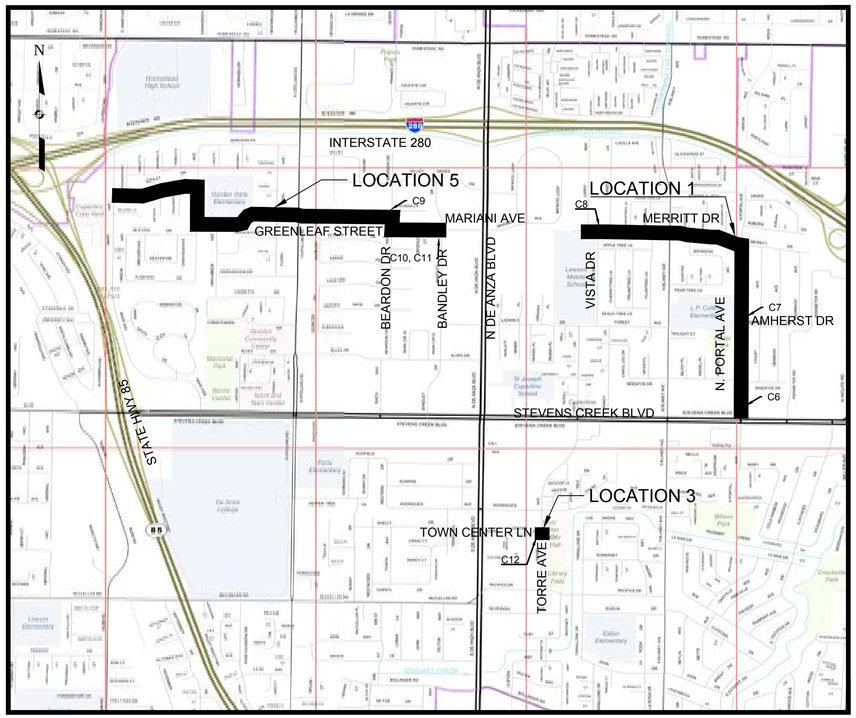
BIKE BOULEVARD IMPROVEMENTS PHASE 1

CUPERTINO, CALIFORNIA

PROJECT NO. 2017-01.05

LOCATION MAP



SITE MAP

PROJECT HORIZONTAL DATUM

HORIZONTAL CONTROL DATA IS BASED ON REAL TIME GPS/GNSS NETWORK OBSERVATIONS PROVIDED BY CALIFORNIA DRAFTING AND SURVEY SUPPLY. CALIFORNIA COORDINATE SYSTEM ZONE III, NAD83 DATUM EPOCH 2012.

PROJECT BENCHMARK

ELEV DATUM:

VERTICAL CONTROL DATA IS BASED ON CUPERTINO CITY BENCHMARK NUMBER 4 BEING A CONCRETE NAIL IN TOP OF CURB NORTHEAST RETURN ON STEVENS CREEK BOULEVARD @ PORTAL AVENUE. ELEVATION TAKEN AS 196.49.

THIS TOPOGRAPHIC SURVEY WAS DONE BY A FIELD CREW UNDER THE SUPERVISION OF ALEXANDER FONG, PLS 9252, JULY 10, 2018.

SHEET INDEX

DIRECTOR OF PUBLIC WORKS SIGNATURE

APPROVED BY: _____ 3/21/2019

ROGER LEE
ACTING DIRECTOR OF PUBLIC WORKS

DATE

CALL BEFORE YOU DIG — USA — UNDERGROUND SERVICE ALERT — CA: 811

UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

P:\PROJECTS\2018\18084 - BIKE BLVDS CUPERTINO\DWG\4TH SUBMITTAL - 100%\18084CV-C1 TITLE SHEET.DWG

MARCH 2019

Bellecci & Associates, inc.
Civil Engineering • Land Surveying
7077 Koll Center Pkwy, Suite 210 Pleasanton, CA 94566
Phone (925) 681-4885
www.bellecci.com

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	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
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REGISTERED PROFESSIONAL ENGINEER — ROOP REDDY ADNAL — No. 76008 — CIVIL — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS PHASE 1

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

CITY OF CUPERTINO

C1

SHEET 1 OF 37

BIKE BOULEVARD IMPROVEMENTS / FINAL / MARCH 2019

LEGEND

- ELECTRIC BOX
- GAS METER
- GAS VALVE
- MISC SIGN
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- STORM DRAIN THROUGH CURB
- STORM DRAIN CATCHBASIN
- STORM DRAIN MANHOLE
- SURVEY SET 60D NAIL
- SURVEY MONUMENT
- SURVEY CUT X
- SURVEY IRON PIPE
- SURVEY REBAR
- SURVEY NAIL & TAG
- SURVEY SET REBAR
- TELEPHONE BOX
- TELEPHONE MH
- UTIL JOINT POLE
- UTIL MH
- UTIL STREET LIGHT
- UTIL STREET LIGHT POLE
- WATER HYDRANT
- WATER METER
- WATER VALVE
- DUCTILE IRON DOME

- WOODEN FENCE
- CHAIN LINK FENCE
- RIGHT OF WAY
- WALL
- OVERHEAD LINE
- GUARD RAIL
- LANE STRIPING
- CONCRETE HATCH
- PAVEMENT HATCH
- ELEVATION — GRADING ELEVATION
- AT&T — AT&T
- E — PG&E ELECTRIC
- C — COMCAST
- MCI — VERIZON
- SD — STORM DRAIN
- SS — CUPERTINO SANITARY DISTRICT
- W — CALWATER OR SAN JOSE WATER COMPANY
- JT — JOINT TRENCH
- G — PG&E GAS

ABBREVIATIONS

AB	AGGREGATE BASE	LAT	LATERAL
AD	AREA DRAIN	LIP	LIP OF GUTTER
BC	BEGIN CURVE	LP	LOW POINT
BO	BLOWOFF VALVE	LT, RT	LEFT, RIGHT
BW	BOTTOM OF WALL	PUE	PUBLIC UTILITY EASEMENT
BOW	BACK OF WALK	PSE	PUBLIC SERVICE EASEMENT
C&G	CURB & GUTTER	PVC	POLYVINYL CHLORIDE
CB	CATCH BASIN	R.C.	RELATIVE COMPACTION
CL	CENTERLINE	RCP	REINFORCED CONCRETE PIPE
CR	CURB RAMP	RW, R/W	RIGHT OF WAY
DI	DRAIN INLET	SDMH	STORM DRAIN MANHOLE
DIP	DUCTILE IRON PIPE	SDR	STANDARD DIMENSION RATIO
EASE	EASEMENT	SS	SANITARY SEWER
EP	EDGE OF PAVEMENT	SSCO	SANITARY SEWER CLEAN OUT
EC	END CURVE	SSMH	SANITARY SEWER MANHOLE
EOW	EDGE OF WALK	SSLat	SANITARY SEWER LATERAL
EX.	EXISTING	SW	SIDEWALK
FDAC	FULL DEPTH ASPHALT CONCRETE	TC	TOP OF CURB
		TCR	TOP OF CURB RAMP
FH	FIRE HYDRANT	TFL	THEORETICAL FLOW LINE
FL	FLOW LINE	WM	WATER METER
FS	FIRE SERVICE	WS	WATER SERVICE
GB	GRADE BREAK	WV	WATER VALVE
HP	HIGH POINT	XING	CROSSING
INV	INVERT		

SITE LOCATION SUMMARY

LOCATION 1:
N. PORTAL AVE. FROM STEVENS CREEK BLVD. TO WHEATON DR.
N. PORTAL AVENUE AT AMHERST DRIVE
MERRITT DRIVE AT VISTA DRIVE

LOCATION 3:
TORRE AVENUE AT TOWN CENTER LANE

LOCATION 5:
GREENLEAF DRIVE AT BEARDON DRIVE
BANDLEY DRIVE AT MARIANI AVENUE

CITY OF CUPERTINO GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITION, AS AMENDED), AND STANDARD PLANS (LATEST EDITION, AS AMENDED), AND CITY OF CUPERTINO STANDARD DETAILS. THE CONTRACTOR SHALL PERFORM THE WORK DESCRIBED IN THE SPECIFICATION, AND AS SHOWN ON THE DRAWINGS, AND TO THE SATISFACTION OF THE CITY ENGINEER.
2. APPROVAL OF THESE PLANS SHALL NOT RELEASE THE CONTRACTOR OF THE RESPONSIBILITY FOR CORRECTIONS OF MISTAKES, ERRORS, OR OMISSIONS CONTAINED THEREIN. IF DURING THE COURSE OF CONSTRUCTION OF IMPROVEMENTS, PUBLIC INTEREST REQUIRES A MODIFICATION OF/OR A DEPARTURE FROM THE CITY OF CUPERTINO STANDARD DETAILS OR THESE IMPROVEMENTS PLANS, THE CITY ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUCH MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE COMPLETED, AT THE SOLE EXPENSE OF THE CONTRACTOR.
3. APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS ONLY FOR PUBLIC RIGHT-OF-WAY IMPROVEMENTS (INCLUDING STORM DRAIN IN THE RIGHT OF WAY), AND NOT FOR WATER, SEWER OR DRY UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE REVIEWS AND APPROVAL FROM EACH OF THE UTILITY COMPANIES, AND TO PROVIDE APPROVAL LETTERS AS REQUESTED.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE APPROVED PLANS OR THE LATEST REVISED PLANS ARE FURNISHED TO ITS SUBCONTRACTORS, AND TO ENSURE THE LATEST APPROVED PLANS ARE ONSITE AT ALL TIMES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF CUPERTINO PUBLIC WORKS INSPECTOR TWO (2) WORKING DAYS PRIOR TO REQUIRING AN INSPECTION. CALL (408) 777-3104 TO SCHEDULE PUBLIC WORKS INSPECTIONS.
6. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO BEGINNING OF WORK.
7. NOTIFY CITY OF CUPERTINO TRAFFIC SIGNAL MAINTENANCE FOR INSPECTION OF TRAFFIC SIGNAL FACILITY FOUNDATION EXCAVATIONS AT (408) 777-1366, TWO (2) WORKING DAYS PRIOR TO POURING ANY CABINET OR SIGNAL FOUNDATIONS RELATING TO THE JOB.
8. THE CONTRACTOR SHALL LOCATE UNDERGROUND FACILITIES IN THE AREA OF WORK. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 811 TWO (2) WORKING DAYS IN ADVANCE OF ANY WORK FOR LOCATION OF THE UNDERGROUND FACILITIES.
9. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND BACKFILLED BEFORE PLACEMENT OF THE BASE MATERIAL AND SURFACE STRUCTURES. IF UTILITIES ARE TO BE INSTALLED SUBSEQUENTLY, A WRITTEN NOTIFICATION FROM THE AFFECTED UTILITY COMPANY INDICATING ITS COMMITMENT TO BORE OR TUNNEL SHALL BE SUBMITTED TO THE CITY ENGINEER BEFORE PROCEEDING WITH THE WORK. UNDERGROUND UTILITIES, EXCEPT STORM DRAINS AND SANITARY SEWERS, SHALL NOT BE PERMITTED IN PAVEMENT AREA, WITH THE EXCEPTION OF STREET CROSSINGS, UNLESS APPROVED BY THE CITY ENGINEER.
10. ALL WATER LINES, VALVES, HYDRANTS, AND APPURTENANCES THERETO INSTALLED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE THE PROPERTY OF THE UTILITY OWNER.
11. STORM DRAIN LINES INSTALLED AS PART OF THE WORK ON THESE PLANS SHALL BE CLEARED OF ALL DEBRIS AND OBSTRUCTIONS PRIOR TO FINAL ACCEPTANCE.
12. ALL TRENCH BACKFILL, FILL AREAS, AND BASE MATERIAL SHALL ATTAIN A MINIMUM 95% RELATIVE COMPACTION. FOR TYPICAL TRENCH SECTIONS, EXCEPT FOR SANITARY SEWERS, REFER TO THE CITY STANDARD DETAILS.
13. THE CONTRACTOR SHALL PAY ALL COSTS FOR MOISTURE-DENSITY CURVES (CALIF. TEST NO. 216E) AND ANY OTHER TESTS REQUIRED BY THE CITY ENGINEER DURING STREET CONSTRUCTION.
14. TRENCH PLATES IN THE TRAVELED WAY SHALL BE TRAFFIC RATED, NO MOVEMENT OR NOISE, PROPERTY SECURED AND SHALL BE RECESSED.
15. ALL TRENCHES LOCATED WITHIN 5' OF THE EDGE OF PAVEMENT (IE. CURB, LIP OF GUTTER, EDGE OF PAVEMENT, ETC.) SHALL BE REPAVED TO THE EDGE OF PAVEMENT.
16. ALL NEW PAVEMENT SHALL MATCH THE EXISTING PAVEMENT SECTION.
17. EXISTING PAVEMENT THAT IS REMOVED OR DAMAGED SHALL BE REPLACED AS REQUIRED BY THE CITY ENGINEER.
18. MANHOLE FRAMES AND COVERS SHALL BE BROUGHT TO FINISH GRADE PRIOR TO FINAL ACCEPTANCE.
19. FIVE (5) WORKING DAYS PRIOR TO INSTALLING PERMANENT STRIPING, THE CONTRACTOR SHALL CAT TRACK THE STRIPING AND REQUEST REVIEW OF THE CAT TRACKS BY THE CITY TRAFFIC ENGINEER. THE CITY ENGINEER SHALL HAVE THE RIGHT TO MAKE CHANGES IN THE LOCATION OF THE ALIGNMENT OF TRAFFIC STRIPES, PAVEMENT MARKINGS, AND PAVEMENT MARKERS.
20. CONCRETE FOR USE IN ALL CONCRETE STRUCTURES SHALL CONFORM TO CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 90. DROP INLETS, SIDEWALKS, CURBS AND GUTTERS SHALL CONTAIN 590 LBS. OF CEMENT PER CUBIC YARD AND SHALL ATTAIN A MINIMUM STRENGTH OF 4,000 PSI IN 28 DAYS.
21. DROP INLETS SHALL BE CONSTRUCTED CONFORMING TO CITY STANDARD DETAILS UNLESS OTHERWISE NOTED ON THE PLANS. DROP INLETS SHALL BE INSTALLED CONCURRENT WITH THE CONSTRUCTION OF THE CURB AND GUTTER. "NO DUMPING FLOWS TO THE BAY." PLAQUE SHALL BE INSTALLED ON THE CURB ADJACENT TO ALL INLETS.
22. A MINIMUM THICKNESS OF FIVE (5) INCHES OF CONCRETE SHALL BE REQUIRED FOR COMMERCIAL DRIVEWAY APPROACHES AND FOUR (4) INCHES FOR RESIDENTIAL. THE DRIVEWAY APPROACH SHALL BE INSTALLED CONCURRENT WITH THE CONSTRUCTION OF THE CURB AND GUTTER.
23. ONE POUND OF DISPERSING BLACK SHALL BE MIXED WITH EACH CUBIC YARD OF CONCRETE AT THE BATCH PLANT.
24. CITY STANDARD STREET LIGHTS SHALL BE INSTALLED AS REQUIRED BY THE DIRECTOR OF PUBLIC WORKS, AND SHALL CONFORM TO THE CITY STANDARD DETAILS AND NOTES. DURING CONSTRUCTION OPERATIONS, TEMPORARY STREET LIGHTING SHALL BE PROVIDED AS NECESSARY TO ENSURE THE PUBLIC SAFETY. TEMPORARY STREET LIGHTS SHALL BE INSTALLED AT THE DISCRETION OF, AND TO THE SATISFACTION OF, THE DIRECTOR OF PUBLIC WORKS.
25. NEW CITY STANDARD STREET MONUMENTS AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BEFORE ACCEPTANCE OF THE IMPROVEMENTS BY THE CITY ENGINEER. ATTENTION IS DIRECTED TO SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE FOR THE REQUIREMENTS CONCERNING SURVEY MONUMENTS. EXISTING SURVEY MONUMENTS SHALL BE LOCATED AND REFERENCED BY OR UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER PRIOR TO CONSTRUCTION OPERATIONS, AND A CORNER RECORD OR RECORD OF SURVEY SHALL BE FILED WITH THE COUNTY SURVEYOR OF THE COUNTY OF SANTA CLARA. EXISTING SURVEY MONUMENTS SHALL BE RESET TO FINISH GRADE, AND A CORNER RECORD OR RECORD OF SURVEY SHALL BE FILED WITH THE COUNTY SURVEYOR OF THE COUNTY OF SANTA CLARA PRIOR TO THE RECORDING OF THE CERTIFICATE OF COMPLETION FOR THE PROJECT.
26. CONSTRUCTION SURVEY STAKES OR MARKS (CONTROL STAKES) TO ESTABLISH LINES AND GRADES SHALL BE SET BY THE CONTRACTOR'S LICENSED LAND SURVEYOR.
27. NOTIFY THE CITY INSPECTOR TWO (2) WORKING DAYS IN ADVANCE OF REQUIRING SERVICES FOR CHECKING FIELD STAKING. THREE (3) COPIES OF THE CUT SHEETS SHALL BE FURNISHED TO THE CITY INSPECTOR.
28. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND ENSURING THE AREA ADJACENT TO THE WORK IS LEFT IN A CLEAN CONDITION.
29. CONTRACTOR SHALL REVIEW CITY DETAIL 6-4 ON TREE PROTECTION PRIOR TO ACCOMPLISHING ANY WORK OR REMOVING ANY TREES.
30. UTILIZE BEST MANAGEMENT PRACTICES (BMP'S), AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD, FOR ANY ACTIVITY, WHICH DISTURBS THE SOIL. SEE SHEET C15

CITY OF CUPERTINO
BIKE BOULEVARD IMPROVEMENTS PHASE 1
SITE STAGING AND WORKING DAYS CHART

Location #	Site Location	Earliest Start Date for demolition	Latest End Date for All Contract Work completion	Number of Calendar Days to complete AC and Concrete Work and Temporary Striping after first day of Demolition
1	N. Portal Ave and Amherst Dr	June 8, 2019	August 14, 2019	21
1	Merritt Dr and Vista Dr	June 8, 2019	August 14, 2019	21
5	Mariani Ave and Bandley Dr	June 8, 2019	August 14, 2019	21
3	Torre Ave and Town Center Ln	After the completion of "Mariani Ave and Bandley Dr"	Complete all the contract work per the number of days indicated in the specifications.	21
1	N. Portal Ave between Stevens Creek Blvd and Wheaton Dr	After the completion of "N. Portal Ave and Amherst Dr"	Complete all the contract work per the number of days indicated in the specifications.	14
5	Greenleaf Dr and Beardon Dr	After the completion of "Merritt Dr and Vista Dr"	Complete all the contract work per the number of days indicated in the specifications.	21
Others	All other remaining work	After August 14, 2019	Complete all the contract work per the number of days indicated in the specifications.	

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REGISTERED PROFESSIONAL ENGINEER — ANOOP REDDY ADWALI — No. 76008 — CIVIL — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
LEGENDS, NOTES, AND ABBREVIATIONS

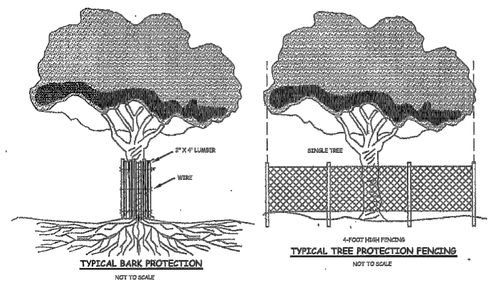
CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

CITY OF CUPERTINO
C2
SHEET 2 OF 37

MARCH 2019



TYPICAL BARK PROTECTION

NOT TO SCALE

TYPICAL TREE PROTECTION FENCING

NOT TO SCALE

1. Prior to any construction operations contractor shall construct and maintain, for each protected tree on a construction site, a protective fencing which encircles the outer limits of the critical root zone(CRZ) of the tree to protect it from construction activity. The CRZ is calculated 1.25 feet times the diameter of the trunk measured in inches 4.5 feet above the natural grade).

2. All protective fencing shall be in place prior to commencement of any site work and remain in place until all exterior construction activity at the site has been completed.

3. Protective fencing shall be at least six (6) feet high, clearly visible, and shall have a tree protection sign affixed to the fence every twenty (20) feet in such a manner to be clearly visible and legible to workers on the site at a distance of twenty-five (25) feet. The sign(s) shall read "Tree Protection Zone Keep out".

4. The owner shall cause the required fencing and signage to be installed and maintained for the duration of the construction.

5. In situations where a protected tree remains in the immediate area of intended construction and the tree may be in danger of being damaged by construction equipment or other activity, the contractor or subcontractor shall protect the tree with 2"x4" lumber encircled with wire or other means that do not damage the tree. The intent is to protect the trunk of the tree against incidental contact by large construction equipment.

6. Material Storage: No storage or placement of materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any protected tree.

7. Equipment Cleaning/Liquid Disposal: No equipment shall be cleaned or other liquids, including, without limitation, paint, oil, solvents, asphalt, concrete, mortar or similar materials deposited or allowed to flow into the critical root zone of a protected tree.

8. Tree Attachments: No signs, wires or other attachments, other than those of a protective nature, shall be attached to any protected tree.

9. Vehicular Traffic: No vehicular and/or construction equipment traffic or parking shall take place within the critical root zone of any protected tree other than on existing street pavement.

10. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, excavators, skid steer tractors, trenchers, compressors, and hoists, shall be allowed inside the drip-line of any protected tree on any construction site.

11. Grade Changes: No grade changes shall be allowed within the limits of the critical root zone of any protected tree unless adequate protective construction methods are approved in advance in writing by the city.

12. Impervious Paving: No paving with asphalt, concrete or other impervious materials shall be placed within the limits of the critical root zone of a protected tree, unless expressly permitted by the public works Dept

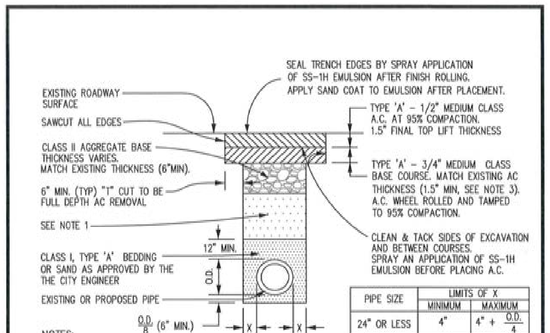
13. Root Pruning: All roots two inches or larger in diameter which are exposed as a result of trenching or other excavation shall be cut off square with a sharp medium tooth saw and covered with natural fiber burlap within two hours of initial exposure.

14. All public sidewalks shall remain open, free and clear for public access, unless closure is permitted by the Public Works Department.

TREE PROTECTION STANDARDS

REVISED 5/13

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer DATE: 7/19/13	6-4



PIPE SIZE	LIMITS OF X	
	MINIMUM	MAXIMUM
24" OR LESS	4"	4" + O.D./4
27" AND GREATER	6"	6" + O.D./4

NOTES:

1) TRENCH BACKFILL:

CLASS II OR CLASS III AGGREGATE BASE AT 95%, COMPACTION, OR CONTROLLED DENSITY BACKFILL, SHALL BE USED FOR TRENCH BACKFILL.

NATIVE MATERIALS MAY BE USED AS BACKFILL ONLY WITH WRITTEN CONSENT FROM THE CITY ENGINEER. NATIVE BACKFILL COMPACTION SHALL BE 95%, UNLESS OTHERWISE PERMITTED IN WRITING BY THE CITY ENGINEER. RELATIVE COMPACTION PER ASTM D1557, D2922, D2216 AND D3017. CONTRACTOR SHALL VERIFY SUITABILITY OF NATIVE BACKFILL PRIOR TO BEGINNING CONSTRUCTION.

2) IF EDGE OF TRENCH IS 3' OR LESS FROM THE LIP OF GUTTER, THE CONTRACTOR SHALL REPAVE TO THE LIP OF GUTTER.

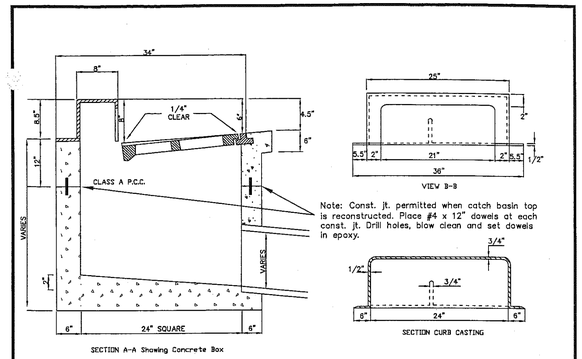
3) NEW ASPHALT THICKNESS SHALL MATCH EXISTING ASPHALT THICKNESS (3" MINIMUM TOTAL THICKNESS IS REQUIRED).

