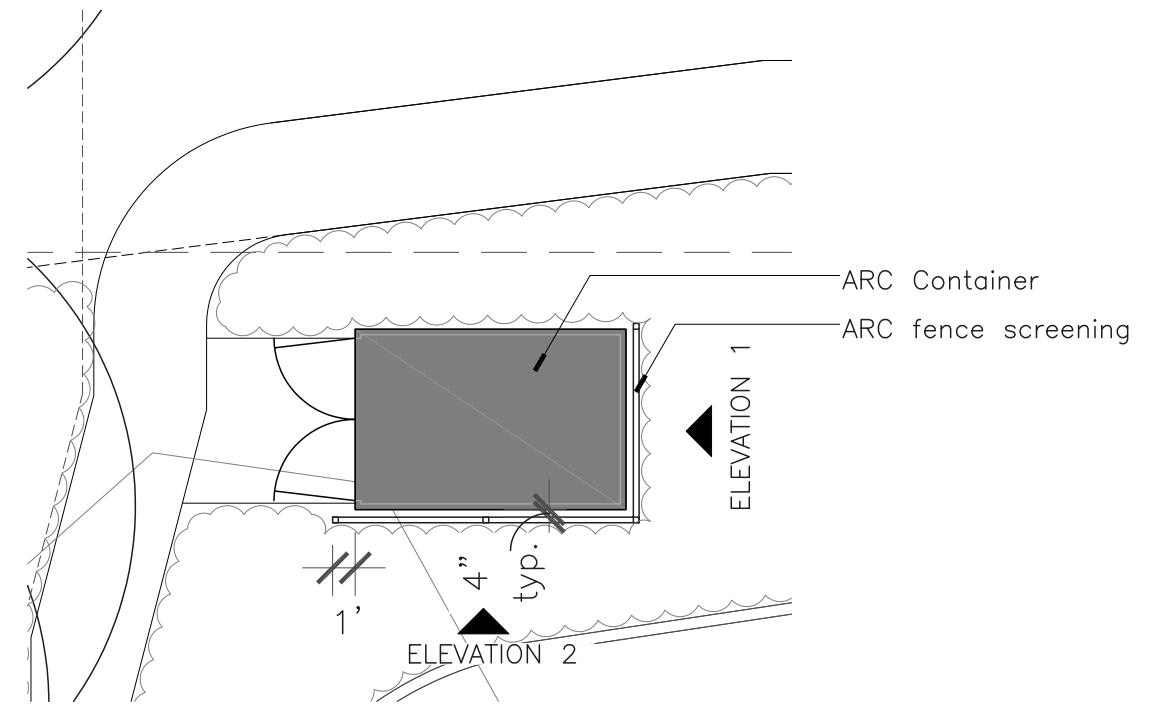
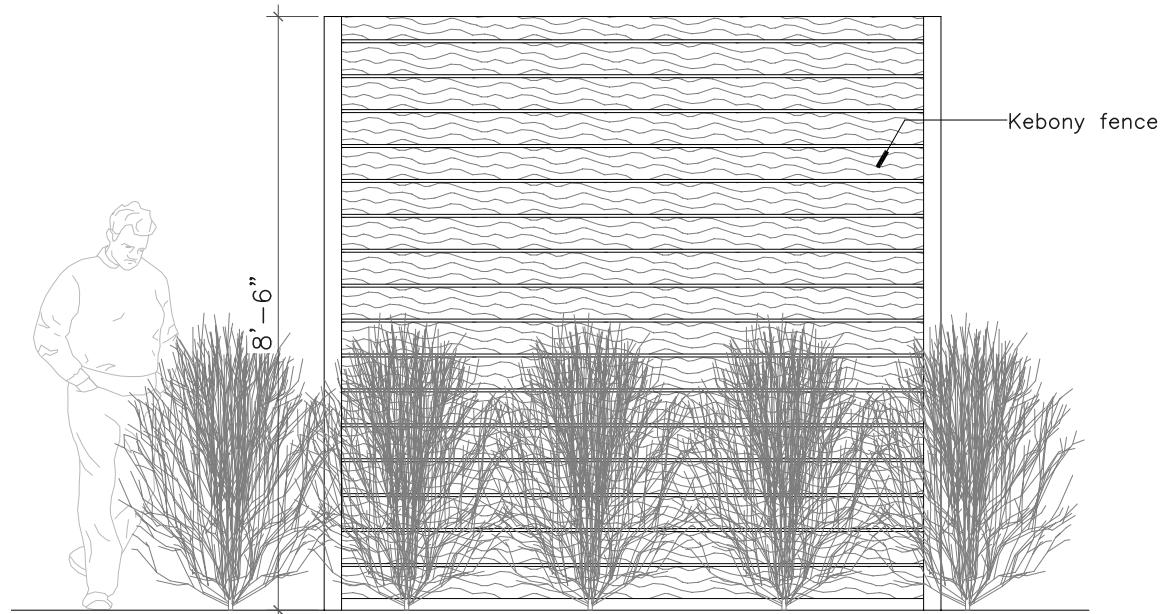


ARC SCREENING ELEVATION 2

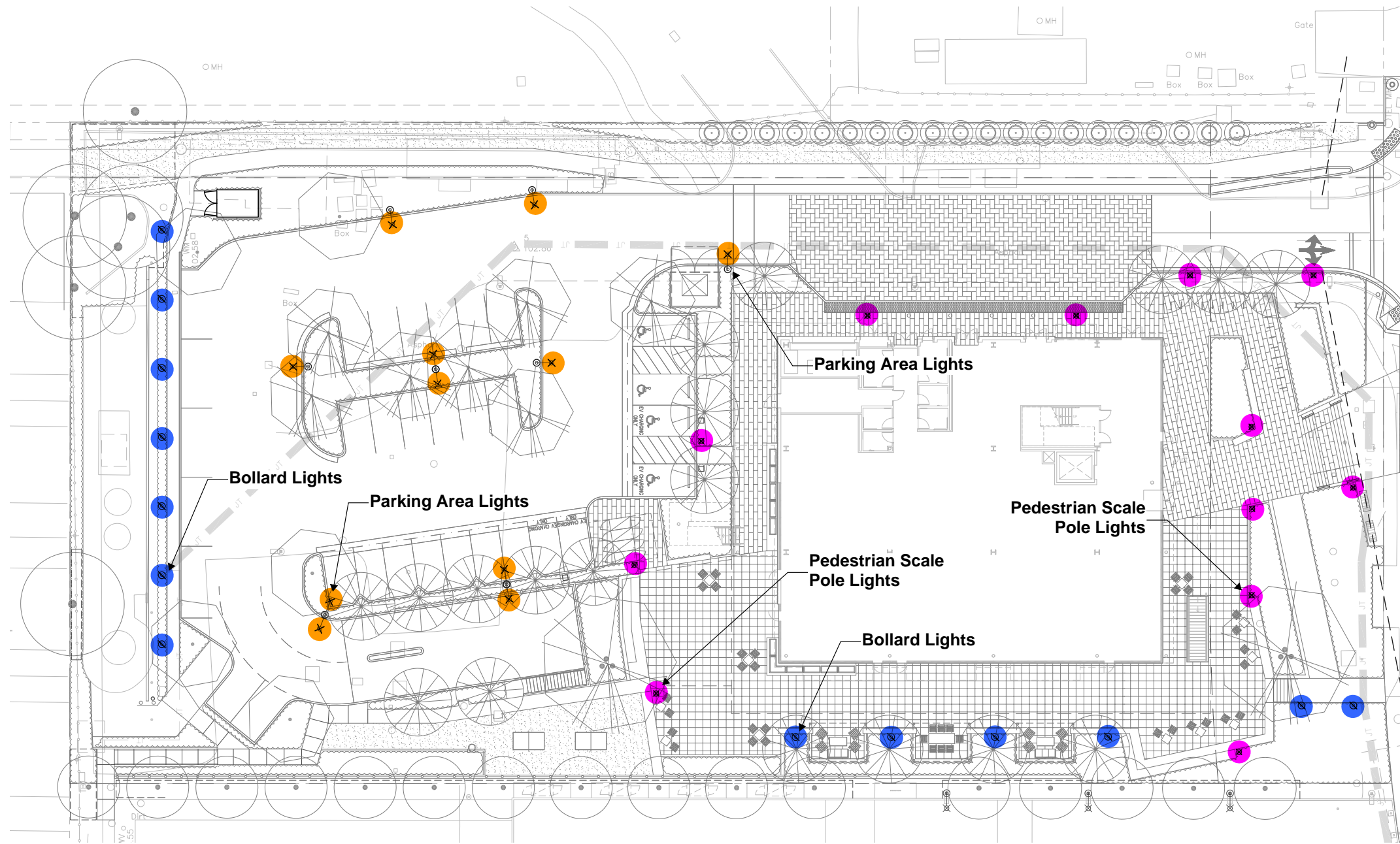


ARC SCREENING PLAN



ARC SCREENING ELEVATION 1





Pedestrian Pole Light
Bega 88 164 - 14'H
Color: Silver



Parking Lot Light
Gardco Gullwing 16'H
Color: Black



Bollard Light
Hess Linea S
Color: Silver

3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

LIGHTING PLAN

L1.18

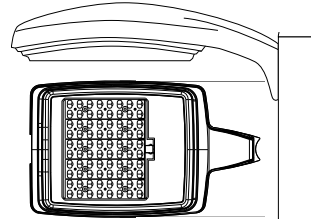
Job:
Type:
Notes:

Gullwing LED

Page 1 of 3

GLI3 Luminaires Featuring Motion Response

Philips Gardco Gullwing LED luminaires combine LED performance excellence and advanced Philips Gardco LED thermal management technology with the distinct Gullwing style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. The Philips Gardco Gullwing LED is defined by its high performance, sleek profile and rugged construction. The housing is one-piece, die cast aluminum and mounts directly to a pole or wall without the need of a separate support arm. The advanced LED optical systems provide IES Types II, III, IV and V distributions. The luminaire features a state of the art integral thermal control system to maximize LED performance and life, and to extend component life. All LED wattages utilize high performance Class I LED systems. The door frame is single-piece die cast aluminum, and includes a tempered glass lens. Luminaires are finished with a fade and abrasion resistant TGIC powdercoat. Gullwing LED luminaires provide full cutoff performance. Available automatic profile dimming and motion response versions add integral control to increase energy savings.



PREFIX	MOUNTING	OPTICAL SYSTEM	LED WATTAGE	LED SELECTION	VOLTAGE	FINISH	OPTIONS

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

Complete Luminaires¹

GLI3	13" Gullwing LED Luminaire - Constant Wattage
GLI3-DIM	13" Gullwing LED Luminaire - with 0-10V Dimming
GLI3-APD²	13" Gullwing LED Luminaire - with Automatic Profile Dimming
GLI3-MRI²	13" Gullwing LED Luminaire - with Motion Response Integral Motion Sensor
GLI3-APD-MRI²	13" Gullwing LED Luminaire - with Automatic Profile Dimming - Motion Response Override Integral Motion Sensor

1. Retrofit Kits for existing Gullwing 13" HID luminaires are available. See Legacy LED Retrofit Kits Submittal Data Sheet (G200-21) for Retrofit Kit information.

2. APD version available in 120V through 277V only. MRI and APD-MRI versions require 120V or 277V input. See page 3 for more information on luminaire configurations.

MOUNTING

1	Single Pole Mount
2	Twin Pole Mount at 180°
2@90	Twin Pole Mount at 90°
3	3-way Pole Mount at 90°
3@120³	3-way Pole Mount at 120°
4	4-way Pole Mount
W	Wall Mount, Recessed J-box
WS	Wall Mount, Surface Conduit

3. Not available with PTF option.

OPTICAL SYSTEM

2	Type II
3	Type III
4	Type IV
5	Type V

Type V optical system features unitized lens construction.

LED WATTAGE AND LUMEN VALUES

Ordering Code	Average System Watts ⁴	LED Current (mA)	LED Selection	Luminaire Initial Absolute Lumens ^{5,6}				Basis of Lumen Data <i>Photometric tests performed in compliance with IESNA LM-79.</i>
				TYPE 2	TYPE 3	TYPE 4	TYPE 5	
70LA	71.2	350	CW	5,858	6,177	6,008	5,853	
			NW	5,636	5,854	5,696	5,479	
85LA	85.9	350	CW	7,531	7,714	7,495	7,384	
			NW	6,973	7,143	6,940	6,837	

4. Wattage may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
5. Values shown are for luminaires without the HS external shield option. Tests are in process for luminaires with the HS option and WW luminaires. Contact Gardco.applications@philips.com if approximate estimates are required for design purposes.
6. LED arrays feature LEDs that provide from 100 to 130 lumens per watt when operated at 350 mA. Lumen values based on tests performed in compliance with IESNA LM-79.

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PHILIPS



Gullwing LED

Page 2 of 3

GLI3 Luminaires Featuring Motion Response

LED SELECTION

CW	Cool White - 5700°K - 75 CRI
NW	Neutral White - 4000°K - 70 CRI
WW	Warm White - 3000°K - 80 CRI

VOLTAGE

120	
208	
240	
277	
347	
480	
UNIV	120V through 277V, 50hz or 60hz
HVU	347V through 480V, 50hz or 60hz (High Voltage Universal)

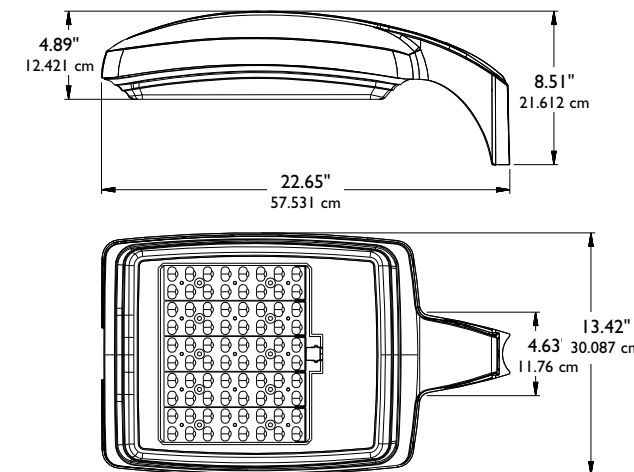
FINISH

BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
OC	Optional Color Paint Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024.
SC	Special Paint Specify. Must supply color chip.

OPTIONS

F⁷	Fusing	7. Specify input voltage.
LF⁷	In-Line/In-Pole Fusing	8. Specify input voltage. Not available above 277V.
PC⁸	Photocontrol and Receptacle	9. Mounts to a 2-3/8" O.D. mast arm.
PCR	Photocontrol Receptacle only	10. Not available in 120° mounting configurations.
HS	External Houseside Shield	11. Required for mounting to straight square poles.
MF⁹	Mast Arm Fitter	12. Mounts to a 2-3/8" top tenon. Specify a pole with 3.00" top OD for a smooth transition.
PTF2¹⁰	Pole Top Fitter - 2 3/8" - 3" Dia. Tenon	
PTF3¹⁰	Pole Top Fitter - 3" - 3 1/2" Dia. Tenon	
PTF4¹⁰	Pole Top Fitter - 3 1/2" - 4" Dia. Tenon	
SPA¹¹	Square Pole Adapter	
TR1¹²	Single Transition	
TR2¹²	Twin Transition	
DL	Diffusing Lens (reduces performance significantly)	

DIMENSIONS AND EPA



EPA		
1	2	3-4
.8 ft ²	1.6 ft ²	2.2 ft ²
.07 m ²	.15 m ²	.20 m ²

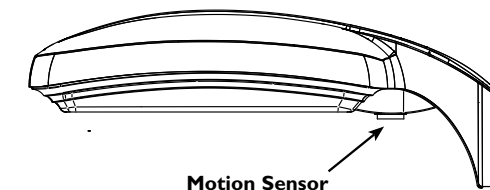
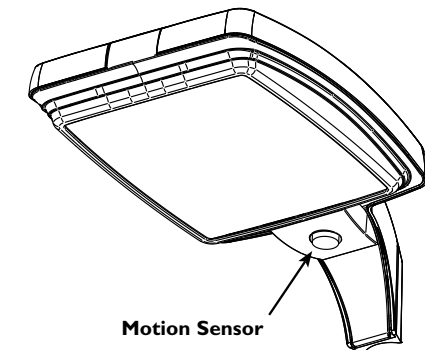
Approximate Weight
Single Luminaire

33 lbs / 14.969 kg

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GLI3-MRI or GLI3-APD-MRI Units



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LIGHTING CUTSHEETS L1.19

Pole top luminaires with symmetrical light distribution

Housing/fitter: Die-cast aluminum construction with a spun aluminum cap. The fixture slip fits a 3" O.D. pole top or tenon and is secured by six (6) socket head stainless steel set screws threaded into stainless steel inserts. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Molded $\frac{1}{8}$ " high impact acrylic diffuser with light diffusing matte white surface. Completely sealed with a high temperature silicone gasket for weather tight operation.

Electrical: 25.2W LED luminaire, 30.0 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

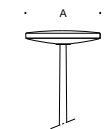
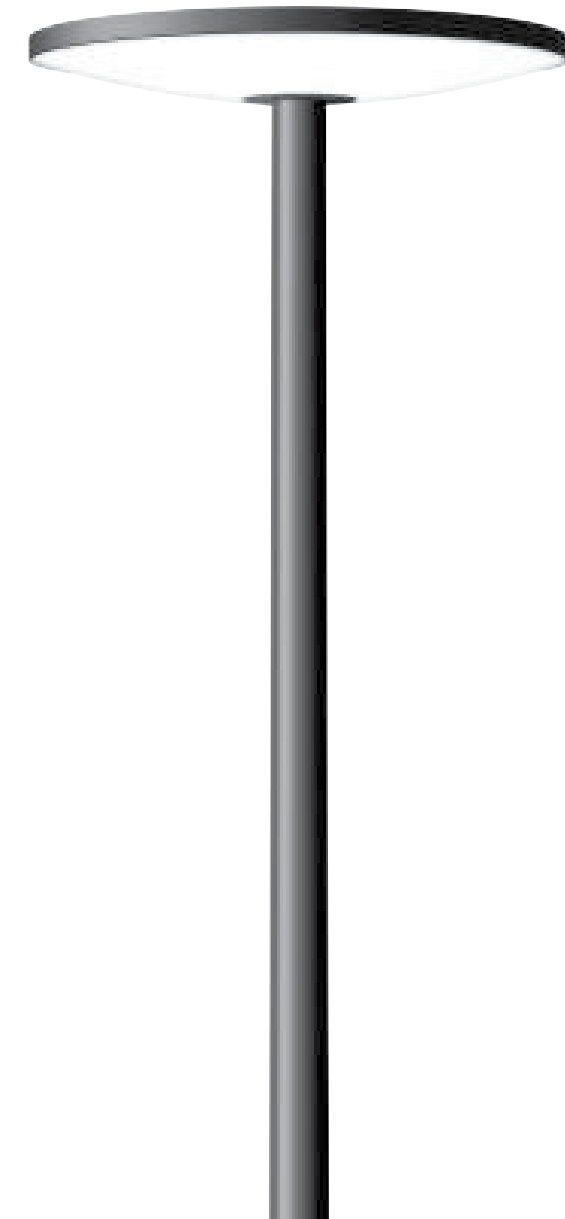
CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 13.2 lbs.

