CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

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Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Discharge of Dredged and/or Fill Materials

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PROJECT: **Cascada Verde**
Certification Number R9-2017-0022
WDID: 9000003134

APPLICANT: **Lanshire Housing Partners, LLC**
2633 South Fairfax Avenue
Culver City, CA 90232

Reg. Meas. ID: 411340
Place ID: 831660
Party ID: 561992
Person ID: 561993

ACTION:

☐ Order for Low Impact Certification	☐ Order for Denial of Certification
☑ Order for Technically-conditioned Certification	☐ Enrollment in Isolated Waters Order No. 2004-004-DWQ
☑ Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

PROJECT DESCRIPTION

An application dated January 3, 2017 was submitted by Lanshire Housing Partners, LLC (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (United States Code (USC) Title 33, section 1341) for the proposed Cascada Verde Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on November 21, 2017. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2015-00663-RRS).

The Project is located within the City of Carlsbad, San Diego County, California on the north side of Alicante Road, between Altisma Way and Altiva Place. The Project center reading is located at latitude 33.094410 and longitude -117.254317. The Applicant has paid all required application fees for this Certification in the amount of $6,726.00. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate.[1] On November 21, 2017, the San Diego Water Board provided public notice of

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[1] This Certification is conditioned upon total payment of any fee required under California Code of Regulations title 23, division 3, chapter 9, article 1 commencing with section 2200. Additional information regarding Water Quality Fees, Waste Discharge Requirement Fees, and the Water Quality Certification Dredge and Fill Application Fee Calculator can be found electronically on the State Water Resources Control Board web site at: http://www.waterboards.ca.gov/resources/fees/water_quality/#wqfees (as of April 16, 2018)

(footnote continued on next page)

the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to construct 35 residential condominiums spread throughout eight buildings over 3.67 acres. The Project site will have two entrances, one on Altiva Place and one on Altisma Way. The Project includes driveways and associated infrastructure, including a biofiltration basin, culvert replacement, sewer lines, parking spaces, a bridge crossing, and a realigned channel north of the private driveway crossing. A private bridged driveway crossing over the ephemeral drainage will connect the two sides of the Project. A portion of the northern onsite drainage channel will be realigned and retaining walls constructed along both banks of the creek.

Other work to be done in the drainage system includes: relocation of an 18-inch reinforced concrete pipe and headwall, replacement of a 72-inch reinforced concrete pipe under Alicante Road with a 96-inch reinforced concrete pipe, and placement of riprap just upstream and downstream of the new bridge crossing and in front of the storm drain outlets.

The Project will convert approximately 1.50 acres of pervious ground cover to impervious surfaces. Runoff leaving the developed Project area would be significantly greater in volume, velocity, peak flow rate, and duration than pre-development runoff from the same area without mitigation. Post-construction best management practices (BMPs) to manage and control the effects of these runoff increases will consist of bioretention basins and permeable paving of sidewalks and driveways. These BMPs will be designed, constructed, and maintained to meet the City of Carlsbad's Low Impact Development (LID) Capture Volume and hydromodification treatment requirements.

The Project application includes a description of the design objective, operation, and degree of treatment expected to be attained from equipment, facilities, or activities (including construction and post-construction BMPs) to treat waste and reduce runoff or other effluents which may be discharged. Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause on-site or off-site downstream erosion, damage to downstream properties, or otherwise damage stream habitats in violation of water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).

Project construction will permanently impact 0.47 acre (283 linear feet) and temporarily impact 0.15 acre (160 linear feet) of ephemeral streambed waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant reports that compensatory mitigation for the permanent loss of 0.47 acres and 0.15 acres of temporary impacts to jurisdictional waters will be achieved through the onsite

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establishment of 0.12 acres, rehabilitation of 0.21 acres, and enhancement of 0.41 acres of streambed waters of the United States and/or State. Project mitigation also includes 2.79 acres of offsite re-establishment of perennial streambed waters of the United States and/or State. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. Mitigation for discharges of fill material to waters of the United States and/or State will be completed by the Applicant onsite and offsite at Rancho La Costa Habitat Conservation area, Copper Creek, San Diego County, CA, located in the Batiquitos hydrologic sub-area (HSA 904.51) at a minimum compensation ratio of 6.6:1 (area mitigated:area impacted) for permanent impacts and 2.73:1 for temporary impacts.

Detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas are described in the *On-Site Conceptual Mitigation Plan*, dated November 2017 and the *Cascade Verde Offsite Wetlands, Waters of the U.S., Riparian and Native Grassland Mitigation Plan*, dated March 19, 2018 (Mitigation Plans). San Diego Water Board acceptance of the Mitigation Plans applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation. The Mitigation Plans are incorporated in this Certification by reference as if set forth herein. The Mitigation Plans provides for implementation of compensatory mitigation which offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses. Implementation of the Mitigation Plans will reduce significant environmental impacts to resources within the San Diego Water Board's purview to a less than significant level. Based on all of these considerations, the Mitigation Plans will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Additional Project details are provided in Attachments 1 through 5 of this Certification.

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1. **Definitions**
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I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.

B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

A. **Term of Certification**. Water Quality Certification No. R9-2017-0022 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.

B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.

C. **General Waste Discharge Requirements**. The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein.

Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

E. **Project Conformance with Water Quality Control Plans or Policies**. Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 USC section 1313). The Basin Plan is accessible at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

F. **Project Modification**. The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.

G. **Certification Distribution Posting**. During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.

H. **Inspection and Entry**. The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

I. **Enforcement Notification**. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

J. **Certification Actions**. This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:

1. Violation of any term or condition of this Certification;
2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of San Marcos Creek or its tributaries;
3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

K. **Duty to Provide Information**. The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.

L. **Property Rights**. This Certification does not convey any property rights of any sort, or any exclusive privilege.

M. **Petitions**. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

A. **Approvals to Commence Construction**. The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.

B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.

C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.

D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.

E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.

F. **Waste Management**. Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.

G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.

H. **Construction Equipment**. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.

I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.

J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.

K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at http://www.cal-ipc.org/ip/inventory/.

L. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.

M. **Vegetation Removal.** Removal of vegetation must occur by hand, mechanically, or through application of United States Environmental Protection Agency (USEPA) approved herbicides deployed using applicable BMPs to minimize adverse effects to beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be done in compliance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, the *Statewide General National Pollution Discharge Elimination System Permit for the Discharge of Aquatic Weed Control in Waters of the United States,* and any subsequent reissuance as applicable.

N. **Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State using highly visible markers such as flag markers, construction fencing, or silt barriers prior to commencement of Project construction activities within those areas.

O. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.

P. **Beneficial Use Protection**. The Applicant must take all necessary measures to protect the beneficial uses of waters of San Marcos Creek and its tributaries. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

Q. **Groundwater Dewatering.** If groundwater dewatering is required for the Project, the Applicants shall enroll in and comply with the requirements of San Diego Water Board Order No. R9-2015-0013, NPDES No. CAG919002, *General Waste Discharge Requirements For Groundwater Extraction Waste Discharges in the San Diego Region* or its successor permit.

IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to on-site or off-site erosion or damage to properties or stream habitats.

B. **Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.

C. **Post-Construction BMP Design.** The Project must be designed to comply with the requirements for priority development projects in section E.3 of the Regional MS4 Permit Order R9-2013-0001, *National Pollutant Discharge Elimination Systems Permit and Waste Discharge Requirements for Discharges of Urban Runoff from the MS4s Draining the Watersheds within the San Diego Region* (Regional MS4 Permit) as well as the most current Standard Storm Water Mitigation and Hydromodification Plans for the City of Carlsbad. Where conflict exists between the referenced documents the most stringent requirements shall apply.

D. **Post-Construction BMP Implementation.** All post-construction BMPs must be constructed, functional, and implemented prior to completion of Project construction, occupancy, and/or planned use, and maintained in perpetuity. The post construction BMPs must be approved by City of Carlsbad.

E. **Post-Construction BMP Maintenance.** The post construction BMPs must be designed, constructed, and maintained in accordance with the most recent California Storm Water Quality Association (CASQA)[2] guidance. The Applicant shall:

1. No less than two times per year, assess the performance of the BMPs to ensure protection of the receiving waters and identify any necessary corrective measures;

2. Perform inspections of BMPs, at the beginning of the wet season no later than October 1 and the end of the wet season no later than April 1, for standing water, slope stability, sediment accumulation, trash and debris, and presence of burrows;

3. Regularly perform preventative maintenance of BMPs, including removal of accumulated trash and debris, as needed to ensure proper functioning of the BMPs;

4. Identify and promptly repair damage to BMPs; and

5. Maintain a log documenting all BMP inspections and maintenance activities. The log shall be made available to the San Diego Water Board upon request.

V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

A. **Project Impact Avoidance and Minimization**. The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable.

B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to San Marcos Creek and its unnamed tributaries within the Carlsbad Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

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[2] California Storm Water Quality Association (*California Storm Water BMP Handbook, New Development and Redevelopment 2003)*, available on-line at: http://www.cabmphandbooks.org/ [Accessed on January 15, 2012]

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
Stream Channel	0.47	283	0.12 Establishment[1] 0.21 Rehabilitation[2] 2.79 Re-Establishment[3]	6.6:1	1,513	5.3:1
Temporary Impacts[5]						
Stream Channel	0.15	160	0.41 Enhancement[4]	2.73:1	280	1.75:1

1. Stream channel (ephemeral) Establishment onsite in an unnamed tributary to San Marcos Creek.
2. Stream channel (ephemeral) Re-Habilitation onsite in an unnamed tributary to San Marcos Creek.
3. Stream channel (perennial) Establishment offsite at the Rancho La Costa Habitat Conservation area, Copper Creek, County of San Diego, CA
4. Stream channel (ephemeral) Enhancement onsite in an unnamed tributary to San Marcos Creek.
5. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.

C. **Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the Mitigation Plans; any deviations from, or revisions to, the Mitigation Plans must be pre-approved by the San Diego Water Board.

D. **Performance Standards.** Compensatory mitigation required under this Certification shall be considered achieved once it has met the ecological success performance standards contained in the Mitigation Plans (Onsite: Performance Standards, pages 14-15 and Offsite: Performance Standards, pages 11-12) to the satisfaction of the San Diego Water Board.

E. **Compensatory Mitigation Site Design.** The compensatory mitigation site(s) shall be designed to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability in conformance with the following conditions:

1. Most of the channels through the mitigation sites shall be characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;

2. As viewed along cross-sections, the channel and buffer area(s) shall have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope shall contain physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall; and

3. The mitigation sites shall have a well-developed plant community characterized by a high degree of horizontal and vertical interspersion among plant zones and layers.

F. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

G. **Long-Term Management and Maintenance.** The compensatory mitigation site(s) must be managed, protected, and maintained, in perpetuity, in conformance with the long-term management plan and the final ecological success performance standards identified in the Mitigation Plans. The aquatic habitats, riparian areas, buffers and uplands that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:

1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;

2. Maintenance activities must be limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species, and remedial measures deemed necessary for the success of the compensatory mitigation project;

3. The Mitigation site(s) must be maintained, in perpetuity, free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the mitigation site(s); and

4. If at any time a catastrophic natural event (e.g., fire, flood) causes damage(s) to the mitigation site(s) or other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage(s) including replanting the affected area(s) and address any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project is responding to a catastrophic natural event.

H. **Timing of Mitigation Site Construction.** The construction of proposed mitigation must be concurrent with project grading and completed no later than 9 months following the start of Project construction. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of 10% of the cumulative compensatory mitigation for each month of delay.

I. **Mitigation Site(s) Preservation Mechanism. Within 90 days from the issuance of this Certification**, the Applicant must provide the San Diego Water Board with a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within 5 years of the start of Project construction**, the Applicant must submit proof of a completed final preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. The conservation easement, deed restriction, or other legal limitation on the mitigation properties must be adequate to demonstrate that the sites will be maintained without future development or encroachment on the sites which could otherwise reduce the functions and values of the sites for the variety of beneficial uses of waters of the United States and/ or State that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the sites. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

VI. MONITORING AND REPORTING REQUIREMENTS

A. **Representative Monitoring**. Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.

B. **Monitoring Reports**. Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.

C. **Monitoring and Reporting Revisions**. The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.

D. **Records of Monitoring Information.** Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of such analyses.

E. **Discharge Commencement Notification**. The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

F. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the start of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

G. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation, compensatory mitigation, and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification, until the Project has reached completion. The Annual Project Progress Reports must contain compensatory mitigation monitoring information sufficient to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1st through December 31st of each year. Annual Project Progress Reports must include, at a minimum, the following:

1. **Project Status and Compliance Reporting.** The Annual Project Progress Report must include the following Project status and compliance information:

    a. The names, qualifications, and affiliations of the persons contributing to the report;

    b. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices project features for erosion and storm water quality treatment;

    c. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and

    d. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

2. **Compensatory Mitigation Monitoring Reporting.** Mitigation monitoring information must be submitted as part of the Annual Project Progress Report for a

period of <u>not less than five years</u>, sufficient to demonstrate that the compensatory mitigation project has accomplished its objectives and met ecological success performance standards contained in the Mitigation Plans. Following Project implementation the San Diego Water Board may reduce or waive compensatory mitigation monitoring requirements upon a determination that performance standards have been achieved. Conversely the San Diego Water Board may extend the monitoring period beyond five years upon a determination that the performance standards have not been met or the compensatory mitigation project is not on track to meet them. The Annual Project Progress Report must include the following compensatory mitigation monitoring information:

a. Names, qualifications, and affiliations of the persons contributing to the report;

b. An evaluation, interpretation, and tabulation of the parameters being monitored, including the results of the Mitigation Plan monitoring program, and all quantitative and qualitative data collected in the field;

c. A description of the following mitigation site(s) characteristics:

    i. Detritus cover;
    ii. General topographic complexity;
    iii. General upstream and downstream habitat and hydrologic connectivity; and
    iv. Source of hydrology

d. Monitoring data interpretations and conclusions as to how the compensatory mitigation project(s) is progressing towards meeting performance standards and whether the performance standards have been met;

e. A description of the progress toward implementing a plan to manage the compensatory mitigation project after performance standards have been achieved to ensure the long term sustainability of the resource in perpetuity, including a discussion of long term financing mechanisms, the party responsible for long term management, and a timetable for future steps;

f. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;

g. Stream photo documentation, including all areas of permanent and temporary impact, prior to and after mitigation site construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced;

h. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and

i. A survey report documenting boundaries of the compensatory mitigation site(s).

H. **Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project.** The final report must include the following information:

1. Date of construction initiation;

2. Date of construction completion;

3. BMP installation and operational status for the Project;

4. As-built drawings of the Project, no bigger than 11"X17";

5. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and

I. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.

J. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2017-0022:831660:amonji
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), converted to text searchable format using Optical Character Recognition (OCR), and not be password protected. All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Please direct questions about large document submittal procedures to Mission Support Services staff at (619) 516-1990. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2017-0022:831660:amonji.

K. **Document Signatory Requirements**. All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

4. A duly authorized representative may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described above.

   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.

   c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

L. **Document Certification Requirements**. All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VII. NOTIFICATION REQUIREMENTS

A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The

San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

B. **Hazardous Substance Discharge**. Except as provided in Water Code section 13271(b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.

C. **Oil or Petroleum Product Discharge.** Except as provided in Water Code section 13272(b), any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.

D. **Anticipated Noncompliance**. The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

E. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:

1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification

to the San Diego Water Board **within 10 days of the transfer of ownership.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**

3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of responsibility for compliance with this Certification in the event that a transferee fails to comply.

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

A. The City of Carlsbad is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated September 22, 2016 for the Mitigated Negative Declaration (MND) titled Cascada Verde (State Clearing House Number 2015091067). The Lead Agency has determined the Project will not have a significant effect on the environment and mitigation measures were made a condition of the Project.

B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's final MND and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.

C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.

D. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the MND are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the MND, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in sections V and VI of this Certification.

E. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

IX. SAN DIEGO WATER BOARD CONTACT PERSON

Alan Monji, Environmental Scientist
Telephone: (619) 521-3968
Email: Alan.Monji@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Cascada Verde** (Certification No. R9-2017-0022) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2017-0022 issued on April 30, 2018.

David W. G

DAVID W. GIBSON
Executive Officer
San Diego Water Board

30 April 2018
Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

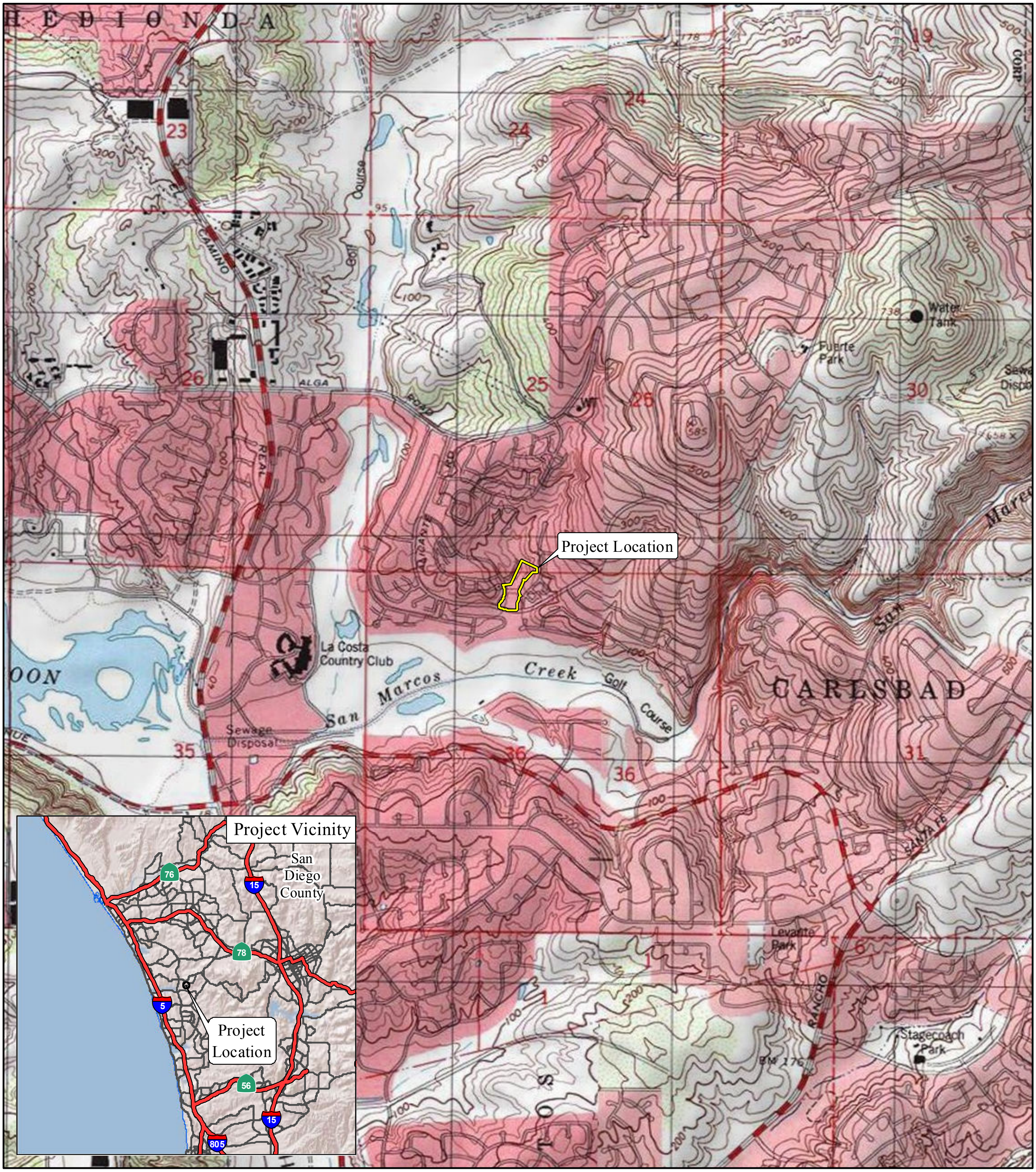
Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

ATTACHMENT 2

LOCATION MAPS

1. LSA, Cascada Verde Residential Development Project, Figure 1, Project Locations.

2. LSA, Cascada Verde Residential Development Project, Figure 2, Project Area.



LSA

LEGEND

🟨 Project Location

FIGURE 1

Cascada Verde Residential Development Project

Project Location

SOURCE: USGS 7.5' Quad. (Encinitas, 1975; Rancho Santa Fe, 1983)

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LSA

FIGURE 2

LEGEND

☐ Project Area

N

0 50 100
FEET

SOURCE: Aerial - City of Carlsbad (2/2012)

Cascada Verde Residential Development Project

Project Area

I:\IKN1301\GIS\ProjArea.mxd (10/20/2016)

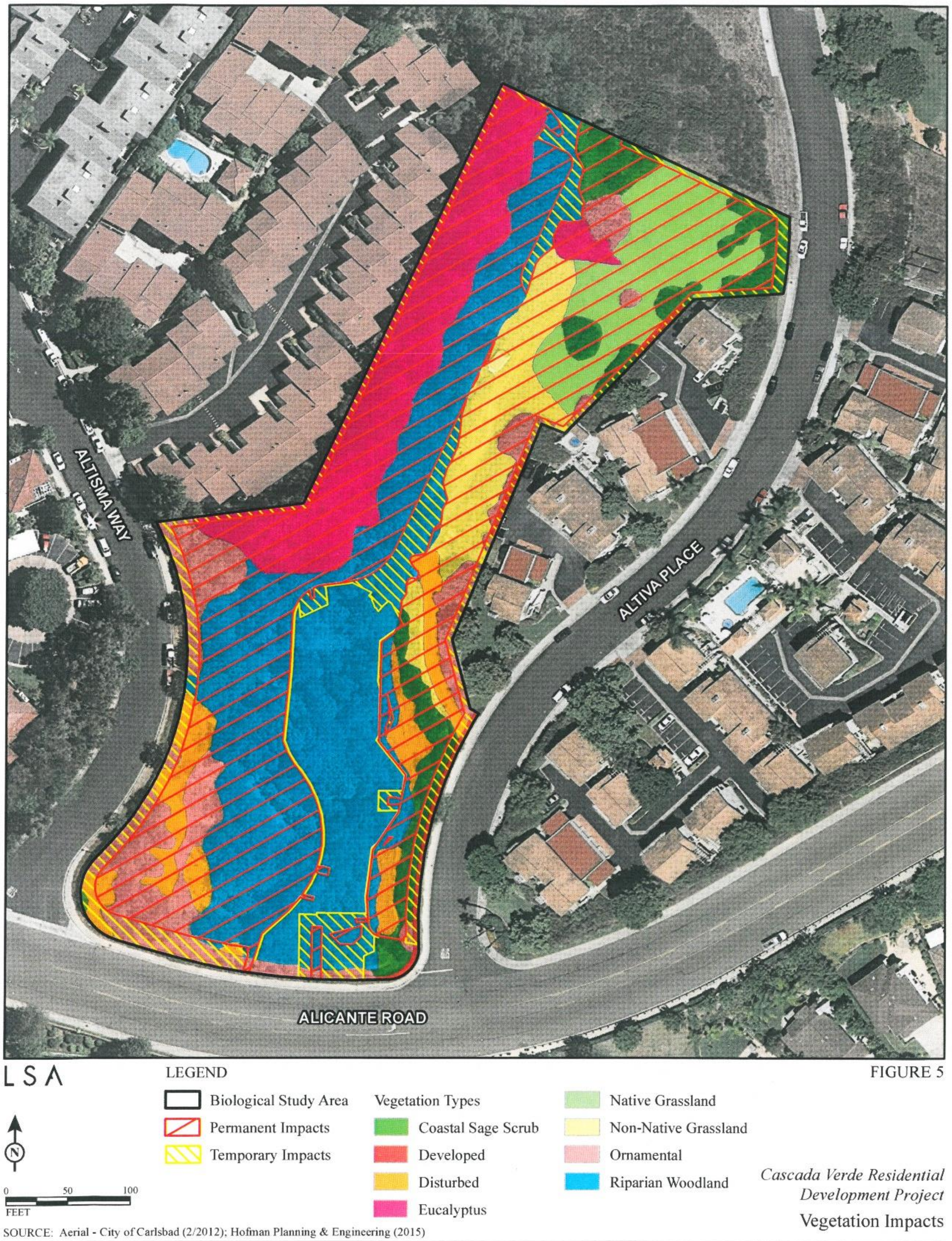
ATTACHMENT 3

PROJECT SITE PLANS

1. Hoffman Planning and Engineering, Grading Plans, Sheets 1-21.

2. LSA, Cascada Verde Residential Development Project, Figure 5 Vegetation Impacts.

FIGURE 5



Cascada Verde Residential Development Project

Vegetation Impacts

SOURCE: Aerial - City of Carlsbad (2/2012); Hofman Planning & Engineering (2015)

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CASCADA VERDE (ALTISMA CONDOMINIUMS)

CT 15-01: PUD 15-03 ; SDP 15-02; HDP 15-02: HMP 16-02

A TOWNHOME PROJECT BY LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CALIFORNIA
TENTATIVE MAP

PROJECT DESCRIPTION

THE SITE IS ON ALICANTE ROAD BETWEEN ALTISMA WAY AND ALTIVA PLACE STREETS. VESTING TENTATIVE MAP AND RELATED ENTITLEMENTS ARE PROPOSED TO BUILD A PRIVATE SUBDIVISION OF 35 ATTACHED DWELLING UNITS.

LEGAL DESCRIPTION

PARCEL 4 OF PARCEL MAP NO. 13158 , IN THE CITY OF CARLSBAD, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, FEBRUARY 21, 1984 AS INSTRUMENT NO. 84-061796 OF OFFICIAL RECORDS

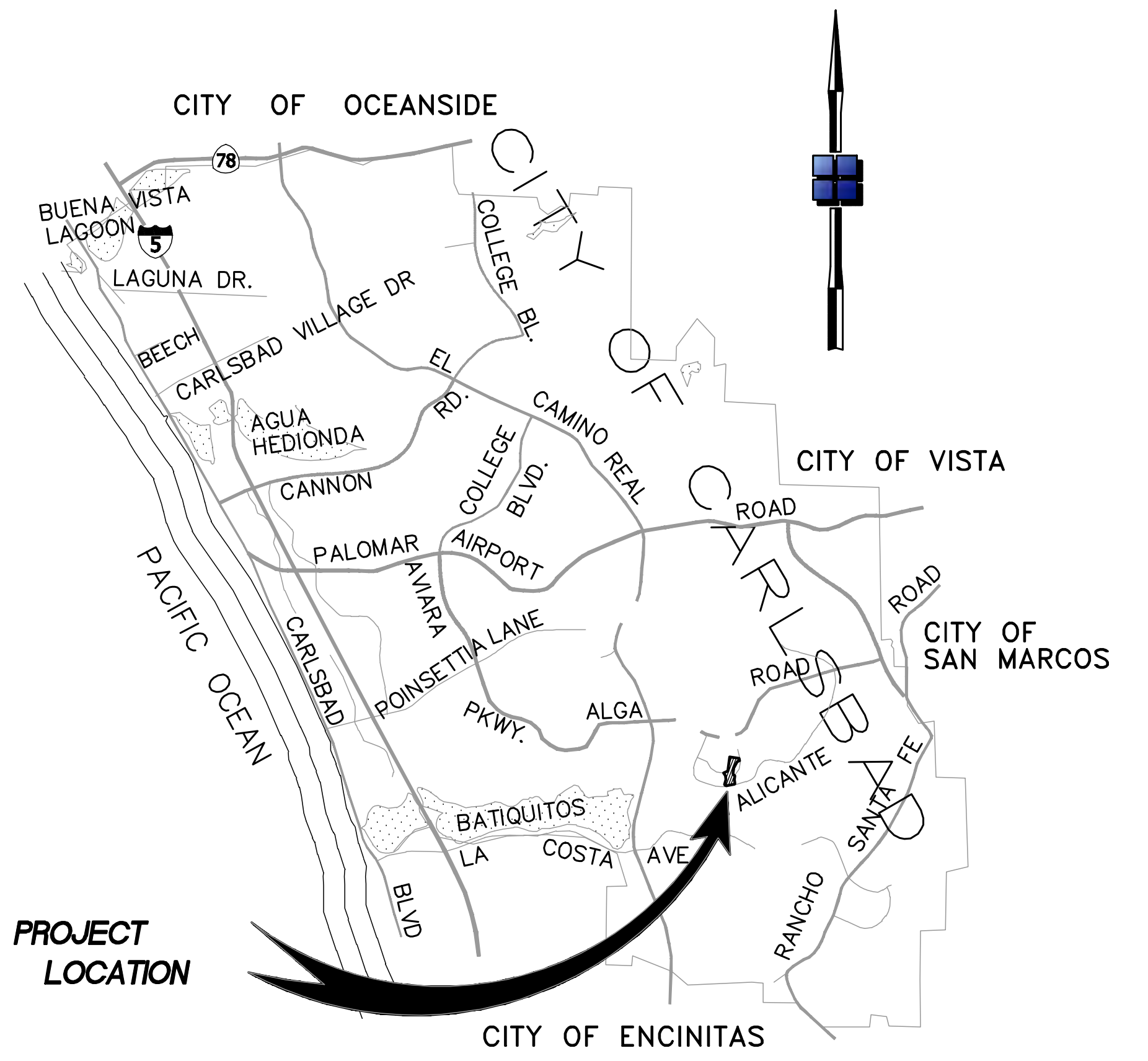
SOURCE OF TOPOGRAPHY

TOPOGRAPHY SHOWN ON THESE PLANS WAS GENERATED BY AN AERIAL SURVEY BY GEOCENTRIC SURVEY, INC. DATED FEBRUARY 2014, AND A SUPPLEMENTAL FIELD SURVEY GATHERED IN MARCH 2014, BY HOFMAN PLANNING AND ENGINEERING. TOPOGRAPHY SHOWN HEREON CONFORMS TO NATIONAL MAP ACCURACY STANDARDS.

GENERAL NOTES:

1. SEWER DISTRICT =LEUCADIA WASTE WATER DISTRICT
2. WATER DISTRICT = CARLSBAD MUNICIPAL WATER DISTRICT
3. SCHOOL DISTRICT = SAN MARCOS UNIFIED SCHOOL DISTRICT
4. ASSESSOR'S PARCEL NO. = 215-240-36
5. GROSS SITE ACREAGE = 3.677 ACRES
6. EXISTING/PROPOSED ZONING = RD-M
7. EXISTING/PROPOSED GENERAL PLAN =RMH
8. EXISTING LAND USE = VACANT
9. PROPOSED LAND USE = RESIDENTIAL
10. LOT COVERAGE = 29.05%
11. PERCENT LANDSCAPING = 51% (160,160 SF TOTAL SITE/80,955 SF LANDSCAPING)
12 REQUIRED PARKING SPACES = 77
    5 (1 BR) X 1.5 = 7.5
    30 (2 + BR) X 2 = 60
    0.25 VISITOR PARKING X 35 UNITS = 8.75
  PROVIDED PARKING SPACES = 77 SPACES
    GARAGE SPACES: 65
    RESIDENTIAL SURFACE SPACES: 3
    VISITOR SURFACE SPACES: 8
    VISITOR ON ALTISMA WAY: 1
13. NET DEVELOPABLE AREA = 3.033 AC
14. TOTAL GRADED AREA = 2.99 AC
15. PROPOSED DENSITY = 11.54 UNITS/ACRE
16. UNDEVELOPABLE AREA = SEE SLOPE ANALYSIS
17. STORAGE SPACE = SATISFIED VIA GARAGES PROVIDED PER UNIT
18. AVERAGE DAILY TRAFFIC = 35 CONDO UNIT X 8 ADT/UNIT = 280 ADT
19. TOTAL NUMBER OF UNITS = 35 UNITS
  15% AFFORDABLE UNIT = 5 UNITS
20. RECREATIONAL AREA REQUIRED = 7,000 SF (35 X 200 SF)
    8,220 SF RECREATIONAL AREA PROVIDED
  ACTIVE RECREATIONAL AREA REQUIRED = 5,250 (7,000 X 0.75)
    5,280 SF ACTIVE RECREATIONAL AREA PROVIDED
    (SPA AREA = 1,960 SF, TOT LOT & PUTTING GREEN AREA = 3,320 SF)
  PASSIVE RECREATIONAL AREA REQUIRED = 1,750 SF (7,000 – 5,250)
    2,940 SF PASSIVE RECREATIONAL AREA PROVIDED
    (GRASSY PLAY AREA = 520 SF, BENCHES, WALKWAYS, ETC. = 2,420 SF)
21. NO. OF LOTS = 3
22. WATER FLOW RATE = 19,250 ADF (250 GALLON/DAY X 35 UNITS)
23. FIRE FLOW RATE = 3,000 GPM
24. SEWER FLOW RATE = 7,700 ADF (220 GALLON/DAY X 35 UNITS)
    PEAK DAILY FLOW = 19,250 GALLON/DAY (7,700 X 2.5)
25. PROPOSED DRAINAGE DISCHARGE = 10.2 CFS
    (3.7 CFS EAST ON-SITE AREA, 6.5 CFS WEST ON-SITE AREA)
26. WASTE MANAGEMENT WILL PROVIDE CURBSIDE TRASH PICKUP.