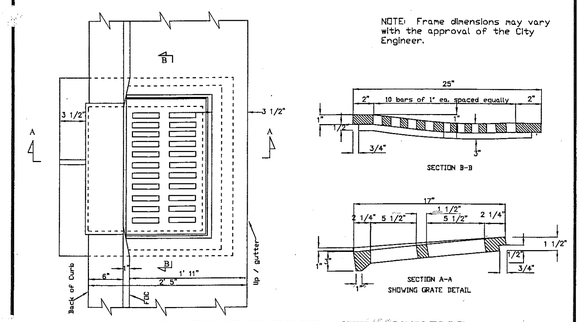
EXISTING STREET TRENCH RESTORATION

TO BE USED FOR ALL PUBLIC STORM DRAIN PIPE

REV 2/6/17

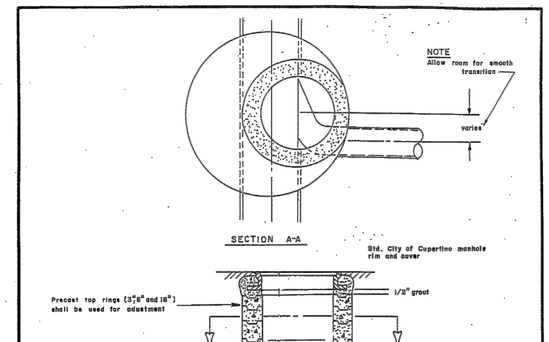
CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: CITY ENGINEER DATE: 2/13/17	4-24





STANDARD DROP INLET - CURB OPENING

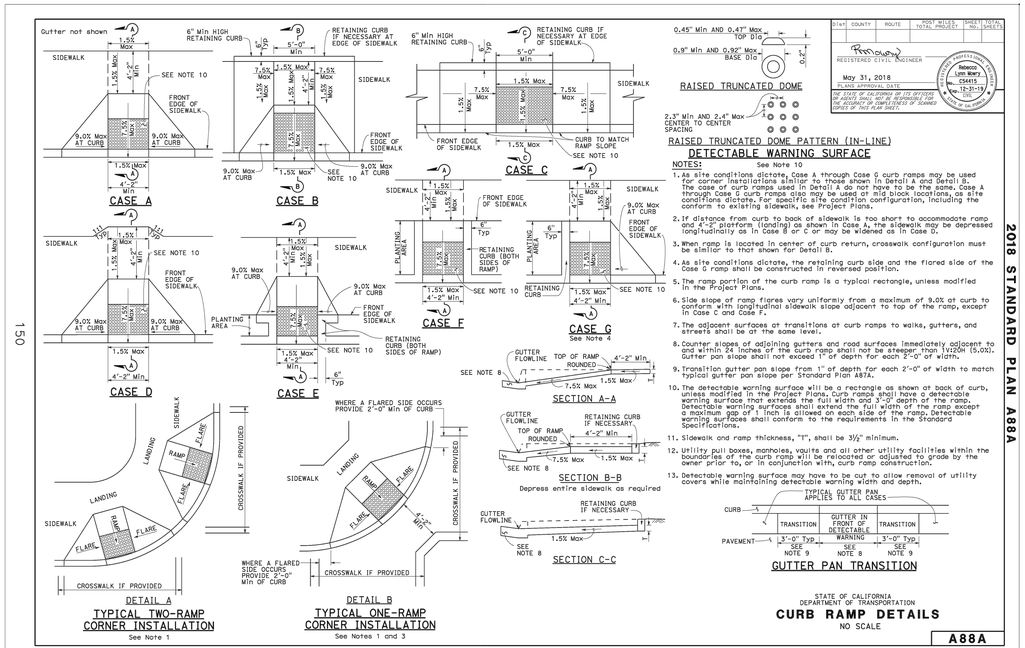
CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer DATE 6.10.07	3-2



ECCENTRIC MANHOLE

8" to 33" PIPE

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: CITY ENGINEER DATE: 2/10/89	3-12



2018 STANDARD PLAN A88A

150

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

Bellecci & Associates, inc.
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REGISTERED PROFESSIONAL ENGINEER ANUOP REDDY ADWELL No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

CIVIL DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:

VOICE MAIL:

REVIEWED BY:

NAME DATE

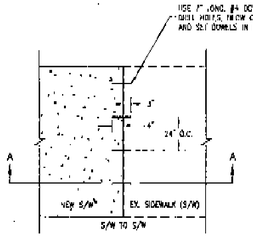
EST. 1925

CITY OF CUPERTINO

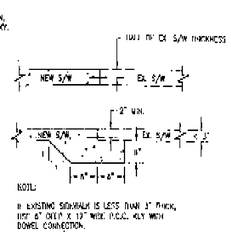
C3

SHEET 3 OF 37

MARCH 2019



PLAN VIEW
NO SCALE



SECTION A-A
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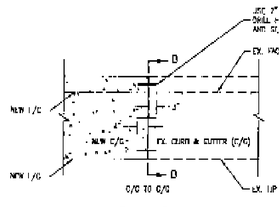
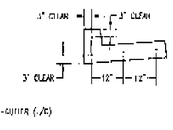


PLAN VIEW
NO SCALE

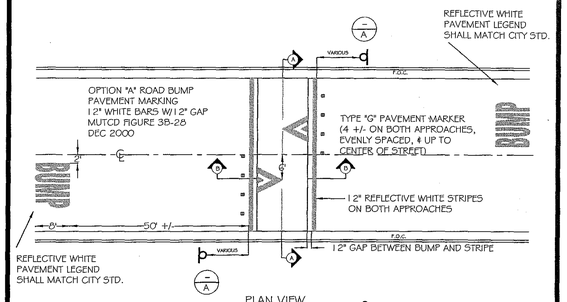


SECTION B-B
NO SCALE

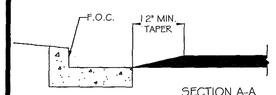
DOWEL CONNECTIONS

June 2007

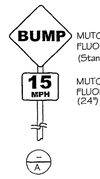
CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: CITY ENGINEER	DATE: 6-10-08	1-23



PLAN VIEW

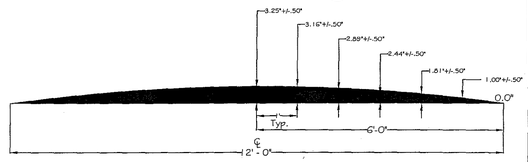


SECTION A-A



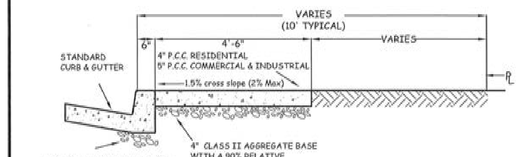
MUTCD W8-1 (STATE W37) FLUORESCENT YELLOW (Standard 30")

MUTCD W13-1 (STATE W 6) FLUORESENT YELLOW (24")

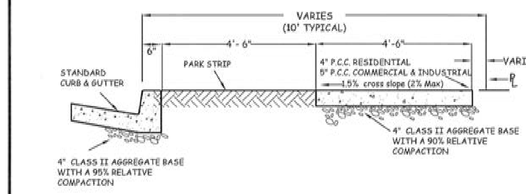


SECTION B-B

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer	DATE: 7.21.08	1-17



MONOLITHIC SIDEWALK



DETACHED SIDEWALK

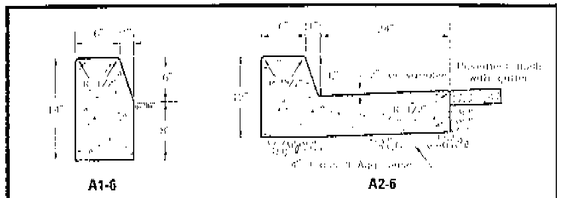
NOTES:

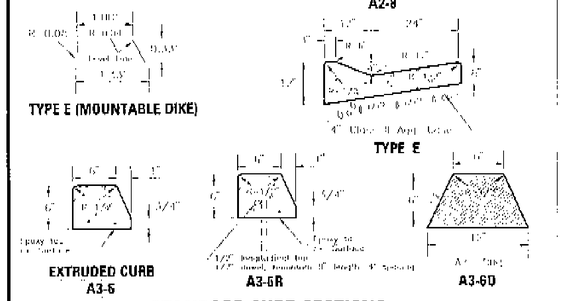
1. Cross slope shall be 1.5% (in no case shall cross slope exceed 2%)
2. Driveway concrete thickness: Residential - 5", Commercial and Industrial - 6" w/ #4 rebar 18" O.C. both ways.
3. One pound of dispersing black shall be mixed with each cubic yard of concrete at the batch plant.
4. Sidewalks, curbs and gutters shall be Class "A" (6 sacks per cubic yard) as per Standard Specification and shall attain a strength 3,000 p.s.i. in 28 days.
5. Sidewalk finish shall be light broom.

SIDEWALK DETAILS

REVISED 6/2016

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer	DATE: 6/29/16	1-19





STANDARD CURB SECTIONS

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY:	DATE: 5/1/97	1-11

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

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			DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
Date:						
Scale:						
Designed:						
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Proj. Engr:	△	REVISIONS				
File:						

REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY ADWALI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

CIVIL DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

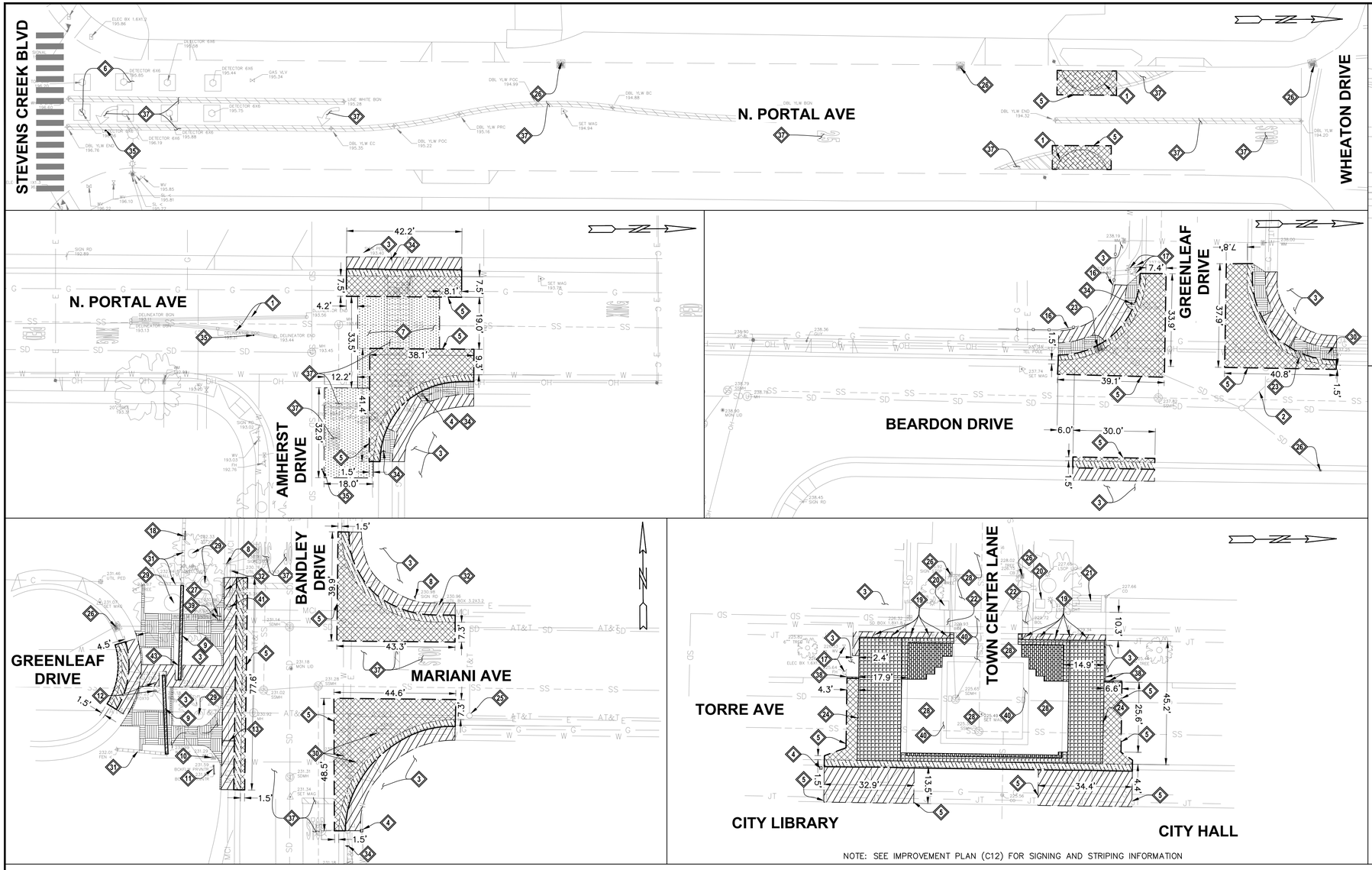
CITY OF CUPERTINO

C4

SHEET 4 OF 37

MARCH 2019

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



NOTE: SEE IMPROVEMENT PLAN (C12) FOR SIGNING AND STRIPING INFORMATION

LEGEND

- REMOVE EXISTING CONCRETE SIDEWALK, CURB RAMP AND BASE. COMPACT SUBGRADE AND BASE TO 90% RELATIVE COMPACTION
- REMOVE EXISTING CURB, GUTTER AND BASE TO DESIGN SUBGRADE. SCARIFY 6" BELOW SUBGRADE & RECOMPACT TO 95% R.C.
- SAWCUT AND REMOVE AC PAVING AND BASE TO DESIGN SUBGRADE. SCARIFY 6" BELOW SUBGRADE & RECOMPACT TO 95% R.C.
- 2"–4" COLD PLANE EXISTING AC PAVING AND BASE
- REMOVE EXISTING COLORED CONCRETE PAVING, BAND AND BASE TO DESIGN SUBGRADE & RECOMPACT TO 95% R.C.
- REMOVE EXISTING MEDIAN ISLAND PAVING, CURB AND BASE AND UNDERLYING ASPHALT CONCRETE AND BASE TO DESIGN SUBGRADE & RECOMPACT TO 95% R.C.
- REMOVE EXISTING INTERLOCKING CONCRETE PAVERS, CONCRETE BASE AND AGGREGATE BASE TO DESIGN SUBGRADE. CONTRACTOR TO STORE/STOCKPILE EXISTING PAVERS FOR REUSE. COORDINATE WITH CITY FOR SUITABLE TEMPORARY STORAGE LOCATION
- REMOVE EXISTING BRICK PAVERS
- REMOVE EXISTING LANDSCAPE, GRAVEL, SOIL, PAVERS AND BASE TO DESIGN SUBGRADE. SCARIFY 6" BELOW SUBGRADE & RECOMPACT TO 90% R.C.
- REMOVE EXISTING WALL, SIGNS, AND FOOTING
- REMOVE EXISTING STRIPING

PLAN NOTES

1. REMOVE EXISTING DOWELED CURB SYSTEM, ISLAND PAVING, MARKERS AND CHANNELIZERS
2. ABANDON EXISTING STORM DRAIN LINE
3. PROTECT IN PLACE EXISTING LANDSCAPING AND IRRIGATION SYSTEM
4. PROTECT IN PLACE EXISTING STREET LIGHT & CONCRETE FOUNDATION
5. SAWCUT LINE
6. REMOVE EXISTING DETECTION LOOP SYSTEM
7. WEDGE GRIND FOR RAISED CROSSWALK AREA 2" THICK MINIMUM.
8. PROTECT IN PLACE EXISTING SIGN
9. REMOVE EXISTING MASONRY WALL AND WALL FOOTING TO DESIGN SUBGRADE, BACKFILL WITH IMPORT SOIL & COMPACT TO 90% R.C.
10. PROTECT IN PLACE EXISTING WATER METER
11. PROTECT IN PLACE EXISTING BACKFLOW PREVENTER
12. REMOVE EXISTING MASONRY BOLLARD AND BOLLARD FOUNDATION TO DESIGN SUBGRADE, BACKFILL WITH IMPORT SOIL & COMPACT TO 90% R.C.
13. REMOVE EXISTING CURB DRAIN PIPE (TO BE RE–ROUTED, SEE SHEET C10)
14. PROTECT IN PLACE EXISTING CHAIN LINK FENCE
15. PROTECT IN PLACE EXISTING ARTIFICIAL TURF
16. PROTECT IN PLACE EXISTING WOODEN FENCE
17. PROTECT IN PLACE EXISTING FIRE HYDRANT AND APPURTENANT VALVES
18. PROTECT IN PLACE EXISTING ELECTRICAL PANEL, PG&E METER & IRRIGATION CONTROLLER
19. REMOVE EXISTING BOLLARDS (TO BE REUSED SEE SHEET C12), TRUNCATED DOME AND NO PARKING SIGNS; COORDINATE WITH CITY FOR DISPOSITION OF THESE ITEMS
20. PROTECT IN PLACE EXISTING GATEWAY MONUMENT
21. PROTECT IN PLACE EXISTING STAIRS
22. PROTECT IN PLACE EXISTING BOLLARDS AND TRUNCATED DOME
23. REMOVE EXISTING STORM DRAIN INLET
24. RMOVE SIGN – SEE IMPROVEMENT PLAN (C12)
25. PROTECT IN PLACE EXISTING AT&T MH
26. PROTECT IN PLACE EXISTING DROP INLET. MAINTAIN BEST MANAGEMENT PRACTICES FOR SEDIMENT CONTROL
27. REMOVE EXISTING BACKFLOW PREVENTER (TO BE REPLACED AND RELOCATED, SEE SHEET C10)
28. PROTECT IN PLACE EXISTING PAVERS
29. PROTECT IN PLACE EXISTING TREE
30. ADJUST WATER VALVE BOXES TO NEW GRADE (CALWATER)
31. PROTECT IN PLACE EXISTING WALL OR FENCE
32. PROTECT IN PLACE EXISTING UTILITY BOX
33. REMOVE EXISTING GRAVEL
34. SEE SIGNING & STRIPING PLANS FOR SIGN INFORMATION
35. RESTORE BLUE FIRE HYDRANT MARKERS
36. REMOVE EXISTING BRICK PAVERS
37. REMOVE EXISTING STRIPING AND PAVEMENT MARKINGS
38. REMOVE EXISTING FLUSH CURB
39. ADJUST WATER METER TO NEW GRADE
40. PROTECT IN PLACE EXISTING CONCRETE PAVEMENT & BAND
41. ADJUST CITY STREETLIGHT BOX TO NEW GRADE
42. PROTECT IN PLACE EXISTING WATER VALVE
43. REMOVE EXISTING SIGN ON SOUND WALL (TO BE RELOCATED TO NEW WALL)

20 0 10 20 40 80
(IN FEET)
1"=20'

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www.bellecci.com

Date:					
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Proj. Engr:	△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
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REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY KUMATI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
DEMOLITION PLAN

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

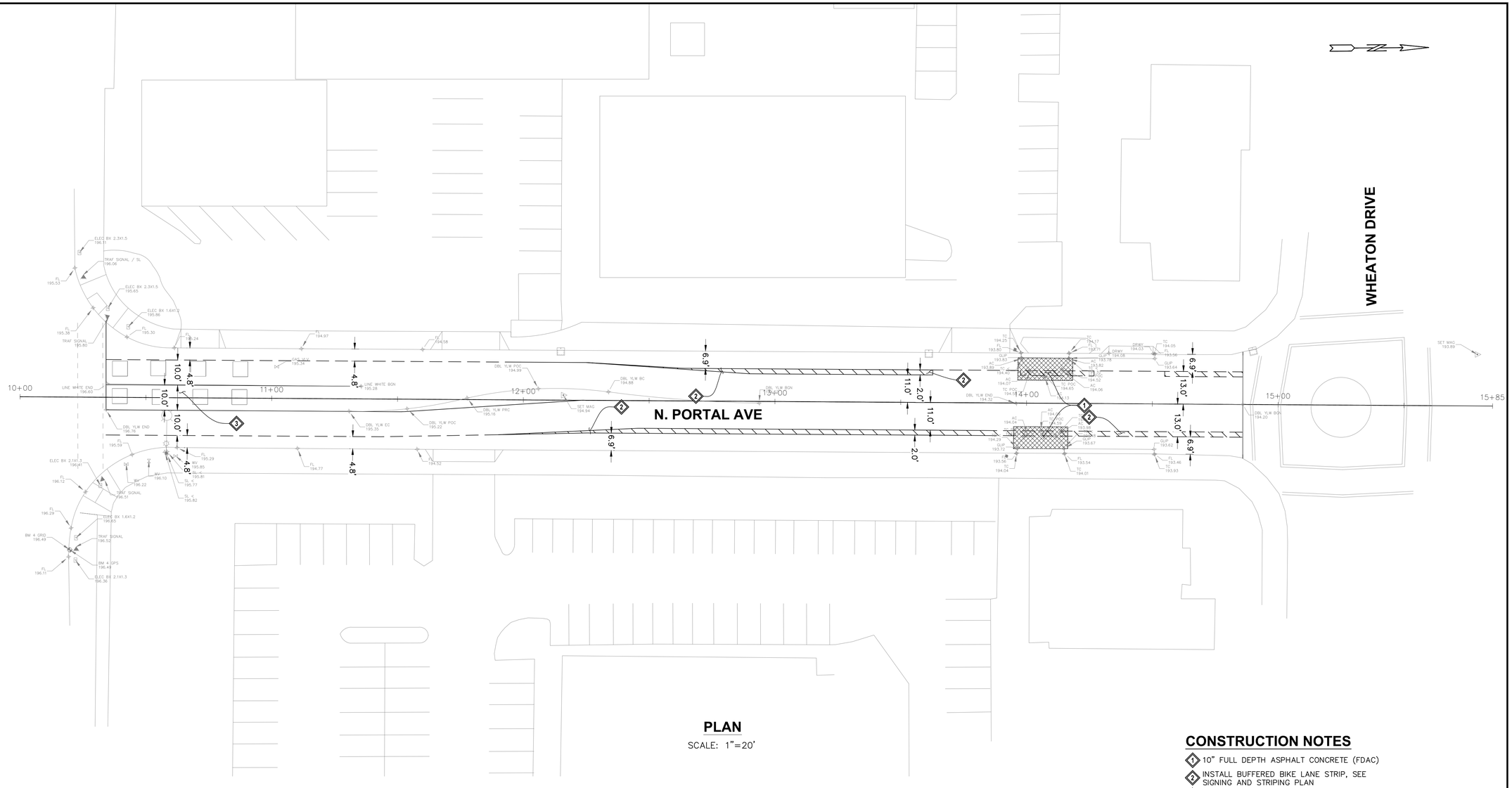
CITY OF CUPERTINO

C5

SHEET 5 OF 37

MARCH 2019

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



PLAN
SCALE: 1"=20'

CONSTRUCTION NOTES
1. 10" FULL DEPTH ASPHALT CONCRETE (FDAC)
2. INSTALL BUFFERED BIKE LANE STRIP, SEE SIGNING AND STRIPING PLAN
3. INSTALL NEW DETECTION LOOPS

LEGEND
FDAC

20 0 10 20 40 80
(IN FEET)
1"=20'

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REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY ADWALI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - N Portal Ave from Stevens Creek Boulevard to Wheaton Drive (LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

CITY OF CUPERTINO

C6

SHEET 6 OF 37

MARCH 2019

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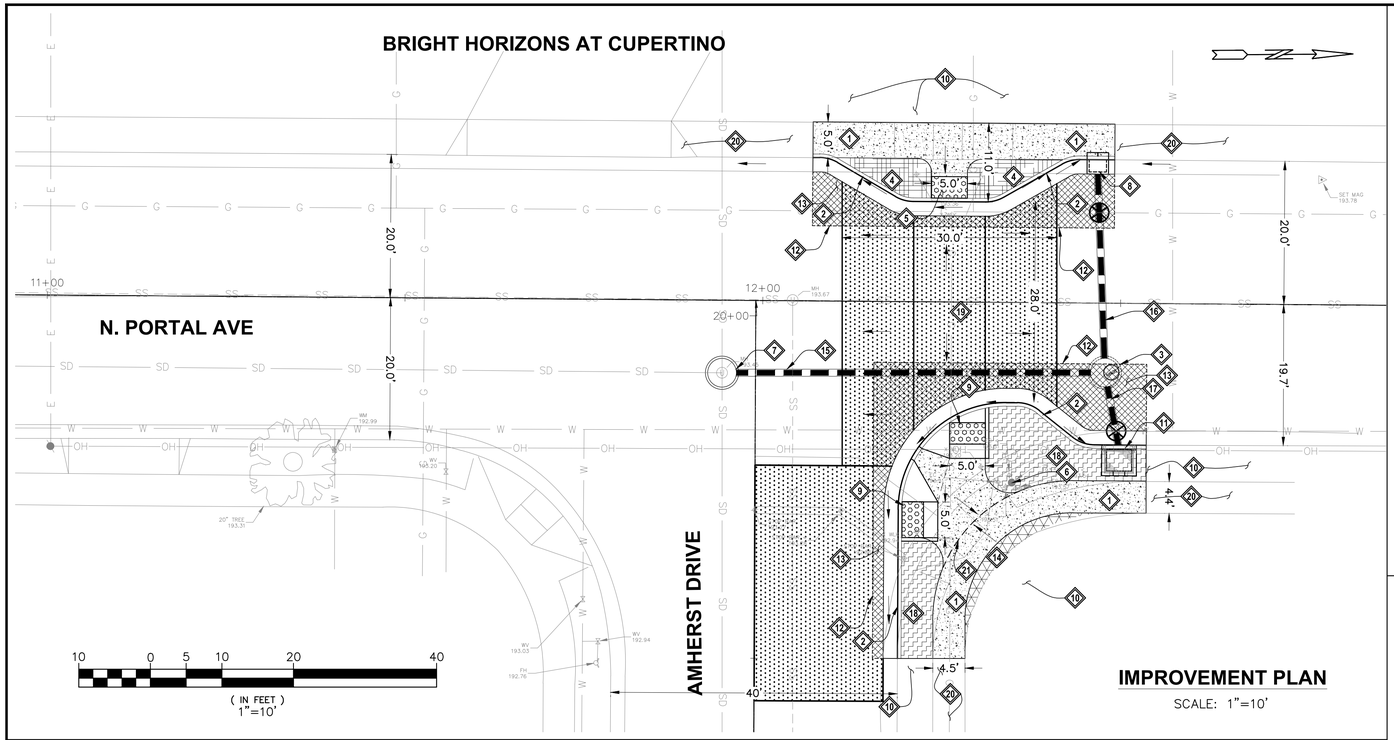


IMPROVEMENT PLAN

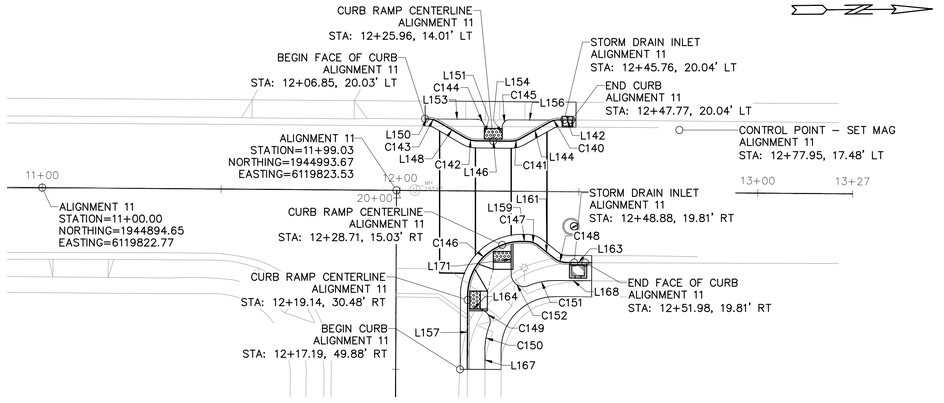
SCALE: 1"=10'

CONSTRUCTION NOTES

1. CONSTRUCT NEW CONCRETE SIDEWALK AND BASE PER CITY STD. DETAIL 1–19. DOWEL INTO EXISTING PER CITY STD. DETAIL 1–23
2. CONSTRUCT NEW CONCRETE CURB & GUTTER PER CITY STD. DETAIL 1–16 (A2–6); CURB HEIGHT VARIES – SEE GRADING PLAN
3. CONSTRUCT NEW SDMH PER CITY STD. DETAIL 3–12
4. INSTALL 4" THICK DECOMPOSED GRANITE OVER 3" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
5. INSTALL TRUNCATED DOMES ON 4" THICK CONCRETE SUBSLAB OVER 4" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
6. PROTECT IN PLACE EXISTING STREET LIGHT & CONCRETE FOUNDATION
7. CONNECT NEW 12" PVC SDR–26 TO EXISTING SDMH
8. INSTALL STANDARD DROP INLET – CURB OPENING PER CITY STD. DETAIL 3–2
9. CONSTRUCT CASE G CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
10. PROTECT IN PLACE EXISTING LANDSCAPING AND IRRIGATION SYSTEM
11. CONSTRUCT TYPE OS INLET PER CALTRANS STD. PLAN D72A
12. SAWCUT LINE
13. 10" THICK FULL–DEPTH ASPHALT CONCRETE
14. INSTALL 3" THICK BARK MULCH
15. INSTALL 50 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
16. INSTALL 26 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
17. INSTALL 9 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
18. EXTEND SOD & IRRIGATION
19. CONSTRUCT RAISED ASPHALT CONCRETE CROSSWALK. WEDGE GRIND FOR RAISED CROSSWALK AREA 2" THICK MINIMUM (SEE DEMOLITION PLAN). OVERLAY ASPHALT CONCRETE TO NEW GRADES. THICKNESS OF AC OVERLAY VARIES BETWEEN 2" AND 6" THICK
20. PROTECT IN PLACE EXISTING CONCRETE SIDEWALK
21. SWALE

LEGEND

- CONCRETE SIDEWALK PER CITY STD 1–19
- DECOMPOSED GRANITE
- EXTEND SOD AND IRRIGATION
- BARK MULCH
- DETECTABLE DOMES PER CALTRANS STD PLAN A88A
- 2" GRIND AND 2"–6" AC OVERLAY
- FDAC
- POTHOLE

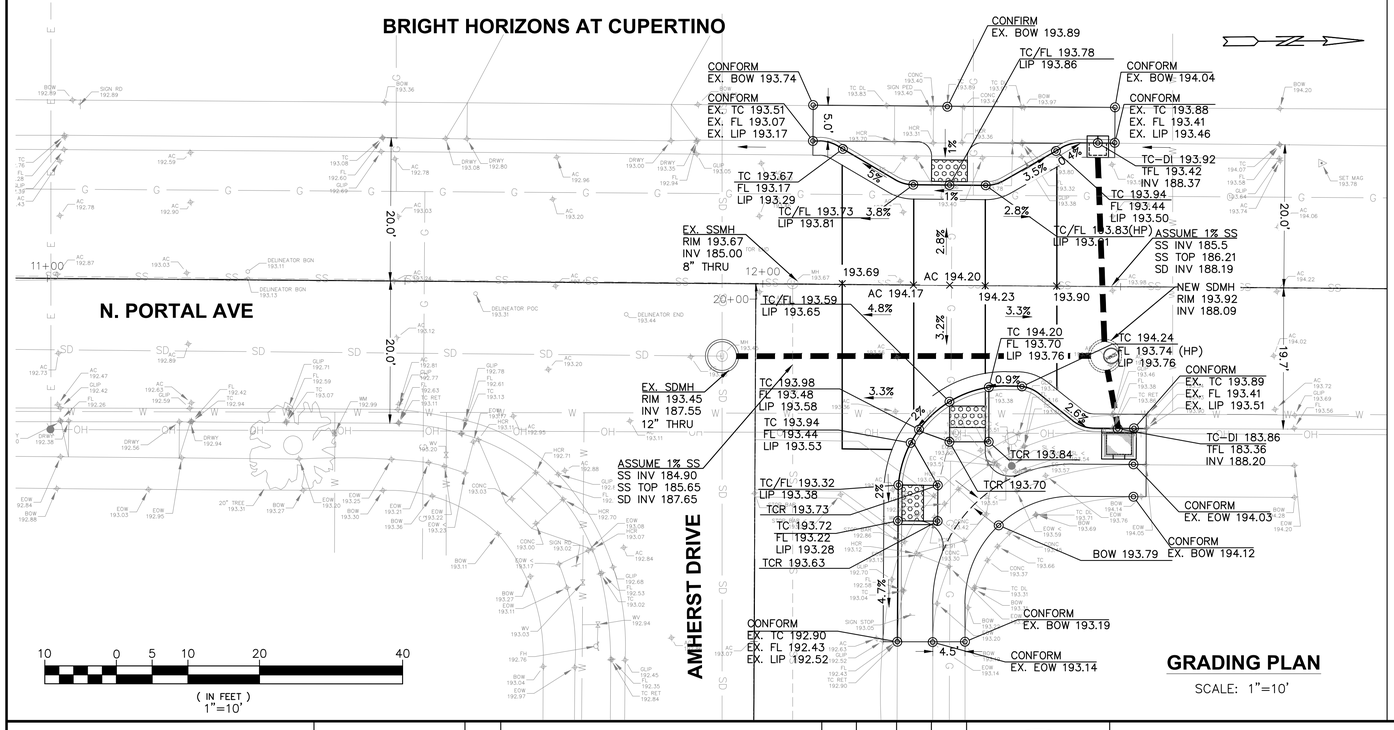


HORIZONTAL CONTROL PLAN

SCALE: 1"=20'