EPA (Effective projection area): 0.7 sq. ft.

Luminaire Lumens: 2531

Type:
 BEGA Product:
 Project:
 Voltage:
 Color:
 Options:
 Modified:



Pole-top luminaires - Fig. left

Lamp	A	B
88164 25.2W LED	24 1/4	5 1/2

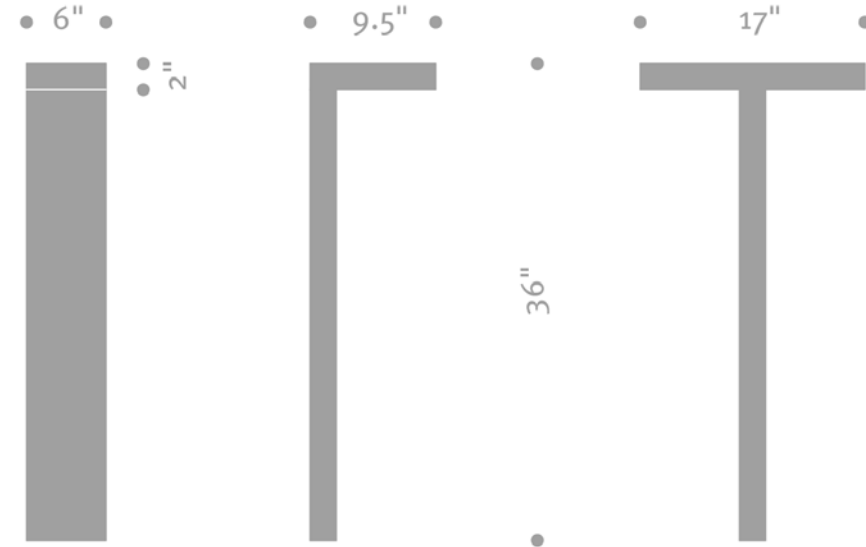
LINEA S 900 Specification

The slender profile of LINEA complements contemporary architecture with well proportioned styling and a modern form. The fabricated aluminum bollard is available as a single or twin mount luminaire in three different heights to meet varying scale requirements. The fully shielded luminaire emits zero uplight and is Dark Sky compliant. Concealed mounting minimizes the footprint. All hardware is stainless steel.

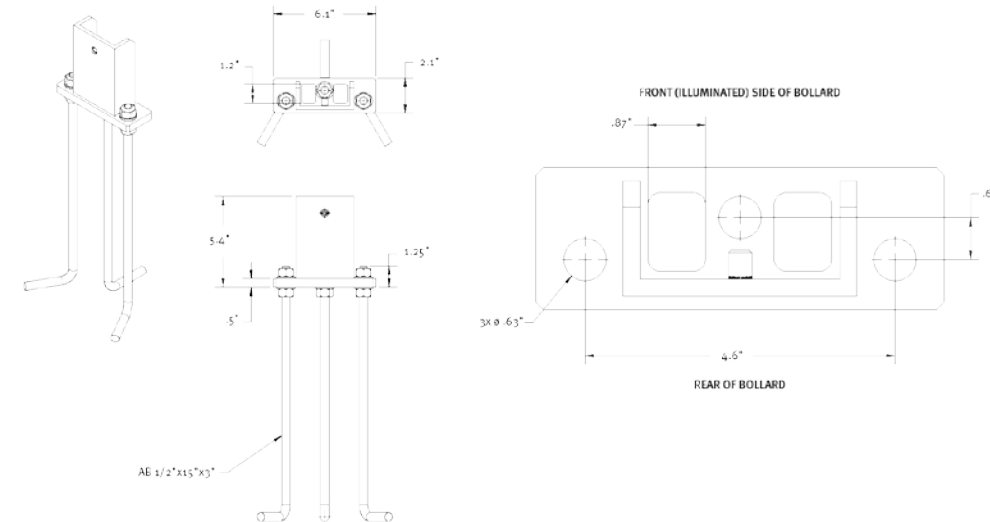


Additional information

Dimensions



Mounting detail

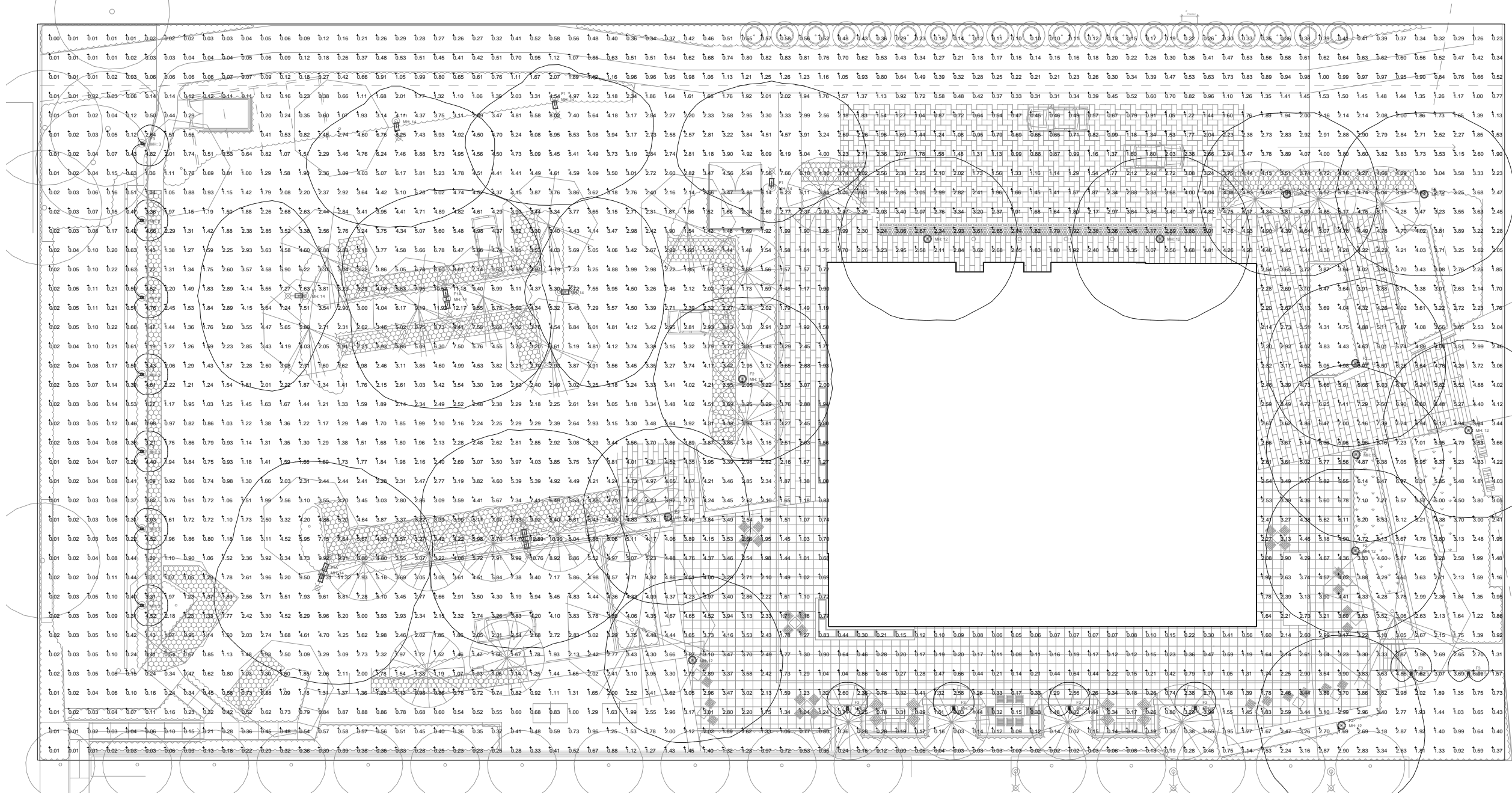


Model	Lamp	Color Temperature	Volt	Mounting	Finish	Option
LN900S	LED	WW - 3000K	UNV - 120-277V	A - Single Mount	SG - Silver Grey	DIM - 0-10vDC Dimming
		NW - 4000K		B - Twin Mount	DG - Dark Grey	N - None
					GG - Graphite Grey	
					BLK - Matte Black	
					BRZ - Dark Bronze	
					CC - Custom Color	

Ordering Information

Specifications are subject to change without notification
HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA S
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_S/

Specifications are subject to change without notification
HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA S
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_S/



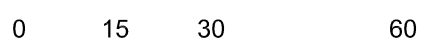
THE GUZZARDO PARTNERSHIP INC

Stanford RESEARCH PARK

STUDIOS architecture



Scale: 1" = 30'-0"



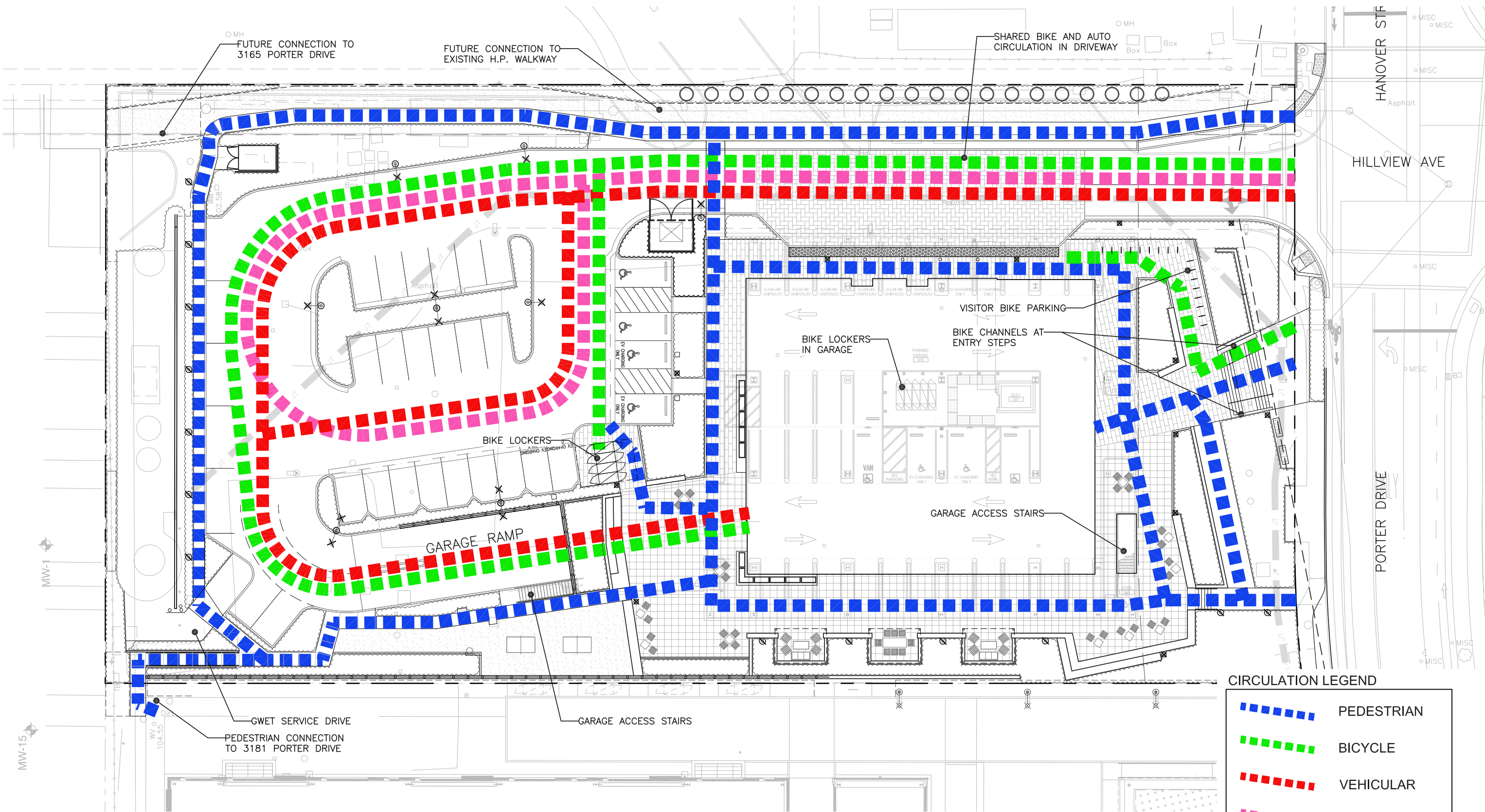
Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	Grid Z
Building Front Driveway	Illuminance	Fc	3.94	7.9	1.6	2.46	4.94	IES RP-8-14: Driveway - 4fc Avg, Avg to Min < 4:1	0
Parking Area	Illuminance	Fc	3.59	12.5	0.2	17.95	62.50	IES RP-20-14: Asphalt Parking Lot - 0.5fc Min, Max to Min < 15:1	0
Pedestrian Area	Illuminance	Fc	0.94	3.6	0.1	9.40	36.00	IES 10E 4.33: Pedestrian Walkway - 1fc Average	0

3215 PORTER DRIVE

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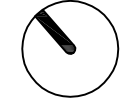
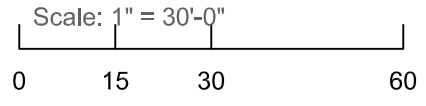
03/02/2020

PHOTOMETRIC PLAN L1.22



CIRCULATION LEGEND

- ▬▬▬▬▬▬ PEDESTRIAN
- ▬▬▬▬▬▬ BICYCLE
- ▬▬▬▬▬▬ VEHICULAR
- ▬▬▬▬▬▬ FIRE

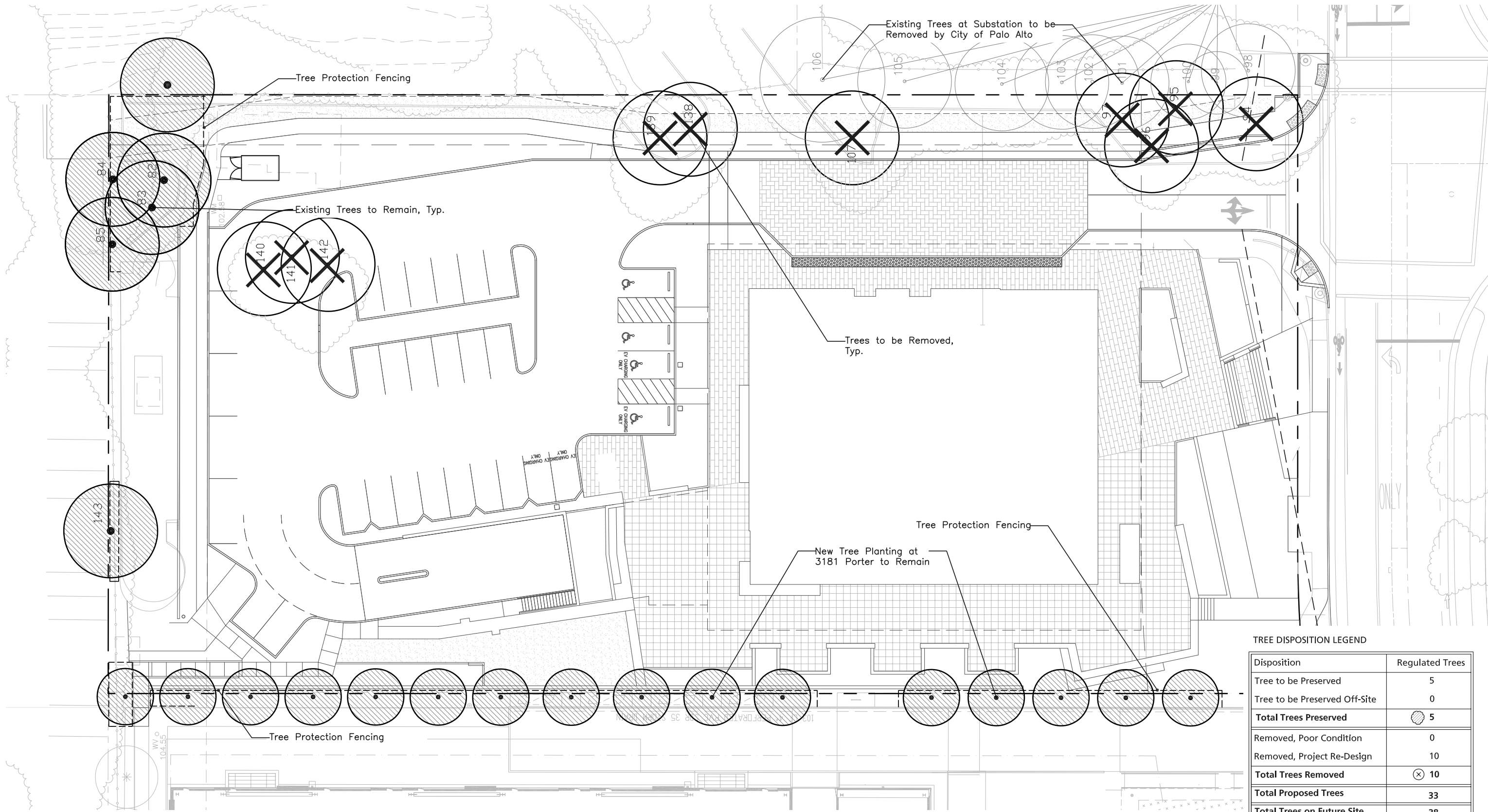


3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

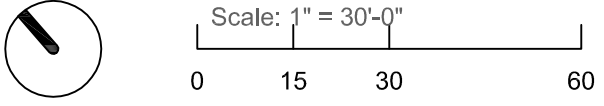
CIRCULATION DIAGRAM L1.23



TREE DISPOSITION LEGEND

Disposition	Regulated Trees
Tree to be Preserved	5
Tree to be Preserved Off-Site	0
Total Trees Preserved	5
Removed, Poor Condition	0
Removed, Project Re-Design	10
Total Trees Removed	10
Total Proposed Trees	33
Total Trees on Future Site	38

Note:
- See Arborist Report by Hort Science dated April 4, 2019 for specific information about existing trees.



