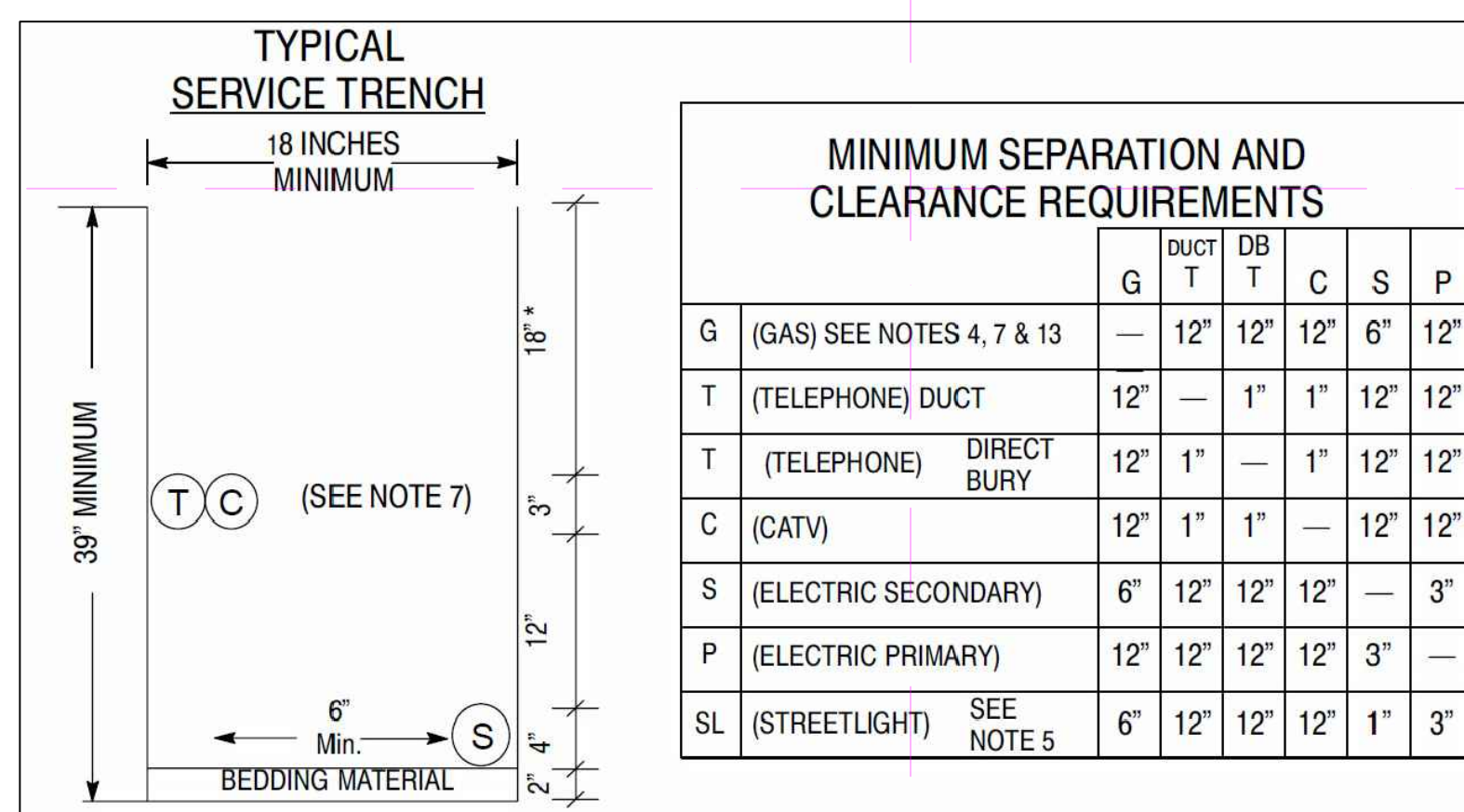
G  
C-19



ROAD VEGETATION CLEARANCE