Line Table		
Line #	Length	Direction
L142	4.87'	S00° 25' 47"W
L144	9.38'	S29° 33' 31"E
L146	10.12'	S00° 26' 29"W
L148	9.36'	S30° 26' 29"W
L150	0.97'	S00° 25' 47"W
L151	3.52'	N89° 33' 31"W
L153	11.35'	S00° 25' 47"W
L154	3.43'	N89° 33' 31"W
L156	11.27'	N00° 19' 26"E
L157	20.82'	N89° 42' 47"W
L159	1.52'	N00° 26' 29"E
L161	5.93'	N38° 35' 09"E
L163	7.22'	N00° 26' 29"E
L164	2.32'	N00° 17' 13"E
L167	5.34'	N89° 58' 55"E
L168	10.22'	S00° 16' 32"W
L171	8.32'	S90° 00' 00"W

Curve Table			
Curve #	Length	Radius	Delta
C150	6.97'	19.50'	20.48°
C149	6.73'	3.50'	110.18°
C144	3.14'	2.00'	90.01°
C148	3.33'	5.00'	38.15°
C147	3.33'	5.00'	38.14°
C146	23.60'	15.00'	90.15°
C143	2.62'	5.00'	30.01°
C142	2.62'	5.00'	30.00°
C141	2.62'	5.00'	30.00°
C140	2.62'	5.00'	29.99°
C145	3.14'	2.00'	89.88°
C152	6.85'	3.50'	112.11°
C151	7.62'	19.50'	22.38°



GRADING PLAN

SCALE: 1"=10'

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Date:						
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File:						

REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY ADMALL No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - N Portal Ave at Amherst Drive
LOCATION 1

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

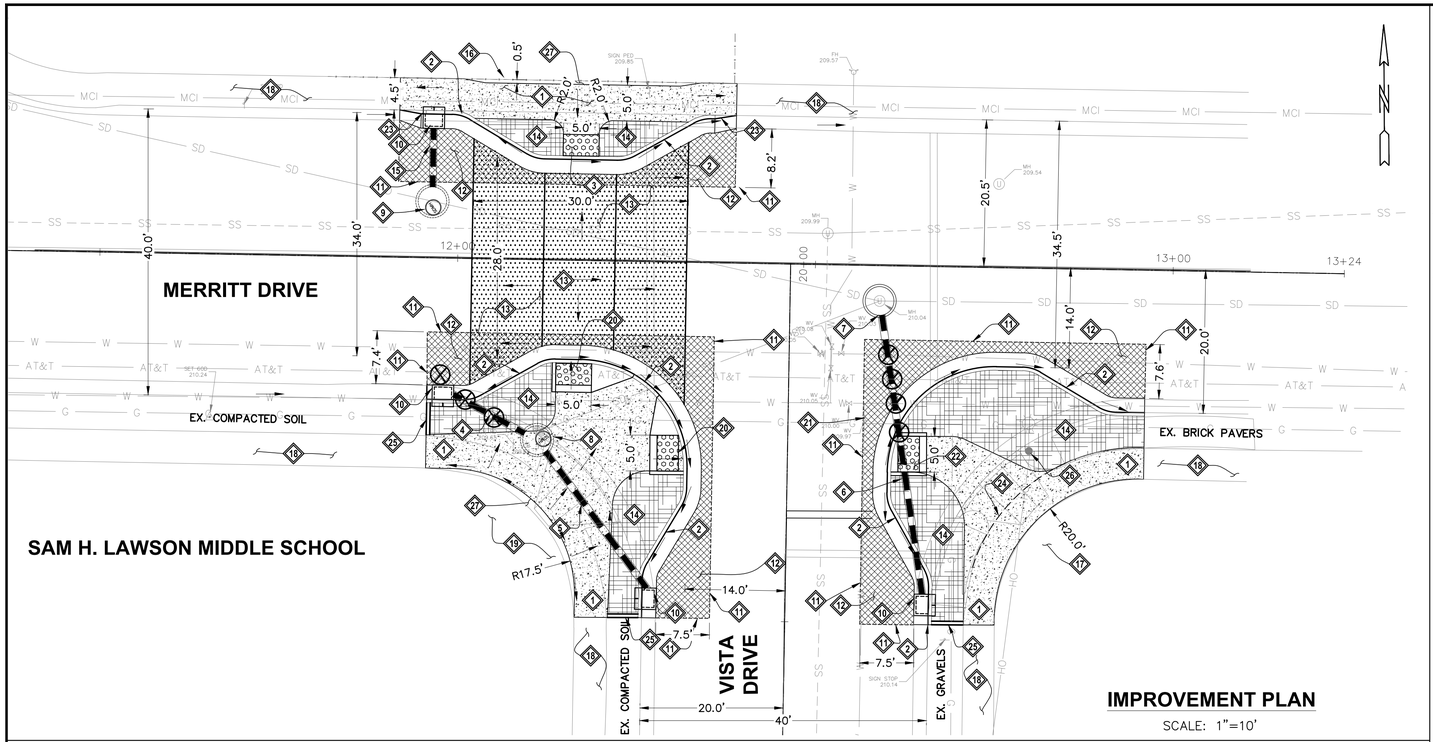
CITY OF CUPERTINO

C7

SHEET 7 OF 37

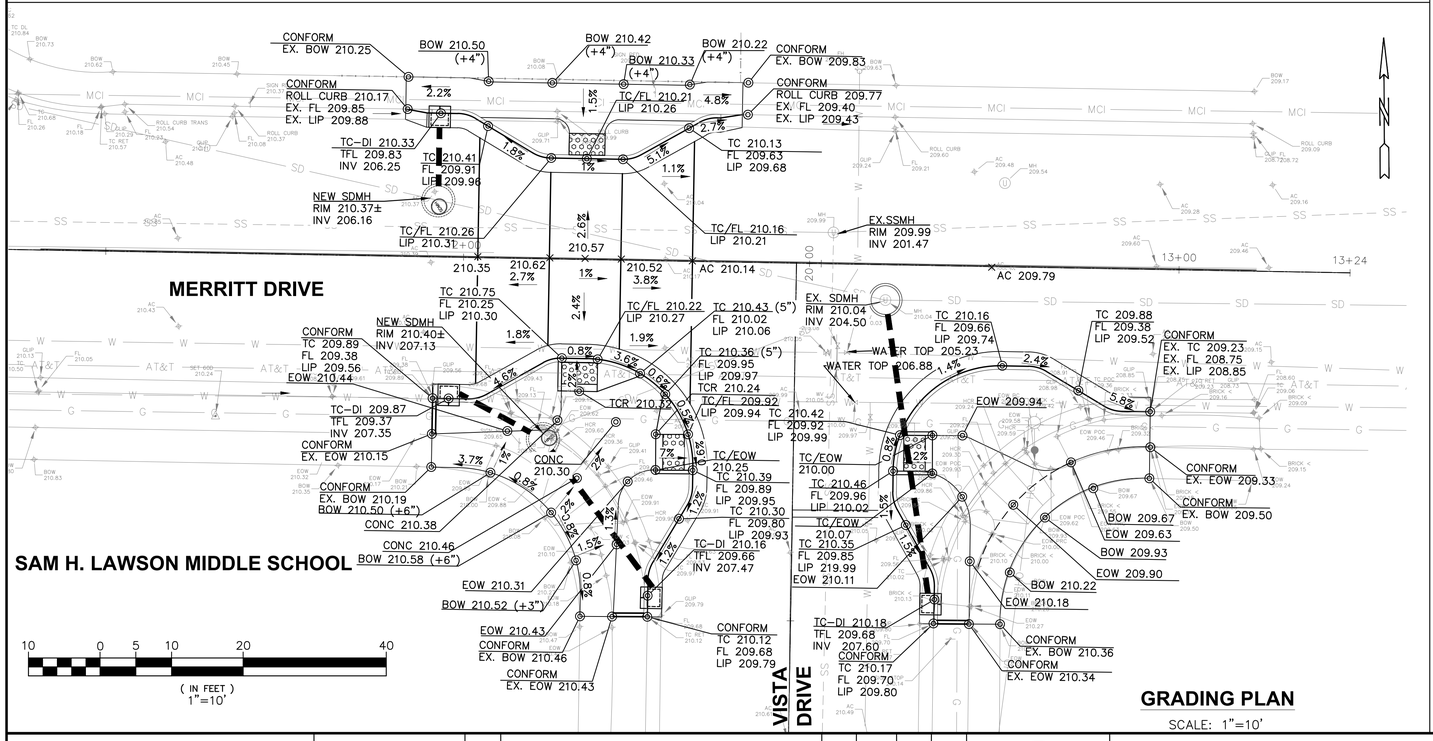
MARCH 2019

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



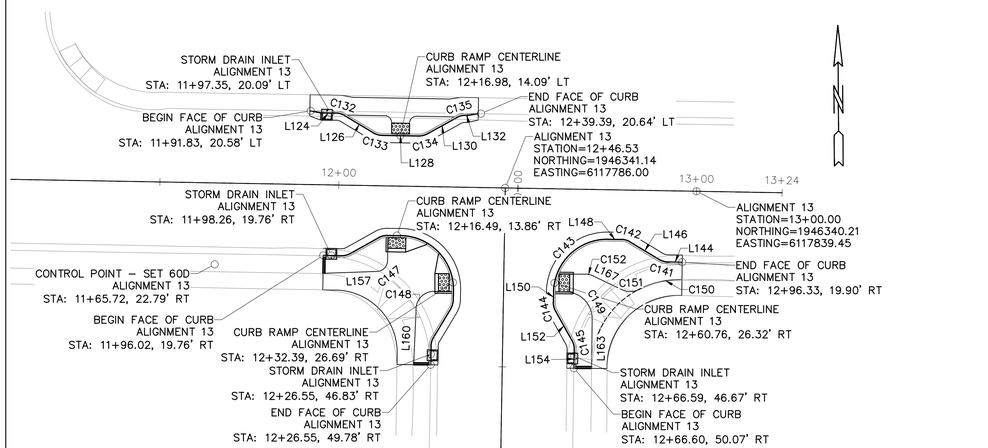
IMPROVEMENT PLAN

SCALE: 1"=10'



GRADING PLAN

SCALE: 1"=10'



HORIZONTAL CONTROL PLAN

SCALE: 1"=20'

CONSTRUCTION NOTES

1. CONSTRUCT NEW CONCRETE SIDEWALK AND BASE PER CITY STD. DETAIL 1–19. DOWEL INTO EXISTING PER CITY STD. DETAIL 1–23
2. CONSTRUCT NEW CONCRETE CURB & GUTTER PER CITY STD. DETAIL 1–16 (A2–6); CURB HEIGHT VARIES – SEE GRADING PLAN
3. INSTALL TRUNCATED DOMES ON 4" THICK CONCRETE SUBSLAB OVER 4" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
4. INSTALL 12 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
5. INSTALL 24 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
6. INSTALL 40 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
7. CONNECT NEW 12" PVC SDR–26 TO EXISTING SDMH
8. REMOVE EXISTING STORM DRAIN INLET & CONSTRUCT NEW SDMH PER CITY STD. DETAIL 3–12
9. CONSTRUCT NEW SDMH OVER EXISTING STORM DRAIN PIPE
10. INSTALL STANDARD DROP INLET – CURB OPENING PER CITY STD. DETAIL 3–2
11. SAWCUT LINE
12. 10" THICK FULL–DEPTH ASPHALT CONCRETE (FDAC)
13. CONSTRUCT RAISED ASPHALT CONCRETE CROSSWALK. WEDGE GRIND PERIMETER OF RAISED CROSSWALK AREA 2" THICK MINIMUM (SEE DEMOLITION PLAN). OVERLAY ASPHALT CONCRETE TO NEW GRADES. THICKNESS OF AC OVERLAY VARIES BETWEEN 2" AND 6" THICK
14. INSTALL 4" THICK DECOMPOSED GRANITE OVER 3" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
15. INSTALL 9 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
16. PROTECT IN PLACE EXISTING CHAIN LINK FENCE
17. PROTECT IN PLACE EXISTING ARTIFICIAL TURF
18. PROTECT IN PLACE EXISTING CONCRETE SIDEWALK
19. PROTECT IN PLACE EXISTING LANDSCAPING AND IRRIGATION SYSTEM
20. CONSTRUCT CASE G CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
21. PROTECT IN PLACE EXISTING WATER VALVE
22. CONSTRUCT CASE F CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
23. TRANSITION FROM 6" CURB TO APPROXIMATE 4" ROLLED CURB – 3' LONG (MEASURED AS PART OF CURB & GUTTER – LF)
24. SWALE
25. 6"X6" CONCRETE HEADER (DOWEL INTO CONCRETE SIDEWALK AND CONCRETE CURB)
26. PROTECT IN PLACE EXISTING STREET LIGHT & CONCRETE FOUNDATION
27. BACKFILL GAP CREATED BY DEMOLITION OF EXISTING SIDEWALK

Line Table		
Line #	Length	Direction
L124	4.30'	S89° 00' 35"E'
L126	9.32'	S59° 00' 35"E'
L128	10.12'	S89° 00' 35"E'
L130	9.34'	N60° 59' 25"E'
L132	0.47'	S89° 00' 23"E'
L144	3.91'	N89° 13' 00"W'
L146	9.45'	N59° 00' 35"W'
L148	3.66'	N89° 00' 35"W'
L150	2.85'	S00° 58' 32"W'
L152	9.39'	S29° 01' 28"E'
L154	5.25'	S00° 51' 56"W'
L157	15.15'	S87° 59' 36"W'
L160	15.72'	N02° 37' 41"E'
L163	13.78'	S00° 40' 07"W'
L167	9.15'	S64° 37' 49"E'

Curve Table			
Curve #	Length	Radius	Delta
C147	4.56'	3.00'	87.00°
C148	11.89'	30.39'	22.40°
C149	11.84'	7.50'	90.43°
C135	2.62'	5.00'	30.00°
C134	2.62'	5.00'	30.00°
C133	2.62'	5.00'	30.00°
C132	2.62'	5.00'	30.00°
C150	12.28'	24.40'	28.84°
C151	4.61'	5.00'	52.84°
C152	2.19'	5.00'	25.13°
C145	2.61'	5.00'	29.89°
C144	2.62'	5.00'	30.00°
C143	23.57'	15.00'	90.01°
C142	2.62'	5.00'	30.00°
C141	2.64'	5.00'	30.21°

LEGEND

- CONCRETE SIDEWALK PER CITY STD 1–19
- DECOMPOSED GRANITE
- 2" GRIND & 2"–6" AC OVERLAY
- FDAC
- DETECTABLE DOMES PER CALTRANS STD PLAN A88A
- POTHOLE

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REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY ANWELI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - Merritt Drive at Vista Drive
LOCATION 1

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
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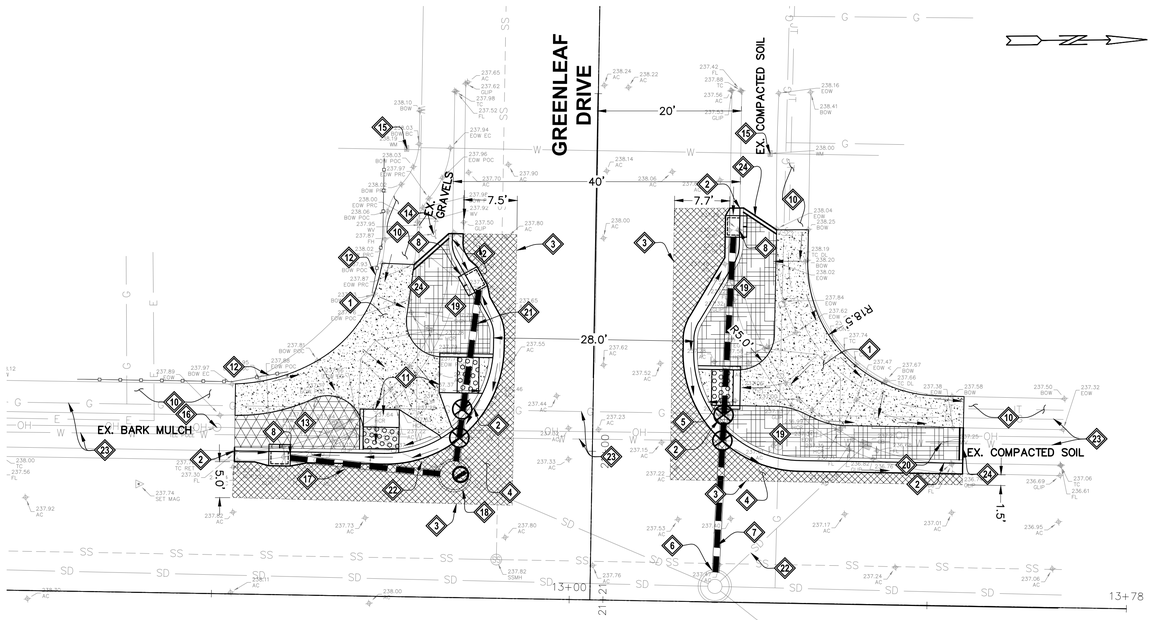
NAME DATE

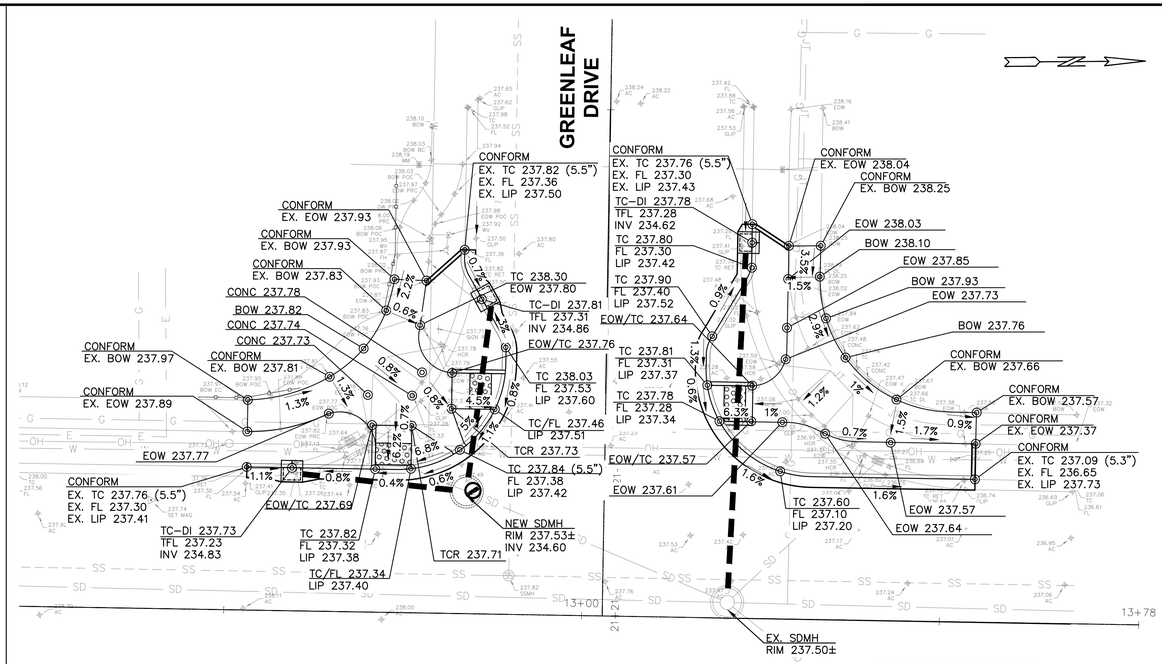
CITY OF CUPERTINO

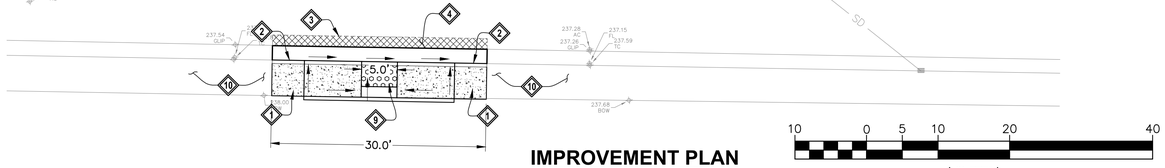
C8

SHEET 8 OF 37

MARCH 2019

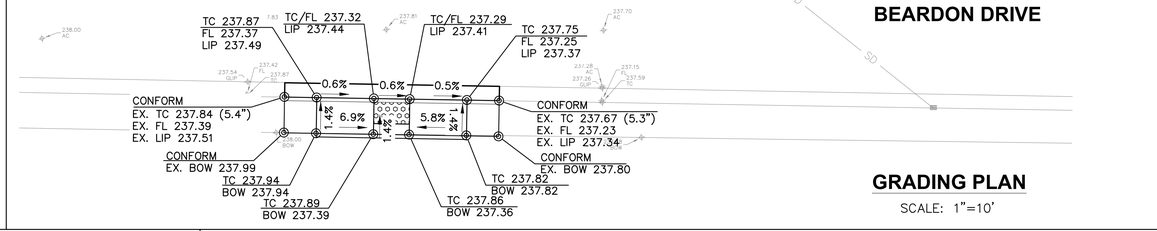






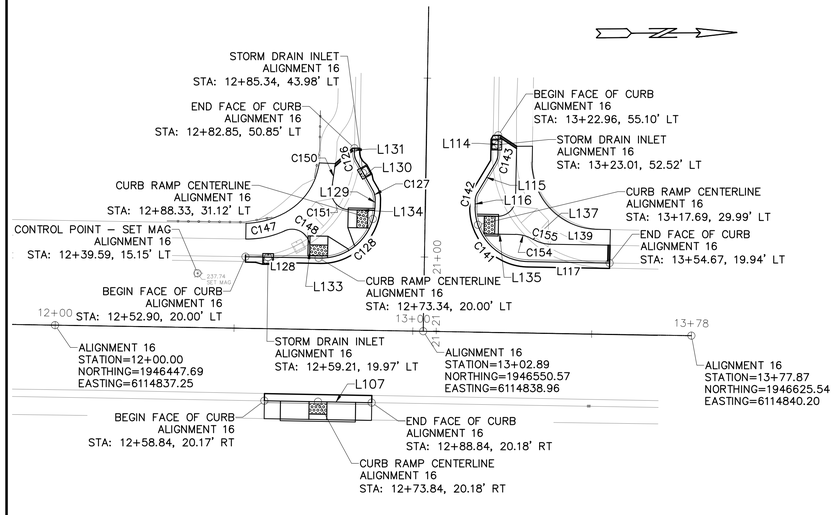
IMPROVEMENT PLAN

SCALE: 1"=10'



GRADING PLAN

SCALE: 1"=10'



HORIZONTAL CONTROL PLAN

SCALE: 1"=20'

Line Table		
Line #	Length	Direction
L107	30.00'	S00° 58' 44"W
L114	5.16'	N89° 07' 30"W
L115	9.58'	N59° 03' 19"W
L116	1.67'	N89° 01' 59"W
L117	22.84'	S00° 59' 56"W
L128	20.95'	S00° 57' 03"W
L129	1.66'	S89° 01' 59"E
L130	9.32'	N60° 58' 01"E
L131	1.12'	S89° 01' 59"E
L133	2.40'	S89° 02' 57"E
L134	7.17'	N00° 58' 01"E
L135	8.77'	N00° 58' 01"E
L137	1.70'	N25° 42' 10"E
L139	16.57'	N00° 59' 56"E

Curve Table			
Curve #	Length	Radius	Delta
C128	23.56'	15.00'	89.98°
C127	2.62'	5.00'	30.00°
C126	2.62'	5.00'	30.00°
C143	2.62'	5.00'	30.07°
C142	2.62'	5.00'	29.98°
C141	23.55'	15.00'	89.97°
C148	10.10'	5.00'	115.70°
C147	11.16'	24.87'	25.71°
C150	7.28'	926.81'	0.45°
C151	8.47'	5.00'	97.04°
C155	4.31'	10.00'	24.70°
C154	4.32'	10.00'	24.74°

CONSTRUCTION NOTES

1. CONSTRUCT NEW CONCRETE SIDEWALK AND BASE PER CITY STD. DETAIL 1–19. DOWEL INTO EXISTING PER CITY STD. DETAIL 1–23
2. CONSTRUCT NEW CONCRETE CURB & GUTTER PER CITY STD. DETAIL 1–16 (A2–6); CURB HEIGHT VARIES – SEE GRADING PLAN
3. SAWCUT LINE
4. 10" THICK FULL–DEPTH ASPHALT CONCRETE (FDAC)
5. CONSTRUCT CASE F CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK PCC OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
6. CONNECT NEW 12" PVC SDR–26 TO EXISTING SDMH
7. INSTALL 47 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
8. INSTALL STANDARD DROP INLET – CURB OPENING PER CITY STD. DETAIL 3–2
9. CONSTRUCT CASE C CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK PCC OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
10. PROTECT IN PLACE EXISTING CONCRETE SIDEWALK
11. CONSTRUCT CASE G CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK PCC OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
12. PROTECT IN PLACE EXISTING WOODEN FENCE
13. INSTALL 3" THICK BARK MULCH
14. PROTECT IN PLACE EXISTING FIRE HYDRANT AND APPURTENANT VALVES
15. PROTECT IN PLACE EXISTING WATER METER
16. PROTECT IN PLACE EXISTING UTILITY POLE
17. INSTALL 21 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
18. CONSTRUCT NEW SDMH OVER EXISTING STORM DRAIN PIPE PER CITY STD. DETAIL 3–12
19. INSTALL 4" THICK DECOMPOSED GRANITE OVER 3" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
20. ADJUST TO NEW GRADE EXISTING WATER VALVE (CALWATER)
21. INSTALL 25 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
22. ABANDON STORM DRAIN PIPE
23. PROTECT EXISTING UTILITY PIPE LINES
24. 6"X6" CONCRETE HEADER (DOWEL INTO CONCRETE SIDEWALK AND CONCRETE CURB)

LEGEND

- CONCRETE SIDEWALK PER CITY STD 1–19
- DECOMPOSED GRANITE
- BARK MULCH
- FDAC
- DETECTABLE DOMES PER CALTRANS STD PLAN A88A
- POTHOLE

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

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REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY AJWELI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - Greenleaf Drive at Beardon Drive
LOCATION 5

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
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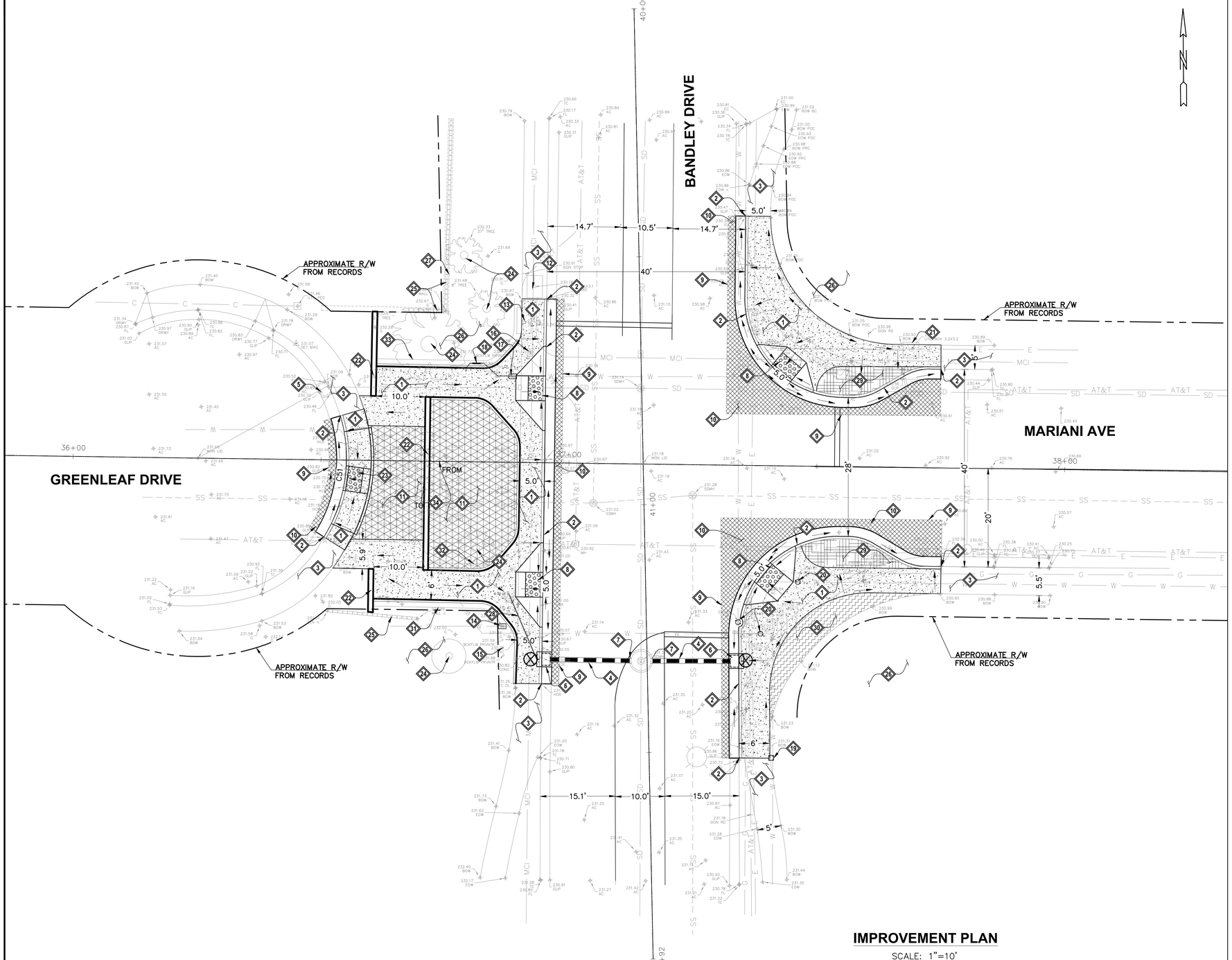
SHEET 9 OF 37