3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITAL, MAJOR - REVISION 3

03/02/2020

TREE DISPOSITION PLAN L1.24

City of Palo Alto Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. **An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree.** For detailed information on Palo Alto's regulated trees and protection during development, review the **City Tree Technical Manual (TTM)** found at www.cityofpaloalto.org/trees/.

TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on approved site plans. A completed disclosure statement must accompany all building permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: **3215 PORTER DRIVE**

Are there Regulated trees on or adjacent to the property? **YES** NO (if no, proceed to Section 4)

[Sections 1-4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing over 4" diameter trees)

- On the property
- On adjacent property overhanging the project site
- In the City planter strip or right-of-way easement within 30' of property line (Street Trees)

*Street trees require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form by calling Public Works Operations at 493-5953 for inspection of required type I, II or III fencing (see attached Detail #605).

2. Are there any Protected or Designated Trees? **YES** (Check where applicable) **NO**

- Protected Tree (s)
- Designated Tree (s)
- On or overhanging the property

3. Is there activity or grading within the drip-line? (radius 10 times the trunk diameter) of these trees? **YES** **NO**
If Yes, a Tree Preservation Report must be prepared by an ISA certified arborist and submitted for staff review (see TTM Section 6.25). Attach this report to Sheet T-1, "Tree Protection, In Part of the Plan", per Site Plan Requirements.

4. Are the Site Plan Requirements* completed? **YES** **NO**

**Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy diameter; (2) Plans must show, as a bold dashed line, a fenced enclosure area out to the drip-line, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/trees/forstaffuse.htm> (See also TTM, Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: [Signature] Print: JAMES WINSTEAD Date: 10.25.19
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees. The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. **YES** **NO**
(N/A if there are no protected trees, check here [X])

6. Street Trees. A signed Public Works Street Tree Protection Verification form is attached. **YES** **NO**
(N/A if there are no street trees, check here [X])

Regulated Trees - A) Street trees - trees on public property; B) Protected trees - Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 4" above natural grade; and Heritage trees as trees designated by City Council; and C) Designated Trees - ornamental or non-landmark property trees, which are part of an approved landscape plan.

Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at http://www.cityofpaloalto.org/planning-conservation/tree_technical_manual.htm.

City of Palo Alto
250 Hamilton Avenue, Palo Alto, CA 94301

Tree Technical Manual
To purchase the Tree Technical Manual
June 2003 First Edition

View by section:

- Table of Contents (PDF, 87KB)
- Intent and Purpose (PDF, 1.09MB)
- Introduction - Use of Manual (PDF, 1.09MB)
- Section 2.0 - Definitions (PDF, 20KB)
- Section 2.0 - Protection of Trees During Construction (PDF, 25KB)
- Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 127KB)
- Section 4.0 - Hazardous Trees (PDF, 40KB)
- Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- Tree Technical Manual - Full (PDF, 1.44MB)

APPENDICES

- A. Palo Alto Municipal Code Chapter 8.10 - Tree Preservation & Management Regulations
- B. Tree City USA
- C. ISA Hazard Evaluation Form
- D. List of Invertebrate Pathogens for Selected Species (Reference source)
- E. ISA Tree Pruning Guidelines (PDF, 1.89MB)
- F. Tree Care Safety Standards, APR 2013 - 1/15/14 (Reference source)
- G. Pruning the formative standards, 2015, A301-1525 (Reference source) H) Tree Planting Details, Diagram 504 B, 305
- I) Tree Disclosure Statement
- J) Palo Alto Standard Tree Protection Instructions

For further specifications associated with this form, see Public Works Specifications Section 11. Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection Zone (TPZ) shown in gray in the TTM manual is shown in the diagram below. The TPZ is the area around a tree trunk that is protected from soil disturbance and other activities that could harm the tree.

Type I Tree Protection
Type I Tree Protection is required for trees with a trunk diameter of 4" or greater. The TPZ is defined as a circle with a radius of 10 times the trunk diameter. The TPZ must be fenced with a minimum 4-foot high fence with a minimum 4-foot top rail. The fence must be maintained at all times.

Type II Tree Protection
Type II Tree Protection is required for trees with a trunk diameter of 4" or greater. The TPZ is defined as a circle with a radius of 10 times the trunk diameter. The TPZ must be fenced with a minimum 4-foot high fence with a minimum 4-foot top rail. The fence must be maintained at all times.

Type III Tree Protection
Type III Tree Protection is required for trees with a trunk diameter of 4" or greater. The TPZ is defined as a circle with a radius of 10 times the trunk diameter. The TPZ must be fenced with a minimum 4-foot high fence with a minimum 4-foot top rail. The fence must be maintained at all times.

Tree Protection During Construction

City of Palo Alto Standard

Approved by: [Signature]
Date: 2006
Page No: 605

**PALO ALTO
STREET TREE PROTECTION INSTRUCTIONS
SECTION 5.1**

5.1 General

5.1.1 Tree protection has three primary functions: 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state; and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

5.1.2 The Tree Protection Zone (TPZ) is a circular area around the base of the tree with a radius of ten times the trunk diameter, or as otherwise defined by the City Administrator.

5.2 Reference Documents

5.2.1 Detail and - Illustration of standards described below.

5.2.2 Tree Technical Manual (TTM) Form (www.cityofpaloalto.org/trees/)

5.2.3 Arborist Reporting Protocol (TRP) (www.cityofpaloalto.org/trees/)

5.2.4 Site Plan Requirements (SPR) (www.cityofpaloalto.org/trees/)

5.2.5 Tree Disclosure Statement (TDS) (www.cityofpaloalto.org/trees/)

5.2.6 Street Tree Verification (STV) Form (www.cityofpaloalto.org/trees/)

5.3 Execution

5.3.1 Type I Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. The fence shall be maintained at all times. The fence shall be a minimum 4-foot high fence with a minimum 4-foot top rail. The fence shall be maintained at all times.

5.3.2 Type II Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. The fence shall be maintained at all times. The fence shall be a minimum 4-foot high fence with a minimum 4-foot top rail. The fence shall be maintained at all times.

5.3.3 Type III Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. The fence shall be maintained at all times. The fence shall be a minimum 4-foot high fence with a minimum 4-foot top rail. The fence shall be maintained at all times.

5.3.4 "Warning" signs: A warning sign shall be installed at the entrance to the TPZ, and shall be maintained at all times. The sign shall be a minimum 18" x 24" in size and shall be clearly visible to all vehicles and pedestrians.

5.3.5 "No Parking" - Tree Protection Zone: This fence shall be maintained at all times and shall be a minimum 4-foot high fence with a minimum 4-foot top rail. The fence shall be maintained at all times.

5.3.6 Operations: The fencing shall be installed before demolition, grading or construction begins and remain in place until final inspection of the project occurs for each specifically listed tree. Signs or soil disturbance in the TPZ requires approval by the project owner and, if needed, on the date of work around Street Trees. A maximum width to public right-of-way outside a Street Work Zone from Public Works.

5.4 During construction

5.4.1 All equipment, materials and activities shall be restricted from entering the TPZ of any tree.

5.4.2 The applicant shall be responsible for the removal or replacement plus, within 10 days of the date of the work, any trees damaged during the course of construction pursuant to Section 8.10.040 of the Palo Alto Municipal Code.

5.4.3 The following tree protection measures apply to all trees in the TPZ:

- a. No use of heavy equipment, vehicles or materials within the TPZ.
- b. No use of heavy equipment, vehicles or materials within the TPZ.
- c. No use of heavy equipment, vehicles or materials within the TPZ.

END OF SECTION
1) Tree Disclosure Statement
2) Palo Alto Standard Tree Protection Instructions

Table 2-1 Palo Alto Tree Technical Manual

CONTRACTOR 4 ARBORIST INSPECTION SCHEDULE

Reference: the Palo Alto Tree Technical Manual is available at www.cityofpaloalto.org/trees/

ALL ARBORIST INSPECTIONS APPLY TO THIS PROJECT:

1. Inspections of Protected Tree Fencing for Public Trees: The Street Tree Verification Form shall be signed by the City Administrator for Protected Trees. The project owner shall provide an initial Monthly Tree Activity Report form with a paragraph describing the tree and the proposed work. The project owner shall also provide a copy of the Tree Protection Zone (TPZ) map to the City Administrator. The project owner shall also provide a copy of the Tree Protection Zone (TPZ) map to the City Administrator.

2. Pre-Construction Meeting: Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the City Administrator, grading operators, project site agent, City Arborist, and, if a city maintained irrigation system is involved, the Public Manager (Contact: 650-496-5953).

3. Inspection of Rough Grading or Trenching: Contractors shall ensure the project site arborist performs inspections during the course of rough grading or trenching adjacent to trees within the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if rough grading or trenching is required, the contractor shall provide the City Administrator with a copy of the rough grading or trenching plan. The contractor shall provide the project arborist at least 24 hours advance notice of each activity.

4. Monthly Tree Activity Report Inspection: The project site arborist shall perform a minimum monthly arborist inspection in accordance with the City Administrator's instructions. The project site arborist shall provide a copy of the Monthly Tree Activity Report form to the City Administrator. The project site arborist shall provide a copy of the Monthly Tree Activity Report form to the City Administrator.

5. Special activity within the Tree Protection Zone: Work in the TPZ area (see also 6.25) requires the project owner to obtain approval from the City Administrator. The project owner shall provide a copy of the Special Activity Report form to the City Administrator.

6. Landscape Archival Inspection: For discretionary development projects prior to temporary site occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on-site inspection of all plant stock, quality of the materials and planting (see TTM Planning Quality, Section 2.30.1.A) and that the applicant is maintaining compliance with the approved construction plan. The project site arborist shall provide a copy of the Landscape Archival Inspection form to the City Administrator.

7. List Other: Please describe as added out on the site in the Tree Preservation Report, Sheet T-1, T-2, etc.

**City of Palo Alto
Tree Department
Public Works Operations
PO Box 1030 Palo Alto, CA 94303
650-496-5953 FAX: 650-496-5954
treeprotect@cityofpaloalto.org**

**Verification of
Street Tree Protection**

Applicant Information: Complete upper portion of this form. Mail or FAX this form along with signed Tree Disclosure Statement to: Public Works Dept., Public Works Tree Staff and report to staff.

APPLICATION DATE: _____

ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED: _____

APPLICANT'S NAME: _____

APPLICANT'S ADDRESS: _____

APPLICANT'S TELEPHONE & FAX NUMBERS: _____

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. (The type of protection used is: _____)

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required: _____

Indicate how the required modifications were communicated to the applicant: _____

Subsequent inspection: _____

Street trees at above address were found to be adequately protected: **YES** **NO** (If NO, indicate in "Notes" below the department of issue.)

Inspected by: _____

Date of inspection: _____

Notes: List City street trees by species, size, condition and type of tree protection installed. Also note if pictures were taken. Upload photos if necessary.

Return approved sheet to Applicant for demolition or building permit issuance. (Approved by the Staff)

Arborist Firm Data Form City of Palo Alto Tree Technical Manual ADDENDUM 11

Monthly Tree Activity Report- Construction Site

Inspection Date: _____ Site address: _____ Contractor: _____

Inspection #: _____ City: Palo Alto, CA Contract information: _____

Job site information: _____

City of Palo Alto: _____ City Arborist: _____

City of Palo Alto: _____ City Arborist: _____

Project site address: _____

Consolidated contact information (include email, cell, and mailing): _____

City: _____

Enter Date: _____ CFA Monthly Tree Activity Report: Type site address here Page 1 of 1

---WARNING---

Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at http://www.cityofpaloalto.org/planning-conservation/tree_technical_manual.htm

SPECIAL INSPECTIONS

PLANNING DEPARTMENT

TREE PROTECTION INSPECTIONS MANDATORY

PALM & UNPROTECTED TREES: CONTRACTOR SHALL ENSURE PROJECTS SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT/LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT RECEIVED.

BUILDING PERMIT DATE: _____

DATE OF 1st TREE ACTIVITY REPORT: _____

CITY STAFF: _____

(REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT. VERIFY THAT ALL TREE PROTECTION MEASURES ARE IN PLACE AND WILL REMAIN. ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED WITHIN A TREE PROTECTION ROOT ZONE, NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PALM & UNPROTECTED TREES REFERENCE: PALM & UNPROTECTED TREES SECTION 8.10.110 AND ADDENDUM 11.)

Apply Tree Protection Report on sheet(s) T-2

Use additional "T" sheets as needed

Project Data

THE GUZZARDO PARTNERSHIP INC

Stanford RESEARCH PARK

STUDIOS architecture

T-1 All other tree-related reports shall be added to the space provided on this sheet (adding as needed). Include this sheet(s) on Project Sheet Index or Legend Page. A copy of T-1 can be downloaded at <http://www.cityofpaloalto.org/civica/filebank/blobload.asp?BlobID=6460>

Special Tree Protection Instruction Sheet
City of Palo Alto

T-1

3215 PORTER DRIVE

STANFORD REAL ESTATE

ARB RESUBMITTAL, MAJOR - REVISION 3 **03/02/2020**

TREE PROTECTION T-1 **L1.25**

**Arborist Report
3215 Porter Dr.
Palo Alto, CA**

Introduction and Overview

Stanford Real Estate is planning to redevelop the site at 3215 Porter Dr. in Palo Alto, CA. The building on the site was demolished for development of the adjacent site; the parking area and landscaping remain. HortScience | Bartlett Consulting was asked to prepare an **Arborist Report** for the site as part of the development application to the City of Palo Alto.

This report provides the following information:

1. An evaluation of the health and structural condition of the trees within the proposed project area based on a visual inspection from the ground.
2. An assessment of trees that will be preserved and removed based on plans provided by the client.
3. Guidelines for tree preservation during the design, construction, and maintenance phases of development.

Tree Assessment Methods

Trees were assessed on March 22, 2019. The assessment included all trees located within the proposed project area and with canopies overhanging the site. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Verifying tree tag numbers, which were previously attached to trees in 2016.
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 1 to 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age, and structural condition of the tree species and its potential to remain an asset to the site.

- High:** Trees with good health and structural stability that have the potential for longevity at the site.
- Moderate:** Trees with somewhat declining health and/or structural defects that can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category.
- Low:** Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual tree may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

HortScience reevaluated 24 trees. Based on the survey, nine blue gums along the north property line are located off site. Only three species were represented in the assessment (Table 1), with blue gum and Canary Island pine representing the most trees. Descriptions of each tree are found in the **Tree Assessment** and approximate locations are plotted on the **Tree Inventory Map** (see Exhibits).

**Table 1. Condition ratings and frequency of occurrence of trees
3215 Porter Dr., Palo Alto CA**

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Blue gum	<i>Eucalyptus globulus</i>	2	7	-	9
Red ironbark	<i>Eucalyptus sideroxylon</i>	-	1	-	1
Canary Island pine	<i>Pinus canariensis</i>	-	3	11	14
Total		2	11	11	24

Canary Island pine comprised most of the trees on site, with 14 trees. Trees were mature, with trunk diameters ranging from 13 to 29 inches. Canary Island pines were mostly in good condition with good form and structure and dense crowns (Photo 1). Two trees in fair condition (#95, 140) had slightly thin crowns.

Red ironbark (#143) was the only other on-site tree located along the west property line against the fence. It had multiple trunks of 20, 20, and 18 inches and was in fair condition with a thinning crown (Photo 2).

The remaining nine trees were located just off site along the north property line and consisted of mature blue gums, with trunk diameters ranging from 10 to 36 inches. All trees had codominant or multiple trunks, and all but two trees were in fair condition. Trees had been previously topped and had multiple branches growing from the pruning locations. Two trees in poor condition (#99, 100)

Photo 1 (right): Canary Island pines #94-97 were in good and fair conditions.

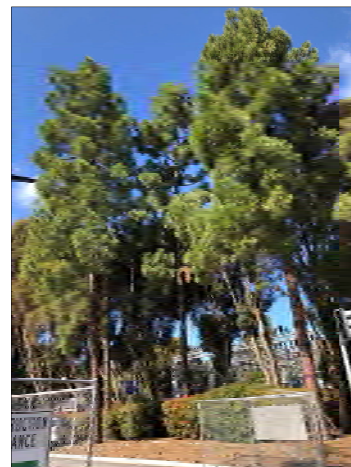


Photo 2 (far right): Red ironbark #143 was in fair condition with a thinning crown and fair structure.



had small crowns and crowded form.

The City of Palo Alto regulates all trees associated with a development project; therefore all 24 trees are considered protected.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment, and perform well in the landscape.

Each tree was rated for suitability for preservation based upon its age, health, structural condition, and ability to safely coexist within a development environment (see **Tree Assessment** in Exhibits, and Table 2). We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes. Off-site trees were not rated.

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. For example, blue gum # 104, with decay in pruning cuts on the lower trunk, has a higher likelihood of failure and should be removed or monitored.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. For instance, Canary Island pine is relatively tolerant of construction impacts.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Species invasiveness**
Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<http://www.cal-ipc.org/paf/>) lists species identified as being invasive. Palo Alto is part of the Central West Floristic Province. Blue Gum is listed as "limited."

**Table 2. Tree suitability for preservation
3215 Porter Dr., Palo Alto CA**

High	Trees in this category are in good health and structural stability and have the potential for longevity at the site. Ten Canary Island pines were in this category.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. These trees require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Eight trees had a moderate suitability for preservation.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Six off-site blue gums were in this category.