THIS SUBDIVISION IS A CONDOMINIUM PROJECT AS DEFINED IN SECTION 4125 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA, CONTAINING A MAXIMUM OF 35 DWELLING UNITS CONSISTING OF THREE (3) LOTS.



VICINITY MAP

NTS

REFERENCE DRAWINGS:

DRAWING NO. 182-6	IMPROVEMENT PLANS FOR LA COSTA ESTATE NORTH, CARLSBAD TRACT 75-4
DRAWING NO. 182-6A	GRADING PLANS FOR LA COSTA ESTATE NORTH, CARLSBAD TRACT 75-4
DRAWING NO. 170-2	IMPROVEMENT PLANS FOR ALICANTE ROAD, ALTISMA WAY & CARINGA WAY IN LA COSTA VALLEY UNIT NO. 5
DRAWING NO. 170-2A	GRADING PLANS FOR ALICANTE ROAD, ALTISMA WAY & CARINGA WAY IN LA COSTA VALLEY UNIT NO. 5
DRAWING NO. 167-7	PLANS FOR IMPROVEMENT OF ALICANTE ROAD, ALFIL WAY, CANDIL WAY IN CARLSBAD TRACT 72-25. (ALICANTE HILLS)
DRAWING NO. 167-7A	GRADING PLAN FOR CARLSBAD TRACT 72-25 (ALICANTE HILLS)
DRAWING NO. 266-4	IMPROVEMENT PLANS FOR ALICANTE ROAD & ALTIVA PLACE (SPYGLASS POINTE)
DRAWING NO. 266-4A	GRADING PLANS FOR ALICANTE ROAD & ALTIVA PLACE (SPYGLASS POINTE)

OWNER/DEVELOPER

LANSHIRE HOUSING PARTNERS, LLC A TEXAS LIMITED LIABILITY COMPANY
REPRESENTATIVE: MATT NELSON
(310) 837-2633
11913 OCEAN PARK BLVD
LOS ANGELES, CA 90064

ENGINEER

HOFMAN PLANNING & ENGINEERING
BRIAN C. REGAN (760) 692-4016
3156 LIONSHEAD AVENUE, SUITE 1
CARLSBAD, CA 92010

ARCHITECT

STARCK ARCHITECTURE & PLANNING
REPRESENTATIVE: JAMIE STARCK, SORAPONG THAMAYONGKIT
(619) 299-7070
2045 KETTNER BLVD, SUITE 100
SAN DIEGO, CA 92101

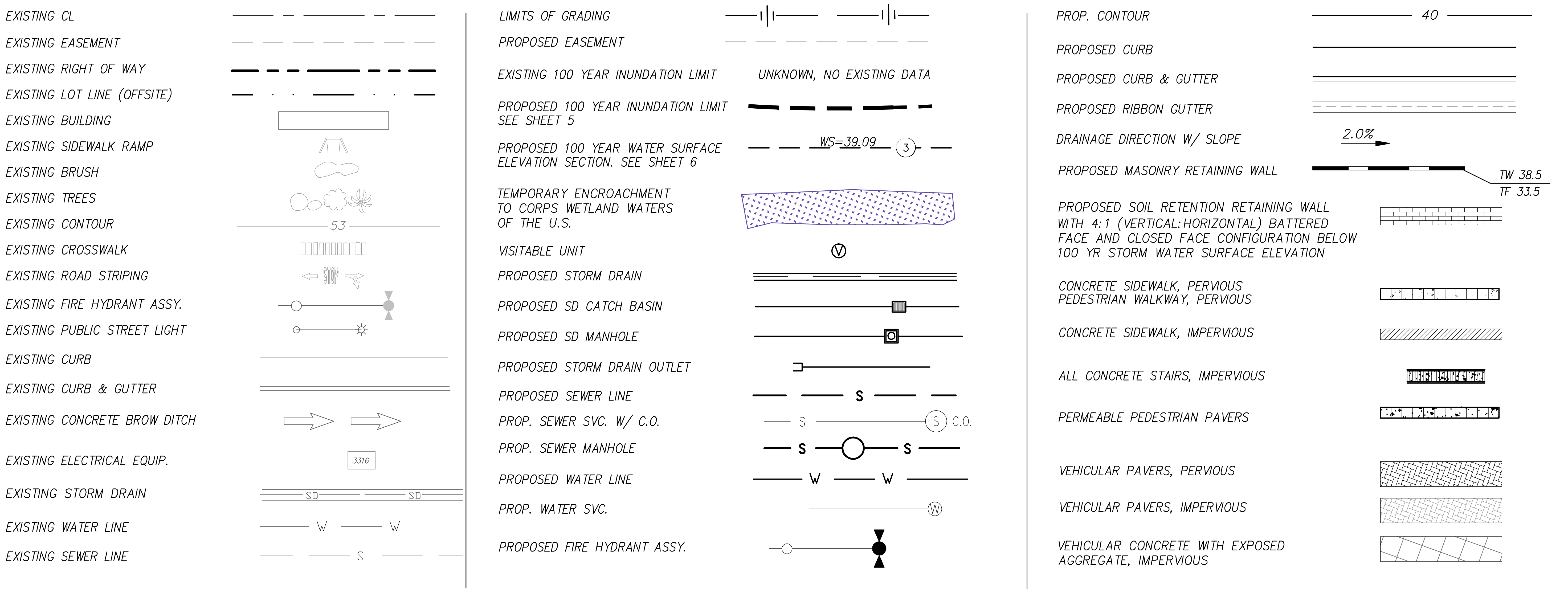
LANDSCAPE ARCHITECT

IVY LANDSCAPE ARCHITECTS, INC
REPRESENTATIVE: HARRY MESTYANEK
(619) 235-5360
1947 FERN STREET, SUITE 4
SAN DIEGO, CA 92102

SHEET INDEX

1	CIVIL COVER SHEET
2	CONCEPTUAL SITE PLAN
3	CONSTRAINT MAP
4	SLOPE ANALYSIS
5	PRELIMINARY GRADING PLAN
6	PRELIMINARY RETAINING WALL PLAN
7	PRELIMINARY UTILITY AND STORM DRAIN PLAN
8	PRELIMINARY DETAILS
9	PRELIMINARY DRIVEWAY "A" & "B" PROFILES
10	PRELIMINARY DRIVEWAY "C", "D" & "E" PROFILES
11	PRELIMINARY CHANNEL PROFILE
12-15	PRELIMINARY CROSS SECTIONS
16	PRELIMINARY PUBLIC SEWER PROFILE
17-18	PRELIMINARY STORM DRAINAGE PROFILE
19	40% SLOPE AND RETAINING WALLS
20	TENTATIVE MAP LOT EXHIBIT
L1-0	LANDSCAPE CONCEPT PLAN
L2-0	WATER CONSERVATION PLAN
L2-1	WATER SUPPLY PLAN
L3-0	CONCEPTUAL MAINTENANCE PLAN
L4-0	FIRE PROTECTION PLAN

LEGEND



* SPOT ELEV. 37.56 FG
* FS = FINISHED SURFACE ELEVATION (HARDSCAPE)
* FG = FINISHED GRADE ELEVATION (PLANTING OR TURF)
* FL = FLOWLINE ELEVATION (DRAINAGE COURSE)
* RIM = RIM ELEVATION (STORM DRAIN)
* TW = TOP OF WALL ELEVATION (RETAINING WALL)
* TF = TOP OF FOOTING OF WALL (RETAINING WALL)
* I.E. = INVERT ELEVATION (STORM DRAIN)
* TC = TOP OF CURB ELEVATION
* CL = CENTER LINE
* EW = EXPOSED HEIGHT OF WALL
* GUE = GENERAL UTILITY EASEMENT
* ESMT = EASEMENT
* REC AREA = RECREATIONAL AREA
* PVT = PRIVATE

PRELIMINARY EARTHWORK:

CUT: 9,000 CY
FILL: 11,000 CY
IMPORT: 2,000 CY
REMEDIAL: 33,000 CY

NOTE: THESE QUANTITIES HAVE BEEN CALCULATED FROM FG TO EG AND BEFORE ANY BULKING OR SHRINKING FACTORS. BALANCE WILL BE SOUGHT IN FURTHER DESIGN ITERATIONS.

REVISIONS:

PROJECT NAME:
TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL

DATE

Hofman
Planning + Engineering
3156 Lionshead Avenue, Suite 1
Carlsbad, CA 92010
(760) 692-4100
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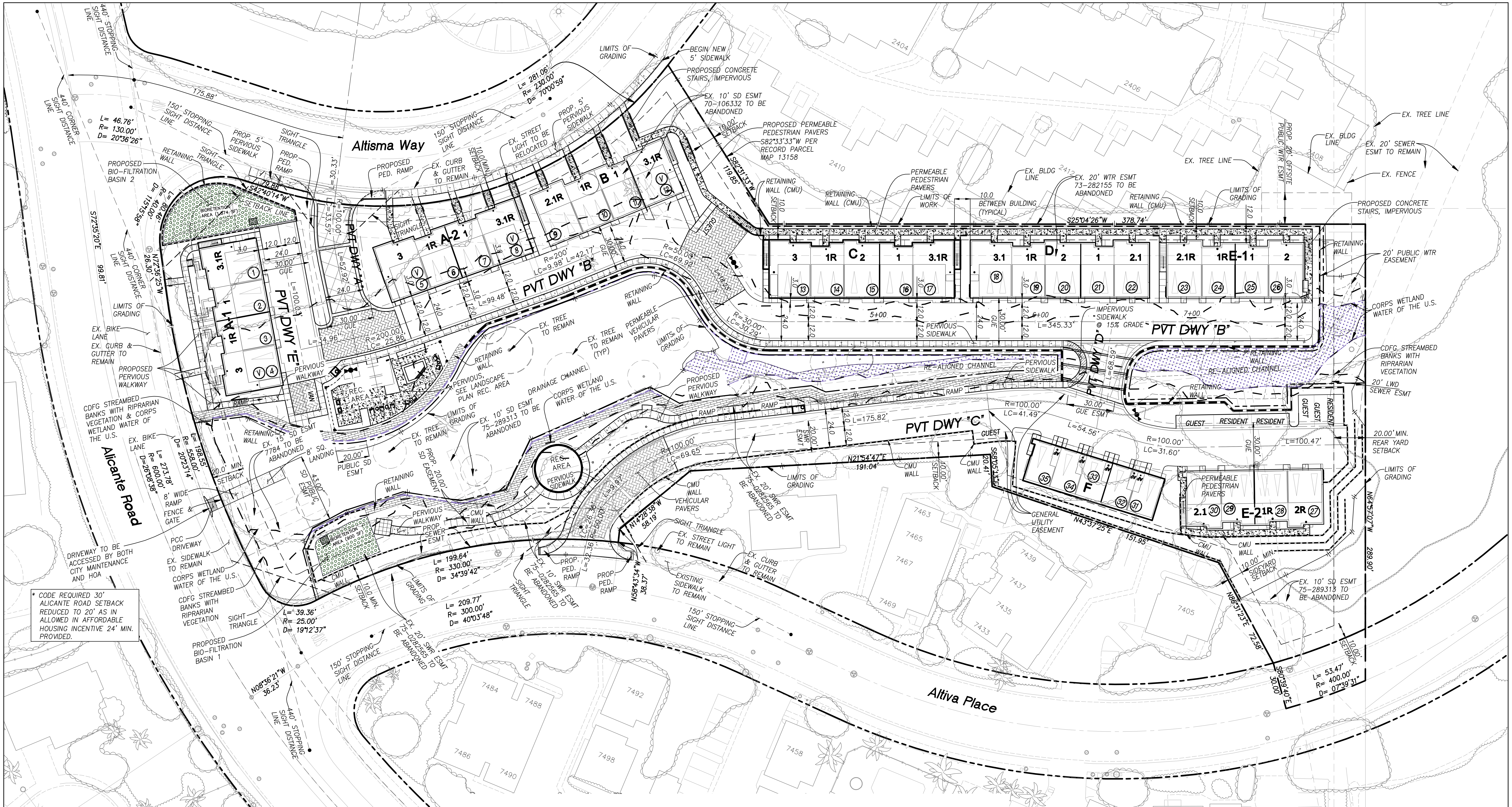
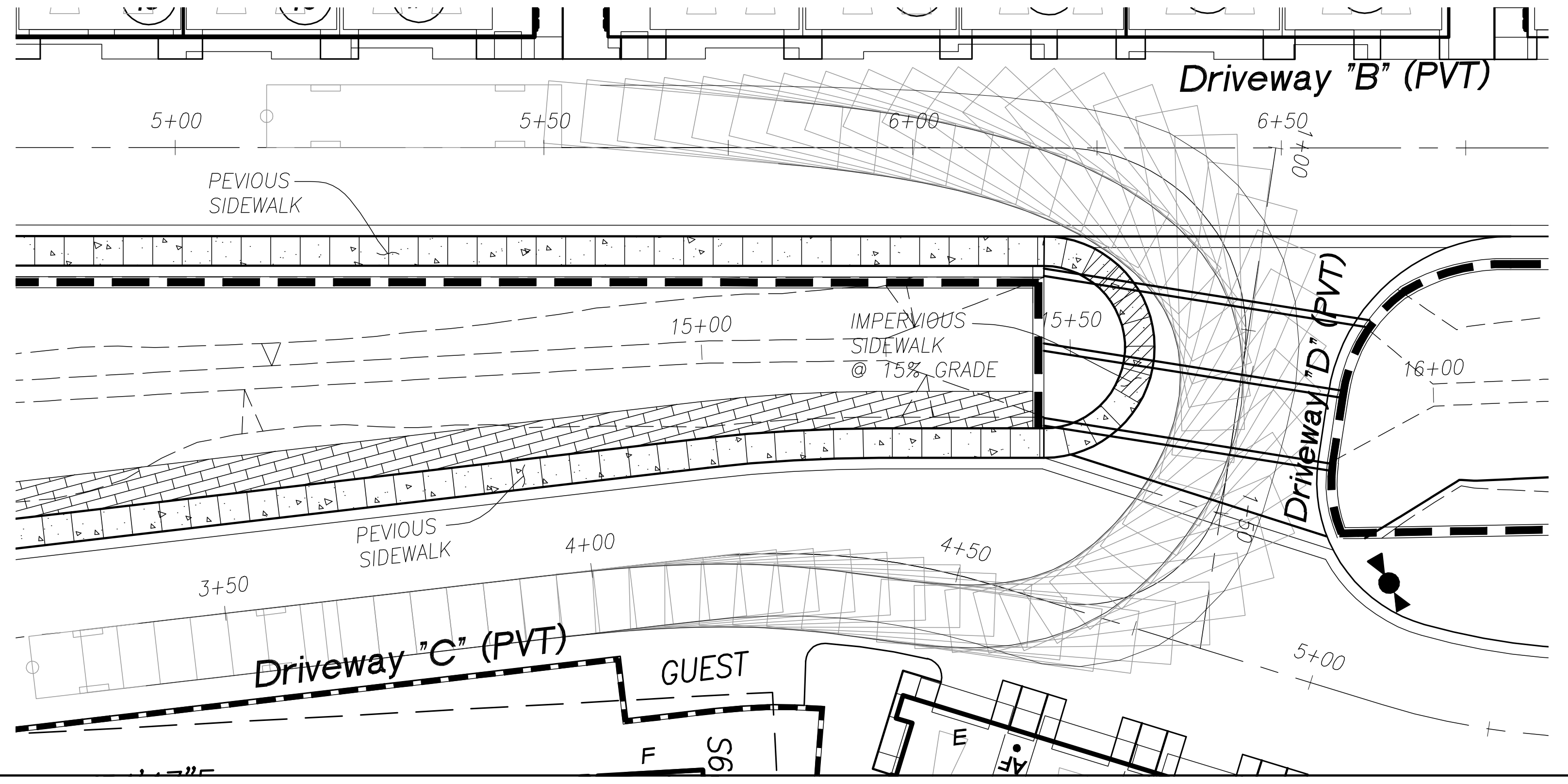
SHEET TITLE:
CIVIL
COVER SHEET

DATE	**03/23/2016**
SCALE:	**NTS**
DRAWN:	**BCR/NM**
JOB :	**ALTISMA**
DRAWING NO.	1

SHEET 1 OF 20



* CODE REQUIRED 30' ALICANTE ROAD SETBACK REDUCED TO 20' AS IN ALLOWED IN AFFORDABLE HOUSING INCENTIVE 24' MIN. PROVIDED.



FIRE TRUCK TURN

SCALE: 1" = 20'

NOTE:

1. ALL WALLS WITHIN PUBLIC EASEMENTS REQUIRE ENCROACHMENT AGREEMENT.
2. NO STRUCTURES, WALLS, OR ANY OBSTRUCTIONS OVER 30" HIGH ARE ALLOWED WITHIN SIGHT DISTANCE LINES AS PLOTTED.

NOTE:

1. ON-SITE PRIVATE IMPROVEMENTS INCLUDING DRAINAGE FACILITIES, DECORATIVE PAVERS, WALLS AND OTHER STRUCTURES WITHIN PUBLIC EASEMENTS WILL REQUIRE ENCROACHMENT AGREEMENT WITH THE CORRESPONDING PUBLIC AGENCIES.
2. APPLY CANTILEVERED CAP ON TOP OF RETAINING WALLS PER LANDSCAPE REQUIREMENTS.
3. PROPOSED SEWER BY PASS PUMPING DESIGN WILL BE PROVIDED DURING THE PREPARATION OF THE IMPROVEMENT PLANS.

Ⓥ VISITABLE UNIT

0 15 30 60 120

SCALE
1" = 30'

REVISIONS:

PROJECT NAME:

TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

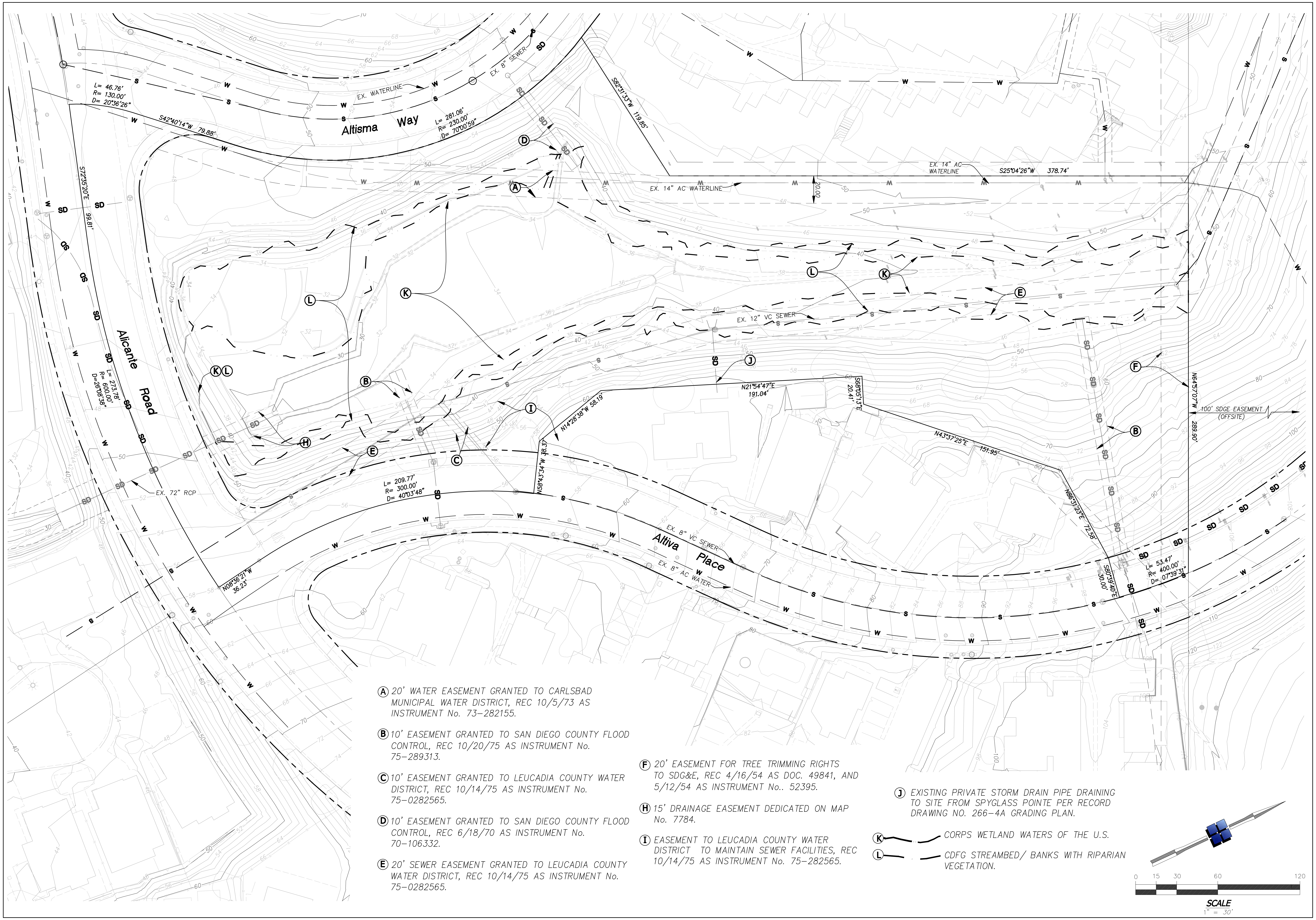
SHEET TITLE:
SITE PLAN

DATE	03/23/2016
SCALE:	1"=30'
DRAWN:	BCR/NM
JOB :	ALTISMA
DRAWING NO.	2

SHEET 2 OF 20

M:\Engineering Projects\Altis na\drawing\plan_sets\SDP\ALTISMA SDP - 02 SITE PLAN.dwg 03/24/2016 14:01

SDP THIRD SUBMITTAL 2016-0323-NOT FOR CONSTRUCTION



Ⓐ 20' WATER EASEMENT GRANTED TO CARLSBAD MUNICIPAL WATER DISTRICT, REC 10/5/73 AS INSTRUMENT No. 73-282155.

Ⓑ 10' EASEMENT GRANTED TO SAN DIEGO COUNTY FLOOD CONTROL, REC 10/20/75 AS INSTRUMENT No. 75-289313.

Ⓒ 10' EASEMENT GRANTED TO LEUCADIA COUNTY WATER DISTRICT, REC 10/14/75 AS INSTRUMENT No. 75-0282565.

Ⓓ 10' EASEMENT GRANTED TO SAN DIEGO COUNTY FLOOD CONTROL, REC 6/18/70 AS INSTRUMENT No. 70-106332.

Ⓔ 20' SEWER EASEMENT GRANTED TO LEUCADIA COUNTY WATER DISTRICT, REC 10/14/75 AS INSTRUMENT No. 75-0282565.

Ⓕ 20' EASEMENT FOR TREE TRIMMING RIGHTS TO SDG&E, REC 4/16/54 AS DOC. 49841, AND 5/12/54 AS INSTRUMENT No.. 52395.

Ⓗ 15' DRAINAGE EASEMENT DEDICATED ON MAP No. 7784.

Ⓘ EASEMENT TO LEUCADIA COUNTY WATER DISTRICT TO MAINTAIN SEWER FACILITIES, REC 10/14/75 AS INSTRUMENT No. 75-282565.

Ⓙ EXISTING PRIVATE STORM DRAIN PIPE DRAINING TO SITE FROM SPYGLASS POINTE PER RECORD DRAWING NO. 266-4A GRADING PLAN.

Ⓚ — — CORPS WETLAND WATERS OF THE U.S.

Ⓛ — - — CDFG STREAMBED/ BANKS WITH RIPARIAN VEGETATION.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
CONSTRAINT MAP

DATE	11/05/2015
SCALE:	1"=30'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	3

SHEET 3 OF 19

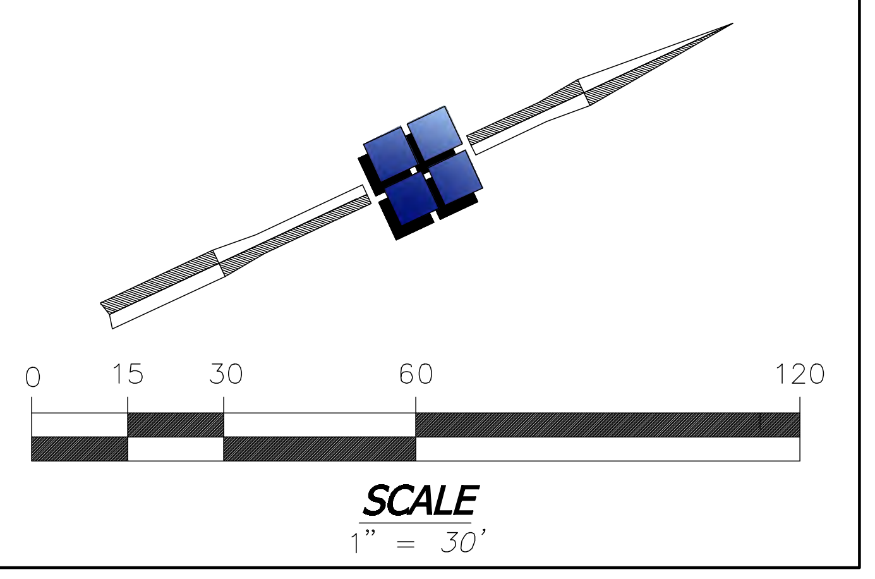
M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 03 Constraints Map.dwg 02/10/2016 15:13

SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION

NOTE:
SLOPE GREATER THAN 40% ARE NOT NATURAL PER PREVIOUS GRADING PERMITS. ONLY NATURAL SLOPES EXCLUDED FROM DENSITY CALCULATIONS PER 21.53.230(4)

SLOPE ANALYSIS AND DENSITY CALCULATIONS

Color	Range Beg.	Range End	Percent	Area	NET ACRES FOR DENSITY CALCULATIONS	DENSITY ON 35 UNITS
🟨	0%	15%	45.6	1.676 Ac.	1.676 Ac.	–
🟩	15%	25%	11.0	0.404 Ac.	0.404 Ac.	–
🟫	25%	40%	19.4	0.713 Ac.	0.357 Ac.	–
🟥	MANUFACTURED	OVER 40%	16.2	0.596 Ac.	0.596 Ac.	–
🟥	NATURAL	OVER 40%	7.8	0.288 Ac.	0 Ac.	–
				3.677 GROSS ACREAGE	3.033 Ac.	11.54 UNITS/ACRE



REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
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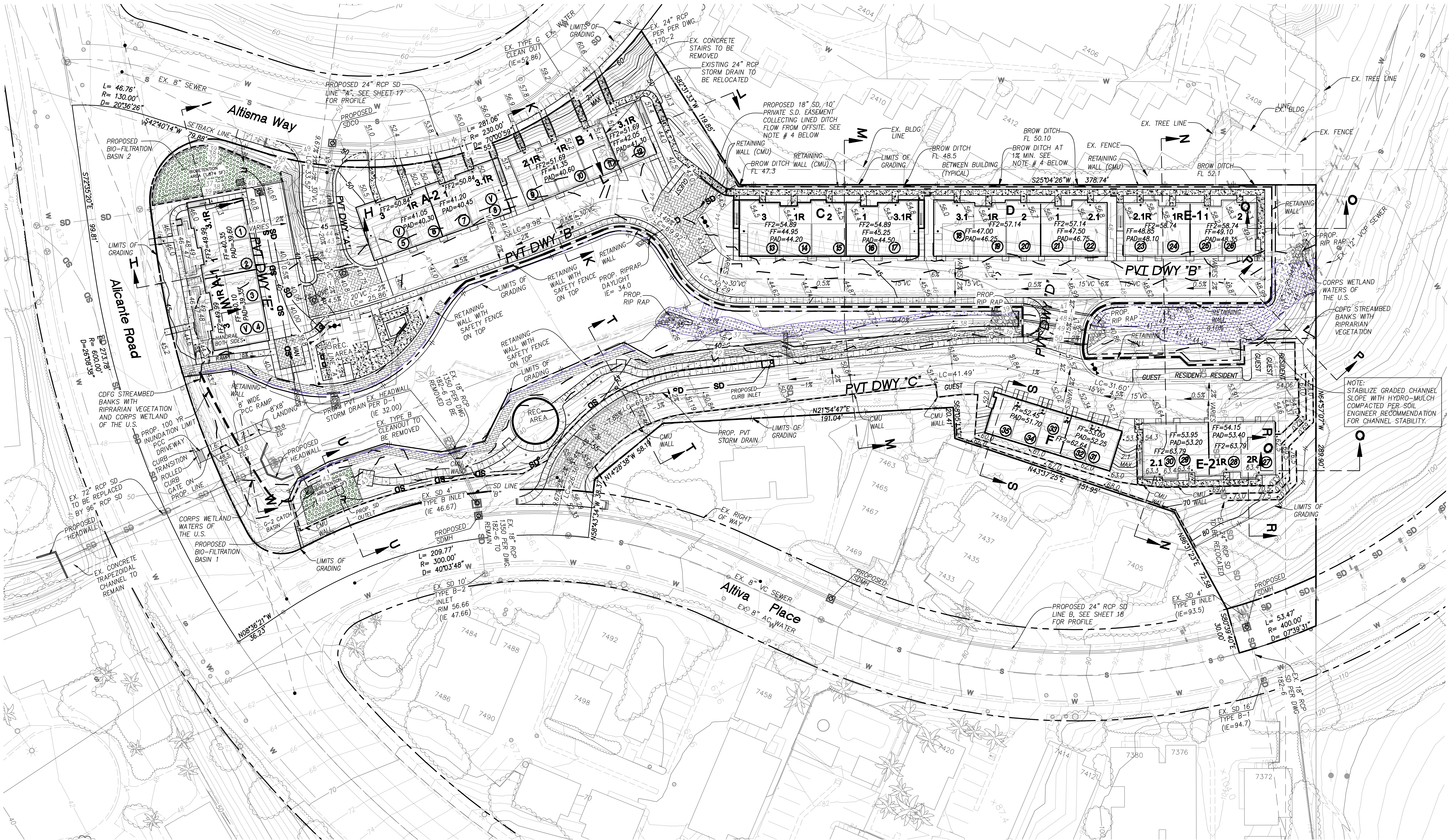
BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