MARCH 2019



IMPROVEMENT PLAN

SCALE: 1"=10'

CONSTRUCTION NOTES

1. CONSTRUCT NEW CONCRETE SIDEWALK AND BASE PER CITY STD. DETAIL 1–19. DOWEL INTO EXISTING PER CITY STD. DETAIL 1–23
2. CONSTRUCT NEW CONCRETE CURB & GUTTER PER CITY STD. DETAIL 1–16 (A2–6); CURB HEIGHT VARIES – SEE GRADING PLAN
3. PROTECT IN PLACE EXISTING CONCRETE SIDEWALK
4. INSTALL 17 LF OF 12" PVC SDR–26 AT 1% SLOPE; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
5. PROTECT IN PLACE EXISTING DROP INLET
6. INSTALL STANDARD DROP INLET – CURB OPENING PER CITY STD. DETAIL 3–2
7. CONNECT NEW 12" PVC SDR–26 TO EXISTING SDMH
8. CONSTRUCT CASE A CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK PCC OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
9. SAWCUT LINE
10. 10" THICK FULL–DEPTH ASPHALT CONCRETE (FDAC)
11. INSTALL 3" THICK BARK MULCH. MAINTAIN EXISTING GRADE AROUND EXISTING TREES
12. PROTECT IN PLACE EXISTING MCI VAULT
13. PROTECT IN PLACE EXISTING AT&T VAULT
14. PROTECT IN PLACE EXISTING WATER METER
15. PROTECT IN PLACE EXISTING BACKFLOW PREVENTER
16. ADJUST TO GRADE EXISTING CITY STREETLIGHT BOX
17. ADJUST TO GRADE EXISTING WATER METER
18. INSTALL NEW BACKFLOW PREVENTER (1" WILKINS 975–XL2); CONNECT TO ADJUSTED WATER METER WITH COPPER PIPE AND BALL VALVE; CONNECT TO EXISTING HOUSE SERVICE
19. PROTECT IN PLACE EXISTING STREET LIGHT POLE AND FOUNDATION
20. ADJUST TO GRADE EXISTING WATER VALVE (CALWATER)
21. PROTECT IN PLACE EXISTING UTILITY BOX
22. NEW MASONRY WALL. SEE STRUCTURAL DRAWING S1
23. CONSTRUCT CASE C CURB RAMP PER CALTRANS STD. PLAN A88A OVER 4" THICK PCC OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
24. PROTECT IN PLACE EXISTING TREE
25. PROTECT IN PLACE EXISTING WALL
26. PROTECT IN PLACE EXISTING LANDSCAPING AND IRRIGATION SYSTEM
27. PROTECT IN PLACE EXISTING ELECTRIC PANEL
28. RE–ROUTE CURB DRAIN PIPE TO THE NEW DROP INLET
29. INSTALL 4" THICK DECOMPOSED GRANITE OVER 3" THICK CLASS 2 AB, COMPACTED TO 95% R.C.
30. EXTEND LANDSCAPE AND IRRIGATION
31. INSTALL ROOT BARRIER 25 LF
32. INSTALL ROOT BARRIER 26 LF
33. INSTALL ROOT BARRIER 37 LF
34. RELOCATE EXISTING SIGN TO NEW WALL

LEGEND

- CONCRETE SIDEWALK PER CITY STD 1–19
- DECOMPOSED GRANITE
- BARK MULCH
- EXTEND LANDSCAPE AND IRRIGATION
- DETECTABLE DOMES PER CALTRANS STD PLAN A88A
- FDAC
- POTHOLE

10 0 5 10 20 40

(IN FEET)
1"=10'

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER AND THEIR CONSULTANTS HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

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REGISTERED PROFESSIONAL ENGINEER ANUP REDDY ADVALI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - Bandley Drive at Mariani Avenue
LOCATION 5

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017–01.05
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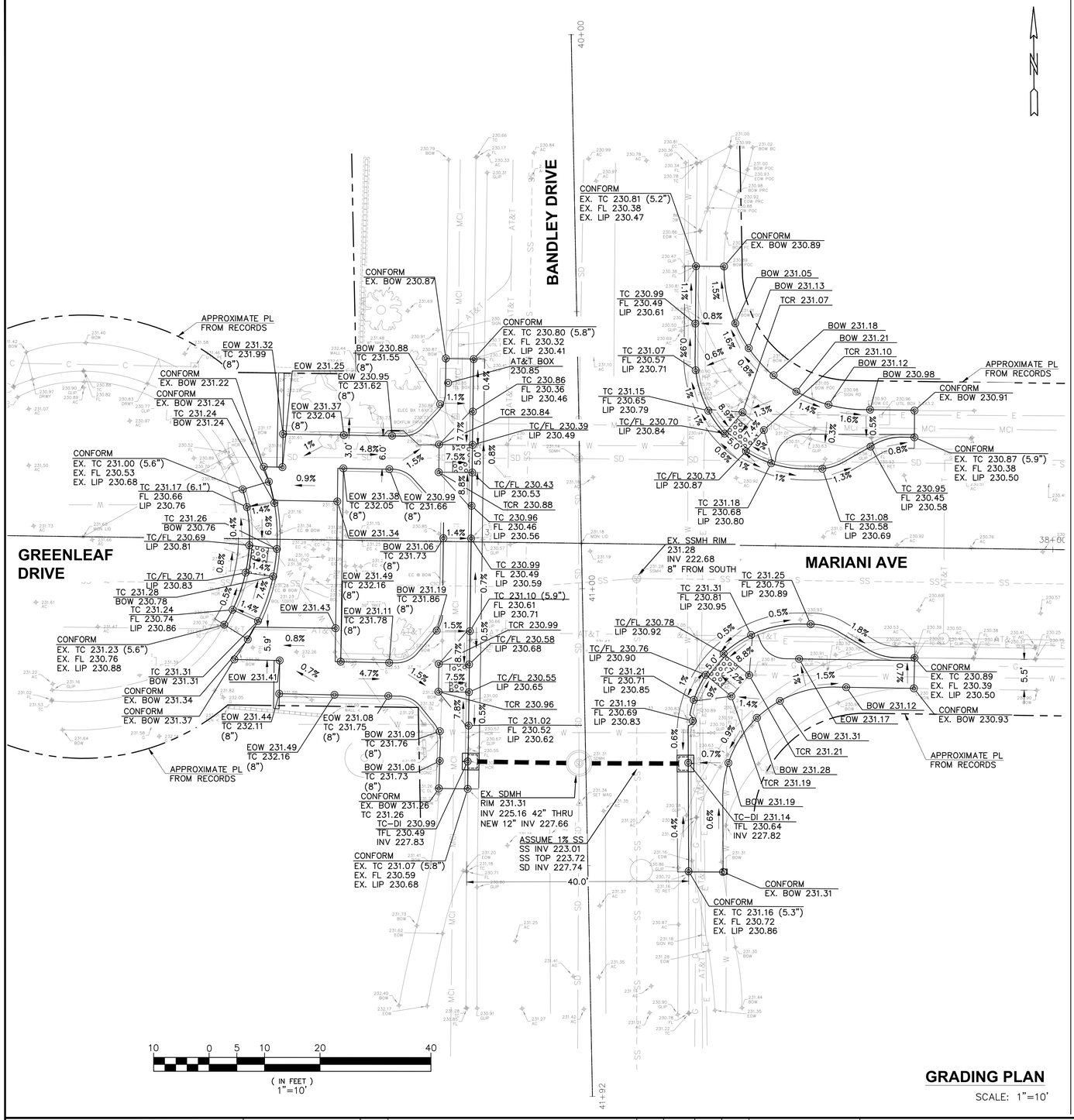
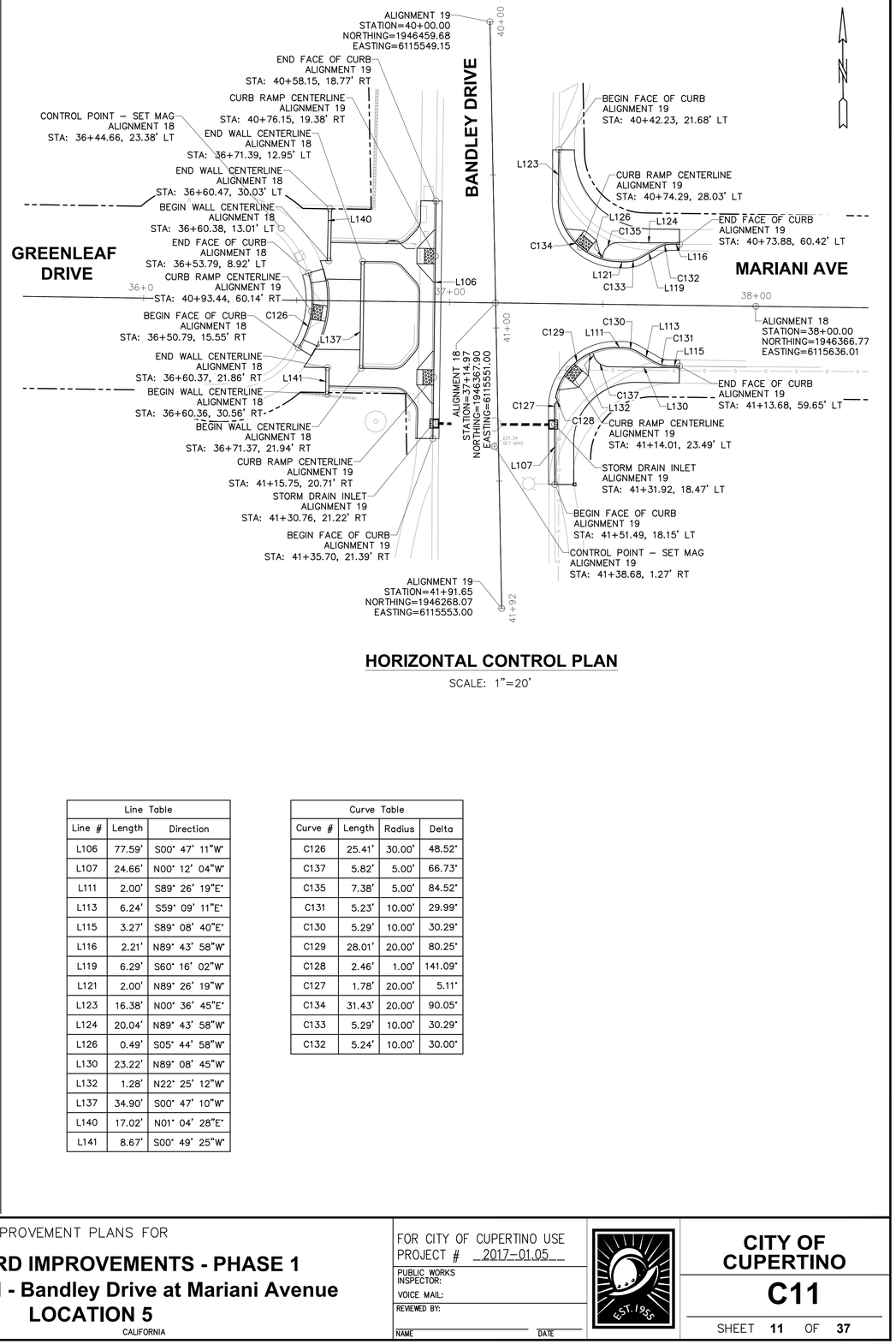
MARCH 2019



GRADING PLAN

SCALE: 1"=10'



HORIZONTAL CONTROL PLAN

SCALE: 1"=20'

Line Table		
Line #	Length	Direction
L106	77.59'	S00° 47' 11"W
L107	24.66'	N00° 12' 04"W
L111	2.00'	S89° 26' 19"E
L113	6.24'	S59° 09' 11"E
L115	3.27'	S89° 08' 40"E
L116	2.21'	N89° 43' 58"W
L119	6.29'	S60° 16' 02"W
L121	2.00'	N89° 26' 19"W
L123	16.38'	N00° 36' 45"E
L124	20.04'	N89° 43' 58"W
L126	0.49'	S05° 44' 58"W
L130	23.22'	N89° 08' 45"W
L132	1.28'	N22° 25' 12"W
L137	34.90'	S00° 47' 10"W
L140	17.02'	N01° 04' 28"E
L141	8.67'	S00° 49' 25"W

Curve Table			
Curve #	Length	Radius	Delta
C126	25.41'	30.00'	48.52'
C137	5.82'	5.00'	66.73'
C135	7.38'	5.00'	84.52'
C131	5.23'	10.00'	29.99'
C130	5.29'	10.00'	30.29'
C129	28.01'	20.00'	80.25'
C128	2.46'	1.00'	141.09'
C127	1.78'	20.00'	5.11'
C134	31.43'	20.00'	90.05'
C133	5.29'	10.00'	30.29'
C132	5.24'	10.00'	30.00'

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

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REGISTERED PROFESSIONAL ENGINEER LAWHON REDDY KOHAL No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
GRADING PLAN - Bandley Drive at Mariani Avenue
LOCATION 5

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
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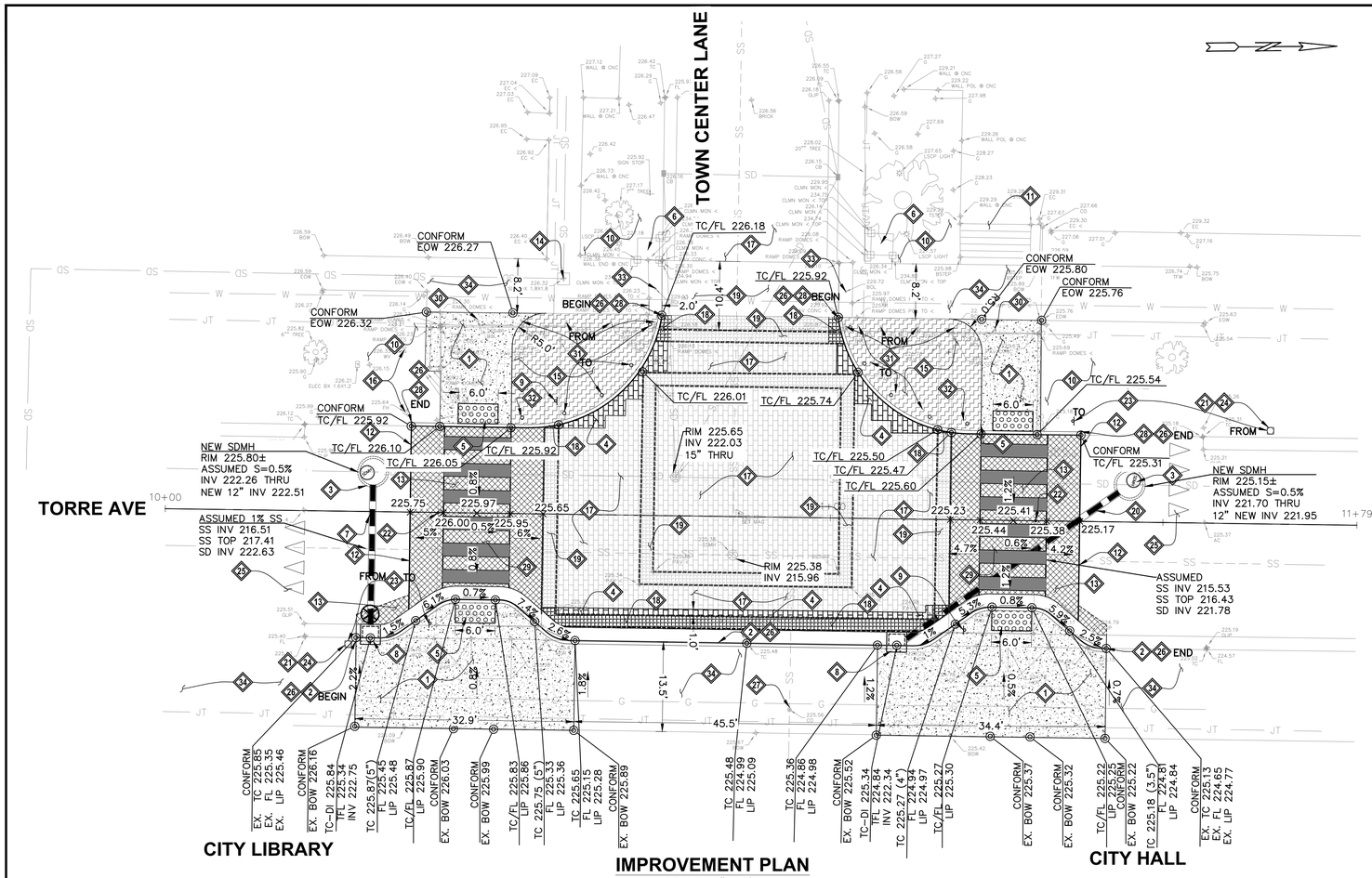
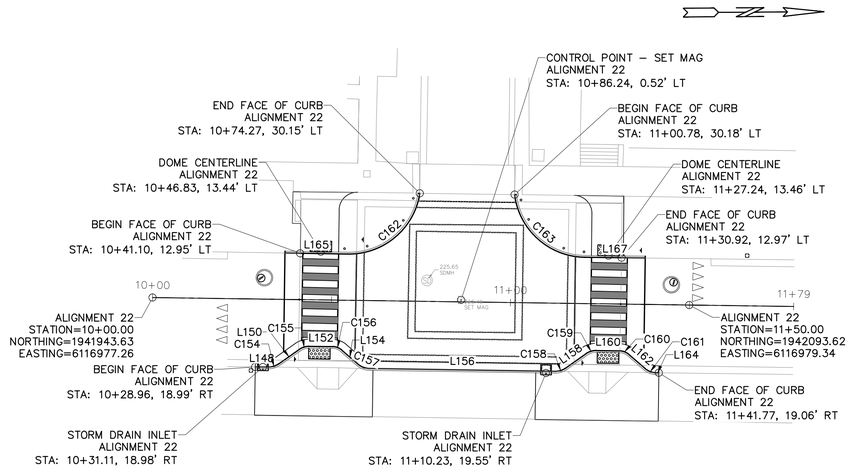


IMPROVEMENT PLAN
SCALE: 1"=10'



HORIZONTAL CONTROL PLAN
SCALE: 1"=20'

CONSTRUCTION NOTES

1. CONSTRUCT NEW CONCRETE SIDEWALK AND BASE PER CITY STD. DETAIL 1–19. DOWEL INTO EXISTING PER CITY STD. DETAIL 1–23
2. CONSTRUCT NEW CONCRETE CURB & GUTTER PER CITY STD. DETAIL 1–16 (A2–6); CURB HEIGHT VARIES – SEE GRADING
3. CONSTRUCT NEW SDMH OVER EXISTING STORM DRAIN PIPE PER CITY STD. DETAIL 3–12
4. INTERLOCKING CONCRETE PAVERS SET ON CONCRETE BASE TO BE REPLACED (REUSE EXISTING PAVERS WITH CITY'S APPROVAL) – MATCH EXISTING PAVEMENT STRUCTURAL SECTION; REFER TO LANDSCAPE PLANS
5. INSTALL TRUNCATED DOMES ON 4" THICK CONCRETE SUBSLAB OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
6. PROTECT IN PLACE EXISTING MONUMENT SIGN
7. INSTALL 22 LF OF 12" PVC SDR–26; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
8. INSTALL STANDARD DROP INLET – CURB OPENING PER CITY STD. DETAIL 3–2
9. INSTALL DOUBLE SIDED W11–2/W16–7P ON NEW SIGN POST
10. PROTECT IN PLACE EXISTING LANDSCAPING AND IRRIGATION SYSTEM
11. PROTECT IN PLACE EXISTING STAIRS
12. SAWCUT LINE
13. 10" FULL–DEPTH ASPHALT CONCRETE (FDAC)
14. PROTECT IN PLACE EXISTING SD BOX
15. NEW LANDSCAPING & IRRIGATION SEE LANDSCAPE PLANS
16. PROTECT IN PLACE EXISTING FIRE HYDRANT AND APPURTENANT VALVES
17. PRESERVE EXISTING INTERLOCKING CONCRETE PAVERS
18. REPLACE COLORED CONCRETE BAND – MATCH EXISTING; SEE LANDSCAPE PLANS
19. PRESERVE EXISTING COLORED CONCRETE PAVING AND COLORED CONCRETE BAND
20. INSTALL 40 LF OF 12" PVC SDR–26; TRENCH BACKFILL PER CITY STD. DETAIL 4–24
21. PROTECT IN PLACE EXISTING STREET LIGHT & CONCRETE FOUNDATION
22. REMOVE SIGN R1–6
23. RELOCATE W11–2/W16–7P ON NEW SIGN POST, INSTALL NEW W11–2/W16–7P ON THE BACK SIDE
24. INSTALL R1–5L ON EXISTING STREETLIGHT POLE
25. INSTALL YIELD LINE PER CALTRANS STD. PLAN A24G
26. PAINT CURB RED
27. PROTECT IN PLACE EXISTING CLEANOUT
28. CONSTRUCT FLUSH CURB OVER 4" THICK CLASS 2 AB COMPACTED TO 95% R.C.
29. INSTALL 10' WIDE WHITE CONTINENTAL CROSSWALK PER CALTRANS STD. PLAN A24F
30. REMOVE AND DISCARD EXISTING BOLLARD WITH LIGHT
31. RELOCATE EXISTING REGULAR BOLLARD
32. INSTALL NEW BOLLARD TO MATCH EXISTING REGULAR BOLLARD
33. PROTECT IN PLACE EXISTING BOLLARD WITH LIGHT
34. PROTECT IN PLACE EXISTING CONCRETE SIDEWALK

LEGEND

- CONCRETE SIDEWALK PER CITY STD 1–19
- LANDSCAPE PLANTING & IRRIGATION, SEE LANDSCAPE & IRRIGATION PLANS
- DETECTABLE DOMES PER CALTRANS STD PLAN A88A
- RESTORE INTERLOCKING CONCRETE PAVERS SET ON CONCRETE BASE. MATCH EXISTING PAVEMENT STRUCTURAL SECTION, SEE LANDSCAPE PLANS
- EXISTING INTERLOCKING CONCRETE PAVERS
- RESTORE COLORED CONCRETE BAND & BASE, SEE LANDSCAPE PLANS
- EXISTING COLORED CONCRETE BAND
- FDAC
- POTHOLE

Line Table		
Line #	Length	Direction
L148	3.65'	N00° 39' 11"E
L150	6.90'	N35° 04' 49"W
L152	6.47'	N00° 45' 48"E
L154	5.97'	N40° 51' 58"E
L156	51.89'	N00° 51' 35"E
L158	6.94'	N35° 01' 54"W
L160	6.47'	N00° 48' 43"E
L162	5.97'	N40° 54' 53"E
L164	0.67'	N00° 41' 38"E
L165	17.59'	N00° 56' 14"E
L167	16.88'	N00° 42' 52"E

Curve Table			
Curve #	Length	Radius	Delta
C162	28.69'	20.00'	82.19°
C163	28.66'	20.00'	82.12°
C161	3.51'	5.00'	40.22°
C160	2.80'	4.00'	40.10°
C159	3.13'	5.00'	35.84°
C158	3.14'	5.00'	35.95°
C157	3.50'	5.00'	40.07°
C156	2.80'	4.00'	40.10°
C155	3.13'	5.00'	35.84°
C154	3.12'	5.00'	35.73°

10 0 5 10 20 40
(IN FEET)
1"=10'

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

Bellecci & Associates, inc.
Civil Engineering • Land Surveying
7077 Koll Center Pkwy, Suite 210 Pleasanton, CA 94566
Phone (925) 681-4885
www.bellecci.com

Date:						
Scale:						
Designed:						
Drawn:						
Checked:						
Proj. Engr:	△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
File:						

REGISTERED PROFESSIONAL ENGINEER ANUOP REDDY ADWALI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IMPROVEMENT PLAN - Torre Avenue at Town Center Lane
LOCATION 3

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

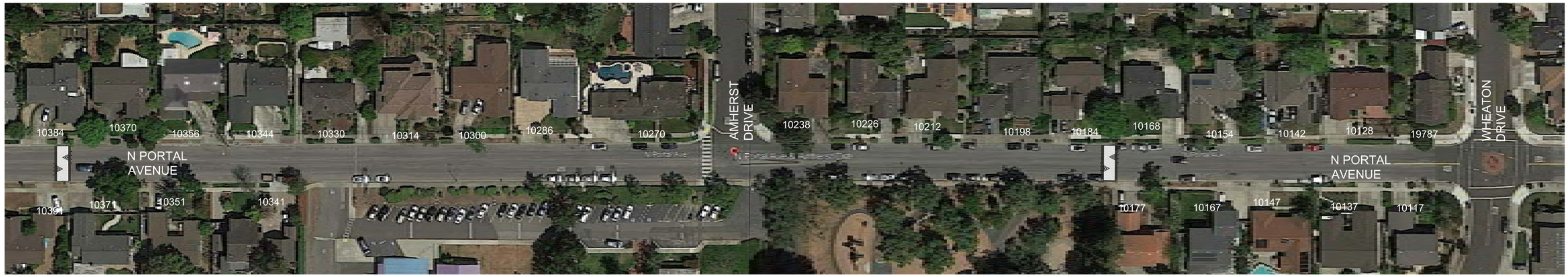
EST. 1925

CITY OF CUPERTINO

C12

SHEET 12 OF 37

MARCH 2019



GENERAL NOTE

CONSTRUCT SPEED TABLES PER CITY STD. DETAIL 1-17 (SEE SHEET C4). THE PLAN ONLY SHOWS APPROXIMATE LOCATIONS OF SPEED TABLES. CITY WILL STAKE IN FIELD FOR EXACT LOCATIONS.

50 0 25 50 100 200
(IN FEET)
1"=50'

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File:						

REGISTERED PROFESSIONAL ENGINEER ANOOP REDDY ADWALI No. 76008 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SPEED TABLE PLAN

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

CITY OF CUPERTINO

C13

SHEET 13 OF 37

MARCH 2019

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GENERAL NOTE

CONSTRUCT SPEED TABLES PER CITY STD. DETAIL 1-17 (SEE SHEET C4). THE PLAN ONLY SHOWS APPROXIMATE LOCATIONS OF SPEED TABLES. CITY WILL STAKE IN FIELD FOR EXACT LOCATIONS.

50 0 25 50 100 200
(IN FEET)
1"=50'

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Date:					
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Designed:					
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Checked:					
Proj. Engr:	△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
File:						

REGISTERED PROFESSIONAL ENGINEER
ANOOP REDDY ADWELL
No. 76008
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SPEED TABLE PLAN

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
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NAME DATE

EST. 1955

CITY OF CUPERTINO

C14

SHEET 14 OF 37

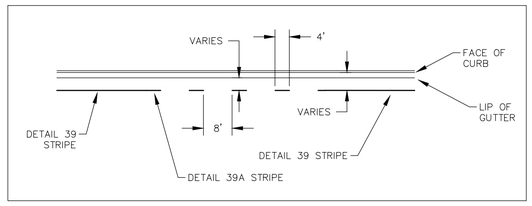
MARCH 2019

GENERAL SIGNING AND STRIPING NOTES:

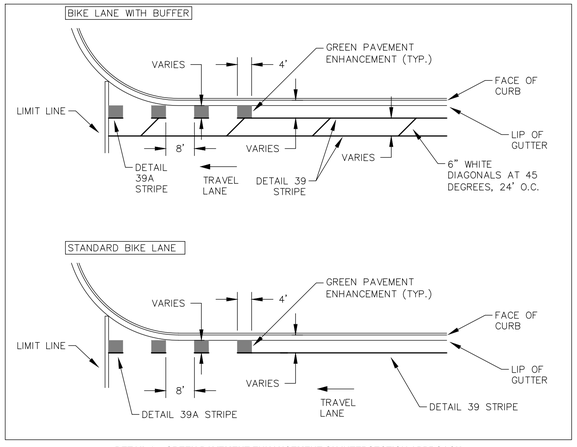
1. ALL WORK SHALL CONFORM WITH THE LATEST CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), CALTRANS STANDARD PLANS AND SPECIFICATIONS, AND CITY OF CUPERTINO STANDARDS.
2. ALL EXISTING SIGNS AND POSTS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL REMOVE ALL SIGNING AND STRIPING THAT CONFLICTS WITH THIS PLAN.
4. ALL UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY ENGINEER.
5. ALL LANE WIDTHS, WHEN ADJACENT TO THE CURB AND GUTTER, ARE MEASURED FROM THE FACE OF CURB.
6. LAYOUT AND CONTROL MARKS SHALL BE PLACED BY THE CONTRACTOR AND APPROVED BY THE CITY TRANSPORTATION ENGINEER PRIOR TO PLACEMENT OF ANY PERMANENT STRIPING, MARKERS, OR PAVEMENT MARKINGS. 48 HOURS NOTICE MUST BE GIVEN TO THE CITY FOR INSPECTION OF LAYOUT AND CONTROL MARKS.
7. ALL PERMANENT STRIPING AND PAVEMENT MARKINGS TO BE THERMOPLASTIC.
8. ALL EXISTING STRIPING THAT IS IN CONFLICT WITH THIS PLAN SHALL BE REMOVED.