Evaluation of Impacts and Recommendations

The *Tree Assessment* was the reference point for tree health, condition, and suitability for preservation. I used the Tree Disposition and Landscape plans (The Guzzardo Partnership, 5/31/19) to estimate impacts to trees.

The plan shows a new building near the front of the site surrounded by patio, parking, and landscaping. A pedestrian pathway transects the north side of the site adjacent to the Palo Alto Hanover utility substation.

Improvements to the substation by the City will result in removal of blue gums #98-106, which are located on the 3350 Hanover site. Trees #94-97, 107, 138 and 139 are within the path alignment and will need to be removed for grading and construction. Canary Island pines #140-142, located within a small parking lot planter, will be removed to accommodate the new parking lot layout, which includes a ramp leading to a subterranean garage.

Based on my evaluation of the plans:

- Ten (10) on-site trees will be removed, all Canary Island pines;
- Nine off-site blue gums will be removed (by the City) for substation improvements;
- Four Canary Island pines (#82-85) at the northwest corner of the site will be preserved, two of the trees will experience minor to moderate impacts from path construction;
- One red ironbark at the northwest property line will remain undisturbed.

Excavation near trees #82-85 should be done carefully to avoid damaging roots. Guidelines for protection and preservation of these trees are included in the following section.

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods. Coordinating any construction activity inside the **TREE PROTECTION ZONE** can minimize these impacts.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Tree Protection Zone

1. A **TREE PROTECTION ZONE** shall be identified for each tree to be preserved on the Tree Protection Plan prepared by the Project Arborist.
 - a. Fence trees #82-85 to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing, or grading. Fences shall be 6 ft. chain link with posts sunk into the ground or equivalent as approved by the City.
 - b. **TREE PROTECTION ZONE** shall extend to the edge of proposed pedestrian walkways to the north and east and to tree driplines in all other directions.
 - c. Fences must be installed prior to beginning demolition and must remain until construction is complete.
 - d. No grading, excavation, construction or storage or dumping of materials shall occur within the **TREE PROTECTION ZONE**. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**.

Design recommendations

1. All plans affecting trees shall be reviewed by the Project Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, grading and utility plans, landscape, and irrigation plans.
2. Underground services including utilities, sub-drains, water or sewer shall be routed around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
3. **Tree Preservation Guidelines**, prepared by the Project Arborist, should be included on all plans.
4. Do not lime within 25' of any tree. Lime is toxic to tree roots.
5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
6. Irrigation systems must be designed so that no trenching will occur not within the **TREE PROTECTION ZONE**.

Pre-construction treatments and recommendations

1. The construction superintendent shall meet with the Project Arborist before beginning work to discuss work procedures and tree protection.
2. Pruning trees to provide construction and access clearance may be required.

3. Prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be done by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
4. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent possible, tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Recommendations for tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Project Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the Project Arborist. Roots should be cut with a saw to provide a flat and smooth cut. Removal of roots larger than 2" in diameter should be avoided.
3. If roots 2" and greater in diameter are encountered during site work and must be cut to complete the construction, the Project Arborist must be consulted to evaluate effects on the health and stability of the tree and recommend treatment.
4. No grading, construction, demolition, or other work shall occur within the **TREE PROTECTION ZONE**. Any modifications must be approved and monitored by the Project Arborist.
5. Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Project Arborist.
6. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.
7. Prior to grading, pad preparation, excavation for foundations/footings/walls, trenching, trees may require root pruning outside the **TREE PROTECTION ZONE**. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Project Arborist.
8. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Project Arborist so that appropriate treatments can be applied.
9. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
10. Any additional tree pruning needed for clearance during construction must be performed by a Project Arborist and not by construction personnel.

Maintenance of impacted trees

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority.



Inspect trees annually and following major storms to identify conditions requiring treatment to manage risk associated with tree failure.

Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

HortScience | Bartlett Consulting



Deanne Ecklund
Registered Consulting Arborist #647



3215 PORTER DRIVE

STANFORD REAL ESTATE

ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

ARBORIST REPORT L1.28

Tree Inventory Map

3215 Porter Dr.
Palo Alto, CA

Prepared for:
Stanford Real Estate

April 2019

No Scale

Notes

Aerial Image provided by Google Maps.

Tree locations are approximate.



Tree Assessment

3215 Porter Dr
Palo Alto, California
January 2016
Updated March 2019



Canopy Spread

3215 Porter Dr
Palo Alto, California
September 2019



TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	Regulated?	SUITABILITY FOR PRESERVATION	COMMENTS
82	Canary Island pine	18	3	Yes	Moderate	Codominant trunks at 13' with narrow attachment; fair form; in parking lot planter.
83	Canary Island pine	13	4	Yes	High	Group of trees; slightly crowded form; in parking lot planter.
84	Canary Island pine	19	4	Yes	High	Good form and structure; slightly crowded form; on fence line.
85	Canary Island pine	14	4	Yes	High	Good form and structure; slightly crowded form; on fence line.
94	Canary Island pine	19	4	Yes	High	Good form and structure; lower crown one-sided to south.
95	Canary Island pine	16	3	Yes	Moderate	Good form and structure; lower crown one-sided to south; slightly thin crown.
96	Canary Island pine	17	4	Yes	High	Good form and structure; lower crown one-sided to south.
97	Canary Island pine	17	4	Yes	High	Good form and structure; lower crown one-sided to west.
98	Blue gum	36,19,10	3	Yes	Moderate	Multiple attachments at 3'; slightly thin crown; tortoise beetle foliage damage.
99	Blue gum	14,10	2	Yes	Low	Codominant trunks at 2'; previously topped at 20'; small crown.
100	Blue gum	13,11	2	Yes	Low	Codominant trunks at 2'; large pruning cut at attachment; previously topped at 20'; small crown.
101	Blue gum	18,16	3	Yes	Low	Codominant trunks at 2'; large pruning cut with decay at attachment; previously topped at 20'; dense crown.
102	Blue gum	14	3	Yes	Low	Multiple attachments at 7'; previously topped at 20'; small crown.
103	Blue gum	11,7,8	3	Yes	Moderate	Multiple attachments at 3'; slight lean west; pruning cut at base of 8" stem; previously topped at 20'.
104	Blue gum	20,15,12	3	Yes	Low	Multiple attachments at 4'; large pruning cut with decay on lower trunk; high crown.
105	Blue gum	29	3	Yes	Moderate	Multiple attachments at 15'; high crown; tortoise beetle damage.
106	Blue gum	20,18,14,13	3	Yes	Low	Multiple attachments at 4' with narrow attachments; pruning cut with sulfur fungus on lower trunk; previously topped at 20'.
107	Canary Island pine	18	4	Yes	High	Good form and structure; in 6' planter in parking lot.
138	Canary Island pine	23	4	Yes	High	Group of 2 trees; narrow, slightly crowded form.
139	Canary Island pine	29	4	Yes	High	Group of 2 trees; lifting pavers path; good form; lower trunk
140	Canary Island pine	16	3	Yes	Moderate	Group of 3 trees; codominant trunks high in crown; slightly thin crown.
141	Canary Island pine	13	4	Yes	High	Group of 3 trees; good form and structure; slightly thin crown.
142	Canary Island pine	22	4	Yes	Moderate	Group of 3 trees; correct lean south; roots lifting curb and asphalt.
143	Red ironbark	20,20,18	3	Yes	Moderate	Multiple attachments at base; on fence line between fence and round structure; fair structure; slightly thin crown.

Tag #	Species	Diameter (in.)	Canopy Spread (ft.)				Avg.
			North	East	South	West	
82	Canary Island pine	18	9	8	9	6	8
83	Canary Island pine	13	6	10	12	3	7.75
84	Canary Island pine	19	5	9	10	10	8.5
85	Canary Island pine	14	9	10	10	5	8.5
94	Canary Island pine	19	5	10	18	15	12
95	Canary Island pine	16	7	8	11	13	9.75
96	Canary Island pine	17	1	8	20	12	10.25
97	Canary Island pine	17	6	8	12	10	9
98	Blue gum	36,19,10	18	27	20	9	18.5
99	Blue gum	14,10	8	7	13	6	8.5
100	Blue gum	13,11	7	7	5	6	6.25
101	Blue gum	18,16	12	17	20	12	15.25
102	Blue gum	14	2	8	7	8	6.25
103	Blue gum	11,7,8	2	8	21	10	10.25
104	Blue gum	20,15,12	7	16	21	13	14.25
105	Blue gum	29	12	19	21	16	17
106	Blue gum	20,18,14,13	4	23	21	16	16
107	Canary Island pine	18	6	22	20	16	16
138	Canary Island pine	23	8	12	17	6	10.75
139	Canary Island pine	29	7	12	19	18	14
140	Canary Island pine	16	7	11	16	13	11.75
141	Canary Island pine	13	5	9	10	8	8
142	Canary Island pine	22	1	16	28	8	13.25
143	Red ironbark	20,20,18	25	24	17	12	19.5



3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

ARBORIST REPORT L1.30

3215 PORTER DRIVE PALO ALTO, CALIFORNIA

GENERAL NOTES

- CITY'S APPROVAL OF PLANS DOES NOT RELIEVE THE OWNER OF THE RESPONSIBILITY FOR THE CORRECTION OF MISTAKES, ERRORS OR OMISSIONS CONTAINED THEREIN.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PALO ALTO STANDARD SPECIFICATIONS AND STANDARD PLAN DETAILS UNLESS NOTED OTHERWISE.
- ALL CONTRACTORS WILL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD. ALL CONTRACTORS SHALL CALL U.S.A. (CA. 1-800-277-2600) 48 HOURS BEFORE DIGGING. EXCAVATION FOR UNDERGROUND FACILITIES SHALL NOT BE PERMITTED PRIOR TO CONTACTING UNDERGROUND SERVICE ALERT. UNDER NO CIRCUMSTANCES WILL EXCAVATION COMMENCE BEFORE BEING ISSUED AN IDENTIFICATION NUMBER FROM U.S.A. (SECTION 4210.1 OF THE GOVERNMENT CODE).
- HAZARDOUS MATERIALS:**
UPON DISCOVERY OF HAZARDOUS MATERIAL, THE CONTRACTOR SHALL STOP THE WORK PROMPTLY AND NOTIFY THE FIRE DEPARTMENT, DEPARTMENT OF ENVIRONMENTAL SERVICES AND PUBLIC WORKS INSPECTION FOLLOWED BY WRITTEN NOTICE OF ANY:
A. MATERIAL THAT THE CONTRACTOR BELIEVES MAY BE HAZARDOUS WASTE, AS DEFINED IN SECTION 25117 OF THE HEALTH AND SAFETY CODE, THAT IS REQUIRED TO BE REMOVED TO A CLASS I, CLASS II, OF CLASS III DISPOSAL SITE IN ACCORDANCE WITH PROVISIONS OF EXISTING LAW.
B. SUBSURFACE OR LATENT PHYSICAL CONDITIONS AT THE SITE DIFFERING FROM THOSE INDICATED ON THE PLANS, NOTES, OR SOILS REPORT.
C. UNKNOWN PHYSICAL CONDITIONS AT THE SITE OF ANY UNUSUAL NATURE, DIFFERING MATERIALLY FROM THOSE ORDINARILY ENCOUNTERED AND GENERALLY RECOGNIZED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE CONTRACT. THE DEVELOPER'S AGENT SHALL PROMPTLY INVESTIGATE THE SUSPECTED CONDITION AND, AS NECESSARY, INITIATE FURTHER ANALYSIS OF THE PROBLEM. IF REMEDIATION IS REQUIRED, THE OWNER SHALL SUBMIT A REMEDIATION PLAN TO THE DIRECTOR OF PUBLIC WORKS AND, UPON APPROVAL BY THE DIRECTOR, SHALL IMPLEMENT THE PLAN AT THE DEVELOPER'S SOLE EXPENSE.
- IN THE EVENT THAT HUMAN REMAINS AND/OR CULTURAL MATERIALS ARE FOUND, ALL PROJECT-RELATED CONSTRUCTION SHALL CEASE WITHIN A 100-FOOT RADIUS. THE CONTRACTOR SHALL, PURSUANT TO SECTION 7050.5 OF THE HEALTH AND SAFETY CODE, AND SECTION 5007.94 OF THE PUBLIC RESOURCES CODE OF THE STATE OF CALIFORNIA, NOTIFY THE SANTA CLARA COUNTY CORONER IMMEDIATELY.
- CONTRACTOR SHALL STENCIL AND MARK ALL NEW STORM DRAIN INLETS AND CATCH BASINS WITH "NO DUMPING - FLOWS TO MATADERO CREEK" MARKING ON THE FACE OF THE CURB ADJACENT TO THE CATCH BASIN OR THE CATCH BASIN ITSELF. THE STENCILS MAY BE OBTAINED THROUGH THE CITY OF PALO ALTO PUBLIC WORKS INSPECTOR.
- ALL PCC PAVEMENT SECTION THICKNESS SHOWN SHALL BE BASED ON NET THICKNESS WHICH EXCLUDES INDENTATION FOR ARCHITECTURAL PURPOSES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY TO PERFORM THE IMPROVEMENTS IN THESE PLANS FROM THE APPROPRIATE AGENCIES AND TO COMPLY WITH THE AGENCIES' REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL LAWS.
- WHEN IT IS FOUND THAT FIELD CONDITIONS ARE NOT AS SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO FURTHER CONSTRUCTION.
- CONTRACTOR SHALL CAREFULLY PRESERVE THE SURROUNDING PROPERTY BY CONFINING OPERATION WITHIN THE LIMITS OF WORK AREA. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER.

TITLE 24 / ADA NOTES

- ALL SITE WORK SHALL BE IN CONFORMANCE WITH TITLE 24 OF THE CALIFORNIA ADMINISTRATIVE CODE AND WITH THE AMERICANS WITH DISABILITIES ACT.
- CURB RAMPS SHALL NOT EXCEED A SLOPE OF 1:12 (8.33%).
- ENTRANCE RAMPS TO BUILDINGS SHALL NOT EXCEED A SLOPE OF 1:20 (5%) UNLESS RAILINGS ARE SHOWN ON ARCHITECTURAL PLANS, IN WHICH CASE THE SLOPE SHALL NOT EXCEED 1:12 (8.33%).
- A 2% MAXIMUM SLOPE LANDING SHALL BE PROVIDED AT PRIMARY ENTRANCES TO BUILDINGS.
- RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES OF 1:20 (5%) AND 1:12 (8.33%), AND SHALL HAVE A MINIMUM WIDTH OF 48" AND A MAXIMUM CROSS-SLOPE OF 2% RAMPS EXCEEDING 2'-6" VERTICAL DROP SHALL HAVE INTERMEDIATE (2% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN THE DIRECTION OF TRAVEL OF 60". BOTTOM LANDINGS AT CHANGES IN RAMP DIRECTION SHALL HAVE A MINIMUM LENGTH OF 72".
- MAXIMUM CROSS-SLOPE ON ANY SIDEWALK OR RAMP SHALL BE 2%.
- SEE ARCHITECTURAL AND/OR LANDSCAPE PLANS FOR RAMP DETAILS.

GRADING AND PAVING NOTES

- PAVEMENT EXCAVATION SHALL INCLUDE REMOVAL AND DISPOSAL OF EXISTING A.C. PAVEMENT AND PCC CURB REQUIRED FOR THE CONSTRUCTION OF NEW SURFACE IMPROVEMENTS. THE CONTRACTOR SHALL SAW-CUT EXISTING PAVEMENT AT LOCATIONS AS SHOWN ON THE PLANS PRIOR TO REMOVAL OF EXISTING PAVEMENT. ALL EXCAVATED MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE AND PROPERLY DISPOSED OF IN AN AREA PROVIDED BY THE CONTRACTOR.
- CONTRACTOR SHALL GRADE TO THE LINE AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION AS INDICATED.

PAVEMENT SUBGRADE	HORIZONTAL	VERTICAL	COMPACTION
	0.1%	+0.1" TO -0.1"	95%
- NOT USED.
- CONTRACTOR SHALL ADJUST ALL NEW INLETS, VALVE BOXES, AND OTHER UTILITY STRUCTURES, AND ALL EXISTING UTILITY STRUCTURES WHICH ARE TO REMAIN, TO THE NEW FINISH GRADE.
- THE CIVIL ENGINEER, BKF ENGINEERS, 1730 NORTH FIRST STREET, SAN JOSE, CALIFORNIA 95112, HAS DESIGNED THIS PROJECT TO COMPLY WITH THE GRADING RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY _____ IF ANY DISCREPANCIES ARE FOUND BETWEEN THE PLANS/SPECS AND THE GEOTECHNICAL REPORT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO FURTHER CONSTRUCTION.
- ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- DO NOT USE CHEMICALS FERTILIZERS, PESTICIDES, HERBICIDES OR COMMERCIAL SOIL AMENDMENT. USE ORGANIC MATERIALS REVIEW INSTITUTE (OMRI) MATERIALS AND COMPOST. REFER TO THE BAY-FRIENDLY LANDSCAPE GUIDELINES: [HTTP://WWW.STOPWASTE.ORG/RESOURCE/BROCHURES/BAY-FRIENDLY-LANDSCAPE-GUIDELINES-SUSTAINABLE-PRACTICES-LANDSCAPE-PROFESSIONAL-FOR-GUIDANCE](http://www.stopwaste.org/resource/brochures/bay-friendly-landscape-guidelines-sustainable-practices-landscape-professional-for-guidance).
- AVOID COMPACTING SOIL IN AREAS THAT WILL BE UNPAVED.

SURFACE IMPROVEMENT NOTES

- ALL PAVING SHALL CONFORM TO THE GEOTECHNICAL INVESTIGATION PREPARED BY _____.
- AGGREGATE BASE SHALL CONFORM TO CLASS 2 AGGREGATE BASE, PER SECTION 26 OF THE STATE STANDARD SPECIFICATIONS, AND SHALL HAVE A MINIMUM COMPACTION OF 95% RELATIVE TO ASPHALT CONCRETE PAVEMENT AND 90% RELATIVE FOR EXTERIOR CONCRETE FLATWORK, UNLESS OTHERWISE NOTED OR DIRECTED BY GEOTECHNICAL ENGINEER.
- THE TOP 4" OF CURB AND GUTTER SUBGRADE SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION, INCLUDING EXPANSIVE ON-SITE SOILS.
- ASPHALT CONCRETE SHALL CONFORM TO TYPE B, 3/4" MAXIMUM, MEDIUM GRADING, PER SECTION 39 OF THE STATE STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.
- PORTLAND CEMENT CONCRETE SHALL CONFORM TO THE CITY OF PALO ALTO SPECIFICATIONS.
- SURFACE STRUCTURES INCLUDING, BUT NOT LIMITED TO, MANHOLES, WATER VALVE BOXES, CLEAN OUT FRAMES AND COVERS, ETC., SHALL BE BROUGHT TO FINISHED GRADE BY THE CONTRACTOR AFTER PAVING IS COMPLETED.