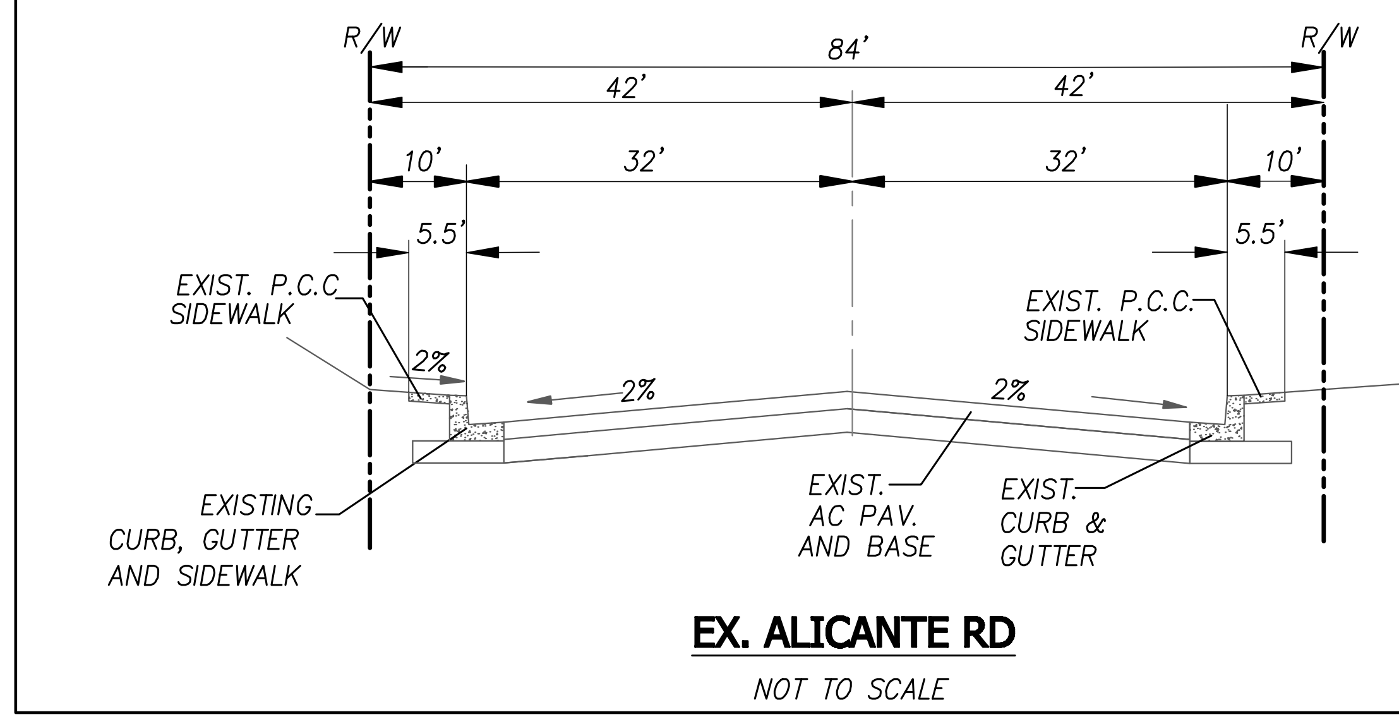
SHEET TITLE:
SLOPE ANALYSIS

DATE	11/05/2015
SCALE:	1"=30'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	4

SHEET 4 OF 19

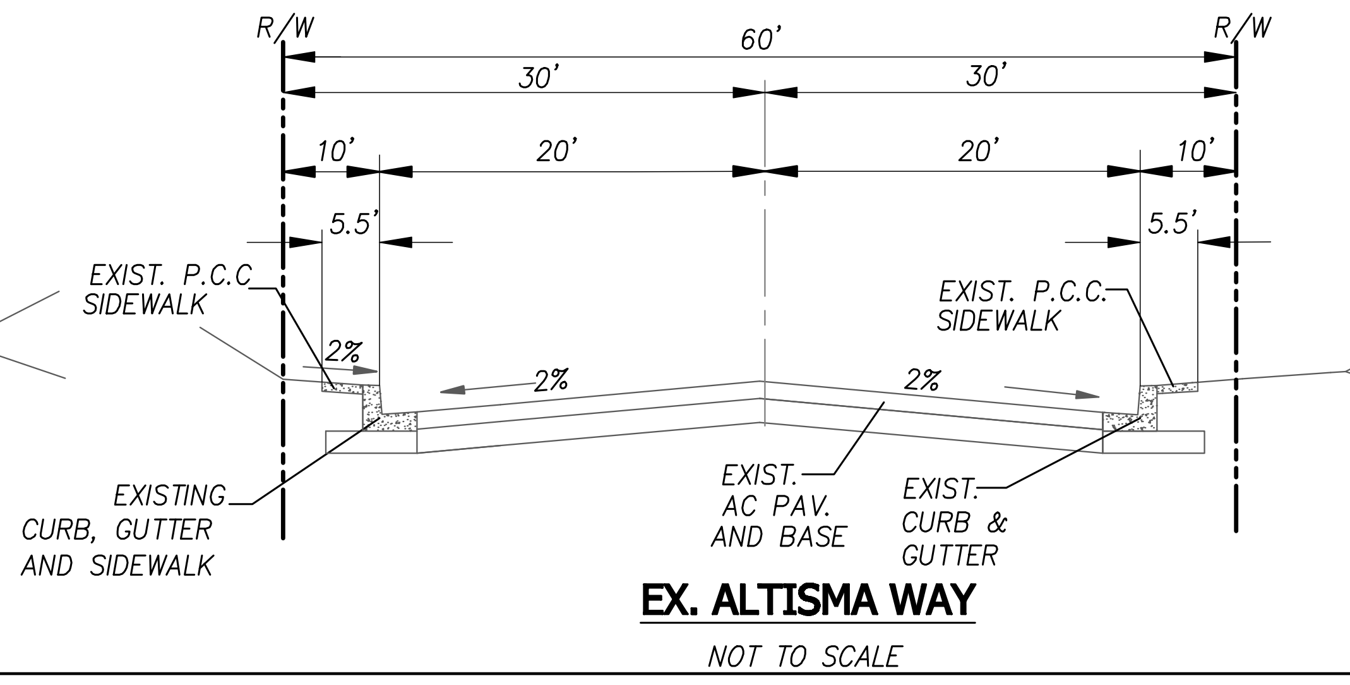
M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP – 04 Slope analysis.dwg 02/10/2016 15:14





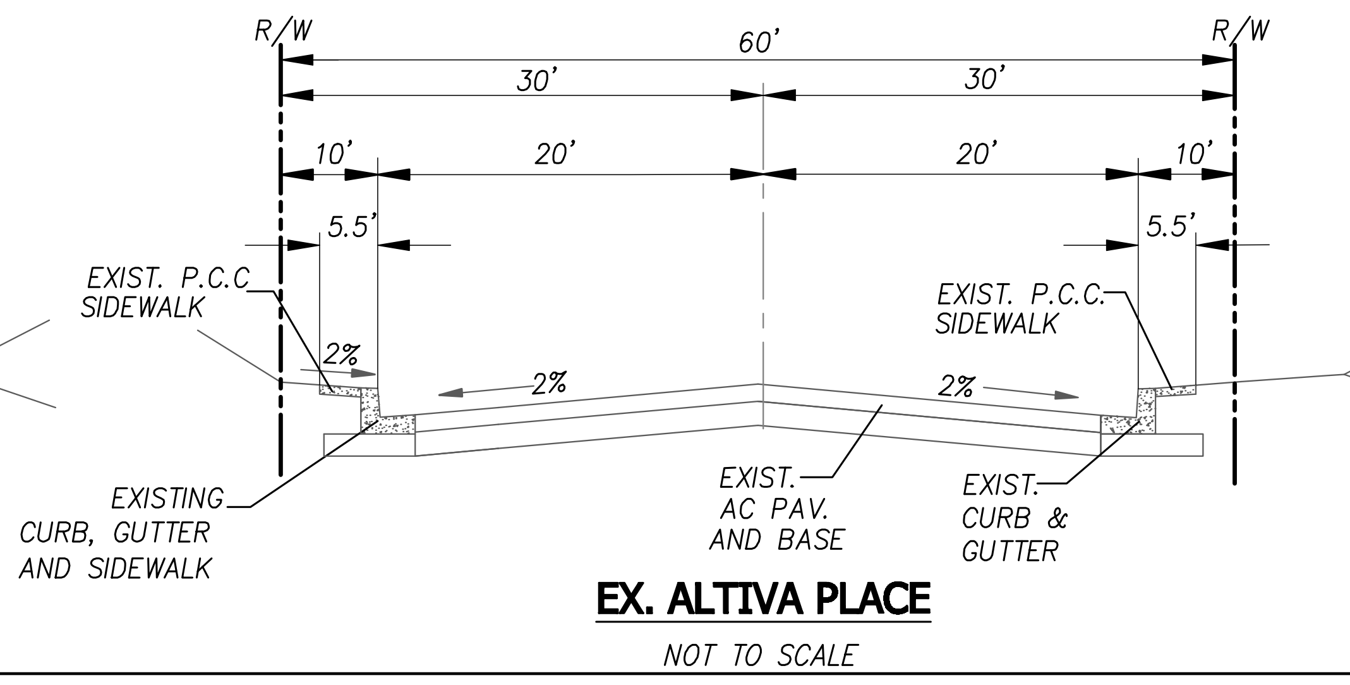
EX. ALICANTE RD

NOT TO SCALE



EX. ALTISMA WAY

NOT TO SCALE



EX. ALTIVA PLACE

NOT TO SCALE

NOTE:

1. ON-SITE PRIVATE IMPROVEMENTS INCLUDING DRAINAGE FACILITIES, DECORATIVE PAVERS, WALLS AND OTHER STRUCTURES WITHIN PUBLIC EASEMENTS WILL REQUIRE ENCROACHMENT AGREEMENT WITH THE CORRESPONDING PUBLIC AGENCIES.
2. APPLY CANTILEVERED CAP ON TOP OF RETAINING WALLS PER LANDSCAPE REQUIREMENTS.
3. PROPOSED SEWER BY PASS PUMPING DESIGN WILL BE PROVIDED DURING THE PREPARATION OF THE IMPROVEMENT PLANS.
4. "PROPOSED PRIVATE DRAINAGE EASEMENT TO BE GRANTED TO THE ADJACENT HOA OVER PIPE AND BROW DITCH. PROPERTY OWNER/HOA OF THE SUBJECT DEVELOPMENT, CASCADA VERDE ACCEPTS RESPONSIBILITY FOR MAINTAINING AND REPAIRING ONSITE DRAINAGE FACILITIES UNLESS OTHERWISE ARRANGED WITH THE GRANTEE."

NOTE:

FOR PROFILE & CROSS SECTIONS, SEE SHEET 9-18.

SCALE
1" = 30'

REVISIONS:

PROJECT NAME:

TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

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REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17 DATE

SHEET TITLE:

PRELIMINARY GRADING PLAN

DATE	03/23/2016
SCALE:	1"=30'
DRAWN:	BCR/NM
JOB :	ALTISMA
DRAWING NO.	5

SHEET 5 OF 20

SDP THIRD SUBMITTAL 2016-0323-NOT FOR CONSTRUCTION

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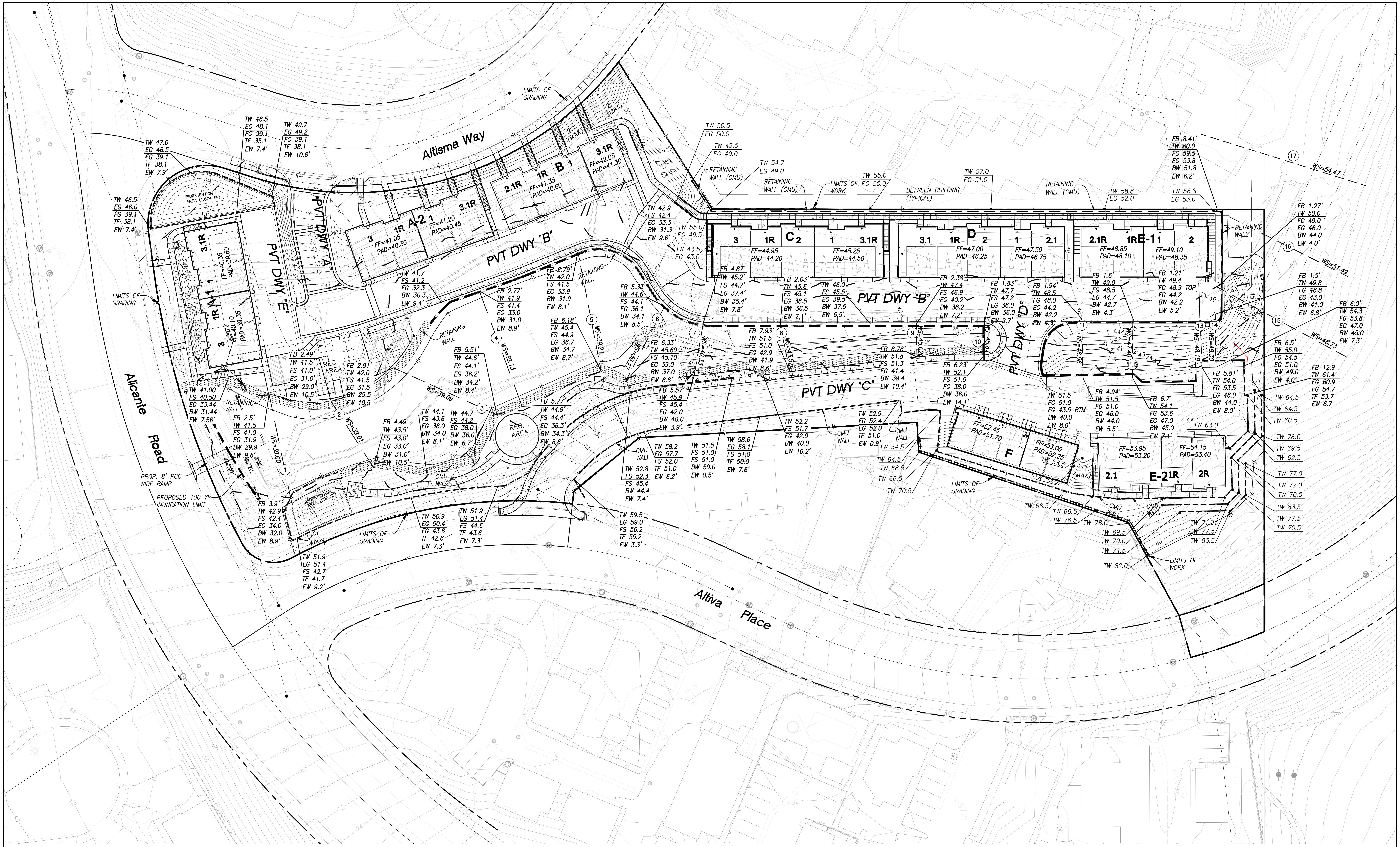


NOTE:

1. ON-SITE PRIVATE IMPROVEMENTS INCLUDING DRAINAGE FACILITIES, DECORATIVE PAVERS, WALLS AND OTHER STRUCTURES WITHIN PUBLIC EASEMENTS WILL REQUIRE ENCROACHMENT AGREEMENT WITH THE CORRESPONDING PUBLIC AGENCIES.
2. APPLY CANTILEVERED CAP ON TOP OF RETAINING WALLS PER LANDSCAPE REQUIREMENTS.
3. PROPOSED SEWER BY PASS PUMPING DESIGN WILL BE PROVIDED DURING THE PREPARATION OF THE IMPROVEMENT PLANS.

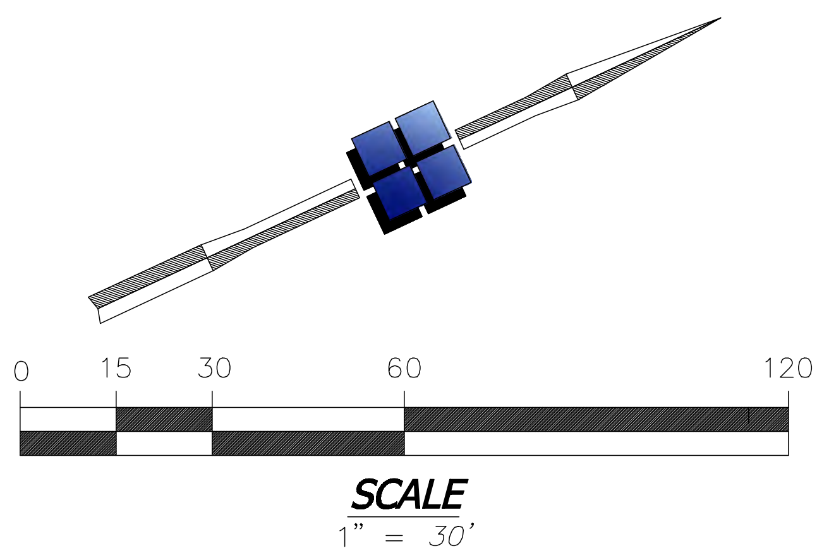
CONSTRUCTION NOTES:

— — — — ① = HEC RAS SECTION NUMBER SEE HYDROLOGY REPORT

FB = FREEBOARD

WSE = MAXIMUM WATER SURFACE ELEVATION (100 YEAR FLOOD ELEVATION)

EW = EXPOSED WALL HEIGHT



REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

No. C35343
Exp. 9/30/17
BRIAN REGAN

Hofman
Planning + Engineering
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Carlsbad, CA 92010
(760) 692-4100
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17 DATE

SHEET TITLE:
PRELIMINARY RETAINING WALL PLAN

DATE	11/05/2015
SCALE:	1"=30'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	6

SHEET 6 OF 19

SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION

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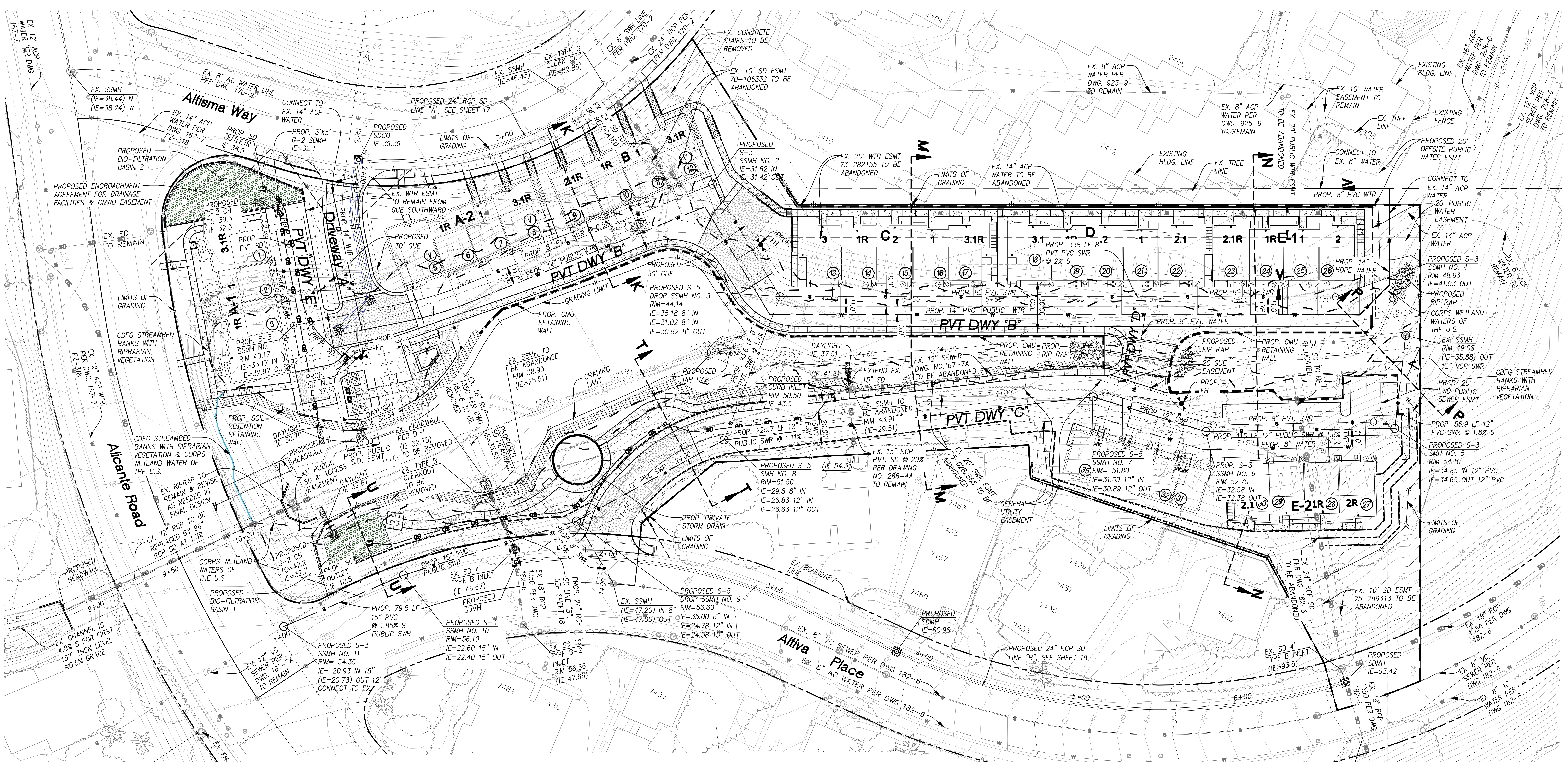
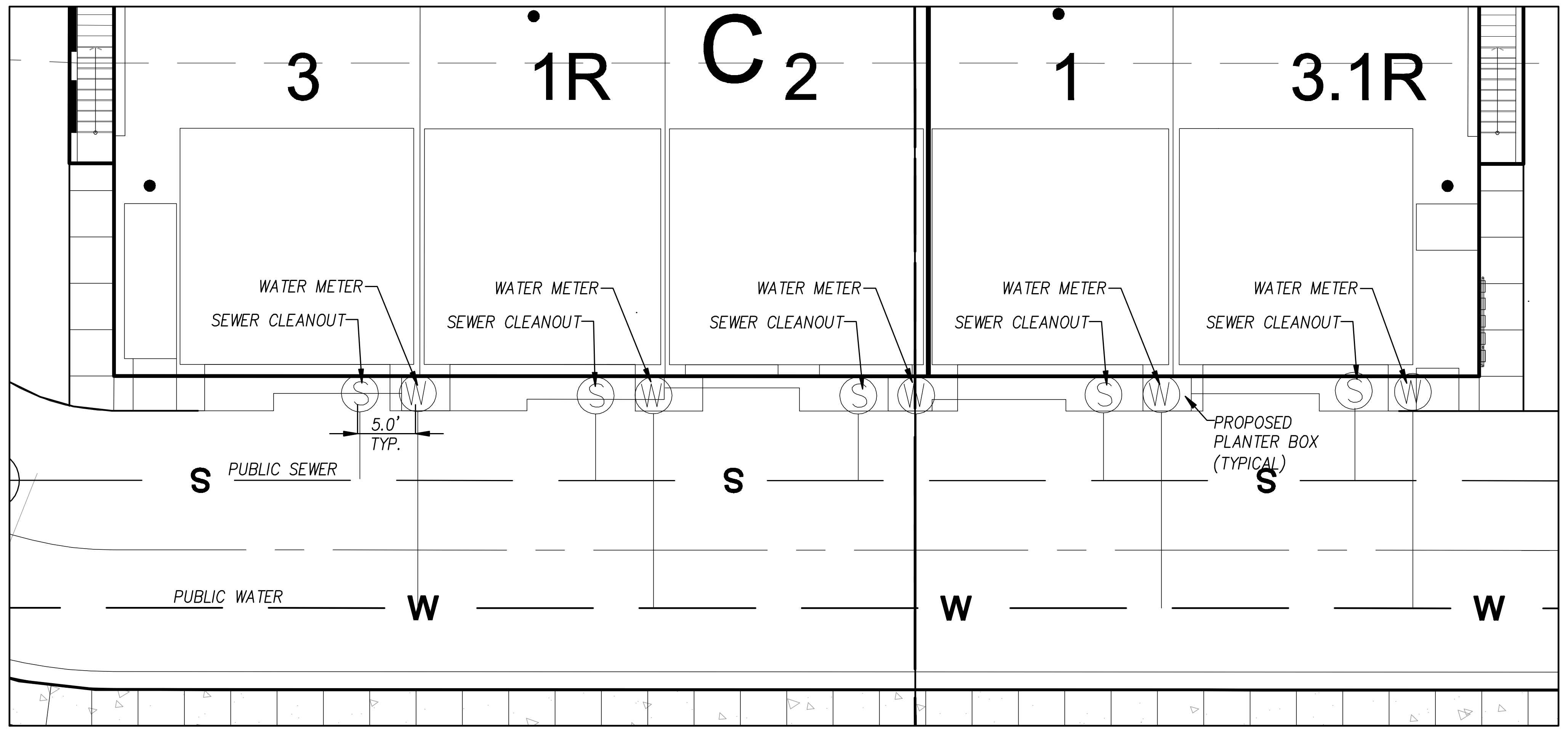




TYPICAL SEWER AND WATER LATERAL CONNECTION AT BUILDING (1' = 20')

NOTE:

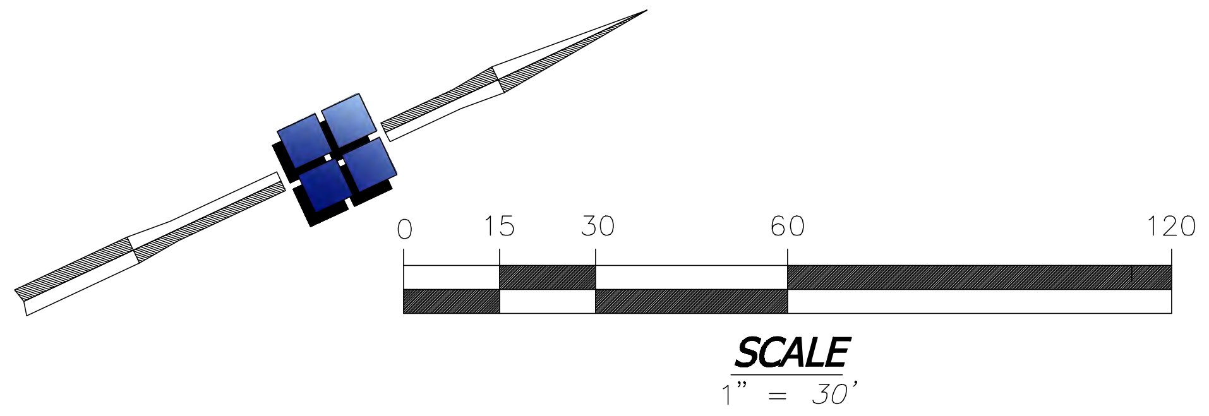
ON-SITE DRAINAGE FROM THE DEVELOPED PORTION OF THE SITE SHALL NOT CO-MINGLE WITH DRAINAGE FACILITIES CARRYING OFFSITE RUNOFF THROUGH THE SITE UNLESS SUPPORTED BY HYDROLOGY AND HYDRAULIC STUDIES SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

NOTE:

1. ON-SITE PRIVATE IMPROVEMENTS INCLUDING DRAINAGE FACILITIES, DECORATIVE PAVERS, WALLS AND OTHER STRUCTURES WITHIN PUBLIC EASEMENTS WILL REQUIRE ENCROACHMENT AGREEMENT WITH THE CORRESPONDING PUBLIC AGENCIES.
2. APPLY CANTILEVERED CAP ON TOP OF RETAINING WALLS PER LANDSCAPE REQUIREMENTS.
3. PROPOSED SEWER BY PASS PUMPING DESIGN WILL BE PROVIDED DURING THE PREPARATION OF THE IMPROVEMENT PLANS.
4. USE HDPE WATER LINE PIPE THAT ENCROACHES THE WETLAND WATERS.
5. WATER LINE THAT ENCROACHES THE WETLAND WATER AREAS SHALL BE FUSED AND ENCASED WITH STEEL ENCASEMENT.
6. ALL ONSITE WATER PIPE SHALL BE EQUIPPED WITH MECHANICAL RESTRAINING JOINTS.

NOTE:

1. SEE SHEET 11 FOR PROFILE OF CHANNEL.
2. SEE SHEET 16 PROFILE OF RELOCATION OF PUBLIC SEWER,.
3. SEE SHEETS 17 & 18 FOR PROFILE OF STORM DRAIN LINE "A & B".
4. SEE SHEET 2 FOR LABELING OF PROPOSED EASEMENTS.
5. SEE SHEET 3 FOR LABELING OF EXISTING EASEMENTS.
6. SEE DETAILS ON SHEET 8 FOR LOCATION OF 30' GENERAL UTILITY EASEMENT.



