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### CITY OF CUPERTINO

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**CITY OF CUPERTINO STANDARD DETAILS**

**APPROVED BY:**

[Signature]

**DATE:** 9/3/99

City Engineer
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 Owner or 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 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 Owner or 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 Developer’s/Owner’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.

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
CITY ENGINEER

DATE: 6/29/16
10. All water lines, valves, hydrants, and appurtenances thereto installed within the public right-of-way shall be the property of the water utility company.

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 Developer 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. Trees, roots, and foreign matter in existing or proposed right-of-way shall be removed to a depth of two (2) feet below subgrade and disposed of per Caltrans Standards. In the case of live tree roots from City street trees, Contractor shall contact the City for field observation prior to removing tree roots.

15. Trench plates in the traveled way shall be traffic rated, property secured and shall be recessed upon the request of the Director of Public Works.

16. 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.

17. All new pavement shall match the existing pavement section. A minimum pavement section of 3” AC/6” Class 2 AB is required.

18. Existing pavement that is removed or damaged shall be replaced as required by the City Engineer.

19. Manhole frames and covers shall be brought to finish grade prior to final signoff.

20. 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.

21. 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 3,000 psi in 28 days.

22. Drop inlets shall be constructed conforming to City Standard Details unless otherwise noted on the plans. If grate openings align with direction of path of travel, openings shall be no wider than ½”. 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.

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
CITY ENGINEER

DATE: 6/29/16
23. A minimum thickness of five (6) inches of concrete shall be required for commercial driveway approaches and four (5) inches for residential. The driveway approach shall be installed concurrent with the construction of the curb and gutter.

24. One pound of dispersing black shall be mixed with each cubic yard of concrete at the batch plant.

25. 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.

26. City standard street monuments shall be constructed at the locations shown on the plans or as directed by the City Engineer.

27. 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.

28. Construction survey stakes or marks (control stakes) to establish lines and grades shall be set by the Contractor’s surveyor or engineer.

29. 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.

30. Grading of lots shall be completed as determined by the City Engineer, as shown on the plans, and shall follow requirements and standards as set forth in the City Standard Grading and Drainage notes.

31. Demolition of septic tanks shall conform to Santa Clara County Environmental Health Department regulations. Work shall be done prior to construction.
1. RESIDENTIAL — Sidewalk to be 4" P.C.C. over 4" Class II Aggregate Base @ 90% Relative Compaction
2. COMMERCIAL & INDUSTRIAL — Sidewalk to be 5" P.C.C. over 4" Class II Aggregate Base @ 90% Relative compaction.
3. Monolithic sidewalk shall be installed only when monolithic sidewalk exists.
1. RESIDENTIAL - Sidewalk to be 4" P.C.C. over 4" Class II Aggregate Base @ 90% Relative Compaction
2. COMMERCIAL & INDUSTRIAL - Sidewalk to be 5" P.C.C. over 4" Class II Aggregate Base @ 90% Relative compaction.
3. Monolithic sidewalk shall be installed only when monolithic sidewalk exists.

RESIDENTIAL STREET SECTIONS

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature] DATE: 04/97

1-2
NOTE: Paved section to be designed based on R value and T.I. (Traffic Index)
Min. paving section 2 1/2" A.C. on 8" Class II aggregate base.

STANDARD 84' STREET SECTION

STANDARD 90' STREET SECTION

FRONTAGE ROAD
STANDARD STREET SECTIONS

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
DATE: 8/14/97

1-4
NOTE: Paved section to be designed based on R value and T.I. (Traffic Index). Min. paving section 2 1/2" A.C. on 8" Class II aggregate base. Traffic Index of greater than 7 shall require cement treated base or deep lift asphalt pavement.

STANDARD 130' STREET SECTION

STANDARD 86' STREET SECTION

* 10' Sidewalk may be required for commercial.
STANDARD 110' STREET SECTION

NOTE: Paved section to be designed based on R value and Traffic Index. Min. paving section 2 1/2" A.C. on 8" Class II aggregate base. Traffic Index of greater than 7 shall require cement treated base or deep lift asphalt pavement.

STANDARD 120' STREET SECTION

* 10' Sidewalk may be required for commercial.
Provide slope easement as required.

NOTE: Paved section to be designed based on R value and Traffic Index. 
Min. paving section 2 1/2" A.C. on 8" class 2 agg. base. Traffic Index at 
greater than 7 shall require cement treated base or deep lift asphalt pavement.

<table>
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<th>R/W</th>
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<td>14'</td>
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<tr>
<td>Cul-de-sac 6 Lots or less max. potential</td>
<td>20'</td>
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<td>Cul-de-sac &amp; local streets serving more than 6-Lots</td>
<td>24'</td>
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<td>Collector Streets</td>
<td>30'</td>
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<td>Major Streets</td>
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SPECIAL ROADWAY SECTIONS FOR
HILLSIDE SUBDIVISIONS

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: ______ DATE: 2/10/89
RURAL & SEMI-RURAL STREET SECTIONS

CITY OF CUPERTINO
STANDARD DETAILS
APPROVED BY: DATE: 11.20.03
CITY ENGINEER
NOTE: Cul-De-Sac for existing dead-end street by approval of City Engineer and City Council.

DEAD-END STREET

Increase radius as required for lot frontage

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<tr>
<th></th>
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<th>B</th>
<th>C</th>
<th>D</th>
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<td>INDUSTRIAL</td>
<td>40'</td>
<td>60'</td>
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<td>50'</td>
<td>5'</td>
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<td>COMMERCIAL</td>
<td>40'</td>
<td>60'</td>
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<td>48'</td>
<td>46'</td>
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<td>10'</td>
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<td>56'</td>
<td>46'</td>
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Min. street section on cul-de-sac may be 2 1/2" A.C. on 8" Class II A.B. an approval of City Engineer.

CUL-DE-SACS

REVISED 6/9/97

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY CITY ENGINEER

DATE: 7-9-97
Monument rim and cover.

Concrete and cast iron cover to be installed before installation of plant mix surfacing.

Phoenix # P2001A
Or Approved Equal

Suitable Sleeve

Suitable Conical or Cylindrical Form

3'-0" Min. Poured against undisturbed earth in drilled hole.

Monument pins are available from the City.

STREET MONUMENT
SECTION B-B

SECTION A-A

TYPICAL SECTION

6" Class II Agg. base material with a 95% relative compaction

#4 Rebar, continuous longitudinal, 18" O.C. Perpendicular

6" conc. 0.2" min.