NOTE TO CONTRACTOR:

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

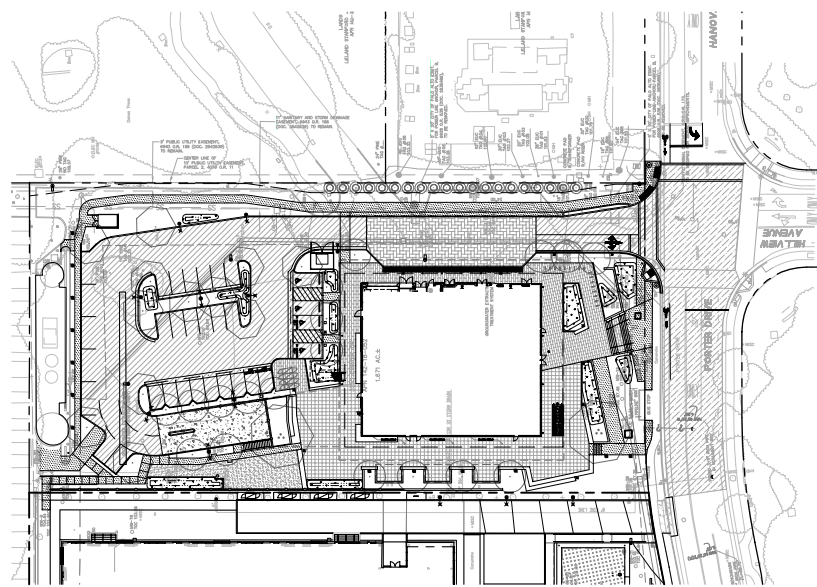
ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AB	AGGREGATE BASE	FG	FINISHED GRADE	RF	RAISED FLOOR
AC	ASPHALT CONCRETE	FH	FIRE HYDRANT	RT	RIGHT
AD	AREA DRAIN	FL	FLOW LINE	R/W	RIGHT OF WAY
AGG	AGGREGATE	G	GAS	S	SLOPE
BC	BEGINNING OF CURVE	GB	GRADE BREAK	SD	STORM DRAIN
BH	BOTTOM OF HEADER	HP	HIGH POINT	SDMH	STORM DRAIN MANHOLE
BLDG	BUILDING	INV	INVERT	SL	STREET LIGHT
BM	BENCH MARK	JT	JOINT TRENCH	SS	SANITARY SEWER
BOW	BOTTOM OF WALL	IRR	IRRIGATION	S.A.D.	SEE ARCHITECTURAL DRAWINGS
C	CABLE	LF	LINEAR FEET	S.E.D.	SEE ELECTRICAL DRAWINGS
BVC	BEGIN VERTICAL CURVE	LG	LIP OF GUTTER	S.L.D.	SEE LANDSCAPE DRAWINGS
BW	BACK OF WALK	LP	LOW POINT	S.P.D.	SEE PLUMBING DRAWINGS
CB	CATCH BASIN	LS	LANDSCAPE	S.P.P.	SEE PLUMBING PLANS
C&G	CURB & GUTTER	LT	LEFT	S.S.D.	SEE STRUCTURAL DRAWINGS
CL	CENTERLINE	M	METER	SSMH	SANITARY SEWER MANHOLE
CMP	CORRUGATED METAL PIPE	M.E.P.	MECHANICAL/ELECTRICAL/PLUMBING	STA	STATION
CO	CONCRETE	MANHOLE	MANHOLE	S/W	SIDEWALK
CONC	CONCRETE	MON	MONUMENT	T OR TELE	TELEPHONE
CPA	CITY OF PALO ALTO	NTS	NOT TO SCALE	TC	TOP OF CURB
DI	DROP INLET	PCC	PORTLAND CEMENT CONCRETE	TH	TOP OF HEADER
DIP	DUCTILE IRON PIPE	PGE	PACIFIC GAS AND ELECTRIC	TOW/TW	TOP OF WALL
DW	DOMESTIC WATER	PL	PROPERTY LINE	TP	TOP OF PAVEMENT
D/W	DRIVEWAY	P.O.C.	POINT OF CONNECTION	TS	TOP OF SLAB (S.S.D.)
E	ELECTRIC	PRC	POINT OF REVERSE CURVE	UCD	UNDERGROUND TRANSFORMER
EC	EDGE OF CURVE	PV	PAVEMENT ELEVATION	VC	VERTICAL CURVE
EL	ELEVATION	PVC	POLYVINYL CHLORIDE	VCP	VITRIFIED CLAY PIPE
EP	EDGE OF PAVEMENT	PVI	POINT OF VERTICAL INTERSECTION	W	WATER
EVC	END VERTICAL CURVE	R	RADIUS	WM	WATER METER
(E), EX	EXISTING	RC	RELATIVE COMPACTION	WW	WATER VALVE
F	FACE OF CURB	RCR	REINFORCED CONCRETE PIPE		
FDC	FIRE DEPARTMENT CONNECTION	RESID	RESIDENTIAL		
FF	FINISHED FLOOR ELEVATION	RET	RETAIL		

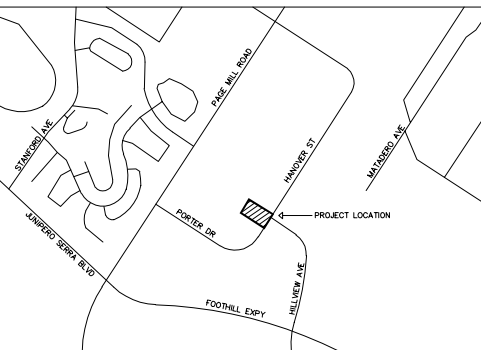
BASIS OF BEARINGS

VERTICAL DATUM

ALL ELEVATIONS SHALL BE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



SITE MAP
SCALE: 1"=40'



VICINITY MAP
SCALE: NTS

SWPPP/NOI NOTE

AN NOI WILL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD FOR COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT, WID # _____

UNDERGROUND CONSTRUCTION NOTES

- ALL WORK AND MATERIALS SHALL COMPLY WITH STANDARD SPECIFICATIONS, CONSTRUCTION DETAILS, AND STANDARD DRAWINGS OF THE CITY OF PALO ALTO UNLESS OTHERWISE NOTED.
- ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE LOCATION AND DEPTHS OF EXISTING UNDERGROUND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE POSITIONS BASED UPON THE INFORMATION AVAILABLE TO THE ENGINEER. ANY ADDED COST TO THE CONTRACTOR AS A RESULT OF THE ACTUAL LOCATIONS OF EXISTING UTILITIES BEING DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICES.
- CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND LOCATIONS OF EXISTING PIPES AND UTILITIES BY POT-HOLING BEFORE EXCAVATION WORK OR MAKING CONNECTIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING LOCATE SERVICES FOR THOSE FACILITIES INSTALLED BY THE CONTRACTOR UNTIL SUCH TIME AS THE WORK HAS BEEN OFFICIALLY ACCEPTED BY THE OWNER AND CITY OF PALO ALTO. THE MARKING AND LABELING OF SUCH LOCATIONS SHALL BE IN CONFORMANCE WITH UNDERGROUND SERVICE ALERT REQUIREMENTS.
- IN THE EVENT OF MET UNSTABLE TRENCH BOTTOM OR IF GROUND WATER IS ENCOUNTERED, DEWATERING WILL BE REQUIRED AND ALL UNDERGROUND CONSTRUCTION WORK SHALL STOP IMMEDIATELY UNTIL THESE DEWATERING REQUIREMENTS ARE MET. CONTRACTOR SHALL CONTACT PUBLIC WORKS ENGINEERING FOR DEWATERING RECOMMENDATIONS. CONTRACTOR SHALL COMPLY WITH ALL CITY DEWATERING REQUIREMENTS.
- SANITARY SEWER LATERALS SHALL BE A MINIMUM OF 1' BELOW WATER LATERALS.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REMOVAL AND/OR RELOCATION OF ANY EXISTING GAS LINES, METERS, AND ASSOCIATED APPLIANCES WITH THE CITY OF PALO ALTO AND/OR APPROPRIATE UTILITY AGENCY HAVING JURISDICTION.
- PROPOSED UTILITY LINES AND EXISTING UTILITY LINES TO REMAIN WITHIN THE PROPOSED FOOTING INFLUENCE LINE (AS DETERMINED BY THE STRUCTURAL AND/OR GEOTECHNICAL ENGINEER) SHALL BE PROTECTED WITH CONTROLLED DENSITY FILL (LEAN CONCRETE FILL) OR OTHER MEANS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- JOINT TRENCH LINES (ELECTRICAL, GENERATOR, DATA, STREET LIGHT, GAS, ETC.) ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL REFERENCE ELECTRICAL AND MECHANICAL PLANS FOR INFORMATION PERTAINING TO THESE FACILITIES.

SHEET INDEX

SHEET	DESCRIPTION
C1.0	TITLE SHEET
C2.0	EXISTING CONDITIONS
C3.0	HORIZONTAL CONTROL PLAN
C3.1	TRUCK ACCESS
C4.0-C4.1	GRADING PLAN
C5.0-C5.1	UTILITY PLAN
C6.0	STORMWATER TREATMENT PLAN
C7.0	CONSTRUCTION DETAILS
C8.0	BMP PLAN

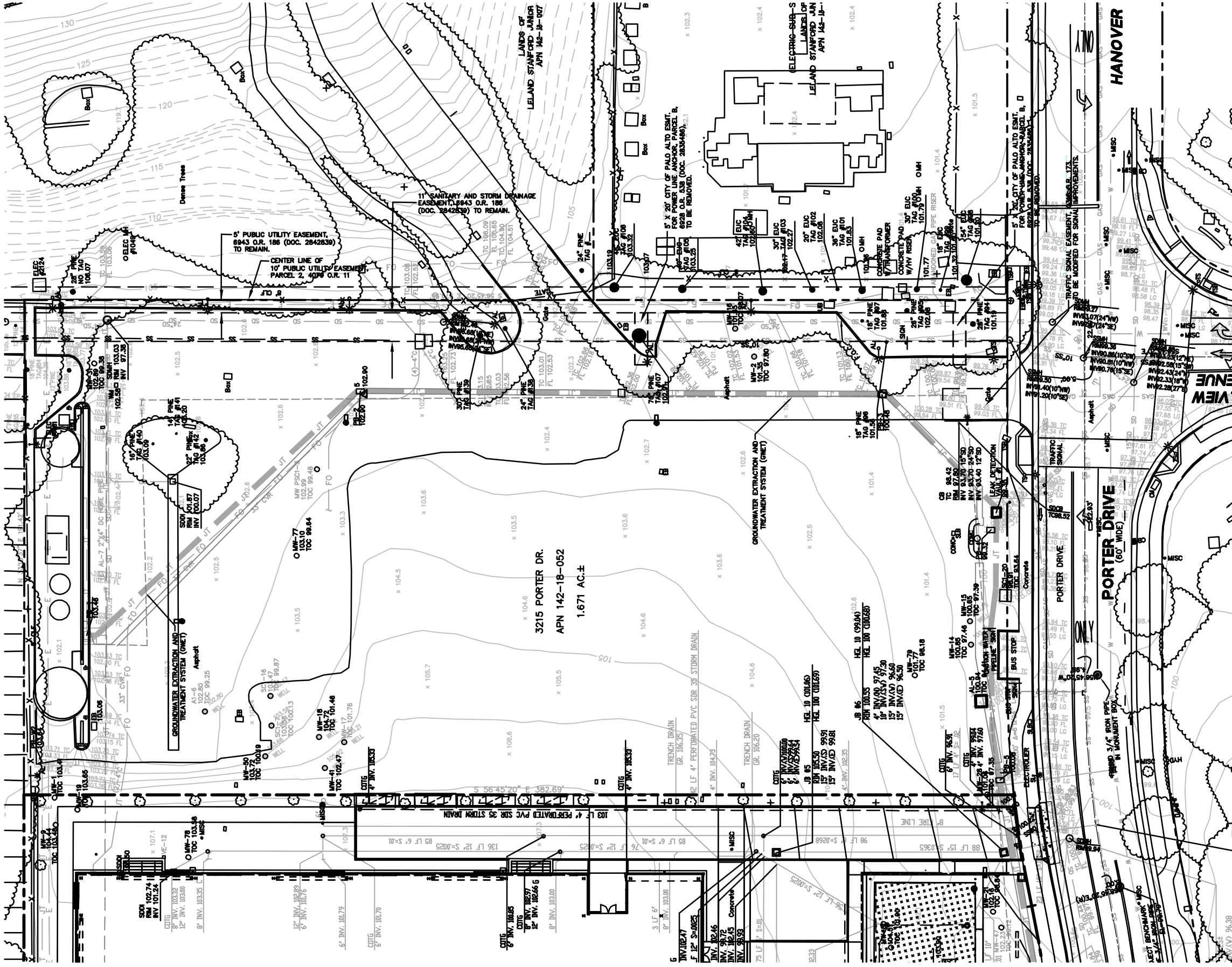


EROSION AND SEDIMENT CONTROL NOTES

- GENERAL CONTRACTOR: DEVCON CONSTRUCTION INCORPORATED
690 OBRALTAR DRIVE
MILPITAS, CA 95035
(408) 942-8200
- CIVIL ENGINEER: BKF ENGINEERS
1730 NORTH FIRST STREET, SUITE 600
SAN JOSE, CA 95112
(408) 467-9100
- CONSTRUCTION SUPERINTENDENT: TBD ()
- THE EROSION AND SEDIMENT CONTROL PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
- OWNER WILL ENSURE THAT ALL EROSION/SEDIMENT MEASURES IDENTIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP ARE IN PLACE. IF MEASURES ARE NOT IN PLACE, OWNER SHALL IMMEDIATELY CONTACT THE WATERSHED PROTECTION GROUP AT (650) 329-2122 AND PAMELA.BOLLEGGORRIGUEZ@CITYOFPALOALTO.COM.
- ALL EROSION CONTROL FACILITIES MUST BE MONITORED AS REQUIRED BY THE CITY OF PALO ALTO AND/OR THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (CRWCB). ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
- EROSION CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE MAINTAINED, REPAIRED AND REPLACED WITHIN ONE BUSINESS DAY AFTER EACH SIGNIFICANT RAINFALL OR AS DIRECTED BY THE CITY ENGINEER AND/OR CRWCB. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE CITY ENGINEER AND/OR CRWCB BASED ON FIELD REVIEWS OF THE SITE. STORM DRAIN INLET PROTECTION THAT IS REMOVED BY CITY STAFF DURING A RAIN EVENT SHALL BE REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATE OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND WILL BE RESPONSIBLE FOR THE CLEANUP TWICE DAILY (OR MORE OFTEN) OF ANY MATERIAL SPILLED ON ANY ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS THROUGHOUT THE LIFE OF THE PROJECT. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH, AS WELL AS THE CONSTRUCTION GENERAL PERMIT AND CITY OF PALO ALTO MUNICIPAL CODE.
- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT. FACILITIES ARE TO BE OPERABLE THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.
- THIS PLAN COVERS ONLY THE FIRST WINTER FOLLOWING GRADING WITH ASSUMED SITE CONDITIONS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. PRIOR TO SEPT. 15TH, THE COMPLETION OF SITE IMPROVEMENTS SHALL BE EVALUATED AND REVISIONS MADE TO THIS PLAN AS NECESSARY WITH THE APPROVAL OF THE CITY ENGINEER. PLANS ARE TO BE RESUBMITTED FOR CITY APPROVAL IF THERE ARE ANY CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN. THE PLAN SHALL BE SENT TO THE WATERSHED PROTECTION GROUP FOR APPROVAL, AS WELL.
- A CONSTRUCTION ENTRANCE AND CONSTRUCTION EXIT SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. DOWNSTREAM INLET PROTECTION AND OTHER BMPs SHALL BE IN PLACE BEFORE DEMOLITION. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE MATS.
- CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE/EXIT AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY, OR MORE OFTEN IF SOIL HAULING CONTINUES, AND AS REQUIRED BY THE CITY. ALL TRUCK TIRES SHALL BE CLEANED WITH A TIRE WASH STATION PRIOR TO EXITING THE PROPERTY.
- GRAVEL BAGS SHALL BE USED IN PLACE OF SAND BAGS. REFER TO THE LATEST REVISION OF CASQA OR CALTRANS BMPs.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OPERABLE YEAR-ROUND. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY 10/10, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH.
- BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, FIBER ROLLS, ETC.) THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
- ALL DRAINAGE INLETS WITHIN AND NEAR THE PROJECT SITE SHALL BE PROVIDED WITH SEDIMENT TRAPS OR SEDIMENT BARRIERS AS PER THIS PLAN. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN INLETS. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. OFFSITE, DOWNGRADE STORM DRAIN INLETS FROM THE PROJECT SITE SHALL ALSO HAVE STORM DRAIN INLET PROTECTION.
- DURING GRADING OPERATIONS THE SITE SHALL BE WATERED ON A DAILY BASIS TO MINIMIZE THE RELEASE OF DUST AND OTHER PARTICULATE. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- EARTHWORK SHALL NOT BE PERFORMED DURING UNFAVORABLE CONDITIONS. AFTER INTERRUPTION OF WORK DUE TO HEAVY RAIN, THE GEOTECHNICAL ENGINEER SHALL APPROVE EARTHWORK BEFORE RESUMPTION OF EARTHMOVING OPERATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PUTTING IN PLACE THE NECESSARY MEANS AND EXECUTE PROPER METHODS TO PROTECT EARTHWORK AGAINST UNFAVORABLE WEATHER CONDITIONS. CONTRACTOR SHALL NOT BE PAID FOR ANY DELAY OR ADDITIONAL WORK TO REMEDY PREVIOUS EARTHWORK RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO PROTECT ITS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED WITH ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURE MAINTENANCE THROUGHOUT THE DURATION OF THE PROJECT.