REVISIONS:

PROJECT NAME:

VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

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REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17 DATE

SHEET TITLE:

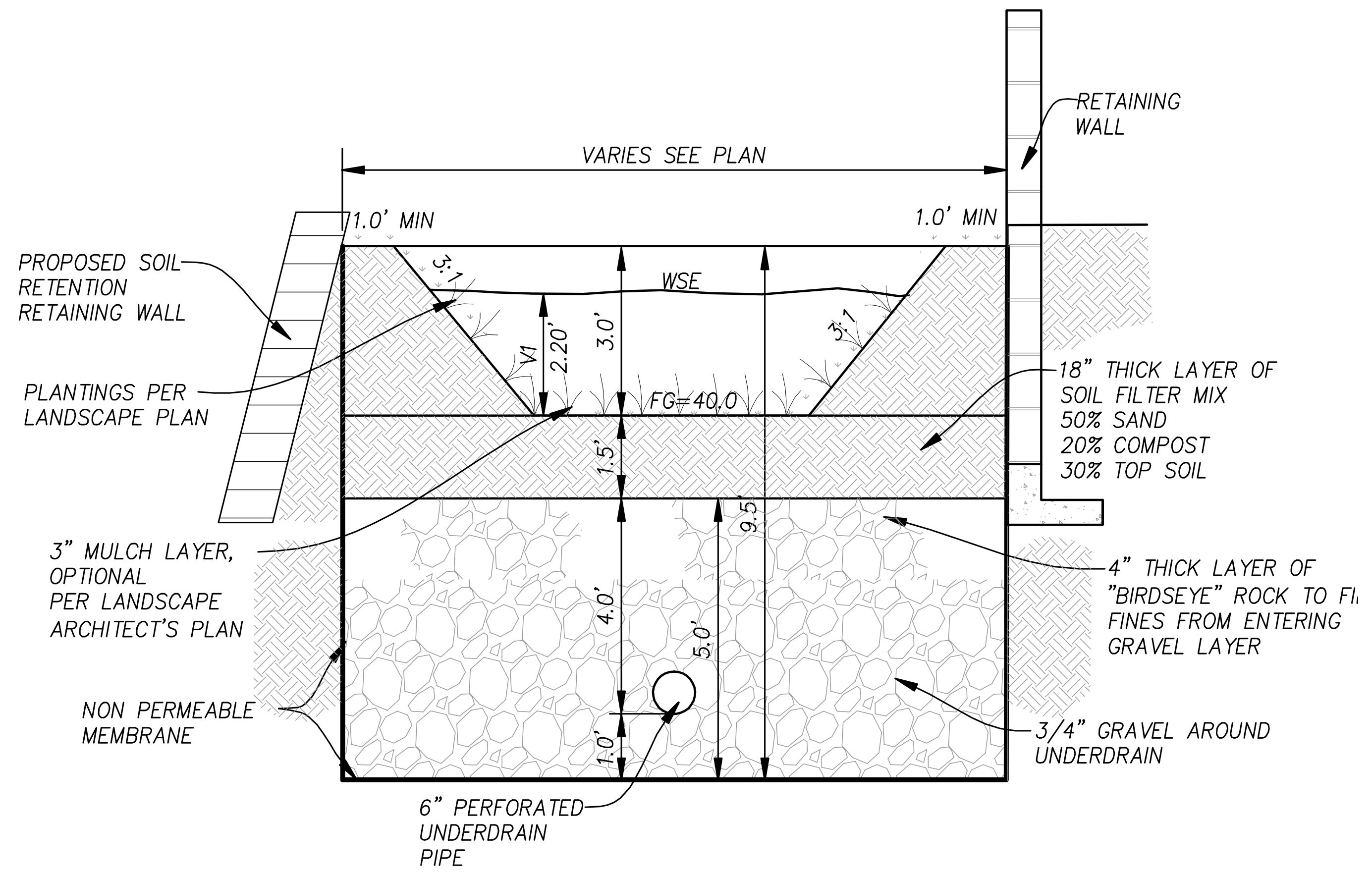
PRELIMINARY UTILITY
AND STORM DRAIN PLAN

DATE	11/05/2015
SCALE:	1"=30'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	7

SHEET 7 OF 19

M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 07 Utility SD.dwg 03/03/2016 08:11

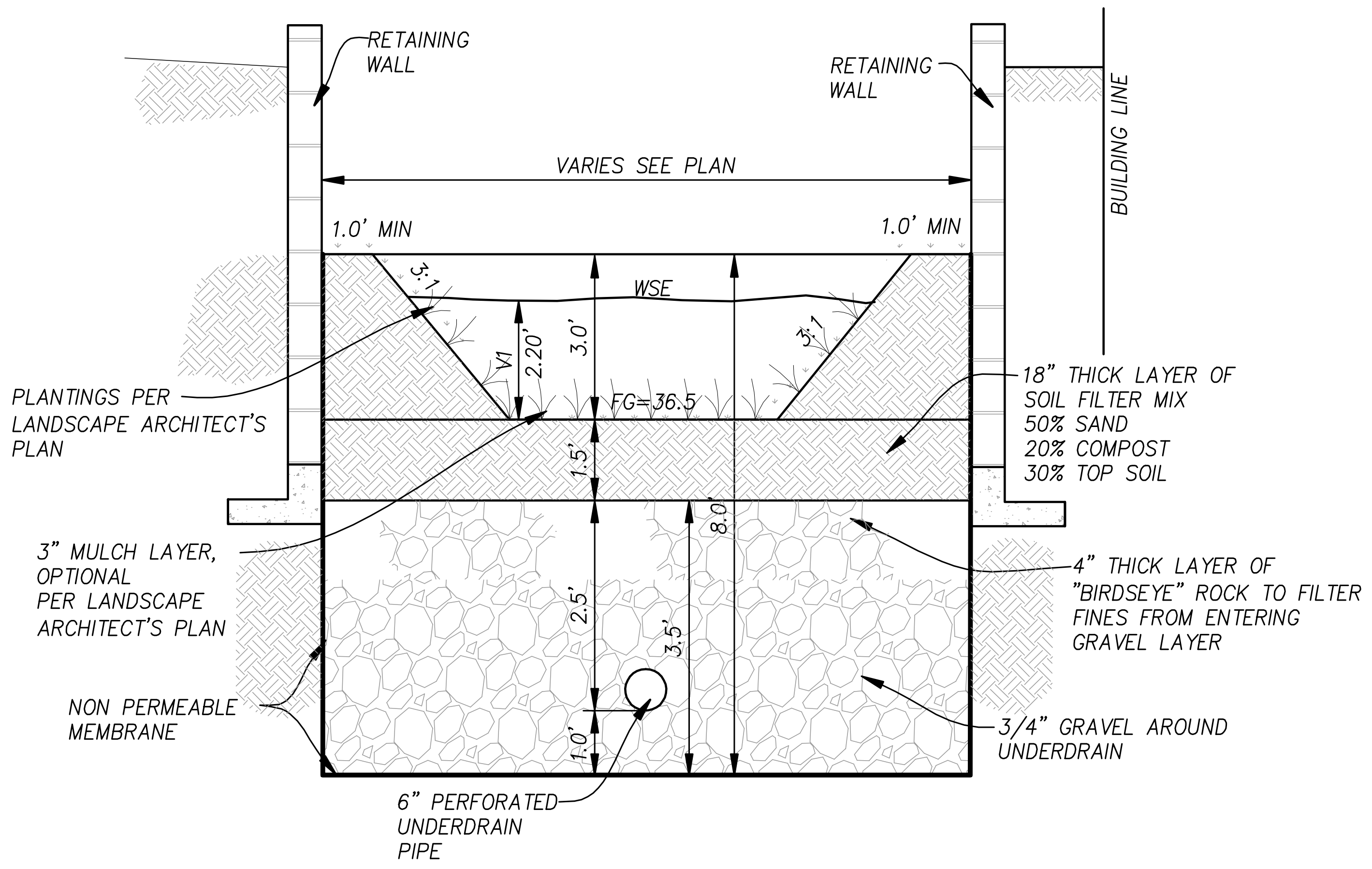
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



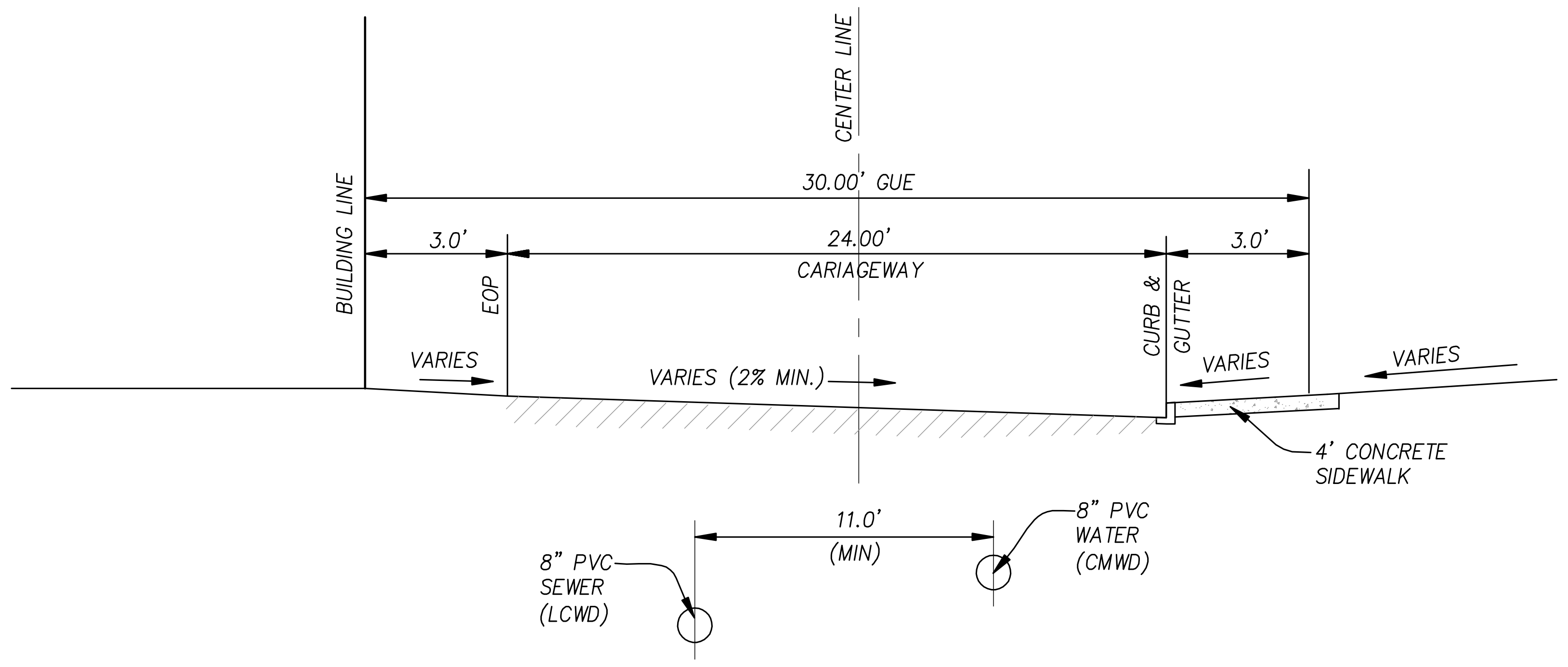
1/8 **BIO-FILTRATION AREA/HYDROMODIFICATION FACILITY NO. 1**
SEE SECTION "U-U" AT SHEET 15 *NOT TO SCALE*

BIO-FILTRATION AREA NOTES:

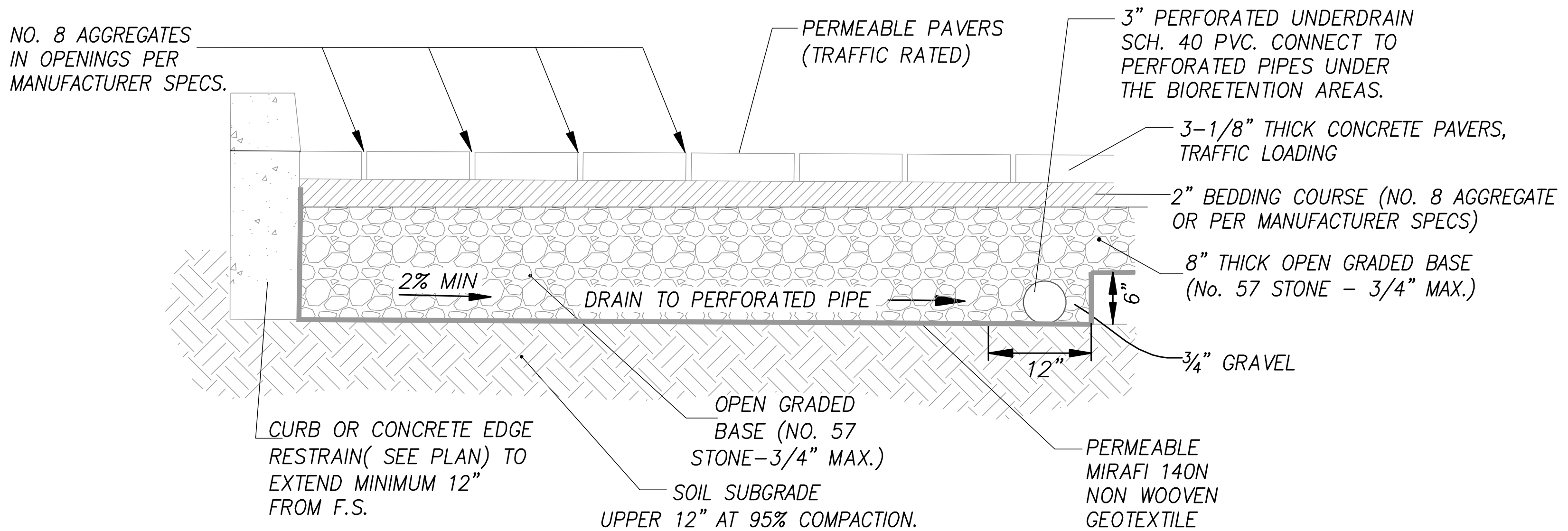
1. ENGINEERED SOIL OR AMENDED IN-SITU SOIL SHALL HAVE THE FOLLOWING PROPERTIES:
   - SANDY LOAM TYPE SOIL
   - 5 INCHES PER HOUR MINIMUM SUSTAINED INFILTRATION RATE
   - BE WELL MIXED AND CONSISTENT
2. COMPACTION OF THE PLACED ENGINEERED SOIL OR AMENDED IN-SITU SOIL SHALL BE MINIMIZED TO ALLOW INFILTRATION TO OCCUR.
3. PERFORATED UNDERDRAIN PIPE SHALL HAVE A MINIMUM OF THREE 3/8" DIAMETER HOLES, EQUALLY SPACED ALONG THE CIRCUMFERENCE OF THE PIPE AND NOT LESS THAN THREE HOLES PER LINEAR FOOT OF PIPE.
4. MULCH, IF APPLICABLE, TO BE SHREDDED HARDWOOD.



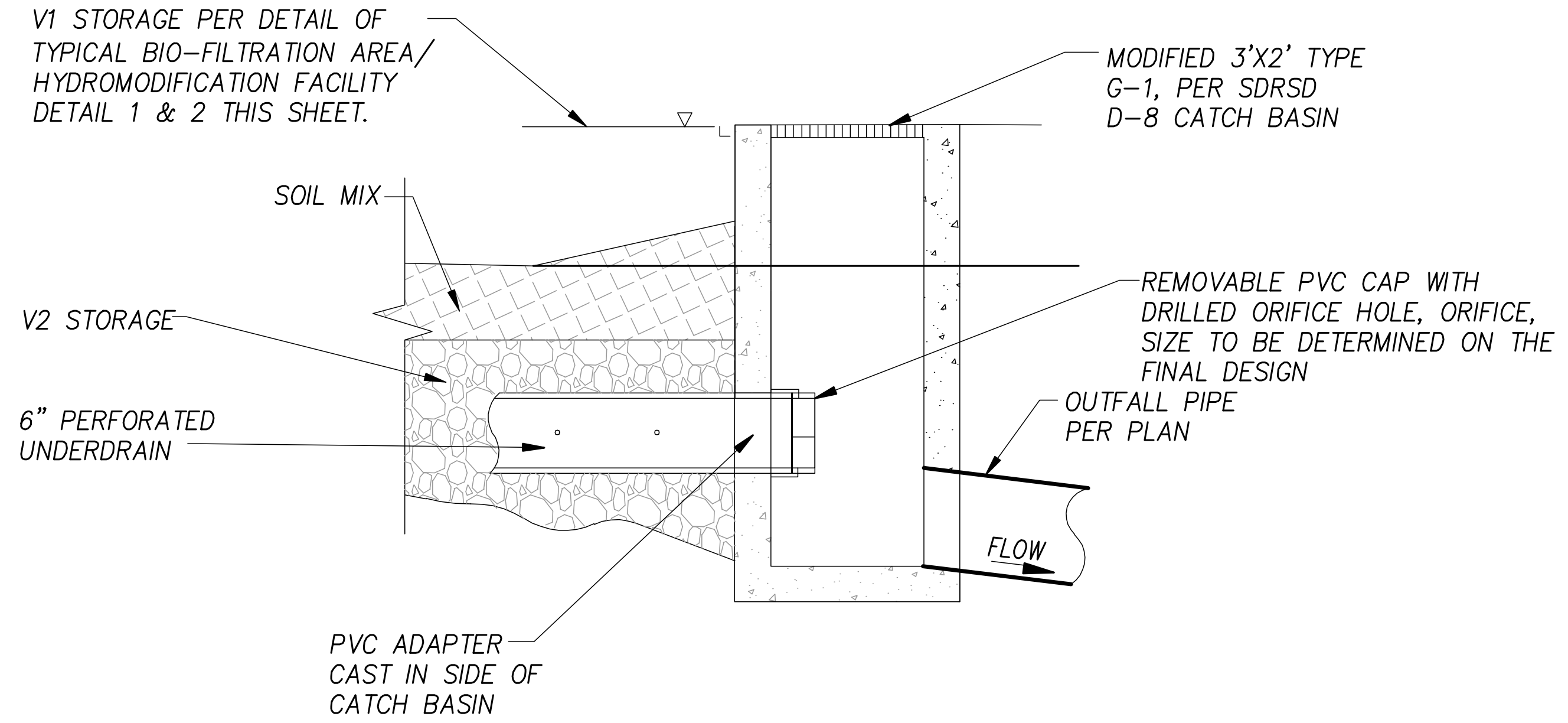
2/8 **BIO-FILTRATION AREA/HYDROMODIFICATION FACILITY NO. 2**
SEE SECTION "I-I" AT SHEET 12 *NOT TO SCALE*



5/8 **PRIVATE DRIVEWAY SECTION (TYPICAL)**
NOT TO SCALE



3/8 **PERVIOUS PAVERS**
NOT TO SCALE



4/8 **BIORETENTION AREA OUTLET STRUCTURE DETAIL**
NOT TO SCALE

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

BRIAN REGAN
No. C35343
Exp. 9/30/17
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DATE

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
PRELIMINARY DETAILS

DATE	11/05/2015
SCALE:	HZ 1"=20' V=1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	8

SHEET 8 OF 19

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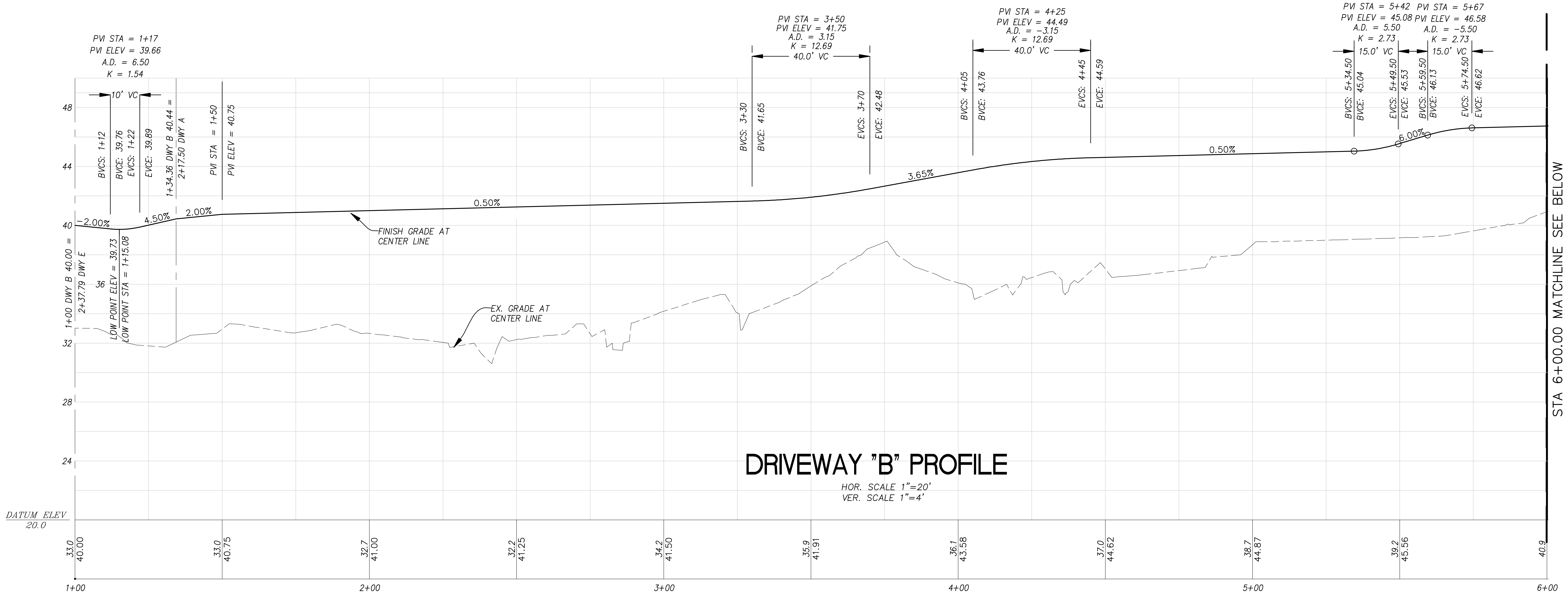
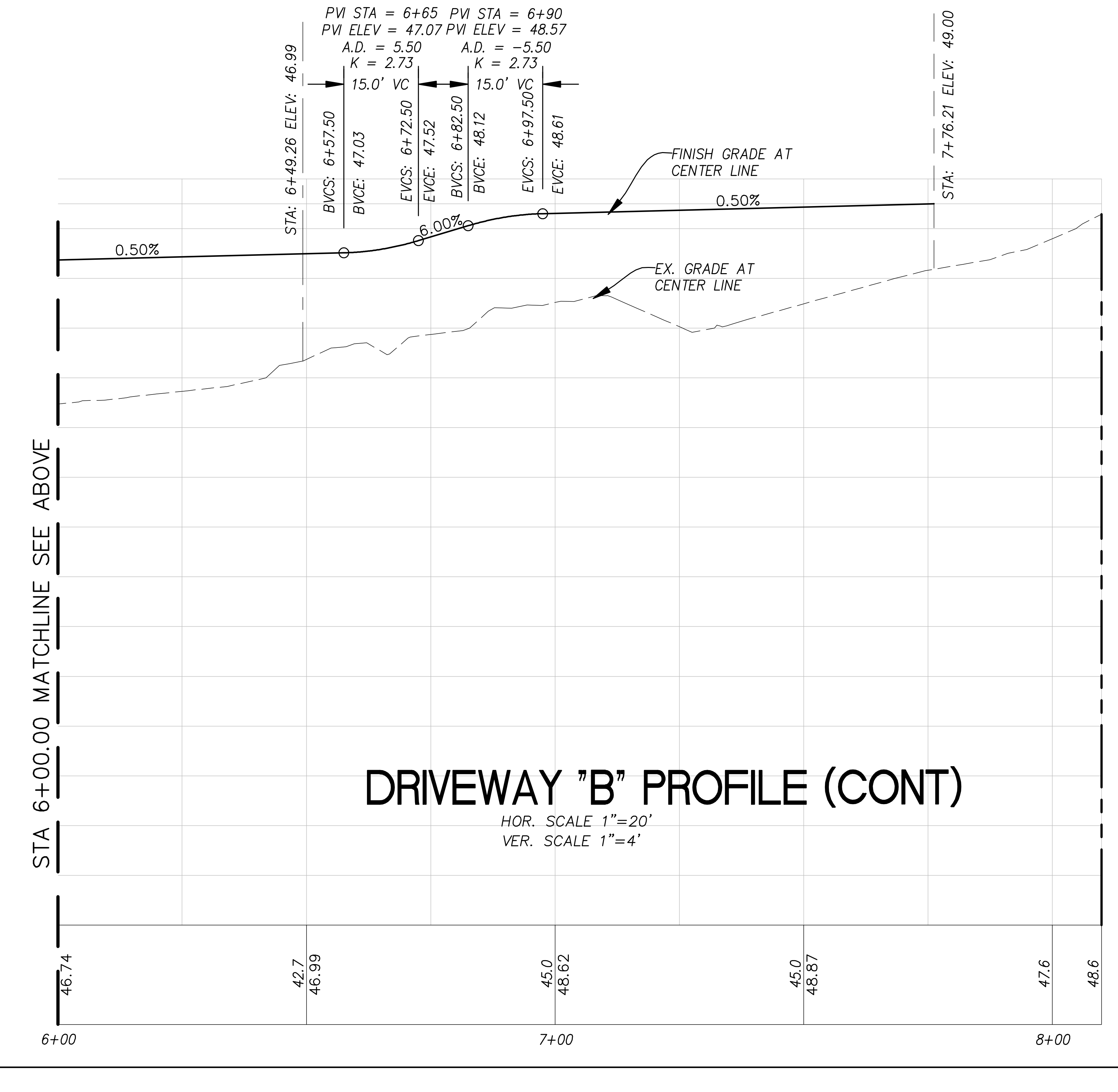
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



DRIVEWAY "B" PROFILE

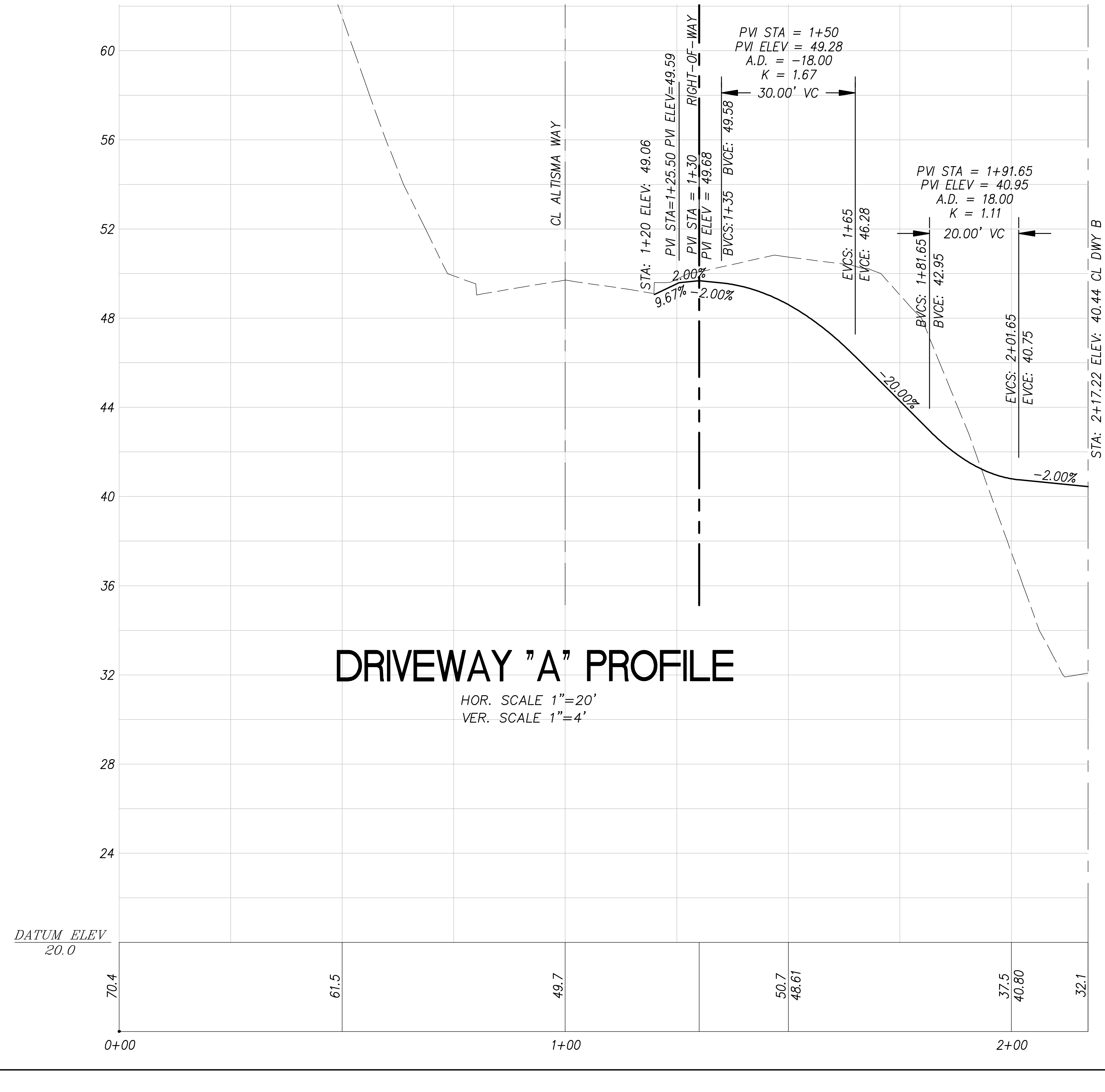
HOR. SCALE 1"=20'
VER. SCALE 1"=4'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.



DRIVEWAY "B" PROFILE (CONT)

HOR. SCALE 1"=20'
VER. SCALE 1"=4'



DRIVEWAY "A" PROFILE

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
PRELIMINARY DRIVEWAY
A AND B
PROFILES

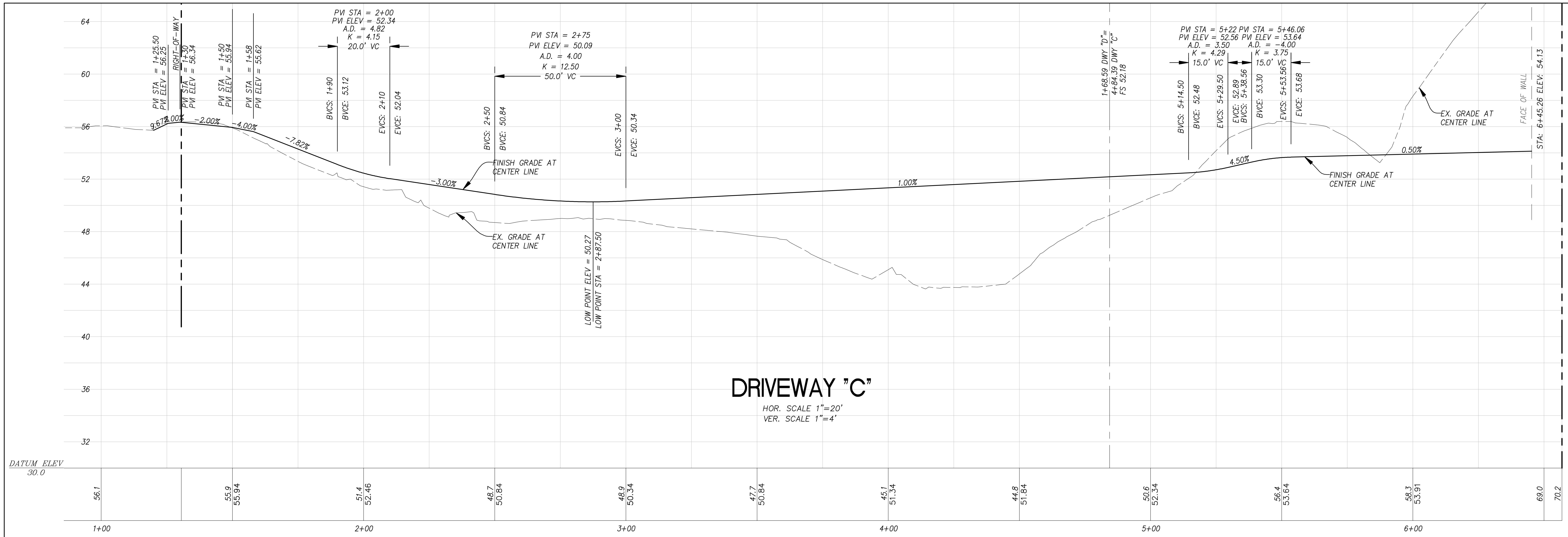
DATE	11/05/2015
SCALE:	HZ 1"=20', V=1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA

DRAWING NO.
9

SHEET 9 OF 19

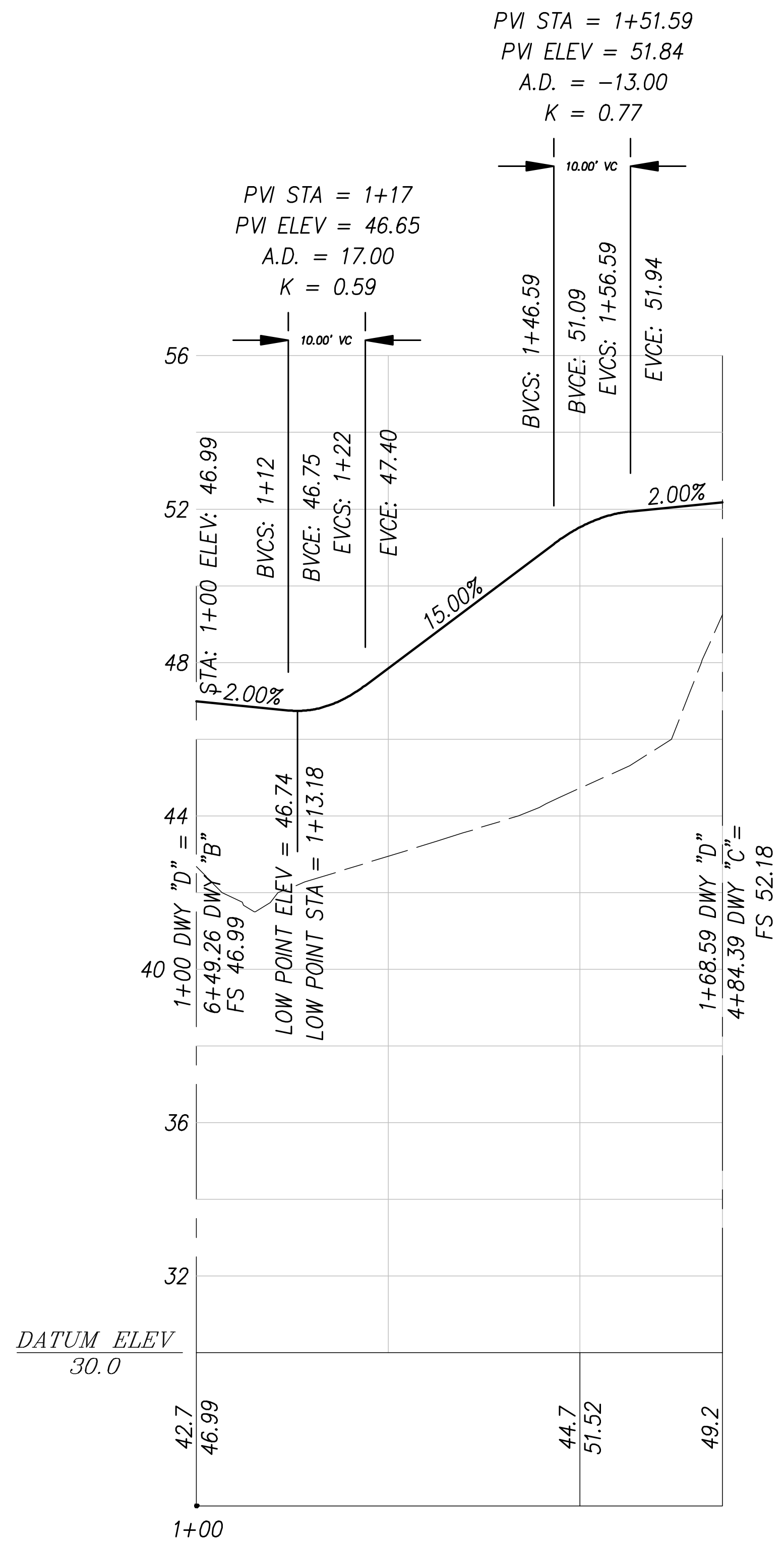
M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 09 PROFILES A-B.dwg 02/10/2016 15:16

SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



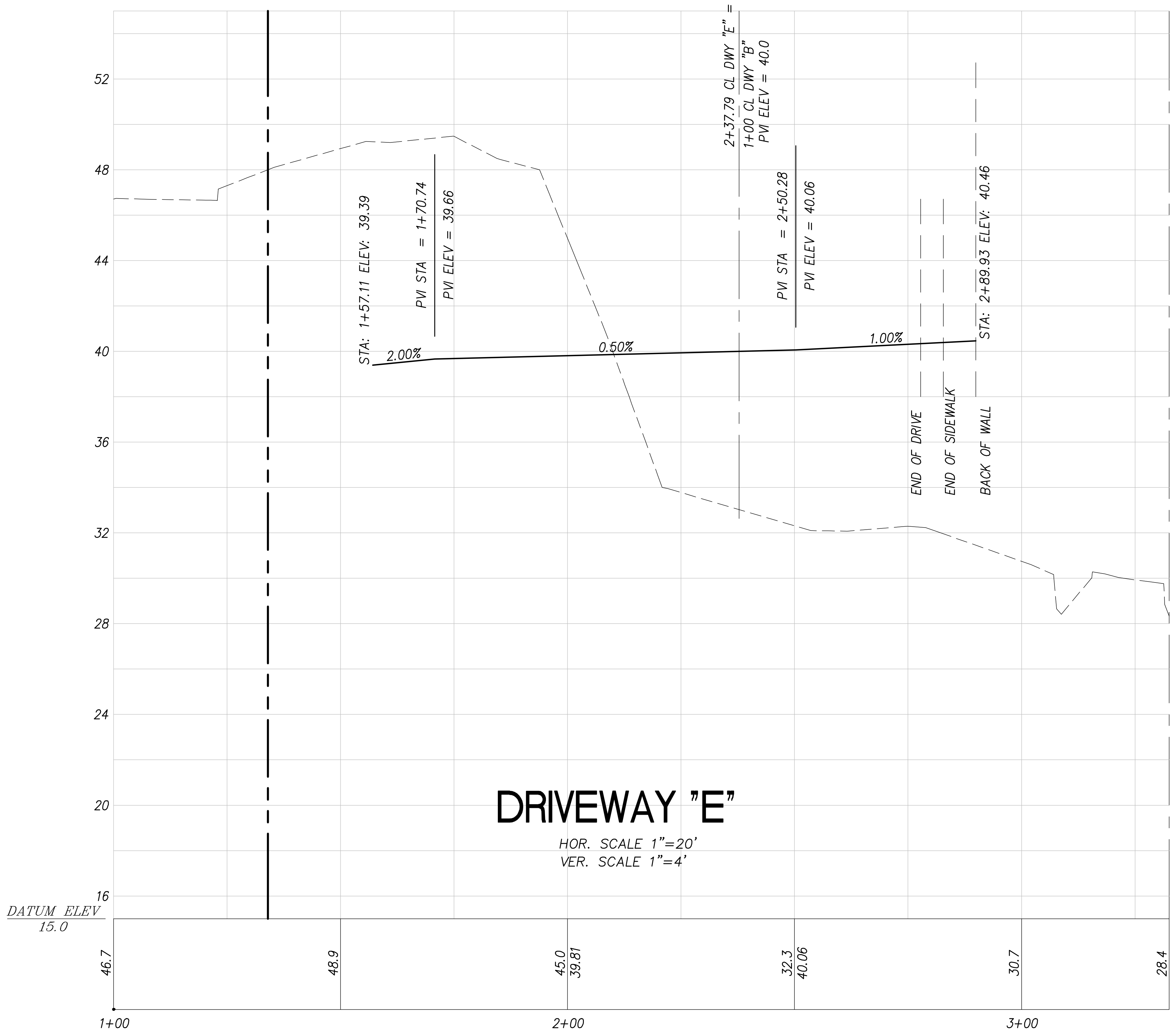
DRIVEWAY "C"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'



DRIVEWAY "D"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'



DRIVEWAY "E"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

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3156 Lionshead Avenue, Suite 1
Carlsbad, CA 92010
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

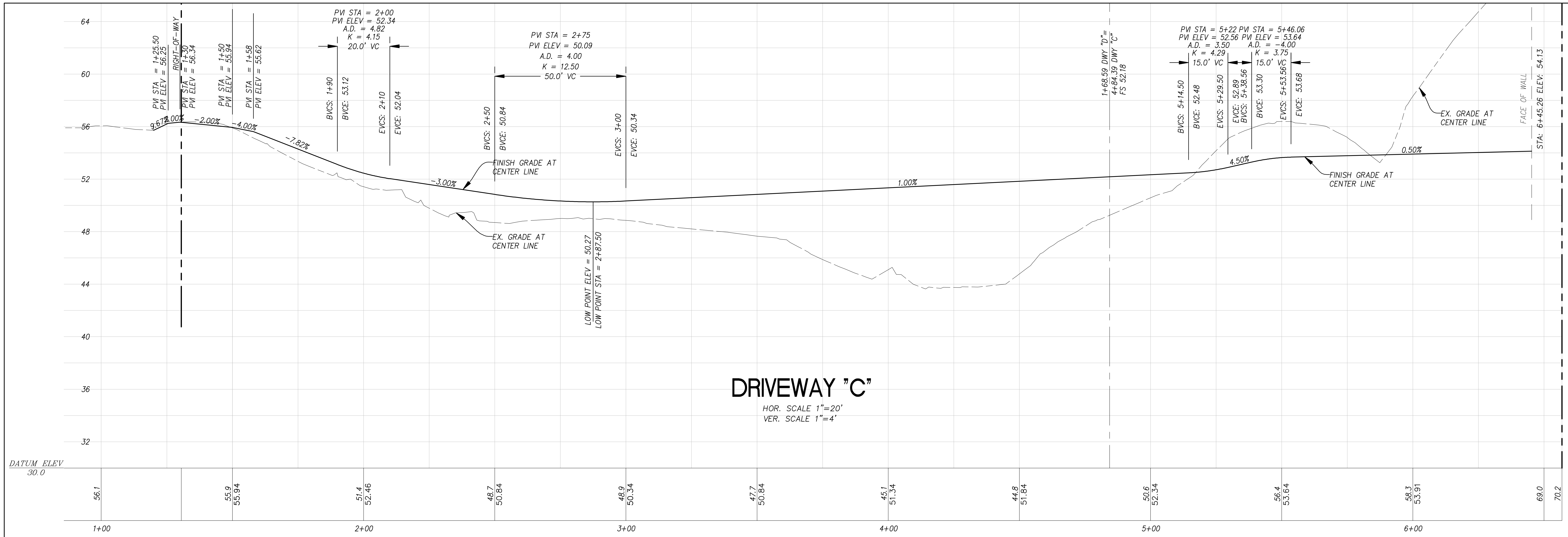
SHEET TITLE:
PRELIMINARY DRIVEWAY
"C" "D" AND "E"
PROFILES

DATE	11/05/2015
SCALE:	HZ: 1"=20', V: 1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	10

SHEET 10 OF 19

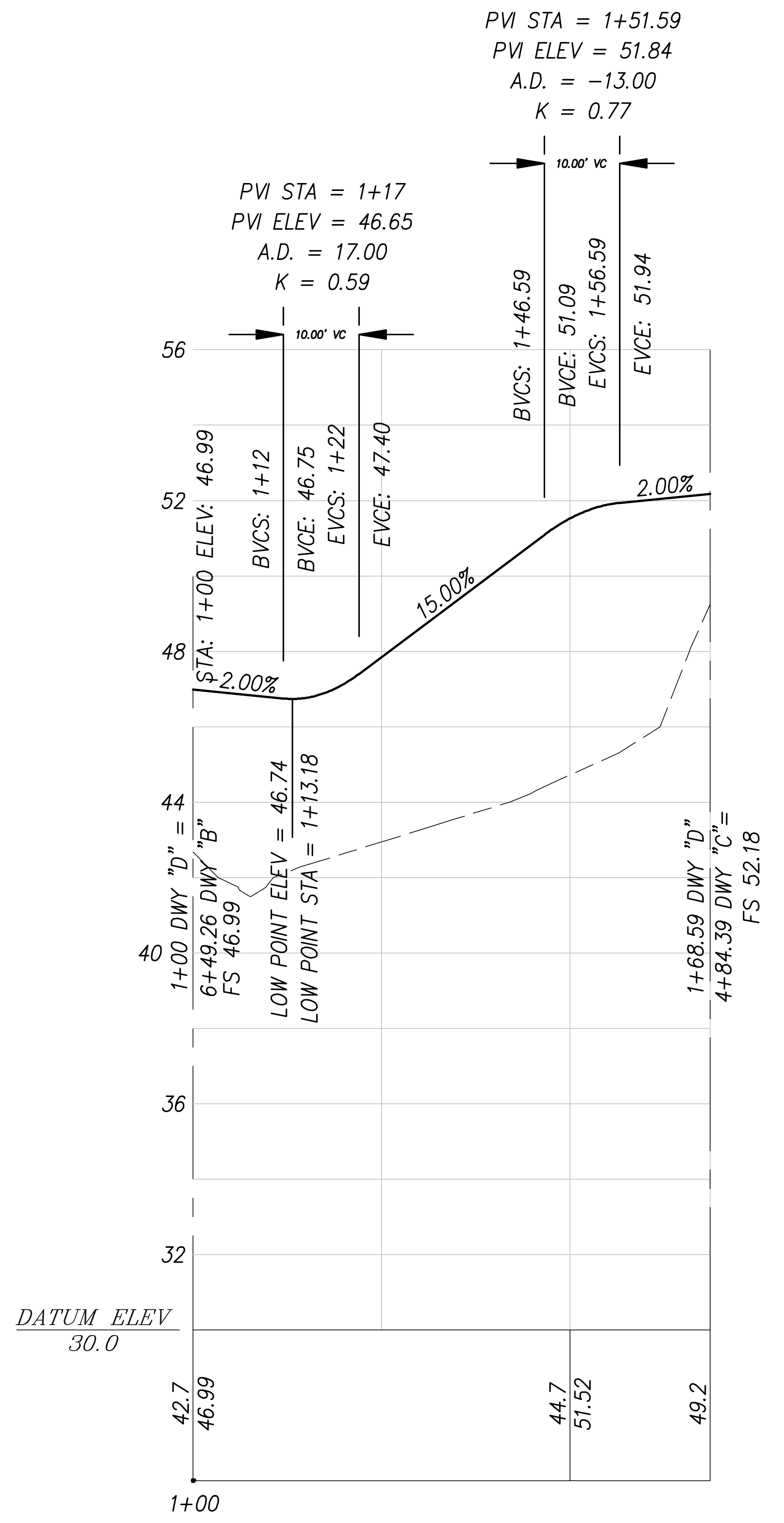
M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 10 PROFILES C,D,E.dwg 02/10/2016 15:17

SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



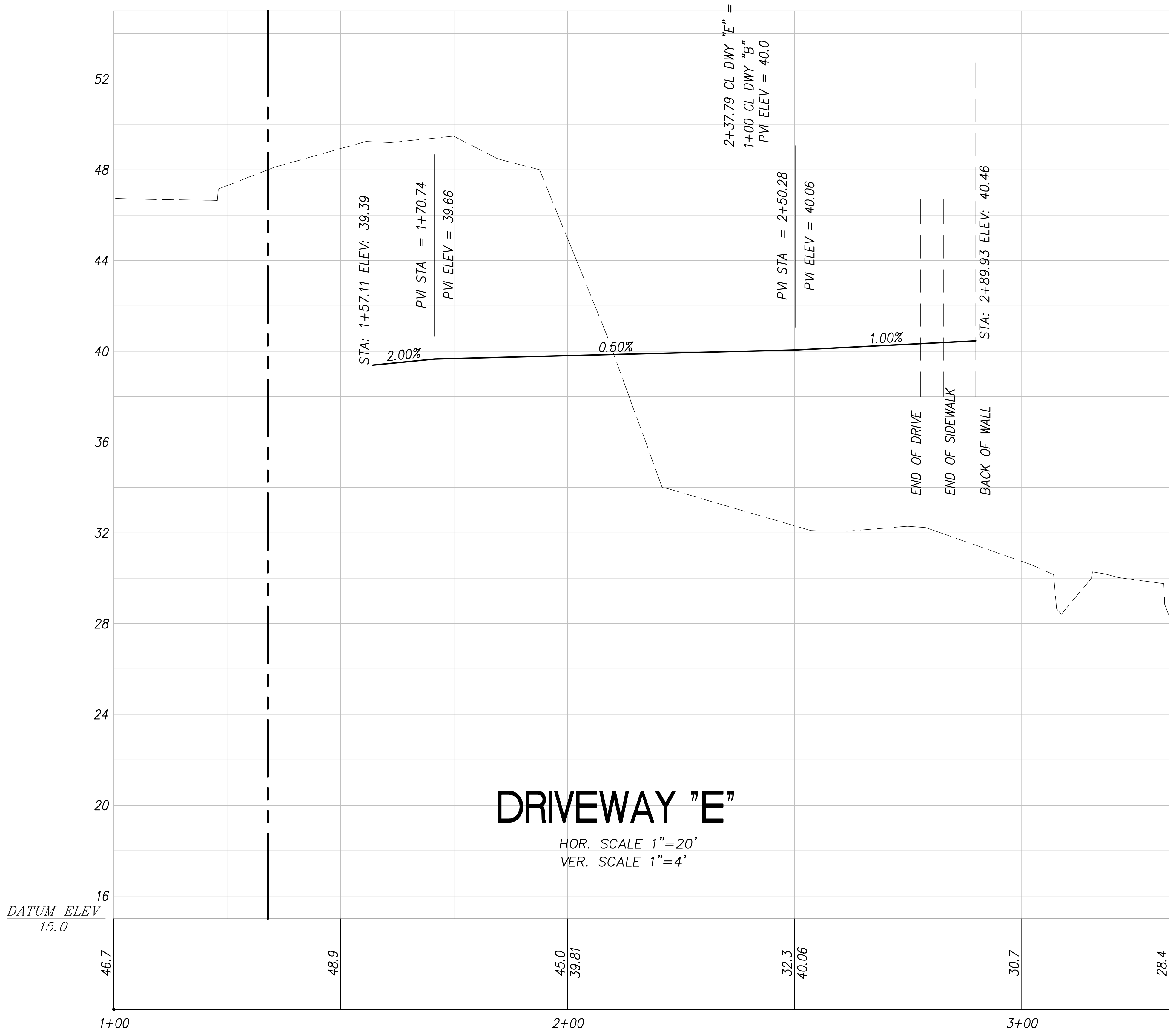
DRIVEWAY "C"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'



DRIVEWAY "D"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'



DRIVEWAY "E"

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

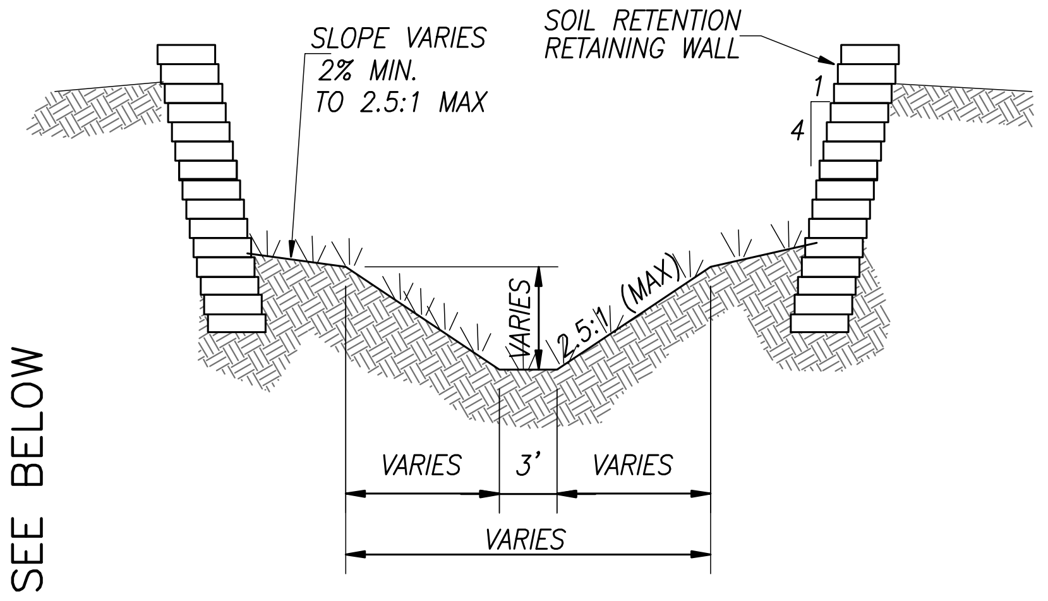
SHEET TITLE:
PRELIMINARY DRIVEWAY
"C" "D" AND "E"
PROFILES

DATE	11/05/2015
SCALE:	HZ: 1"=20', V: 1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	10

SHEET 10 OF 19

CHANNEL PROFILE

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

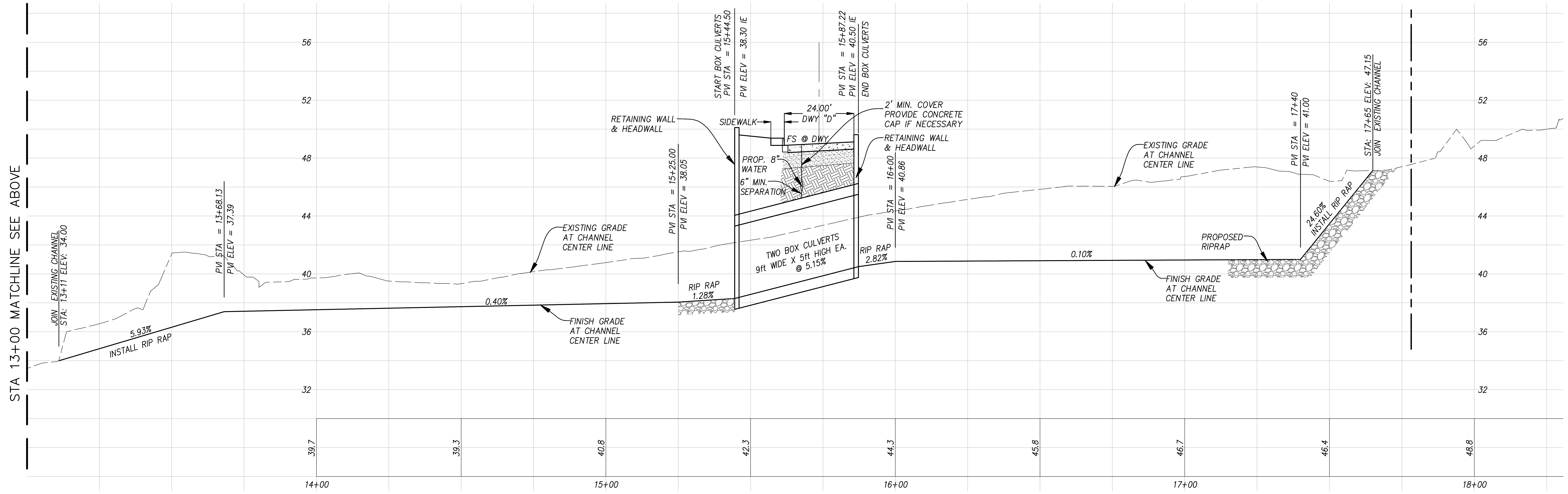


1/13 **CHANNEL TYPYCAL SECTION**

NOT TO SCALE

NOTE:
WALL TO BE DESIGNED AS CLOSED FACE CONFIGURATION BELOW 100 YR STORM WATER SURFACE ELEVATION

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.



CHANNEL PROFILE

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
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Exp. 9/30/17
CIVIL
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17 DATE

SHEET TITLE:
PRELIMINARY CHANNEL
PROFILES

DATE	11/05/2015
SCALE:	HZ: 1"=20' V: 1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	11

SHEET 11 OF 19

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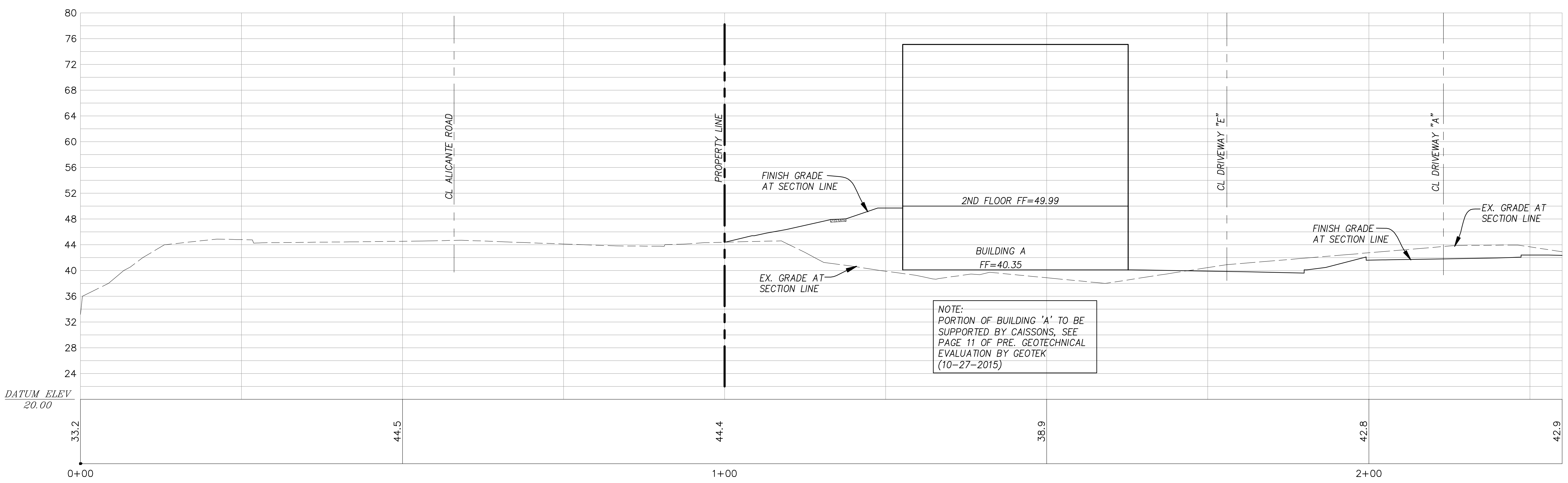
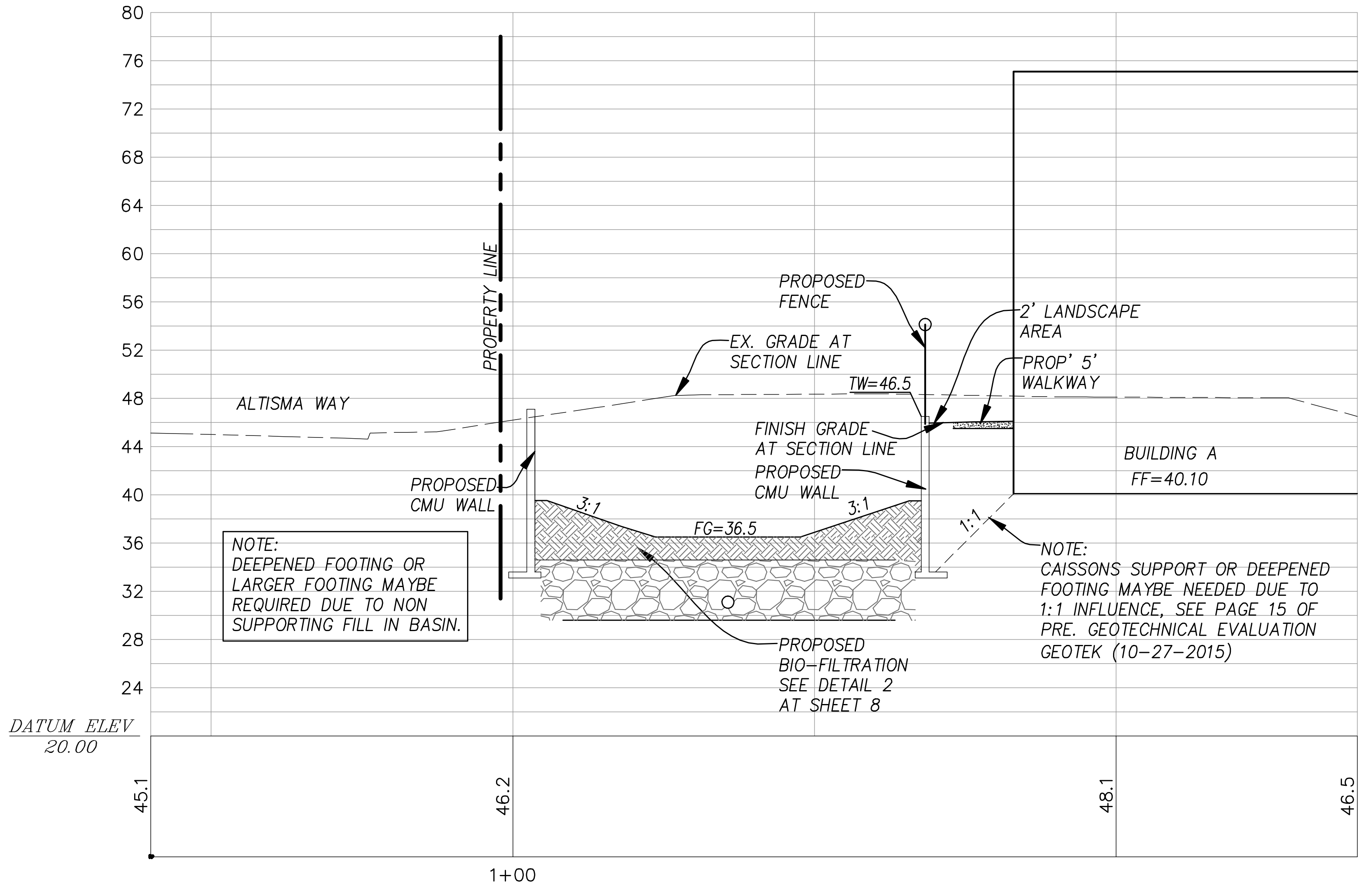
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



NOTE:
PORTION OF BUILDING 'A' TO BE SUPPORTED BY CAISSONS, SEE PAGE 11 OF PRE. GEOTECHNICAL EVALUATION BY GEOTEK (10-27-2015)

SECTION "H - H"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

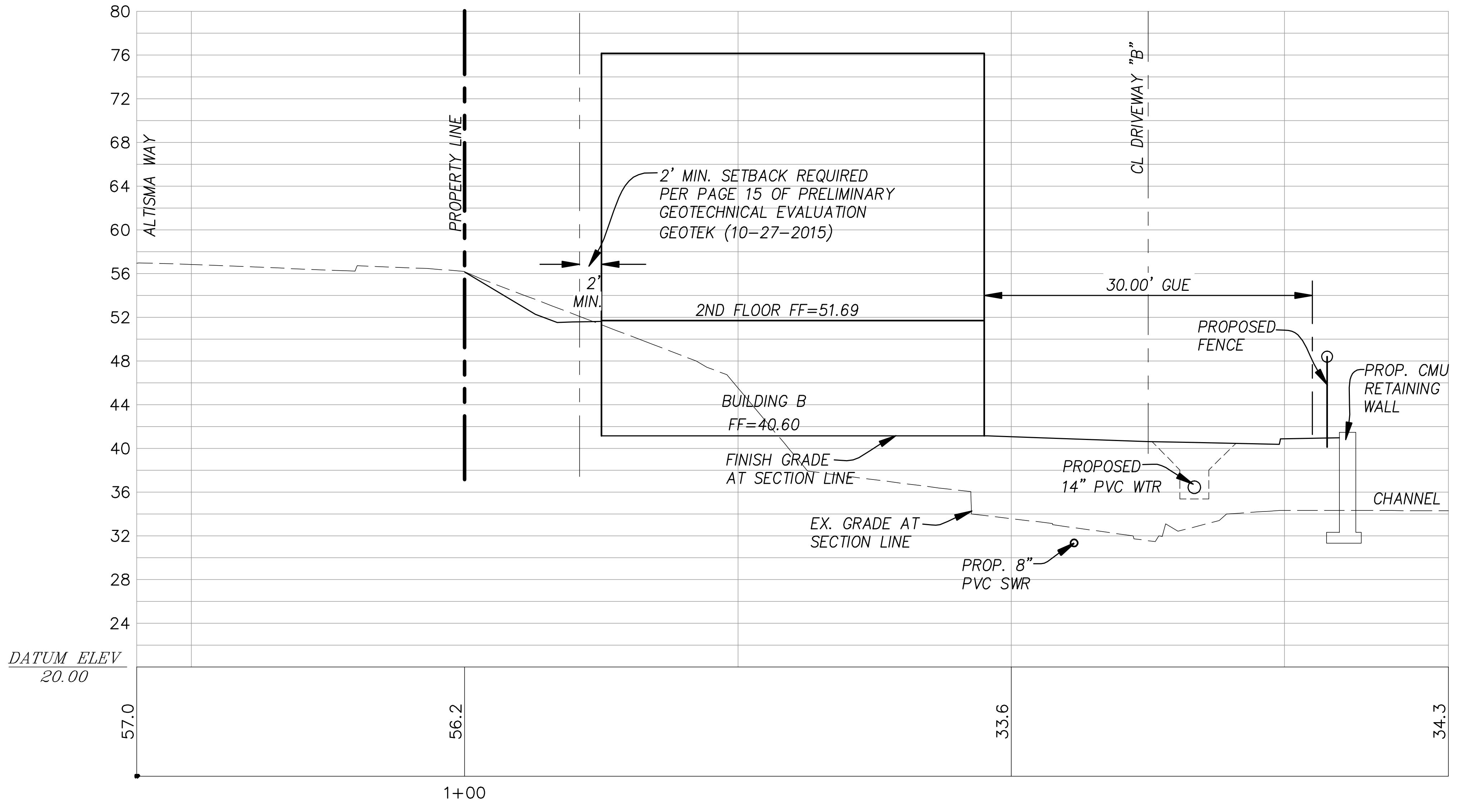


NOTE:
DEEPENED FOOTING OR LARGER FOOTING MAYBE REQUIRED DUE TO NON SUPPORTING FILL IN BASIN.