SCALE: AS SHOWN

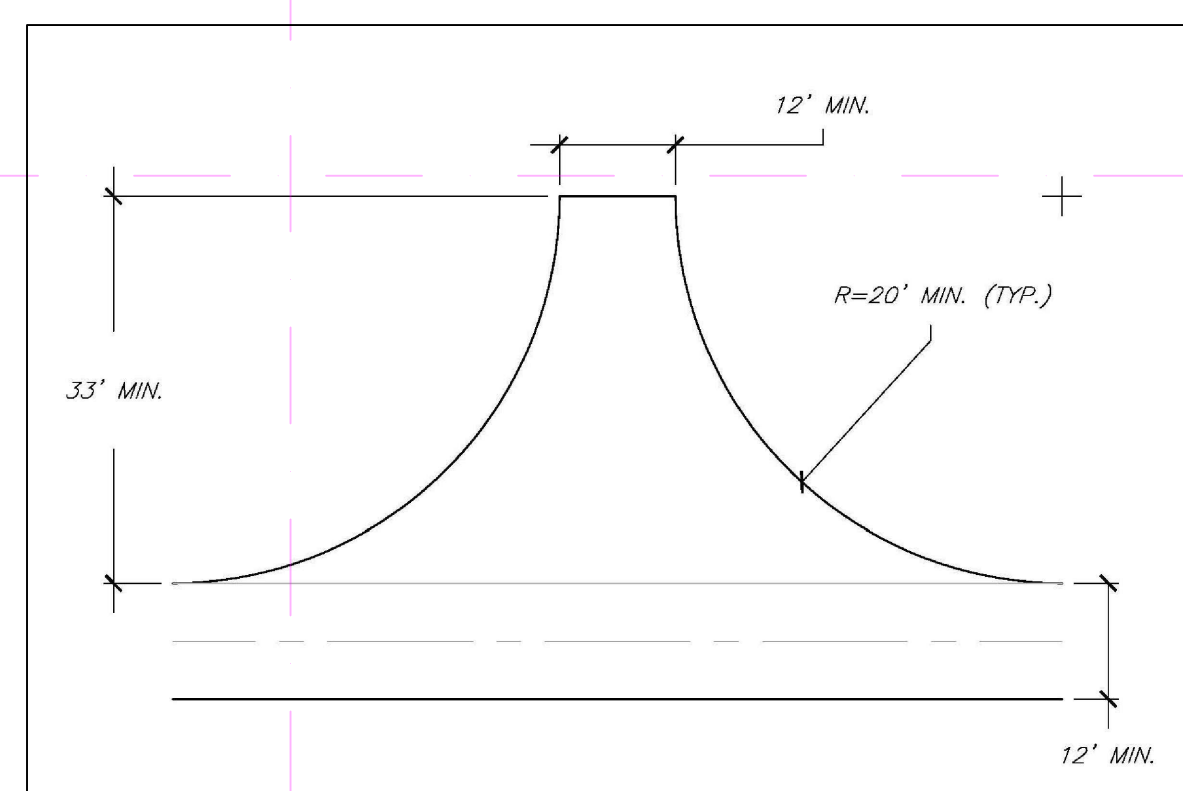
H  
C-19



JOINT TRENCH

SCALE: AS SHOWN