EROSION AND SEDIMENT CONTROL MAINTENANCE NOTES

- MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
 - SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
 - SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
 - SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - RILLS AND GULLIES MUST BE REPAIRED.
 - STORM DRAIN INLET PROTECTION THAT IS REMOVED BY CITY STAFF DURING A RAIN EVENT SHALL BE REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- GRAVEL BAGS SHALL BE USED IN PLACE OF SAND BAGS.
- SEDIMENT DAMS AND TRAPS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHALL BE REMOVED FROM THESE DEVICES WHEN IT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
- DAMAGED EROSION CONTROL DEVICES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN ONE BUSINESS DAY FOLLOWING THE RAIN EVENT.
- DURING PERIODS WHEN STORMS ARE FORECAST -
 - EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
 - ANY EXCAVATED SOIL SHOULD BE REMOVED FROM THE SITE BY THE END OF THE DAY.
 - WHERE STOCKPILING IS NECESSARY, USE A TARRAULIN OR SURROUND THE STOCKPILED MATERIAL WITH FIBER ROLLS OR OTHER RUNOFF CONTROLS.
 - USE INLET CONTROLS (E.G. FILTER MAT) FOR STORM DRAINS THROUGHOUT THE CONSTRUCTION PROJECT SITE AND ON OFFSITE, DOWNGRADE INLETS FROM THE PROJECT SITE. ENSURE THAT THESE INLET CONTROLS ARE CLEANED AND IN PLACE.
 - THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.
- DURING PERIODS WHEN STORMS ARE NOT FORECAST -
 - PREVENT STOCKPILED MATERIAL FROM ENTERING THE STORM DRAIN SYSTEM.
 - THOROUGHLY REMOVE LOOSE SOIL VIA SWEEPING FOLLOWING REMOVAL OF DIRT.
- STREET SWEEPING, INLET MAINTENANCE, AND MAINTENANCE FOR CONSTRUCTION ENTRANCES/EXITS SHALL BE IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT AT A MINIMUM, BMPs BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.



LEGEND

---	PROPERTY LINE
- - -	ADJACENT PROPERTY LINE
---	CENTERLINE
---	EASEMENT
---	ELECTRIC LINE
---	GAS LINE
---	STORM DRAIN LINE
---	SANITARY SEWER LINE
---	WATER LINE
---	JOINT TRENCH LINE
---	FENCE
☀	STREET LIGHT
+	STORM DRAIN INLET
+	SIGN
+	MONUMENT
●	25" PINE TAG #94
○	TREE

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
AL-5	GROUNDWATER EXTRACTION WELL
APN	ASSESSORS' PARCEL NUMBER
ASV	ANTI-SIPHON VALVE
BLDG	BUILDING CORNER
CATV	CABLE TELEVISION UTILITY
CB	CATCH BASIN
CLF	CHAIN LINK FENCE
CONC	CONCRETE
D	DELTA
E	ELECTRIC
EB	ELECTRIC BOX
EMW	ENVIRONMENT MONITORING WELL
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EUC	EUCALYPTUS TREE
FL	FLOW LINE
FW	FIRE WATER
GM	GAS METER/BOX
GV	GATE VALVE
HYD	HYDRANT
INV	INVERT
JT	JOINT TRENCH
L	LENGTH
L	LIP OF GUTTER
MW-15	GROUNDWATER MONITORING WELL
PB	PULL BOX
PI	PRESSURE INDICATOR
R	RADIUS
RIM	RIM ELEVATION
SD	STORM DRAIN
SDDI	STORM DRAIN INLET
SOMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
TC	TOP/FACE OF CURB
TEL	TELEPHONE
TSB	TRAFFIC SIGNAL BOX
UB	UTILITY BOX
UV	UTILITY VAULT
W	WATER
WM	WATER METER/BOX
WV	WATER VALVE

NOTES

1. THE UTILITY AND SERVICE LINES SHOWN ON THIS SURVEY ARE DERIVED FROM SURFACE OBSERVATION AND UTILITY REFERENCE MAP "CPA GWG UTILITIES INFORMATION" FROM CITY OF PALO ALTO. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION, SIZE OR PRESENCE OF ANY UTILITY AND SERVICE LINES NOT SHOWN ON THE SURVEY.
2. CALL TWO WORKING DAYS BEFORE YOU DIG. 1-800-277-2600/811 UNDERGROUND SERVICE ALERT - USA
3. EXISTING CONDITIONS PLAN BASED ON THE FOLLOWING:
 - 3.1. 3181, 3221 & 3215 PORTER DRIVE TOPOGRAPHIC SURVEY BY BKF ENGINEERS, 1/27/16 & 1/28/16
 - 3.2. 3181 PORTER DRIVE FOR CONSTRUCTION SET BY SNCE CONSULTING CIVIL ENGINEER, 6/30/17
 - 3.3. GROUNDWATER EXTRACTION AND TREATMENT (GWET) SYSTEM RECONFIGURATION RECORD DRAWINGS BY STANTEC, 2/24/17
 - 3.4. STANTEC REMEDIATION SYSTEM AS-BUILTS, 2/24/17
 - 3.5. 3215 PORTER DRIVE SITE VISIT BY BKF, 6/13/18
 - 3.6. 3215 PORTER DRIVE AERIAL SURVEY BY 360 AERIAL SURVEYS, 2/6/19

BASIS OF BEARING

THE BEARING N56°41'23"W OF THE MONUMENT LINE OF PORTER DRIVE, BETWEEN FOUND MONUMENTS, WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

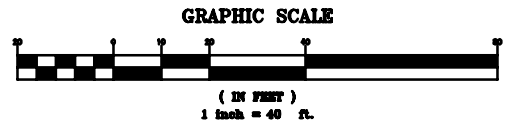
BENCH MARK

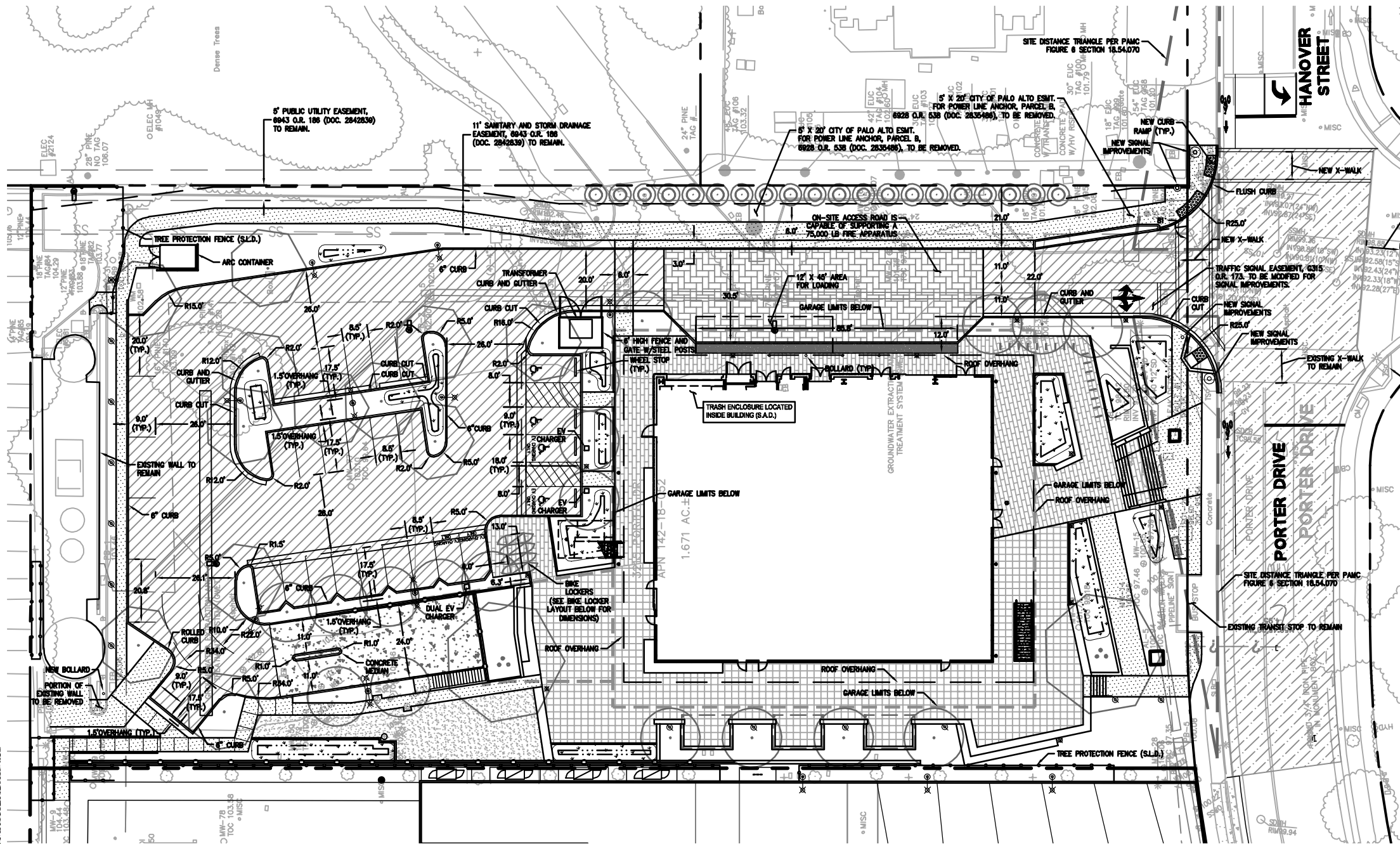
FOUND ALUMINUM DISK ON MANILA DRIVE AND H STREET, AT THE SOUTHEAST CORNER OF MOFFETT FIELD; 600 FEET NORTHWEST FROM THE INTERSECTION OF HIGHWAY 101 AND HIGHWAY 237. SET ON DIRT AREA OF THE NORTHWEST CORNER OF THE INTERSECTION, 105 FEET NORTHEASTERLY OF CENTERLINE FOR "H" STREET; AND 35 FEET NORTHWESTERLY FROM CENTERLINE FOR MANILA DRIVE. CITY OF SUNNYVALE.

BENCHMARK ID: BM483 (SANTA CLARA VALLEY WATER DISTRICT)
 ELEVATION = 36.21 FEET (NAVD88)
 BASED ON: NGS/CSRC EPOCH: 2009

FOR THE PROJECT BENCHMARK AT SUBJECT SITE, USE THE POINT OF REVERSE CURVE MONUMENT AT PORTER DRIVE, APPROXIMATELY 207 FEET WESTERLY ALONG THE MONUMENT LINE OF PORTER DRIVE FROM THE INTERSECTION WITH HILLVIEW AVENUE. SAID BENCHMARK BEING THE TOP OF 3/4" IRON PIPE INSIDE MONUMENT BOX.

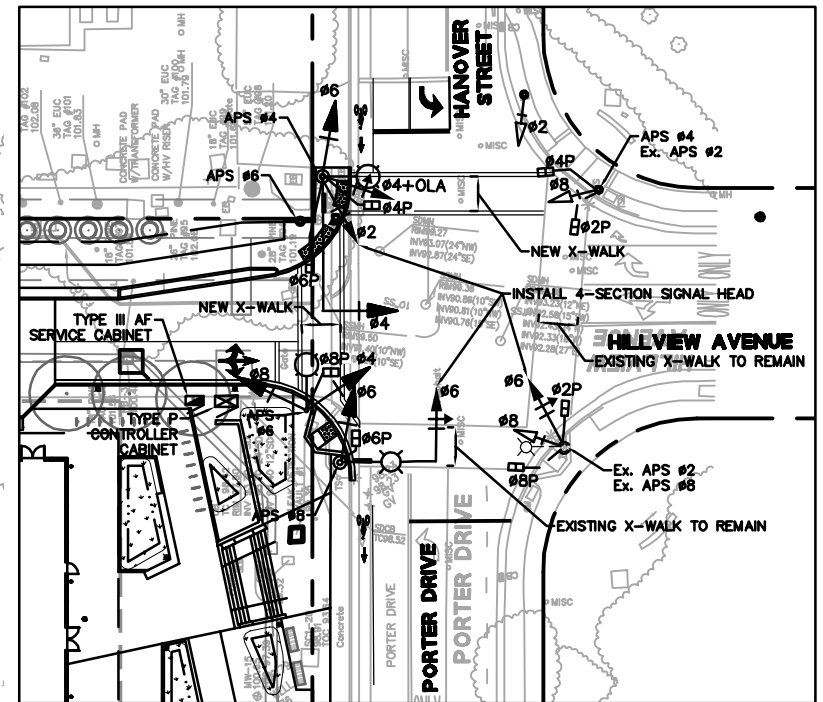
ELEVATION = 99.70 FEET, BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



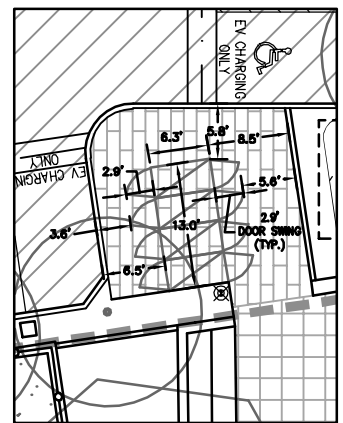


LEGEND

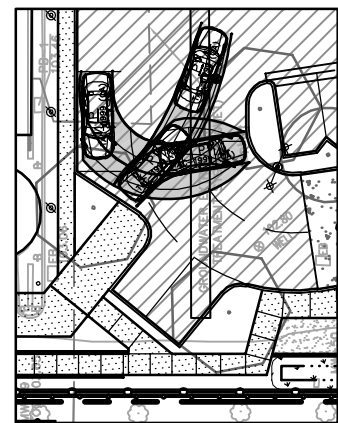
- NEW AC PAVEMENT
3" AC/11" CL II AB (ASSUMED)
- NEW VEHICULAR PAVERS (S.L.D.)
- SYNTHETIC TURF (S.L.D.)
- NEW PEDESTRIAN TILES (S.L.D.)
- NEW PEDESTRIAN PAVERS (S.L.D.)
- VEHICULAR CONCRETE
6" PCC W/ #4 AT 12" O.E.C.W./6" CL II AB (ASSUMED)
- 2" GRIND AND AC OVERLAY
- NEW PEDESTRIAN CONCRETE
4" PCC/6" CL II AB (ASSUMED)
- NEW TREE (S.L.D.)
- TREE PROTECTION FENCE



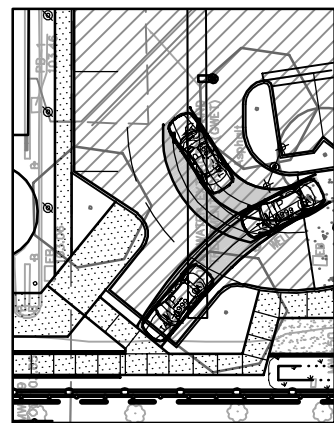
TRAFFIC SIGNAL IMPROVEMENTS
SCALE: 1"=50'



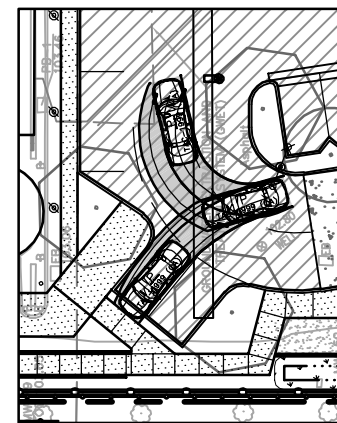
BICYCLE LOCKER LAYOUT
SCALE: 1"=20'



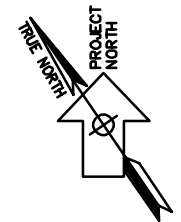
CAR TURNING MOVEMENT 1
SCALE: 1"=40'



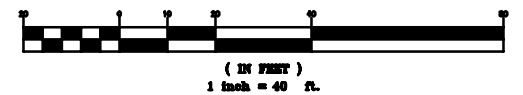
CAR TURNING MOVEMENT 2
SCALE: 1"=40'



CAR TURNING MOVEMENT 3
SCALE: 1"=40'