LEGEND

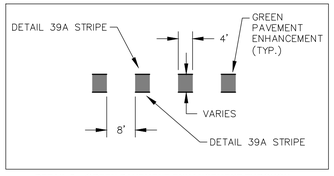
- (##) CALTRANS STRIPING DETAIL NUMBER (SEE CALTRANS STANDARD PLANS A20A THRU A20D)
- BIKE LANE ARROW AND BIKE LANE SYMBOL WITH PERSON PAVEMENT MARKINGS (SEE CALTRANS STANDARD PLANS A24A & A24D)
- SIGN WITH POST (NEW)
- SIGN WITH POST (EXISTING)
- SIGN WITH POST (REMOVE)
- BLUE FIRE HYDRANT LOCATION PAVEMENT MARKER
- BIKE LOOP DETECTOR SYMBOL (SEE CALTRANS REVISED PLANS RSP A24C)
- CALTRANS TYPE IV ARROW (SEE CALTRANS STANDARD PLANS A24A)
- SHARED ROADWAY BICYCLE MARKING (SEE CALTRANS STANDARD PLAN A24C AND DETAIL 5 ON THIS SHEET)
- GREEN PAVEMENT ENHANCEMENT



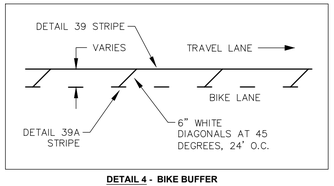
DETAIL 1 - BIKE LANE STRIPING AT CONFLICT POINTS



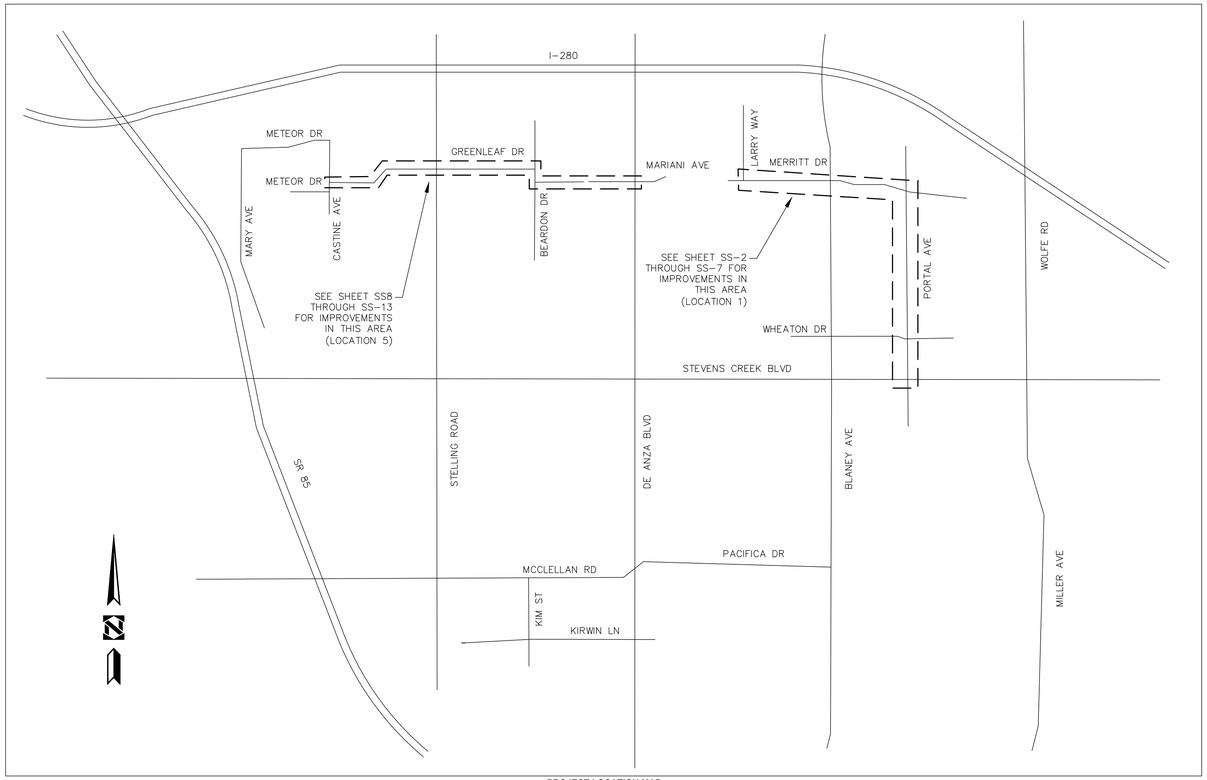
DETAIL 2 - GREEN PAVEMENT ENHANCEMENT ON INTERSECTION APPROACH



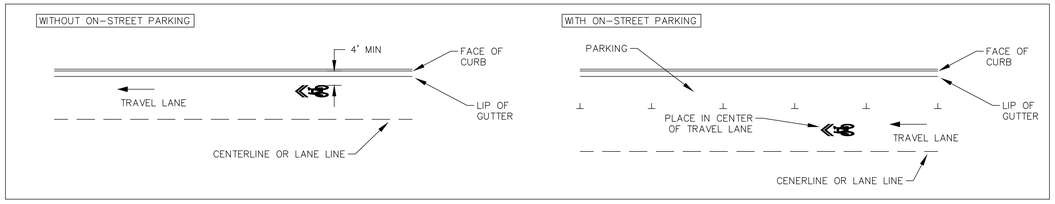
DETAIL 3 - GREEN PAVEMENT ENHANCEMENT THROUGH INTERSECTIONS/CONFLICT POINTS



DETAIL 4 - BIKE BUFFER



PROJECT LOCATION MAP
(NO SCALE)



DETAIL 5 - SHARED ROADWAY BICYCLE MARKING PLACEMENT

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HEXAGON TRANSPORTATION CONSULTANTS, INC.
4 North Second Street, Suite 400
San Jose, California 95113
Ph: (408) 971-6100
www.hextrans.com

Date:	3/8/19
Scale:	N/A
Designed:	R. RODRIGUEZ
Drawn:	R. RODRIGUEZ
Checked:	J. ELIA
Proj. Engr:	J. ELIA
File:	

△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE

5/6/19
REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING
NOTES, LEGEND, AND DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

CITY OF CUPERTINO

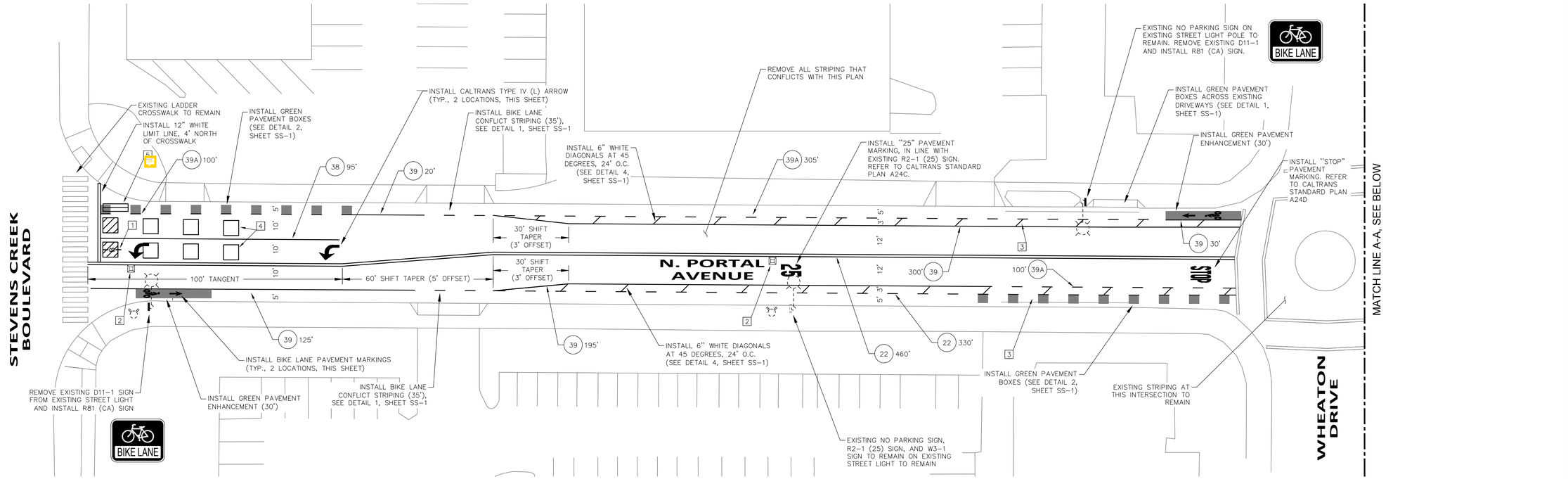
SS-1

SHEET 15 OF 37

MARCH 2019

PROJECT NOTES (THIS SHEET ONLY):

1. INSTALL BICYCLE LOOP DETECTOR SYMBOL ABOVE THE SOUTHBOUND LEFT-TURN LANE LIMIT LINE LOOP DETECTOR.
2. INSTALL BLUE PAVEMENT MARKER, IN LINE WITH THE FIRE HYDRANT AND 6" EAST OF THE CENTER DETAIL 22 LINE.
3. REMOVE EXISTING RAISED CURB, NOT SHOWN ON THIS PLAN. REFER TO CIVIL IMPROVEMENT PLANS.
4. INSTALL 1 CALTRANS TYPE D DETECTOR LOOP AND 3 CALTRANS TYPE A DETECTOR LOOPS IN EACH LANE, PER CALTRANS REVISED STANDARD PLANS ES-5A AND ES-5B. THE TYPE D LOOP SHALL BE PLACED 1' BEHIND THE CROSSWALK AND LOOPS IN THE SAME LANE SHALL BE SEPARATED BY 10'. UTILIZE EXISTING DETECTOR HANDHOLD TO TERMINATE NEW LOOPS.
5. INSTALL 3'X6' MODIFIED TYPE D BICYCLE DETECTOR LOOP. LOOP WINDING PATTERN SHALL CONFORM TO THE TYPE D LOOP DETECTOR WINDING PATTERN SHOWN ON CALTRANS REVISED STANDARD PLAN ES-5B. UTILIZE EXISTING DETECTOR HANDHOLE TO TERMINATE NEW BIKE LANE LOOP. NEW BIKE LOOP SHALL BE TIED IN SERIES TO THE EXISTING DETECTOR LEAD-IN CABLE FOR THE ADJACENT VEHICLE TRAFFIC LANE.



GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

- THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING WORK ONLY.
- EXISTING SIGNING AND STRIPING NOT FULLY DOCUMENTS ON THIS PLAN.
- SEE SHEET SS-1 FOR GENERAL SIGNING AND STRIPING NOTES AND LEGEND.

HEXAGON TRANSPORTATION CONSULTANTS, INC.
4 North Second Street, Suite 400
San Jose, California 95113
Ph: (408) 971-6100
www.hextrans.com

Date:	3/8/19
Scale:	1" = 20'
Designed:	R. RODRIGUEZ
Drawn:	R. RODRIGUEZ
Checked:	J. ELIA
Proj. Engr:	J. ELIA
File:	

△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE

Jeff A. Elia 3/8/19
REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
N. PORTAL AVE. FROM STEVENS CREEK BLVD. TO AMHERST DR. (LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

CITY OF CUPERTINO

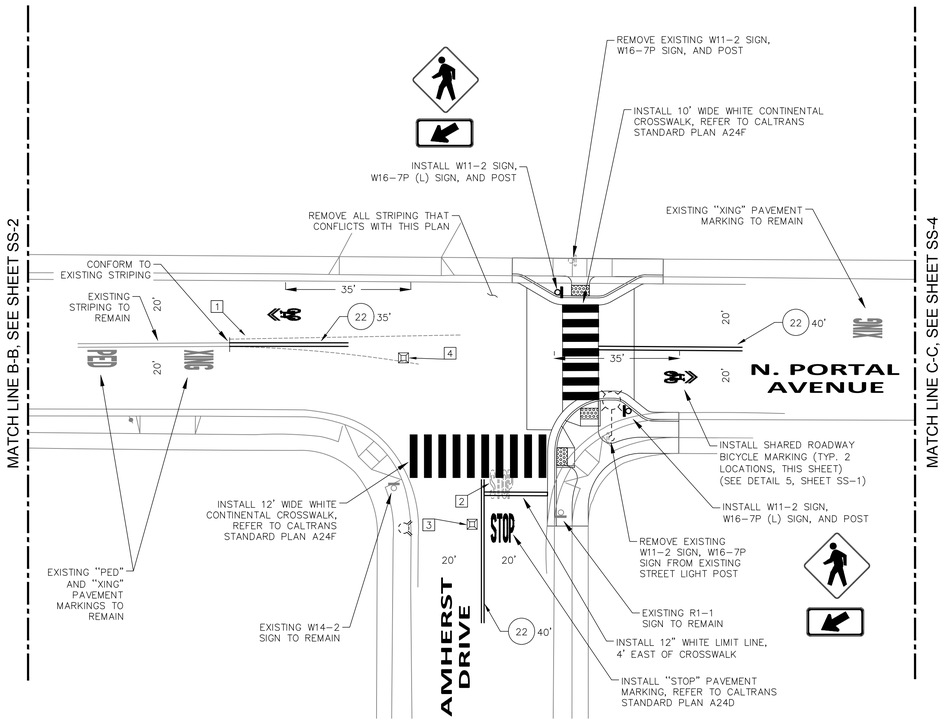
SS-2

SHEET 16 OF 37

MARCH 2019

PROJECT NOTES (THIS SHEET ONLY):

1. REMOVE EXISTING CHANNELIZERS ON THE SOUTH LEG OF THE N. PORTAL AVENUE AND AMHERST DRIVE INTERSECTION.
2. REMOVE EXISTING "STOP" PAVEMENT MARKING.
3. INSTALL BLUE PAVEMENT MARKER, IN LINE WITH THE FIRE HYDRANT AND 6" SOUTH OF THE CENTER DETAIL 22 LINE.
4. INSTALL BLUE PAVEMENT MARKER, IN LINE WITH THE FIRE HYDRANT AND 6" EAST OF THE CENTERLINE.



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GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

CA: 1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT CA: 1-800-227-2600

CALL TWO WORKING DAYS BEFORE YOU DIG

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

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Date:	3/8/19
Scale:	1" = 20'
Designed:	R. RODRIGUEZ
Drawn:	R. RODRIGUEZ
Checked:	J. ELIA
Proj. Engr:	J. ELIA
File:	

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△					

REGISTERED PROFESSIONAL ENGINEER JEFFREY A. ELIA C 68719 EXP. 9/30/19 CIVIL STATE OF CALIFORNIA 3/8/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
N. PORTAL AVE. AND AMHERST DR. (LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:
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NAME DATE

EST. 1955

CITY OF CUPERTINO

SS-3

SHEET 17 OF 37

MARCH 2019

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GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

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REGISTERED PROFESSIONAL ENGINEER — JEFFREY A. ELIA — C 68719 — EXP. 9/30/19 — CIVIL — STATE OF CALIFORNIA — 9/6/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
N. PORTAL AVE. FROM AMHERST DR. TO MERRITT DR.
(LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

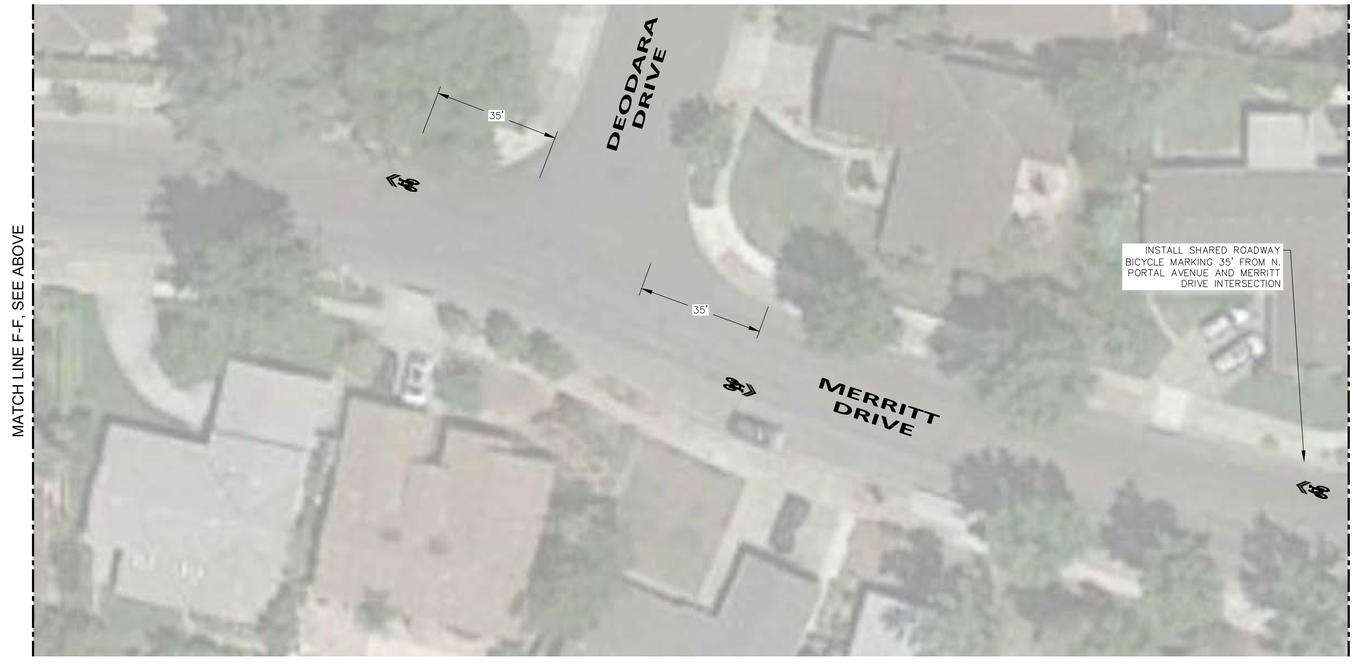
EST. 1955

CITY OF CUPERTINO

SS-4

SHEET 18 OF 37

MARCH 2019



GRAPHIC SCALE

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REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA
5/6/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
MERRITT DR. FROM PORTAL AVE. TO N. BLANEY AVE.
(LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
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EST. 1955

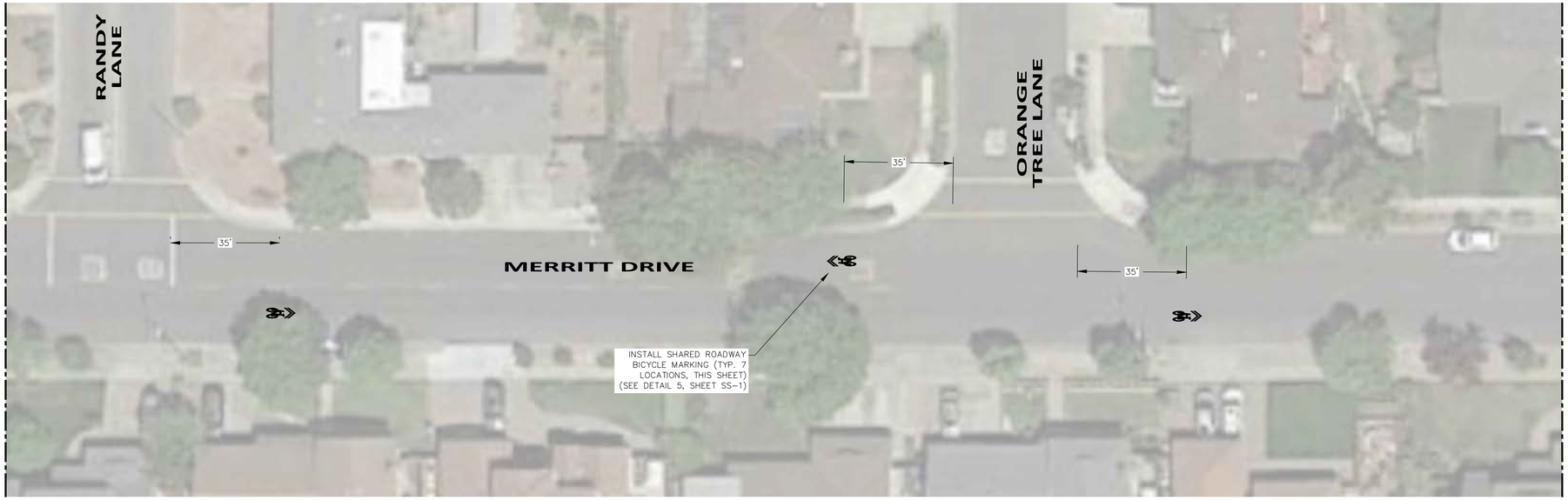
CITY OF CUPERTINO

SS-5

SHEET 19 OF 37

MARCH 2019

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.



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CA: 1-800-227-2600
CALL BEFORE YOU DIG
U.S.A.
UNDERGROUND SERVICE ALERT
CA: 1-800-227-2600
CALL TWO WORKING DAYS BEFORE YOU DIG

GRAPHIC SCALE
20 0 10 20 40 80
1 INCH = 20 FEET

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Ph: (408) 971-6100
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Drawn:	R. RODRIGUEZ
Checked:	J. ELIA
Proj. Engr:	J. ELIA
File:	

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△					

REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
MERRITT DR. FROM N. BLANEY AVE. TO RANDY LN.
(LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

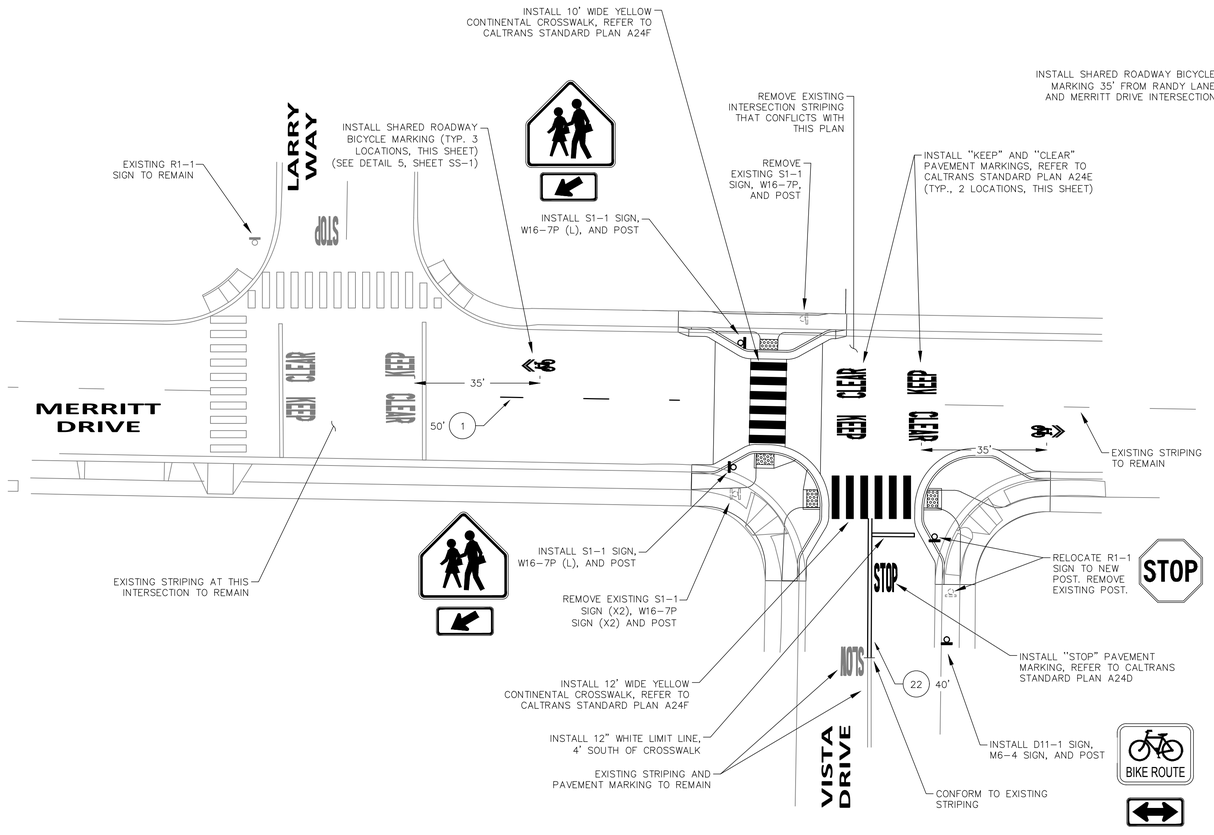
EST. 1955

CITY OF CUPERTINO

SS-6

SHEET 20 OF 37

MARCH 2019



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GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

CA: 1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT CA: 1-800-227-2600

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HEXAGON TRANSPORTATION CONSULTANTS, INC.
4 North Second Street, Suite 400
San Jose, California 95113
Ph: (408) 971-6100
www.hextrans.com

Date:	3/8/19
Scale:	1" = 20'
Designed:	R. RODRIGUEZ
Drawn:	R. RODRIGUEZ
Checked:	J. ELIA
Proj. Engr:	J. ELIA
File:	

△	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE

3/8/19
REGISTERED PROFESSIONAL ENGINEER JEFFREY A. ELIA C 68719 EXP. 9/30/19 CIVIL STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
MERRITT DR. FROM VISTA DR. TO LARRY WAY
(LOCATION 1)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

PUBLIC WORKS INSPECTOR:

VOICE MAIL:

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NAME DATE

EST. 1955

CITY OF CUPERTINO

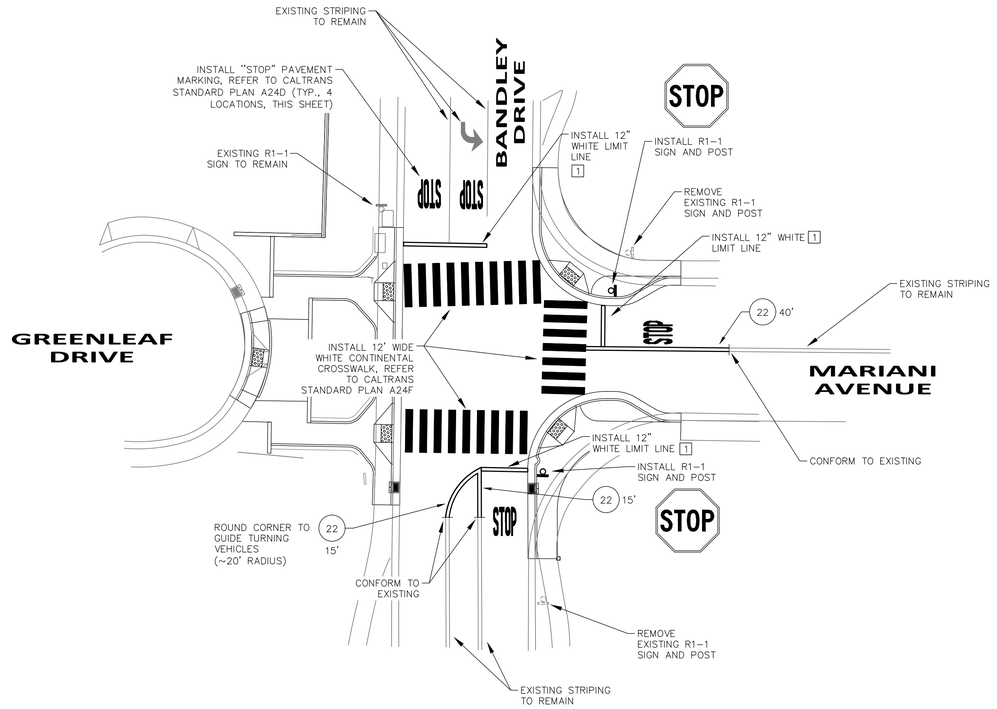
SS-7

SHEET 21 OF 37

MARCH 2019

PROJECT NOTES (THIS SHEET ONLY):

1 INSTALL LIMIT LINE 4' FROM CROSSWALK.



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- SEE SHEET SS-1 FOR GENERAL SIGNING AND STRIPING NOTES AND LEGEND.