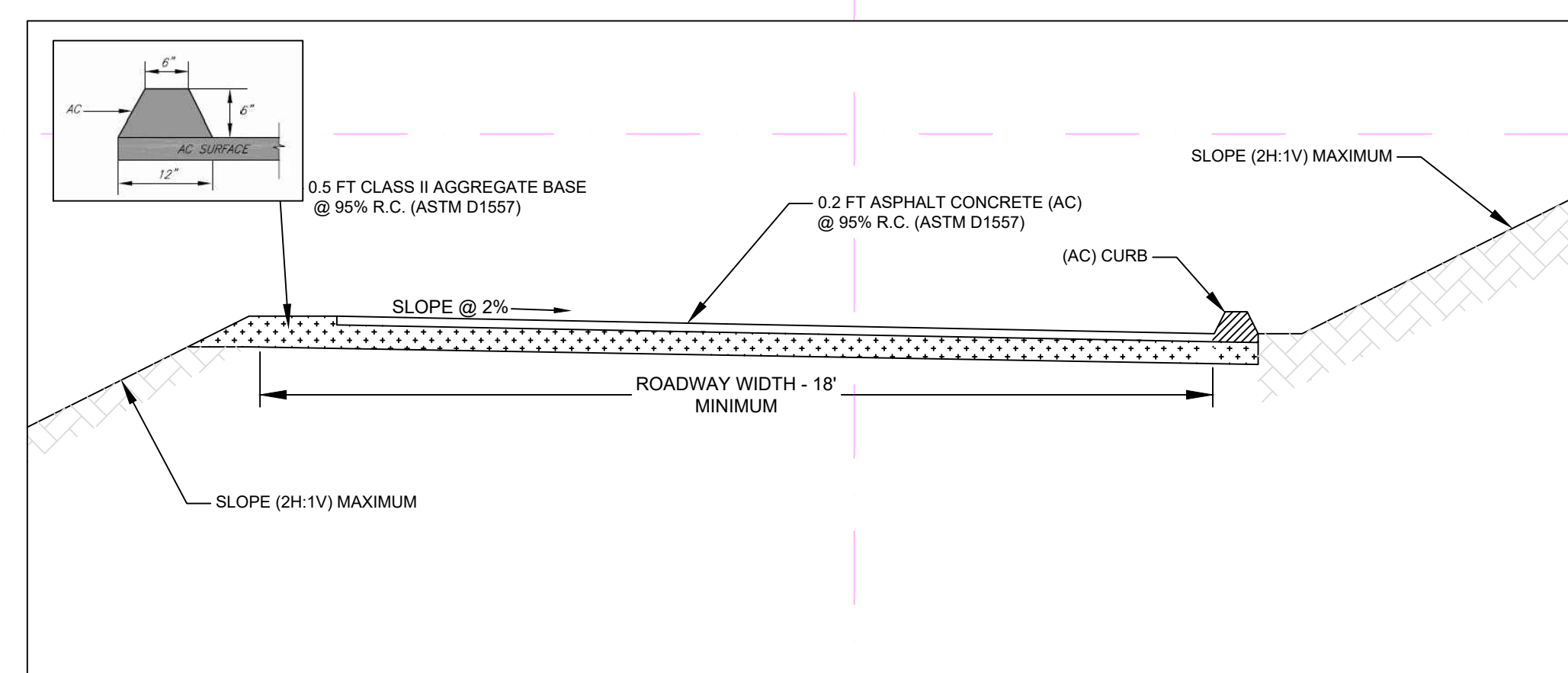
I  
C-19



DRIVEWAY APPROACH (FUTURE)

