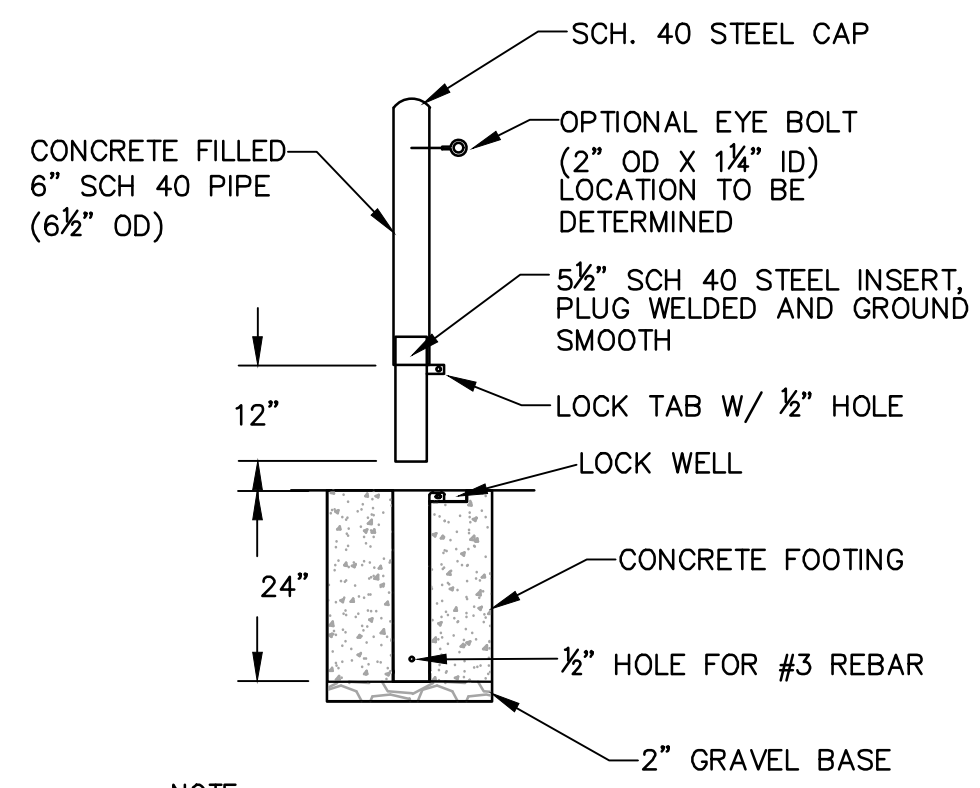
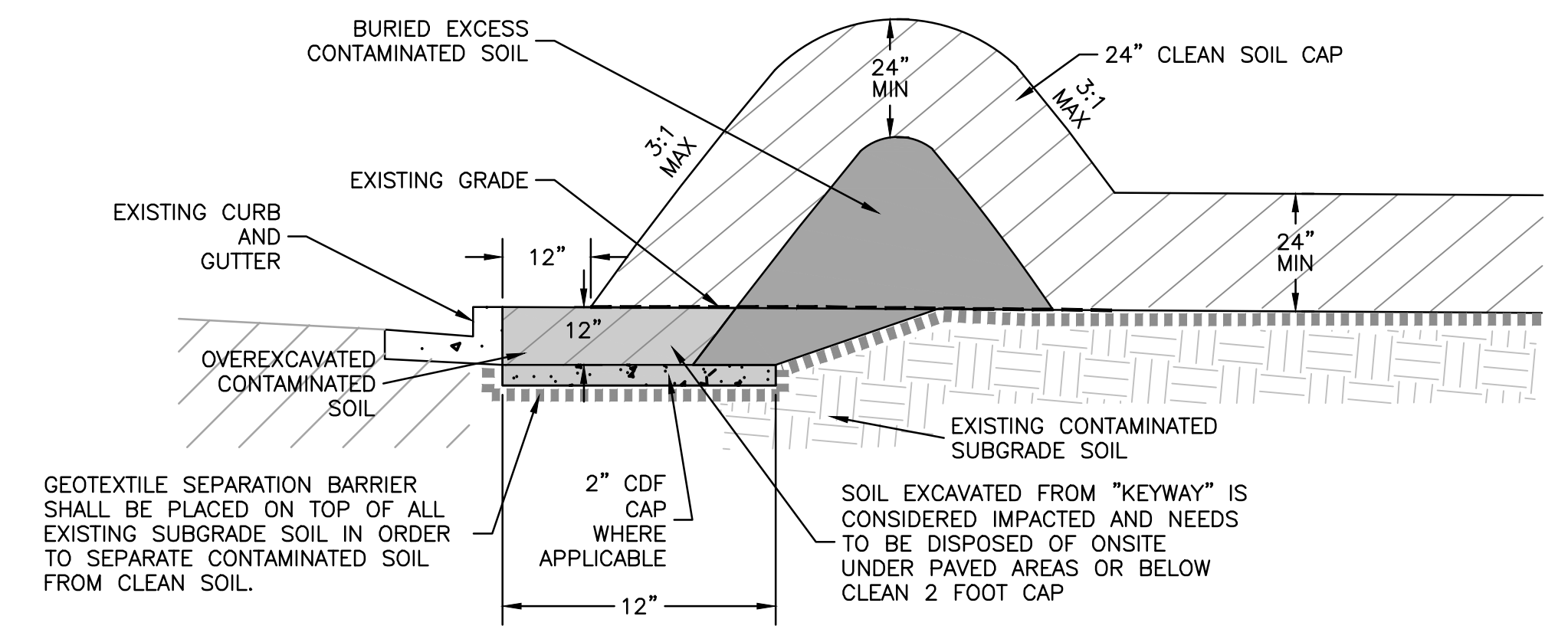


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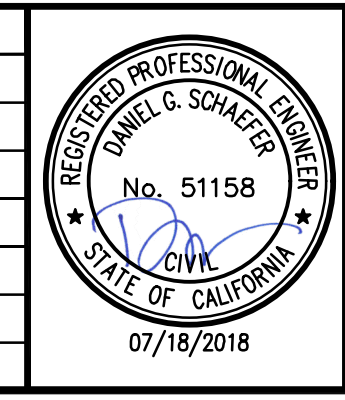
2 REMOVABLE BOLLARD
NTS



3 CLEAN SOIL CAP MOUND

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PLOT DATE: 07-18-18 PLOTTED BY: chri

No.	Date	Revisions
	07/18/2018	CONSTRUCTION DOCUMENTS



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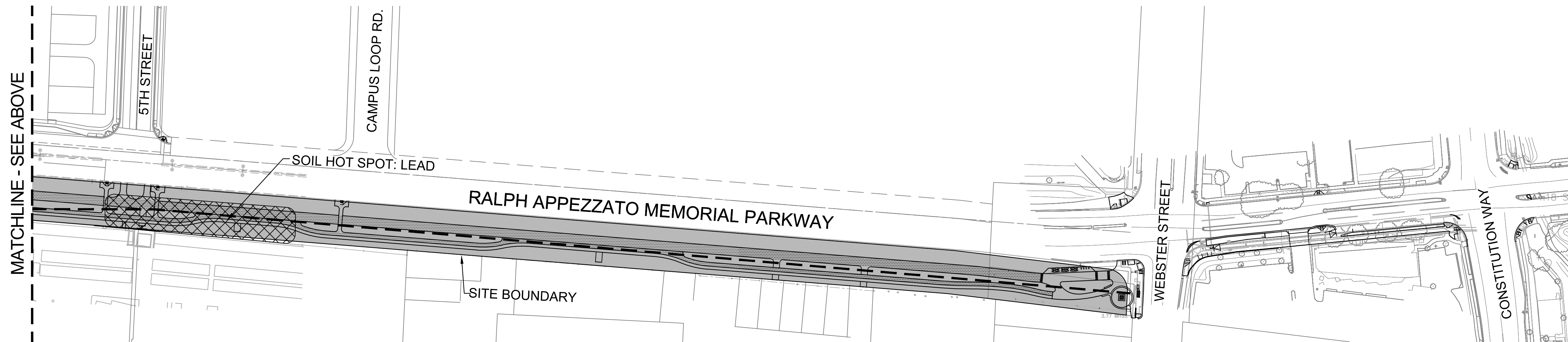
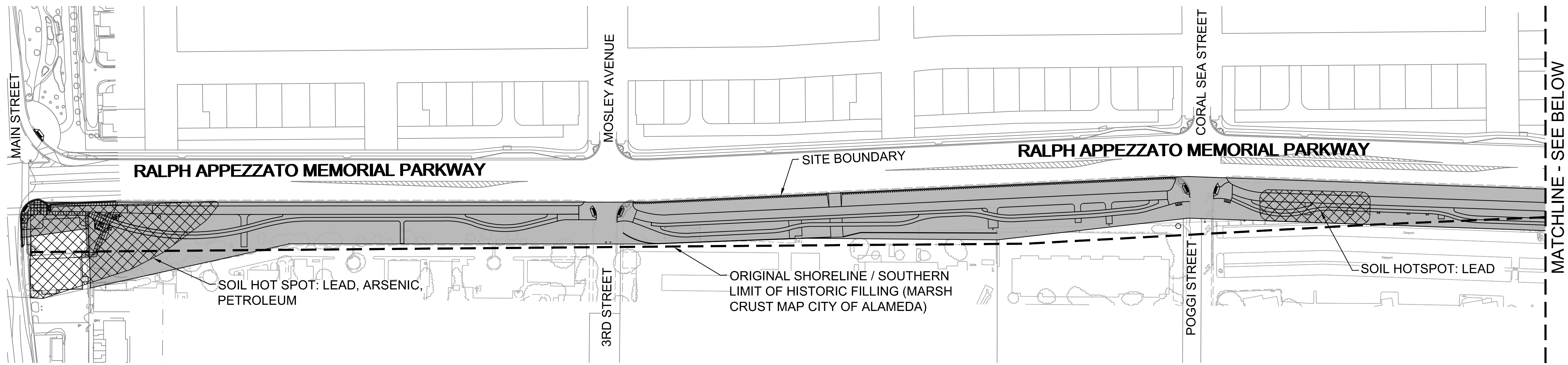
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**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
CIVIL DETAILS**

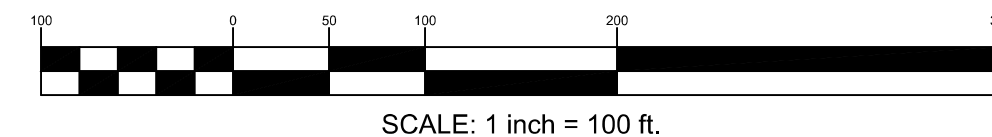
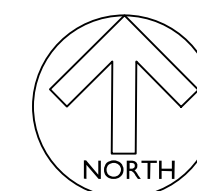
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C7.06



LEGEND

- REMEDIATION AREA (APN 74-905-20-3, 74-905-20-2) (CONSTRUCT 2' SOIL CAP OR PAVEMENT)
- APPROXIMATE HOTSPOT AREA
- ORIGINAL SHORELINE/SOUTHERN LIMIT OF HISTORIC FILLING (MARSH CRUST MAP CITY OF ALAMEDA)



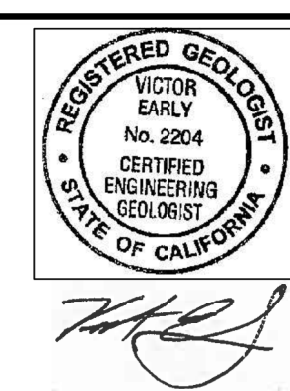
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PLOT DATE: 07-16-18
PLOTTED BY: Dustin Gehrett

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TETRA TECH

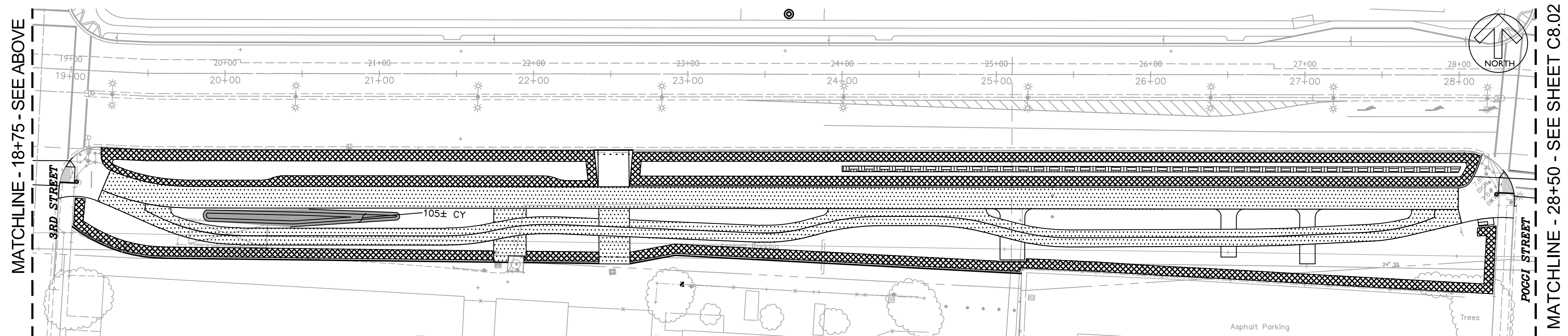
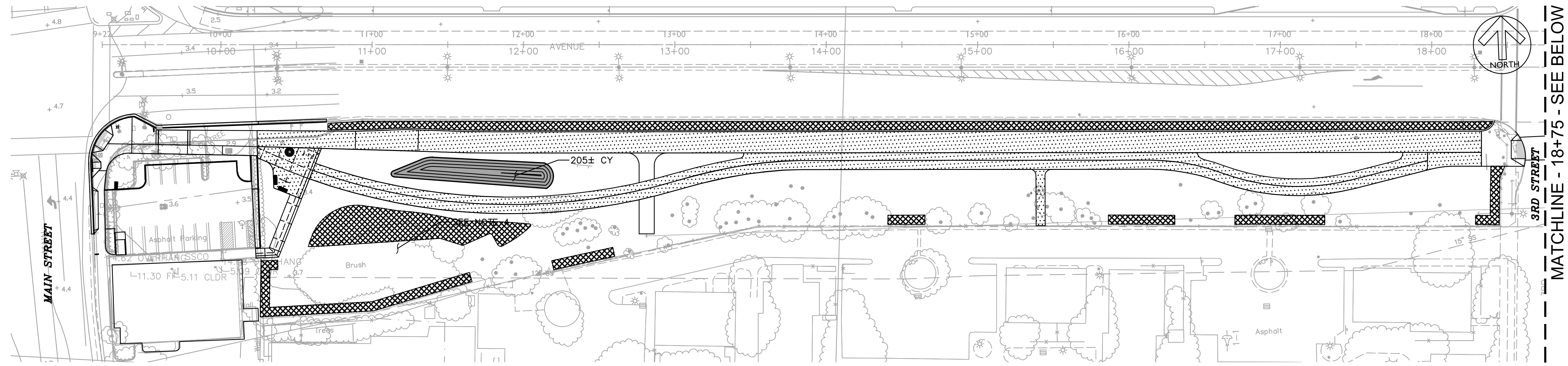
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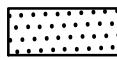


CROSS ALAMEDA TRAIL MAIN STREET TO CONSTITUTION WAY SOIL REMEDIATION PLAN

CITY OF ALAMEDA
ALAMEDA COUNTY
CALIFORNIA

Sheet Number:
C8.01



SOIL REMEDIATION LEGEND:

-  KEYWAY AREA TO BE EXCAVATED PER DETAIL 5 SHEET C7.02. KEYWAYS ADJACENT TO TRAVELWAYS SHALL BE CONSTRUCTED PER "5B".
-  BURY EXCAVATED CONTAMINATED SOIL BELOW PAVEMENT SECTION
-  REQUIRED EXCESS BURIAL LOCATION
-  MOUNDING FOR EXCESS BURIAL ONLY IF NEEDED (3:1 MAX SLOPE)

SOIL REMEDIATION NOTES:

1. ALL SOIL REMEDIATION AND IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SOIL REMEDIATION WORKPLAN FOR THE CROSS ALAMEDA TRAIL" REPORT PREPARED BY TETRA TECH, INC. DATED APRIL 14, 2017 AND THE "GEOTECHNICAL ENGINEERING RECOMMENDATIONS" MEMORANDUM PREPARED BY PARIKH DATED MARCH 30, 2018.
2. CONTRACTOR SHALL BURY ALL EXCAVATED CONTAMINATED SOIL ON SITE BELOW THE ASPHALT AN CONCRETE SECTIONS, AS SHOWN ON THIS PLAN PRIOR TO IMPORTING ANY CLEAN FILL.
3. CONTRACTOR SHALL ENSURE ALL EXISTING GROUND HAS A MINIMUM 24" SOIL CAP UNLESS THERE ARE PROPOSED HARDSCAPE (ASPHALT, CONCRETE, AND PAVERS) IMPROVEMENTS TO CAP ALL CONTAMINATED SOIL.
4. CONTRACTOR TO MOUND THIS LOCATION AT THE CONCLUSION OF CONSTRUCTION OF ALL PHASES. TOP OF MOUND CAN POTENTIALLY BE RAISED. CONTRACTOR SHALL CONFIRM WITH CIVIL ENGINEER IF ADDITIONAL CONTAMINATED SOIL NEEDS TO BE BURIED AT THIS LOCATION.

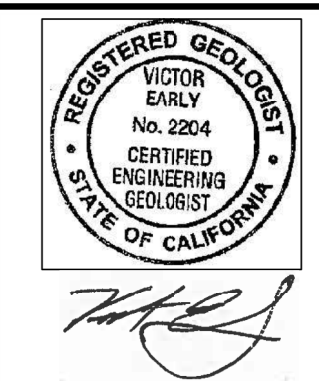
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 FAX 925-940-2299

Date 07/18/18 Scale 1" = 40' Job No. 20145190
 Design CSM Drawn CCMC Approved DBES



**CROSS ALAMEDA TRAIL
 MAIN STREET TO CONSTITUTION WAY
 SOIL REMEDIATION PLAN**

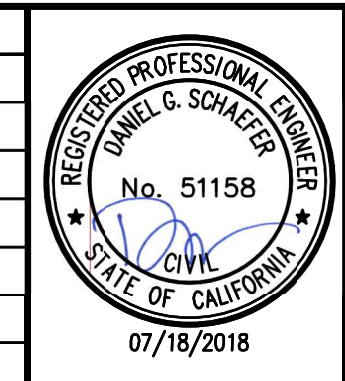
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C8.02



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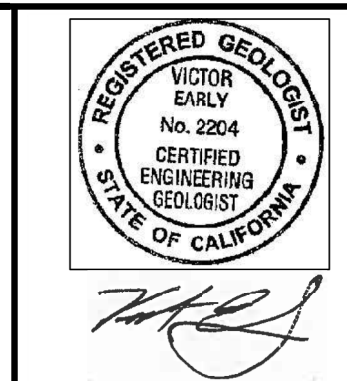
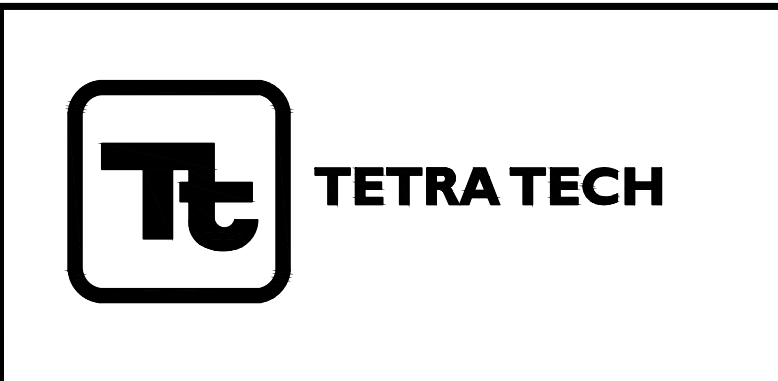
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**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
SOIL REMEDIATION PLAN**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C8.03

SOIL CAP SUBGRADE REQUIREMENT

THE SUBGRADE IS THE UPPERMOST IN SITU SOIL LAYER AFTER CLEARING AND GRUBBING OR SELECT FILL THAT SHALL BE GRADED AND PREPARED FOR CAP CONSTRUCTION. THESE SUBGRADE REQUIREMENTS APPLY ONLY TO THE NON-PAVED AREAS.

- A. THE SUBGRADE MATERIAL SHALL BE SUBSTANTIALLY FREE OF ORGANIC MATERIAL (5% MAXIMUM) AND CONSIST OF ON-SITE SOILS, OR ANY SELECT FILL WITH THE STRUCTURAL ABILITY TO SUPPORT THE SOIL CAP.
- B. THE SUBGRADE SHALL BE GRADED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPROVED ENGINEERING PLANS, REPORT, AND SPECIFICATIONS.
- C. AT A MINIMUM, THE SUBGRADE SURFACE SHALL BE INSPECTED BY THE ENGINEER IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

THE SUBGRADE SHALL BE CLEARED OF ALL OBSTACLES AND THE SURFACE SHALL BE PROOF-ROLLED AND SMOOTH SO THAT ANY SHALLOW DEPRESSIONS OR HUMPS DO NOT EXCEED 12 INCHES IN HEIGHT OR DEPTH OVER AN AREA OF 100 SQUARE FEET. BEFORE PLACING ANY MATERIAL OR THE GEOTEXTILE FABRIC OVER THE SUBGRADE, THE PROJECT ENGINEER SHALL VISUALLY INSPECT THE EXPOSED SURFACE TO EVALUATE THE SUITABILITY OF THE SUBGRADE AND ENSURE THAT THE SURFACE IS PROPERLY COMPACTED, SMOOTH, UNIFORM. IN AREAS OTHER THAN BENEATH PAVEMENT, SUBGRADE SHALL BE TESTED FOR DENSITY AND MOISTURE CONTENT AT A MINIMUM FREQUENCY OF ONE TEST PER 20,000 SF. THE SUBGRADE SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST NINETY (90) PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698).

GEOTEXTILE FABRIC

GEOTEXTILE FABRIC SHALL BE PERMEABLE AND NONWOVEN AND BE IN MINIMUM ACCORDANCE WITH CALTRANS SPECIFICATION 88-1.02B FILTER FABRIC AND ORANGE IN COLOR.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER A CERTIFICATE STATING THE MANUFACTURER NAME, PRODUCT NAME, CHEMICAL COMPOSITION OF THE GEOTEXTILE FABRIC, AND PHYSICAL CHARACTERISTICS.

ACCEPTABLE PRODUCTS INCLUDE: US 160NW HVO (CLASS 1.02B) OR US 205NW HVO SOLD BY US FABRICS INC., 3904 VIRGINIA AVE, CINCINNATI, OHIO 45227. (800) 518-2290.

GEOTEXTILE FABRIC SHALL BE IDENTIFIED, PACKAGED, AND STORED ACCORDING TO ASTM D 4873. GEOTEXTILE FABRIC SHALL BE COVERED DURING SHIPPING AND STORAGE. ATMOSPHERIC EXPOSURE OF GEOTEXTILE FABRIC TO THE ELEMENTS FOLLOWING LAY DOWN SHALL BE A MAXIMUM OF 14 CALENDAR DAYS TO MINIMIZE DAMAGE POTENTIAL.

SUBGRADE SOFT SPOTS IDENTIFIED DURING SITE PREPARATION OR PROOF-ROLLING SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SUITABLE MATERIAL.