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20 0 10 20 40 80

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Jeff A. Elia 3/8/19
REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
BANDLEY DR. AND MARIANI AVE. (LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

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NAME DATE

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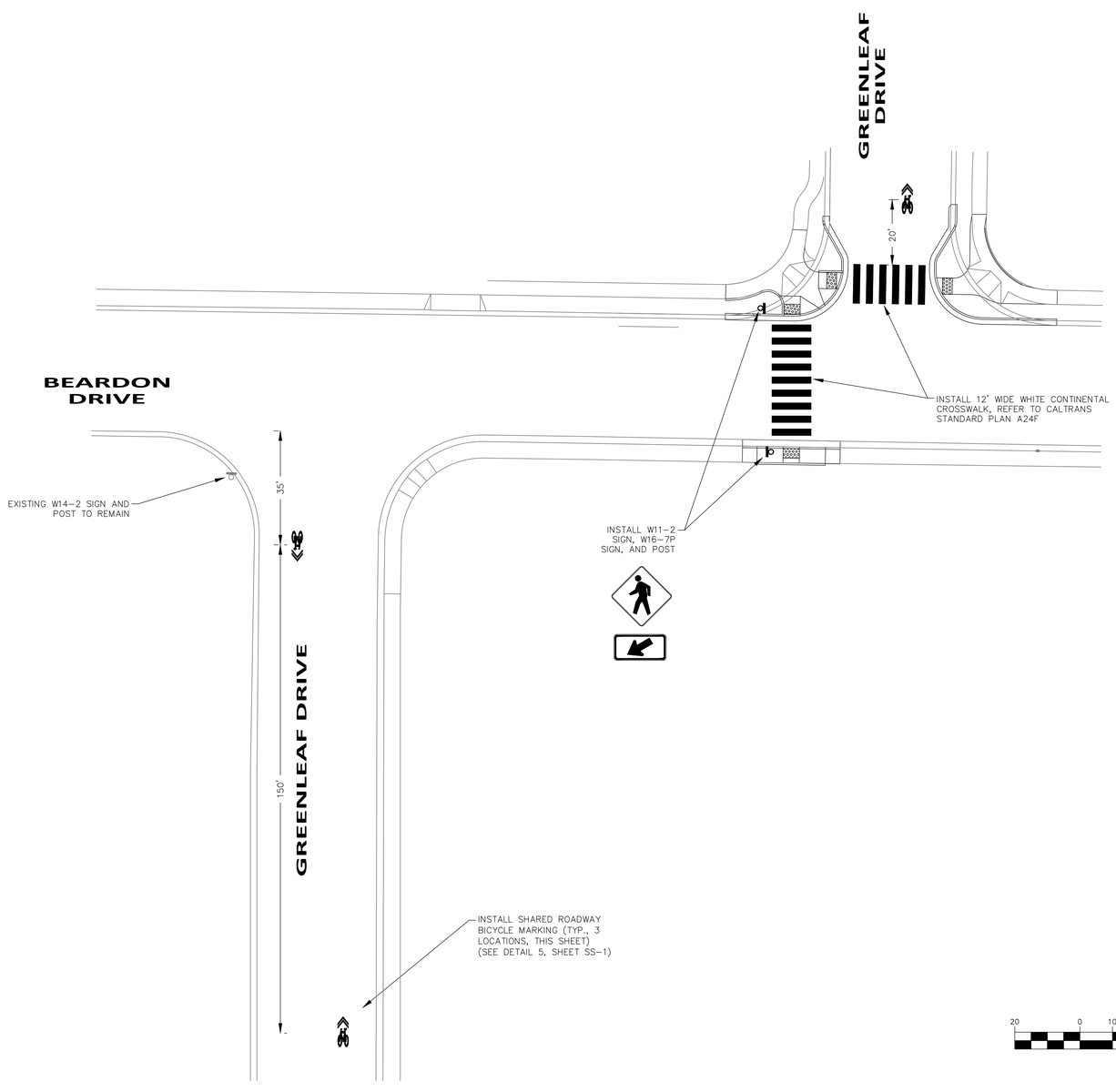
CITY OF CUPERTINO

SS-8

SHEET 22 OF **37**

MARCH 2019

MATCH LINE J-J, SEE SHEET E-10



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REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
BEARDON DR. AND GREENLEAF DR. (LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
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NAME DATE

EST. 1955

CITY OF CUPERTINO

SS-9

SHEET 23 OF 37

MARCH 2019

GRAPHIC SCALE

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REGISTERED PROFESSIONAL ENGINEER JEFFREY A. ELIA C 68719 EXP. 9/30/19 CIVIL STATE OF CALIFORNIA 3/8/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
GREENLEAF DR. FROM BEARDON DR. TO GLENCOE DR.
(LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

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CITY OF CUPERTINO

SS-10

SHEET 24 OF 37

MARCH 2019

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GRAPHIC SCALE

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1 INCH = 20 FEET

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REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
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CIVIL
STATE OF CALIFORNIA
3/8/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS

GREENLEAF DR. FROM GLENCOE DR. TO FLORA VISTA AVE. (LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

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CITY OF CUPERTINO

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SHEET 25 OF 37

MARCH 2019

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Jeff A. Elia 3/8/19
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C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
GREENLEAF DR. FROM FLORA VISTA AVE. TO ANN ARBOR AVE. (LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
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SHEET 26 OF 37

MARCH 2019

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GRAPHIC SCALE

20 0 10 20 40 80

1 INCH = 20 FEET

MATCH LINE O-O, SEE SHEET SS-13

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REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. ELIA
C 68719
EXP. 9/30/19
CIVIL
STATE OF CALIFORNIA
3/8/19

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

SIGNING AND STRIPING IMPROVEMENTS
GREENLEAF DR. FROM ANN ARBOR AVE. TO CASTINE AVE.
(LOCATION 5)

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05

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SHEET 27 OF 37

MARCH 2019

STRUCTURAL SPECIFICATIONS

CONCRETE

ALL CONCRETE SHALL HAVE PROPERTIES AS LISTED BELOW.

CONCRETE ELEMENT	MIN. 28 DAY COMPRESSIVE STRENGTH	MAX. SIZE AGGREGATE (INCHES)	MAX. SLUMP (INCHES)	W/C RATIO W/O FLYASH	W/C RATIO W/25% FLYASH
PIERS & WALL	3000	3/4	4	.55	.50

SHOTCRETE

SHOTCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE STANDARD 506.2-13, "RECOMMENDED PRACTICE FOR SHOTCRETING". SHOTCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MINIMUM SLUMP OF 2" AS DETERMINED BY TESTING THE SHOTCRETE DURING CONSTRUCTION. THE CONTRACTOR SHALL HIRE A PROFESSIONAL TESTING LABORATORY TO DETERMINE THE MIX PROPORTIONS, CONSTRUCTION PROCEDURES AND TESTING METHODS FOR SHOTCRETING. SHOTCRETING SHALL BE MOISTURE CURED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REINFORCING STEEL

BARS FOR REINFORCING SHALL BE GRADE 60 DEFORMED BARS CONFORMING TO ASTM A-615 INCLUDING SUPPLEMENT S1. LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE ON THE PLANS.

SHOP DRAWINGS

FOR THE ENGINEERS REVIEW WILL BE REQUIRED AS FOLLOWS:

1. MIX DESIGNS;
2. REINFORCING STEEL;

CONTRACTOR SHALL SUBMIT TWO SETS OF PRINTS AND ONE SET OF SEPIAS FOR REVIEW. FABRICATION SHALL NOT PROCEED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER.

CONSTRUCTION LIABILITY

CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS AGREE THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB 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 LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR AND HIS SUBCONTRACTORS FURTHER AGREE 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.

EXISTING CONDITIONS

THE CONTRACTOR OR SUBCONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION AND OR ORDERING MATERIAL, ANY DISCREPANCIES DISCOVERED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

SPECIAL INSPECTIONS

THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR DURING CONSTRUCTION ON THE FOLLOWING TYPES OF WORK:

CONCRETE

- DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL REINFORCED CONCRETE AND PNEUMATICALLY PLACED CONCRETE.

REINFORCING STEEL

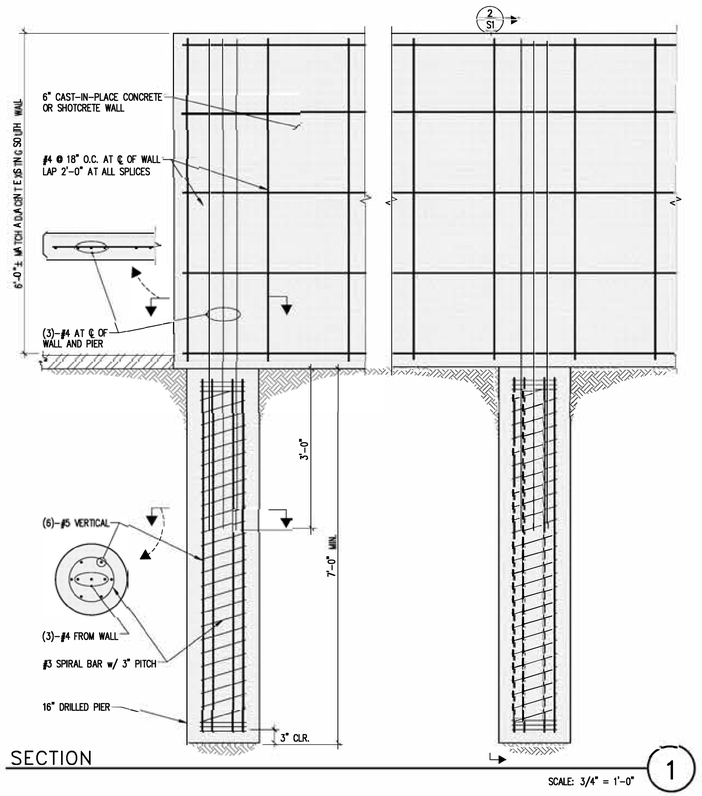
- PERIODICALLY, DURING THE PLACING OF REINFORCING STEEL FOR ALL CONCRETE REQUIRED TO HAVE SPECIAL INSPECTION.

SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF A PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR

- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPLICABLE DESIGN DRAWINGS AND SPECIFICATIONS.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF HIS KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISION OF THIS CODE.



SECTION

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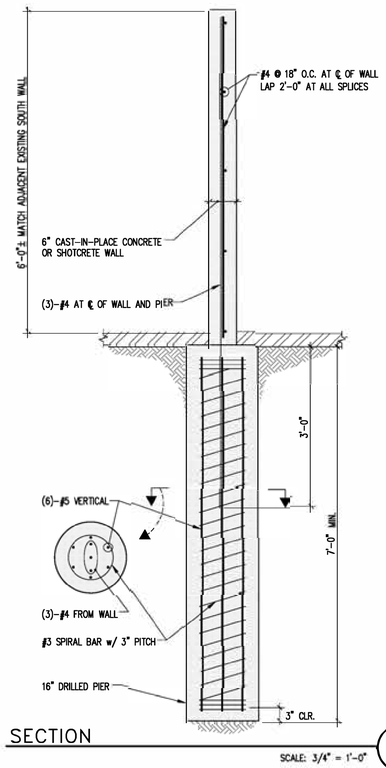

SECTION

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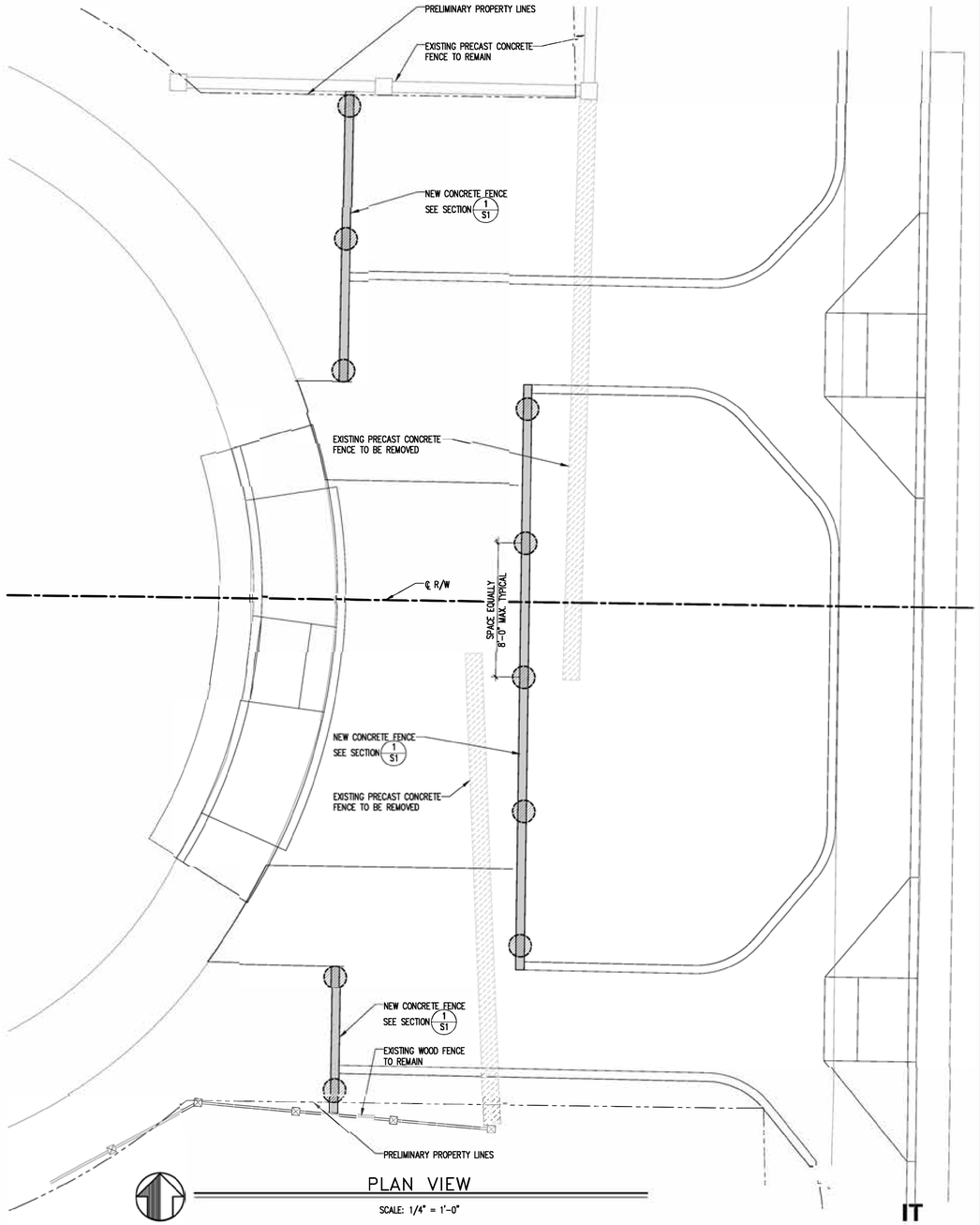

PLAN VIEW

SCALE: 1/4" = 1'-0"

IT

DUQUETTE ENGINEERING
4340 STEVENS CREEK BLVD, #200
SAN JOSE, CALIFORNIA 95129
TELEPHONE: 408.615.9200
FACSIMILE: 408.615.9900
WEBSITE: www.duquette-eng.com

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REGISTERED PROFESSIONAL ENGINEER — ROBERT P. DUQUETTE — No. S3019 — Exp. 3-31-2021 — STRUCTURAL — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1

STRUCTURAL PLAN AND DETAILS - Greenleaf Drive at Bandley Drive and Mariani Avenue

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
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SHEET 28 OF 37

MARCH 2019

LAYOUT NOTES

1. CONTRACTOR SHALL VERIFY ALL UTILITIES, GRADES, EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. ALL DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.
2. ALL WRITTEN DIMENSIONS SUPERCEDE ALL SCALED DISTANCES AND DIMENSIONS. DIMENSIONS SHOWN ARE FROM THE FACE OF THE BUILDING, WALL, BACK OF CURB, EDGE OF WALK, PROPERTY LINE, OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. ALL DIMENSIONS AT ROADWAY ARE TO FACE OF CURB.
4. ALL ANGLES ARE 45 DEGREE, 90 DEGREE, OR 135 DEGREE UNLESS OTHERWISE NOTED.
5. ALL CURVES AND ALL TRANSITIONS BETWEEN CURVES AND STRAIGHT EDGES SHALL BE SMOOTH.
6. ALL RETURN RADII AND CURB DATA ARE TO FACE OF CURB.
7. SCORE LINES IN SIDEWALKS SHALL BE SPACED TO EQUAL THE WIDTH OF THE WALKWAY, UNLESS OTHERWISE SHOWN. EXPANSION JOINTS IN SIDEWALKS SHALL BE 20' ON CENTER MAXIMUM.
8. SIDEWALK, CURB AND GUTTER, GRADING AND DRAINAGE IS BASED ON DRAWINGS PREPARED BY THE CIVIL ENGINEER.
9. STATIONING HEREON IS ALONG CONSTRUCTION CENTERLINE UNLESS OTHERWISE SHOWN OR INDICATED.
10. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO THE CONTRACTOR ON A TIME AND EXPENSES BASIS AND PAID FOR BY THE CONTRACTOR.
11. SEE IRRIGATION DRAWINGS FOR GENERAL SYSTEM REQUIREMENTS AND FOR LOCATION OF IRRIGATION MAINLINE PIPING. SLEEVES TO ACCOMMODATE IRRIGATION PIPING, SIZED AS NEEDED, SHALL BE IN PLACE UNDER AND THROUGH SLABS AND WALLS, PRIOR TO POURING.
12. ALL CONCRETE PAVEMENTS SHALL BE DOWELED INTO CURBS, SIDEWALKS, AND BUILDING FOUNDATIONS.
13. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
14. ANY AND ALL WORK WITHIN CITY RIGHT OF WAY SHALL CONFORM TO ALL CITY STANDARD DETAILS AND SPECIFICATIONS.
15. ALL EXISTING ITEMS TO REMAIN SHALL BE PROTECTED AS REQUIRED. ANY DAMAGED ITEMS SHALL BE FULLY REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE FULL SATISFACTION OF THE OWNER.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
17. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.
18. ALL PATTERNS, LINE TYPES, AND SYMBOLS SHOWN WITHIN THE PLAN SET REFERENCE THE LAYOUT LEGEND AND ARE PART OF THE SCOPE OF WORK. CALLOUTS ARE SHOWN FOR CLARIFICATION OF WORK, BUT DO NOT INDICATE EVERY AND ALL INSTANCES OF SUCH WORK. THE CONTRACTOR SHALL REQUEST CLARIFICATION TO ANY ITEMS (INCLUDING BUT NOT LIMITED TO PAVING, WALLS, FINISHES, COLORS, FENCING, FOUNTAINS, POTS, AND SITE FURNITURE) NOT CLEARLY IDENTIFIED TO BE PART OF THE SCOPE OF WORK PRIOR TO BID.
19. THE CONTRACT DRAWINGS MUST BE ACCOMPANIED BY CONTRACT SPECIFICATIONS. THE CONTRACTOR MUST CONTACT THE LANDSCAPE ARCHITECT AT 925-736-8176 FOR SPECIFICATIONS IF NOT RECEIVED.

PLANTING NOTES

GENERAL

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH PLANTING WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN.
2. ALL QUANTITIES AND PLANT COUNTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN CASE OF DISCREPANCIES, THE PLAN SHALL GOVERN.
3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS, AND DELETIONS IN THE PLANTING SCHEME AS THEY FEEL NECESSARY WHILE WORK IS IN PROGRESS, UPON APPROVAL BY THE OWNER. SUCH CHANGES ARE TO BE ACCOMPANIED BY EQUITABLE ADJUSTMENTS IN THE CONTRACT PRICE, WHEN NECESSARY.
4. PLANT MATERIAL LOCATIONS SHOWN ARE DIAGRAMMATIC AND MAY BE SUBJECT TO CHANGE IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANT LOCATIONS ARE TO BE ADJUSTED IN THE FIELD AS NECESSARY TO SCREEN UTILITIES, BUT SHALL NOT BLOCK WINDOWS, BLOCK SIGNS NOR IMPEDE ACCESS.
5. THE DESIGN INTENT OF THE PLANTING PLAN IS TO ESTABLISH AN ATTRACTIVE MATURE LANDSCAPE APPEARANCE. FUTURE PLANT GROWTH WILL NECESSITATE TRIMMING, SHAPING, AND IN SOME CASE REMOVAL OF TREES AND SHRUBS AS AN ON-GOING MAINTENANCE PROCEDURE.
6. ALL PLANTING AREA MUST BE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL BE FULLY AUTOMATED AND OPERATIONAL WITH FULL COVERAGE PRIOR TO PLANTING.
7. CONTRACTOR TO REVIEW ALL EXISTING, PROPOSED, & AS BUILT UTILITY PLANS PRIOR TO CONSTRUCTION. CONTRACTOR TO TAKE PRECAUTIONS IN EXCAVATION OF ALL TREE PLANTING PITS. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS FOUND DURING CONSTRUCTION.
8. CONTRACTOR TO PROVIDE AND ARRANGE FOR PLANT MATERIAL THRU CONTRACT GROW, PLANT BROKERS, OR DIRECT PURCHASE AS REQUIRED FOR THE FULL IMPLEMENTATION OF THE PROJECTS PLANTING PLAN. CONTRACTOR MUST SUBMIT WITHIN 30 DAYS AFTER AWARD OF A BID A DETAILED NURSERY LIST OF SECURED PLANT MATERIAL, CONTRACT GROW PLANT MATERIAL, AND ANY SUBSTITUTION REQUESTS. CONTRACTOR SHALL ARRANGE AND SECURE ALL PLANT MATERIAL WITHIN 30 DAYS OF BID. UPON DELIVERY, PLANT MATERIAL THAT DOES NOT MEET NURSERY STANDARDS, IS ROOTBOUND, OF POOR QUALITY & HEALTH, SUBSTANDARD SIZE, AND / OR IS NOT APPROVED BY THE LANDSCAPE ARCHITECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. MATERIAL WHICH IS NOT SECURED AND IS UNAVAILABLE IN THE SIZE SPECIFIED SHALL BE UP-SIZED, IF AVAILABLE. ALL REPLACEMENT MATERIAL, SUBSTITUTIONS OR UP-SIZED PLANT MATERIAL MUST BE PROVIDED AS REQUIRED FOR THE FULL IMPLEMENTATION OF THE PLANTING PLAN AT NO ADDITIONAL COST TO THE CONTRACT AND OWNER.
9. PROCUREMENT OF PLANT MATERIAL SHALL NOT BE LIMITED TO NORTHERN CALIFORNIA. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRUCKING, INSPECTIONS, AND INCIDENTALS FOR PROVIDING PLANT MATERIAL FROM SOURCES OUT OF STATE AS REQUIRED BY THE PROJECT PLANTING PLAN.

EXISTING PLANT MATERIAL

1. ALL EXISTING PLANT MATERIAL, TREES, OR LAWN TO REMAIN MUST BE PROTECTED AND MAINTAINED IN PLACE BY THE CONTRACTOR.
2. ANY DAMAGED MATERIAL MUST BE FULLY REPLACED TO MATCH EXISTING BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT AND OWNER.
3. CONTRACTOR MUST MAINTAIN ANY EXISTING IRRIGATION SYSTEMS OR PROVIDE TEMPORARY IRRIGATION SYSTEMS AS REQUIRED TO ALL EXISTING PLANTING AREAS TO REMAIN.

SOILS

1. THE CONTRACTOR MUST PROVIDE AN AGRICULTURAL SUITABILITIES ANALYSIS FOR ALL SOILS EXISTING AND IMPORTED INCLUDING BUT NOT LIMITED TO: EXISTING ON-SITE SOILS, IMPORTED TOPSOIL, LIME TREATED AREAS, AND ALL AMMENDMENTS. RECOMMENDATIONS FOR AMENDMENTS CONTAINED IN THIS ANALYSIS ARE TO BE CARRIED OUT BEFORE PLANTING OCCURS. PROVIDE 2 TESTS AT 6" DEPTH AND 2 TESTS AT 24" DEPTH THROUGHOUT THE SITE. PROVIDE ADDITIONAL TESTING (ONE 6' AND ONE 24" DEPTH TEST PER 25,000 SF FOR AREAS WHICH WERE LIME TREATED). EACH TEST SAMPLE SHALL CONTAIN 3 REPRESENTATIVE SOIL SAMPLES. ALL LIME TREATED PLANTING AREAS SHALL BE REMOVED AND REPLACED WITH IMPORT TOP SOIL AT NO COST TO THE OWNER. ALL TESTING SHALL BE PAID FOR BY THE CONTRACTOR. FOR BID PURPOSES AMEND ALL SOIL WITH 6 YARDS OMRI COMPOST 50LBS GYPSUM AND 100LBS OF GRO-POWER PLUS 5-3-1 W/ M PER 1000SF. CONTRACTOR TO SUBMIT ALL DELIVERY TICKETS FOR COMPOST AND FERTILIZERS FOR VERIFICATION.
2. ALL SOILS IMPORTED ONTO THE SITE FOR ANY PURPOSE SUCH AS GRADING, NON EXPANSIVE FILL, FILL, OR FOR ANY GENERAL PURPOSE MUST BE TESTED FOR PLANT SUITABILITY PRIOR TO PLACEMENT. ALL IMPORT SOILS SHALL BE NON-DETRIMENTAL TO PLANT MATERIAL AND SOILS ANALYSIS SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. PROVIDE 1 TEST PER 500 CY OF MATERIAL.
3. SOIL IS TO BE AMENDED, AT THE RATE INDICATED BY THE SOIL ANALYSIS, TO BRING THE SOIL ORGANIC MATTER CONTENT TO A MINIMUM OF 3.5% BY DRY WEIGHT, AND A MINIMUM OF 2" OF QUALITY RECYCLED COMPOST, ON ALL PLANTING AREAS.
4. ALL PLANTERS IN AREAS WHICH HAVE BEEN COMPACTED, SUCH AS ADJACENT TO BUILDINGS AND IN PARKING LOTS, SHALL BE CROSS RIPPED TO THE FOLLOWING DEPTHS: PLANTERS LESS THAN THREE (3) FEET WIDE SHALL HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES BELOW SUBGRADE. PLANTERS THREE TO TEN (3-10) FEET WIDE MUST HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF 18" BELOW SUBGRADE, PLANTERS MORE THAN 10' WIDE SHALL HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF 12" BELOW SUBGRADE. AREAS SHALL BE PROTECTED AFTER DECOMPACTION.
5. CONTRACTOR SHALL PERFORM A PERCOLATION TEST AT THE BEGINNING OF CONSTRUCTION AT 1 LOCATION PER ACRE (MAX OF 4) TO DETERMINE THE DRAINAGE CAPACITY OF THE EXISTING SITE SOIL FOR TREE HEALTH. NOTIFY THE LANDSCAPE ARCHITECT IF DRAINAGE IS LESS THAN 2" PER HOUR.

PLANTING NOTES (CONT)

SHRUBS, GROUNDCOVERS AND VINES

1. GROUNDCOVER MUST BE PLANTED AS SHOWN ON THE PLAN, INCLUDING UNDER SHRUBS AND IN TREE WATERING BASINS.
2. SHRUBS AND PERENNIALS MUST HAVE ADEQUATE SETBACK FROM THE ADJACENT SIDEWALK AND EDGES OF PARKING LOT CURBS. NOTIFY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF PLANT MATERIAL MAY PROTRUDE INTO THE PATH OF TRAVEL.

ACCESSORIES

1. ALL PLANTING NOT BOUNDED BY CONCRETE OR A HARDSCAPE EDGE SHALL BE COMPLETELY SURROUNDED BY HEADERS.
2. ALL PLANTING AREAS MUST BE TOP-DRESSED WITH 3" LAYER OF RECYCLED CHIPPED MULCH. COLOR: BROWN. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
3. SEE SPECIFICATIONS FOR ALL FERTILIZER REQUIREMENTS

SUBMITTALS

1. CONTRACTOR MUST SUBMIT ALL TESTS, PRODUCTS, ACCESSORIES, INCIDENTALS, CUT SHEETS OF ALL ITEMS SPECIFIED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. ALL PLANT MATERIAL MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY. CONTRACTOR SHALL SUBMIT PHOTOS OF ALL SHRUBS, AND GROUND COVERS FOR PRELIMINARY REVIEW AND APPROVAL.
3. ALL SUBMITTALS AND PLANT MATERIAL NOT REVIEWED AND APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT MAY BE SUBJECT TO FULL REMOVAL AND REPLACEMENT WITH APPROVED SOILS, FERTILIZERS, AND PLANT MATERIAL AT NO ADDITIONAL COST TO THE CONTRACT OR OWNER.