NOTE:
CAISSONS SUPPORT OR DEEPENED FOOTING MAYBE NEEDED DUE TO 1:1 INFLUENCE, SEE PAGE 15 OF PRE. GEOTECHNICAL EVALUATION GEOTEK (10-27-2015)

SECTION "I - I"

HOR. SCALE 1"=10'
VER. SCALE 1'=10'



NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

SECTION "K - K"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

REVISIONS:

PROJECT NAME:

VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:

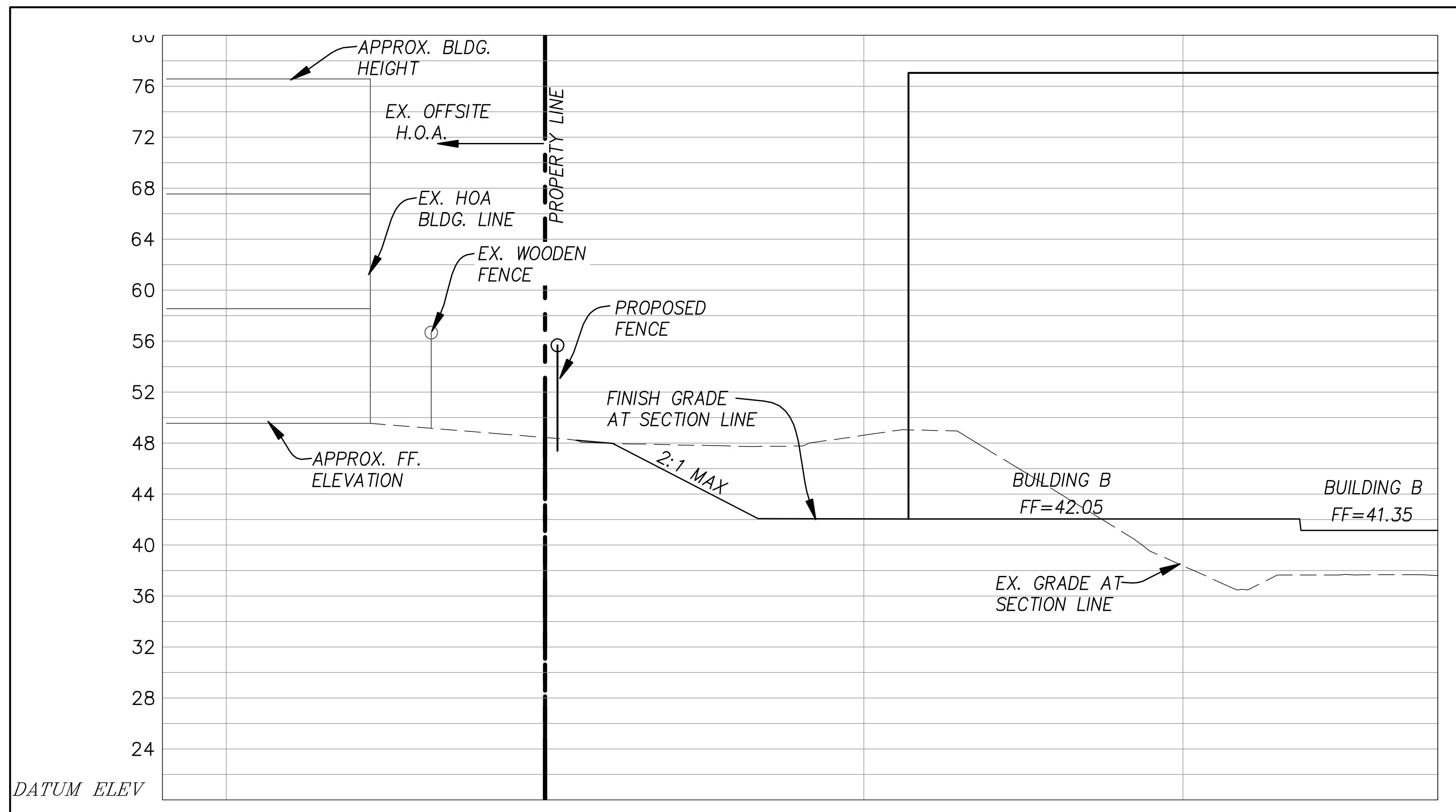
PRELIMINARY SECTIONS
"H", "I" AND "K"

DATE	11/05/2015
SCALE:	HZ: 1"=10', V: 1"=10'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	12

SHEET 12 OF 19

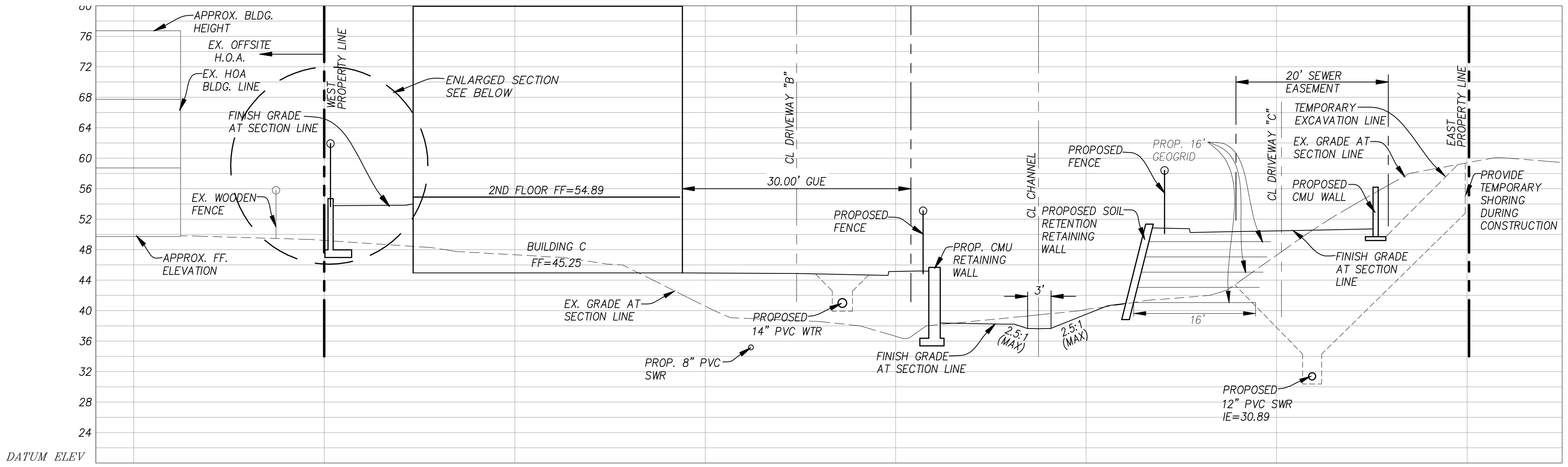
M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 12 PROFILES H, K, I.dwg 02/10/2016 15:23

SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



SECTION "L - L"

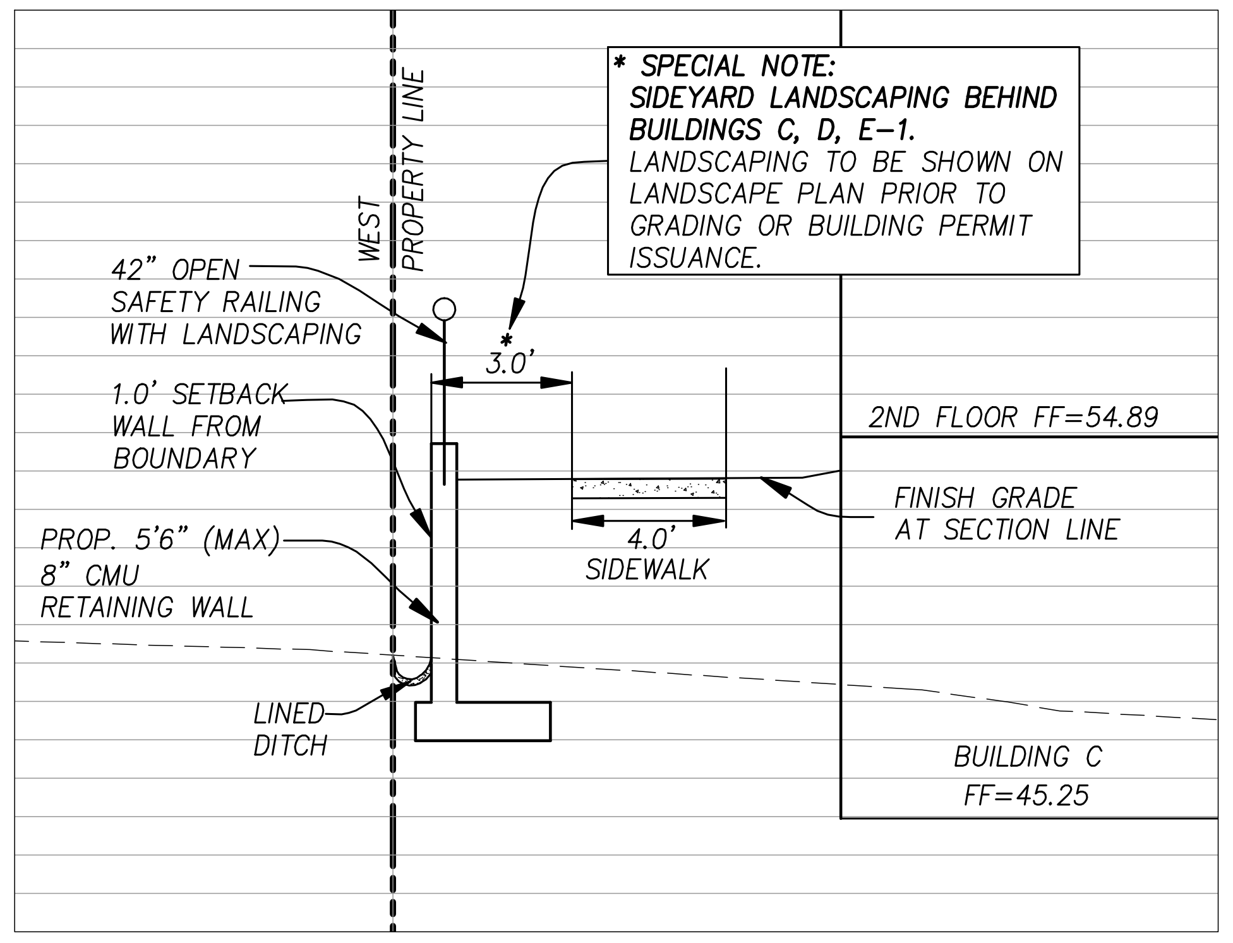
HOR. SCALE 1"=10'
VER. SCALE 1"=10'



SECTION "M - M"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

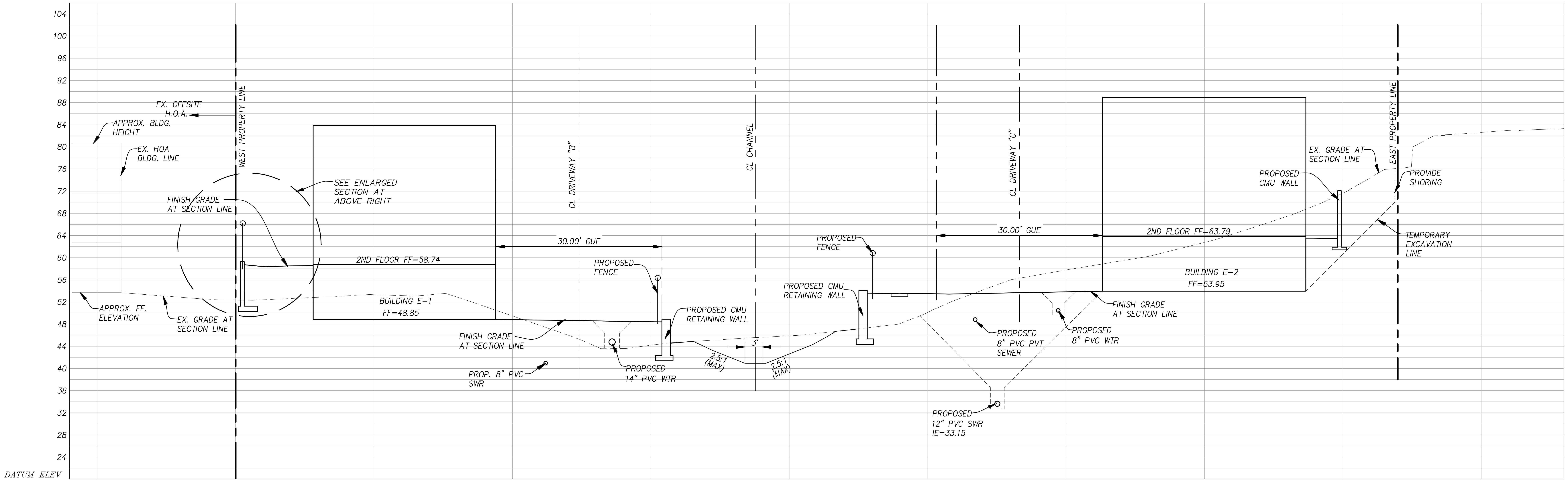
NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.



* SPECIAL NOTE:
SIDEYARD LANDSCAPING BEHIND BUILDINGS C, D, E-1.
LANDSCAPING TO BE SHOWN ON LANDSCAPE PLAN PRIOR TO GRADING OR BUILDING PERMIT ISSUANCE.

ENLARGED SECTION

HOR. SCALE 1"=5'



SECTION "N - N"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

REVISIONS:

PROJECT NAME:
TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

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REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17 DATE

SHEET TITLE:
PRELIMINARY SECTIONS
"L", "M" AND "N"

DATE	03/23/2016
SCALE:	HZ: 1"=10', V: 1"=10'
DRAWN:	BCR/NM
JOB :	ALTISMA
DRAWING NO.	13
SHEET	13 OF 20

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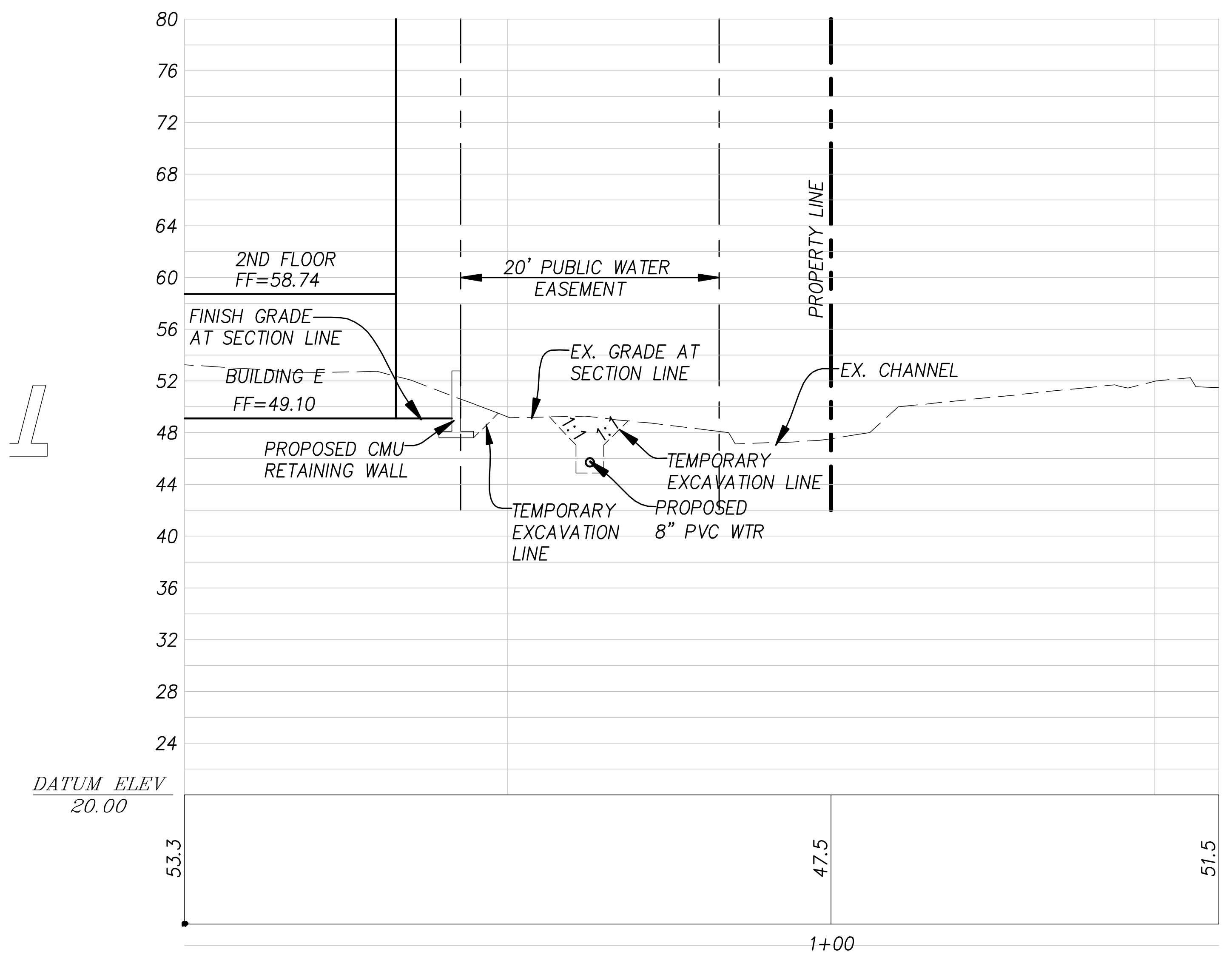
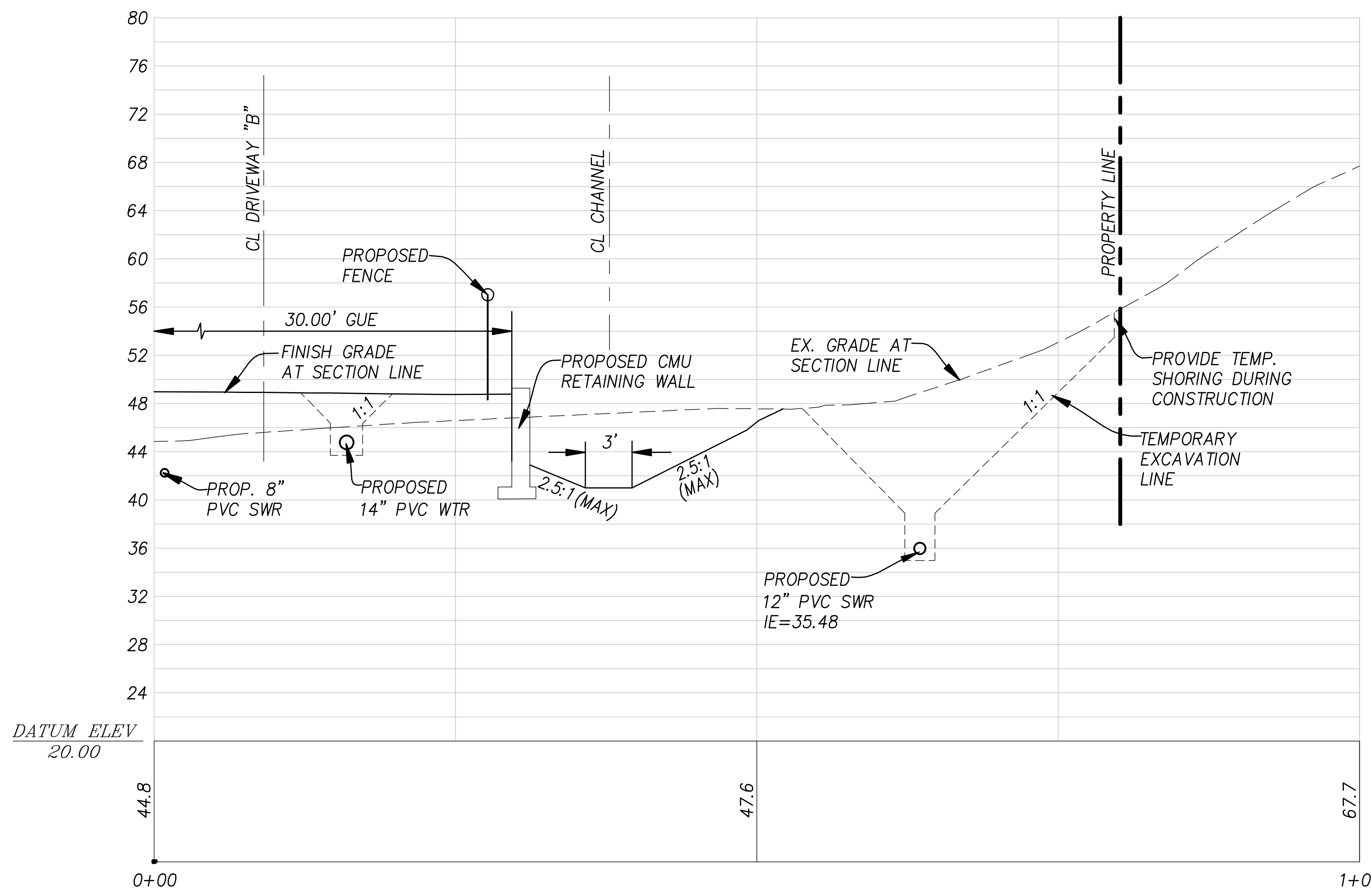


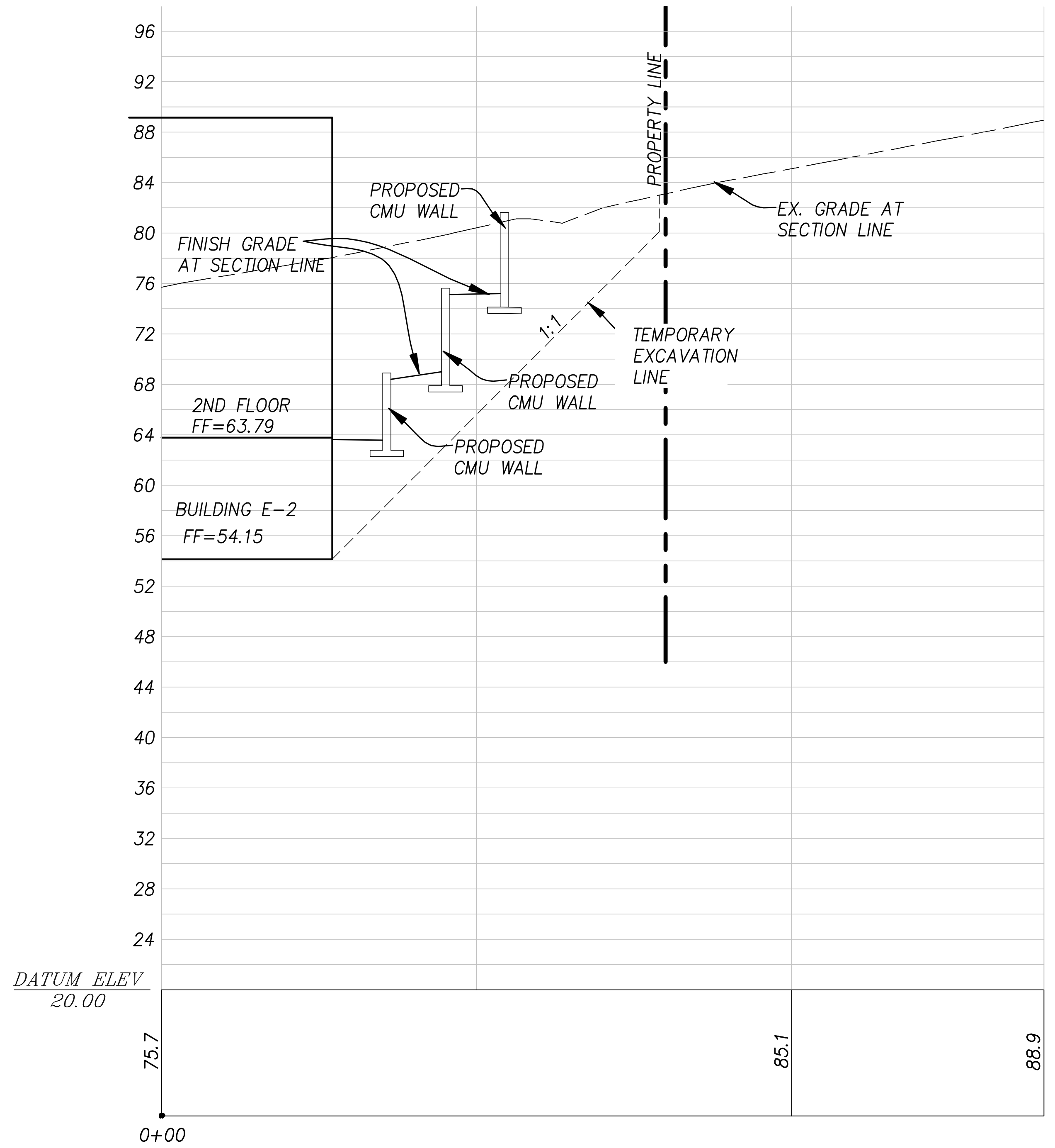
SECTION "O -O"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'



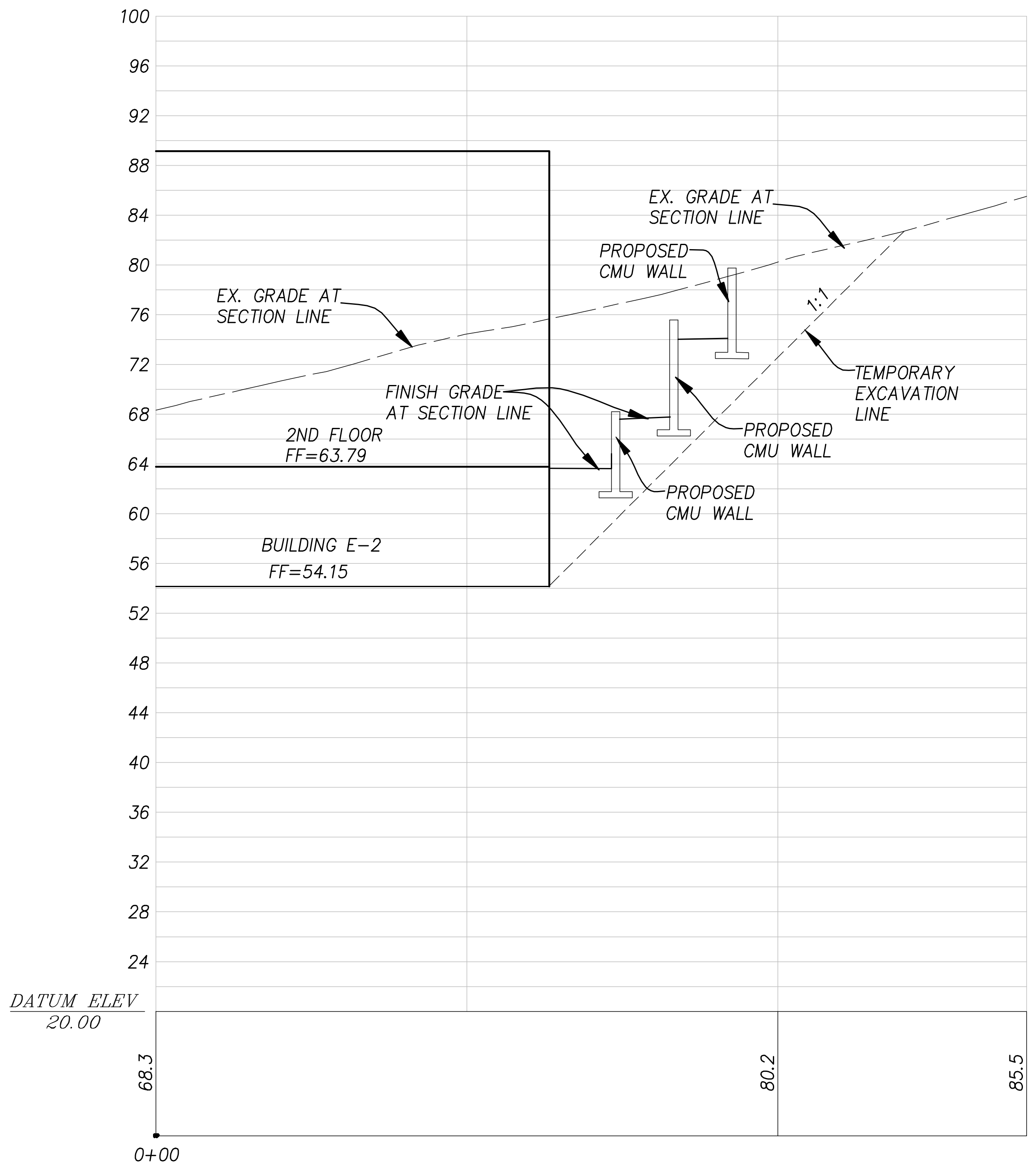
SECTION "P -P"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'



SECTION "Q - Q"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'



SECTION "R - R"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
DATE

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

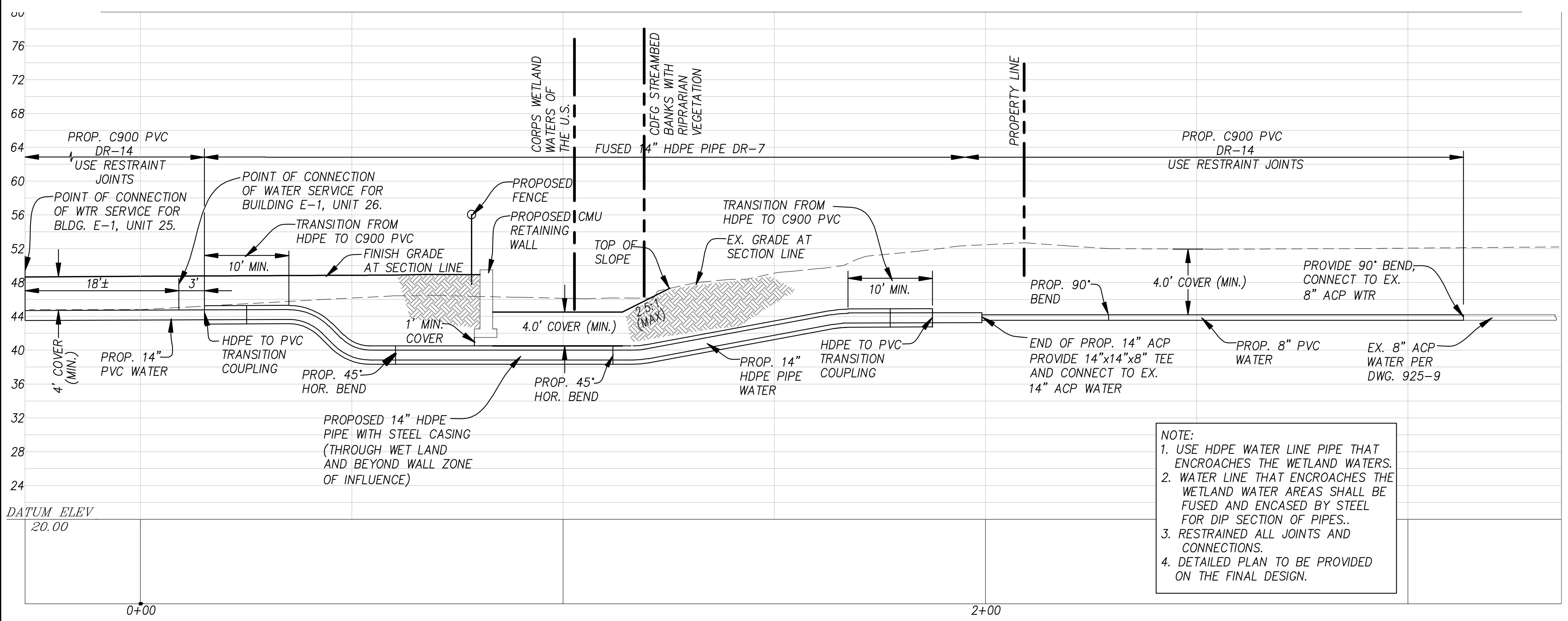
SHEET TITLE:
PRELIMINARY SECTIONS "O", "P", "Q" AND "R"

DATE	11/05/2015
SCALE:	HZ: 1"=10', V: 1"=10'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	14

SHEET 14 OF 19

M:\Engineering Projects\Altisma\drawing\plan_sets\SDP\ALTISMA SDP - 14 PROFILES O, P, Q, R.dwg 02/10/2016 15:27

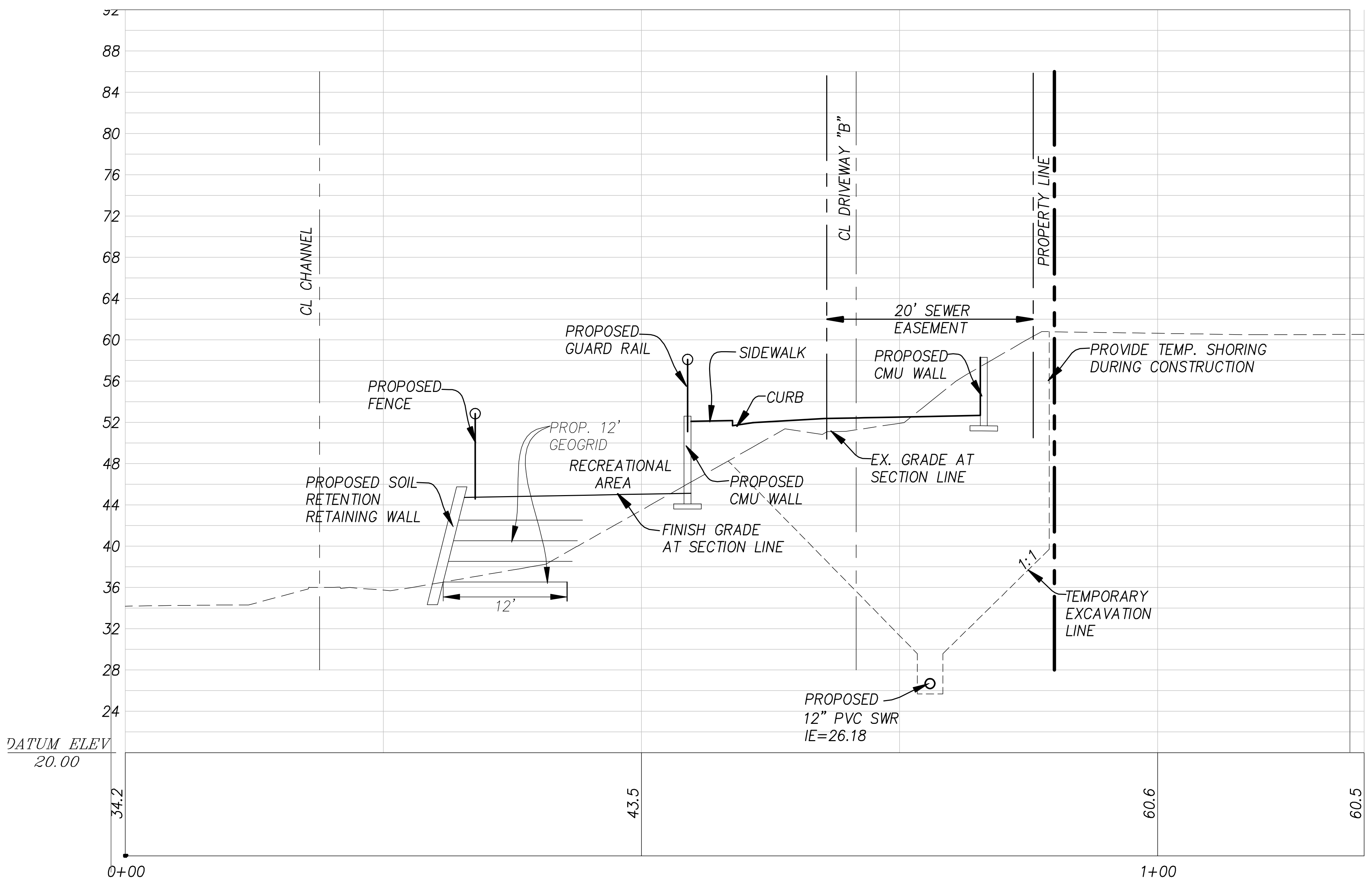
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



NOTE:
1. USE HDPE WATER LINE PIPE THAT ENCROACHES THE WETLAND WATERS.
2. WATER LINE THAT ENCROACHES THE WETLAND WATER AREAS SHALL BE FUSED AND ENCASED BY STEEL FOR DIP SECTION OF PIPES..
3. RESTRAINED ALL JOINTS AND CONNECTIONS.
4. DETAILED PLAN TO BE PROVIDED ON THE FINAL DESIGN.