THE GEOTEXTILE FABRIC SHALL BE LAID DOWN SMOOTH WITHOUT WRINKLES OR FOLDS ON THE PREPARED SUBGRADE IN THE DIRECTION OF CONSTRUCTION TRAFFIC. THE GEOTEXTILE ELEMENTS SHALL HAVE AN OVERLAP OF 24" AT THE SEAMS. ON CURVES THE GEOTEXTILE MAY BE FOLDED OR CUT TO CONFORM TO THE CURVES. THE FOLD OR OVERLAP SHALL BE HELD IN PLACE BY PINS, STAPLES, OR FILL. PRIOR TO COVERING WITH SOIL THE GEOTEXTILE SHALL BE INSPECTED BY THE ENGINEER TO ENSURE THAT IT HAS NOT BEEN DAMAGED. DAMAGED AREAS SHALL BE COVERED BY GEOTEXTILE WITH AN OVERLAP OF AT LEAST 24".

SURVEY CROSS SECTIONS AND AREA SURVEYS SHALL BE TAKEN SHOWING THE FINISHED ELEVATION AND LOCATION OF THE COMPLETED GEOTEXTILE, REFERENCED TO EXISTING SITE CONTROL. THESE SURVEYS SHALL SERVE AS DOCUMENTATION AND REFERENCE DATA FOR FUTURE LAND USE MANAGEMENT AND CONTROLS.

SOIL CAP

IMPORT SOIL FOR THE SOIL CAP SHALL BE EVALUATED IN ACCORDANCE WITH AN APPROVED SOIL IMPORT PLAN. SOIL SHALL BE APPROVED PRIOR TO IMPORT BY THE CITY AND ALAMEDA AND COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. CAP SOIL SHALL CONSIST OF CLEAN SANDY SOIL WITH THE ASTM D-2487 CLASSIFICATION OF EITHER SP, SM, SC, OR SW. MAXIMUM PARTICLE SIZE IS 4 INCHES, MAXIMUM GRAVEL CONTENT IS 10%, MAXIMUM FINES CONTENT IS 30%, AND MAXIMUM ORGANIC CONTENT IS 5%, AND MAXIMUM PI IS 10 AND MAXIMUM LL IS 20. CAP SOIL SHALL BE NON-(SALINE OR SODIC). THE CAP SHALL BE COMPACTED TO A DENSITY OF AT LEAST NINETY (90) PERCENT OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY. COMPACTION SHALL BE PERFORMED BY PROPERLY CONTROLLING THE MOISTURE CONTENT, LIFT THICKNESS, AND OTHER NECESSARY DETAILS TO OBTAIN THE DENSITY REQUIREMENTS. THE MINIMUM LOOSE THICKNESS OF EACH LIFT OF SOIL MATERIAL SHALL BE SIX (6) INCHES OR UP TO A MAXIMUM OF TWELVE (12) INCHES IF NECESSARY TO PROTECT THE INTEGRITY OF UNDERLYING GEOTEXTILE FABRIC. THE SOIL SHALL BE PLACED BY END DUMPING FROM THE EDGE OF THE GEOTEXTILE FABRIC. CONSTRUCTION VEHICLES SHALL NOT BE ALLOWED DIRECTLY ON THE GEOTEXTILE FABRIC. THE SOIL SHALL BE PLACED SO THAT AT LEAST A MINIMUM LIFT THICKNESS NECESSARY TO PROTECT THE GEOTEXTILE IS BETWEEN THE GEOTEXTILE AND EQUIPMENT TIRES OR TRACKS AT ALL TIMES. TURNING OF VEHICLES SHALL NOT BE PERMITTED ON THE FIRST LIFT ABOVE THE GEOTEXTILE.

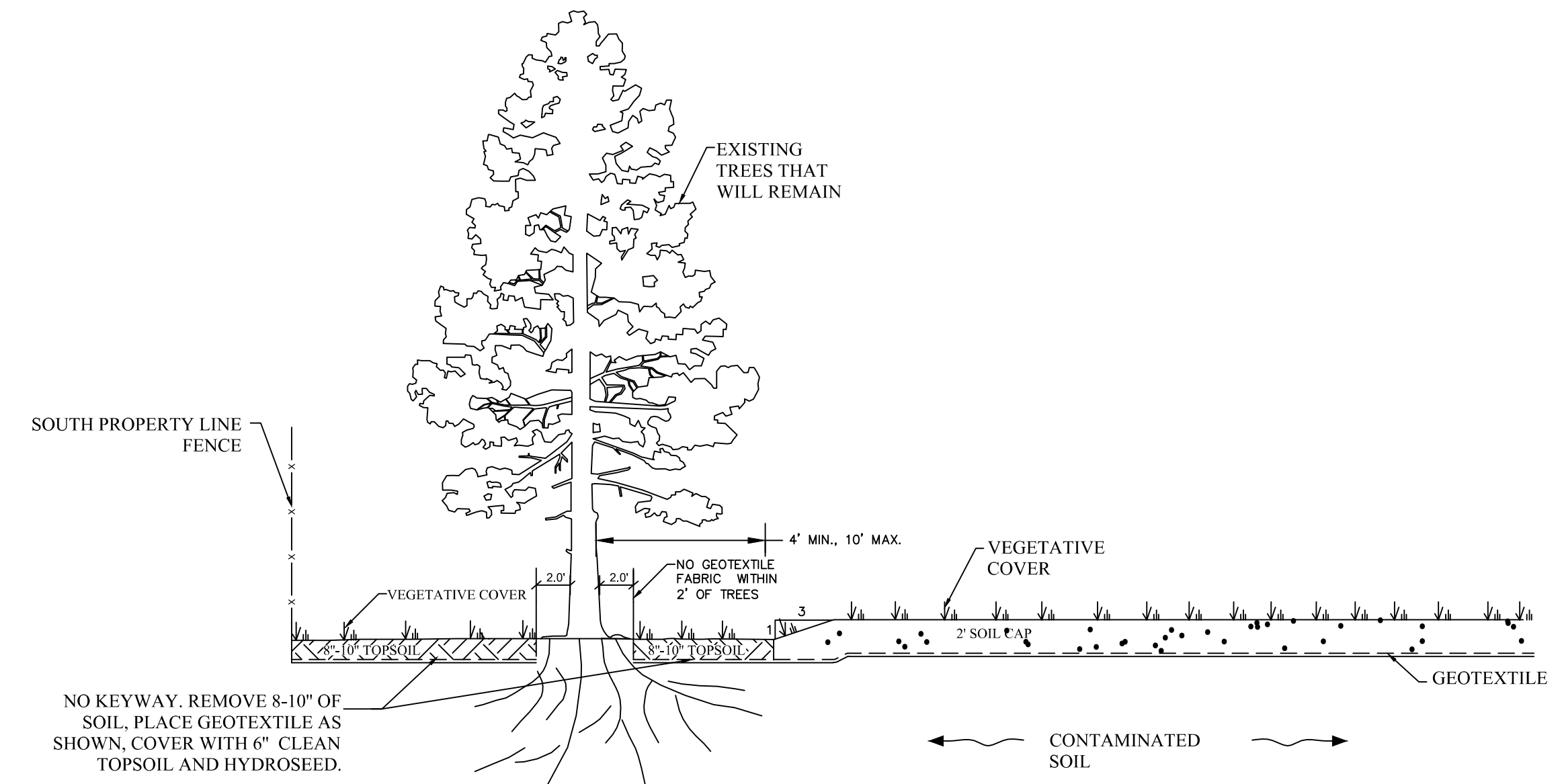
CONTRACTOR SHALL COMPLETE A TOPOGRAPHIC SURVEY SHOWING THE FINISHED ELEVATION AND EXTENT OF THE COMPLETED CAP REFERENCED TO EXISTING SITE CONTROL. THIS SURVEY SHALL SERVE AS DOCUMENTATION OF CAP CONSTRUCTION AND REFERENCE DATA FOR FUTURE LAND USE CONTROLS.

CERTIFICATION REQUIREMENTS.

THE CITY'S PROJECT ENGINEER SHALL INCLUDE IN THE FINAL CONSTRUCTION CERTIFICATION REPORT A DISCUSSION OF ALL REQUIRED QUALITY ASSURANCE AND QUALITY CONTROL TESTING. THE TESTING PROCEDURES AND PROTOCOLS SHALL BE SUBMITTED AND APPROVED BY THE CITY. THE RESULTS OF ALL TESTING AND SURVEYING SHALL BE INCLUDED IN THE CONSTRUCTION CERTIFICATION REPORT INCLUDING DOCUMENTATION OF CAP THICKNESS, CAP MATERIAL, CAP AREA, ANY FAILED TEST RESULTS, DESCRIPTIONS OF THE PROCEDURES USED TO CORRECT THE IMPROPERLY INSTALLED MATERIAL, AND STATEMENTS OF ALL RETESTING PERFORMED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

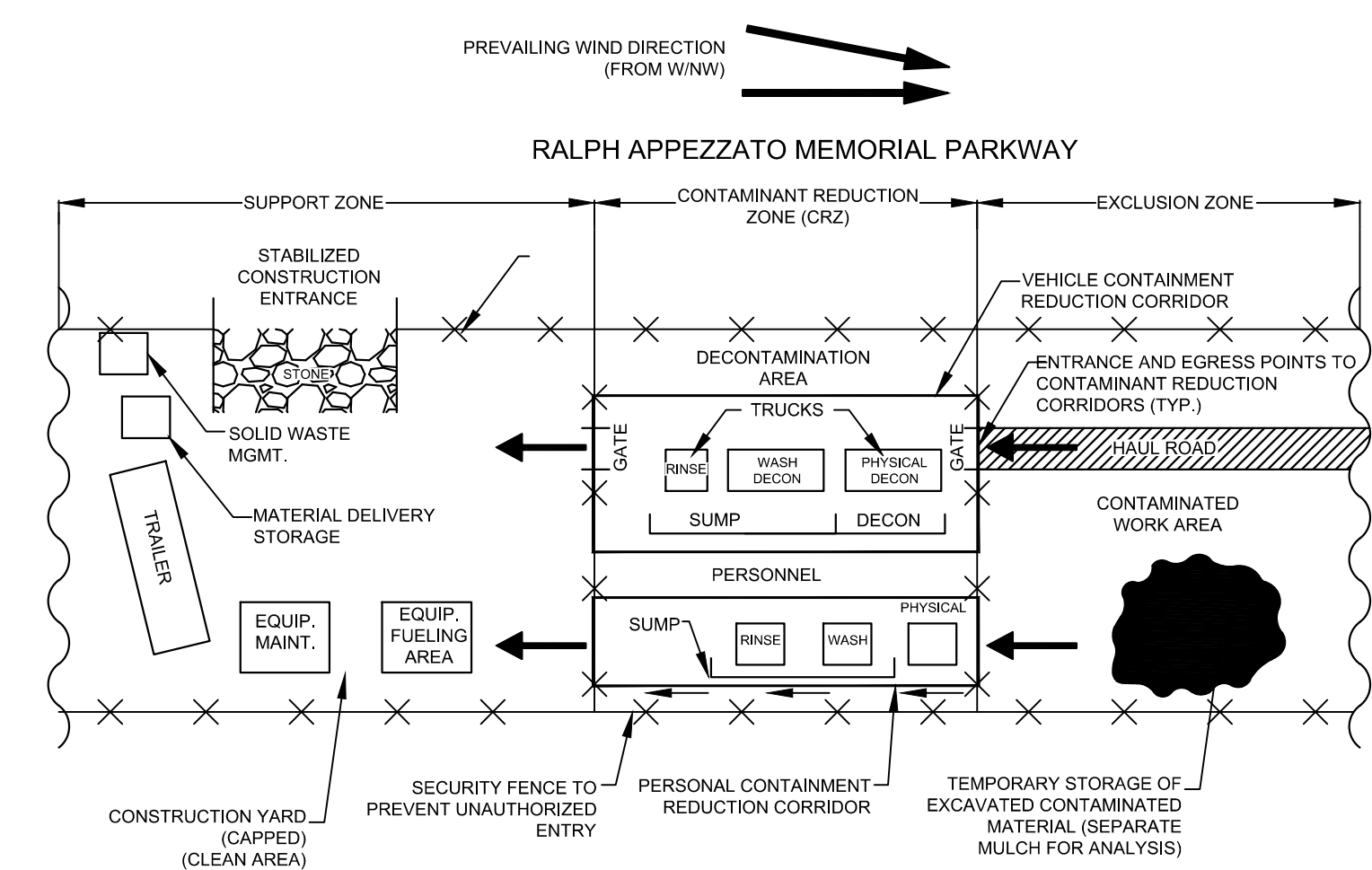
(a) THE CITY'S PROJECT ENGINEER SHALL CERTIFY THE RESULTS OF THE QUALITY CONTROL TESTING OF THE CAP OR SUBGRADE MATERIALS. THE INTENT OF THE QUALITY CONTROL TESTING IS TO ENSURE THAT THE SPECIFIED MATERIAL MEETS THE SOIL CLASSIFICATION AND DENSITY REQUIREMENTS. BEFORE AND DURING CONSTRUCTION OF THE SOIL COMPONENT THE FOLLOWING MINIMUM TESTING AND CLASSIFICATION SHALL BE PERFORMED BY THE CONTRACTOR:

1. DETERMINATION OF THE CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES USING TEST METHODS ASTM D-2487 FOR EACH 2,500 CUBIC YARDS OF SOIL MATERIAL PLACED AND EACH TIME SIGNIFICANT SOIL MATERIAL CHANGES ARE NOTED;
2. A MINIMUM OF ONE (1) MOISTURE-DENSITY RELATION TEST (ASTM D-698) FOR EVERY 2,500 CUBIC YARDS OF MATERIAL PLACED AND ONE (1) EACH TIME SOIL MATERIAL CHANGES ARE NOTED. QUALITY ASSURANCE TESTING SHALL INCLUDE:
 1. AT LEAST ONE DENSITY TEST PER 20,000 SF PER LIFT OF SOIL MATERIAL PLACED;
 2. ALL FIELD MOISTURE-DENSITY TESTING PERFORMED USING ASTM D6938 OR ASTM D1556 METHODS.




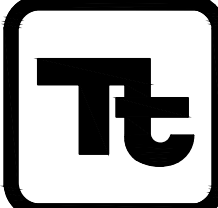
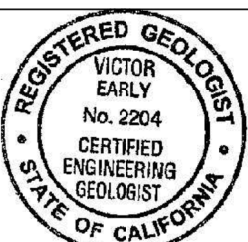
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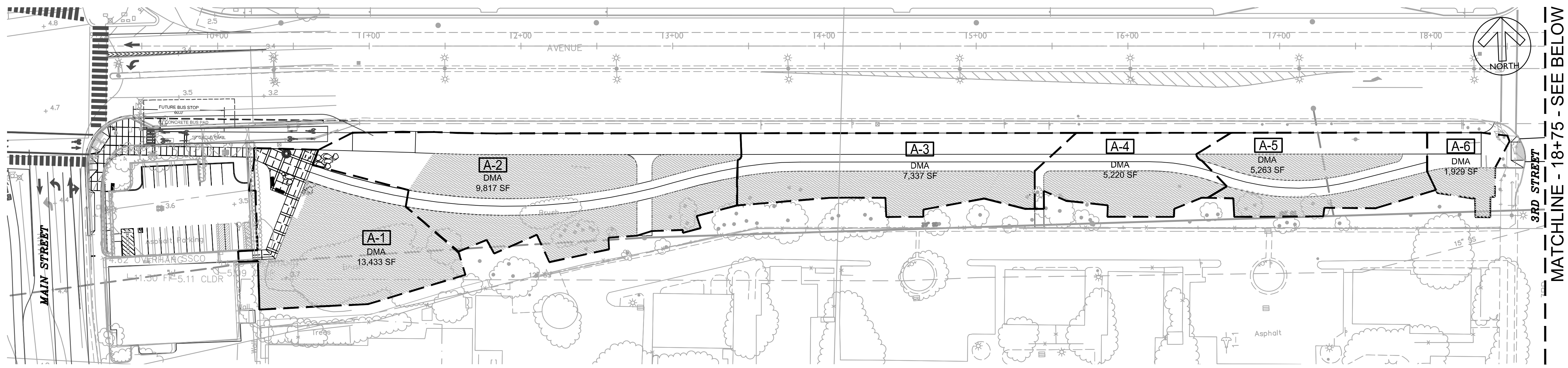
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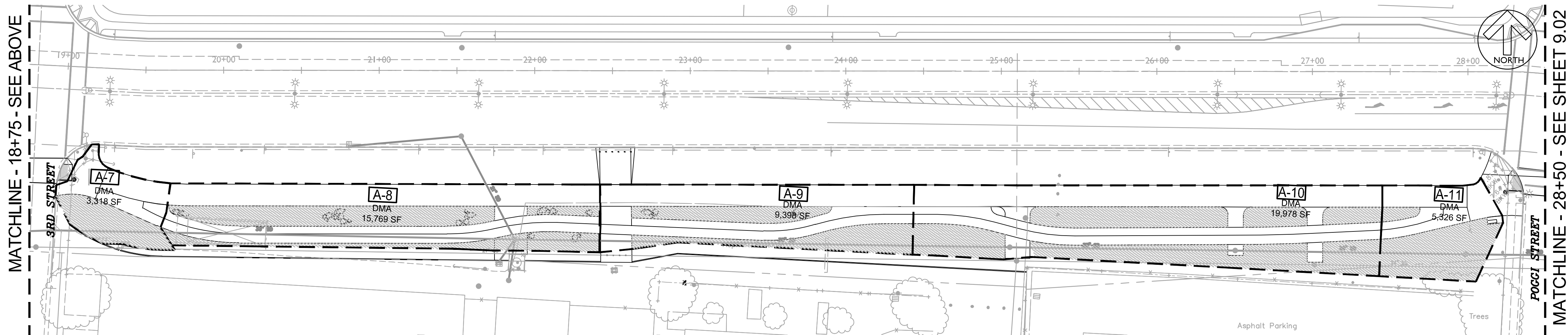
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PLOTTED BY: Dustin Gehrett

No.	Date	Revisions

 <p>BKF ENGINEERS / SURVEYORS / PLANNERS</p>	 <p>TETRA TECH</p>	 <p>VICTOR EARLY No. 2204 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA</p>	<p>CROSS ALAMEDA TRAIL MAIN STREET TO CONSTITUTION WAY CIVIL NOTES AND REMEDIATION SPECIFICATIONS</p>		<p>Sheet Number: C8.04</p>
			<p>1646 N. CALIFORNIA BLVD SUITE 400 WALNUT CREEK, CA 94596 PHONE 925-940-2200 FAX 925-940-2299</p>	<p>Date 04/12/18 Scale NTS Job No. 20145190 Design Drawn Approved</p>	



MATCHLINE - 18+75 - SEE BELOW



MATCHLINE - 18+75 - SEE ABOVE

MATCHLINE - 28+50 - SEE SHEET 9.02

CAT RAMP - SHED/BIORETENTION SUMMARY

SHED/BIORETENTION	TOTAL IMPERVIOUS AREA (SF)	AREA TYPE	TREATMENT AREA PROVIDED (SF)	PERCENTAGE OF IMPERVIOUS AREA
A-1	2253	SELF RETAINING	7434	330%
A-2	5833	SELF RETAINING	8774	150%
A-3	5261	SELF RETAINING	4163	79%
A-4	2657	SELF RETAINING	2598	98%
A-5	3566	SELF RETAINING	3547	99%
A-6	1161	SELF RETAINING	895	77%
A-7	1685	SELF RETAINING	1434	85%
A-8	7217	SELF RETAINING	4314	60%
A-9	5457	SELF RETAINING	2795	51%
A-10	6994	SELF RETAINING	6814	97%
A-11	1872	SELF RETAINING	2439	130%
A-12	1532	SELF RETAINING	909	59%
A-13	3504	SELF RETAINING	1375	39%
A-14	5019	SELF RETAINING	2577	51%
A-15	3200	SELF RETAINING	1810	57%
A-16	1971	SELF RETAINING	979	50%
A-17	3072	SELF RETAINING	1710	56%
A-18	3797	SELF RETAINING	2048	54%
A-19	6498	SELF RETAINING	3155	49%
A-20	5529	SELF RETAINING	2533	46%
A-21	5482	SELF RETAINING	3231	59%
A-22	4416	SELF RETAINING	1821	41%
A-23	3332	SELF RETAINING	1721	52%
A-24	6390	SELF RETAINING	2761	43%
A-25	1649	SELF RETAINING	634	38%
A-26	7317	BIORETENTION	289	4%
TOTAL TREATMENT	106664	-	72760	68%

STORMWATER TREATMENT LEGEND:

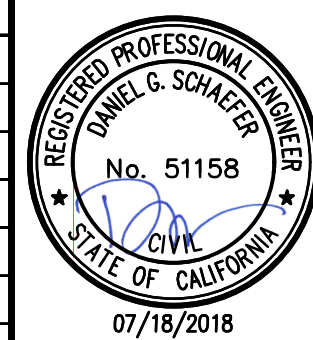
- BIORETENTION AREA PER DETAIL 1 C7.03
- SELF TREATING AREA PER DETAIL 7 C7.03
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA LABEL

STORMWATER TREATMENT NOTES:

1. REQUIRED DMA EFFECTIVE TREATMENT AREA IS A RESULT OF THE ALAMEDA COUNTY WORKSHEET FOR CALCULATING THE COMBINATION FLOW AND VOLUME METHOD.
2. SEE HORIZONTAL CONTROL PLAN FOR BIORETENTION AREA AND SELF TREATING AREAS.