GRAPHIC SCALE



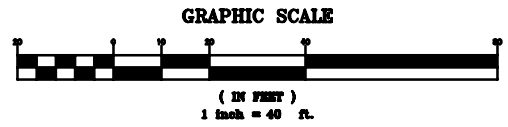
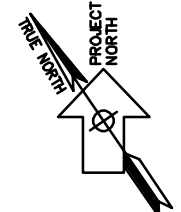
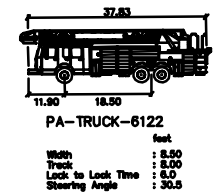
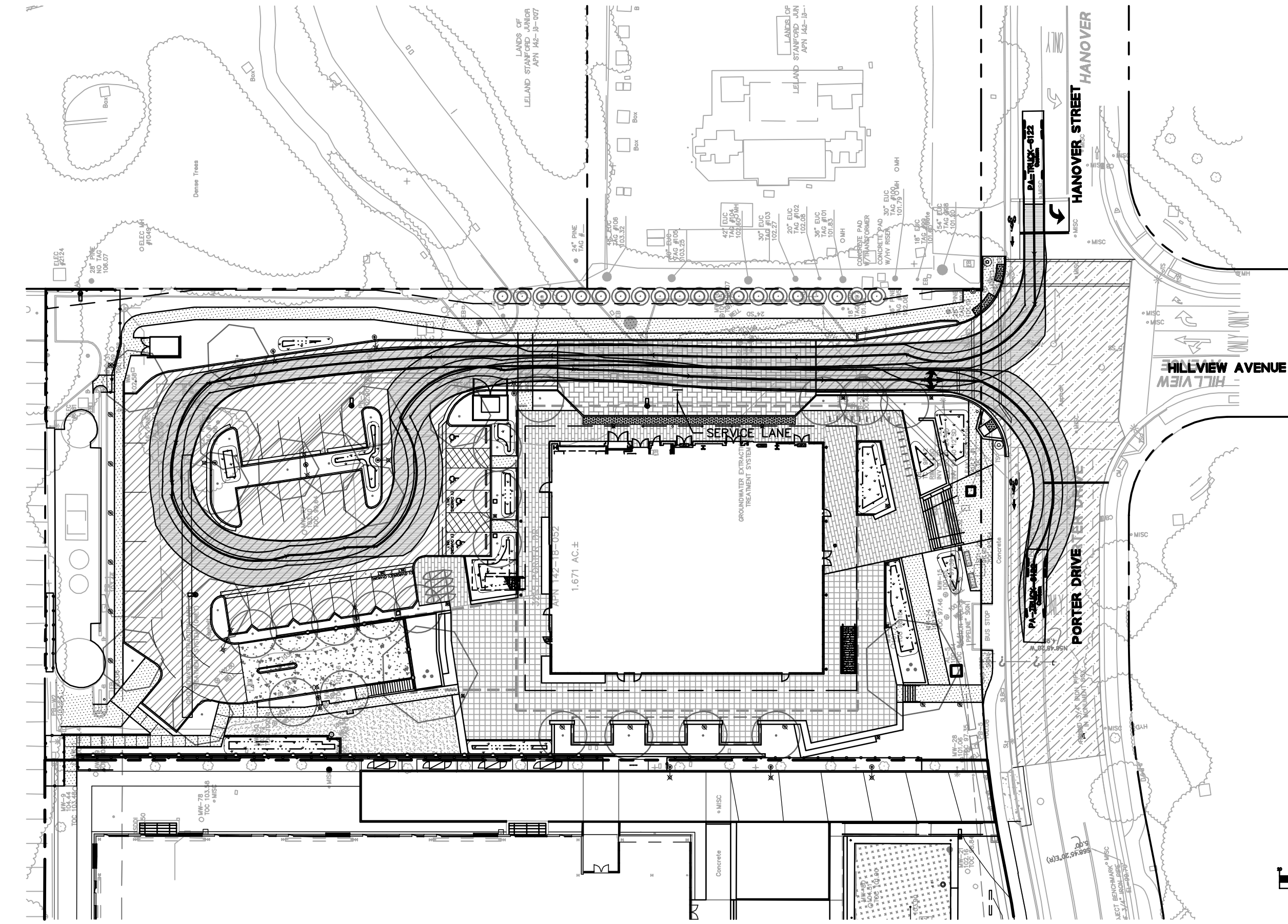
3215 PORTER DRIVE

STANFORD REAL ESTATE
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03/02/2020

CIVIL DESIGN

HORIZONTAL CONTROL PLAN C3.0



3215 PORTER DRIVE

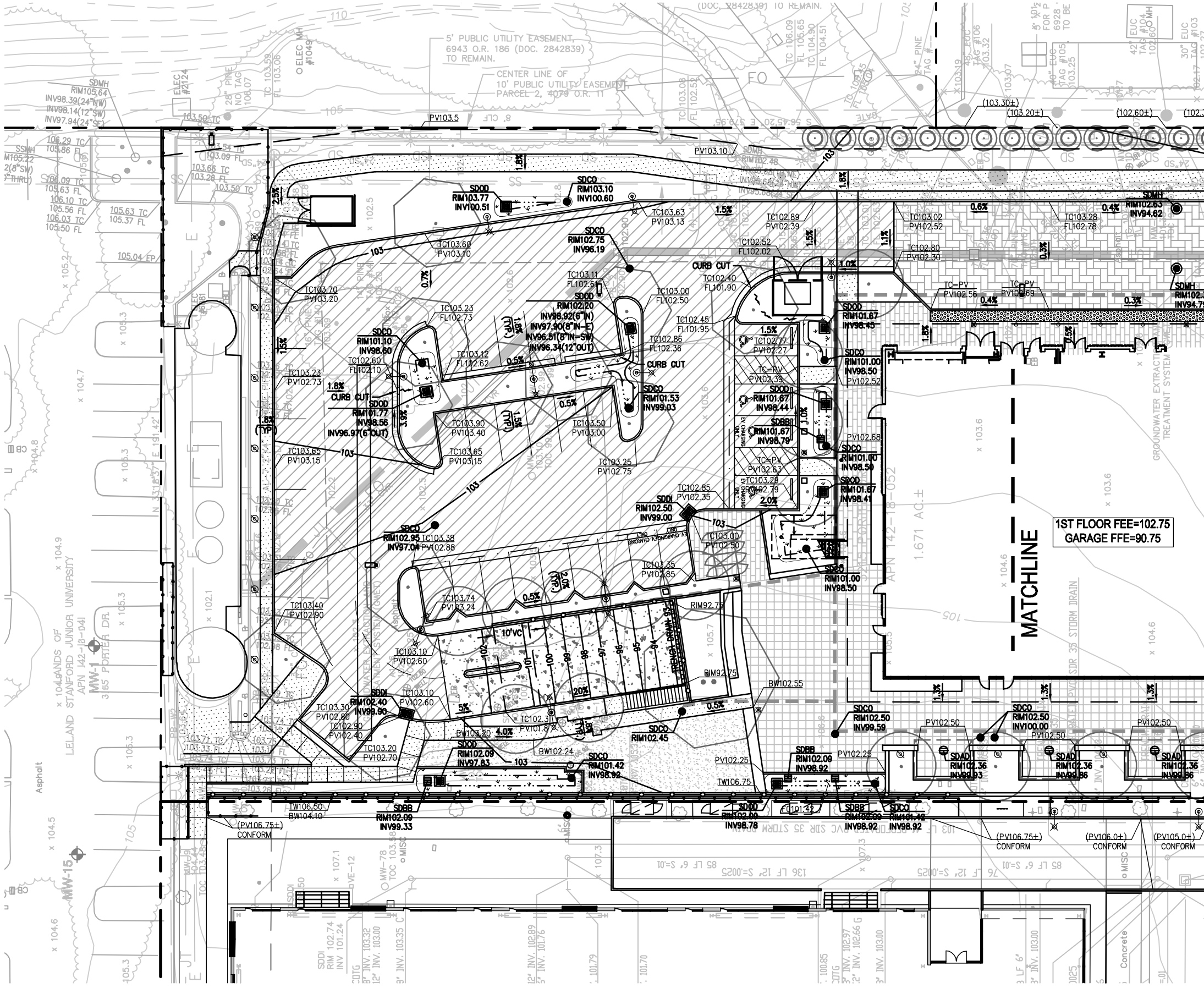
STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

CIVIL DESIGN

TRUCK ACCESS

C3.1



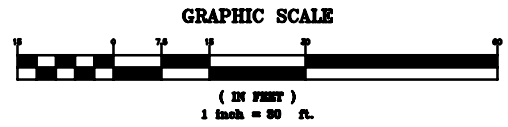
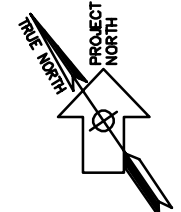
LEGEND

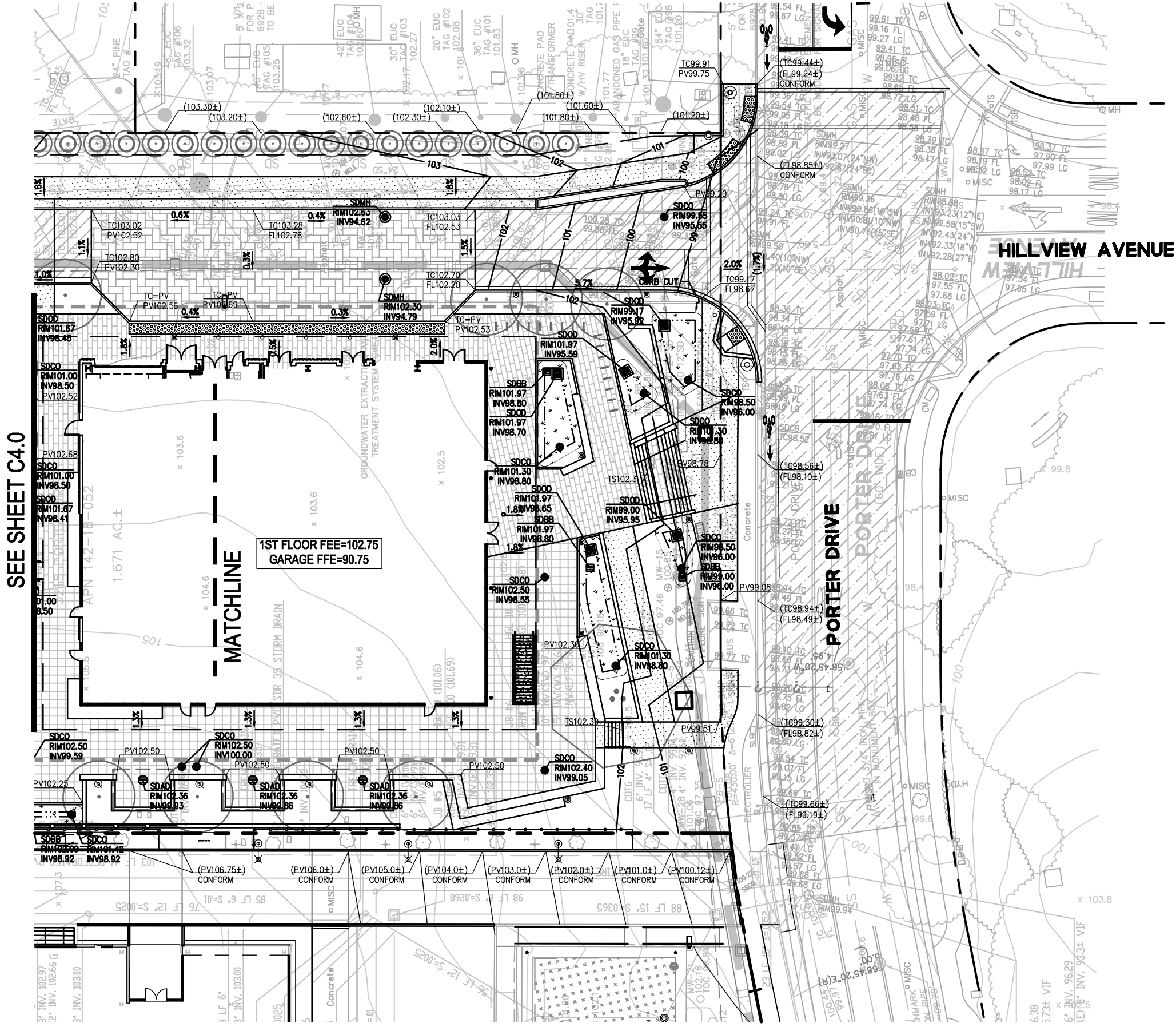
- TC 60.10 PROPOSED SPOT GRADE
- (TC 60.10±) EXISTING SPOT GRADE
- 270 CONTOUR LINE
- 1.5% DIRECTION OF FLOW
- SDCO ● STORM DRAIN CLEAN OUT
- SDDI ■ STORM DRAIN DROP INLET
- SDOO ■ STORM DRAIN OVERFLOW DRAIN
- SDBB ■ STORM DRAIN BUBBLER BOX
- SDAD ⊕ STORM DRAIN AREA DRAIN
- SDMH ● STORM DRAIN MANHOLE
- TRENCH DRAIN TRENCH DRAIN (POLYDRAIN SYSTEM WITH H-20 SLOTTED GRATE AND FRAME OR APPROVED EQUAL)
- BIORETENTION AREA

ABBREVIATIONS

- BW BOTTOM OF WALL
- FG FINISHED GRADE
- FL FLOWLINE
- INV INVERT
- PV PAVEMENT
- SDAD STORM DRAIN AREA DRAIN
- SDBB STORM DRAIN BUBBLER BOX
- SDCO STORM DRAIN CLEANOUT
- SDDI STORM DRAIN DROP INLET
- TC TOP OF CURB
- TS TOP OF STAIRS
- TW TOP OF WALL

SEE SHEET C4.1





LEGEND

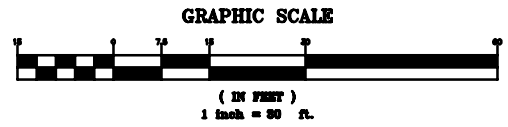
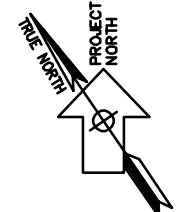
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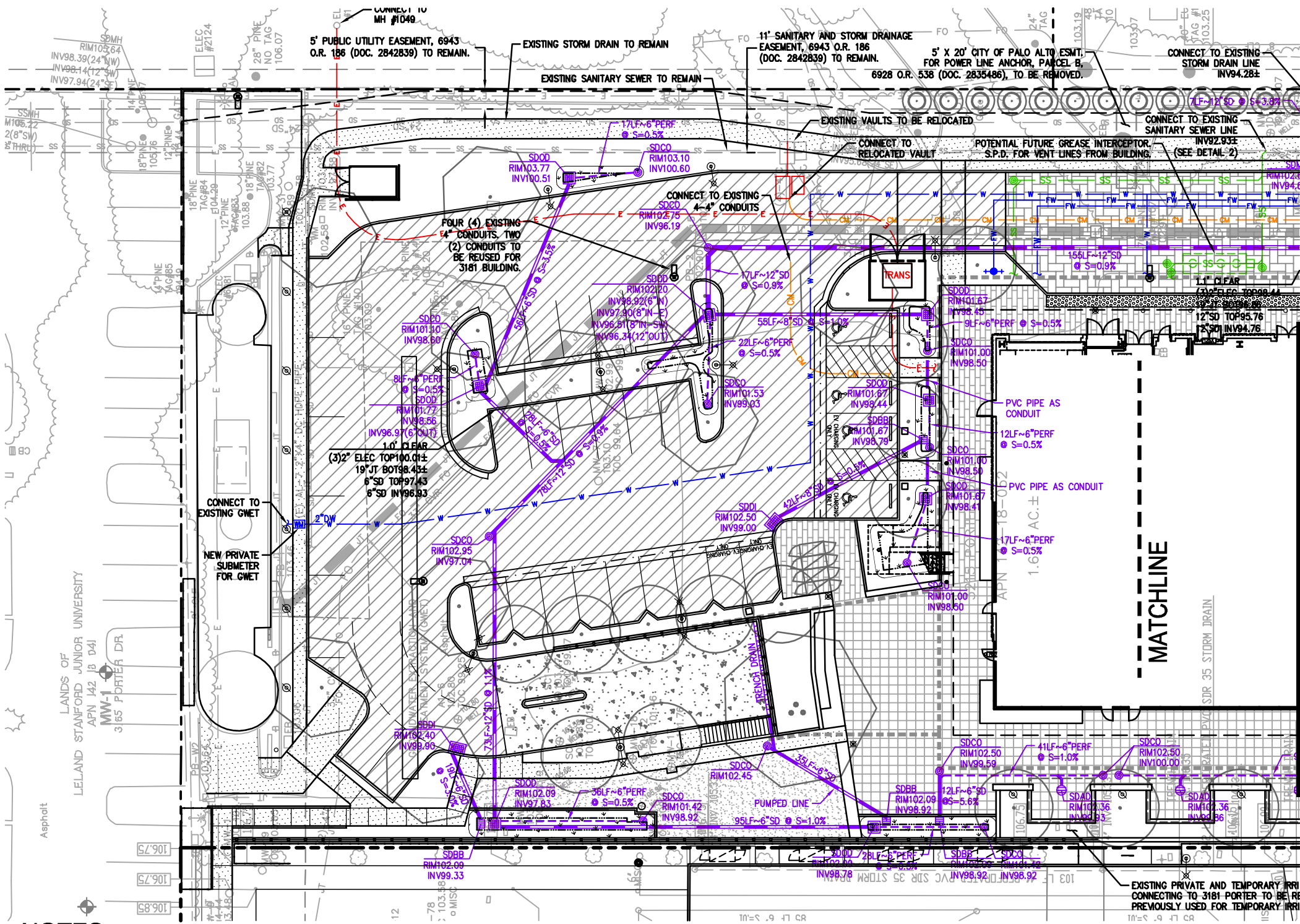
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SEE SHEET C4.0

1ST FLOOR FEE=102.75
GARAGE FFE=90.75





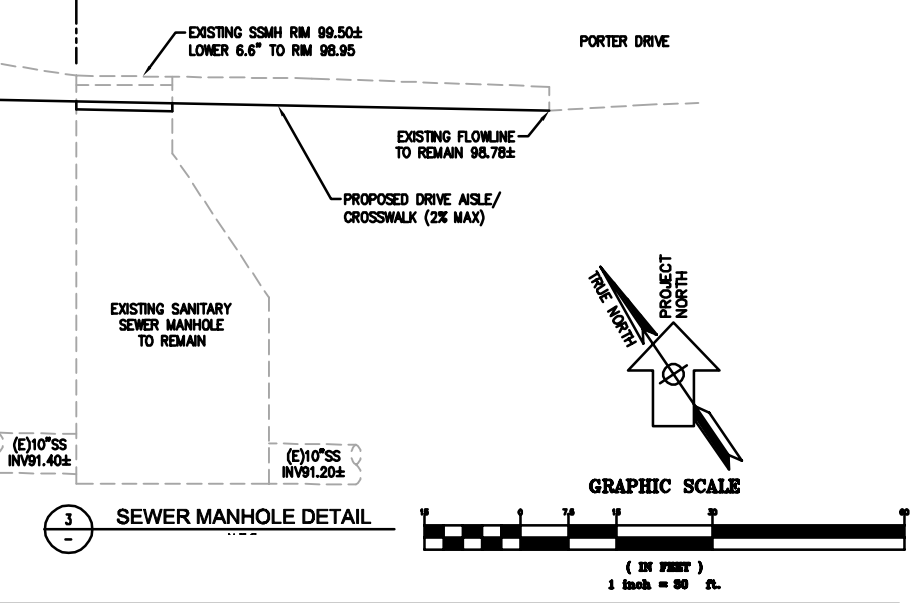
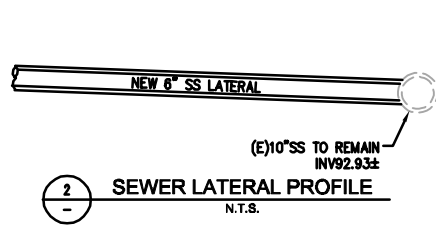
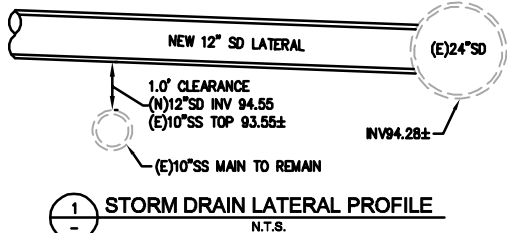
LEGEND