SCALE: AS SHOWN

J  
C-19



AC ROADWAY SECTION

SCALE: AS SHOWN

K  
C-19

MARK	DESCRIPTION	DATE	RS	APPR.
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	SCALE:
DWN BY:		CONTRACT NO.:	
SUBMITTED BY:		FOR REDUCED PLANS ORIGINAL SCALE INCHES	
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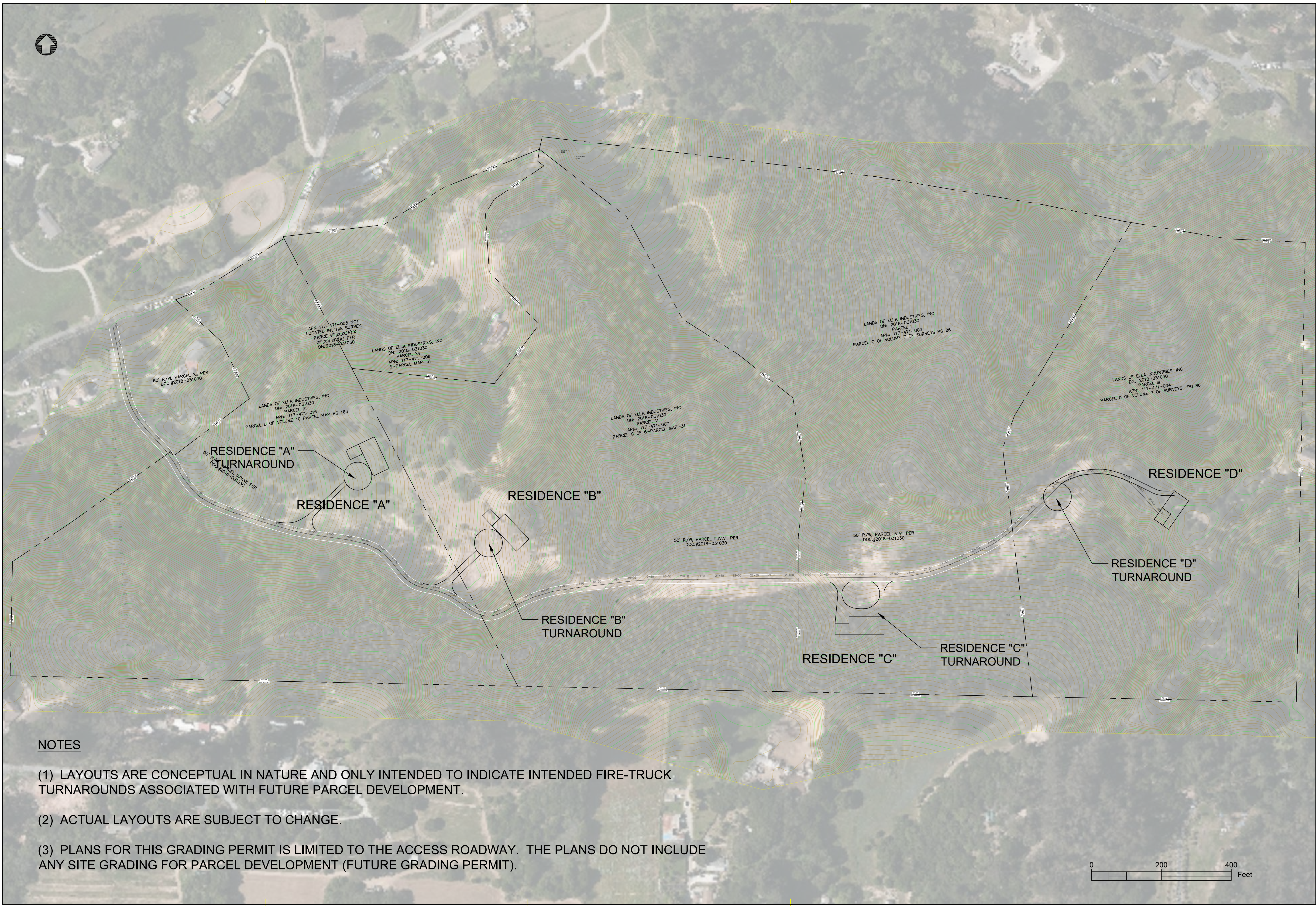
**Storemund Consulting**  
 STOREMUND CONSULTING  
 154 LAWSON ROAD  
 KENSINGTON, CA 94707  
 (510) 536-5849

**GENERAL DETAILS**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

**SHEET IDENTIFICATION**  
**C-20**  
 SHEET 22 OF 24

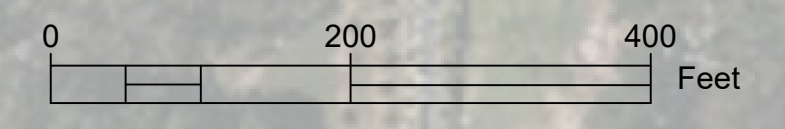






**NOTES**

- (1) LAYOUTS ARE CONCEPTUAL IN NATURE AND ONLY INTENDED TO INDICATE INTENDED FIRE-TRUCK TURNAROUNDS ASSOCIATED WITH FUTURE PARCEL DEVELOPMENT.
- (2) ACTUAL LAYOUTS ARE SUBJECT TO CHANGE.
- (3) PLANS FOR THIS GRADING PERMIT IS LIMITED TO THE ACCESS ROADWAY. THE PLANS DO NOT INCLUDE ANY SITE GRADING FOR PARCEL DEVELOPMENT (FUTURE GRADING PERMIT).



MARK	DESCRIPTION	DATE	RS	APPR
1	GRADING PERMIT PLAN SET	05/10/2022		



DESIGNED BY:	DATE:	SOLICITATION NO.:	3
DWN BY:	CHK BY:	CONTRACT NO.:	2
SUBMITTED BY:	FOR REDUCED PLANS ORIGINAL SCALE INCHES		
			0

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**ENVISIONED DEVELOPMENT**  
 VEGA ROAD PROPERTIES PROJECT  
 146 VEGA ROAD  
 ROYAL OAKS, CA 95076

SHEET IDENTIFICATION  
**C-22**  
 SHEET 24 OF 24