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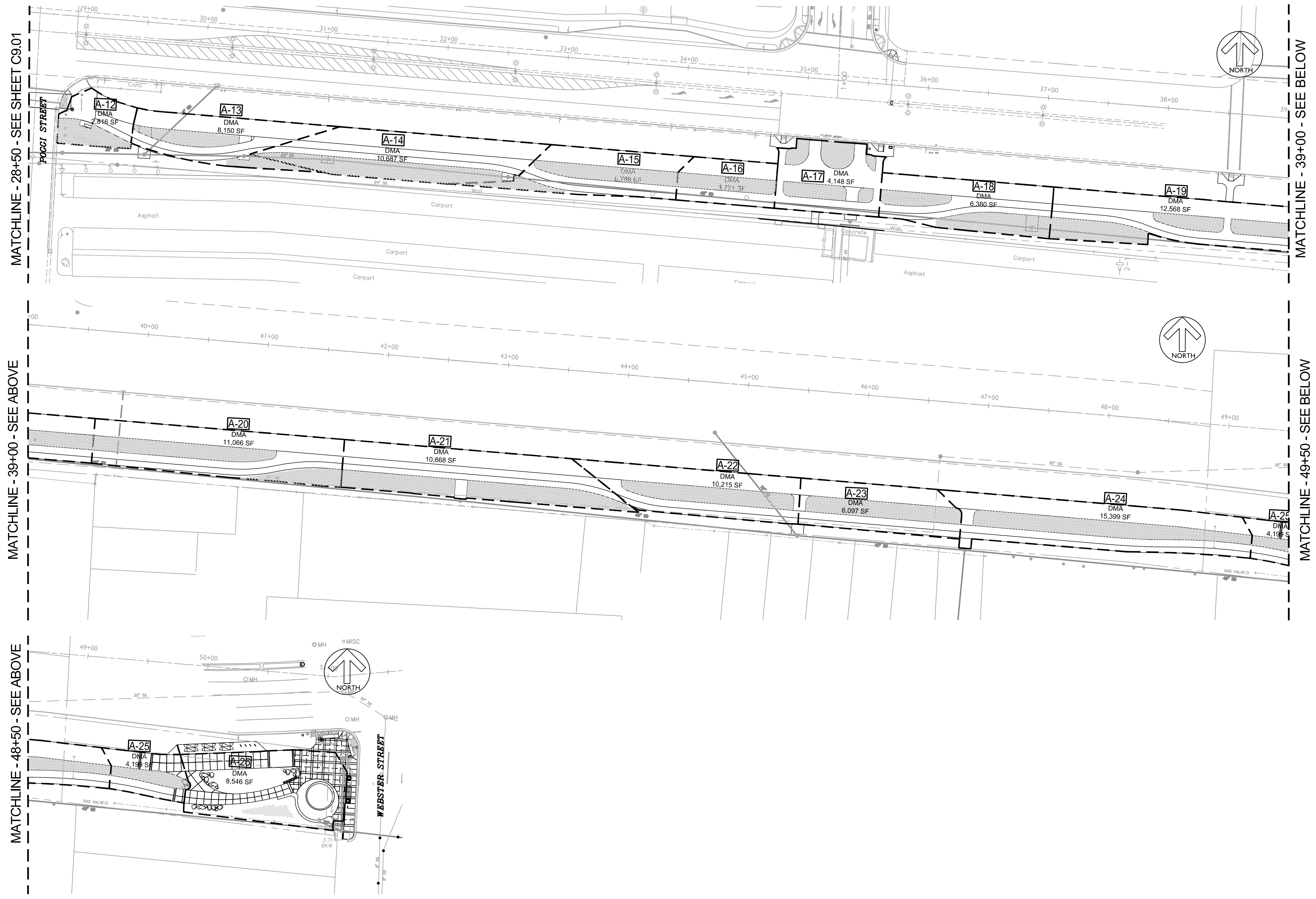
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**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
STORMWATER MANAGEMENT PLAN**

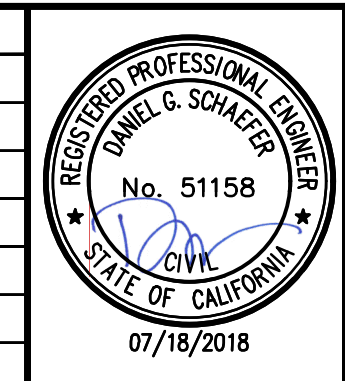
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Sheet Number:
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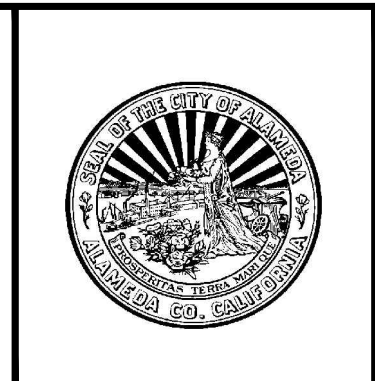
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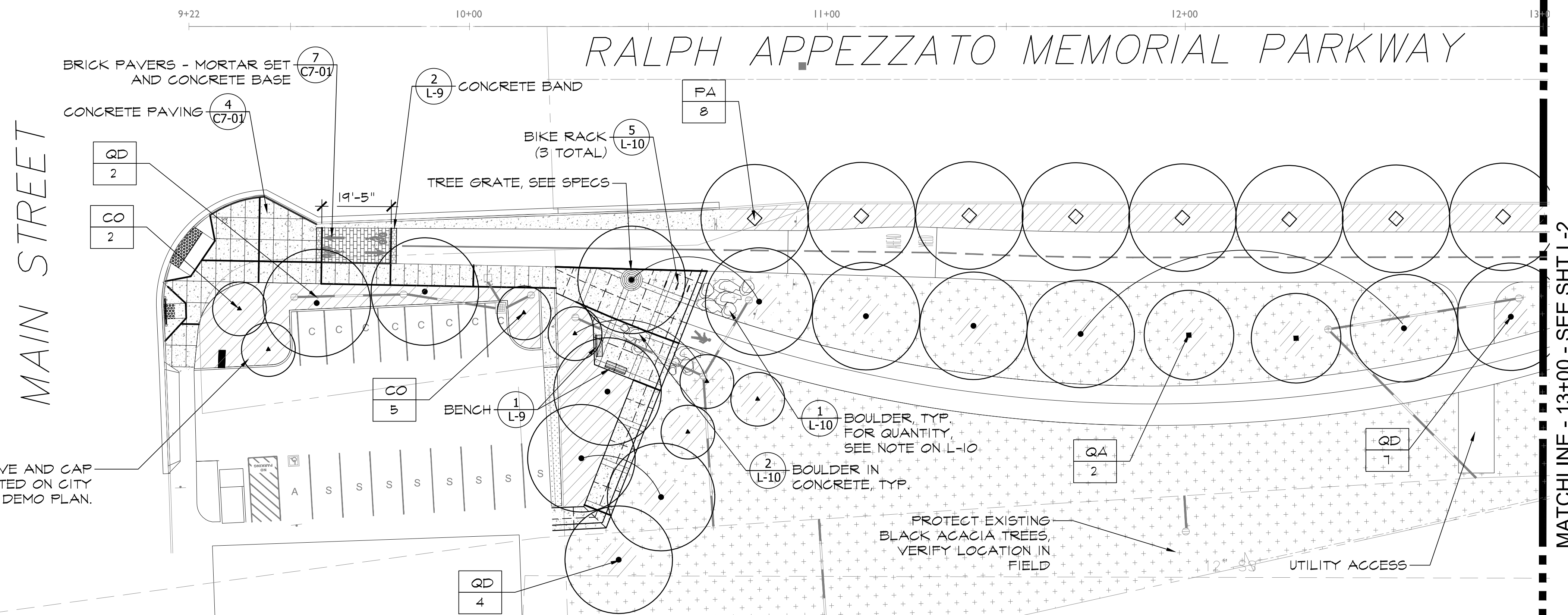
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Drawn: CQC/C
Approved: DB/ES



**CROSS ALAMEDA TRAIL
MAIN STREET TO CONSTITUTION WAY
STORMWATER MANAGEMENT PLAN**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
C9.02



CONTRACTOR TO REMOVE AND CAP PRIVATE IRRIGATION LOCATED ON CITY PROPERTY - SEE DEMO PLAN.

MATCHLINE - 13+00 - SEE SHT L-2

TREES

SYMBOL		BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY	WATER REQ.
	CO	<i>Cercis occidentalis</i>	Western Redbud	15 Gal	12 FEET	21	Very Low - WUCOLS
	GE	<i>Garrya elliptica</i>	Coast Silktassel	15 Gal	10 FEET	6	Low - WUCOLS
	PA	<i>Platanus acerfolia</i> 'Columbia'	London Plane	15 GAL	30 FEET	14	Moderate - EBMUD
	PA	<i>Pyrus calleryana</i>	Callery Pear	15 GAL	20 FEET	3	Moderate - WUCOLS
	QA	<i>Quercus agrifolia</i>	Coast Live Oak	15 Gal	24 FEET	48	Very Low - WUCOLS
	QD	<i>Quercus douglasii</i>	Blue Oak	15 Gal	40 FEET	40	Very Low - WUCOLS

- EBMUD-PLANTS AND LANDSCAPES FOR SUMMER-DRY CLIMATES, NORA HARLOW (ED.), EAST BAY MUNICIPAL UTILITY DISTRICT, 2004
- WUCOLS- UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE AND NATURAL RESOURCES, WATER USE CLASSIFICATION OF LANDSCAPE SPECIES WWW.UCANR.EDU/SITES/WUCOLS

LEGEND

	HYDROSEED		FIELD FIT EXISTING IRRIGATION WHERE DAMAGED	
	SHEET MULCH			
	BRICK PAVERS			
	PAVERS AT EMERGENCY ACCESS			
	CONCRETE PAVING			
	CONCRETE SEATWALL			
	CONCRETE BAND			

PLANTING NOTES

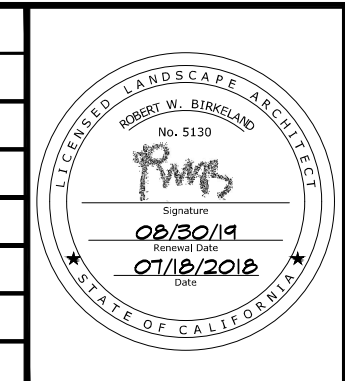
1. CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND UTILITY LINES. LOCATE BEFORE DIGGING PLANT HOLES, ETC. IF CONFLICTS ARISE AT PLANT LOCATION TIME, CITY TO BE CONSULTED FOR ADJUSTMENTS PRIOR TO INSTALLATION. ADJUSTMENTS TO BE MADE BY CONTRACTOR AT NO ADDITIONAL COST.
2. PRIOR TO PLANT INSTALLATION, CLEAR ALL PLANTING AREAS OF DEBRIS. SEE SPECS.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, SHALL HAVE NORMAL HABITS OF GROWTH, BE HEALTHY AND HAVE IDENTIFYING NURSERY TAGS ON EACH PLANT DELIVERED TO THE SITE.
4. NO SUBSTITUTE PLANT MATERIALS WILL BE PERMITTED UNLESS APPROVED BY THE LANDSCAPE ARCHITECT AND CITY.
5. PLANT LOCATIONS TO BE LAID OUT SO AS NOT TO INTERRUPT ESTABLISHED GRADING AND DRAINAGE PATTERNS.
6. SEE TREE PLANTING AND STAKING DETAIL AND SHRUB PLANTING DETAIL ON SHEET L-10 SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SCORING

- EXPANSION JOINT ———
- SAWCUT JOINT - - -
- SCORE JOINT ———

DRAWING NAME: L:\BKF-03.0\07_Cad\PW_BKF-03.0\L-1-2,3,4,5,6,7-PLANTING-DT-REF.dwg PLOTTED BY: SKoehler

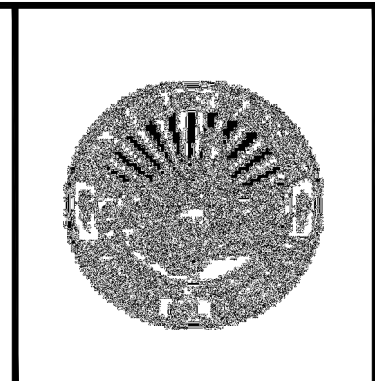
No.	Date	Revisions



BKF 1646 N. CALIFORNIA BLVD SUITE 400 WALNUT CREEK, CA 94596 PHONE 925-940-2200 FAX 925-940-2299

Date 07/18/2018 Scale 1" = 20' Job No. 20145190
 Design 100% PSE Drawn SK, JMJ Approved RB

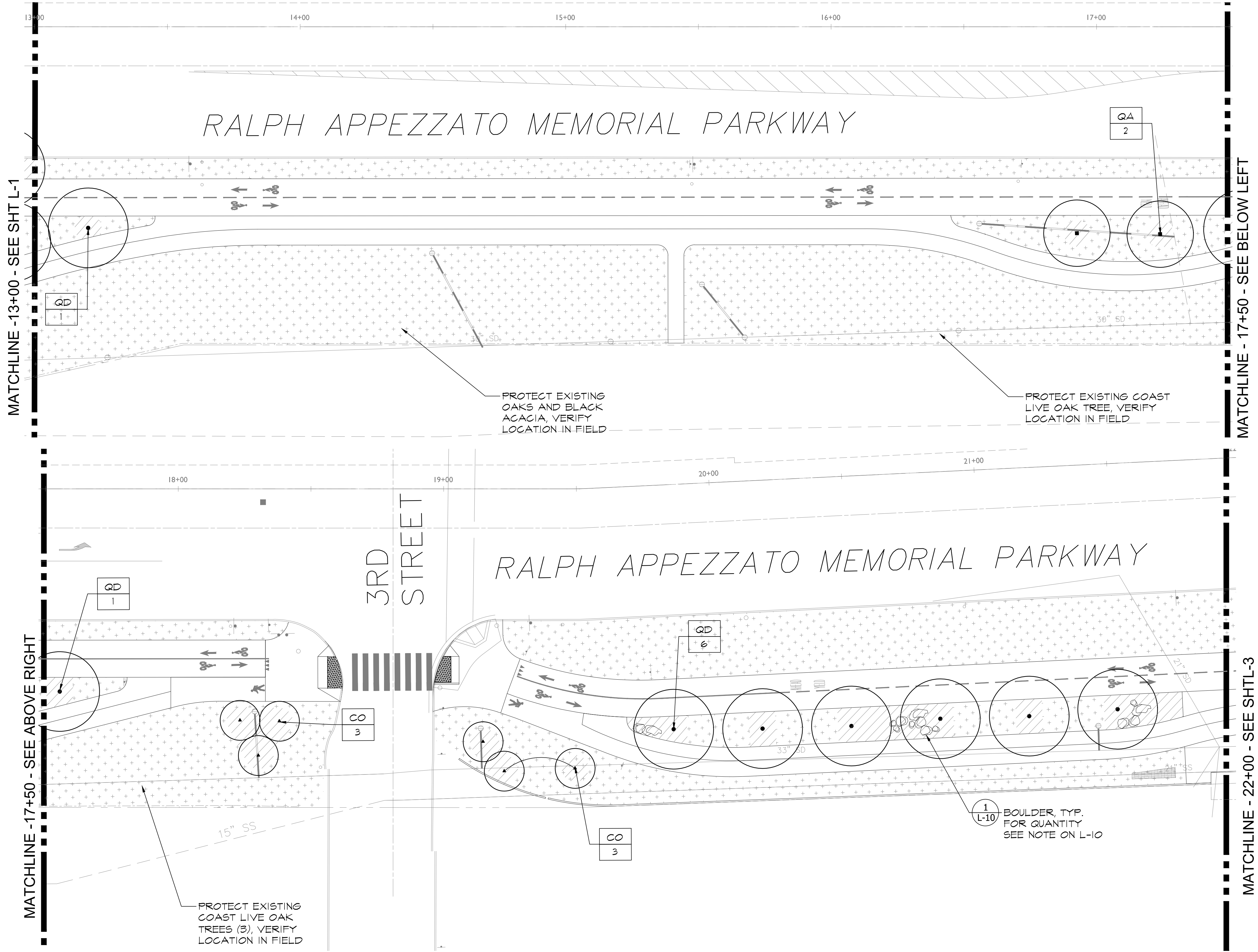
PLACEWORKS



**CROSS ALAMEDA TRAIL
 MAIN STREET TO WEBSTER STREET
 Planting/Detail Reference Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

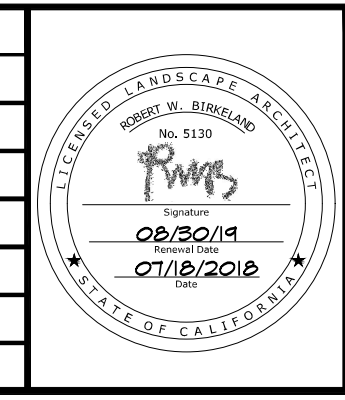
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L-1



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PLOT DATE: 07-18-18
PLOTTED BY: SKoehler

See Sheet L-1 for Plant Legend and Notes

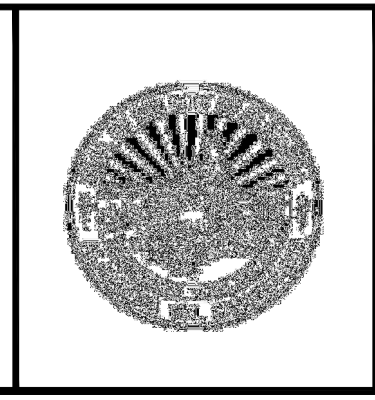
No.	Date	Revisions



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1646 N. CALIFORNIA BLVD
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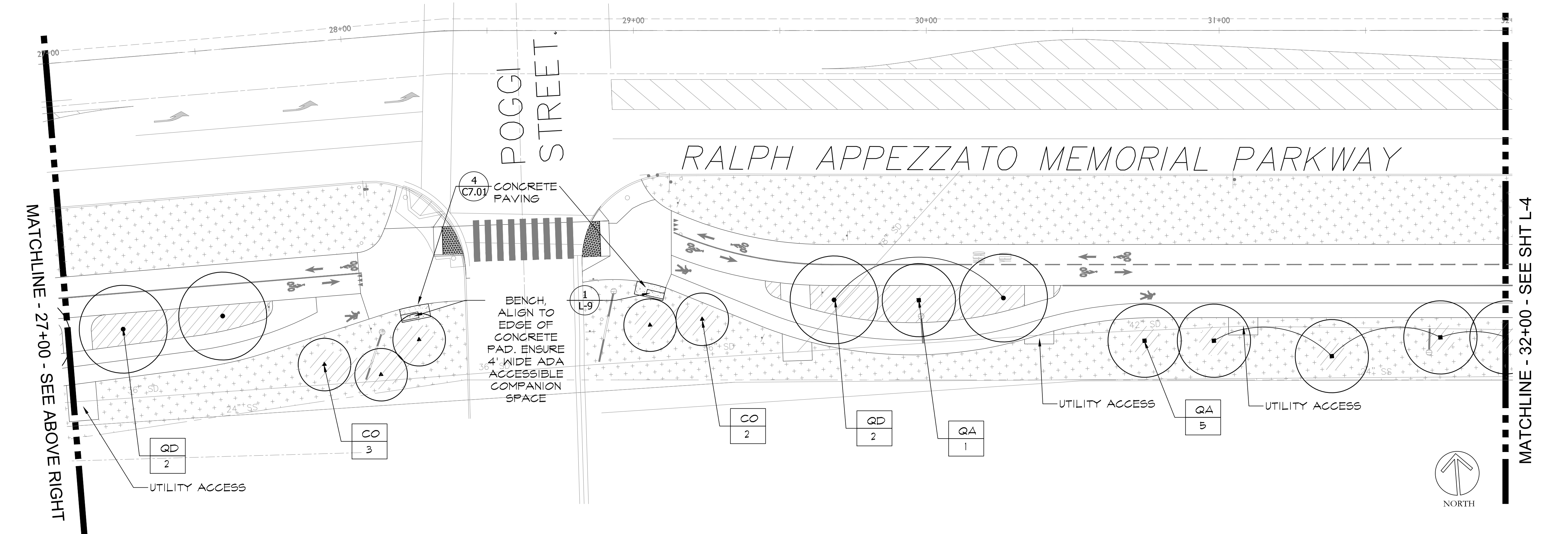
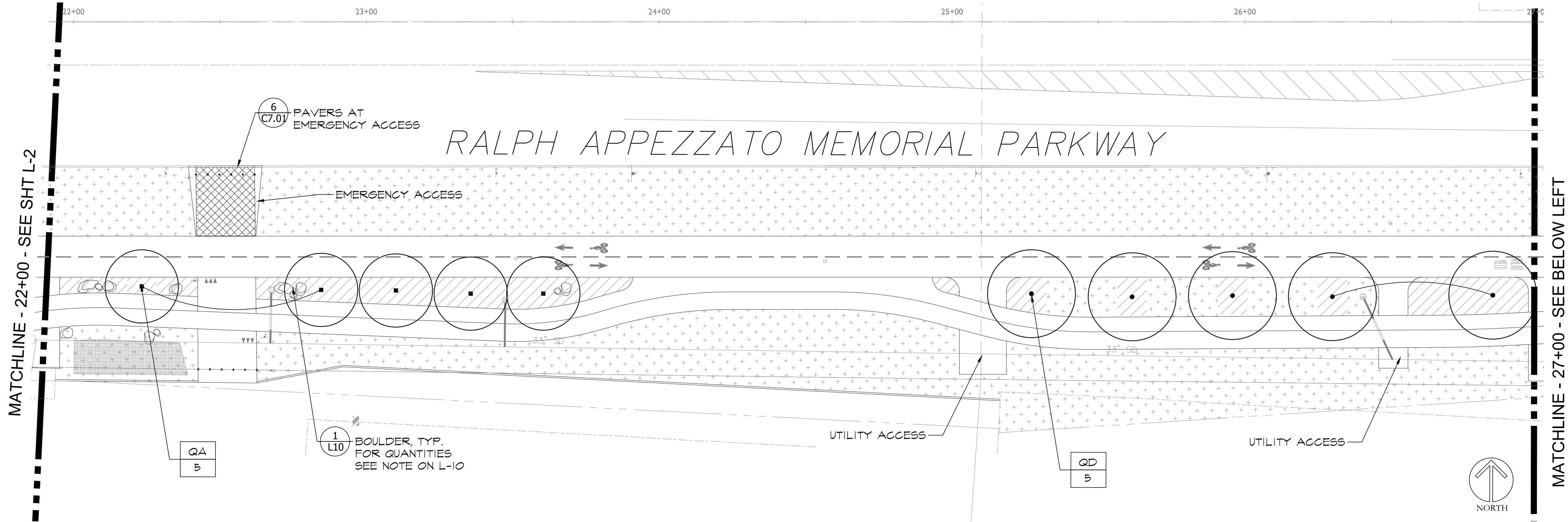
Date 07/18/2018 Scale 1" = 20' Job No. 20145190
Design 100% PSE Drawn SK, JMJ Approved RB



**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET
Planting/Detail Reference Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

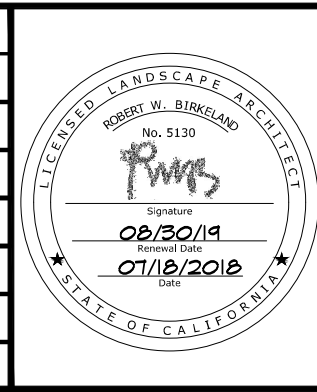
Sheet Number:
L-2



See Sheet L-1 for Plant Legend and Notes

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PLOT DATE: 07-18-18 PLOTTED BY: SKoehler

No.	Date	Revisions

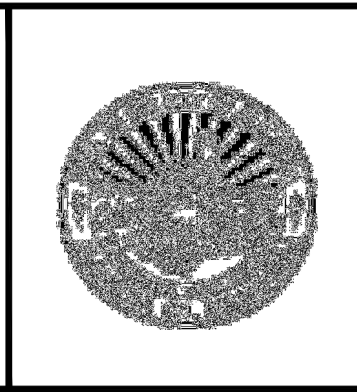


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PLACEWORKS

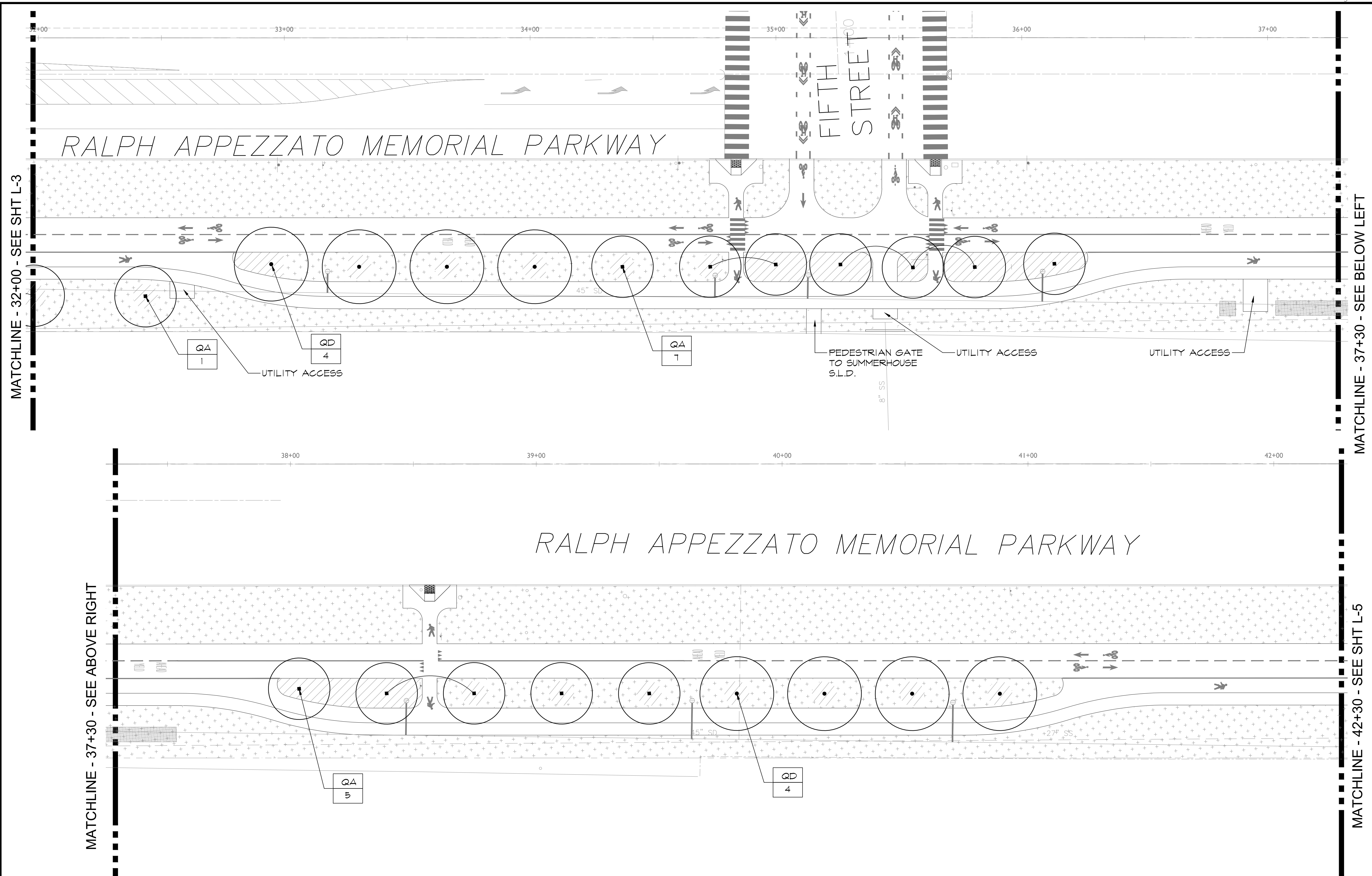


**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET**

Planting/Detail Reference Plan

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

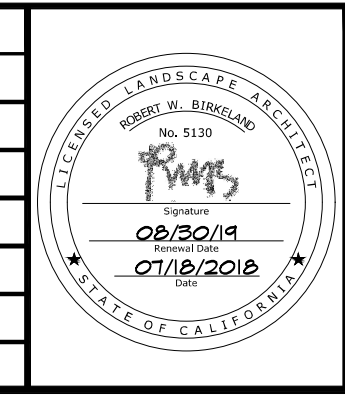
Sheet Number:
L-3



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PLOT DATE: 07-18-18
PLOTTED BY: Skoehler