SECTION "V - V"

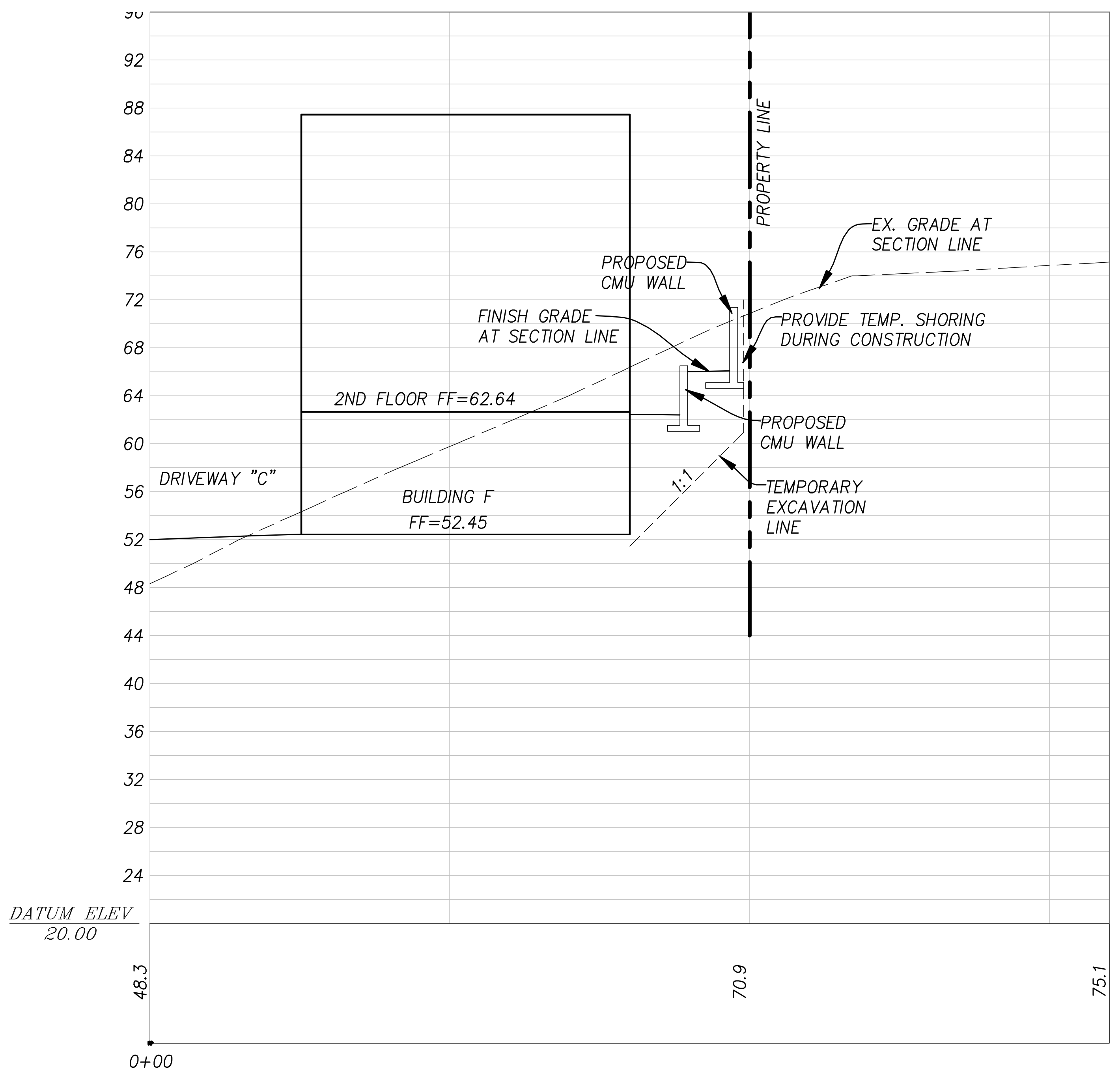
HOR. SCALE 1"=10'
VER. SCALE 1"=10'



SECTION "T -T"

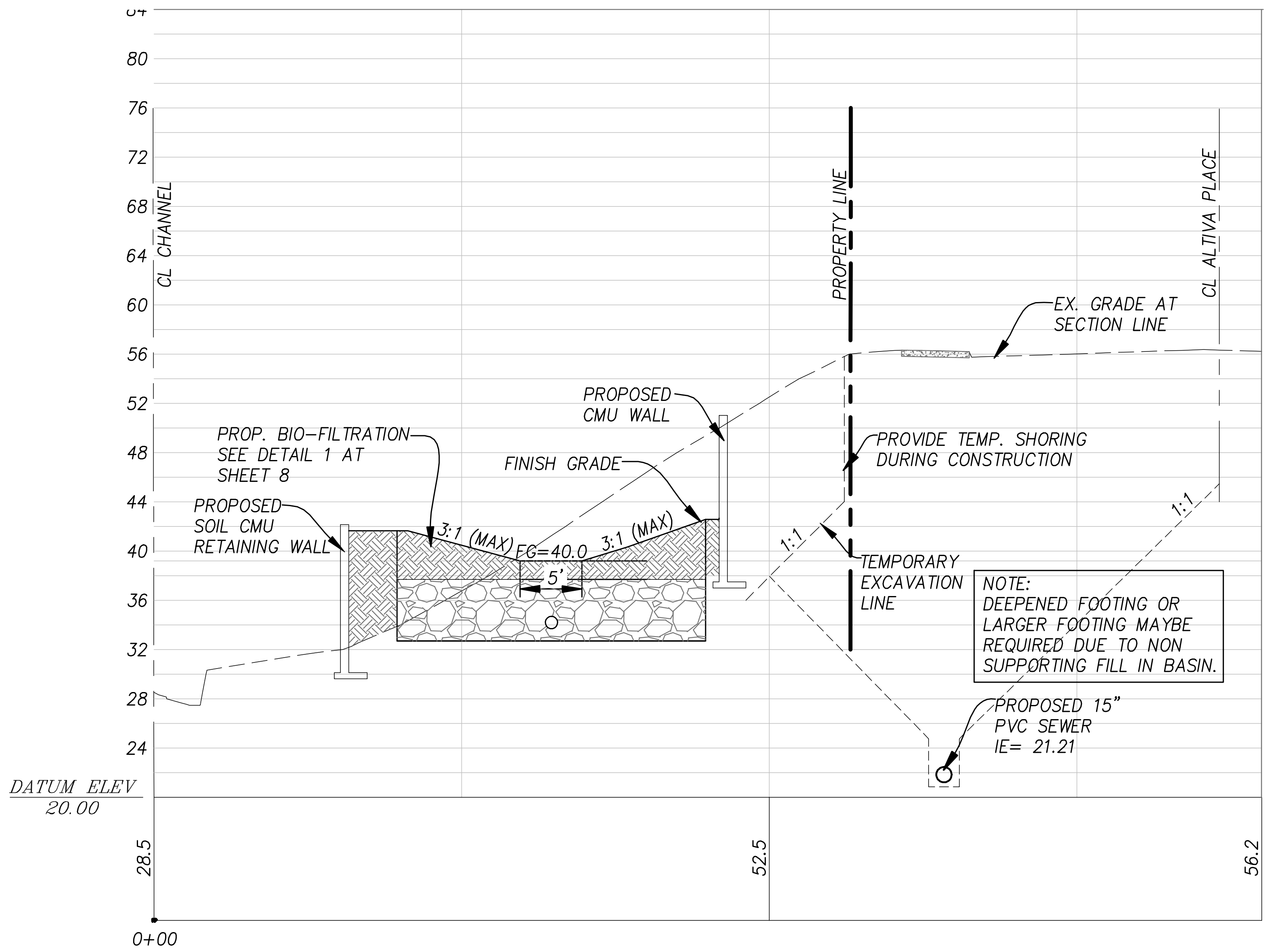
HOR. SCALE 1"=10'
VER. SCALE 1"=10'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.



SECTION "S -S"

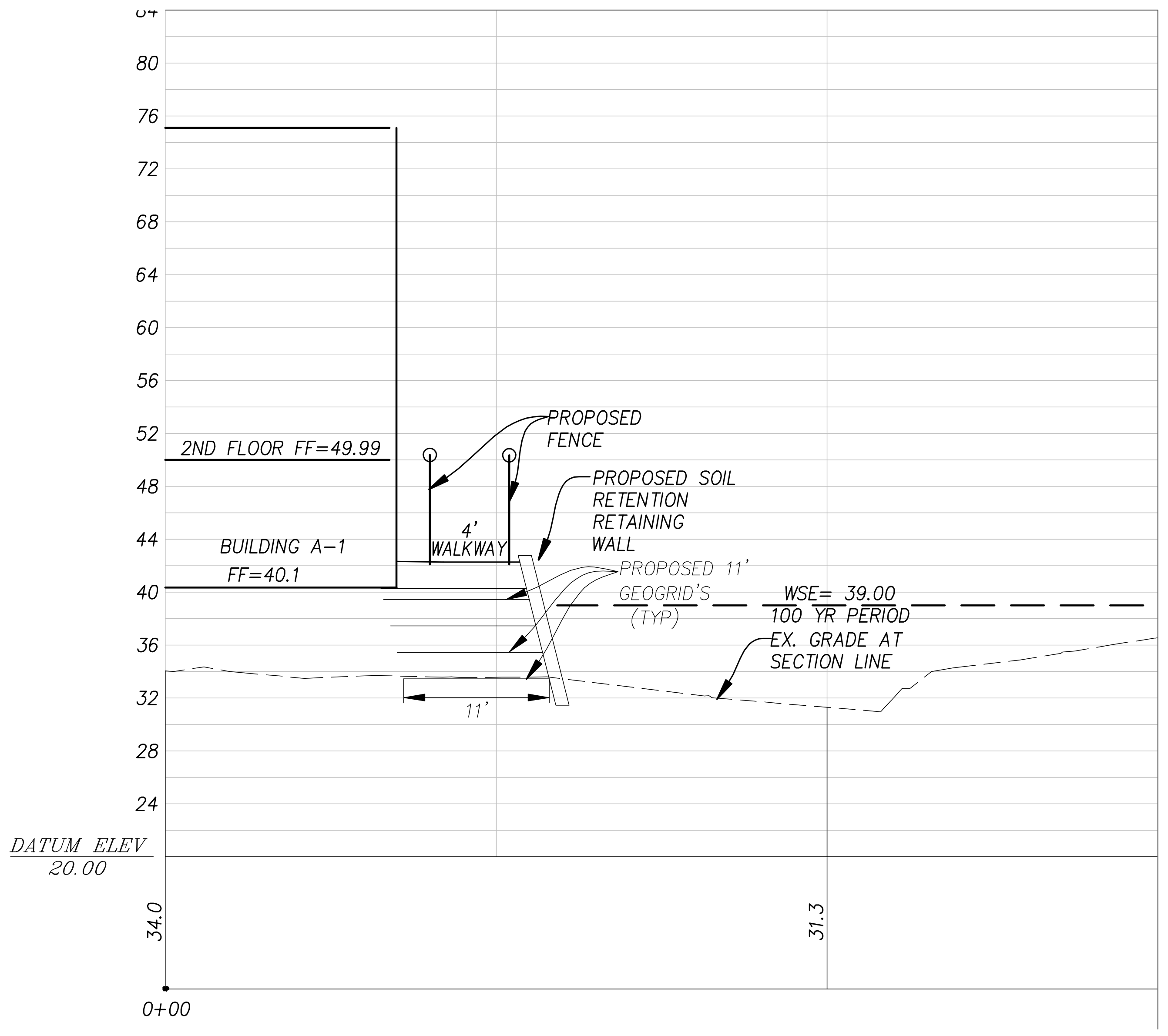
HOR. SCALE 1"=10'
VER. SCALE 1"=10'



NOTE:
DEEPENED FOOTING OR LARGER FOOTING MAYBE REQUIRED DUE TO NON SUPPORTING FILL IN BASIN.

SECTION "U - U"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'



SECTION "W - W"

HOR. SCALE 1"=10'
VER. SCALE 1"=10'

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

BRIAN REGAN
No. C35343
Exp. 9/30/17
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17
DATE

SHEET TITLE:
PRELIMINARY SECTIONS "S", "T" AND "U"

DATE	11/05/2015
SCALE:	HZ: 1"=10', V: 1"=10'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	15

SHEET 15 OF 19

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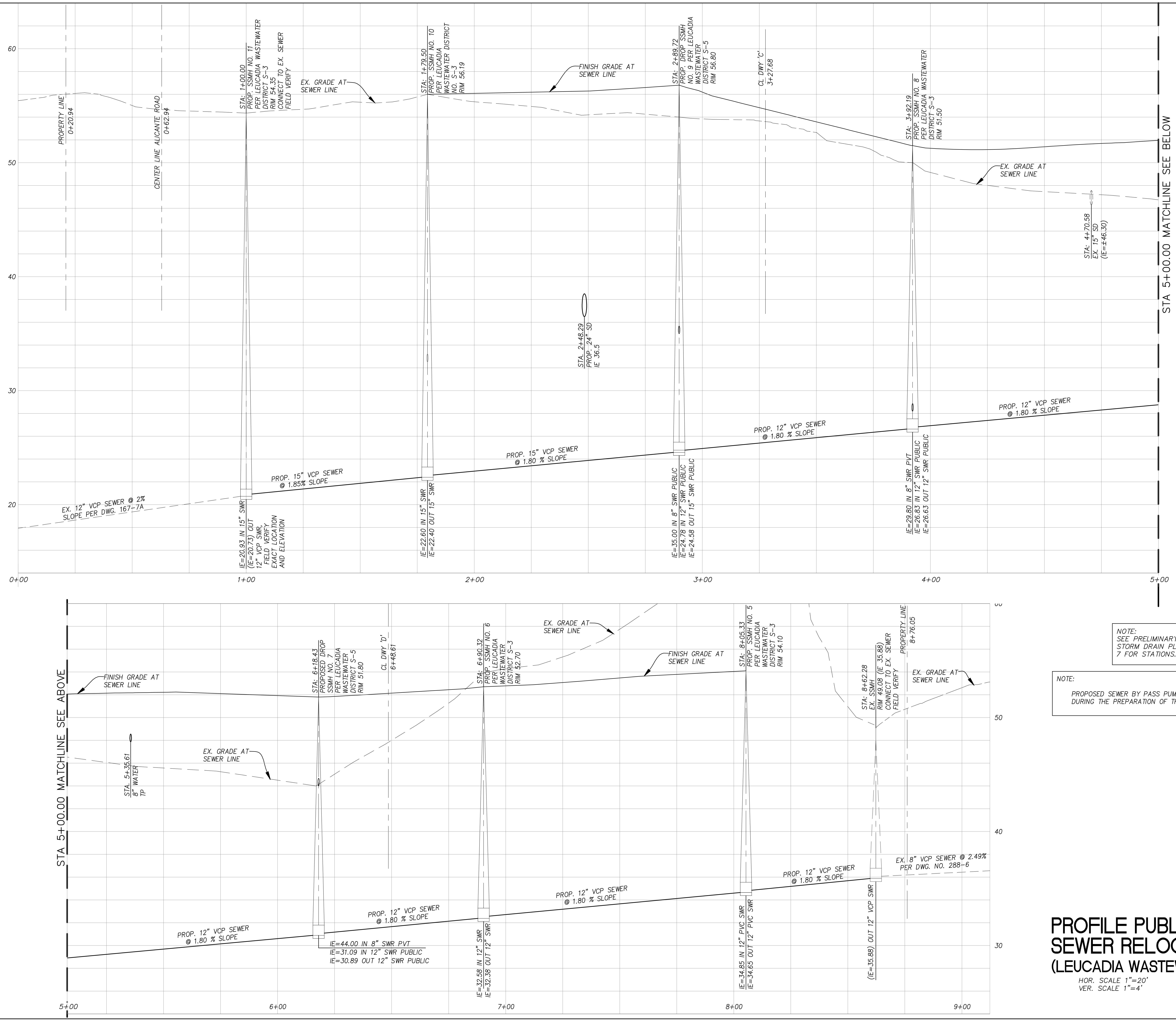
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

NOTE:

PROPOSED SEWER BY PASS PUMPING DESIGN WILL BE PROVIDED DURING THE PREPARATION OF THE IMPROVEMENT PLANS.

PROFILE PUBLIC SEWER RELOCATION
(LEUCADIA WASTEWATER DISTRICT)

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
PRELIMINARY PUBLIC
SEWER
LEUCADIA WASTEWATER DISTRICT

DATE	**11/05/2015**
SCALE:	**HZ: 1"=20', V: 1"=4'**
DRAWN:	**HLI/NM**
JOB :	**ALTISMA**
DRAWING NO.	**16**

SHEET 16 OF 19

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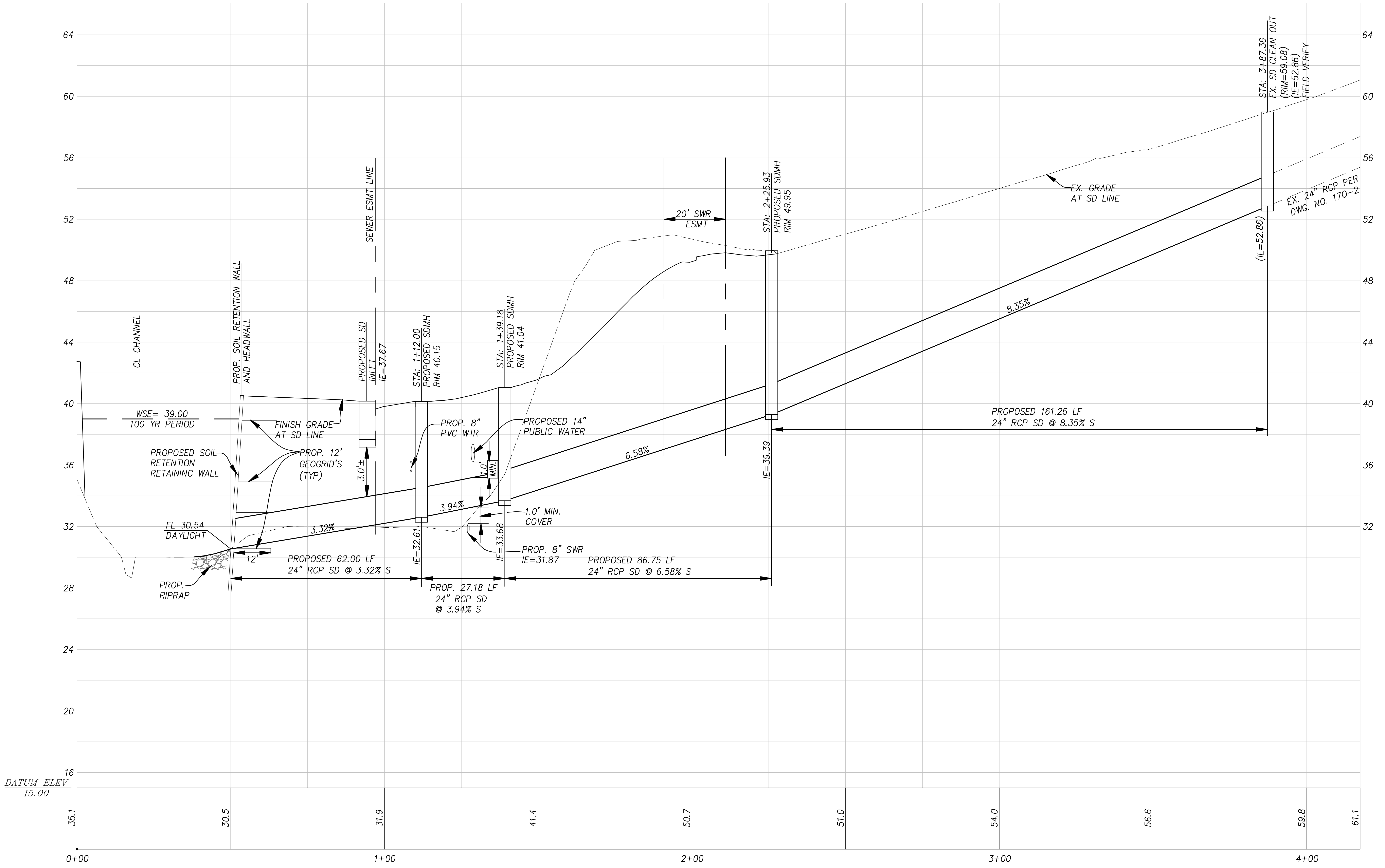
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



PROFILE PUBLIC SD
LINE "A" RELOCATION

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

NOTE:
SEE PRELIMINARY UTILITY AND STORM DRAIN PLAN ON SHEET 7 FOR STATIONS.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

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Carlsbad, CA 92010
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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
PRELIMINARY PROFILE
STORM DRAIN LINE "A"

DATE	11/05/2015
SCALE:	HZ: 1"=20', V: 1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	17

SHEET 17 OF 19

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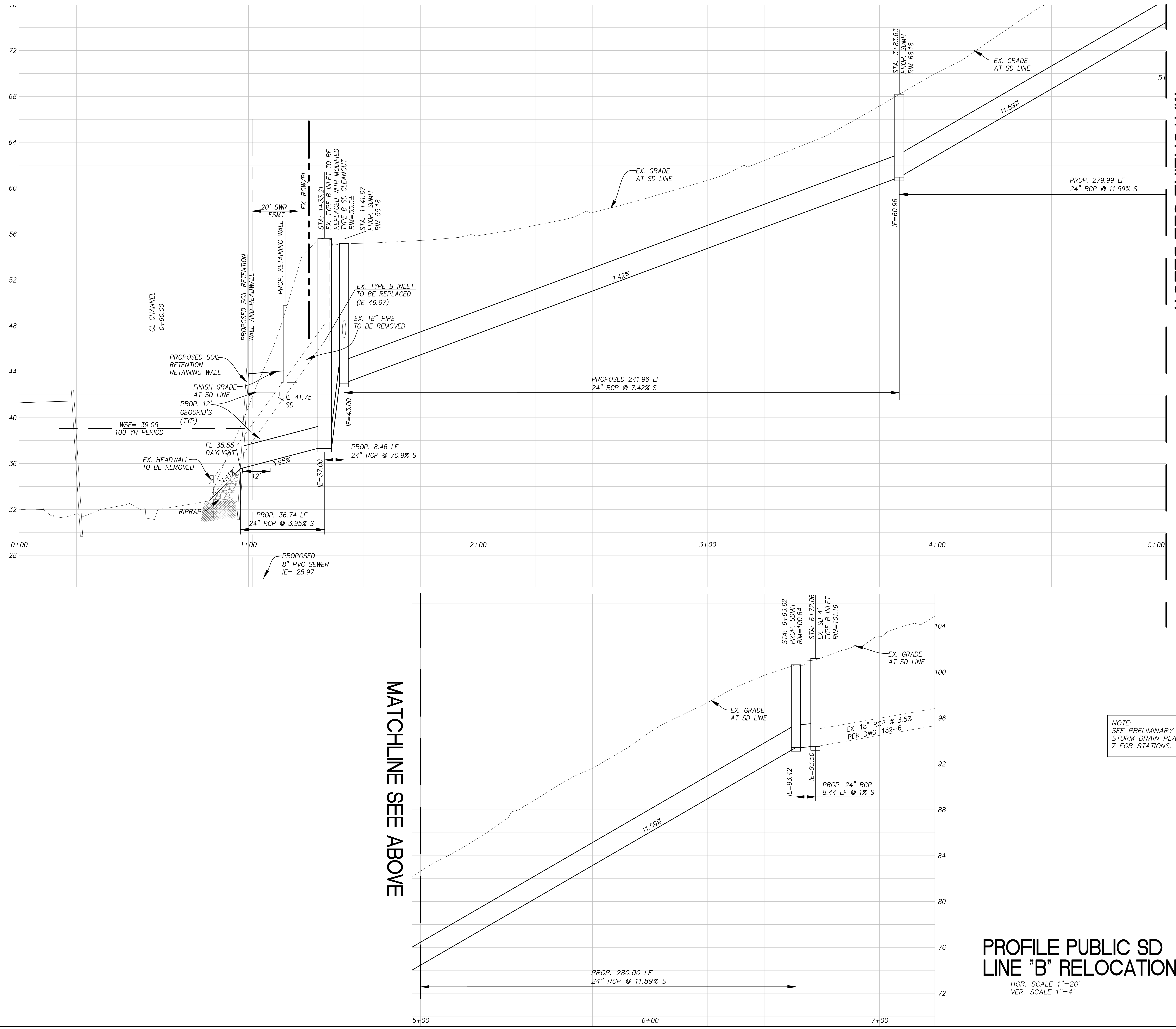
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



NOTE:
SEE PRELIMINARY UTILITY AND
STORM DRAIN PLAN ON SHEET
7 FOR STATIONS.

PROFILE PUBLIC SD LINE "B" RELOCATION

HOR. SCALE 1"=20'
VER. SCALE 1"=4'

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

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BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
PRELIMINARY PROFILE STORM DRAIN LINE "B"

DATE	11/05/2015
SCALE:	HZ: 1"=20', V: 1"=4'
DRAWN:	HLI/NM
JOB :	ALTISMA
DRAWING NO.	18

SHEET 18 OF 19

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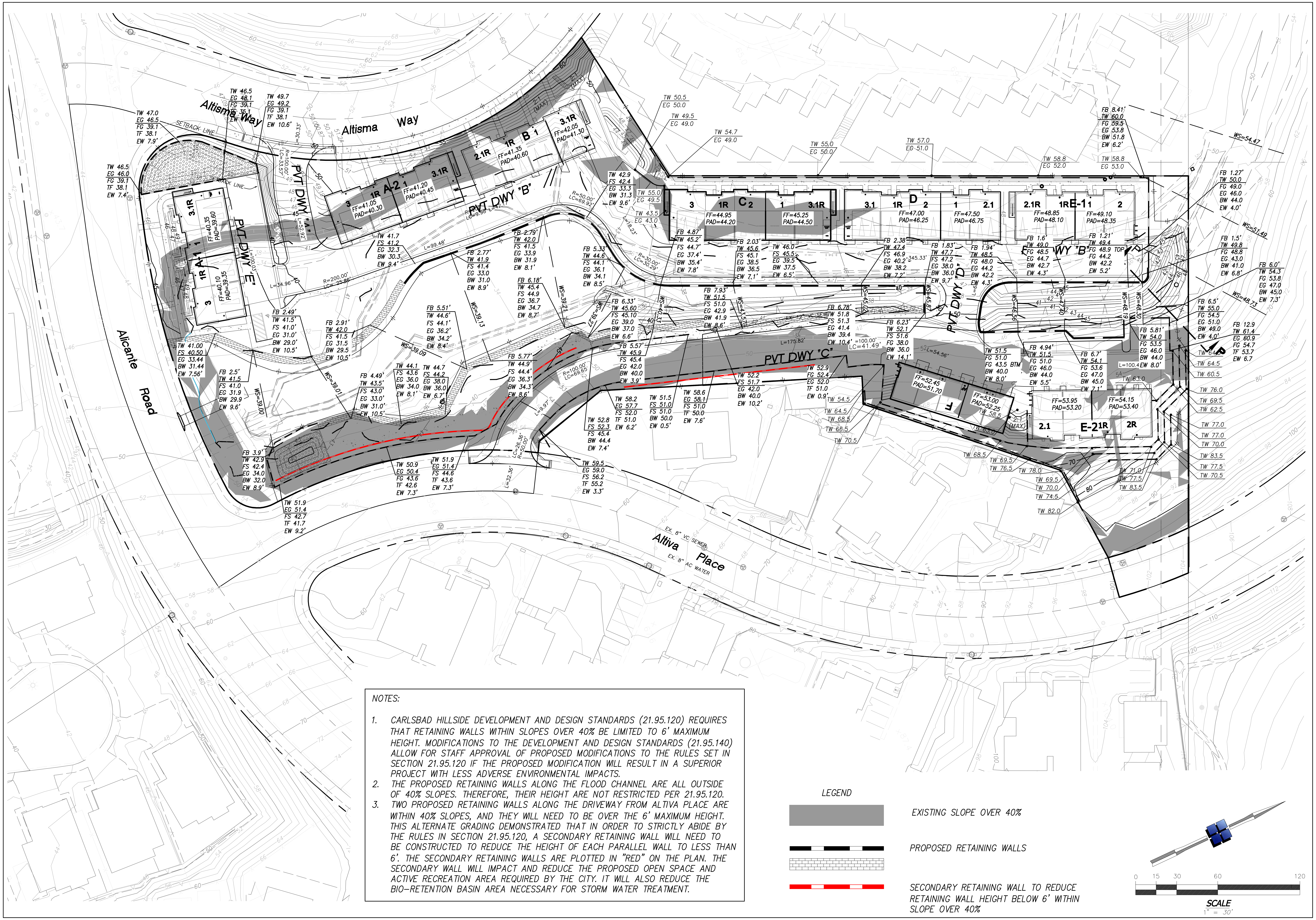
SDP THIRD SUBMITTAL 2015-1105-NOT FOR CONSTRUCTION



LEGEND

▨	EXISTING SLOPE OVER 40%
▬	PROPOSED RETAINING WALLS
▬	SECONDARY RETAINING WALL TO REDUCE RETAINING WALL HEIGHT BELOW 6' WITHIN SLOPE OVER 40%

NOTES:

1. CARLSBAD HILLSIDE DEVELOPMENT AND DESIGN STANDARDS (21.95.120) REQUIRES THAT RETAINING WALLS WITHIN SLOPES OVER 40% BE LIMITED TO 6' MAXIMUM HEIGHT. MODIFICATIONS TO THE DEVELOPMENT AND DESIGN STANDARDS (21.95.140) ALLOW FOR STAFF APPROVAL OF PROPOSED MODIFICATIONS TO THE RULES SET IN SECTION 21.95.120 IF THE PROPOSED MODIFICATION WILL RESULT IN A SUPERIOR PROJECT WITH LESS ADVERSE ENVIRONMENTAL IMPACTS.
2. THE PROPOSED RETAINING WALLS ALONG THE FLOOD CHANNEL ARE ALL OUTSIDE OF 40% SLOPES. THEREFORE, THEIR HEIGHT ARE NOT RESTRICTED PER 21.95.120.
3. TWO PROPOSED RETAINING WALLS ALONG THE DRIVEWAY FROM ALTIVA PLACE ARE WITHIN 40% SLOPES, AND THEY WILL NEED TO BE OVER THE 6' MAXIMUM HEIGHT. THIS ALTERNATE GRADING DEMONSTRATED THAT IN ORDER TO STRICTLY ABIDE BY THE RULES IN SECTION 21.95.120, A SECONDARY RETAINING WALL WILL NEED TO BE CONSTRUCTED TO REDUCE THE HEIGHT OF EACH PARALLEL WALL TO LESS THAN 6'. THE SECONDARY RETAINING WALLS ARE PLOTTED IN "RED" ON THE PLAN. THE SECONDARY WALL WILL IMPACT AND REDUCE THE PROPOSED OPEN SPACE AND ACTIVE RECREATION AREA REQUIRED BY THE CITY. IT WILL ALSO REDUCE THE BIO-RETENTION BASIN AREA NECESSARY FOR STORM WATER TREATMENT.

REVISIONS:

PROJECT NAME:
VESTING TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
CARLSBAD, CA

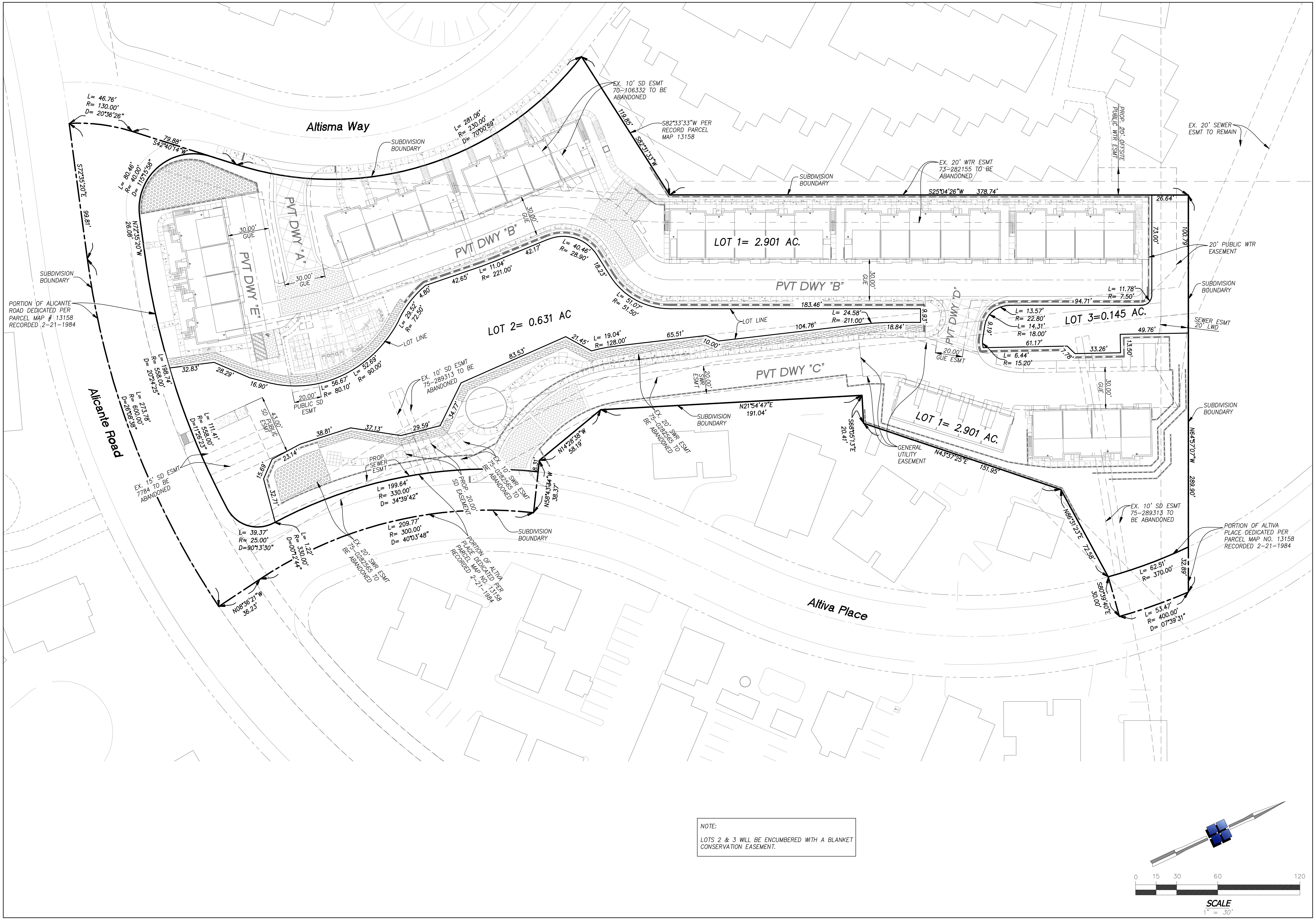
REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
DATE

Hofman
Planning + Engineering
3156 Lionshead Avenue, Suite 1
Carlsbad, CA 92010
(760) 692-4100
www.hofmanplanning.com

BRIAN C. REGAN R.C.E. C35343 EXP. 09-30-17

SHEET TITLE:
ALTERNATE GRADING
40% SLOPE AND
RETAINING WALLS

DATE: 11/05/2015
SCALE: 1"=30'
DRAWN: HLI/NM
JOB : ALTISMA
DRAWING NO.
19
SHEET 19 OF 19



NOTE:

LOTS 2 & 3 WILL BE ENCUMBERED WITH A BLANKET CONSERVATION EASEMENT.

REVISIONS:

PROJECT NAME:

TENTATIVE MAP
CASCADA VERDE
A TOWNHOME PROJECT BY :
LANSHIRE HOUSING PARTNERS, LLC
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REGISTERED PROFESSIONAL ENGINEER
BRIAN REGAN
No. C35343
Exp. 9/30/17
CIVIL
STATE OF CALIFORNIA

DATE

SHEET TITLE:

TENTATIVE MAP
LOT EXHIBIT

DATE	03/23/2016
SCALE:	1"=30'
DRAWN:	BCR/NM
JOB :	ALTISMA
DRAWING NO.	20

SHEET 20 OF 20

ATTACHMENT 4

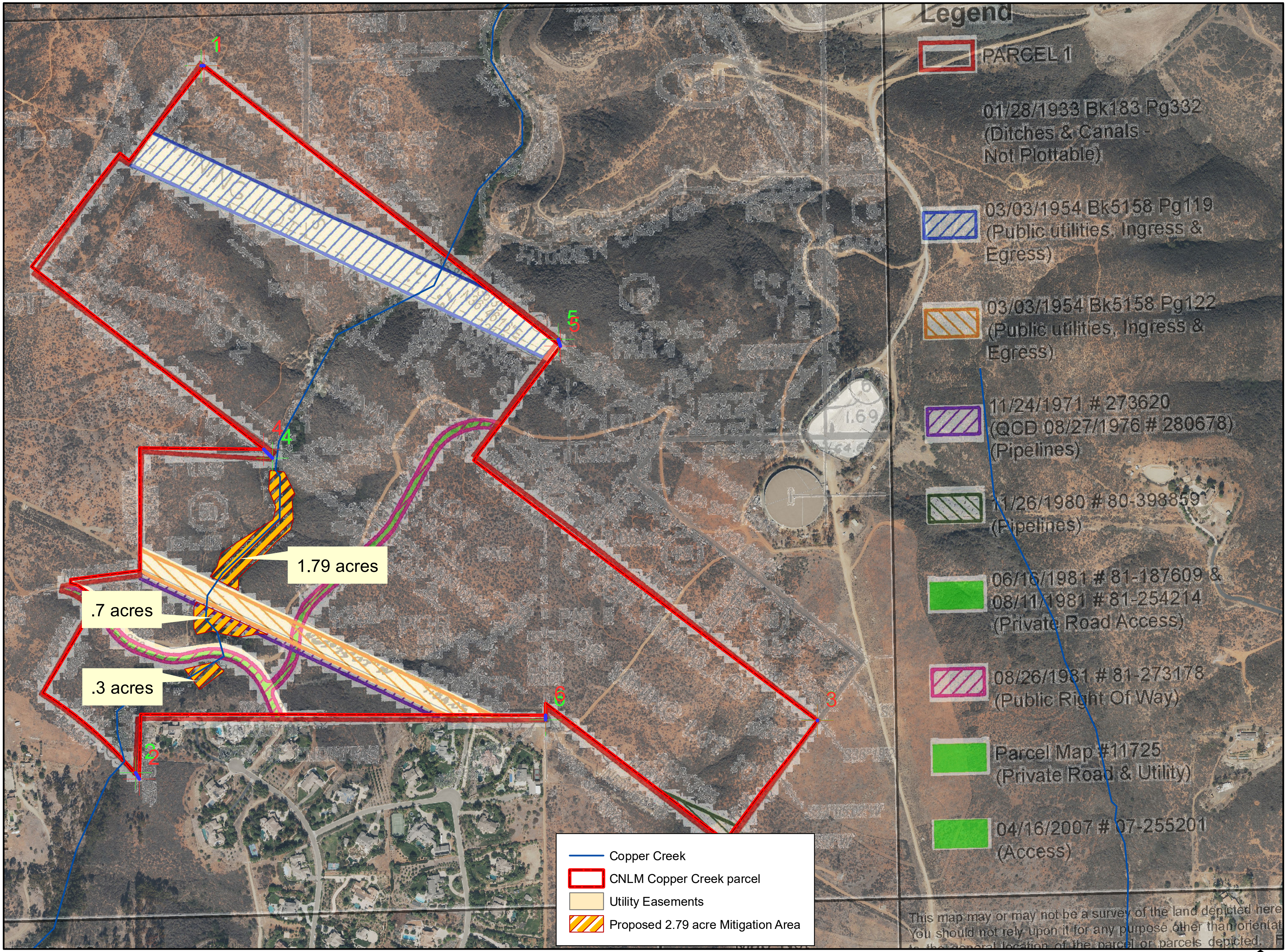
MITIGATION DESIGN PLANS

1. Cascada Verde Offsite Wetlands, Waters of the U.S. Riparian and Native Grasslands Mitigation Plan, Copper Creek Site, Figure 7, Habitat Conservation Area Vicinity.

2. Cascada Verde Offsite Wetlands, Waters of the U.S. Riparian and Native Grasslands Mitigation Plan, Copper Creek Site, CNLM's Perkins.Copper Creek Preserve.

3. Cascada Verde Offsite Wetlands, Waters of the U.S. Riparian and Native Grasslands Mitigation Plan, Copper Creek Site, CNLM's Perkins.Copper Creek Preserve Proposed Eucalyptus Removal Areas.

4. On-Site Conceptual Mitigation Plan, Cascada Verde Residential Development Project, Figure 3, Fuel Mod and Conceptual Mitigation Plan



CNLM's Perkins/Copper Creek Preserve
Proposed Eucalyptus Removal Areas

0 0.05 0.1 0.2
Miles

Center for Natural Lands Management

N

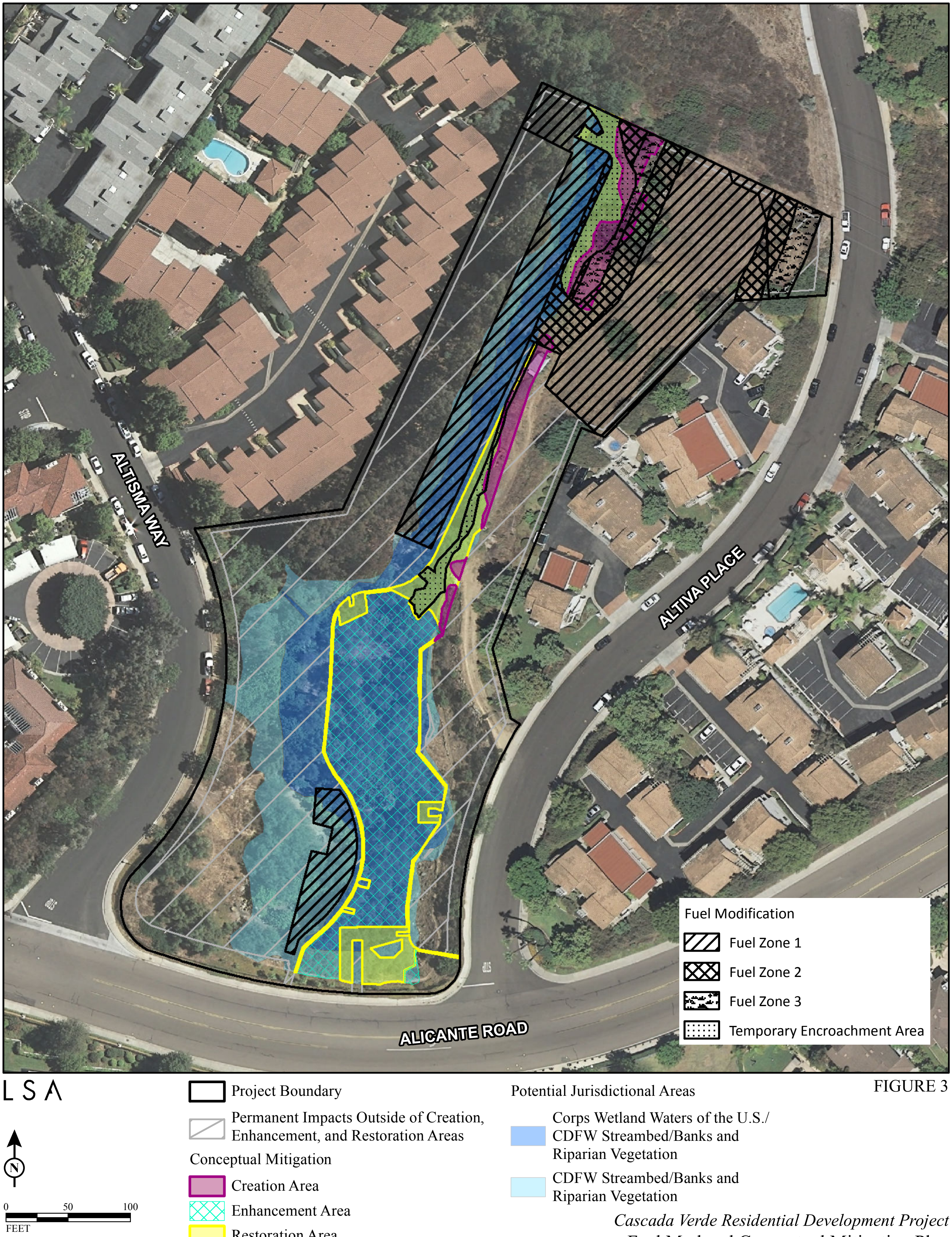


FIGURE 3

Cascada Verde Residential Development Project

Fuel Mod and Conceptual Mitigation Plan

SOURCE: Aerial - City of Carlsbad (2/2012); Hofman Planning & Engineering (2015)

R:\IKN1301\GIS\FuelMod.mxd (8/24/2017)

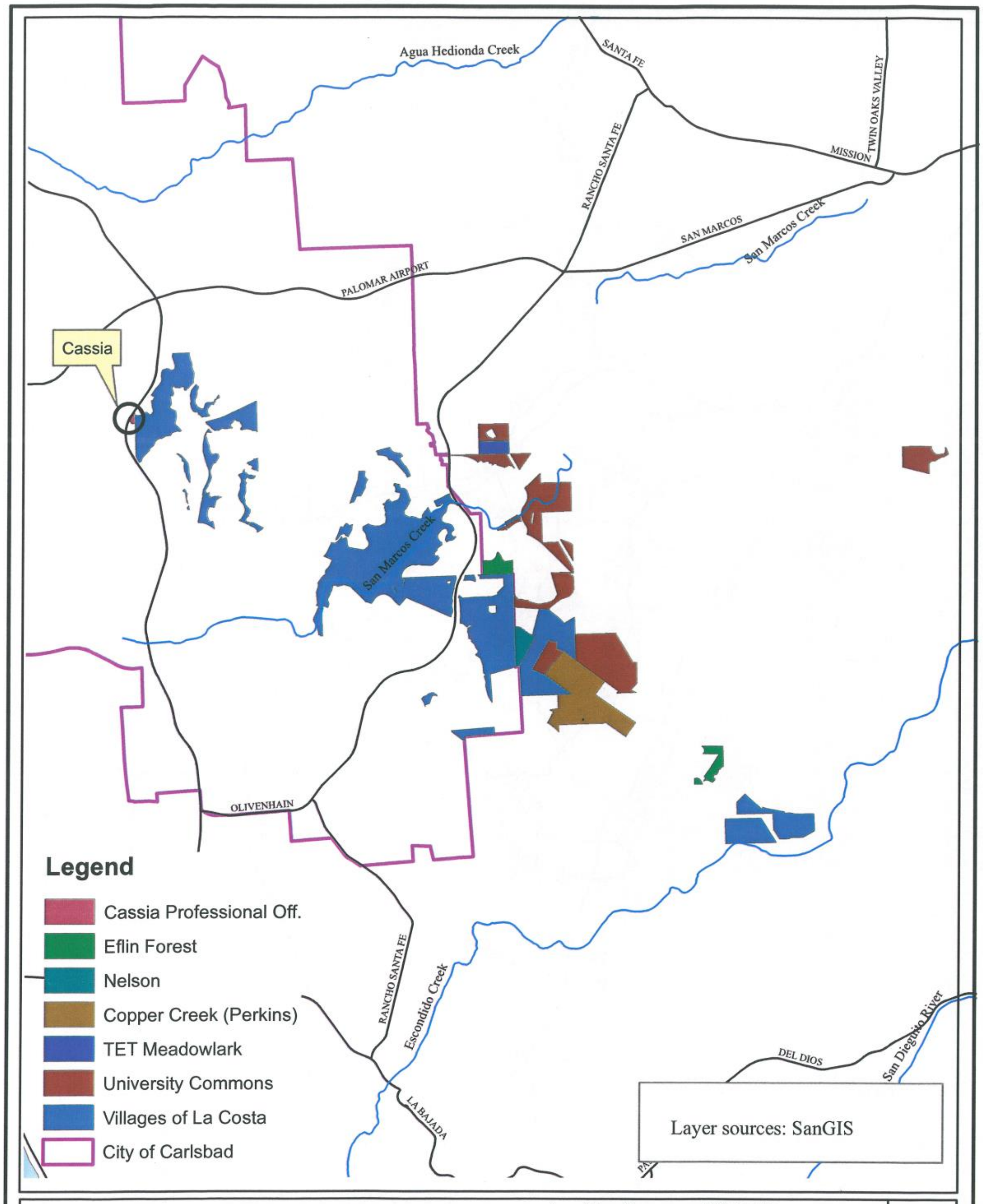
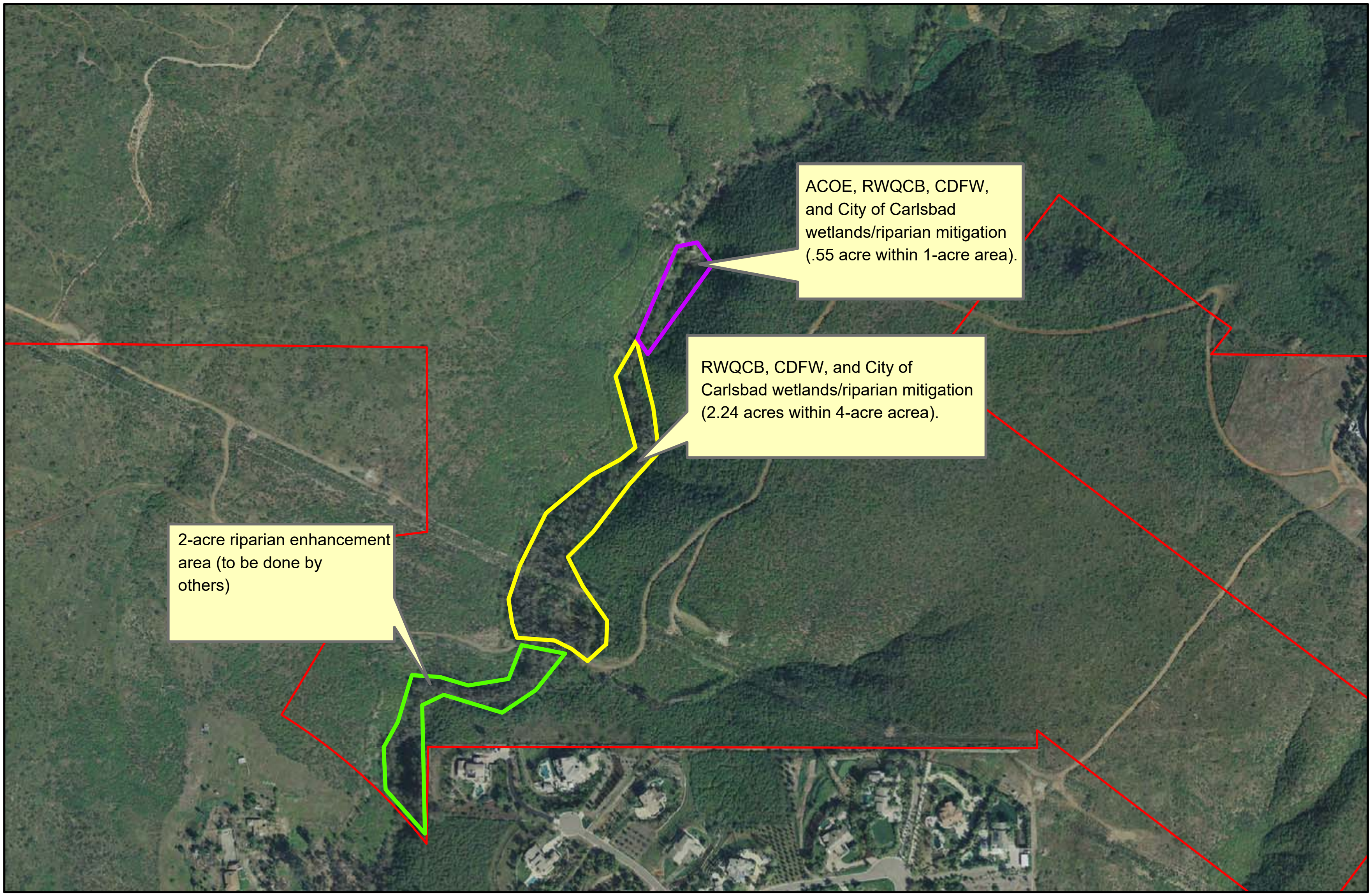


Figure 7. Habitat Conservation Area Vicinity

Rancho La Costa Habitat Conservation Area- San Diego, CA

Center for Natural Lands Management



CNLM's Perkins/Copper Creek Preserve

Cascada Verde Mitigation for Army Corps, CDFW, RWQCB, and City of Carlsbad

ATTACHMENT 5

MITIGATION MONITORING AND REPORTING PROGRAM

1. Mitigated Negative Declaration, Cascada Verde, Mitigation and Monitoring Reporting Program Table.

Mitigation Monitoring and Reporting Program

PROJECT NAME: **Cascada Verde**
PROJECT NO: **CT 15-01/SDP 15-02/PUD 15-03/HDP 15-02**
APPROVAL DATE/RESOLUTION NUMBER(S):

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the City's monitoring requirements with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

MITIGATION MEASURE		**Monitoring Type**	**Monitoring Department**	**Shown on Plans**	**Verified Implementation**	**Remarks**
BIO-1	a) Prior to issuance of a grading permit mitigation for impacts to 1.11 acres of riparian woodland and .33 acres of native grassland shall be mitigated at a ratio of 3:1 and shall be satisfied with the purchase of off-site mitigation bank credits or other mitigation satisfactory to the City of Carlsbad. b) Prior to issuance of a grading permit, mitigation impacts for .28 acres of unoccupied coastal sage scrub, .29 acres of nonnative grassland, .57 acres of eucalyptus woodland, .42 acres of landscape/ornamental, and .22 acres of disturbed land shall be mitigated by payment of an in-lieu mitigation fee. c) The contractor shall install orange construction fencing (or similar) along the perimeter of the project impact area. d) A biological monitor shall be present during all vegetation clearing and initial BMP installation.	Project	PLN			

Explanation of Headings
Type = Project, ongoing, cumulative.
Monitoring Dept. = Department, or Agency, responsible for monitoring a particular mitigation measure.
Shown on Plans = When mitigation measure is shown on plans, this column will be initialed and dated.
Verified Implementation = When mitigation measure has been implemented, this column will be initialed and dated.
Remarks = Area for describing status of ongoing mitigation measure, or for other information.

Legend

PLN	Planning Division
ENG	Land Development Engineering Division
BLDG	Building Division

MITIGATION MEASURE		Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
	e) If vegetation clearing must occur during the bird breeding season (February 1 through September 15), qualified biologist shall survey for the presence of nesting birds within the immediate project vicinity no more than 48 hours prior to vegetation clearing. If clearing does not occur within 48 hours of the nesting bird survey, then the area shall be resurveyed. If nesting birds are found, then the qualified biologist should establish an adequate buffer zone (on a species by species, case by case basis) in which construction activities are prohibited until the nest is no longer active. If the species is federally or State-listed as threatened or endangered, then consultation with the USFWS and CDFW are required for direction on appropriate buffer zone radius; however, if the species is not federally or State-listed as threatened or endangered, then the size of the buffer zone is determined by the biological monitor based on the amount, intensity, and duration of construction, and can be altered based on site conditions. The permitting agencies may impose additional conditions regarding the protection of nesting birds. f) All vehicles, equipment, tools, and supplies shall stay within the limits of the project impact footprint. Vegetation and potentially jurisdictional features located outside of the proposed impact areas are not to be disturbed during access or construction. g) BMP features (e.g., silt fencing, straw waddles, and gravel bags) should be installed at the project impact areas adjacent to potentially jurisdictional areas to prevent off-site sedimentation. h) Long-term storage of equipment, vehicles, tools, and supplies shall occur only within the impact areas within the project footprint and designated staging areas. Vegetation and potentially jurisdictional areas located outside of the proposed impact areas are not to be used for storage.					

MITIGATION MEASURE		**Monitoring Type**	**Monitoring Department**	**Shown on Plans**	**Verified Implementation**	**Remarks**
CUL-01	a) Prior to the commencement of any ground disturbing activities, the project developer shall enter into a Pre-Excavation Agreement, otherwise known as a Tribal Cultural Resources Treatment and Tribal Monitoring Agreement, with the San Luis Rey Band of Mission Indians. This agreement will contain provisions to address the proper treatment of any cultural resources or Luiseno Native American human remains inadvertently uncovered during the course of the project. The agreement will outline the roles and powers of the Luiseño Native American monitors and the archaeologist. b) Any and all uncovered artifacts of Luiseño Native American cultural importance should be returned to the tribe, and/or the most likely descendant and not be curated. c) Native American monitors and archaeological monitors should have joint authority to temporarily divert and/or halt construction activities. If cultural resources are discovered during construction, all earth moving activity within and around the immediate discovery area must be diverted until the Luiseño Native American monitor and the archaeologist can assess the nature and significance of the find. d) The Luiseño Native American monitor shall be present at the project's preconstruction meeting to consult with grading and excavation contractors concerning excavation schedules and safety issues, as well as consult with the principal archaeologist concerning the proposed archaeologist techniques and/or strategies for the project. e) If a significant cultural resource and/or unique archaeological resource are unearthed during ground disturbing activities for this project, the tribe respectfully requests that they by notified and consulted with in regards to the respectful and dignified treatment of	Project	PLN			

MITIGATION MEASURE		**Monitoring Type**	**Monitoring Department**	**Shown on Plans**	**Verified Implementation**	**Remarks**
	those resources. Pursuant to California Public Resources Code Section 21083.2(b) avoidance is the preferred method of preservation for archaeological and cultural resources. If however, the applicant is able to demonstrate that avoidance of a significant and/or unique cultural resources is infeasible and a data recovery plan is authorized by the City of Carlsbad as the lead agency, the San Luis Rey Band of Mission Indians shall be consulted regarding the drafting and finalization of any such recovery. f) When cultural resources are discovered during the project, if the archaeologist collects such resources, a Luiseño Native American monitor must be present during any testing or cataloging of those resources. If the archaeologist does not collect the cultural resources that are unearthed during the ground disturbing activities, the Luiseño Native American monitor, may in their discretion, collect said resources and provide them to the tribe and respectful and dignified treatment in accordance with the tribe's cultural and spiritual traditions. g) If suspected Native American human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Suspected Native American remains shall be examined in the field and kept in a secure location at the site. A Luiseño Native American monitor shall be present during the analysis of the remains. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission (NAHC) must be contacted within 24					

MITIGATION MEASURE		Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
	hours. The NAHC must then immediately notify the “Most Likely Descendant” of receiving notification of the discovery. The Most Likely Descendant shall then make recommendations within 48 hours, and engage in consultation concerning treatment of remains as provided in Public Resources Code 5097.98. i) In the event that fill is imported into the project area, the fill shall be clean of cultural resources and documented as such. If fill material is to be utilized and/or exported from areas within the project site, then that fill will need to be analyzed and confirmed by an archeologist and Luiseno Native American monitor that such fill material does not contain cultural resources.					