- STORM DRAIN LINE (PVC)
- - - PERFORATED STORM DRAIN LINE (PVC)
- SS — SS SANITARY SEWER LINE (PVC)
- W — W DOMESTIC WATER LINE (PVC 900)
- FW — FW FIRE WATER LINE (SEE NOTE 5)
- E — E ELECTRICAL LINE (S.E.D.)
- CM — CM COMMUNICATIONS LINE (S.E.D.)
- TRENCH DRAIN TRENCH DRAIN (POLYDRAIN SYSTEM WITH H-20 SLOTTED GRATE AND FRAME OR APPROVED EQUAL)
- SDCO STORM DRAIN CLEAN OUT
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- SDOD-2 STORM DRAIN OVERFLOW DRAIN
- SDBB STORM DRAIN BUBBLER BOX
- SDAD STORM DRAIN AREA DRAIN
- SDMH STORM DRAIN MANHOLE
- SSCO SANITARY SEWER CLEAN OUT
- FDC FIRE DEPARTMENT CONNECTION 6x4 WAY WITH CHECK VALVE AT VERTICAL PIPE
- FH FIRE HYDRANT CLOW RICH MODEL 76 W/ 2-2½" OUTLETS AND 1-4½" STEAMER
- [RPDA] BACKFLOW PREVENTOR (CPA STANDARD DETAIL WD-17A)
- [RPDA] BACKFLOW PREVENTOR (SEE NOTE 4)
- [WM] WATER METER (CPA STANDARD DETAILS WD-01A & WD-02A)
- [] FUTURE GREASE INTERCEPTOR
- BIORETENTION AREA

SEE SHEET C5.1

NOTES

1. THE CONTRACTOR SHALL PAINT THE "NO DUMPING/FLOWS TO MATADERO CREEK" LOGO IN BLUE COLOR ON A WHITE BACKGROUND ADJACENT TO ALL ON-SITE STORM DRAIN INLETS. STENCILS OF THE LOGO ARE AVAILABLE FROM THE CITY OF PALO ALTO PUBLIC WORKS ENVIRONMENTAL COMPLIANCE DIVISION, WHICH MAY BE CONTACTED AT (650) 329-2598.
2. ALL OFF-SITE MATERIALS AND WORK TO BE PER CPA UTILITIES REQUIREMENTS.
3. NO GAS SERVICE WILL BE PROVIDED TO THE NEW PROJECT.
4. BACKFLOW ASSEMBLY MUST BE AMES LFM500 RPDA EQUAL (FIXED PRESSURE LOSS AT 1500 GPM FLOW, MUST NOT EXCEED 7 PSI).
5. ON-SITE PRIVATE FIRE WATER PIPE MUST BE C900 DR18 CLASS 235 (NO EXCEPTIONS).

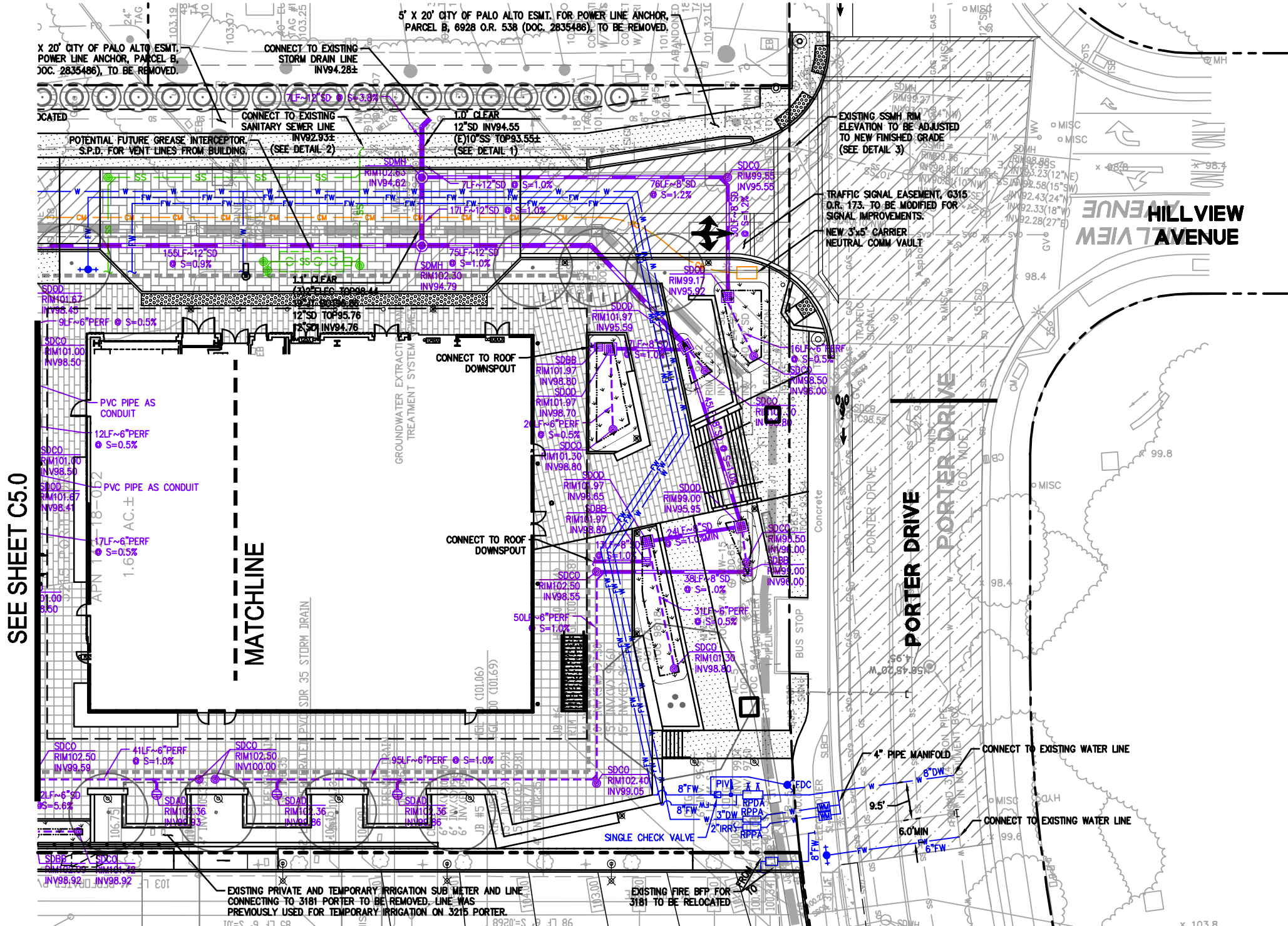


3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

CIVIL DESIGN
UTILITY PLAN
C5.0



LEGEND

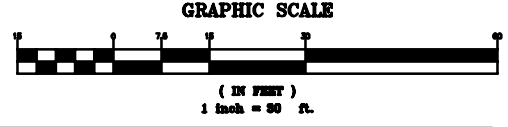
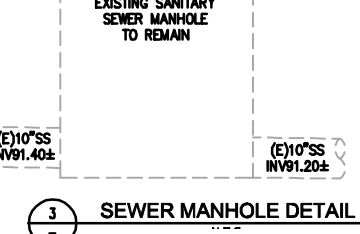
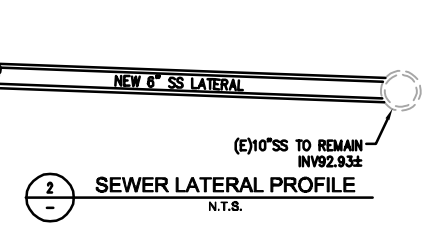
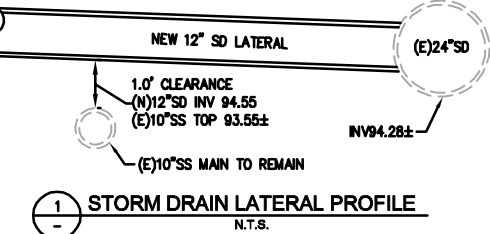
- STORM DRAIN LINE (PVC)
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- WM WATER METER (CPA STANDARD DETAILS WD-01A & WD-02A)
- FUTURE GREASE INTERCEPTOR
- BIORETENTION AREA

SEE SHEET C5.0

MATCHLINE

NOTES

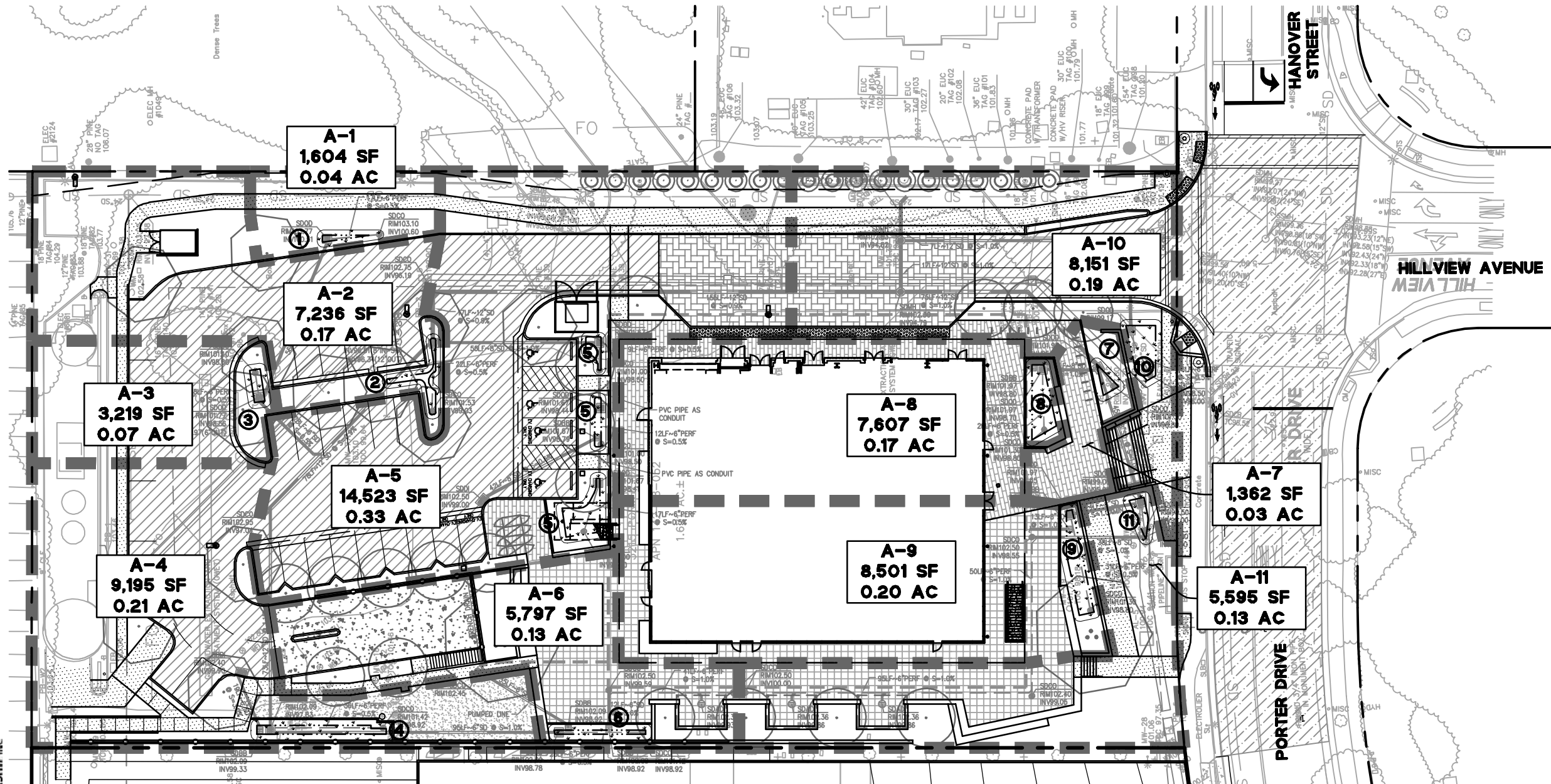
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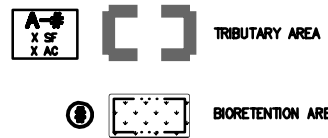
3215 PORTER DRIVE

STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3 03/02/2020

CIVIL DESIGN
UTILITY PLAN
C5.1



LEGEND



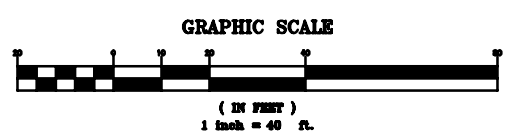
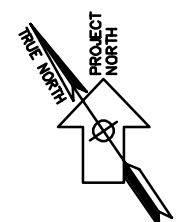
NOTES

- FOR ALL C.3 FEATURES, VENDOR SPECIFICATIONS REGARDING INSTALLATION AND MAINTENANCE SHOULD BE FOLLOWED AND PROVIDED TO CITY STAFF. COPIES MUST BE SUBMITTED TO PAM BOYLE RODRIGUEZ AT PAMELA.BOYLERODRIGUEZ@CITYOFPALOALTO.ORG.
- STAFF FROM STORMWATER PROGRAM (WATERSHED PROTECTION DIVISION) MAY BE PRESENT DURING INSTALLATION OF STORMWATER TREATMENT MEASURES. CONTACT PAM BOYLE RODRIGUEZ, STORMWATER PROGRAM MANAGER, AT (650) 329-2421 BEFORE INSTALLATION.
- DURING THE BEGINNING OF CONSTRUCTION, THE PROJECT APPLICANT SHALL ARRANGE FOR A SITE VISIT BY A THIRD PARTY REVIEWER ACCEPTABLE TO THE CITY TO VERIFY THAT THE INSTALLED MEASURES HAVE BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED BUILDING PLANS. THE THIRD PARTY REVIEWER WILL RECOMMEND THE REQUIRED NUMBER OF SITE INSPECTIONS AT DIFFERENT INTERVALS OF CONSTRUCTION. THE THIRD PARTY REVIEWER MUST BE A CIVIL ENGINEER, ARCHITECT OR LANDSCAPE ARCHITECT REGISTERED IN THE STATE OF CALIFORNIA AND MUST HAVE A CURRENT TRAINING ON STORMWATER TREATMENT DESIGN. A LIST OF QUALIFIED THIRD-PARTY REVIEWERS CAN BE FOUND ON THE SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM (SCVURPPP) WEB SITE AT: [HTTP://WWW.SCVURPPP-W2K.COM/CONSULTANTS.HTM](http://www.scvurppp-w2k.com/consultants.htm)
- WITHIN 45 DAYS OF THE INSTALLATION OF THE REQUIRED STORM WATER TREATMENT MEASURES AND PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT FOR THE BUILDING, THIRD-PARTY REVIEWER SHALL ALSO SUBMIT TO THE CITY A CERTIFICATION FOR APPROVAL THAT THE PROJECT'S PERMANENT MEASURES WERE CONSTRUCTED AND INSTALLED IN ACCORDANCE TO THE APPROVED PERMIT DRAWINGS.

STORMWATER TREATMENT CALCULATIONS

Area #	Area Size (sf)	Pervious Area (sf)	Impervious Area (sf)		Total Impervious Area Being Treated (sf)	Required Treatment Area (sf)	Treatment Area (sf)	Proposed Treatment Method	Treatment Area #
			Existing To Remain	New / Replaced					
A1	1,604	847	0	757	757	31	95	Bioretention Area	1
A2	7,236	2,151	167	4,918	5,085	192	195	Bioretention Area	2
A3	3,219	717	864	1,638	2,502	93	107	Bioretention Area	3
A4	9,195	3,497	1,415	4,283	5,698	219	323	Bioretention Area	4
A5	14,523	2,530	0	11,993	11,993	442	442	Bioretention Area	5
A6	5,797	1,428	0	4,369	4,369	163	179	Bioretention Area	6
A7	1,362	470	0	892	892	34	96	Bioretention Area	7
A8	7,607	314	0	7,293	7,293	264	271	Bioretention Area	8
A9	8,501	577	0	7,924	7,924	288	318	Bioretention Area	9
A10	8,151	1,514	0	6,637	6,637	245	248	Bioretention Area	10
A11	5,595	3,038	0	2,557	2,557	104	121	Bioretention Area	11
Total	72,790	17,083	2,446	53,261	55,707	2,074	2,395	-	-

NOTE*: AREA DRAIN TO BE INSTALLED 3" HIGHER THAN LOW POINT TO ALLOW FOR PONDING WITHIN SELF-RETAINING AREA.



THE GUZZARDO PARTNERSHIP INC

Stanford RESEARCH PARK

STUDIOS architecture

3215 PORTER DRIVE
STANFORD REAL ESTATE
ARB RESUBMITTAL, MAJOR - REVISION 3

03/02/2020

CIVIL DESIGN
STORMWATER TREATMENT PLAN C6.0

POLLUTION PREVENTION — IT'S PART OF THE PLAN

Construction projects are required to implement year-round stormwater BMPs, as they apply to your project.

Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.



MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- Use (but don't overuse) reclaimed water for dust control.
- Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- Keep site clear of litter (e.g. lunch items, cigarette butts).
- Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking

- Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report any hazardous materials spills immediately! Call City of Palo Alto Communications, (650) 329-2413. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

EARTHMOVING

Grading and Earthwork

- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells.
 - Buried barrels, debris, or trash.
- If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at (650) 329-2598 for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

PAVING/ASPHALT WORK

Paving

- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

Sawcutting & Asphalt/Concrete Removal

- Protect storm drain inlets during saw cutting.
- If saw cut slurry enters a catch basin, clean it up immediately.
- Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.



STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$10,000 PER DAY!

250 Hamilton Avenue
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650.329.2211
cityofpaloalto.org