See Sheet L-1 for Plant Legend and Notes

No.	Date	Revisions

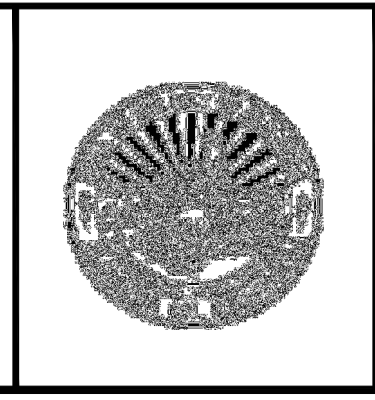


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FAX 925-940-2299

Date 07/18/2018 Scale 1" = 20' Job No. 20145190
Design 100% PSE Drawn SK, JMJ Approved RB

PLACEWORKS

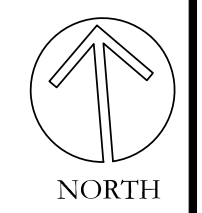


**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET**

Planting/Detail Reference Plan

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

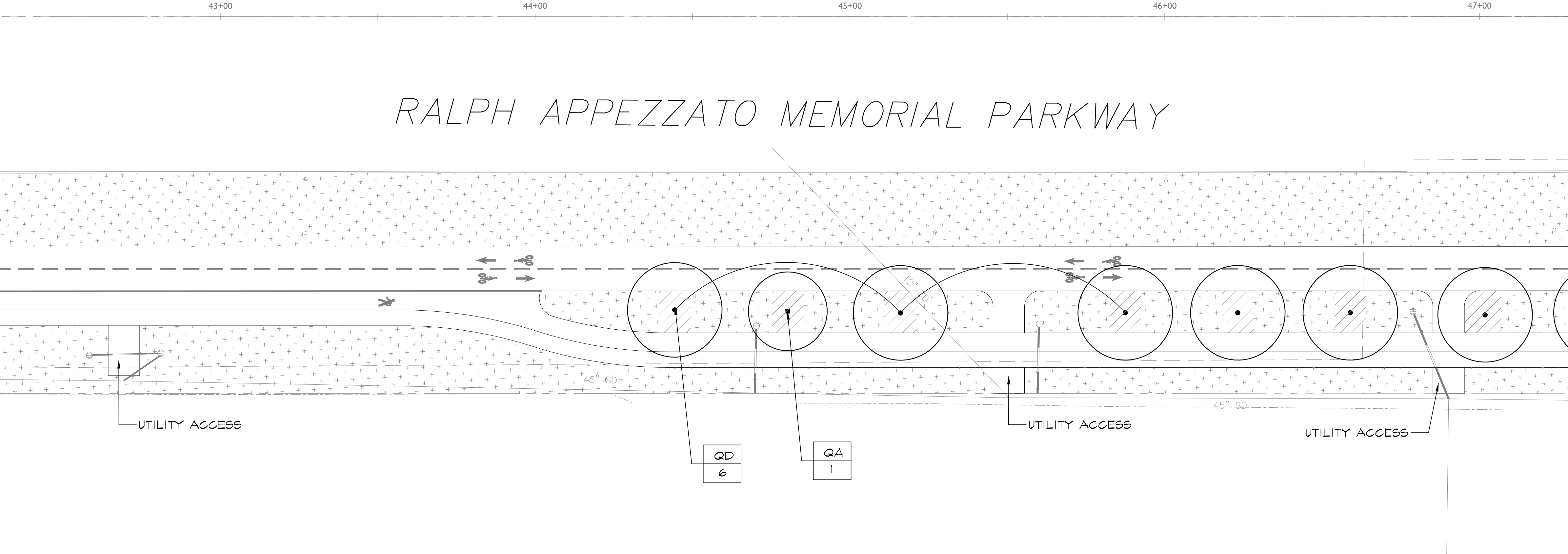
Sheet Number:
L-4



RALPH APPEZZATO MEMORIAL PARKWAY

MATCHLINE - 42+30 - SEE SHT L-4

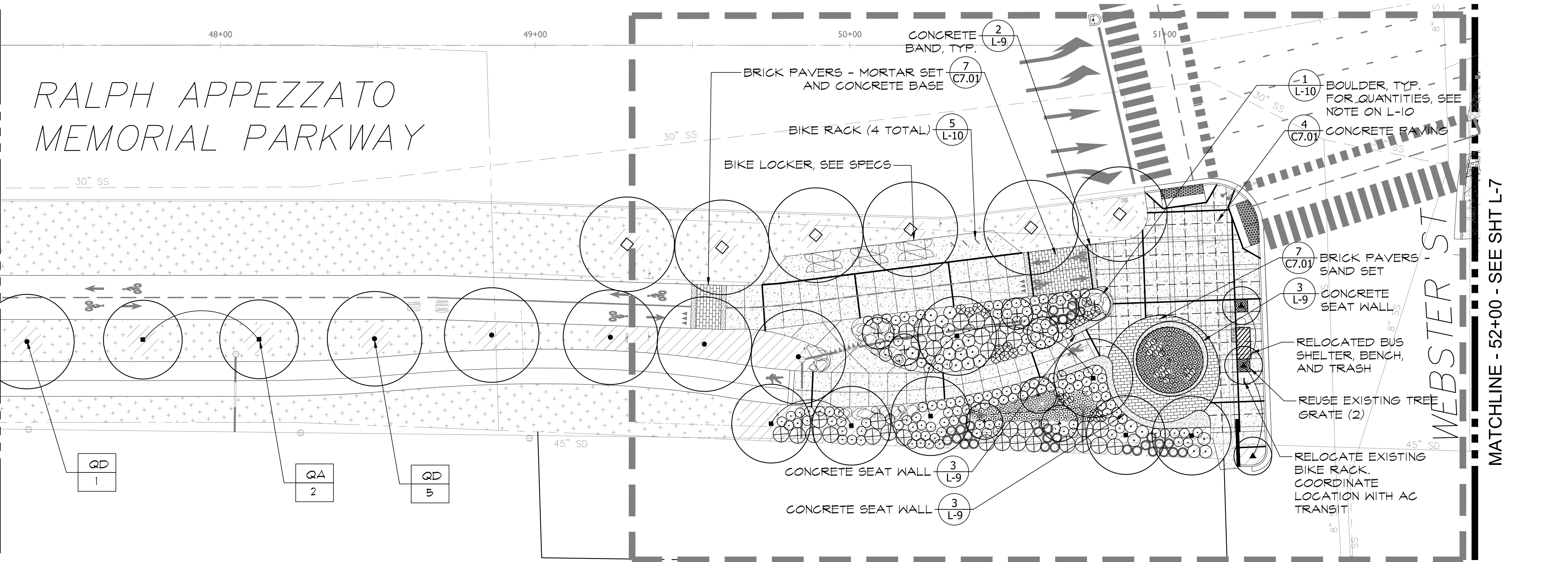
MATCHLINE - 47+30 - SEE SHT BELOW LEFT



RALPH APPEZZATO MEMORIAL PARKWAY

MATCHLINE - 47+30 - SEE SHT ABOVE RIGHT

MATCHLINE - 52+00 - SEE SHT L-7

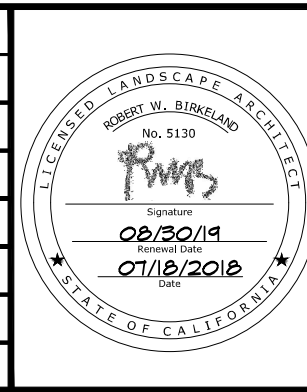


See Sheet L-1 for Plant Legend and Notes

PLANTING ENLARGEMENT AND ADDITIONAL PLANT QUANTITIES, SEE SHEET L-6. LAYOUT, SEE L-8.

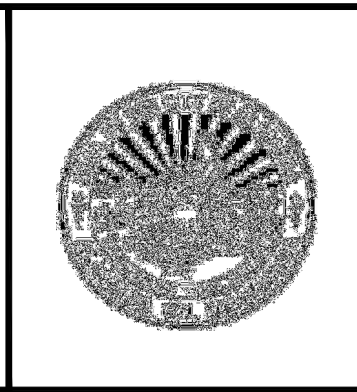
DRAWING NAME: L:\BKF-03.0\07_Cod\PW_BKF-03.0\L-1,2,3,4,5,6,7-PLANTING-DT-REF.dwg PLOTTED BY: JJones

No.	Date	Revisions



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 1646 N. CALIFORNIA BLVD
 SUITE 400
 WALNUT CREEK, CA 94596
 PHONE 925-940-2200
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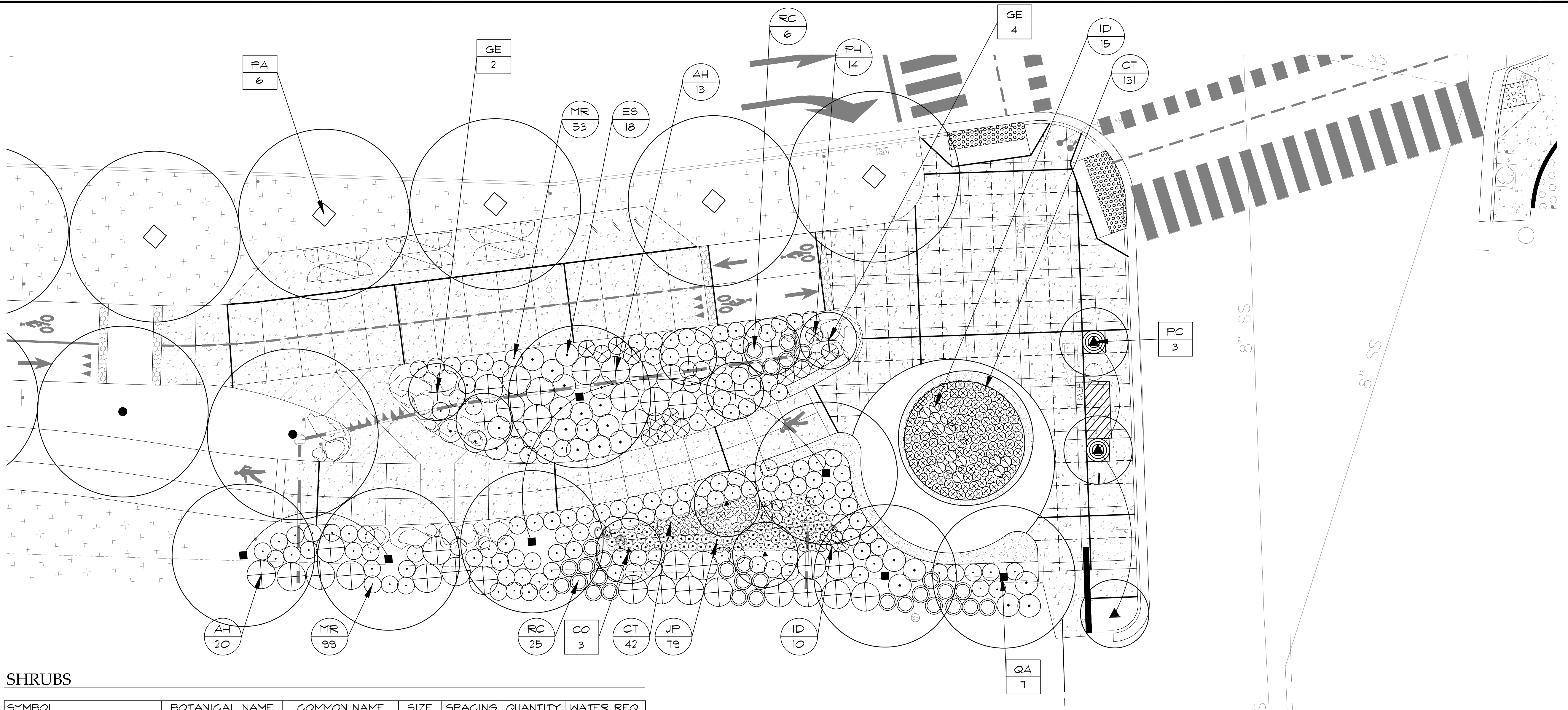
Date 07/18/2018 Scale 1" = 20' Job No. 20145190
 Design 100% PSE Drawn SK, JMJ Approved RB



**CROSS ALAMEDA TRAIL
 MAIN STREET TO WEBSTER STREET
 Planting/Detail Reference Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
L-5



SHRUBS

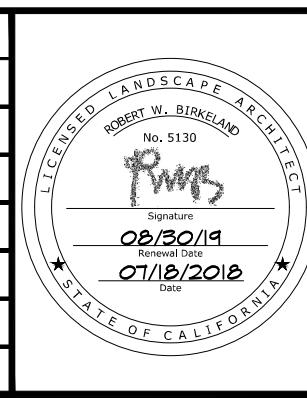
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY	WATER REQ.
	AH <i>Arctostaphylos densiflora</i> 'Howard McMinn'	McMinn Manzanita	1 Gal	5 FEET OC	34	Low - WUCOLS
	CT <i>Carex tumulicola</i>	Berkeley Sedge	1 Gal	1.5 FEET OC	173	Low - WUCOLS
	ES <i>Epilobium septentrionale</i>	California Fuschia	1 Gal	3 FEET OC	24	None/Occ - EBMUD
	ID <i>Iris douglassii</i> 'Canyon Snow' <i>Iris douglassii</i> 'Dorothea's Ruby'	Pacific Coast Hybrids Mixed	1 Gal	2 FEET OC	25	Low - WUCOLS
	JP <i>Juncus patens</i>	California Grey Rush	1 Gal	1.5 FEET OC	79	Low - WUCOLS
	PH <i>Penstemon heterophyllus</i> 'Blue Bedder'	Beard Tongue	1 Gal	3 FEET OC	14	Low/Very Low - Perry
	MR <i>Muhlenbergia rigens</i>	Deer Grass	1 Gal	3.5 FEET	153	Low - WUCOLS
	RC <i>Rhamnus californica</i> 'Seaview Improved'	Coffeeberry	1 Gal	3 FEET	31	Low - WUCOLS

NOTE:
ENGINEER (OR LANDSCAPE ARCHITECT) TO APPROVE LAYOUT OF ALL TREES AND SHRUBS IN WEBSTER STREET PLAZA AREA

- EBMUD-PLANTS AND LANDSCAPES FOR SUMMER-DRY CLIMATES, NORA HARLOW (ED.), EAST BAY MUNICIPAL UTILITY DISTRICT, 2004
- WUCOLS- UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE AND NATURAL RESOURCES, WATER USE CLASSIFICATION OF LANDSCAPE SPECIES WWW.UCANR.EDU/SITES/WUCOLS
- PERRY- LANDSCAPE PLANTS FOR CALIFORNIA GARDENS, ROBERT C. PERRY, LAND DESIGN PUBLISHER, 2010.

DRAWING NAME: L:\BKF-03.0\07_Cad\PW_BKF-03.0\1-1,2,3,4,5,6,7-PLANTING-DT-REF.dwg
PLOT DATE: 07-18-18 PLOTTED BY: S.Koehler

No.	Date	Revisions

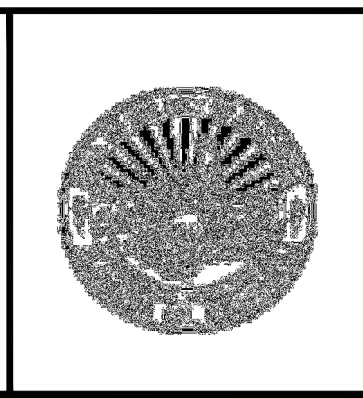


BKF 1646 N. CALIFORNIA BLVD SUITE 400 WALNUT CREEK, CA 94596
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PLACEWORKS

Date 07/18/2018 Scale 1" = 10' Job No. 20145190
Design 100% PSE Drawn SK, JM Approved RB

PLACEWORKS



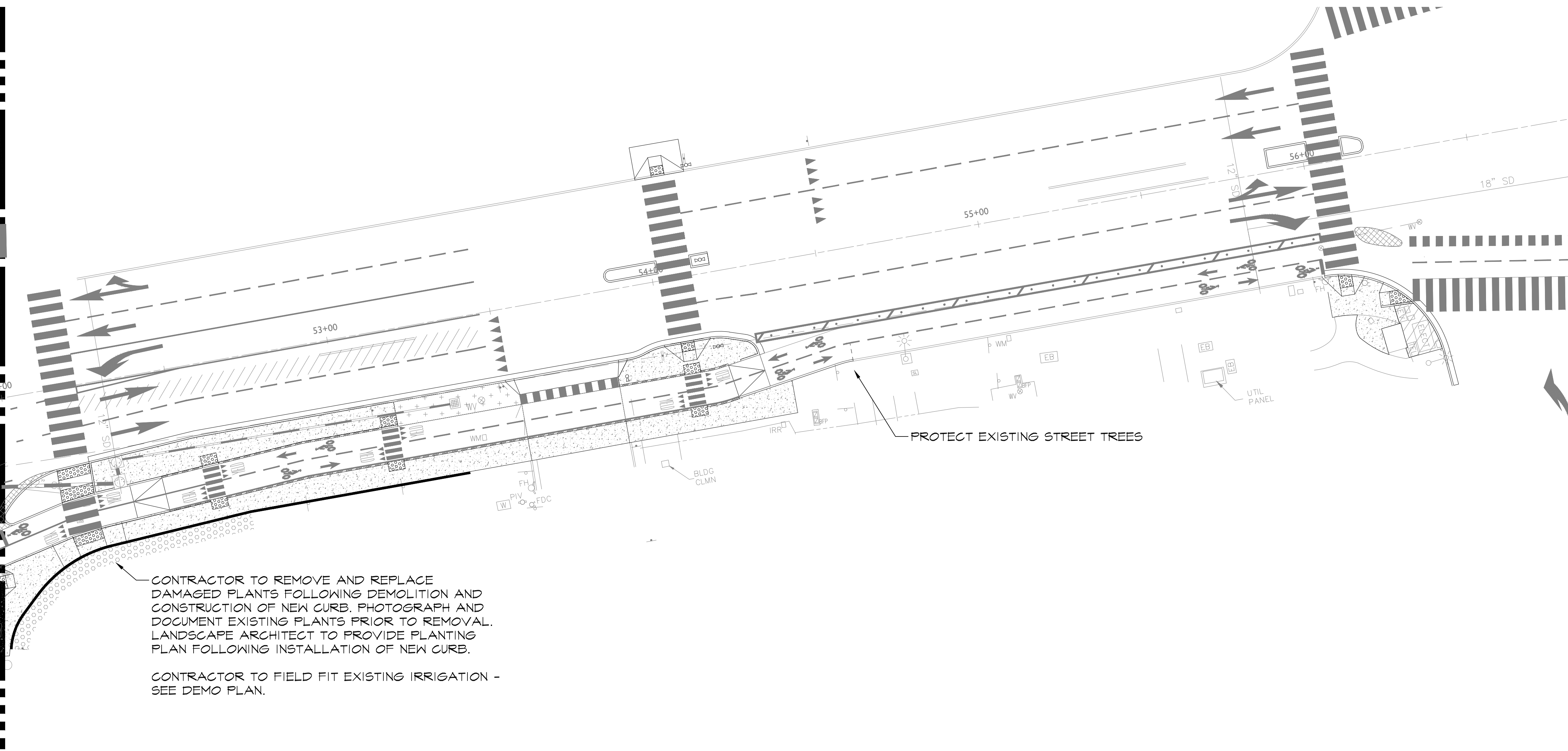
**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET
Webster Planting Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
L-6

NORTH

MATCHLINE - 52+00 - SEE SHT L-5



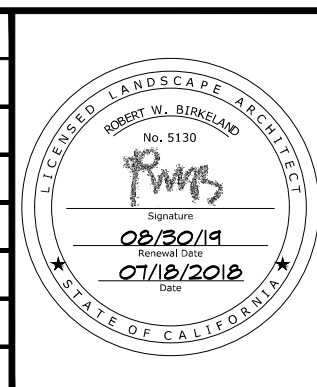
CONTRACTOR TO REMOVE AND REPLACE DAMAGED PLANTS FOLLOWING DEMOLITION AND CONSTRUCTION OF NEW CURB. PHOTOGRAPH AND DOCUMENT EXISTING PLANTS PRIOR TO REMOVAL. LANDSCAPE ARCHITECT TO PROVIDE PLANTING PLAN FOLLOWING INSTALLATION OF NEW CURB.

CONTRACTOR TO FIELD FIT EXISTING IRRIGATION - SEE DEMO PLAN.

PROTECT EXISTING STREET TREES

DRAWING NAME: L:\BKF-03.0\07_Cad\pw_bkf-03.0\l-1,2,3,4,5,6,7-PLANTING-DT-REF.dwg
 PLOTTED BY: SKoehler

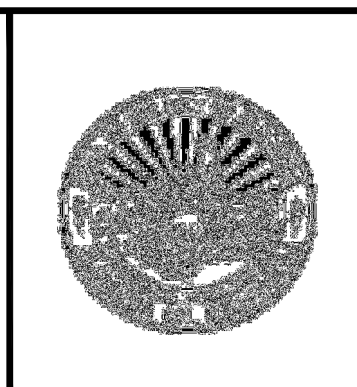
No.	Date	Revisions



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Date 07/18/2018 Scale 1" = 20' Job No. 20145190
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PLACEWORKS



**CROSS ALAMEDA TRAIL
 MAIN STREET TO WEBSTER STREET
 Webster Planting Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
L-7

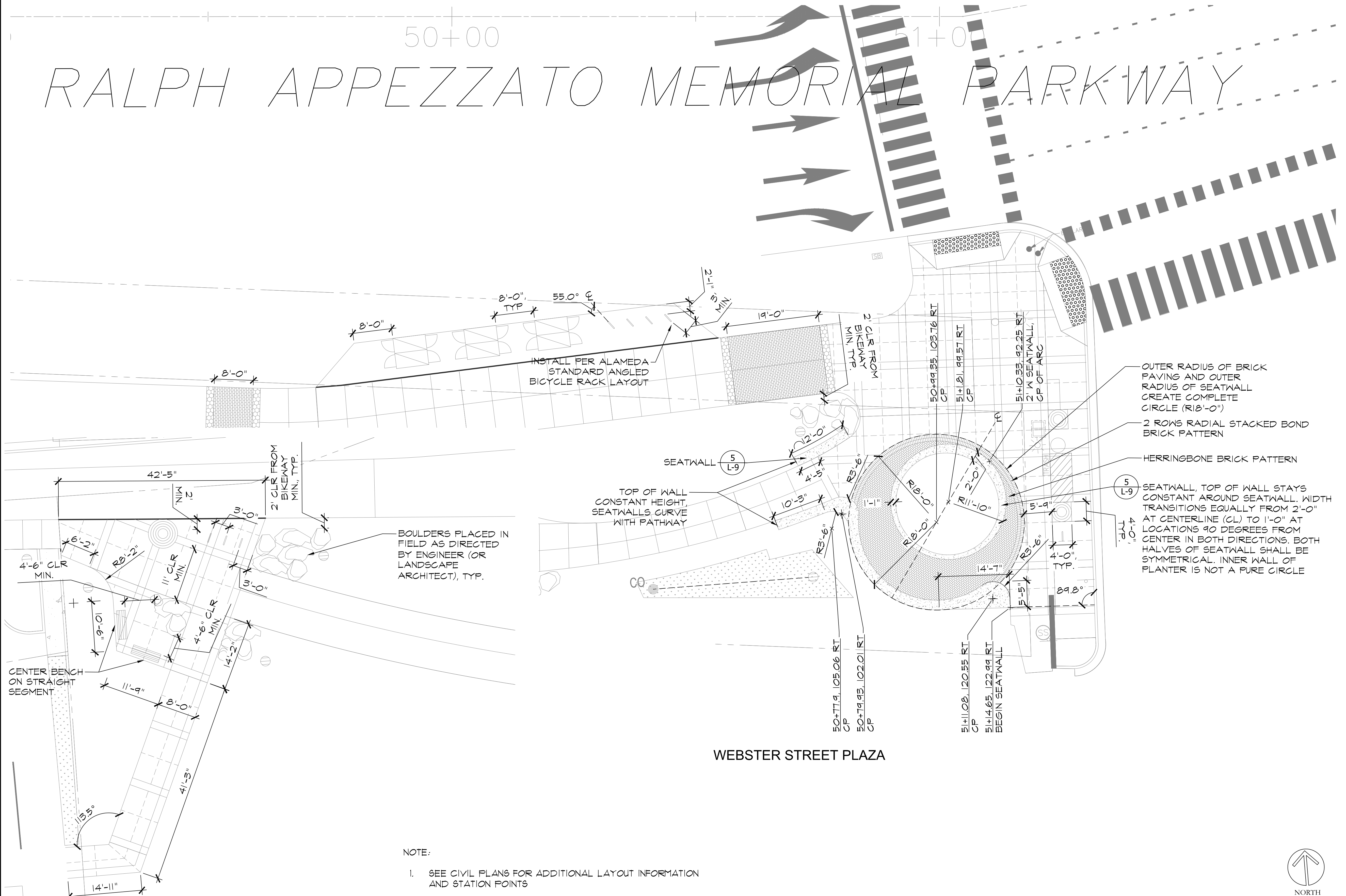


NORTH

RALPH APPEZZATO MEMORIAL PARKWAY

50+00

51+00



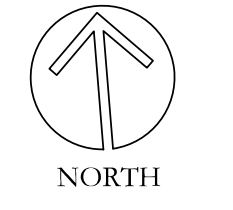
INSTALL PER ALAMEDA STANDARD ANGLED BICYCLE RACK LAYOUT

BOULDERS PLACED IN FIELD AS DIRECTED BY ENGINEER (OR LANDSCAPE ARCHITECT), TYP.

TOP OF WALL CONSTANT HEIGHT, SEATWALLS CURVE WITH PATHWAY

- OUTER RADIUS OF BRICK PAVING AND OUTER RADIUS OF SEATWALL CREATE COMPLETE CIRCLE (R18'-0")
- 2 ROWS RADIAL STACKED BOND BRICK PATTERN
- HERRINGBONE BRICK PATTERN
- SEATWALL, TOP OF WALL STAYS CONSTANT AROUND SEATWALL. WIDTH TRANSITIONS EQUALLY FROM 2'-0" AT CENTERLINE (CL) TO 1'-0" AT LOCATIONS 90 DEGREES FROM CENTER IN BOTH DIRECTIONS. BOTH HALVES OF SEATWALL SHALL BE SYMMETRICAL. INNER WALL OF PLANTER IS NOT A PURE CIRCLE

NOTE:
1. SEE CIVIL PLANS FOR ADDITIONAL LAYOUT INFORMATION AND STATION POINTS



DRAWING NAME: L:\BKF-03.0\07_Cad\PW_BKF-03.0\1-7-LAYOUT.dwg
PLOT DATE: 07-18-18
PLOTTED BY: SKoehler

No.	Date	Revisions

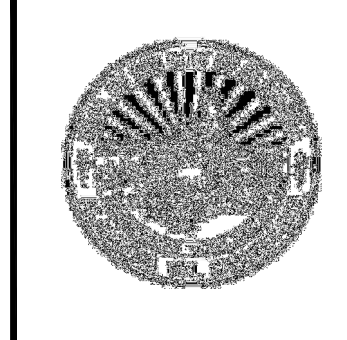


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Date 07/18/2018 Scale 1" = 10' Job No. 20145190
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PLACEWORKS

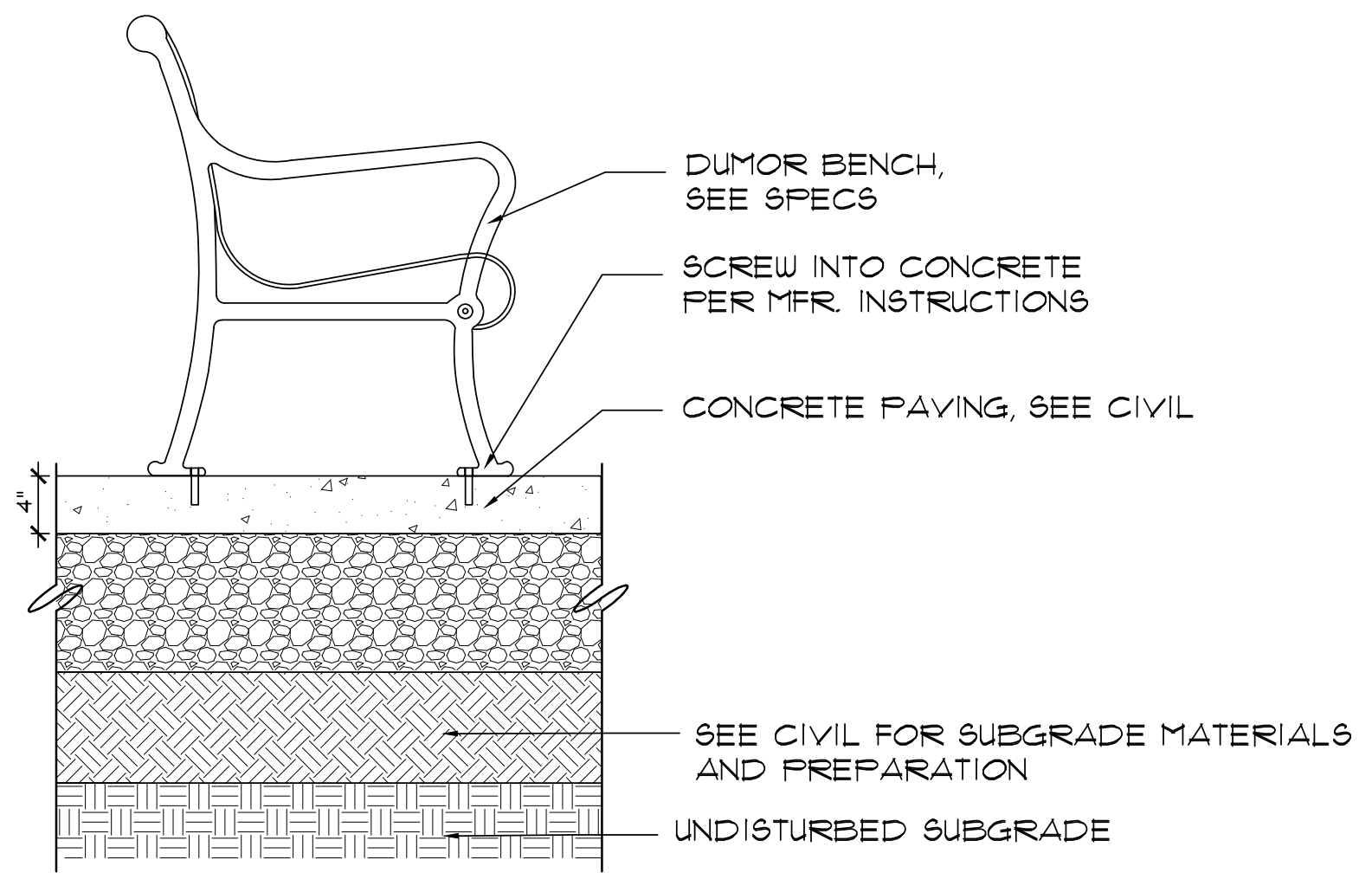
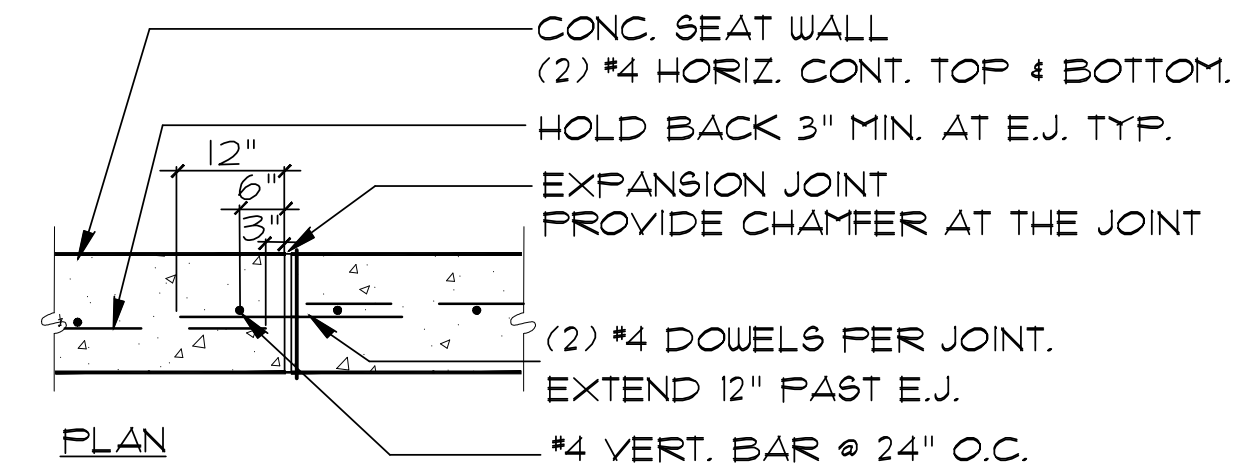


**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET
Main St. and Webster Layout Plan**

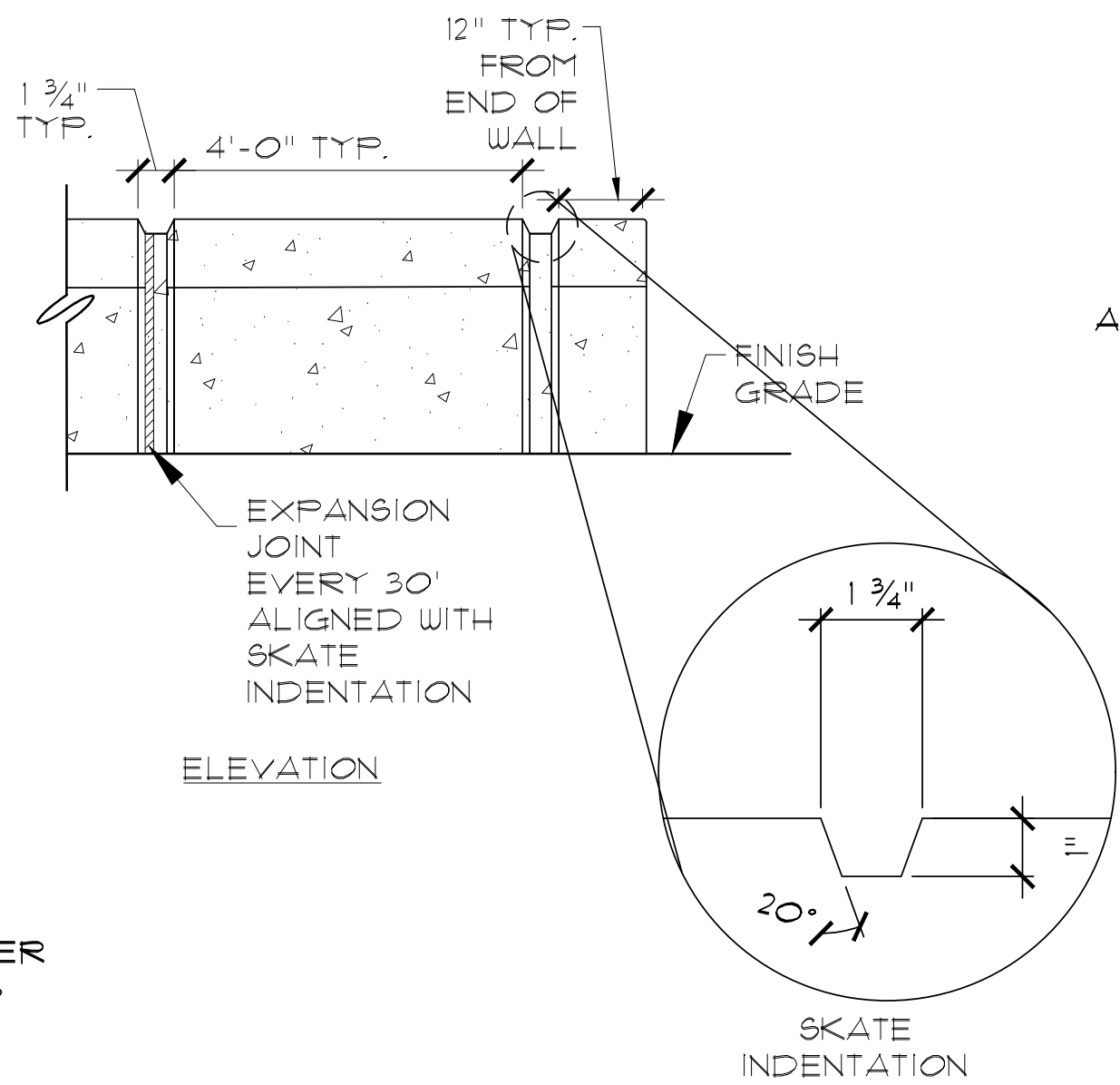
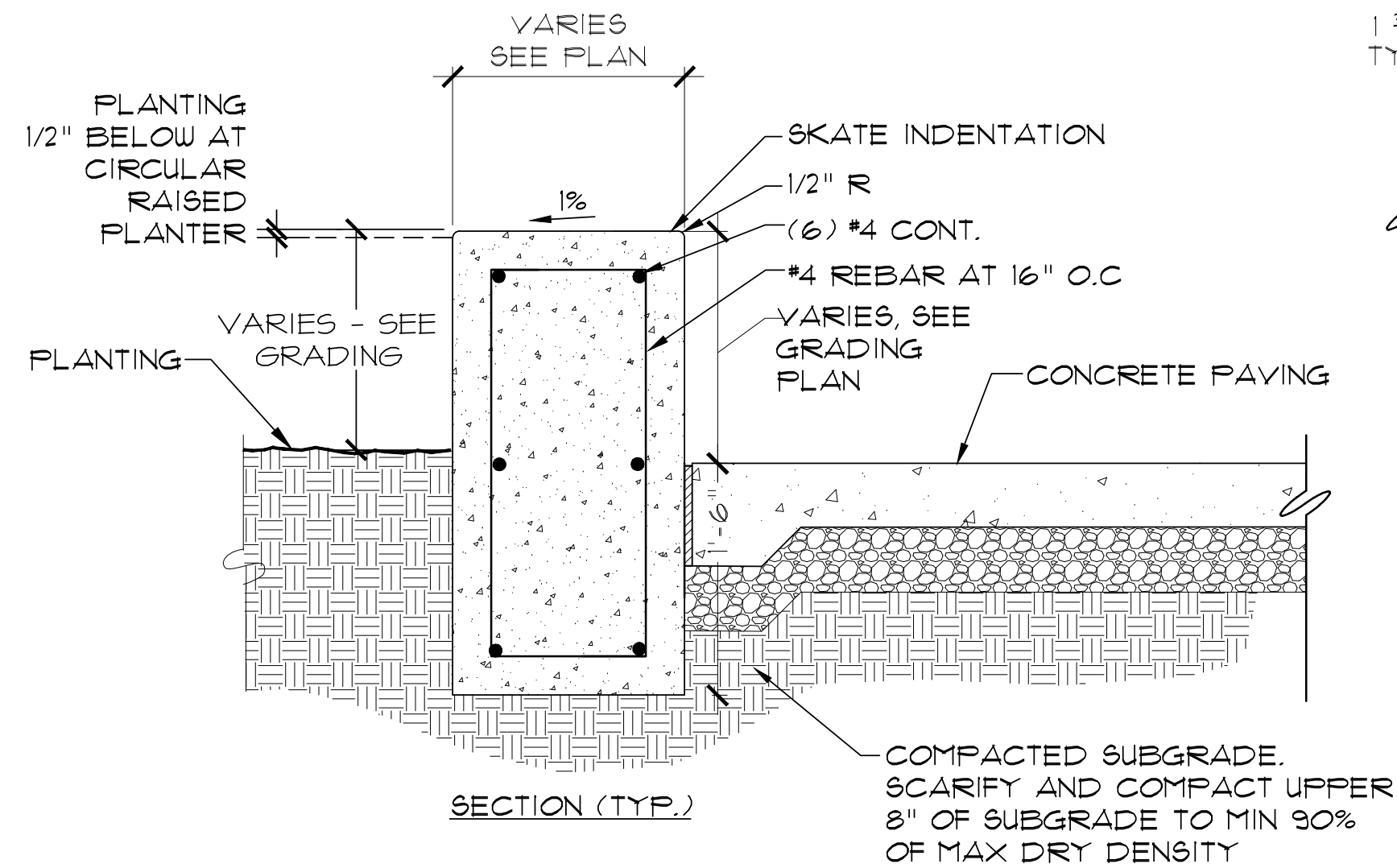
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
L-8

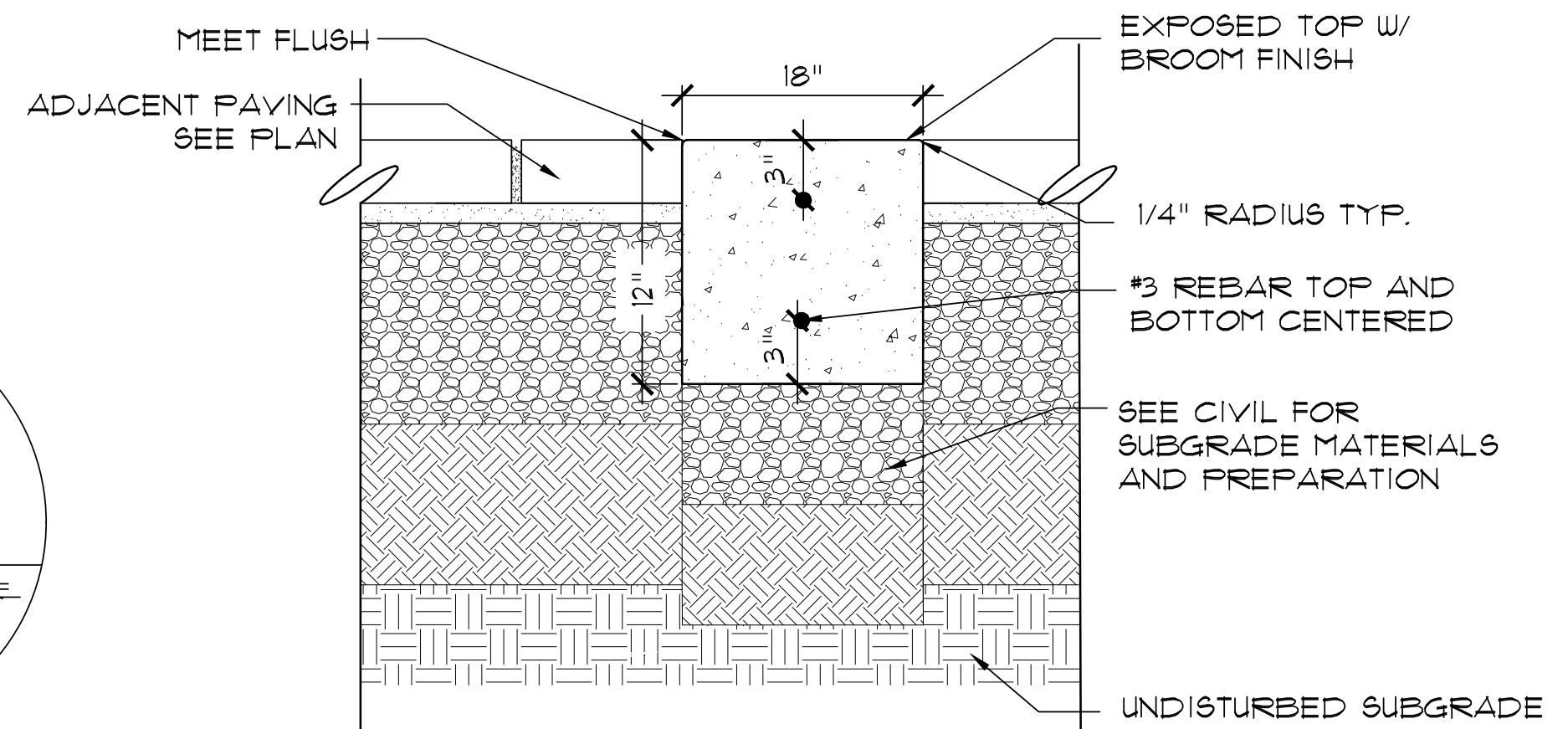
- NOTES ALL EXPOSED SEATWALL SURFACES TO HAVE LIGHT SANDBLAST FINISH & ANTI-GRAFFITI COATING. SEE SPECS.
- SKATE INDENTATION SPACED 1'-0" FROM ENDS OF SEATWALL AND SPACED EQUALLY IN BETWEEN APPROX. 4' O.C. ON ALL EXPOSED SURFACES. GROOVES TO EXTEND ON FRONT, TOP AND BACK OF WALL



1 BENCH
SCALE: 1" = 1'-0"



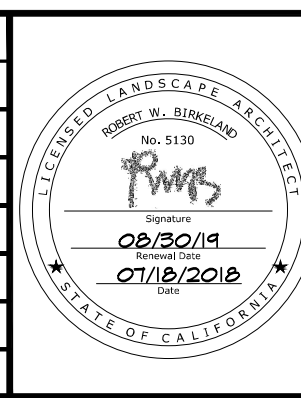
3 CONCRETE SEAT WALL
SCALE: 1" = 1'-0"



2 CONCRETE BAND
SCALE: 1 1/2" = 1'-0"

DRAWING NAME: L:\BKF-03.0\07_Cad\PW_BKF-03.0\L-10-DETAILS.dwg
PLOT DATE: 07-18-18 PLOTTED BY: SKoehler

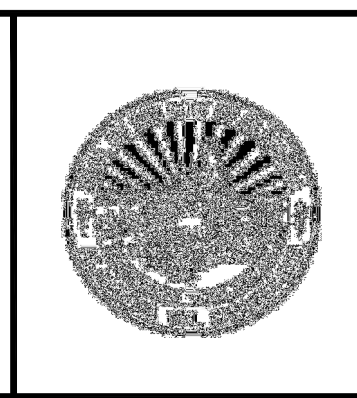
No.	Date	Revisions



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Date	07/18/2018	Scale	VARIES	Job No.	20145190
Design	100% PSE	Drawn	SK, JMJ	Approved	RB



**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET**

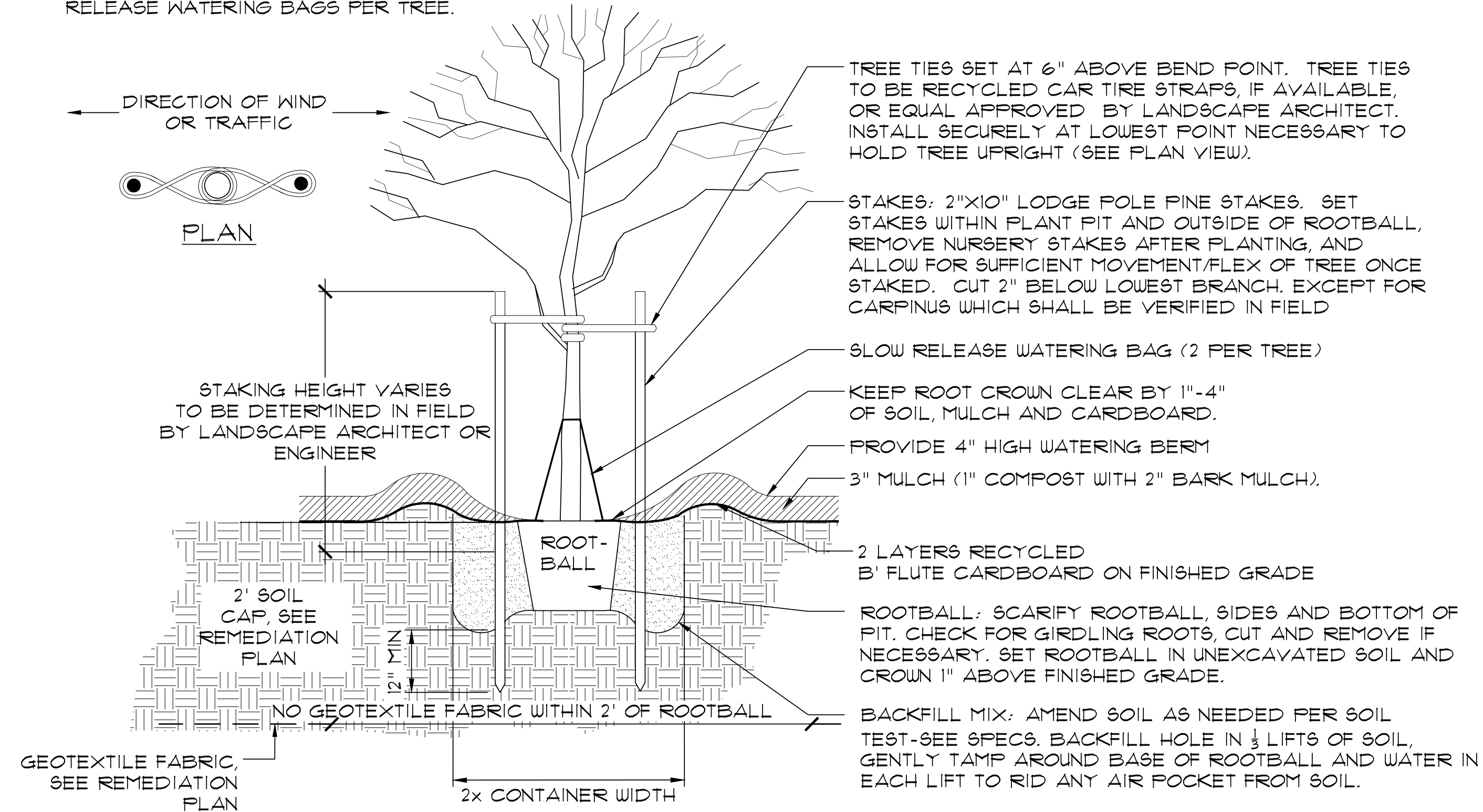
Landscape Details

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

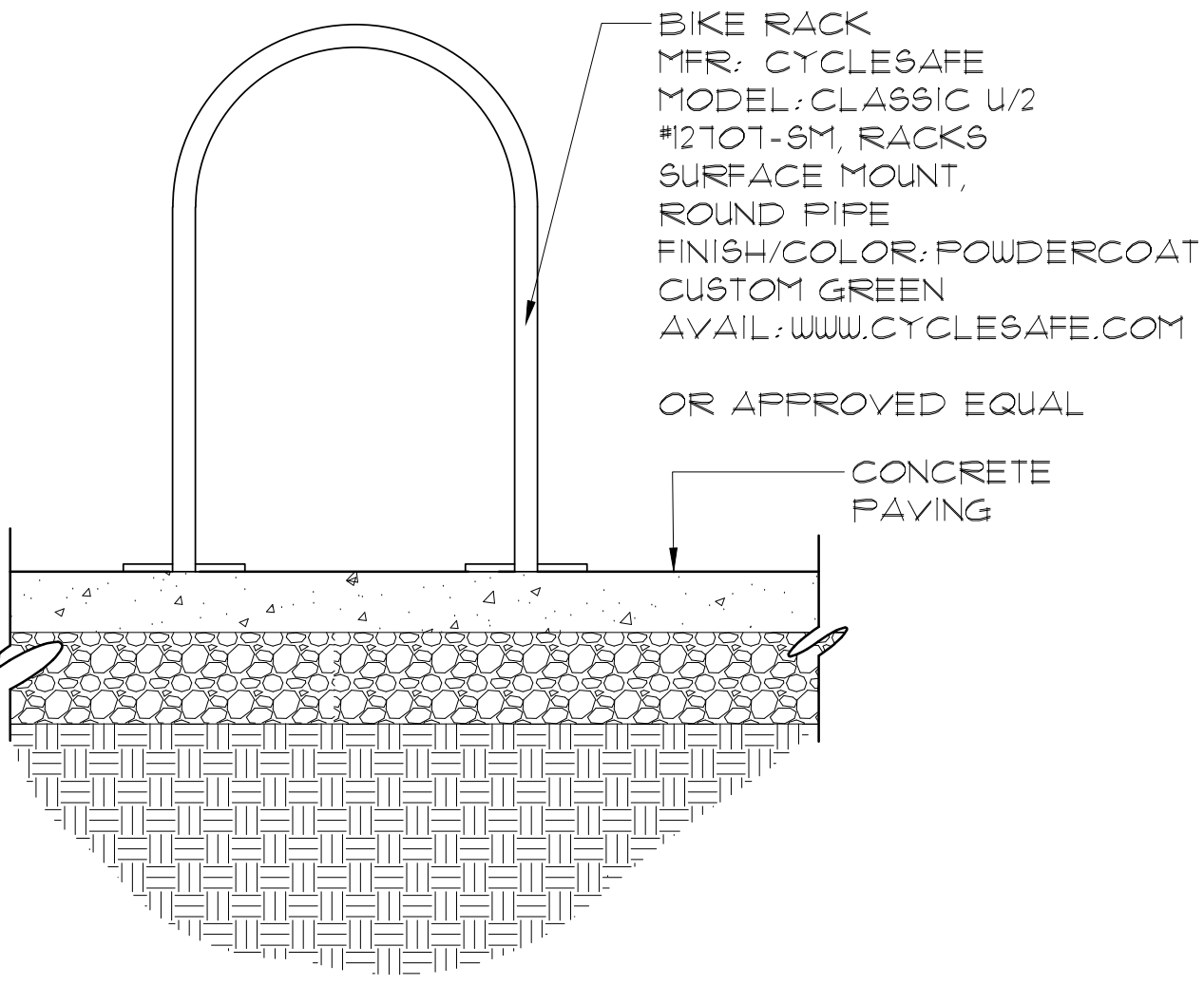
Sheet Number:
L-9

NOTES:

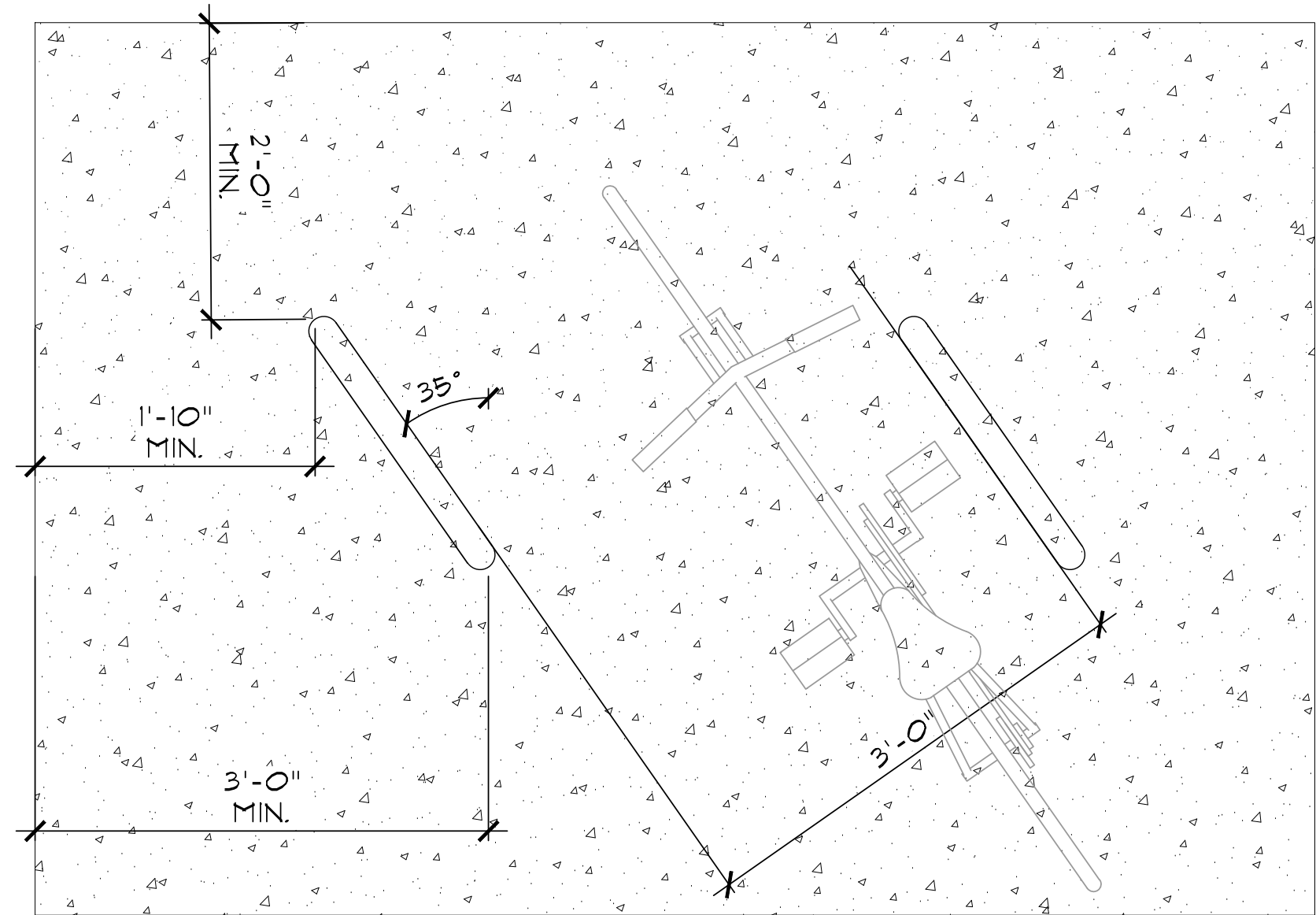
- 1) PLACE TREE IN PLANTING HOLE GIVING THE BEST "FACE" TO VIEWING ANGLE. STRAIGHTEN THE TREE IN THE HOLE.
- 2) RETAIN LOWER LATERAL BRANCHES ALONG TRUNK.
- 3) SET BACKFILL MIX TO MIN 80% COMPACTION.
- 4) SEE PLANTING SPECS FOR ADDITIONAL INFORMATION
- 5) TREES WITHOUT IRRIGATION TO BE INSTALLED WITH TWO SLOW RELEASE WATERING BAGS PER TREE.



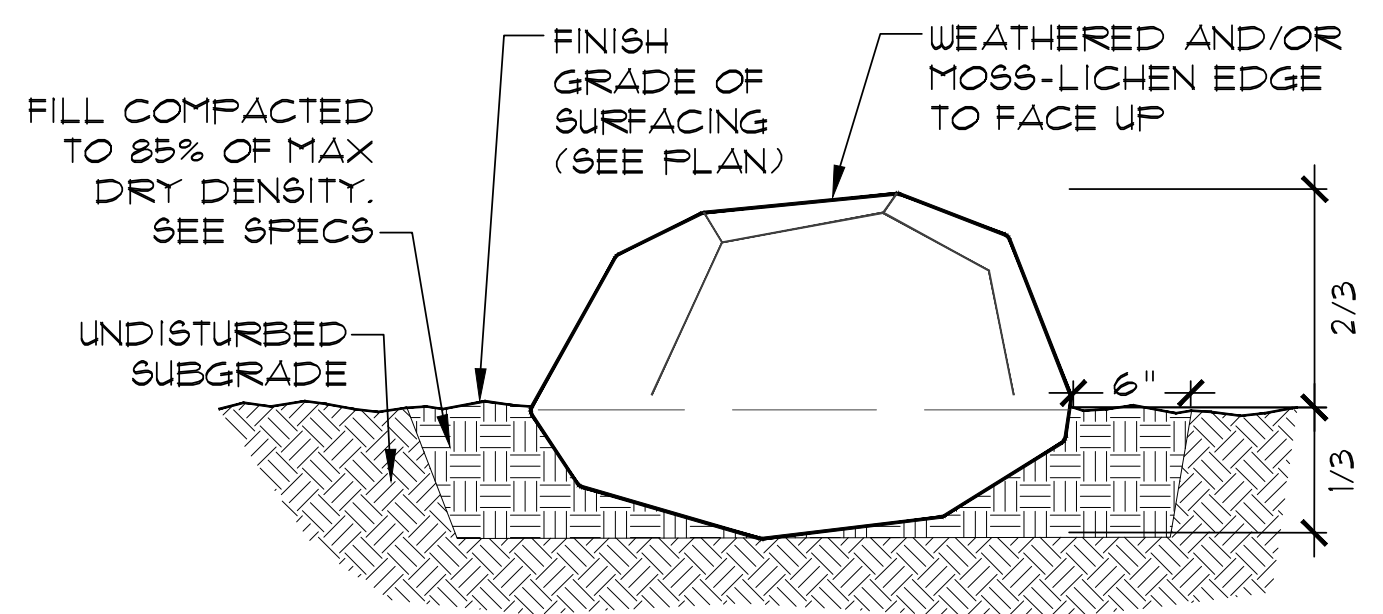
4 TREE PLANTING AND STAKING
SCALE: NTS



5 BIKE RACK
SCALE: 1" = 1'-0"

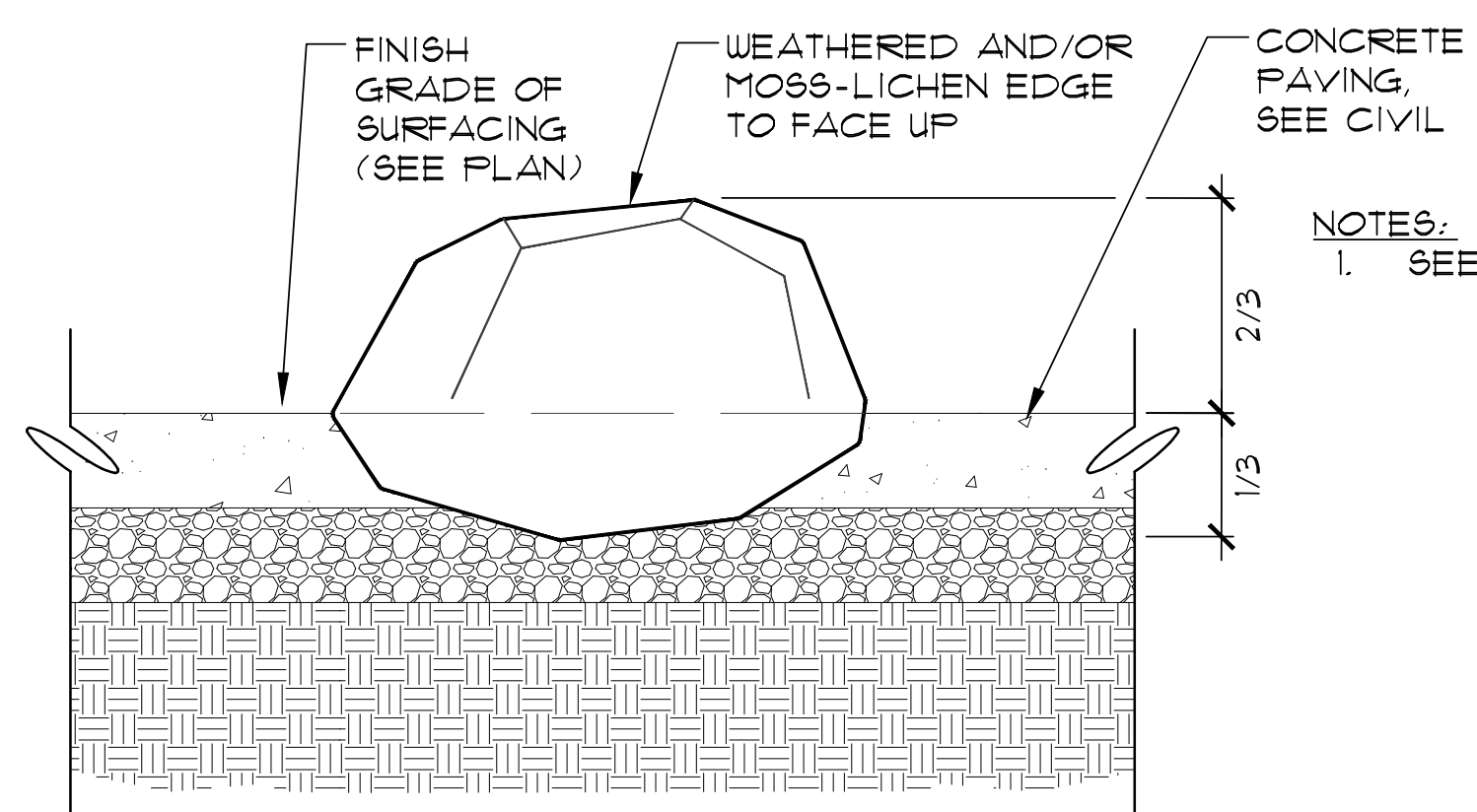


ALAMEDA STANDARD ANGLED BICYCLE RACK LAYOUT - SEE DETAIL REFERENCE SHEET FOR NUMBER OF RACKS



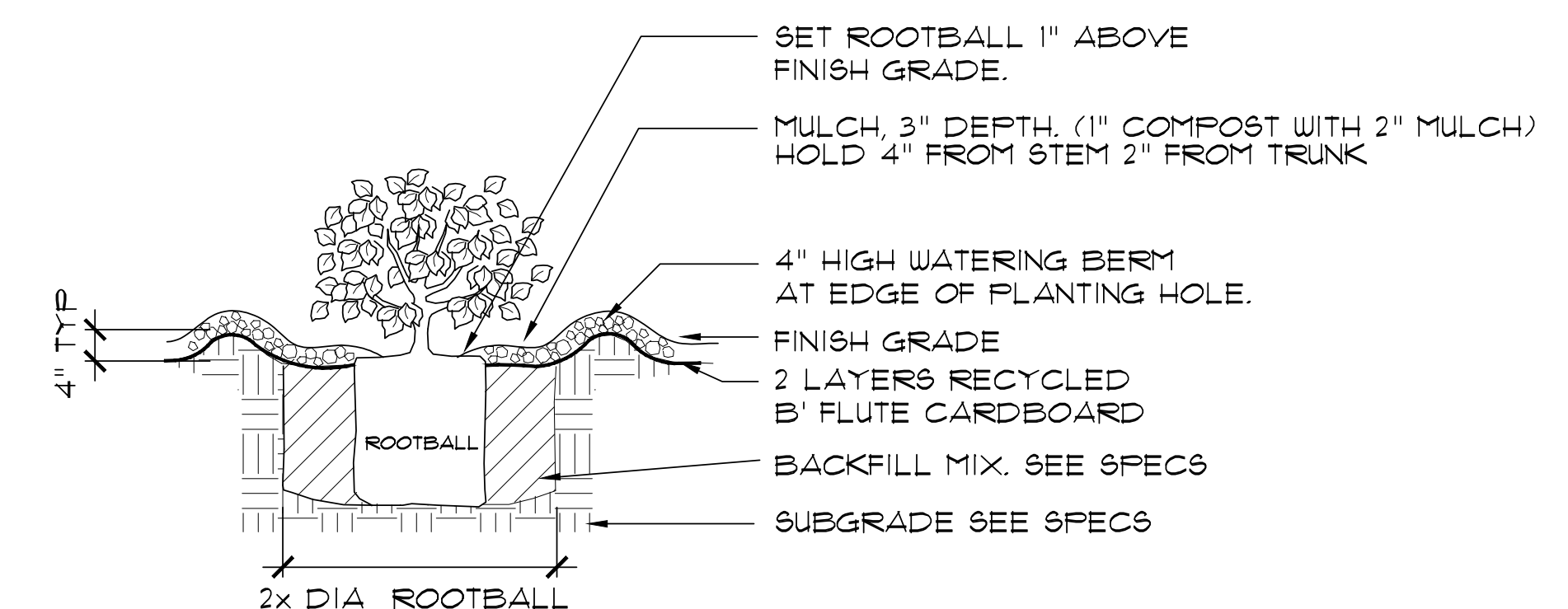
1 BOULDER INSTALLATION
SCALE: 1" = 1'-0"

- NOTES:**
1. ALL BOULDERS TO BE NAPA OR SONOMA FIELDSTONE FREE OF SHARP CORNERS, OPEN CRACKS, OR HOLES. LANDSCAPE ARCHITECT OR ENGINEER TO PRE-APPROVE SIZE AND OVERALL SPECIFICATIONS AT THE QUARRY. CONTRACTOR TO SET BOULDERS IN PLACE.
 2. CONTRACTOR TO MOCK-UP PLACEMENT IN FIELD FOR LANDSCAPE ARCHITECT OR ENGINEER TO REVIEW AND APPROVE
 3. BOULDERS TO HAVE THE FOLLOWING DIMENSIONS AND QUANTITY:
(22) SMALL 1.5-2.5' DIAMETER 18" HEIGHT
(26) MEDIUM 2-3' DIAMETER 21" HEIGHT
(15) LARGE 3-4' DIAMETER, 3' HEIGHT



2 BOULDER IN CONCRETE
SCALE: 1" = 1'-0"

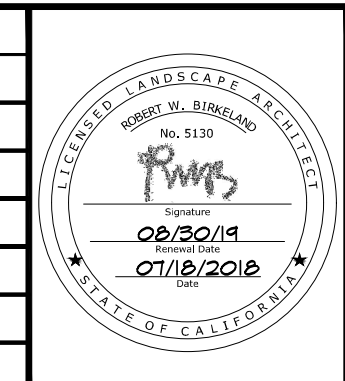
- NOTES:**
1. SEE NOTES FOR BOULDER INSTALLATION.



3 SHRUB PLANTING
SCALE: NTS

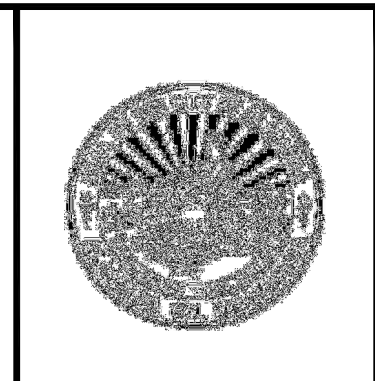
DRAWING NAME: L:\BKF-03.0\07_Cad\PW_BKF-03.0\1-11-DETAILS.dwg PLOT DATE: 07-18-18 PLOTTED BY: SKoehler

No.	Date	Revisions



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Date 07/18/2018 Scale 1" = 10' Job No. 20145190
Design 100% PSE Drawn SK, JMJ Approved RB

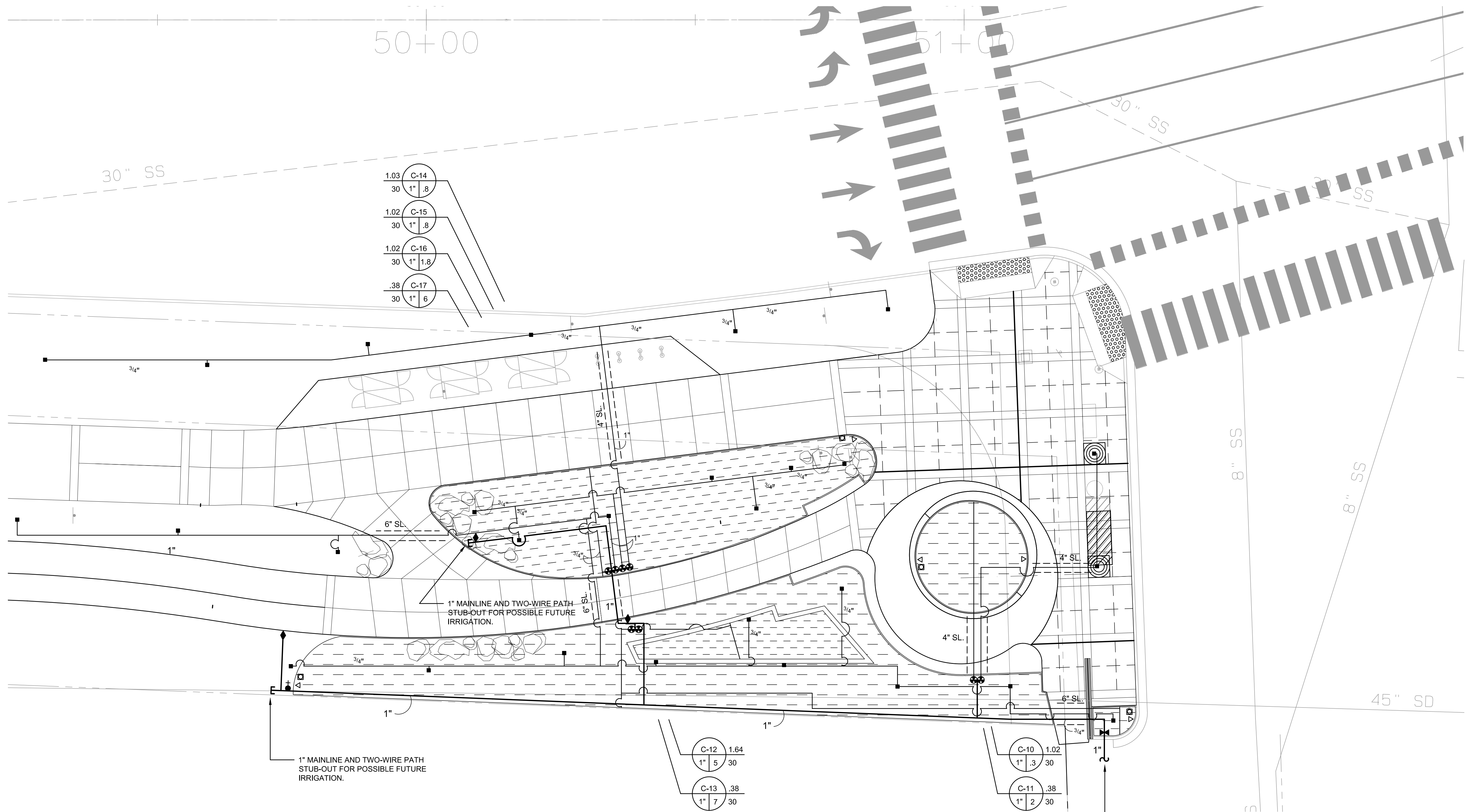


**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET**

Landscape Details

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

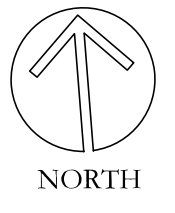
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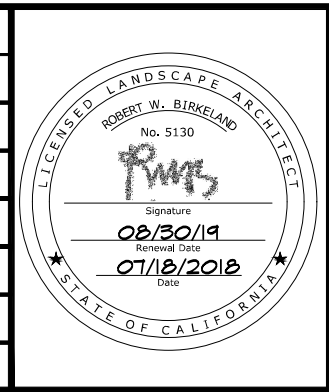
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PLOT DATE: 06-14-18 PLOTTED BY: janet

BROOKWATER
IRRIGATION CONSULTANTS
480 ST. JOHN STREET, SUITE 220
PLEASANTON, CALIFORNIA 94566
TEL 925.855.0417 FAX 925.855.0357
E-MAIL JANET@BROOKWATER.COM

REFER TO LINE 51 IMPROVEMENT PLANS FOR CONTINUATION OF MAINLINE AND FOR POINT OF CONNECTION. CHANGE CONTROLLER FROM PREVIOUSLY SPECIFIED CONTROLLER ON LINE 51 PLANS TO NEW CONTROLLER SPECIFIED IN THESE PLANS.



No.	Date	Revisions

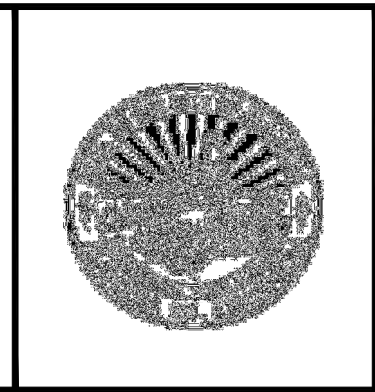


BKF 1646 N. CALIFORNIA BLVD
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PLACEWORKS

Date 07/18/2018 Scale 1" = 10' Job No. 20145190
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PLACEWORKS



**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET
Webster Irrigation Plan**

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
IR-1

IRRIGATION NOTES

- THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.
- DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY. FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
- REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.
- SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
- WIRE CONNECTORS SHALL BE 3M-DBR/Y-6 DIRECT BURY UNLESS OTHERWISE NOTED.
- INSTALL TWO (2) SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE OR ONE (1) SPARE WIRE FOR EVERY TWO (2) VALVE BOX LOCATIONS. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
- INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.
- INSTALL 1/2 INCH GALVANIZED MESH GOPHER WIRE ABOVE PEA GRAVEL AND BELOW AND ENCIRCLING EACH VALVE BOX. LINE WITH FILTER FABRIC.
- PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
- INSTALL KING BROS. CV SERIES CHECK VALVES IN LATERAL LINES FOR EVERY 10' OF ELEVATION CHANGE.
- ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION BUBBLERS AND DRIP TUBING. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
- NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS/HER INSTRUCTIONS ARE OBTAINED.
- LOCATE BUBBLERS ON UPHILL SIDE OF TREES. TREE BUBBLERS ARE FOR ESTABLISHMENT AND DROUGHT CONDITIONS. THEY ARE TO BE TURNED OFF AFTER TREES ARE ESTABLISHED AND TURNED ON DURING DROUGHT CONDITIONS.
- IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
- ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK.
- CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
- WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. EXCAVATION IN AREAS WHERE 2 INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN A PLASTIC BAG AND SECURED WITH A RUBBER BAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN 24 HOURS; WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.
- IRRIGATION DEMAND: REFER TO IRRIGATION POINTS OF CONNECTION.
- OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.
- NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
- A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
- A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
- AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

DRIPLINE NOTES:

- PLANS ARE DIAGRAMMATIC. INSTALL DRIPLINE AND COMPONENTS PER MANUFACTURERS INSTRUCTIONS AND INSTALLATION DETAILS.
- INSTALL DRIPLINE A MAXIMUM OF 18" APART (12" IN BIORETENTION AREAS) WITH EMITTERS TRIANGULARLY SPACED. INSTALL 2" FROM PERIMETER OF PLANTED AREA. THERE SHOULD BE A MINIMUM OF TWO DRIPLINE LATERALS IN EACH PLANTED AREA. DRIPLINE SHALL BE INSTALLED AT A CONSISTANT DEPTH THROUGHOUT THE CIRCUIT.
- PLACE AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINTS OF EACH ZONE AND JUST BELOW CHECK VALVES ON SLOPES. INSTALL ONE AIR/VACUUM RELIEF VALVE FOR EVERY 1,125' OF TOTAL DRIPLINE PER ZONE.
- PLACE FLUSH VALVES AT THE HYDRAULIC CENTER OF THE EXHAUST HEADER OR AT LOW POINT ON SLOPES.
- INSTALL IN-LINE CHECK VALVES ON SLOPES GREATER THAN 3% AND WHERE LOW-LINE DRAINAGE COULD CAUSE WET AREAS IN THE LOWEST AREAS OF AN IRRIGATION ZONE. CHECK VALVES SHALL BE PLACED EVERY 4-5 FEET BETWEEN DRIPLINE LATERALS AND BEFORE THE FLUSH VALVE.
- ON ALL SLOPES AND MOUNDS, PLACE THE DRIPLINE LATERALS PARALLEL TO THE SLOPE CONTOUR WHERE POSSIBLE. INCREASE THE LATERAL SPACING BY 25% ON THE LOWER ONE-THIRD OF THE SLOPE TO AVOID EXCESS DRAINAGE.
- PVC SUPPLY AND FLUSH LINE SIZING GUIDE (ALL SUPPLY AND FLUSH LINES SHALL BE THE SAME SIZE FOR THE ENTIRE ZONE):
 - 0-8 GPM – 3/4"
 - 8.1-15 GPM – 1"
 - 15.1-25 GPM – 1 1/4"
- FITTINGS SHALL BE OF THE SAME MANUFACTURER AS DRIPLINE.
- THOROUGHLY FLUSH EACH INSTALLATION SEGMENT TO ENSURE NO DEBRIS CONTAMINATION OCCURS.
- IN TURF OR NOW-MOW GRASS AREAS, A TEMPORARY OVERHEAD SPRAY SYSTEM WILL NEED TO BE PROVIDED UNTIL THE TURF SEED OR SOD IS ESTABLISHED. OVERHEAD WATERING CAN BE DISCONTINUED WHEN EDGES OF THE SOD CANNOT BE PULLED UP. RUN THE DRIPLINE SYSTEM SEVERAL TIMES DAILY IN ADDITION TO THE TEMPORARY OVERHEAD SYSTEM.
- RUN THE DRIPLINE SYSTEM EVERY DAY OR EVERY OTHER DAY TO ESTABLISH PLANT MATERIAL. MAINTAIN A CONSISTENT MOISTURE BALANCE IN THE SOIL. IT IS IMPORTANT TO KEEP THE SOIL MOIST WITHOUT SATURATION.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	FLOW RATE
■	TORO LF40-PC HUNTER HEB-40 RAIN BIRD PCT-05	PRESSURE COMPENSATING DRIP BUBBLER - TREES TORO, HUNTER, OR RAIN BIRD INSTALL TWO BUBBLERS PER TREE	30	4 GPH
⊕	IRRITROL 700-1-OMR-30 / T-ALFS10150-S HUNTER ICV-101G-AS-ADJ / HY-100 RAIN BIRD 100-PEB-PRS-D / RBY100MPTX	REMOTE CONTROL VALVE WITH PRESSURE REGULATING MODULE AND WYE FILTER IRRITROL, HUNTER, OR RAIN BIRD		
◆	100-2SLVLC / 100-SLK / 075-MHS HQ-33DLRC / HK-33 / HS-0 33DNP / 33-DK / SH-0	EACH VALVE SHALL HAVE A RAINMASTER TW-D-1 VALVE DECODER		
▶	T-113K 513T08X IB645	QUICK COUPLING VALVE, VALVE KEY, AND HOSE SWIVEL TORO, HUNTER, OR RAIN BIRD		
●+	261	GATE VALVE - 2" AND SMALLER (LINE SIZE) NIBCO, MATCO, OR HAMMOND		
△	T-FCH-H-FIPT	ARROWHEAD HOSE BIB WITH INTEGRAL VACUUM BREAKER		
⊠	T-DL-MP9	TORO DL2000 FLUSH VALVE		
NOT SHOWN	T-YD-500-34	TORO DL2000 POP-UP OPERATION INDICATOR		
⊙	EGP-TWI-SPED PMR-KIT RS1000	TORO DL2000 AIR VENT		
		RAINMASTER EAGLE PLUS 2-WIRE CONTROLLER WITH ICARD AND STAINLESS STEEL PEDESTAL RAINMASTER MAINTENANCE REMOTE IRRITROL WIRELESS RAIN SENSOR - MOUNT ON LIGHT POLE WITHIN 500' OF THE CONTROLLER		
		CONTROLLER AND STATION NUMBER		
		APPLICATION RATE (INCHES)		
		OPERATING PRESSURE (PSI) OR AIR RELIEF VALVE QUANTITY		
		APPROXIMATE GALLONS PER MINUTE		
		REMOTE CONTROL VALVE SIZE		
		MAIN LINE: 1120-SCHEDULE 40 PURPLE PVC SOLVENT WELD PLASTIC PIPE WITH SCHEDULE 80 AND SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 24" COVER.		
		LATERAL LINE: 1120-SCHEDULE 40 PURPLE PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.		
		SLEEVE (SL): 1120-SCHEDULE 40 PURPLE PVC 6" Ø PLASTIC PIPE. 24" COVER.		
		SUB-SURFACE DRIPLINE: TORO DL2000 RGP-218-10-E PURPLE DRIPLINE WITH ROOT GUARD. USE ONLY DL2000 DRIPLINE LOC-EZE FITTINGS. 4" COVER. (18" EMITTER SPACING; .53 GPH PER EMITTER)		
		SUB-SURFACE DRIPLINE (FOR BIORETENTION): TORO DL2000 RGP-412-10-E PURPLE DRIPLINE WITH ROOT GUARD. USE ONLY DL2000 DRIPLINE LOC-EZE FITTINGS. 4" COVER. (12" EMITTER SPACING; 1.0 GPH PER EMITTER)		

CITY OF ALAMEDA
LANDSCAPE WATER USE STATEMENT

PROJECT NAME: CROSS ALAMEDA TRAIL
PROJECT ADDRESS: MAIN STREET TO WEBSTER STREET ALAMEDA CA.

PREPARED BY: JANET LUEHRS (CID, CLIA #43274)
BROOKWATER INC., IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CA 94596
925-855-0417
925-855-0357 (FAX)
Janet@Brookwater.com (e-mail)

"I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."

Signed: *Janet Luehrs*

PART ONE		MAXIMUM APPLIED WATER ALLOWANCE (MAWA)
		MAWA = Eto x .62 x [(ETAFx HA) + ((1-ETAF) x SLA)]
YEARLY Eto	41.8	
CONVERSION FACTOR	0.62	
ETAF	0.45	
TOTAL IRRIGATED LANDSCAPE AREA (HA)	3,998 SQUARE FEET	
SPECIAL LANDSCAPE AREA (SLA)	0 SQUARE FEET	
LANDSCAPE WATER ALLOWANCE	46,625 GALLONS PER YEAR	
TOTAL ACRE FEET	0.14 ACRE FEET	
PART TWO		ESTIMATED TOTAL WATER USE (ETWU)
		(AVERAGE ETAF AND ETWU FROM WATER EFFICIENT LANDSCAPE WORKSHEET)
AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS (TOTAL ETAF x AREA / TOTAL AREA)	0.38	
ETWU FOR REGULAR LANDSCAPE AREAS	39,661 GALLONS PER YEAR	
SITE WIDE ETAF	0.38	
ETWU FOR ALL LANDSCAPE AREAS	39,661 GALLONS PER YEAR	
TOTAL ACRE FEET	0.12 ACRE FEET	

**CROSS ALAMEDA TRAIL
WATER EFFICIENT LANDSCAPE WORKSHEET**

Reference Evapotranspiration (Eto) 41.8

ZONE NO.	PLANT TYPE	HYDROZONE* (PLANT WATER USE)	PLANT FACTOR (PF)	IRRIGATION METHOD**	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	HYDROZONE AREA (HA) (Sq Ft)	ETAF x HA	ESTIMATED TOTAL WATER USE (ETWU)	% LANDSCAPE AREA
REGULAR LANDSCAPE AREA										
C-10	TREE	LW	0.30	B	0.81	0.37	25	9	249	0.6%
C-11	SHRUB	MW	0.50	DL	0.81	0.62	333	206	5,327	8.3%
C-12	BIORETENTION	BR	0.20	DL	0.81	0.25	251	62	1,606	6.3%
C-13	SHRUB	LW	0.30	DL	0.81	0.37	1,773	657	17,018	44.3%
C-14	TREE	MW	0.50	B	0.81	0.62	75	46	1,200	1.9%
C-15	TREE	LW	0.30	B	0.81	0.37	75	28	720	1.9%
C-16	TREE	VLW	0.20	B	0.81	0.25	163	40	1,043	4.1%
C-17	SHRUB	LW	0.30	DL	0.81	0.37	1,303	483	12,507	32.6%
TOTALS (REGULAR LANDSCAPE AREAS)							3,998	1,530	39,661	100.0%
SPECIAL LANDSCAPE AREA										
0							0	0	0	0.0%
TOTALS (SPECIAL LANDSCAPE AREAS)							0	0	0	0.0%
TOTALS FOR ALL AREAS							3,998	1,530	39,661	100%

HYDROZONE SUMMARY

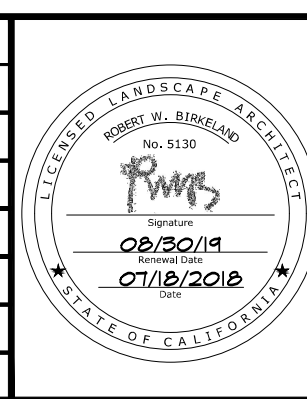
*Hydrozone Description	Total Sq. Ft.	% of Landscape
Cool Season Turf (CST)	0	0.0%
Warm Season Turf (WST)	0	0.0%
High Water Use Plants (HW)	0	0.0%
Bioretention Plants (BR)	251	6.3%
Medium Water Use Plants (MW)	408	10.2%
Low Water Use Plants (LW)	3,176	79.4%
Very Low Water Use Plants (VLW)	163	4.1%
Water Feature	0	0.0%
Special Landscape Area (SLA)	0	0.0%
TOTAL	3,998	100.0%

****Irrigation Method**

**Irrigation Method	Total Sq. Ft.	% of Landscape
Rotor (FC-R, PC-R)	0	0.0%
Multi-Stream Rotator (MR)	0	0.0%
Spray (S)	0	0.0%
Bubbler (B)	338	8.5%
Drip (D)	0	0.0%
In-Line Drip (DL)	3,660	91.5%
Micro Spray (MS)	0	0.0%
Other (O)	0	0.0%

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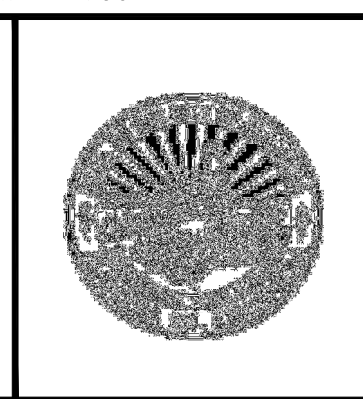
No.	Date	Revisions



BKF 1646 N. CALIFORNIA BLVD SUITE 400 WALNUT CREEK, CA 94596 PHONE 925-940-2200 FAX 925-940-2299

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PLACEWORKS

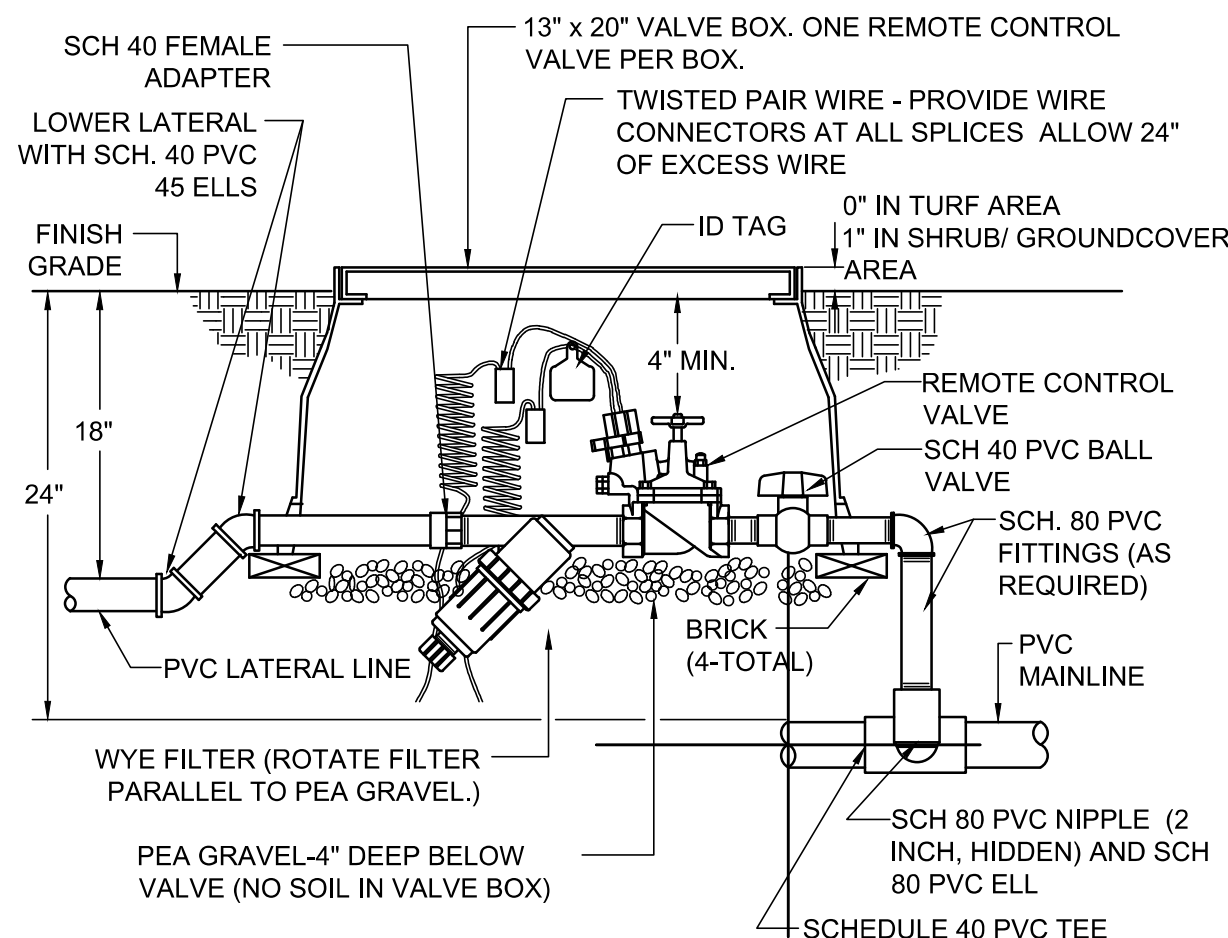


**CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET**

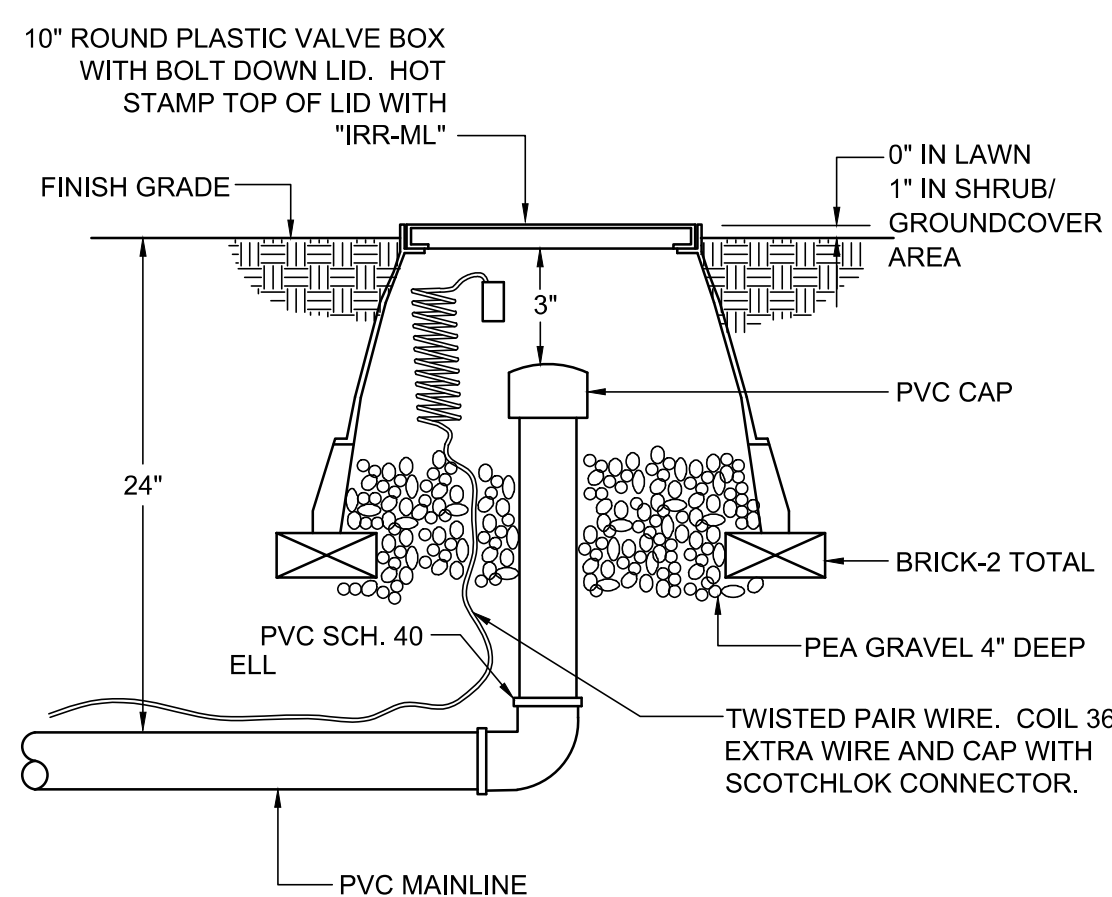
Webster Irrigation Legend and Notes

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

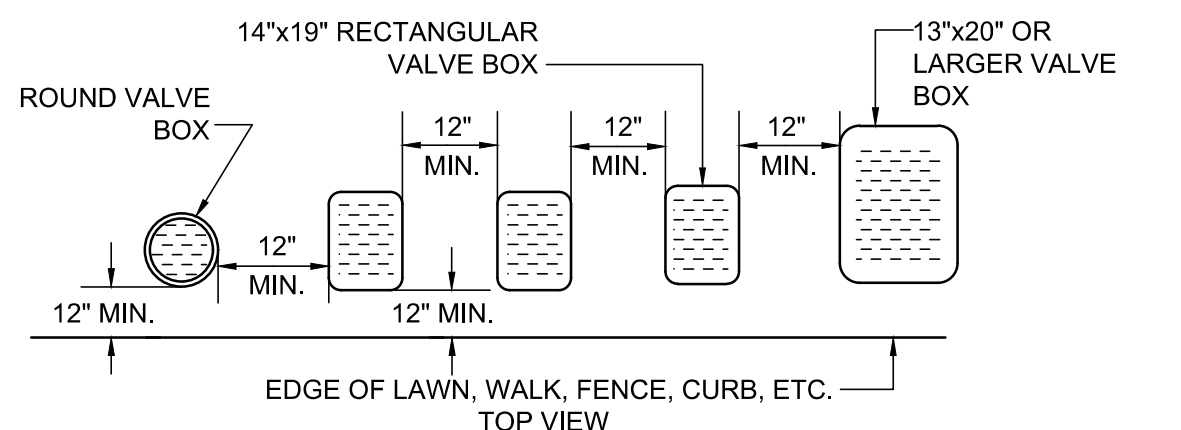
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1 REMOTE CONTROL VALVE/FILTER DETAIL
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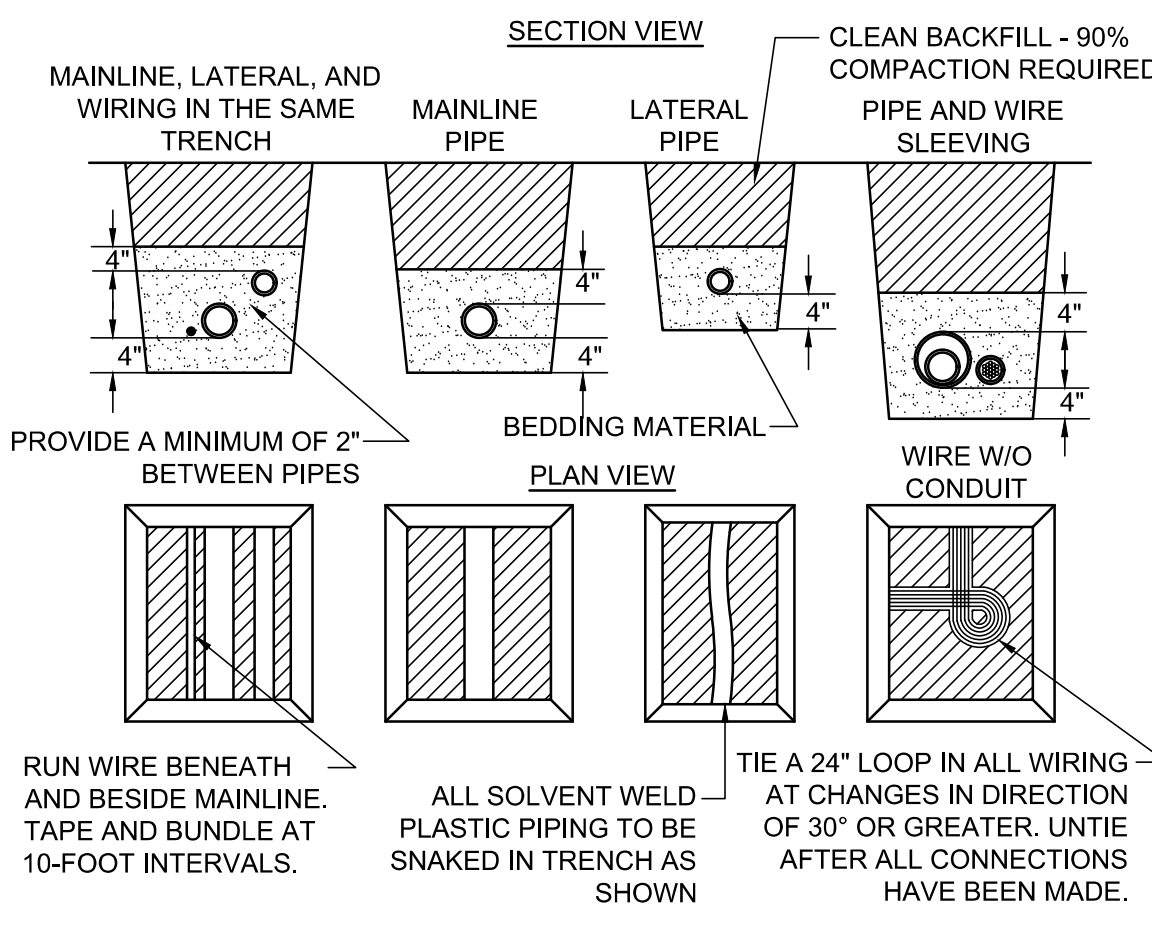


2 MAINLINE CAP DETAIL
NOT TO SCALE



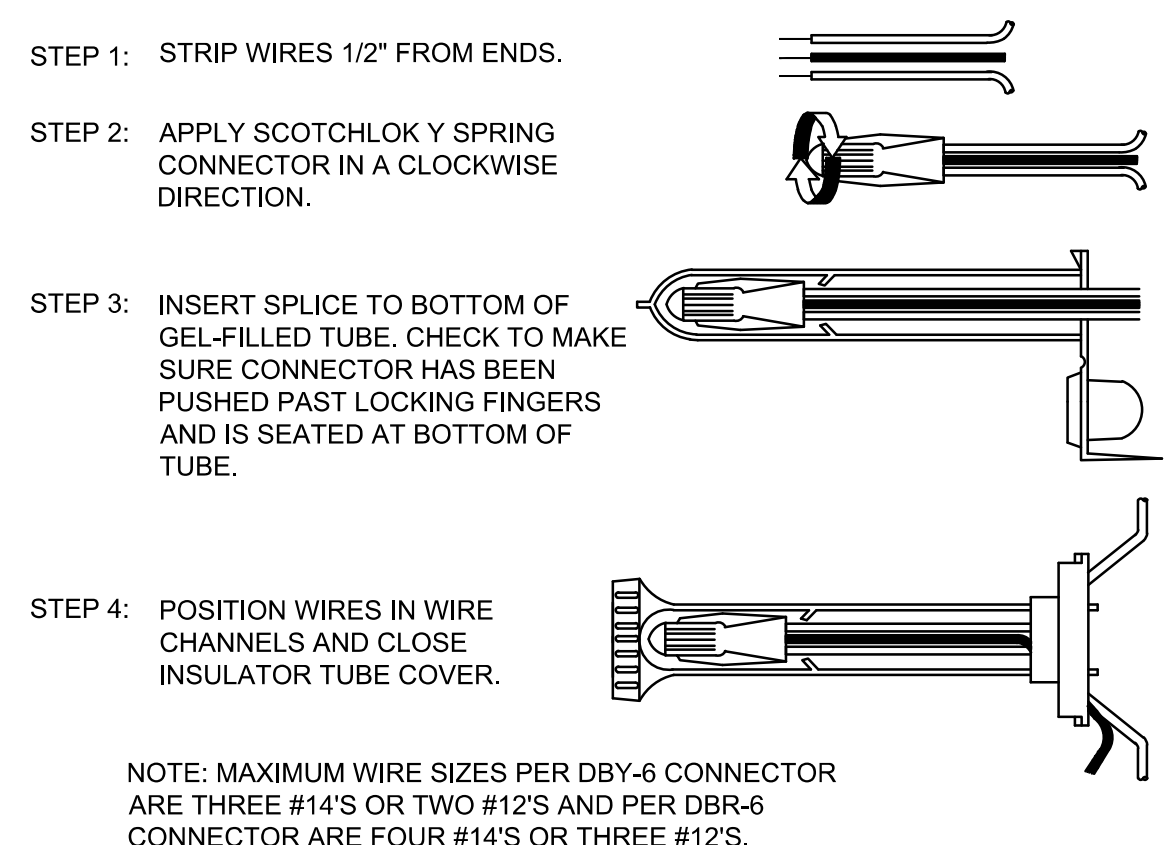
- NOTES:
- CENTER BOX OVER VALVE TO FACILITATE SERVICING VALVE.
 - SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
 - SET VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER/SHRUB AREA DOES NOT EXIST ADJACENT TO LAWN.
 - SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
 - AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
 - VALVE BOXES SHALL HAVE PURPLE BOLT DOWN LIDS WITH BOLTS INSTALLED. INSTALL RECYCLED WATER LABEL ON BOX LID.
 - VALVE BOXES SHALL BE BY CARSON, APPLIED ENGINEERING, OR EQUAL.

3 VALVE BOX INSTALLATION DETAIL
NOT TO SCALE

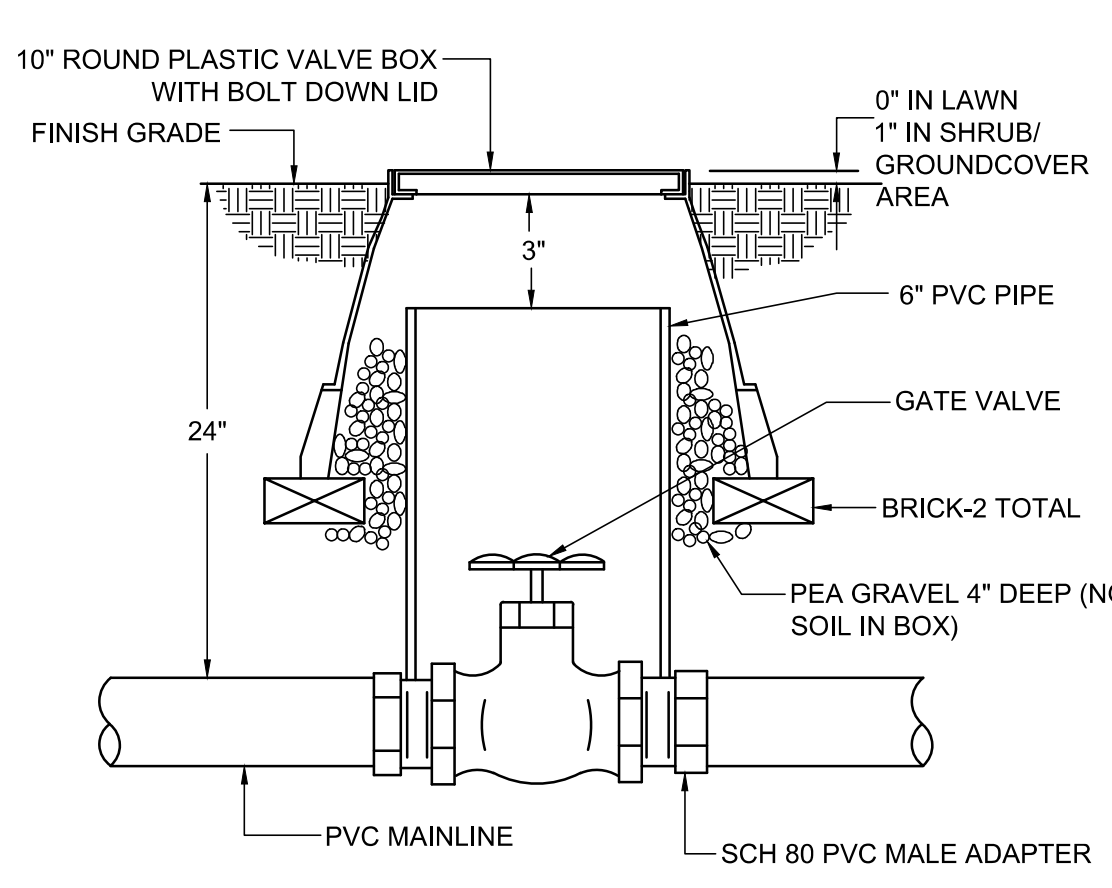


- NOTES:
- SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SPECIFIED PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
 - FOR PIPE AND WIRE BURIAL DEPTHS REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.

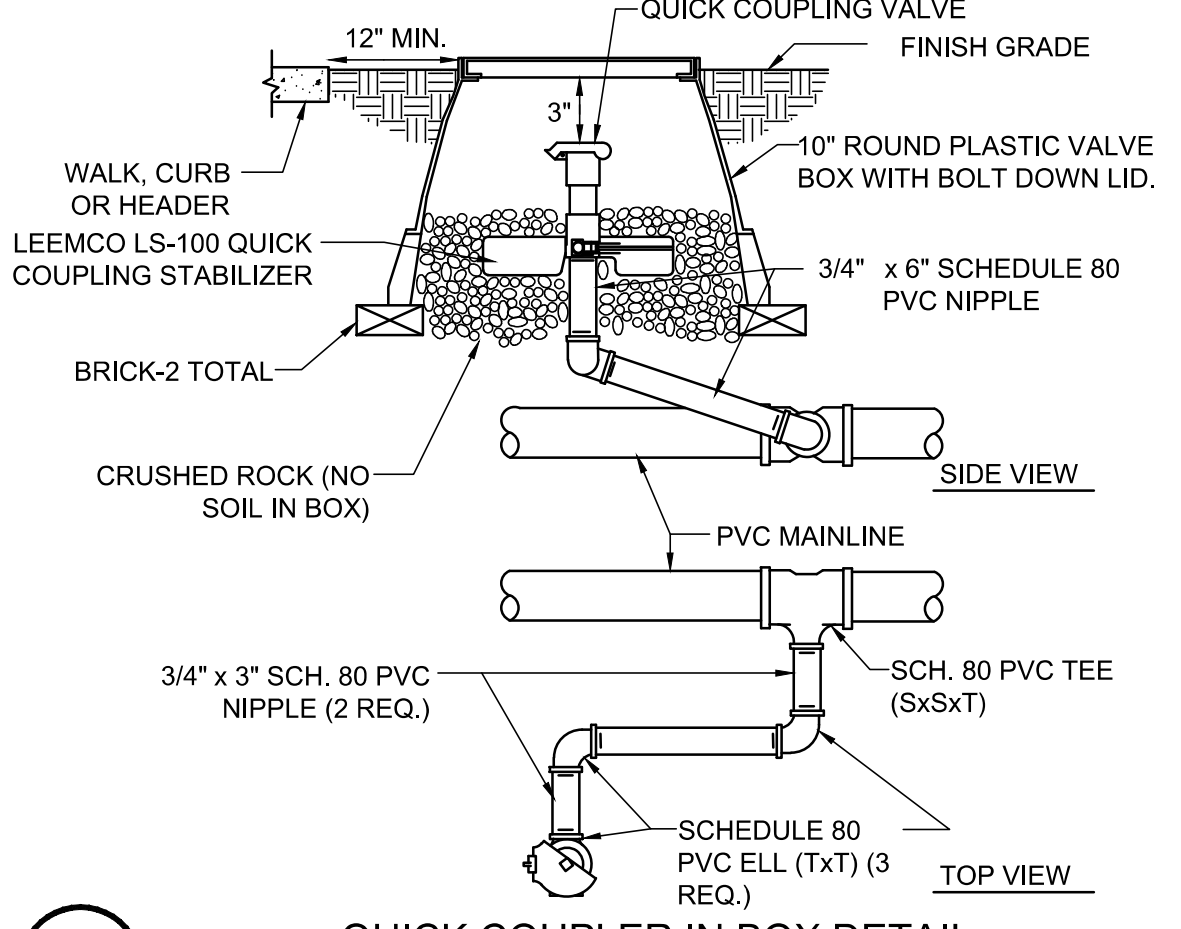
4 PIPE AND WIRE TRENCHING
NOT TO SCALE



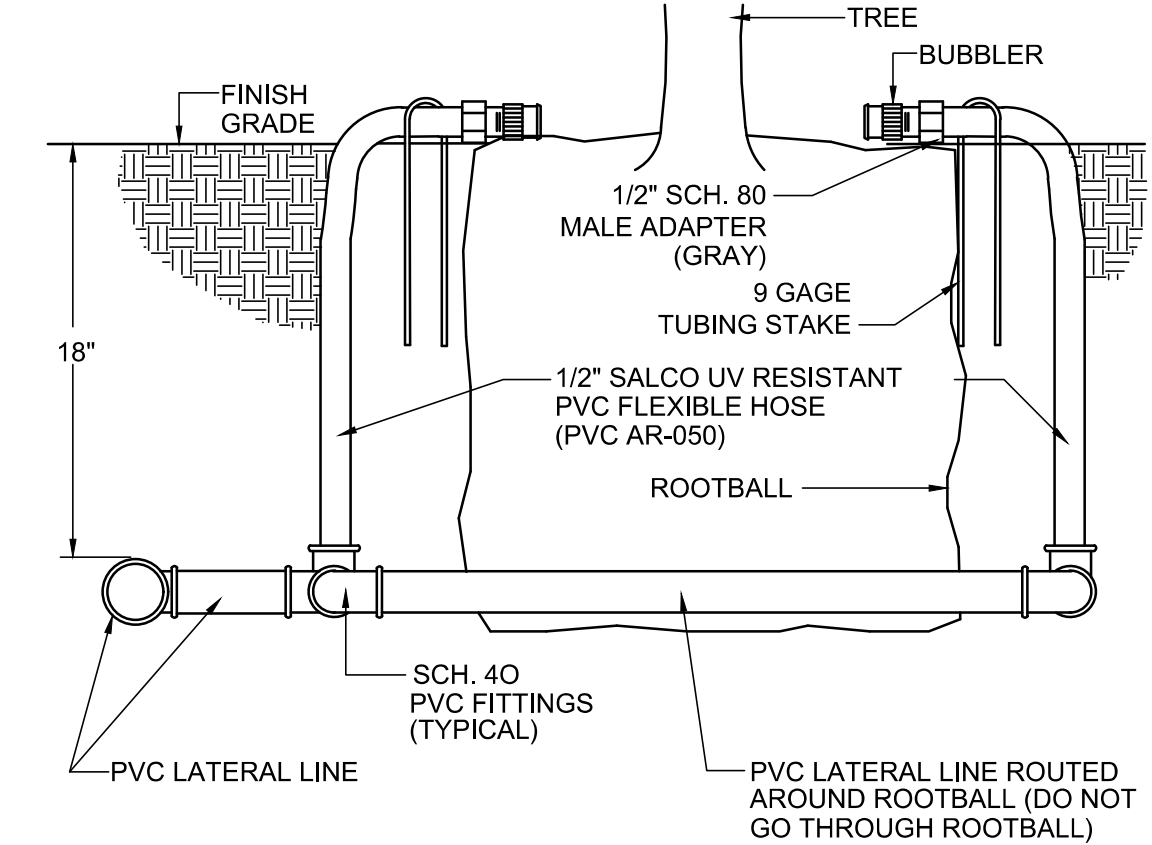
5 WIRE CONNECTION DETAIL
NOT TO SCALE



6 GATE VALVE DETAIL
NOT TO SCALE



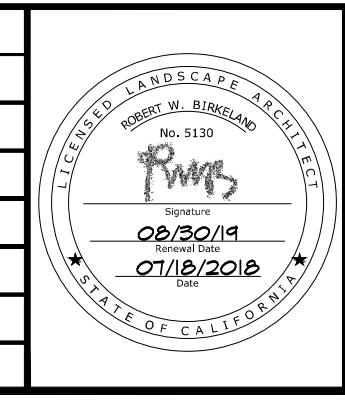
7 QUICK COUPLER IN BOX DETAIL
NOT TO SCALE



8 TREE BUBBLER DETAIL
NOT TO SCALE

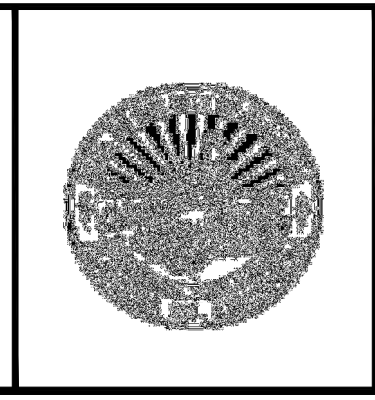
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PLOT DATE: 06-14-18
PLOTTED BY: janet

No.	Date	Revisions



BKF ENGINEERS / SURVEYORS / PLANNERS
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CROSS ALAMEDA TRAIL
MAIN STREET TO WEBSTER STREET
Webster Irrigation Details

CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA

Sheet Number:
IR-3