MUNICIPAL REQUIREMENTS

1. ALL PLANT MATERIAL TO BE INSPECTED & APPROVED BY CITY REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. DURING THE INSTALLATION OF LANDSCAPING AND INSTALLATION THE LANDSCAPE ARCHITECT MUST INSPECT AND MONITOR THE INSTALLATION OF MATERIALS TO VERIFY CONFORMANCE TO THESE PLANS. ONCE APPROVED, THE LANDSCAPE ARCHITECT SHALL PROVIDE A WRITTEN LETTER TO DEPARTMENT OF PLANNING AND DEVELOPMENT STATING COMPLIANCE WITH THE APPROVED PLANS.

PLANT SCHEDULE SAMLL PLANTING

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING
FG	FESTUCA GLAUCA	BLUE FESCUE	1 GAL	L	12" o.c.
NT	NASSELLA TENUISSIMA	TEXAS NEEDLE GRASS	5 GAL	L	18" o.c.
PF	PENNISETUM SETACEUM	PURPLE FOUNTAIN GRASS	5 GAL	L	24" o.c.

PLANTING LEGEND

CF	SHRUB NAME	SEE PLANT LIST	2-3
50	QUANTITY	FOR ADDT'L INFO.	L4

SHEET INDEX

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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 4141 — 8/31/2020 RENEWAL 03/08/2019 — LA — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
LANDSCAPE NOTES AND PLANT LIST

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

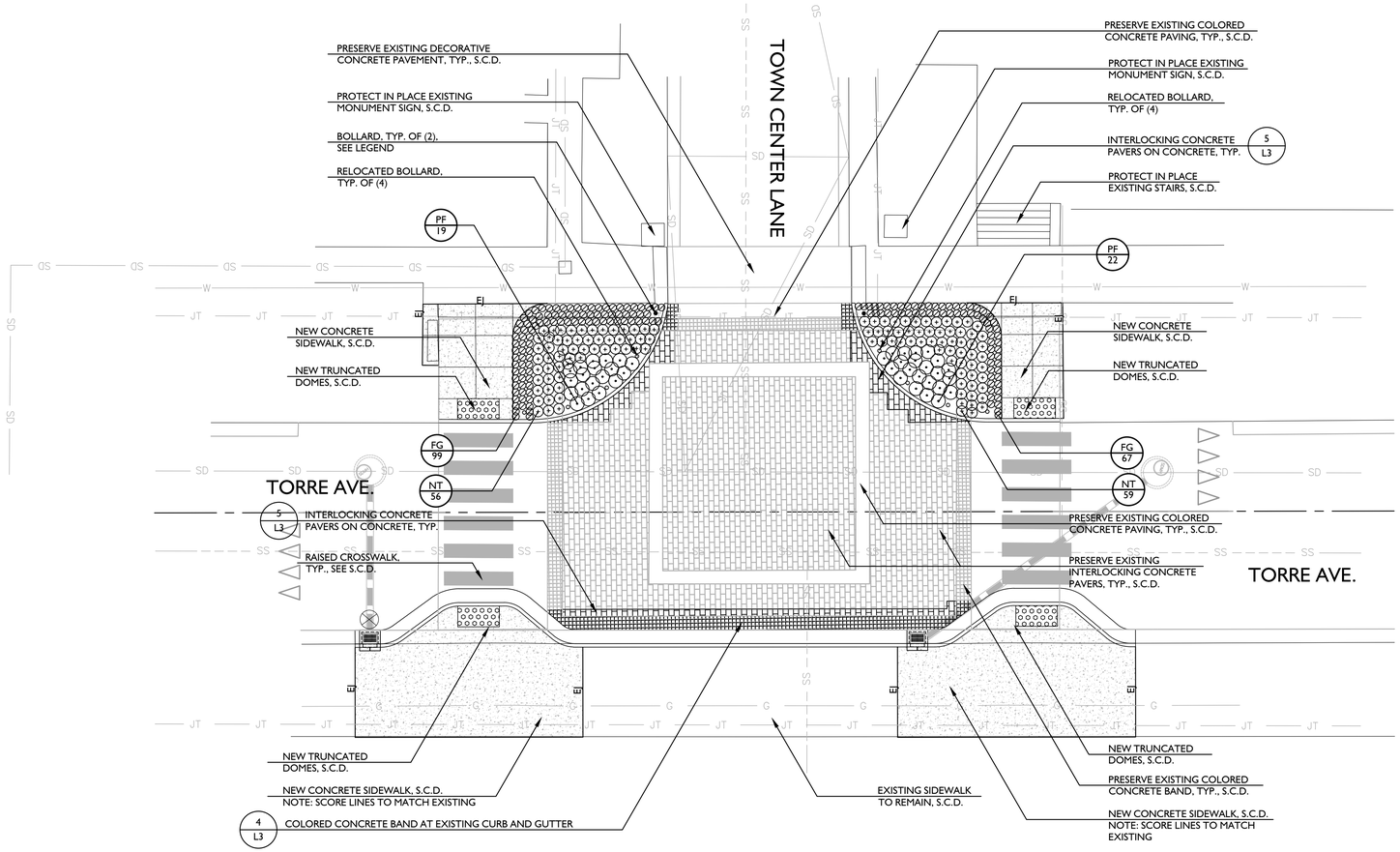
EST. 1955

CITY OF CUPERTINO

L1

SHEET 29 OF 37

MARCH 2019



LAYOUT LEGEND

- COLORED CONCRETE BAND (4 / L3)
  COLOR: C14 FRENCH GREY TO MATCH EXISTING
  FINISH: TO MATCH EXISTING
  SAWCUT TO MATCH EXISTING
- INTERLOCKING CONCRETE PAVERS ON CONCRETE (5 / L3)
  MFR: BASALITE
  MDL: MISSION PAVER (4"X8") BASKET WEAVE PATTERN MIX
  COLOR: PACIFICA, MARIN, AND CARMEL
- NEW CONCRETE SIDEWALK, S.C.D.
- PRESERVE EXISTING INTERLOCKING CONCRETE PAVERS
- PRESERVE EXISTING INTERLOCKING CONCRETE PAVERS
- RELOCATED BOLLARD
  INSTALL PER MFR'S SPECS.
- BOLLARD
  MFR: HOLOPHANE
  MODEL: BOL / C43 / 13-CI / BK
  COLOR/ FINISH: CAST IRON/ BLACK
  INSTALL PER MFR'S SPECS.

10 0 5 10 20 40
(IN FEET)
1"=10'

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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 4547 — 8/31/2020 — 03/08/2019 — STATE OF CALIFORNIA — LA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
PLANTING PLAN - Torre Avenue at Town Center Lane

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
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EST. 1955

CITY OF CUPERTINO

L2

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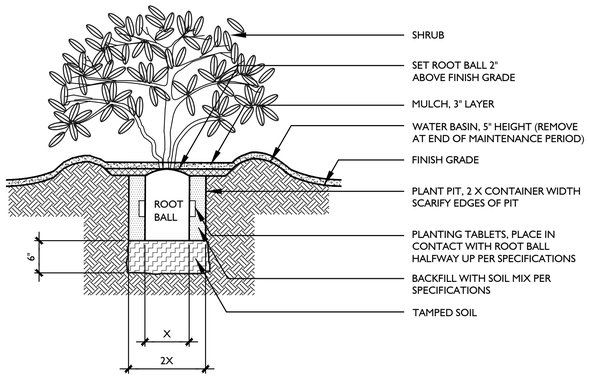
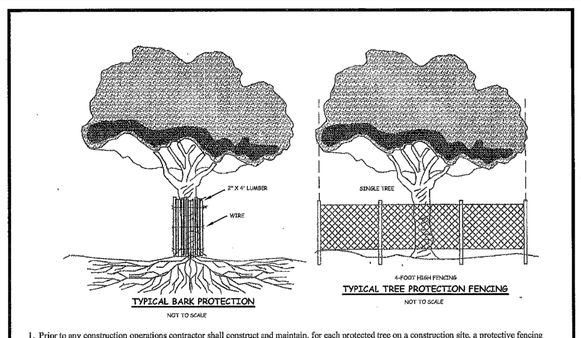
MARCH 2019



2 SHRUB PLANTING

SCALE: N.T.S.



1. Prior to any construction operations contractor shall construct and maintain, for each protected tree on a construction site, a protective fencing which encircles the outer limits of the critical root zone(CRZ) of the tree to protect it from construction activity. The CRZ is calculated 1.25 feet times the diameter of the trunk measured in inches 4.5 feet above the natural grade).
2. All protective fencing shall be in place prior to commencement of any site work and remain in place until all exterior construction activity at the site has been completed.
3. Protective fencing shall be at least six (6) feet high, clearly visible, and shall have a tree protection sign affixed to the fence every twenty (20) feet in such a manner to be clearly visible and legible to workers on the site at a distance of twenty-five (25) feet. The sign(s) shall read "Tree Protection Zone Keep out".
4. The owner shall cause the required fencing and signage to be installed and maintained for the duration of the construction.
5. In situations where a protected tree remains in the immediate area of intended construction and the tree may be in danger of being damaged by construction equipment or other activity, the contractor or subcontractor shall protect the tree with 2"x4" lumber encircled with wire or other means that do not damage the tree. The intent is to protect the trunk of the tree against incidental contact by large construction equipment.
6. Material Storage: No storage or placement of materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any protected tree.
7. Equipment Cleaning/Liquid Disposal: No equipment shall be cleaned or other liquids, including, without limitation, paint, oil, solvents, asphalt, concrete, mortar or similar materials deposited or allowed to flow into the critical root zone of a protected tree.
8. Tree Attachments: No signs, wires or other attachments, other than those of a protective nature, shall be attached to any protected tree.
9. Vehicular Traffic: No vehicular and/or construction equipment traffic or parking shall take place within the critical root zone of any protected tree other than on existing street pavement.
10. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, excavators, skid steer tractors, trenchers, compressors, and hoists, shall be allowed inside the drip-line of any protected tree on any construction site.
11. Grade Changes: No grade changes shall be allowed within the limits of the critical root zone of any protected tree unless adequate protective construction methods are approved in advance in writing by the city.
12. Impervious Paving: No paving with asphalt, concrete or other impervious materials shall be placed within the limits of the critical root zone of a protected tree, unless expressly permitted by the public works Dept
13. Root Pruning: All roots two inches or larger in diameter which are exposed as a result of trenching or other excavation shall be cut off square with a sharp medium tooth saw and covered with natural fiber burlap within two hours of initial exposure.
14. All public sidewalks shall remain open, free and clear for public access, unless closure is permitted by the Public Works Department.

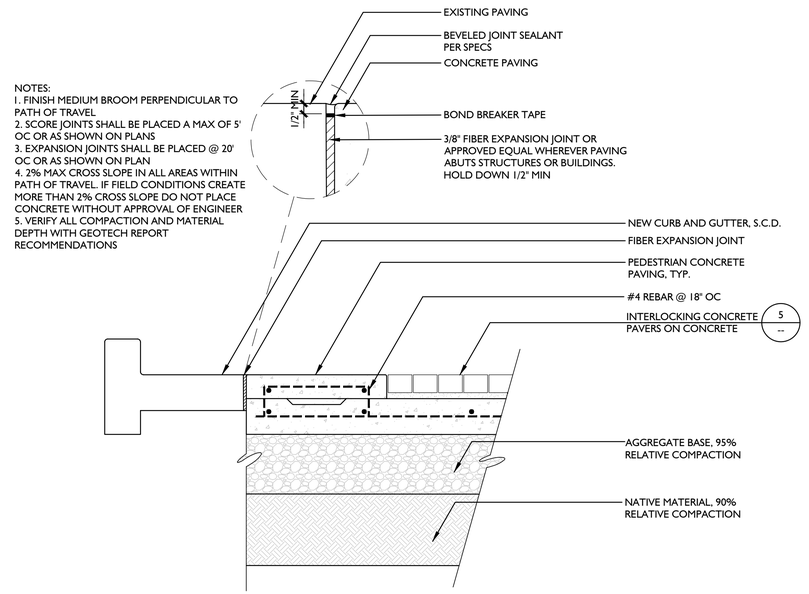
TREE PROTECTION STANDARDS

REVISED 5/13

CITY OF CUPERTINO STANDARD DETAILS	APPROVED BY: City Engineer DATE: 7/19/13	6-4

1 TREE PROTECTION STANDARDS

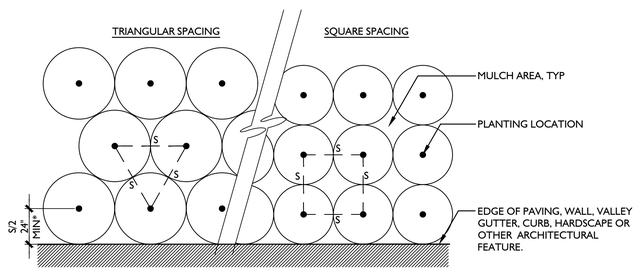
SCALE: 1" = 1"



NOTES:
1. FINISH MEDIUM BROOM PERPENDICULAR TO PATH OF TRAVEL
2. SCORE JOINTS SHALL BE PLACED A MAX OF 5' OC OR AS SHOWN ON PLANS
3. EXPANSION JOINTS SHALL BE PLACED @ 20' OC OR AS SHOWN ON PLAN
4. 2% MAX CROSS SLOPE IN ALL AREAS WITHIN PATH OF TRAVEL. IF FIELD CONDITIONS CREATE MORE THAN 2% CROSS SLOPE DO NOT PLACE CONCRETE WITHOUT APPROVAL OF ENGINEER
5. VERIFY ALL COMPACTION AND MATERIAL DEPTH WITH GEOTECH REPORT RECOMMENDATIONS

4 COLORED CONCRETE BAND AT EXISTING CURB AND GUTTER

SCALE: 1" = 1'-0"



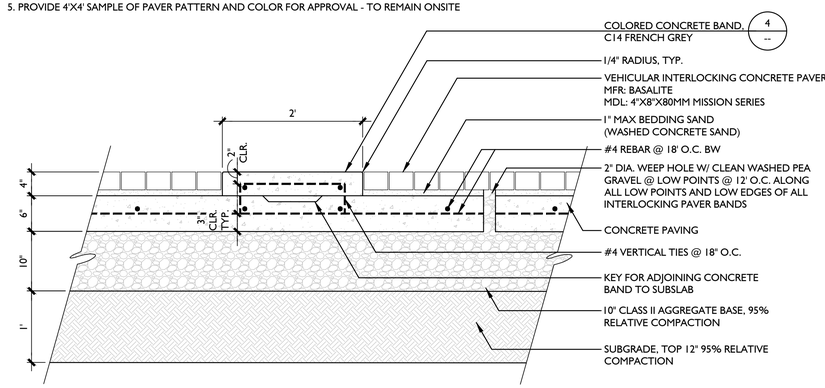
NOTES:
A. S = PLANT SPACING DISTANCE ON CENTER, SEE CHART
B. FOR USE AS A GUIDE FOR SHRUBS AND GROUNDCOVER WHEN PLANTS ARE SPACED EQUIDISTANT FROM EACH OTHER.
*AT ALL SHRUB AND GROUNDCOVER LOCATIONS WHERE SPRAY IRRIGATION IS USED. HOLD PLANTING 24" CLEAR OF CURB LINE IN CONJUNCTION WITH IRRIGATION PER AB 1881.

Plant Quantity Chart	
Spacing	# of Plants/S.F.
6" o.c.	4.60
8" o.c.	2.60
12" o.c.	1.15
18" o.c.	.512
24" o.c.	.290
30" o.c.	.185
36" o.c.	.128
42" o.c.	.087
48" o.c.	.063

3 PLANT SPACING

SCALE: 1" = 1'-0"

NOTES:
1. CONCRETE PAVING AND PAVERS TO BE FLUSH
2. COLOR MIX: 1/3 MARIN, 1/3 PACIFICA, 1/3 CARMEL (RANDOMLY PLACED)
3. PAVERS TO BE SET IN BASKETWEAVE PATTERN
4. SEAL ALL PAVERS WITH SUREBOND OR APPOVED EQUAL
5. PROVIDE 4'X4' SAMPLE OF PAVER PATTERN AND COLOR FOR APPROVAL - TO REMAIN ONSITE



5 INTERLOCKING CONCRETE PAVERS ON CONCRETE

SCALE: 1" = 1'-0"

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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 4581 — 8/31/2020 — 03/08/2019 — L.A. — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
CONSTRUCTION DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

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MARCH 2019

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE RESPONSIBILITY OF THE OWNER OR THE ENGINEER.

EXISTING 18 STATION RAINMASTER IRRIGATION CONTROLLER "C" LOCATED INSIDE ELECTRICAL ROOM

EXISTING CONDUIT FROM CONTROLLER TO PULL BOX LOCATED WITHIN PLANTING AREA

FOR EXISTING IRRIGATION - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

C-14 1" 1

C-13 1" 3

C-12 1" 2

C-11 1" 3

C-15 1" 6

C-10 1" 11

C-6 1" 6

C-7 1" 2

C-8 1" 7

C-9 1" 4

PIPE CONTINUATION SYMBOL AFTER CONTROL VALVE AND FILTER ASSEMBLY FOR SUBSURFACE DRIP TUBING, TYPICAL. REFER TO DRIP TUBING PIPE CONFIGURATION DETAILS.

IRRIGATION INSIDE DASHED OUTLINE AREA: TORO DL2000 DRIP EMITTER TUBING PART NUMBER: RGP-418-10-E 1.0 GPH EMITTERS 18" ON CENTER DRIPLINE PIPE WITH TORO BARBED FITTINGS (OR APPROVED EQUAL) INSTALLED 4" COVER BELOW SOIL LEVEL. INSTALL DRIPLINE PER INSTALLATION DETAILS

TORO FLUSH VALVE - REFER TO INSTALLATION DETAILS.

CUT AND SPLICE INTO EXISTING CL 200 PVC IRRIGATION LATERAL LINES FOR DRIPLINE AND TREE BUBBLERS TO REMAIN IN SERVICE. REPLACE PIPE SECTIONS WITHIN NEW LIMIT OF WORK AREA AND INSTALL IN SLEEVES CROSSING NEW PAVING AS SHOWN - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

TOWN CENTER LANE

TORO AIR RELIEF VALVE - REFER TO INSTALLATION DETAILS.

INSTALL NEW CONTROL VALVE ADJACENT TO EXISTING VALVE C-10. CONNECT EXISTING SPARE CONTROL WIRE AND COMMON WIRE TO NEW VALVE. WIRE TO AVAILABLE OPEN STATION WITHIN CONTROLLER AND PROGRAM RUN TIMES AS REQUIRED. REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

EXISTING SCH 40 PVC 1.5" IRRIGATION MAINLINE - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

EXISTING 3/4" CL 200 PVC IRRIGATION LATERAL LINES FOR DRIPLINE AND TREE BUBBLERS TO REMAIN - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

CUT AND SPLICE INTO EXISTING 3/4" CL 200 PVC IRRIGATION LATERAL LINES FOR DRIPLINE AND TREE BUBBLERS TO REMAIN IN SERVICE. REPLACE PIPE SECTIONS WITHIN NEW LIMIT OF WORK AREA AND INSTALL IN SLEEVES CROSSING NEW PAVING AS SHOWN - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

TORO OPERATION INDICATOR INSTALLED WITHIN EACH PLANTER - REFER TO INSTALLATION DETAILS.

EXISTING 3/4" CL 200 PVC IRRIGATION LATERAL LINES FOR DRIPLINE AND TREE BUBBLERS TO REMAIN - REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

EXISTING WATER METER AND BACKFLOW FOR IRRIGATION LOCATED NEAR CORNER OF TORRE AVE. & RODRIGUES AVE. REFER TO AS-BUILT IRRIGATION PLANS PREPARED BY CARDUCCI & ASSOCIATES DATED 6-30-2004.

TORRE AVE.

TORRE AVE.

10 0 5 10 20 40

(IN FEET)
1"=10'

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REGISTERED LANDSCAPE ARCHITECT · LINDA GATES No. 3431 · 8/31/2020 · 03508/2018 · L.A. · STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IRRIGATION PLAN - Torre Avenue at Town Center Lane

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
VOICE MAIL:
REVIEWED BY:
NAME DATE

EST. 1955

CITY OF CUPERTINO

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MARCH 2019

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

IRRIGATION NOTES

1. 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.

2. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

3. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC.

4. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS 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. THEN WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

5. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN LAWN AREA).

6. SPLICING OF 24 VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 24" 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.

7. IRRIGATION CONTROL WIRES: SOLID STRAND COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE AWG–UF #14–1. COMMON GROUND WIRE: #12 WITH WHITE INSULATING JACKET. CONTROL WIRE: INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES: MADE WITH 3M–DBY SEAL PACKS. EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.

8. NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT WHICH WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS INSTRUCTIONS ARE OBTAINED.

9. INSTALL VALVE BOXES 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 12" APART. SHORT SIDE OF VALVE BOX SHALL BE PARALLEL TO WALK, CURB LAWN, ETC.

10. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

11. OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.

12. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

13. PRIOR TO TRENCHING, CALL UNDERGROUND SERVICE ALERT, (1–800) 642–2444 FOR NORTHERN CALIFORNIA

14. ADJUSTING. CONTRACTOR SHALL INPUT ALL REQUIRED DATA INTO CONTROLLERS TO ALLOW SELF SCHEDULING INCLUSIVE OF PLANT SPECIES, PLANT WATER REQUIREMENTS, EXPOSURE, SOIL TYPE, SLOPE, IRRIGATION TYPE AND IRRIGATION EFFICIENCY.

15. THE APPLICANT SHALL SUBMIT AN IRRIGATION AUDIT REPORT WITH THE CERTIFICATE OF COMPLETION TO THE LOCAL AGENCY THAT MAY INCLUDE, BUT IS NOT LIMITED TO: INSPECTION, SYSTEM TUNE–UP, SYSTEM TEST WITH DISTRIBUTION UNIFORMITY, REPORTING OVERSPRAY OR RUN OFF THAT CAUSES OVERLAND FLOW, AND PREPARATION OF AN IRRIGATION SCHEDULE, INCLUDING CONFIGURING IRRIGATION CONTROLLERS WITH APPLICATION RATE, SOIL TYPES, PLANT FACTORS, SLOPE, EXPOSURE AND OTHER FACTORS NECESSARY FOR ACCURATE PROGRAMING. IRRIGATION AUDIT SHALL BE CONDUCTED BY A THIRD PARTY IRRIGATION AUDITOR. LANDSCAPE AUDITS SHALL NOT BE CONDUCTED BY THE PERSON WHO DESIGNED THE LANDSCAPE OR INSTALLED THE LANDSCAPE.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	GPM	RADIUS
	RGP–418–10	IRRIGATION INSIDE DASHED OUTLINE AREA: TORO DL2000 DRIP EMITTER TUBING PART NUMBER: RGP–218–10 0.50 GPH EMITTERS 18" ON CENTER DRIPLINE PIPE WITH TORO TRI–LOC FITTINGS (OR APPROVED EQUAL) INSTALLED 4" COVER BELOW SOIL LEVEL. INSTALL DRIPLINE PER INSTALLATION DETAILS	30	1.0 GPH	–
	SEE DETAILS	PIPE CONTINUATION SYMBOL AFTER CONTROL VALVE AND FILTER ASSEMBLY FOR SUBSURFACE DRIP TUBING, TYPICAL. REFER TO DRIP TUBING PIPE CONFIGURATION DETAILS.			
F	T–FCH–H	TORO FLUSH VALVE INSIDE 10" ROUND BOX INSTALLED PER INSTALLATION DETAILS.			
AV	T–YD–500	TORO AIR VACUUM RELIEF VALVE INSIDE 10" ROUND BOX INSTALLED AT HIGH POINT WITHIN LANDSCAPE PER INSTALLATION DETAILS.			
OP	T–DL–MP9	TORO OPERATION INDICATOR INSTALLED WITHIN EACH LANDSCAPE PLANTER PER INSTALLATION DETAILS.			
	1–1201–1151–8130 PMR–MF–30–1"	AMIAD 1" FILTER WITH 130 MESH SCREEN WITH SENNINGER 1" IN–LINE PRESSURE REDUCING VALVE			
	P–220–26 SERIES	TORO REMOTE CONTROL VALVE			
	EXISTING P–220 SERIES	TORO REMOTE CONTROL VALVE			
	EXISTING	EXISTING BACKFLOW PREVENTOR			
W	EXISTING	EXISTING WATER METER			
C–1 1" 15		STATION NUMBER GALLONS PER MINUTE VALVE SIZE			
		EXISTING MAINLINE: SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.			
		EXISTING LATERAL: CLASS 200 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.			
		MAINLINE: SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.			
		LATERAL LINE: 1120–CLASS 200 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.			
		1120–SCHEDULE 40 PVC SLEEVES WITH SCHEDULE 40 PVC FITTINGS REFER TO CIVIL PLANS FOR MORE INFORMATION. 24" COVER			

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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 2497 — 8/31/2020 — 03/08/2019 — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IRRIGATION NOTES AND LEGEND

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017–01.05
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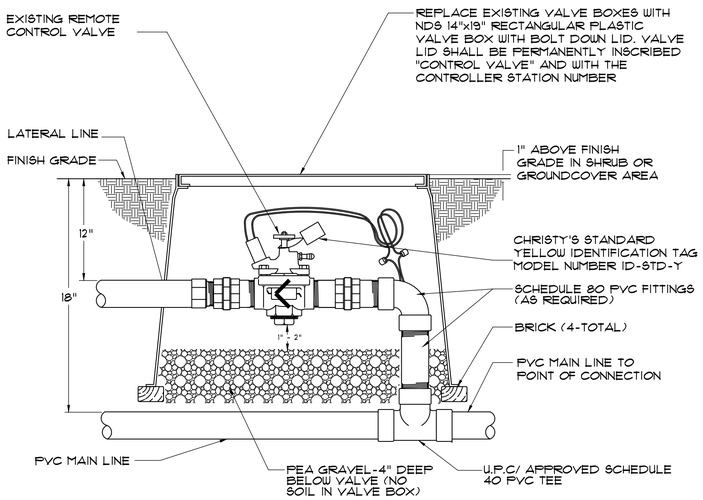
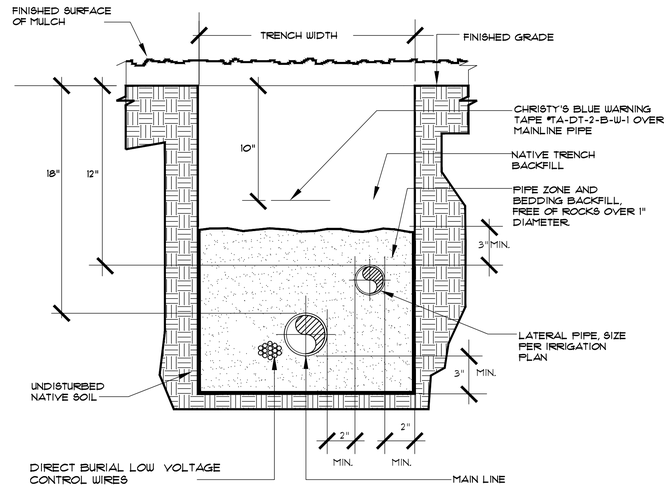
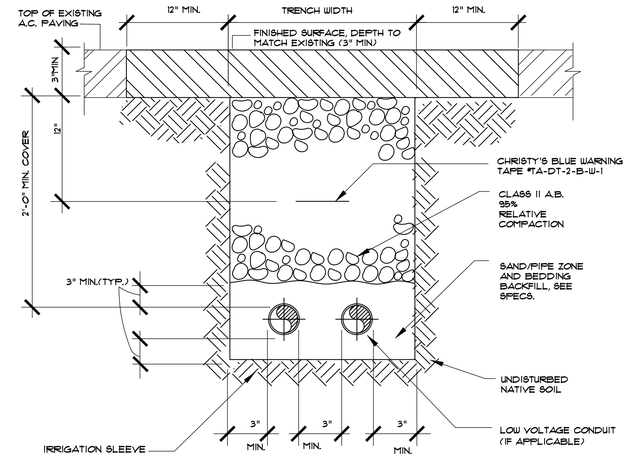
MARCH 2019



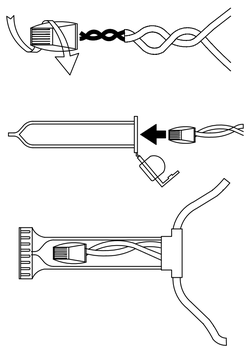
1 REMOTE CONTROL VALVE BOX INSTALLATION
NTS