6" Class II Agg. base material with a 95% relative compaction

STANDARD VALLEY GUTTER

Revised 6/09
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: [Signature]  DATE: 6/29/16

City Engineer
TABLE "A"

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial/High Density Residential</th>
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<td>12' - 18' Max</td>
<td>24' - 32' Max</td>
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SIDEWALK

WEAKENED PLANE JOINT OR CUT JOINT 1/8" WIDE, 2" DEEP ON 8' O.C.

SCORE MARK

PARK STRIP

CONSTRUCTION JOINT

VARIES SEE TABLE "A"

1' - 6"

NOTES:

1. All driveway widths are subject to City approval.
2. Score marks not to exceed 4' - 0" O.C. Use mechanical separator at every other score mark.
3. Finish to be light broom.
4. Sidewalk to be replaced when new driveway is placed.
5. Edge of driveway shall be a minimum of 4' from property line.
6. Cross slope shall be 1.5%. In no case shall cross slope exceed 2%.

SECTION A - A

DRIVEWAY DETAIL - DETACHED SIDEWALK

W = Width

2' 6"

W/2 Deep score W/2 Deep score or cold joint

4.5' or greater Cross slope: 1.5% - 2% Max

6" commercial or industrial w/ #4 Rebar 18" O.C both ways

5" residential

4" Class II Agg. base material with a 95% relative compaction

Pavement to be flush with lip of gutter

REVISED 2/2020

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature] CITY ENGINEER

DATE: 5/1/2020

1-20
TABLE "A"

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WEAKENED PLANE
JOINT OR CUT
JOINT 1/8" WIDE
2" DEEP ON 8" O.C.

SIDEWALK

RUNNING SLOPE
7.5% (8.33 MAX)

CONSTRUCTION
JOINT

1.5% (2% MAX)

A

SIDEWALK

RUNNING SLOPE
7.5% (8.33 MAX)

VARIES
SEE TABLE "A"

6'-8" A

NOTES:
1. All driveway widths are subject to City approval.
2. Score marks not to exceed 4'--0" O.C. Use mechanical separator at every other score mark.
3. Finish to be light broom
4. Sidewalk to be replaced when new drive-
way is placed.
5. Edge of driveway shall be a minimum of
6'--8" from property line.
6. If on-street parking is permitted, driveway shall be flush with gutter.
7. Running slope shall be 7.5%. In no case shall running slope exceed 8.33%.

SECTION A - A

DRIVEWAY DETAIL - MONOLITHIC SIDEWALK

6" commercial or industrial w/ #4 rebar 18" O.C. both ways

5" residential

4" Class II Agg.
base material with a
95% relative compaction

Pavement to be
flush with lip of
gutter

5'

2'

5/8" Lip

1.5% (2% Max)
NOTES:
1. Residential Driveway Detail option 2 and width for monolithic sidewalk may be used only with written approval from the City Engineer.
2. Score marks not to exceed 4'-0" O.C. Use mechanical separator at every other score mark.
3. Finish to be light broom
4. Sidewalk to be replaced when new driveway is placed.
5. Edge of driveway shall be a minimum of 4" from property line.
6. Running slope shall be 7.5%. In no case shall running slope exceed 8.33%.

SECTION A - A

DRIVEWAY DETAIL - MONOLITHIC SIDEWALK OPTION 2
(For Residential Only)
SIDEWALK CORNER TRANSITION
FROM EXISTING SIDEWALK W/PLANTER STRIP
TO NEW MONOLITHIC SIDEWALK
Dowel Connections

Plan View
No Scale

Section A-A
No Scale

Section B-B
No Scale

Use 7" long, #4 dowel, drill holes, blow clean, and set dowels in epoxy.

Half of ex. S/W thickness

New S/W  
Ex. S/W

2" min.

New S/W  
Ex. S/W < 3"

Note:
If existing sidewalk is less than 3" thick, use 6" deep x 12" wide P.C.C. key with dowel connection.

City of Cupertino
Standard Details

Approved by: City Engineer

June 2009

1-23
CASE A - 5' MONOLITHIC SIDEWALK

CASE B - DETACHED SIDEWALK OR 10' MONOLITHIC SIDEWALK

NOTES
1. RAMP TO BE MINIMUM 4" P.C.C. ON 3" CLASS 2 AGGREGATE BASE WITH HEAVY BROOM FINISH TRANSVERSE TO AXIS OF RAMP.
2. CURB RAMPS TO BE PLACED MONOLITHICALLY WITH CURB, GUTTER & SIDEWALK.
3. CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND DEPTH OF THE CURB RAMP. DETECTABLE WARNING SURFACE SHALL CONFORM TO THE DETAILS ON THIS PLAN. USE YELLOW CAST IN PLACE COMPOSITE TACTILE BY ADA SOLUTIONS, INC. OR CITY APPROVED EQUAL. INSTALL PER MANUFACTURERS SPECIFICATION.
4. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.
5. CURB RAMP INSTALLATION SHALL COMPLY WITH CALTRANS STANDARD PLAN A88A IF FIELD CONDITIONS DIFFER.

CURB RAMP DETAILS

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature] DATE: 7.27.10
Curb Ramp Detail

Case C

Notes:
1. Ramp to be minimum 4" PCC on 3" class 2 aggregate base with heavy broom finish transverse to axis of ramp.
2. Curb ramps to be placed monolithically with curb, gutter & sidewalk.
3. Curb ramps shall have detectable warning surface that extends the full width and depth of the curb ramp. Detectable warning surface shall conform to the details on this plan. Use yellow cast-in-place composite tactile by ADA Solutions, Inc. (LARGE TRAPEZOID 36"x24") or city approved equal. Install per manufacturers specification.
4. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
5. Curb ramp installation shall comply with Caltrans standard plan ABBA if field conditions differ.
DIRECTIONAL GROOVE DETAIL

The surface of each curb ramp located in the center of the curb return shall be grooved parallel to the centerline of the crosswalks typically in two directions with 1/4 inch x 1/4 inch (6.35mm x 6.35mm) grooves 1 1/2 inches (38.1mm) on center. Where only one crosswalk exists, ramp shall be grooved in one direction only, parallel with the existing crosswalk.

BORDER GROOVE DETAIL

All curb ramps shall have a grooved border 12 inches (304.8mm) wide at the level surface of the sidewalk along the top and each side 3/4 inch (19.05mm) on center.

HANDICAP RAMP DETAILS

CITY OF CUPERTINO STANDARDS

APPROVED BY: CITY ENGINEER
DATE: 4/29/87
SIDEWALK TRANSITION AROUND EXISTING ELECTROLIER

FIRE HYDRANT, UTILITY POLE, OR OTHER

OBSTRUCTIONS
Reflector sign (Type N) both ends and center

6" x 6" x 8' redwood posts - 6' O.C.

2 bolts see notes

Cut top/post 30° approx.

2" x 6" Douglas fir rail

6" x 6" Redwood post

NOTES

1. Railing fastened to posts with 5/8" galv. machine bolts and oval iron washer

2. Posts shall be cut as per details

3. Place W21-R reflector sign as shown.

4. Barricades shall be primed and painted with two coats of standard exterior white paint

5. Barricades to be extended over sidewalk as required by engineer.

STANDARD STREET BARRICADE

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
DATE: 2/18/87
CITY ENGINEER
MARKING FOR OBJECTS IN ROADWAY

MARKING FOR END-OF-ROADWAY
TOP OF T-INTERSECTIONS

MARKING FOR OBJECTS ADJACENT TO ROADWAY

NOTES:
1. SEE CITY STANDARD DETAIL 2-20 POST & FOUNDATION.
2. SIGN CODING IS MUTCD 2003 & CALIF SUPPLEMENT AND SUBSEQUENT REVOLUTIONS.

OBJECT MARKING DETAIL

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: City Engineer

DATE: 1/8/07
NOTE:
1. R11 & R17 SIGNS TO BE INSTALLED ONLY WHEN APPLICABLE.
2. ALL DIMENSIONS TO BE DETERMINED BY THE CITY ENGINEER.

RIGHT TURN IN
NOTE: THIS SKETCH ILLUSTRATES THROUGH MOVEMENT PROHIBITED FROM NORTH TO SOUTH, AND IS NOT TYPICAL OF ALL LOCATIONS. OTHER MOVEMENT CONTROLS REQUIRE DIFFERENT ISLAND CONFIGURATIONS.

THROUGH MOVEMENT CONTROL ISLAND

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature] CITY ENGINEER
DATE: 8-14-89

2-18
SEE CITY STD.
DETAIL 2-22
FOR STREET
NAME SIGNING

SECTION VIEW
RESIDENTIAL

SECTION VIEW
FOUNDATION

PLAN VIEW
BEHIND WALK

BACK OF WALK

SIDWALK LEVEL

POST ON OR NEAR
RADIUS RETURN

F.O.C.
CURB RETURN

F.O.C.
CURB RETURN

"D" SEE TABLE A

TABLE A
CURB RADIUS | 4" | 5" | 6"
-------------|----|----|----
327          | 21"| 24"| 27"
345          |    |    |    
529          |    |    |

LEGEND:

1. Install 2" ram cap, Western Highway or equal, part No. 2UM-RC200.
2. Two (2) inch square select punch 14 gage BILZ Western Highway or equal, part No.
   2UM-2001204-SPC (10) and 2UM-2001444-SPC (12). Holes on
   all four (4) sides.
3. Six (6) inches of holes below grade, four (4) drive rivets one on each side, holes
   on all four (4) sides, and apply at least six (6) inches of tape on sleeve.
4. Sleeve 4 anchor assembly data.
   Ultimate shear-safe anchor, Western Highway or equal, part No. 2UM-225030214."G.
   Must leave two (2) holes above ground. Sleeve 2 1/2" X 1 8", Western Highway or equal,
   part No. 2UM-250016214G.
5. Rivets shall match color of sign.
6. Larger name plate on bottom.
STREET NAME BLADE SHALL BE MOUNTED BETWEEN THE SHAFT AND THE MASTARM.

SIGN SIZE:
L = FIT TEXT
W = 18"

LETTERING:
STYLE "BOOKMAN BOLD"

3M DIAMOND GRADE SHEETING OR CITY APPROVED EQUAL W/ EC OVERLAY FILM

WHITE LETTERS & BORDER ON BLUE BACKGROUND

BORDER:
NO MARGIN - 1" WHITE BORDER

HARDWARE:
SIGNFIX LARGE EXTRUSION,
PART No. SX01 30
UNIVERSAL CHANNEL CLAMP
PART No. SX02 20

GENERAL MATERIAL & INSTALLATION FOR TRAFFIC SIGNAL POLES

TYPICAL BRACKETING

STREET NAME = 8" UC LETTERS (FIRST LETTER)
REMAINING LETTERS LOWER CASE

STREET TYPE (I.E. AVE., LN., CT.) = 5" UC (FIRST LETTER)
REMAINING LETTERS LOWER CASE
LETTERS CENTERED ON STREET NAME.

TYPICAL LETTERING

TYPICAL SIGN INSTALLATION AT SIGNALIZED INTERSECTION
Galv. or Stainless Cap Nut

1/2" Aluminum Center Rod

.080" Aluminum Separators

.080" 6061T6 Aluminum Sign Blanks 5" x variable length.

4" Silver-White series "C" Uppercase Letters on medium Blue (3M 2275 or equal) Background

Sign Bracket Assembly Same as Above.

2" Aluminum Pipe Cap with 3 Set Screws

POST TOP

Pole Bands

Aluminum Pole Bracket

SIDE - MOUNTED
(Electrolite or Signal Standard)

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
CITY ENGINEER

DATE: 7/27/97
PUBLIC SERVICE BANNER

1/4" NYLON CORD

DOUBLE STITCHED & DOUBLE WALLED 4" POCKET

NYLON CORD DETAIL

1/4" NYLON CORD

SECTION A-A

GENERAL NOTES

A. 1/2" diameter support cable with attachment clips (by City).
B. 5/8" interior diameter grommet: 2'-0" O.C. (17 ea.).
C. Banner weight not to exceed 35 pounds.
D. Double walled reinforced 4" pocket to freely accept 2-1/2" diameter rod; rod weight 3/4 lb/ft; double stitch with #12 dacron thread.
E. Webbing to lap pocket.
F. Two (2) each batten (3/8" x 2") pockets with lapped closure at top with velcro flap. Use 4" wide webbing 10' from each end.
G. Minimum letter size - 4" high. High contrast coloring is suggested with bold font.
H. Wind vents cut across banner - (minimum 12-approx. 6" x 6").
I. 1/2" nylon cord approx. 36' looped at both ends.
DETAIL 23C

LEGEND

☐ TWO-WAY YELLOW REFLECTIVE MARKER
☐ NON-REFLECTIVE YELLOW MARKER
DETAIL 39AC
BIKE LANE DETAILS

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: DATE: 8/22/89
CITY ENGINEER

2-27
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**PARKING AISLES**
## TWO-WAY AISLE

### STALL WIDTH 8.00 Feet * TWO-WAY AISLE

#### COMPACT VEHICLES ONLY

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<th>&quot;B&quot;</th>
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### STALL WIDTH 8.50 Feet * TWO-WAY AISLE

#### COMPACT VEHICLES ONLY

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### STALL WIDTH 9.00 Feet * TWO-WAY AISLE

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### STALL WIDTH 9.50 Feet * TWO-WAY AISLE

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</table>

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**Diagram:**

16 ft. ONE WAY
26 ft. TWO WAY

---

**CITY OF CUPERTINO**

**STANDARD DETAILS**

**APPROVED BY:**

**DATE:** 8/18/69

**2-30**
SECTION A-A Showing Concrete Box

VIEW B-B

SECTION CURB CASTING

NOTE: Frame dimensions may vary with the approval of the City Engineer.

SECTION B-B

SECTION A-A SHOWING GRATE DETAIL

STANDARD DROP INLET - CURB OPENING

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY:  
City Engineer

DATE 6.10.07
STANDARD 24" FLAT GRATE DROP INLET
4 - 5/8" # x 7" Anchor bolts

Ditch flow line at box openings

2" x 12" Redwood cover
2" x 6" cross-bracing

SIDE ELEVATION

1/2" bars - 3" anchorage

Class A R.C.C.

6" 24" Openings as req'd... 6"

SECTION THROUGH OPENING

FIELD INLET - SIDE OPENING
CONCENTRIC MANHOLE

8" to 33" PIPE

NOTES:

- Mortar and grout to conform to Section 65, State Std. Specifications.
- Manhole foundation poured in place.
NOTE
Allow room for smooth transition

Std. City of Cupertino manhole rim and cover

Precast top rings (3"6" and 18") shall be used for adjustment

1/2" grout

Precast reinforced concrete pipe and tapered section

24"

48" dia

Class A Concrete

Broken pipe edges shall be grouted

Manhole foundation poured in place

ECCENTRIC MANHOLE
8" to 33" PIPE

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: CITY ENGINEER DATE: 7/10/89 3-12
ECCENTRIC MANHOLE
5" PIPE OR LARGER

END VIEW

SIDE VIEW

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: [Signature]
DATE: 2/10/89
STANDARD CONNECTION TO MANHOLE WALL

Reinforced concrete manhole walls

Make end of lateral flush with inside wall of storm sewer.

Min. 6" thickness of grout over reinforcing bars

Lateral

Note:
backfill sand to spring line

Cut reinforcing bars and bend around lateral (typical)
NOTE: Subject to approval of City Engineer.
Smaller pipe diameter shall not exceed
1/4 of the diameter of the larger pipe.

STANDARD CONNECTION TO REINFORCED CONCRETE
PIPE - 48" R.C.P. and LARGER
NOTE: All pipe connections to be flanged, tyton or mechanical joints.

STANDARD BLOW-OFF FOR DEAD ENDS

REV 10/26/95
Air Relief Valve Detail

1" or 3"

NOTES:
1. See project plans for size of air valve.
2. All work shall be inspected by the City of Cupertino Water Department (777-3271)
3. All back fill shall be compacted to 90% R.C.
4. No air valves shall be located in the street pavement areas.
5. All air valve installations shall be within the City right of way or easements.
6. Mark lid "C.W.V."
7. Non slip surface shall be applied to the steel cover in the sidewalk areas.

Approved by: [Signature]
City Engineer

City of Cupertino Standard Details

REV 7/12/94
REV 8/11/89
STANDARD VALVE INSTALLATION

Note: Valve location—distance marked in roman numerals:
- top of curb indicates behind curb
- face of curb indicates in street.
*NOTE:

Use 2" fittings and pipe with 10" through 14" mains.

Use 4" fittings and pipe with 16" or larger mains.

BY-PASS AND VALVE ASSEMBLY

REV 7/12/94
NOTE:

1. BUILDING PERMIT MUST BE OBTAINED BEFORE OBTAINING A DOMESTIC WATER SERVICE.

2. THE OWNER WILL INSTALL ALL SERVICES ON ALL NON-SUBDIVISION WORK.

3. HIGH-PRESSURE SYSTEMS (ZONE A) REQUIRE A PRESSURE REGULATOR ON THE OWNER'S SERVICE.

4. LOW-PRESSURE SYSTEMS (ZONE B) REQUIRE A BACKFLOW PREVENTER ON THE OWNER'S SERVICE.

5. PUMP SERVICES (ZONE B AND C) REQUIRE A BACKFLOW PREVENTER, STORAGE TANK, AND AN APPROVED PUMP ON THE OWNER'S SERVICE.

6. METER BOXES SHALL NOT BE IN THE SIDEWALK AREA.

7. ALL WORK MUST BE INSPECTED BY THE CITY OF CUPERTINO, PHONE 777-3271.

8. ALL SERVICES SHALL COMPLY WITH THE "REGULATIONS RELATING TO CROSS-CONNECTIONS." MITIGATION SHALL OCCUR THROUGH:
   1. DOUBLE-CHECK VALVE.
   2. AIR GAP SEPARATION.
   3. REDUCED PRESSURE PRINCIPAL BACKFLOW DEVICE, SEE 330.

9. ALL FIRE SERVICES SHALL HAVE A DETECTOR CHECK WITH METER.

10. NO DUAL SERVICES ARE ALLOWED WITHIN THE CITY OF CUPERTINO.

11. ALL WATER SERVICES OVER 550' ELEVATION REQUIRE CROSS-CONNECTION MITIGATION DEVICES.

TYPICAL HOUSE SERVICE

CITY OF CUPERTINO
STANDARD DETAILS
APPROVED BY: [Signature]
DATE: 5/12/97
CITY ENGINEER

REV 5/7/97
REV 7/12/94
REV 8/11/89
INSTALLATION DETAILS FOR AN
APPROVED BACKFLOW PREVENTION DEVICE AND FIRE SERVICE

NOTES:
1. WATER METER PERMIT REQUIRED.
2. YEARLY INSPECTION BY OWNER REQUIRED, OR WATER UTILITY.
3. OWNERS SHALL PROVIDE COPIES OF YEARLY CERTIFICATION TO THE "CUPERTINO WATER UTILITY."
4. ONLY STATE LISTED BACKFLOW DEVICES MAY BE INSTALLED.
5. ALL PIPE SHALL BE ASTM-36 OR EQUAL.

CITY OF CUPERTINO
STANDARD DETAILS
APPROVED BY: CITY ENGINEER

REV 7/12/95
REV 8/11/99

For meter requirements see page 4-10

FLOW LINE OF WATER
Flanged Sch 40 pipe or equal
Curb & Gutter
Gate valve
Flanged 90° elbow
Cap
Approved check valve or reduced pressure device
Chain as required by owner
METER & BOX (Detector check for fire services only)

Concrete thrust block as required
TIE RODS AS REQUIRED
CITY MAIN
Flanged Valve

3" Sch. 40 galv. posts as required
16" concrete foundation (if required by Director)
AIR GAP SEPARATION

Install tank at an elevation sufficient to obtain desired pressure or install pressure pump.

No connection or tees between meter and tank on this line.

BACK FLOW PREVENTION DEVICE

Place valve 12" or more above high water level of surrounding ground.

Install R.P. device(s)

City water supply no connection or tees between meter and device.

Gate valves and test cocks are required

NOTE: THE AIR GAP SEPARATION OR THE MECHANICAL BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED SUBJECT TO THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS OR HIS REPRESENTATIVE.

ANY DEVIATION FROM THE METHODS DESCRIBED ABOVE MUST RECEIVE WRITTEN APPROVAL.

REV 8/11/89

CITY OF CUPERTINO
STANDARD DETAILS
APPROVED BY: CITY ENGINEER
STANDARD DETAIL FOR FIRE SERVICES
TO BE USED ONLY WITH WATER PURVEYOR'S APPROVAL

NOTES:
A. Central Fire Dept. and Building Dept. to approve all fire sprinkler services prior to City work.
B. Vault to be installed 1" above top of curb and surrounding area.
C. Area 3' clear of vault to be clear of all landscaping.
D. Check valves must be UL approved.

<table>
<thead>
<tr>
<th>SIZE OF DETECTOR</th>
<th>DIMENSIONS</th>
<th>CHRISTY BOX NO.</th>
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<tr>
<td>CHECK</td>
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<tr>
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<tr>
<td>10&quot;</td>
<td>36&quot; 24&quot; 57&quot; 18&quot; 6&quot; 42&quot;</td>
<td>B-52</td>
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</table>
All landscaping and improvements to be kept 3" clear of hydrant.

See hydrant details.

10 1/4" diameter traffic box cost iron body and cover.

6" Nonrising stem gate valve.

Provide 18" x 18" x 6" cone collar at unimproved areas.

Bury elbow.
Flanged or Mechanical joints.

Ductile Iron Pipe.

Tie Rods as required.
6" minimum.

Rebar.
Thrust block.

Water Main.

Thrust block as directed.

Standard Fire Hydrant
Details and Specifications

City of Cupertino
Standard Details

Approved by: [Signature]
City Engineer

Date: 5/30/95

Page 4-18
CITY OF CUPERTINO

THE CENTRAL FIRE PROTECTION DISTRICT SPECIFIES THAT ALL HYDRANTS INSTALLED WITHIN THE BOUNDARIES OF THE FIRE DISTRICT, IN AREAS SERVED BY CALIFORNIA WATER SERVICE COMPANY, THE CAMPBELL WATER COMPANY, THE CITY OF CUPERTINO WATER DEPARTMENT, OR ANY PUBLIC, MUTUAL OR ANY PUBLIC, MUTUAL OR PRIVATELY-OWNED WATER COMPANY, WHETHER INSTALLED BY THE DEVELOPER OR BY THE FIRE DISTRICT, SHALL BE ANY OF THE MODELS LISTED HEREIN BELOW:

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<tr>
<th>MAKE</th>
<th>MODEL</th>
<th>TYPE</th>
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<tr>
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<td>CENTURION</td>
<td>D/B</td>
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<tr>
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<td>#76</td>
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</tr>
<tr>
<td>LONG BEACH</td>
<td>#630</td>
<td>W/B</td>
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ALL HYDRANTS TO BE STANDARD MODELS WITH ONE, FOUR-INCH (4") CALIFORNIA THREAD STEAMER CONNECTION AND TWO, TWO AND ONE-HALF (2 1/2") NATIONAL STANDARD THREAD HOSE OUTLETS.

* W/B = WET BARREL
SEE 4-18 FOR ADDITIONAL INFORMATION

STANDARD FIRE HYDRANT
DETAILS AND SPECIFICATIONS

REV 7/12/94
REV 8/11/89

CITY OF CUPERTINO
STANDARD DETAILS
APPROVED BY: CITY ENGINEER
DATE: 3/15/93
4-20
INCISED LETTERS & NUMERALS
3" HIGH, PAINTED RED

B.O. Marks Blow Off
Location
W.L. Marks Water
Line Location
G.V. Marks Gate
Valve Location

6" x 6" REDWOOD
S. 4 S. PAINTED 3 COATS
OUTSIDE WHITE

NOTE: All Roman
Numerals will read
from Left to Right or
from Top to Bottom.

STANDARD 6" x 6" MARKER POST

REV 7/12/94
EXISTING ROADWAY SURFACE
Sawcut all edges

CLASS II AGGREGATE BASE THICKNESS VARIES.
MATCH EXISTING THICKNESS (6" MIN).
6" MIN. (TYP) "T" CUT TO BE FULL DEPTH AC REMOVAL
SEE NOTE 1

CLASS I, TYPE 'A' BEDDING OR SAND AS APPROVED BY THE THE CITY ENGINEER
EXISTING OR PROPOSED PIPE

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
IF STREET IS TO BE OVERLAYERED WITHIN THE NEXT YEAR NO A.C. REQUIRED, JUST FILL UP TO PAVEMENT SURFACE WITH CONCRETE SLURRY.

ROCK WHEEL TRENCH
**ELECTROLIER AND CONDUIT LOCATION**

*CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT (PVC IS PROHIBITED WITHIN POLE FOUNDATION)*

**STATE OF CALIFORNIA #3 1/2 - CONCRETE BOX**

NOTE: BOTTOM OF BOX SHALL BE LINED WITH CONCRETE. A 1/2" DRAIN HOLE SHALL BE PLACED AT LOW POINT IN CONCRETE

**B SECTION**

- GUTTER
- CURB
- SIDEWALK

**SECTION A-A**

- BOND BUSHINGS
- BOND (TYP) INSTALL WATERPROOF FUSE @ JUNCTION BOX
- CONDUCTOR SPLICE PER STATE DETAIL ES-13 "PRESSURE CONNECTOR" AND "WATERPROOF"
- BOND BUSHINGS TO POLE
- SEE FOUNDATION DETAIL 5-12

**JUNCTION BOX**

- STREET LIGHTING
- 54" MIN TO 84" MAX
- 6" MAX
- 18" - 24"
- 1 1/2" Ø CONDUIT* IN CONCRETE
- 6 1/8" Ø CONDUIT*
- 19 3/8"
CONDUIT TO BE PLACED ON SUBGRADE BY TRENCHING OR PRIOR TO PLACEMENT OF AGGREGATE BASE MATERIAL FOR CURB AND GUTTER

MINIMUM DEPTH 24" UNLESS APPROVED OTHERWISE BY PUBLIC WORKS DEPARTMENT

*CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT (PVC IS PROHIBITED WITHIN POLE FOUNDATION)

ELECTROLIER AND CONDUIT LOCATION
SEE LIGHTING NOTES FOR OTHER ADDITIONAL INFORMATION
**Diagram:**

- **Plan View**
  - Curb
  - FOC
  - 1 1/2" Conduit
  - JUNCTION BOX
  - 1/2 ISLAND WIDTH

- **Section**
  - Lighting
  - Low Voltage
  - Minimum Depth 24"

**Junction Box**

- State of California #3 1/2" Concrete Box
- Note: Bottom of box shall be lined with concrete and a 1/2" drain hole shall be placed at low point in concrete

**Conduit**

- Conduit* to be placed on subgrade by trenching or prior to placement of aggregate base material for curb and gutter

*Conduit shall be rigid metal unless PVC is approved by the Public Works Department.

**Electrolyzer and Conduit Location in Median Islands**

**City of Cupertino Standard Details**

Approved by: [Signature]

City Engineer

Date: 6/5/19
**CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT**

See Lighting Notes (Detail 5-22) for arm span length & luminaire specifications

Removable aluminum pole top

ARM ATTACHMENT DETAIL

1/2" N. C. Sq. nut (grnd.)

4" x 6 1/2" handhole rein. frame and cover

1 1/2" CONDUIT*

Note: Handhole shall be located on down stream side of traffic.

35' ELECTROLIER STANDARD

SEE LIGHTING NOTES FOR ADDITIONAL INFORMATION

CITY OF CUPERTINO

STANDARD DETAILS

APPROVED BY: (Signature) City Engineer

DATE: 6/5/19
*CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT (PVC IS PROHIBITED WITHIN POLE FOUNDATION)

See Lighting Notes (Detail 5-22) or plans for arm span length & luminaire specifications

Removable aluminum pole top

Arm Attachment Detail

TYPE 15 STANDARD

30' - 0'

Note: Handhole shall be located on down stream side of traffic.

30' ELECTROLIER STANDARD

SEE LIGHTING NOTES FOR ADDITIONAL INFORMATION
30' POLE IS STANDARD POLE HEIGHT UNLESS OTHERWISE NOTED
*CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT

16" Bolt Circle
11 5/16" 24" Round

24" Typ

ground conductor w/ 18" of slack
ground lug on pole waterproof fuse holder
4 1/4" Rod projection

ground clamp on conduit
ground clamp bond (typ) all four bolts grounded

12" Overlap

8' Long - 5/8" Dia. Copper Ground Rod with Clamp.
(May be placed in pull box as an alternative when permitted by PW inspector)

48"

1 1/2" CONDUIT*
tie wire

(4) 3/4" x 18" x 4" galv. anchor rods w/ 2 galv. hex nuts & flat washers per rod

No. 6 AWG copper ground conductor

24" Round

Electroliever Foundation

4 1/4" hex nut
1/2" base plate
1 1/2" 1:3 grout
Concrete footing

anchor bolt (4)
Washer (2)

Base Plate & Anchor Bolt

Switch (PEC)

19' 0" Min. - 19' 6" Max.

access door

Elevation

TRADITIONAL ELECTROLIEVER

CITY OF CUPERTINO
STANDARD DETAILS

APPROVED BY: ___________________________ DATE: __6/5/19__

City Engineer
ROUND CORNERS OF ACUTE ANGLES TO PREVENT DAMAGE TO CONDUCTORS.

TERMINATION

TYPE 3S

TYPE 4S

TYPE 5S

GENERAL NOTES:

\( d = 10' \) unless noted otherwise

TYPICALLY USED IN LEFT TURN POCKETS. HOWEVER, MAY BE USED FOR LIMIT LINE DETECTION.

DIRECTION OF TRAVEL

TYPE 'S A' LOOP INSTALLATION
TYPE A LOOP DETECTOR CONFIGURATION

TYPE D LOOP DETECTOR CONFIGURATION

1. Round corner of acute angles to prevent damage to conductors.

2. Install five (5) turns when one Type D loop is in series with an additional 6' x 6' loop on a sensor unit channel for slot detail. See, loop installation procedure, standard plan, ES-5A.

TYPE 3DA

TYPE 4DA(d)*

TYPE 5DA(d)*

* d = 10", unless noted otherwise

TYPE 'DA' LOOP INSTALLATION

CITY OF CUPERTINO
STANDARD DETAIL

APPROVED:   DATE: 7/27/94
CITY ENGINEER

5-18
CIRCULAR LOOP DETECTOR CONFIGURATION

1. Round corners of acute angles to prevent damage to conductors.
2. Install 2-4-2 turns when one type phase loop is in series with an additional circular loop on a sensor unit channel.

For slot detail see, loop installation procedure, Standard Plan, ES-5A

TYPE QC / CIRCULAR INSTALLATION

* d = 10' unless noted otherwise
*CONDUIT SHALL BE RIGID METAL UNLESS PVC IS APPROVED BY THE PUBLIC WORKS DEPARTMENT (PVC IS PROHIBITED WITHIN POLE FOUNDATION)

NOTES:
1. Conductors to be spliced in accordance with State Detail E5-13 "Pressure Connector" and "Waterproof"
2. See Lighting Notes (Detail 5-22)
3. Contact PG&E for additional information.
4. Fuses to be KTK-R type or equal.
6. Feeder conductors are to be a #8 min. with THW insulation
7. Contact U.S.A. prior to doing any work.
8. 8' - 3/8" diameter copper ground rod with bushing shall not be placed less than 6" to other grounding rods.
9. PVC Schedule 40 electrical type shall carry a separate grounding wire size of conductors.
CITY OF CUPERTINO LIGHTING NOTES:

1. Luminaires, junction boxes, 1 ½” rigid metal conduit, 1 ½” PVC conduit, and poles shall comply with Section 86 of the Caltrans Standard Specifications (latest edition) and City Standard Details unless otherwise noted.

2. Luminaires may be cut off, Type M-II or M-III I.E.S. light distribution, unless otherwise noted. At cul-de-sacs M-III or better is required unless otherwise noted. See the plans.

3. The electrolyzer arm length shall be twelve feet (12’) for forty foot (40’) street widths with sidewalks, eight feet (8’) for forty foot (40’) street widths without sidewalks, and shall be fifteen feet (15’) at cul-de-sacs. See plans for other applications.

4. The service supplying any electrolyzer circuit shall be fused and grounded in accordance with National Electrical Code at the first junction box. An additional fuse is required at each electrolyzer on any ungrounded conductor. Conductors shall be #8 THW unless otherwise noted and all services should be 120V. Photo electric unit control is to be at luminaire unless otherwise noted.

5. The electrical contractor shall obtain a service point confirmation and a clearance from Public Works Department prior to installing any foundations, poles, conduits, and conductors. Also, U.S.A. shall be used to verify locations of other utilities.

6. Prior to placing any work other than curb and gutter, the developer shall supply the Public Works Department with a Pacific Gas and Electric Company electrical power design with electrical services points and pole numbers.

7. A Public Works Department connection order is required to energize any electrolyzer. A connection order is provided by the City of Cupertino after completion and inspection for submittal to PG&E.

8. Contact Pacific Gas & Electric Company for additional requirements and contact Public Works Department for inspection of foundations forty eight (48) hours prior to foundation pouring, and electrical inspection.

9. The electrical contractor shall supply to the City for approval, manufacturer’s submittals on all Luminaires. Induction is the City Standard. Wattage as directed by engineer. Typical wattage shall be 40W on residential roads, 120 W on major collectors and 150 W at signalized intersections.

10. Street lights are to be installed, inspected and turned on as soon as possible.

11. All conductors shall be sized in accordance with the National Electrical Code.

12. All overload protection (fuses) shall be sized in accordance with the National Electrical Code.

13. Whenever a new installation is near any overhead wires, a clearance must be obtained from PG&E prior to foundation installations.

14. Conduit depth to be 18” (min) to 24” (max) unless otherwise approved by the City Engineer.
CITY OF CUPERTINO TREE PROTECTION REQUIREMENTS:

1. Prior to any construction operations contractor shall construct and maintain, for each protected tree on a construction site, protective fencing which encircles the outer limits of the Tree Protection Zone (TPZ). The TPZ is calculated to be a radius of 6 times the diameter of the tree's trunk measured 4.5 feet above the natural grade, or as otherwise approved by the Director of Public Works.

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 four (4) feet high, clearly visible, affixed to 2 inch galvanized posts driven into the ground no less than 8’ on center, 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 “Keep Out Tree Protection Zone”.

4. Install a 5-inch layer of mulch within the TPZ to aid in retaining moisture

5. Trees shall be kept well watered, especially during dry summer months. A long, slow soak over the entire root zone is the preferred method of watering. Frequent, shallow watering should be avoided, and water should not be directed at or near the trunks of trees.

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

7. 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" x 4" 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.

8. 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 TPZ of any protected tree.

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

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

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

12. 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 TPZ of any protected tree on any construction site.

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

14. Impervious Paving: No paving with asphalt, concrete or other impervious materials shall be placed within the limits of the TPZ of a protected tree.

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

16. All public sidewalks shall remain open, free and clear for public access, unless closure is permitted by the Public Works Department.
Note:
1. See Tree Protection Requirements (Detail 6-2) for additional tree protection requirements.

2. If there is no existing irrigation, see Tree Protection Requirements for watering requirements.

3. No pruning shall be performed except by approved arborist.

4. Use of this detail in lieu of Detail 6-4 may only be acceptable where installation of fencing will restrict ingress and egress of public streets, sidewalks or pathways that are to remain open. Approval by the Director of Public Works, or his or her designee, is required prior to use of this standard.

Wrap tree with 2x4 boards and wire against trunk.
Tree Protection Area shall be 6 times the DBH of the tree in all directions from the face of the trunk.

Notes:
1- See Tree Protection Requirements (Detail 6-2) for additional tree protection requirements.
2- If there is no existing irrigation, see Tree Protection Requirements for watering requirements.
3- No pruning shall be performed except by an approved arborist.
4- No equipment shall operate inside the protective fencing including during fence installation and removal.
5- Any modification must be approved by the Director of Public Works.

Maintain existing grade with the tree protection fence unless otherwise approved by the city.

Tree Protection fence: 4’ High, clearly visible, mounted on steel posts installed at 8’ on center.

2” x 6’ steel posts or approved equal driven into the ground.

5” thick layer of mulch.

8.5” x 11” sign laminated in plastic. A minimum of one sign for each facing direction of the fence.

City of Cupertino Standard Detail

Approved By: ____________ Date: 5/27/2020

City Engineer

6-4
STANDARD TREE WELL
5' MONOLITHIC SIDEWALK

STREET TREE PLANTING REQUIREMENTS:
1. TREE SPACING 40' MIN TO 60' MAX.
2. PLANT 25' MIN. FROM B.C.R. AT INTERSECTIONS.
3. PLANT 10' MIN. FROM EDGE OF DRIVE APPROACH.
4. PLANT 10' MIN. FROM UTILITY AND SEWER LINES.
5. PLANT 21' MIN. FROM STREET LIGHT STANDARDS.
6. PLANT 10' MIN. FROM POWER POLES.
7. PLANT 10' MIN. FROM FIRE HYDRANTS.

0'-4"x 6' TREE WELL STANDARD, UNLESS OTHERWISE SPECIFIED

Corner Area Line Of Sight To Be Free Of Obstruction

NOTE: All planting in the public right of way must be approved by the City and conform to the City ordinances.
STANDARD TREE WELL

STREET TREE PLANTING REQUIREMENTS:
1. TREE SPACING 40' MIN TO 60' MAX.
2. PLANT 25' MIN. FROM O.C.R. AT INTERSECTIONS.
3. PLANT 10' MIN. FROM EDGE OF DRIVE APPROACH.
4. PLANT 10' MIN. FROM UTILITY AND SEWER LINES.
5. PLANT 21' MIN. FROM STREET LIGHT STANDARDS.
6. PLANT 18' MIN. FROM POWER POLES.
7. PLANT 10' MIN. FROM FIRE HYDRANTS.
8. 4'-6" x 6' TREE WELL STANDARD, UNLESS OTHERWISE SPECIFIED

NOTE: All planting in the public right of way must be approved by the City and conform to the City ordinances.
CORNER SIGHT DISTANCE

<table>
<thead>
<tr>
<th>DESIGN 85th PERCENTILE SPEED</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>275</td>
</tr>
<tr>
<td>30</td>
<td>330</td>
</tr>
<tr>
<td>35</td>
<td>385</td>
</tr>
<tr>
<td>40</td>
<td>440</td>
</tr>
<tr>
<td>45</td>
<td>495</td>
</tr>
<tr>
<td>50</td>
<td>550</td>
</tr>
</tbody>
</table>

SET BACK FROM EDGE OF TRAVEL WAY

1. Driver set back = 10' + Y but not less than 15'

LEGEND

Y = Distance between the edge of travelway and the curb. Applies to parking, bike lanes, shoulders and/or combination.

LS = Line of sight

SD = Sight distance

G = Edge of travelway

FLAT GRADE

Within the shaded areas there shall be no sight obscuring wall, fence, sign, or foliage higher than 42 inches from street grade. In the case of trees, lower branches shall be trimmed up eight (8) feet six (6) inches from street grade.

OTHER GRADE

The City Engineer will provide the conditions and allowances for hilly and/or rolling terrains.

CONTROLLED INTERSECTIONS

Top of Curb

Shrub/Tree

Street Grade

or Unimproved Grade

Trimming Example

Note: Street trees shall be trimmed by City staff only. Call 408-777-3269 to request service.

Note: If no curb/ gutter exist, the measurement is 3' from existing grade.

CITY OF CUPERTINO

STANDARD DETAILS

APPROVED BY: [Signature] DATE: 7/27/11

City Engineer
FLAT GRADE

Within the shaded areas there shall be no sight obscuring wall, fence, sign, or foliage higher than 42 inches from street grade. In the case of trees, lower branches shall be trimmed up eight (8) feet six (6) inches from street grade.

OTHER GRADE

The City Engineer will provide the conditions and allowances for hilly and/or rolling terrains.

LEGEND

LS = Line of sight

---

LEGEND

LS = Line of sight

Note: Street trees shall be trimmed by City staff only. Call 408-777-3289 to request service.

Note: If no curb/gutter exist, the measurement is 3' from existing grade.

UNCONTROLLED INTERSECTIONS
SIDEWALK CLEARANCE AT DRIVEWAYS

SHADED AREAS BEHIND SIDEWALK SHALL BE FREE OF ANY OBSTRUCTION EXCEEDING 3 FEET ABOVE SIDEWALK ELEVATION (i.e.: SIGNS, BUSHES). ALSO SEE DETAIL 7-2 (CONTROLLED INTERSECTIONS) FOR FURTHER RESTRICTIONS.
Face of Bldg.  

6' MINIMUM  

Grade 2%  

× Bars  

Concrete Masonry Wall  
All Cells Filled Solid  
With Grout.  

Omit Head Joint at First  
Course at 32" O.C. for  
Weep Hole  

12" Min. Grade  

1" Drain Rock as Req'd  

2 Bars  

Felt Paper  

Pour Footing Against  
Undisturbed Natural Soil  

NOTE: Drains are  
required on ALL walls.  

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC R/W</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>ADJACENT PROPERTY</td>
<td>1.5</td>
<td>0.5</td>
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</tbody>
</table>

RETAINING WALL GREATER THAN 3'  
HIGH SHALL BE DESIGNED BY A  
CIVIL/STRUCTURAL ENGINEER.  

SPECIFICATIONS:  
GRADE "N" MASONRY UNITS  
TYPE = "M" or "S" GROUT  
GRADE = 40 STEEL  
E.F.P. = 30 #/FT²  
LATERAL SIDING = .35  

NOTES:  
1. Contact Public Works Department for Permit Requirements.  
2. Plans indicating Top of Wall (T.W.) Elevation, Existing and  
Finished Grades are required on all Retaining Wall Permits.  

CONCRETE BLOCK RETAINING WALLS  

CITY OF CUPERTINO  
STANDARD DETAILS  
APPROVED BY:  
DATE: 7/9/2000  
8-2
CROSS SECTION

<table>
<thead>
<tr>
<th>H (FT.)</th>
<th>D** (FT.)</th>
<th>POSTS SIZE</th>
<th>MAX. SPACING</th>
<th>BOARDS SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>8&quot; x 8&quot;</td>
<td>6'</td>
<td>2' x 12&quot;</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>6&quot; x 6&quot;</td>
<td>6'</td>
<td>2' x 12&quot;</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>6&quot; x 6&quot;</td>
<td>6'</td>
<td>2' x 12&quot;</td>
</tr>
</tbody>
</table>

NOTES:

1. PRESERVATIVE TREATMENT (CREOSOTE or EQUAL) IN ACCORDANCE WITH SECTION SB, STANDARD SPECIFICATIONS (STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, CURRENT EDITION).

2. IF CERTIFIED BY SOILS ENGINEER.

3. BLOCK WALL IS REQUIRED IF WALL IS WITHIN 2 x H FROM PROPERTY LINE (P).

TIMBER RETAINING WALL
NOTES:

1. CITY SHALL FURNISH ALL BARRICADES AND SIGNS.

2. BLOCK PARTY PERMITTEE SHALL MAINTAIN A 20 FOOT CLEARANCE PATH IN THE TRAVEL WAY AT ALL TIMES.

LEGEND:

--- BARRICADE W/SIGN

TYPICAL CLOSING OF BLOCK
NOTES:
1. SHALL BE USED ONLY ON OVERFLOW PARKING AREAS, DRIVEWAYS, AND EMERGENCY ACCESS ROADS.
2. TYPES OF PLANTS/TURFS SHALL BE APPROVED BY PLANNING DEPARTMENT.
3. SHALL MEET MINIMUM WHEEL LOADING CAPACITY. OWNER TO PROVIDE SPECIFICATIONS.

TURF BLOCK
1. Bury the top end of the jute strip in a trench 6 in. or more in depth.

2. Tamp the trench full of soil. Secure with row of staples: 6-in spacing, 4 in. down from the trench.

3. Overlap: bury upper end of lower strip as in (1) and (2). Overlap end of top strip 4 in. and staple.

4. Erosion stop: bury fold of jute in slit trench and tamp; staple double row of staples.

See parking stall standards

Overlap jute strip 4 in where two or more strip widths are required. Staple on 18-in centers.

Staple outside edge on 2-ft centers.

Typical staples No. 11 gauge wire

1\(\frac{1}{2}\) in

1\(\frac{1}{2}\) in

Tree planting is required at 25' o.c.
- Finish grade shall match flow line and not prevent run-off from draining.
- Type of tree shall be approved by Planning Department

GRASSED WATERWAYS WITH JUTE MAT
NOT TO SCALE

NOTE:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.