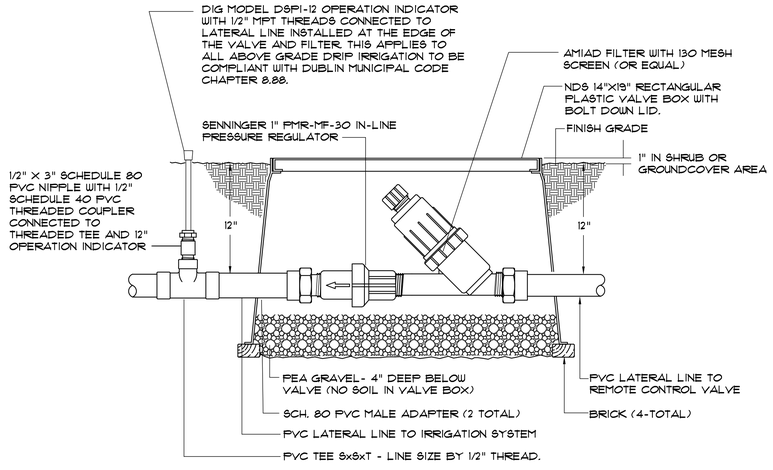
2 TYPICAL COMBINATION TRENCH
NTS



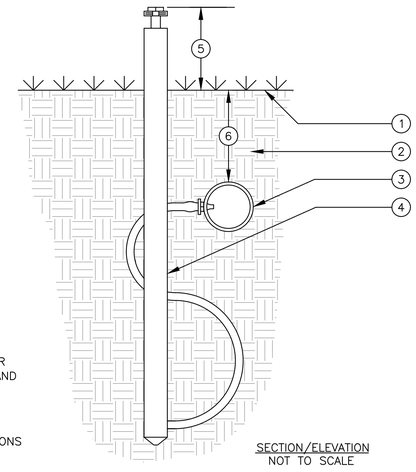
3 SLEEVE TRENCH UNDER EXISTING ROADWAY
NTS



4 3M-DBR-6 WIRE CONNECTION
NTS



5 FILTER INSTALLATION DETAIL
NTS



1. FINISH GRADE.
2. NATIVE SOIL BACKFILL PER SPECIFICATIONS.
3. TORO DL2000 DRIPLINE
4. TORO DL2000 OPERATION INDICATOR (DL-MP9). USE ONE PER ZONE AND LOCATED AT FLUSH END OF ZONE.
5. 2"-3" ABOVE FINISH GRADE.
6. DEPTH OF TUBING PER SPECIFICATIONS

SECTION/ELEVATION
NOT TO SCALE

6 DRIPLINE OPERATION INDICATOR INSTALLATION
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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 2497 — 8/31/2020 — 03/18/2019 — DATE — L.A. — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IRRIGATION DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017-01.05
PUBLIC WORKS INSPECTOR:
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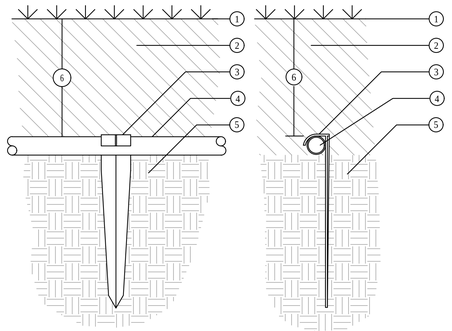
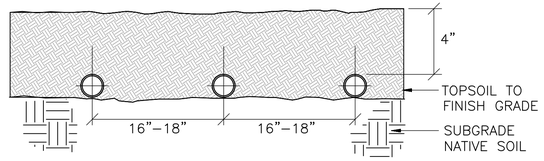
MARCH 2019

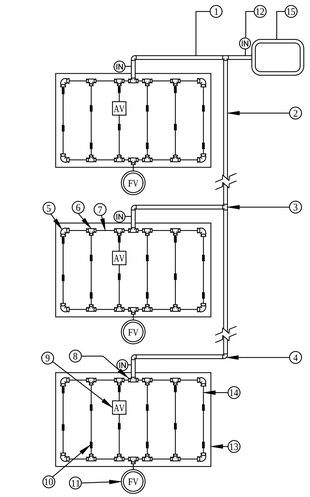


1. FINISH GRADE.
2. TOPSOIL TO FINISH GRADE
3. TORO DL2000 PLASTIC LOCATOR STAKE (IPS1500).
4. TORO DL2000 DRIPLINE
5. SUBGRADE NATIVE SOIL
6. 4" DEPTH OF TUBING PER LEGEND

7 DRIPLINE STAKE BELOW GRADE DETAIL
NTS

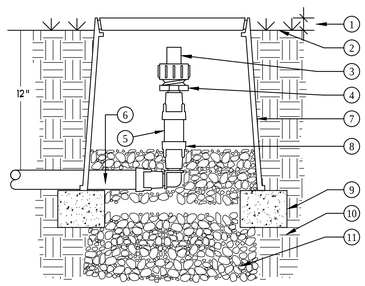


8 TYPICAL DRIPLINE SUBGRADE INSTALLATION
NTS



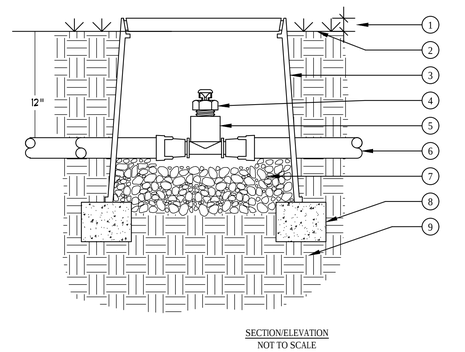
1. PVC LATERAL LINE FROM CONTROL VALVE.
2. PVC SUPPLY MANIFOLD.
3. PVC TEE (SxSxS).
4. PVC ELL (SxS).
5. TORO TRI–LOC ELL (FEE16).
6. TORO TRI–LOC TEE (FTT16).
7. TORO BLUE STRIPE POLY TUBING AT SUPPLY AND FLUSH END OF EACH ISLAND.
8. TORO TRI–LOC TEE X 1/2" SLIP ADAPTER (FTV16).
9. TORO DL2000 AIR/VACUUM RELIEF VALVE (YD–500–34) PLUMBED TO TUBING AT HIGH POINT.
10. TORO DL2000 DRIPLINE LATERAL
11. TORO DL2000 AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT.
12. DIG MODEL DSPI–12 OPERATION INDICATOR WITH 1/2" MPT THREADS CONNECTED TO LATERAL LINE INSTALLED AT THE EDGE OF THE LANDSCAPE NEAR THE CONTROL VALVE
13. ISLAND PERIMETER.
14. PERIMETER LATERALS 2" TO 4" FROM EDGE.
15. CONTROL VALVE.

9 TYPICAL ISLAND MANIFOLD
NTS



1. 1" ABOVE FINISH GRADE.
2. FINISH GRADE.
3. TORO DL2000 FLUSH VALVE(FCH–H–FHT).
4. TORO TRI–LOC X 3/4" MHT ADAPTER (FJA16).
5. TORO POLY TUBING
6. POLY PIPING.
7. CARSON 910 GREEN 10" ROUND PLASTIC VALVE BOX. HEAT BRAND "FV" ON LID IN 1" HIGH CHARACTERS.
8. TORO TRI–LOC ELL (FEE16).
9. BRICK SUPPORTS (2 COMMON BRICKS REQUIRED).
10. NATIVE SOIL PER SPECIFICATIONS.
11. PEA GRAVEL SUMP (6" x 18").

10 FLUSH VALVE CONNECTION TO PE TUBING
NTS



1. 1" ABOVE FINISH GRADE.
2. FINISH GRADE.
3. CARSON 910 GREEN 10" LOCKING ROUND PLASTIC VALVE BOX. HEAT BRAND "AV" ON LID IN 1" HIGH CHARACTERS.
4. TORO DL2000 AIR/VACUUM RELIEF VALVE (YD–500–34).
5. TORO TRI–LOC X 1/2" FPT TEE (FTF16).
6. TORO POLY TUBING
7. PEA GRAVEL SUMP (6" DEEP).
8. BRICK SUPPORTS (2 COMMON BRICKS REQUIRED).
9. NATIVE SOIL PER SPECIFICATIONS.

11 AIR/VACUUM RELIEF VALVE CONNECTION TO PE TUBING
NTS

1. ASSEMBLE AND INSTALL FILTER, REMOTES CONTROL VALVE AND PRESSURE REGULATING VALVE ASSEMBLIES ACCORDING TO DETAILS.
2. ASSEMBLE AND INSTALL SUPPLY HEADERS ACCORDING TO DETAIL. TAPE OR PLUG OPEN CONNECTIONS TO PREVENT DEBRIS CONTAMINATION.
3. ASSEMBLE AND INSTALL EXHAUST HEADERS IN ACCORDANCE WITH DETAILS. TAPE OR PLUG ALL OPEN CONNECTIONS TO PREVENT DEBRIS CONTAMINATION.
4. INSTALL DRIP LATERALS. TAPE OR PLUG OPEN ENDS WHILE INSTALLING TO PREVENT DEBRIS CONTAMINATION.
5. INSTALL AIR VACUUM RELIEF VALVES AT HIGHEST POINTS OF THE IRRIGATION ZONES IN ACCORDANCE WITH DETAILS.
6. THOROUGHLY FLUSH DRIPLINE LATERALS AND CONNECT TO EXHAUST HEADERS OR INTERCONNECTING LATERALS WHILE FLUSHING.
7. THOROUGHLY FLUSH EXHAUST HEADERS AND INSTALL LINE FLUSHING VALVES ACCORDING TO DETAILS.
8. THOROUGH FLUSHING OF EACH INSTALLATION SEGMENT IS NECESSARY TO ENSURE THAT NO DEBRIS CONTAMINATION OCCURS.
9. LOCATE AND INSTALL CHECK VALVE(S) AS NEEDED AND AS SHOWN IN INSTALLATION DETAILS.
10. SEE IRRIGATION NOTES, LEGEND/SPECIFICATIONS FOR ADDITIONAL INFORMATION.
11. ALL TREES TO BE PLANTED WITHIN CENTER OF DRIP LINE RUNS
12. BURY DRIPLINE 4" BELOW GRADE AND STAKE EACH 36" O.C. LOCATED AT EMITTER AND AS NECESSARY TO INSURE SECURITY.
13. ALL FITTINGS TO BE USED WILL BE PER MANUFACTURERS SPECIFICATION. COMPRESSION FITTINGS OR APPROVED EQUAL.
14. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH. SEE TORO SUBSURFACE IRRIGATION DESIGN GUIDE

12 DRIPLINE SUBGRADE INSTALLATION NOTES
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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 2497 — 8/31/2020 — 03/08/2019 — LA — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IRRIGATION DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017–01.05
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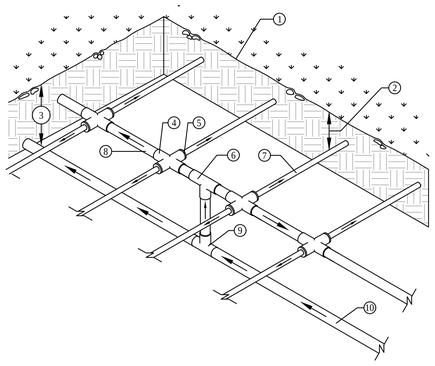
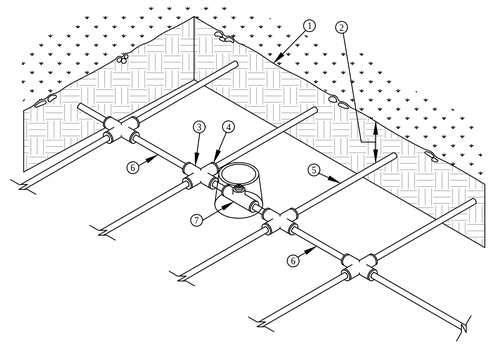
MARCH 2019



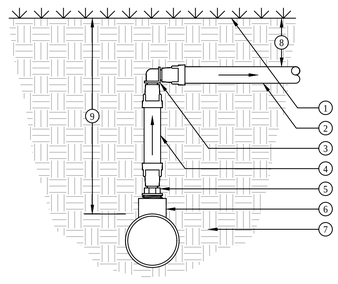
1. FINISH GRADE.
2. 4" DEPTH OF TUBING PER LEGEND
3. DEPTH OF PVC SUPPLY MANIFOLD PER LEGEND
4. PVC CROSS (SxSxSxS).
5. TORO DL2000 COMPRESSION ADAPTER (CA–710).
6. PVC TEE (SxSxS).
7. TORO DL2000 DRIPLINE LATERAL
8. PVC SUB–MANIFOLD.
9. PVC TEE (SxSxS).
10. PVC SUPPLY MANIFOLD FROM DRIP ZONE KIT.

13 DRIPLINE TO PVC INSTALLATION
NTS



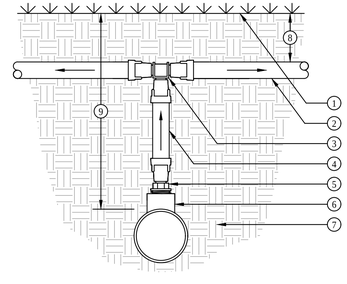
1. FINISH GRADE.
2. 4" DEPTH OF TUBING PER LEGEND
3. PVC CROSS (SxSxSxS).
4. TORO DL2000 COMPRESSION ADAPTER (CA–710).
5. TORO DL2000 DRIPLINE LATERAL
6. TORO BLUE STRIPE POLY TUBING (T–EHP–1645) SUB MANIFOLD LENGTH AS NECESSARY
7. CARSON 910 GREEN 10" ROUND PLASTIC LOCKING VALVE BOX WITH AIR RELIEF VALVE

14 AIR VACUUM RELIEF VALVE LOCATION
NTS



1. FINISH GRADE.
2. TORO DL2000 DRIPLINE LATERAL
3. TORO TRI–LOC ELL OR TEE
4. TORO BLUE STRIPE POLY TUBING (T–EHP–1645) LENGTH AS NECESSARY
5. TORO TRI–LOC X 1/2" MPT ADAPTER (FAM16).
6. PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
7. NATIVE SOIL BACKFILL PER SPECIFICATIONS.
8. 4" DEPTH OF TUBING PER LEGEND
9. DEPTH OF PVC SUPPLY LINE PER LEGEND

15 DRIPLINE TO PVC INSTALLATION
NTS



1. FINISH GRADE.
2. TORO DL2000 DRIPLINE LATERAL
3. TORO TRI–LOC TEE (FTT16).
4. TORO BLUE STRIPE POLY TUBING
5. TORO TRI–LOC X 1/2" MPT ADAPTER (FAM16).
6. PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
7. NATIVE SOIL BACKFILL PER SPECIFICATIONS.
8. 4" DEPTH OF TUBING PER LEGEND
9. DEPTH OF PVC SUPPLY LINE PER SPECIFICATIONS.

16 DRIPLINE TO PVC INSTALLATION
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REGISTERED LANDSCAPE ARCHITECT — LINDA GATES No. 3447 — 8/31/2020 — 03/08/2019 — DATE — L.A. — STATE OF CALIFORNIA

IMPROVEMENT PLANS FOR

BIKE BOULEVARD IMPROVEMENTS - PHASE 1
IRRIGATION DETAILS

CUPERTINO CALIFORNIA

FOR CITY OF CUPERTINO USE
PROJECT # 2017–01.05
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MARCH 2019

In the Santa Clara Valley, storm drains flow directly to our local creeks, and on to San Francisco Bay, with no treatment.

Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands.

Proper management of construction sites reduces pollution significantly.

This sheet summarizes the "Best Management Practices" (BMPs) for storm water pollution prevention.

ORDINANCE OF THE CITY OF CUPERTINO FOR STORM WATER POLLUTION PREVENTION & WATERCOURSE PROTECTION: Chapter 9.18

9.18.040 Discharge into the storm drain prohibited

It is unlawful to cause, allow, or permit to be discharged, any discharge not composed entirely of stormwater to the storm drain system or to surface waters or to any location where it would contact or eventually be transported to surface waters, including flood plain areas, unless specifically called out in the Municipal Regional Permit as an exempt or conditionally exempt discharge.

9.18.070 Accidental Discharge

All persons shall notify the Director of Public Works immediately upon accidentally discharging pollutants of concern to enable countermeasures to be taken by the City to minimize damage to storm drains and the receiving waters. Initial notification shall be followed, within five (5) business days of the date of occurrence, by a detailed written statement describing the causes of the accidental discharge and the measures being taken to prevent future occurrences. Such notification will not relieve persons of liability for violations of this chapter or for any fines imposed on the City on account thereof under Section 13350 of the California Water Code, or for violation of Section 5650 of the California Fish and Wildlife Code, or any other applicable provisions of State or Federal laws.

9.18.220 Violation*

Any person who violates any provision of this Chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished as provided in Chapter 1.12 of the City of Cupertino Municipal Code.

Chapter 1.12: General Penalty, Section 1.12.010, paragraph D, states*:

Unless otherwise specified by this code, an infraction is punishable by:

1. A fine not to exceed $100 for a first violation
2. A fine not to exceed $200 for a second violation
3. A fine not to exceed $500 for a third violation of the same chapter within one year.

9.18.240 Civil penalty for illicit discharges*

Any person who discharges pollutants, in violation of this Chapter, by the use of illicit connections shall be civilly liable to the City in a sum **not to exceed twenty-five thousand dollars per day per violation** for each day in which such violation occurs.

*Excerpts – For complete CODE language refer to the City ofCupertino Municipal Code.

Cupertino
Building Dept: 408-777-3228
Public Works Dept: 408-777-3354

Santa Clara County
Recycling Hotline: 800-533-8414
www.reducewaste.org
www.recyclestuff.com
Small Business Hazardous Waste: 408-299-7300

Cupertino Sanitary Sewer Distr 408-253-7071

Santa Clara Valley Urban Runoff Pollution Prevention Prgm 800-794-2482

State Office of Emergency Services 1-800-852-7550 (24 hrs)

Report spills to 911

General Construction and Site Supervision

Storm Drain Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.

As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

General Principles

- Keep an **orderly site** and ensure good housekeeping practices are used.
- **Maintain equipment** properly.
- Cover materials when they are not in use.
- Keep materials **away from streets**, storm drains and drainage channels.
- Ensure **dust control** water doesn't leave site or discharge to storm drains.

Advance Planning To Prevent Pollution

- **Schedule excavation and grading activities for dry weather periods.** To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the *Erosion and Sediment Control Manual* available from the Regional Water Quality Control Board, as a reference.
- **Control the amount of runoff** crossing your site (especially during excavation!) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.
- **Train your employees and subcontractors**. The city can provide brochures about these issues for you to distribute to workers at your construction site. Inform your subcontractors about the stormwater requirements and their own responsibilities. Use *Blueprint for a Clean Bay*, a construction best management practices guide available at our Building Dept. counter.

Good Housekeeping Practices

- **Designate one area of the site** for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- **To prevent off-site tracking of dirt**, provide entrances with stabilized aggregate surfaces. Or provide a tire wash area.
- **Keep materials out of the rain** – prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- **Contain all litter, food wrappers, bottles and cans** - Place lidded trash and recycling bins around the site.
- **Clean up leaks, drips and other spills** immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- **Cover and maintain dumpsters**. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean out a dumpster by hosing it down on the construction site.
- **Place portable toilets** away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

- **Practice Source Reduction** -- minimize waste when you order materials. Estimate carefully.
- **Recycle excess materials**, whenever possible, such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires: www.reducewaste.org for info.
- **Dispose of all wastes properly**. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed.

Permits

- In addition to local grading and building permits, you will need to obtain coverage under the State's General Construction Activity Stormwater Permit if your construction **site's disturbed area totals 5 acres or more.** Information on the General Permit can be obtained from the Regional Water Quality Control Board. (The criteria will change to one acre as of Mar. 2003.)

Landscaping, Gardening, and Pool Maintenance

Landscaping/Garden Maintenance

- **Protect stockpiles** and landscaping materials **from wind and rain** by storing them under tarps or secured plastic sheeting.
- **Schedule** grading and excavation projects **during dry weather**.
- Use temporary **check dams or ditches** to divert runoff away from storm drains.
- **Protect storm drains with sandbags, gravel-filled bags, straw wattles,** or other sediment controls.
- **Re-vegetation** is an excellent form of erosion control for any site.
- **Store** pesticides, fertilizers, and other chemicals **indoors** or in a shed or storage cabinet.
- **Use pesticides sparingly**, according to instructions on the label. Rinse empty containers, and use rinsewater as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
- In Cupertino, **residents** with curbside recycling can collect lawn, garden and tree trimmings in **yardwaste toters.** Yardwaste will be collected and composted by the city's contractors. Residents are encouraged to compost yardwaste on-site themselves. Or take yardwaste to a landfill where it will be composted.
- **Landscape contractors** should **take** clippings and pruning waste **to a landfill that composts yard waste** (BFI's Newby Island and Zanker Rd. landfill are the nearest).
- **Do not blow or rake leaves into the street.**

Storm Drain Pollution from Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains.
Swimming pool water containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

Pool/Fountain/Spa Maintenance

Draining pools or spas

When it's time to drain a pool, spa, or fountain please be sure to call the Cupertino Sanitary District before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows should be kept to the low levels typically possible through a garden hose. Higher flow rates may be prohibited by local ordinance.

- **Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.**
- If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by **draining it gradually onto a landscaped area**.
- **Do not use copper-based algaecides.** Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- **Never clean a filter in the street or near a storm drain.** Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- **If there is no suitable dirt area**, call Cupertino Sanitary for instructions on discharging filter backwash or rinsewater to the sanitary sewer.

Earth-Moving Activities

Storm Drain Pollution from Earth-Moving Activities

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site *and* slow the flow with check dams or roughened ground surfaces.

Practices During Construction

- Remove existing vegetation only when absolutely necessary. **Plant temporary vegetation for erosion control** on slopes or where construction is not immediately planned.
- **Protect downslope drainage courses, streams, and storm drains** with wattles, or temporary drainage swales. Use check dams or ditches to **divert runoff around excavations**. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures.
- **Cover stockpiles** and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations

Storm Drain Pollution From Dewatering Activities

Be sure to call your city's storm water inspector at 408-472-9907 before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, and sediment trap may be required. Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.

Check for Sediment or Toxic Pollutants

- Check for odors, discoloration, or an oily sheen on groundwater.
- Ask your city inspector whether the groundwater must be tested by a certified laboratory.
- Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain OR you may be required to discharge to the sanitary sewer or collect and haul the water off-site for treatment and disposal at an appropriate treatment facility.
- When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate.
- Contact Cupertino Sanitary District at 253-7071 prior to discharging to the sanitary sewer.

Heavy Equipment Operation

Stormwater Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain pollution. Prevent spills and leaks by isolating equipment from runoff channels, and by watching for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

Site Planning and Preventive Vehicle Maintenance

- **Designate one area** of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance. Contain the area with berms, sand bags, or other barriers.
- **Maintain all vehicles** and heavy equipment. Inspect frequently for and repair leaks.
- **Perform** major **maintenance**, repair jobs, and vehicle and equipment washing **off-site**, where clean up is easier.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, **use drip pans or drop cloths to catch drips and spills**. Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).
- **Do not use diesel oil to lubricate** equipment parts, or clean equipment. Use only water for any onsite cleaning.
- **Cover exposed fifth wheel hitches** and other oily or greasy equipment during rain events.

Spill Cleanup

- **Clean up spills immediately.**
- **Never hose down** "dirty" pavement or impermeable surfaces where fluids have spilled. **Use dry cleanup methods** (absorbent materials, cat litter, and/or rags) whenever possible and properly dispose of absorbent materials.
- **Sweep up** spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- **Use as little water as possible** for dust control. Ensure water used does not leave silt or discharge to storm drains.
- **Clean up spills on dirt areas** by digging up and properly disposing of contaminated soil.
- **Call 911 for significant spills.**
- If the spill poses a **significant hazard** to human health and safety, property or the environment, you must also **report** it to the State Office of Emergency Services.

The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

Removal of BMP Facilities

The Project Contractor is responsible for removal of all BMP Facilities located within the Public Right of Way upon project final inspection.

Painting and Application of Solvents and Adhesives

Storm Drain Pollution from Paints, Solvents, and Adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

Handling Paint Products

- **Keep all liquid paint products and wastes away from the gutter, street, and storm drains.**

Painting Cleanup

- **Never clean brushes or rinse paint containers into a street, gutter, storm drain, French drain, or creek.**
- For **water-based paints**, paint out brushes to the extent possible, and rinse into an inside sink drain that goes to the sanitary sewer.
- For **oil-based paints**, paint out brushes to the extent possible and clean with thinner or solvent. Filter and reuse thinners and solvents, where possible. Dispose of excess liquids and residue as hazardous waste.
- When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be **disposed of as garbage**.

Paint Removal

- **Paint chips and dust from non-hazardous dry stripping and sand blasting** may be swept up or collected in plastic drop cloths and disposed of as trash.
- **Chemical paint stripping residue,** and chips and dust from **marine paints,** or **paints containing lead, mercury or tributyl tin** must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.
- When stripping or cleaning **building exteriors** with high-pressure water, block storm drains. **Direct washwater onto a dirt area** and spade into soil. Or, check with Cupertino Sanitary District to find out if you can mop or vacuum the washwater and **dispose of it in a sanitary sewer drain**. Sampling of the washwater may be required.
- **Washwater from painted buildings constructed before 1978** can contain high amounts of **Lead,** even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory. (See Yellow Pages for a state-certified laboratory.)
- If there is **loose paint** on the building, or if the **paint tests positive for lead**, block storm drains. Check with Cupertino Sanitary District to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

Paint Disposal, Return or Donation

- **Dispose of** unwanted liquid paint, thinners, solvents, glues, and cleaning fluids **as hazardous waste** (call the Small Business Hazardous Waste Prgm: 299-7300).
- Or **Return** to supplier. (Unopened cans of paint may be able to be returned. Check with the vendor regarding it's "buy-back" policy.)
- **Donate** excess paint (call 299-7300 to donate.)

Roadwork and Paving

General Business Practices

- Develop and implement **erosion/sediment control plans** for roadway embankments.
- Schedule excavation and grading work during **dry weather.**
- Check for and **repair leaking equipment.**
- Perform **major equipment repairs** at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- When **refueling** or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- **Do not use diesel oil to lubricate** equipment parts or clean equipment.
- **Recycle** used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly. (www.recyclestuff.com for list of recycling companies.)

Asphalt/Concrete Removal

- Avoid creating excess **dust** when breaking asphalt or concrete.
- After breaking up old pavement, be sure to **remove all chunks and pieces**. Make sure broken pavement does not come in contact with rainfall or runoff.
- When making **saw cuts**, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.
- Sweep, **never hose down streets** to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquor in storm drains.

Storm Drain Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for asphalt, saw-cut slurry, or excavated material to illegally enter storm drains. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains, creeks, and the Bay.

During Construction

- **Avoid paving and seal coating in wet weather,** or when rain is forecast, to prevent fresh materials from contacting stormwater runoff.
- **Cover and seal catch basins and manholes** when applying seal coat, slurry seal, fog seal, or similar materials.
- **Protect drainage ways** by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.
- Never wash excess material from **exposed-aggregate concrete** or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- **Cover stockpiles** (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- Park **paving machines** over drip pans or absorbent material (cloth, rags, etc.) to catch drips when not in use.
- **Clean up all spills and leaks** using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. ???
- Avoid over-application by **water trucks** for dust control.

Fresh Concrete and Mortar Application

Storm Drain Pollution from Fresh Concrete and Mortar Applications

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks can block storm drains, **causes** serious problems, and is prohibited by law.

General Business Practices

- Wash out concrete mixers only in designated **washout areas** in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- **Wash out chutes** onto dirt areas that do not flow to streets or drains.
- **Always store both dry and wet materials under cover,** protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- **Secure bags of cement** after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- **Do not use diesel fuel as a lubricant** on concrete forms, tools, or trailers.

During Construction

- **Don't mix up more** fresh concrete or cement than you will use in a two-hour period.
- Set up and **operate small mixers on tarps** or heavy plastic drop cloths.
- When cleaning up after driveway or sidewalk construction, **wash fines onto dirt areas**, not down the driveway or into the street or storm drain.
- **Protect** applications of fresh concrete and mortar **from rainfall** and runoff until the material has dried.
- Wash down **exposed aggregate concrete** only when the washwater 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) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- When breaking up pavement, be sure to pick up all the pieces and **dispose of properly**. Recycle large chunks of broken concrete. See www.reducewaste.org for info on recyclers.
- **Never bury** waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Never dispose of **washout** into the street, storm drains, drainage ditches, or streams.

Small Business Hazardous Waste Disposal Prgm

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use this program. Call 408-299-7300 for a quote.

CITY OF CUPERTINO

Santa Clara Valley Urban Runoff Pollution Prevention Program

UPDATED SEPTEMBER 2016

APPROVED BY: TIMM BORDEN, RCE 45512, DIRECTOR OF PUBLIC WORKS — DATE 9/1/16

CONSTRUCTION BEST MANAGEMENT PRACTICES

CITY OF CUPERTINO
DEPARTMENT OF PUBLIC WORKS

SHEET: C15
OF 37 SHEETS
FILE: