

CITY OF LOS ALTOS

STANDARD DETAILS

May 2010 Edition

Updated May 2024



PUBLIC WORKS DEPARTMENT

One North San Antonio Road
Los Altos, CA 94022
Phone: 650-947-2780
Fax: 650-947-2732

STANDARD DETAILS

TABLE OF CONTENTS

SURFACE

<i>Drawing Number</i>	<i>Drawing Description</i>
SU-1	Minimum Street Standard for Residential and Private Streets
SU-2	Minimum Street Standard for Public Cul-De-Sac
SU-3	Downtown Type 'A' Sidewalk
SU-4	Downtown Type 'B' Sidewalk
SU-5	Duck-Out Parking Detail
SU-6	Vertical And Rolled Curb and Gutter
SU-7	Vertical Curb, Asphalt Concrete Berm, and Curb Stamp
SU-8	Sidewalk Cross-Section
SU-9	Driveway Cross-Section
SU-10	Driveway Detail with Planter Strip and Detached Sidewalk
SU-11	Driveway Detail with Attached Sidewalk
SU-12	Street Intersection Valley Gutter and Concrete Apron
SU-13	Street Barricade
SU-14	Survey Monument
SU-15	Street Sign
SU-16	Combined Stop Sign & Street Sign
SU-17	Stop, Warning, and Regulatory Signs
SU-18	Temporary Pedestrian Safety Tunnel
SU-19	Trench Paving, Backfill and Pipe Bedding Sections
SU-19A	Microtrenching A.C. Restoration
SU-20	SU-20A/B/C Shoulder Paving Policy Street Shoulder Improvement Policy
SU-21	Rolled Curb and Sidewalk Modification at Driveway Parking
SU-22	Stall Details
SU-23	ADA Parking Stall Detail

STORM DRAIN

<i>Drawing Number</i>	<i>Drawing Description</i>
SD-1	Storm Drain Manhole (Concentric Cone)
SD-2	Storm Manhole Frame and Cover
SD-3	Storm Manhole Base with Branches
SD-4	Curb Inlet
SD-5	Curb Inlet Gutter Depression
SD-6	3' x 3' Storm Drain Inlet
SD-7	3' X 3' Inlet and Standard Curb Inlet Frame and Grate
SD-8	2' x 2' Storm Drain Inlet
SD-9	2' x 2' Storm Drain Inlet Frame and Grate

STANDARD DETAILS

(cont.)

SANITARY SEWER

<i>Drawing Number</i>	<i>Drawing Description</i>
SS-1	Sanitary Sewer Manhole (Concentric Cone)
SS-2	Sanitary Sewer Manhole (Outside Drop)
SS-3	Sanitary Sewer Manhole Frame and Cover
SS-4	Sanitary Sewer Manhole Base with Branches
SS-5	Sewer Lateral and Sewer Riser
SS-6	Sewer Lateral Clean-Out
SS-7	Sewer Tap
SS-8	Sewer Lateral Division of Responsibility

STREET LIGHTING

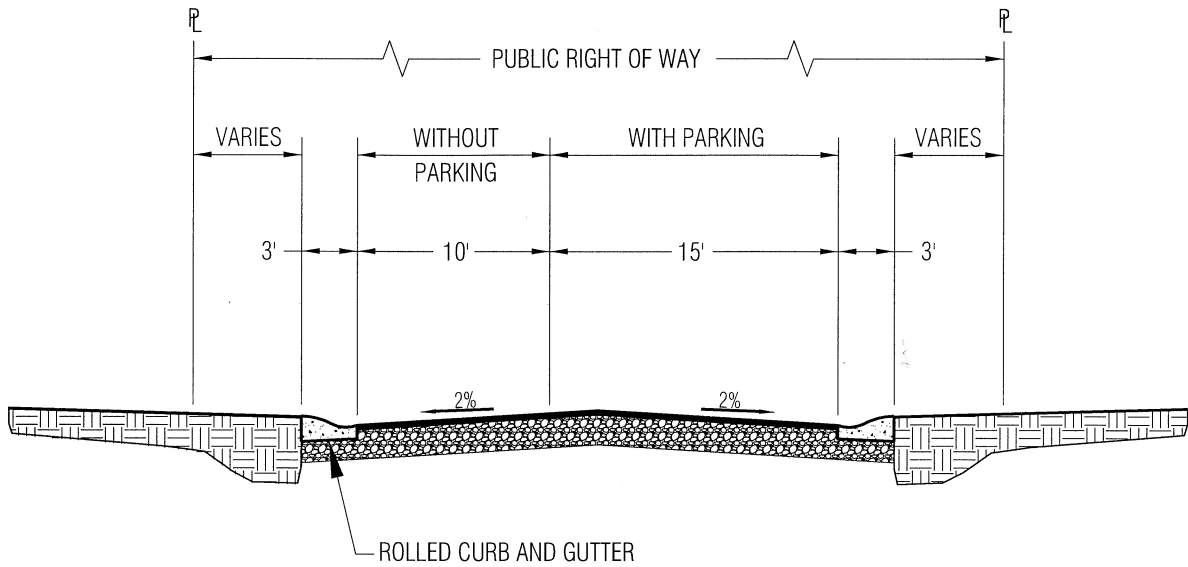
<i>Drawing Number</i>	<i>Drawing Description</i>
SL-1	Electrolier
SL-2A	Electrolier Pole Base Details (Sheet 1 of 2)
SL-2B	Electrolier Pole Base Details (Sheet 2 of 2)
SL-3	Pull Box
SL-4	Downtown Decorative Electrolier
SL-5	Park Electrolier
SL-6	Bollard Light Detail

LANDSCAPING AND IRRIGATION

<i>Drawing Number</i>	<i>Drawing Description</i>
LI-1	Tree Planting and Staking
LI-2	Backflow Prevention Device
LI-3	Backflow Prevention Enclosure
LI-4	Litter Receptacle
LI-5	Picnic Table
LI-6	Park Bench
LI-7	Downtown Bench
LI-8	Park Grill
LI-9	Fixed Bollard
LI-10	Removable Bollard
LI-11	Bicycle Rack Details and Installation Plans
LI-12	Wood Maze Details

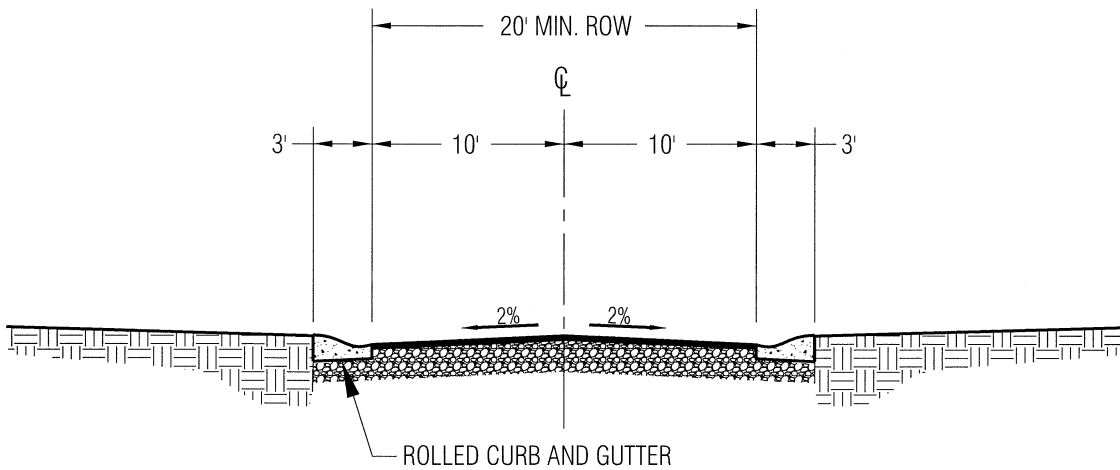
EROSION AND SEDIMENT CONTROL

<i>Drawing Number</i>	<i>Drawing Description</i>
EC-1	Typical Erosion and Sediment Control at Single Family Construction Site
EC-2	Stabilized Construction Site Entrance
EC-3	Silt Fence
EC-4	Straw Rolls



RESIDENTIAL STREET

SCALE: 1" = 10'

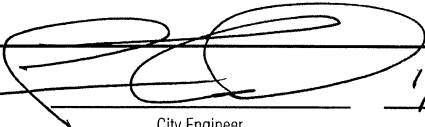


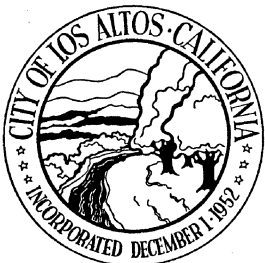
PRIVATE STREET

SCALE: 1" = 10'

NOTES:

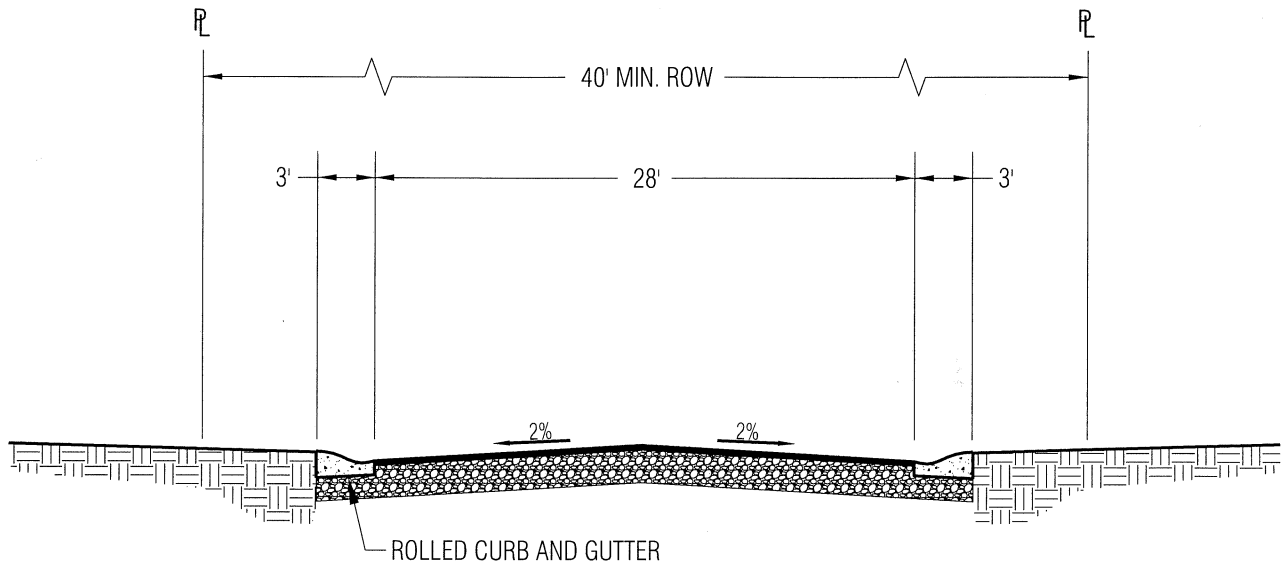
1. PRIVATE STREETS ARE ONLY ALLOWED ON CONDOMINIUM, TOWNHOUSE, APARTMENT OR PLANNED UNIT DEVELOPMENTS.

Approved:  1/4/10
 City Engineer Date



REVISION	
Description	Date

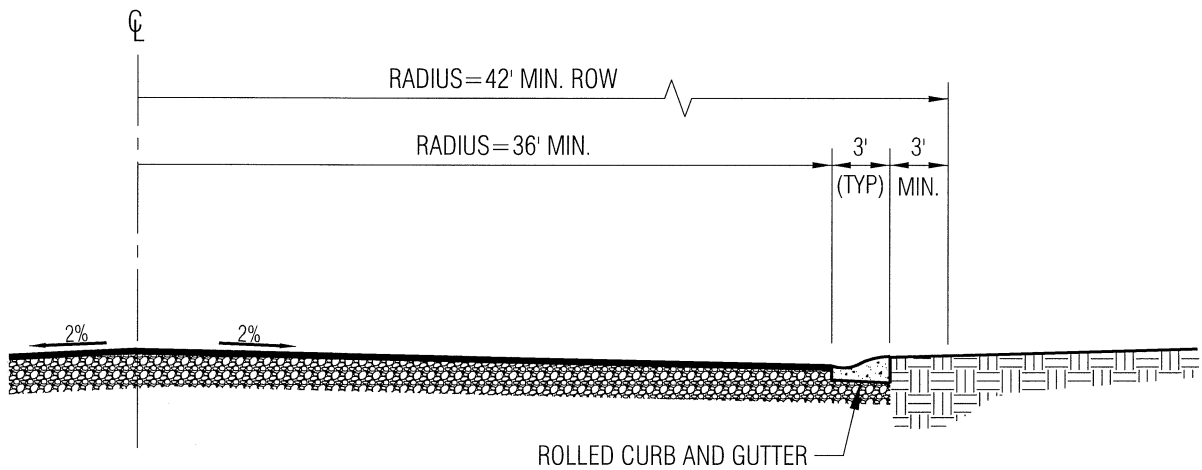
ENGINEERING DIVISION	
MINIMUM STREET STANDARD FOR RESIDENTIAL AND PRIVATE STREETS	SU-1



PUBLIC CUL-DE-SAC STREET

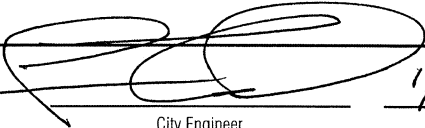
SCALE: 1" = 10'

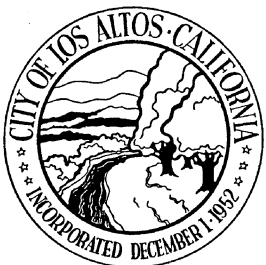
(TWO 10-FT TRAVEL LANES WITH 8-FT PARKING ON ONE SIDE)



PUBLIC CUL-DE-SAC TURNAROUND

SCALE: 1" = 10'

Approved:  1/4/10
 City Engineer Date

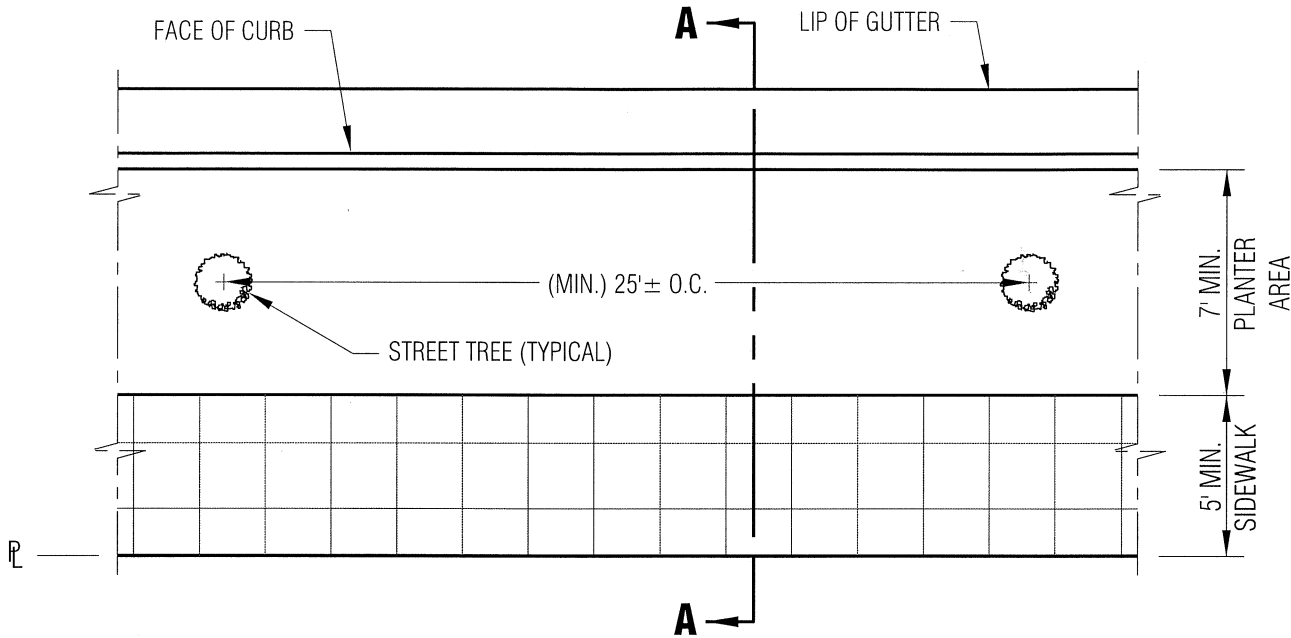


REVISION	
Description	Date

ENGINEERING DIVISION

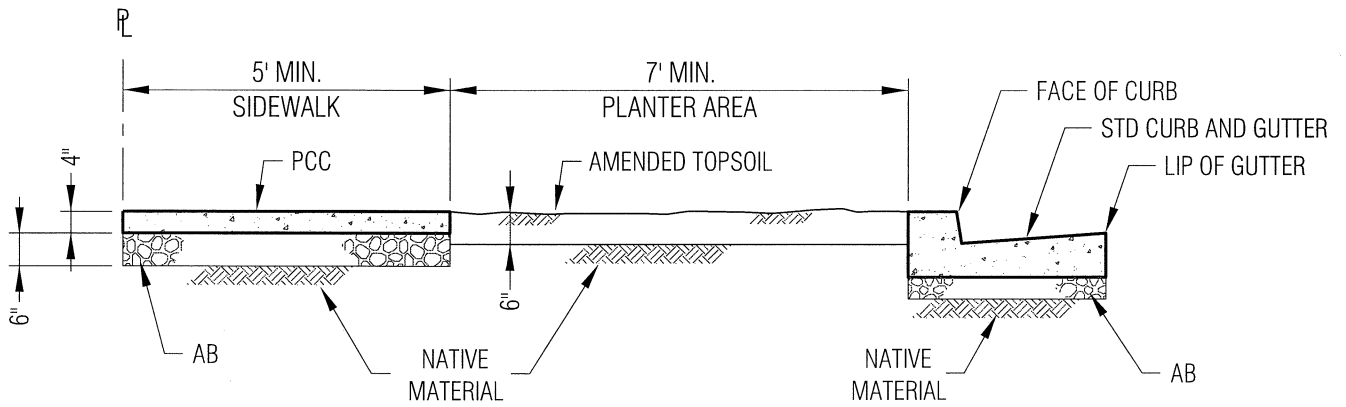
**MINIMUM STREET
STANDARD FOR
PUBLIC CUL-DE-SAC**

SU-2



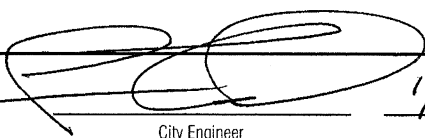
PLAN VIEW

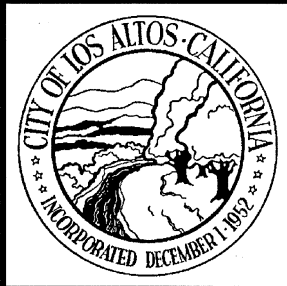
SCALE: 1" = 6'-0"



SECTION A-A

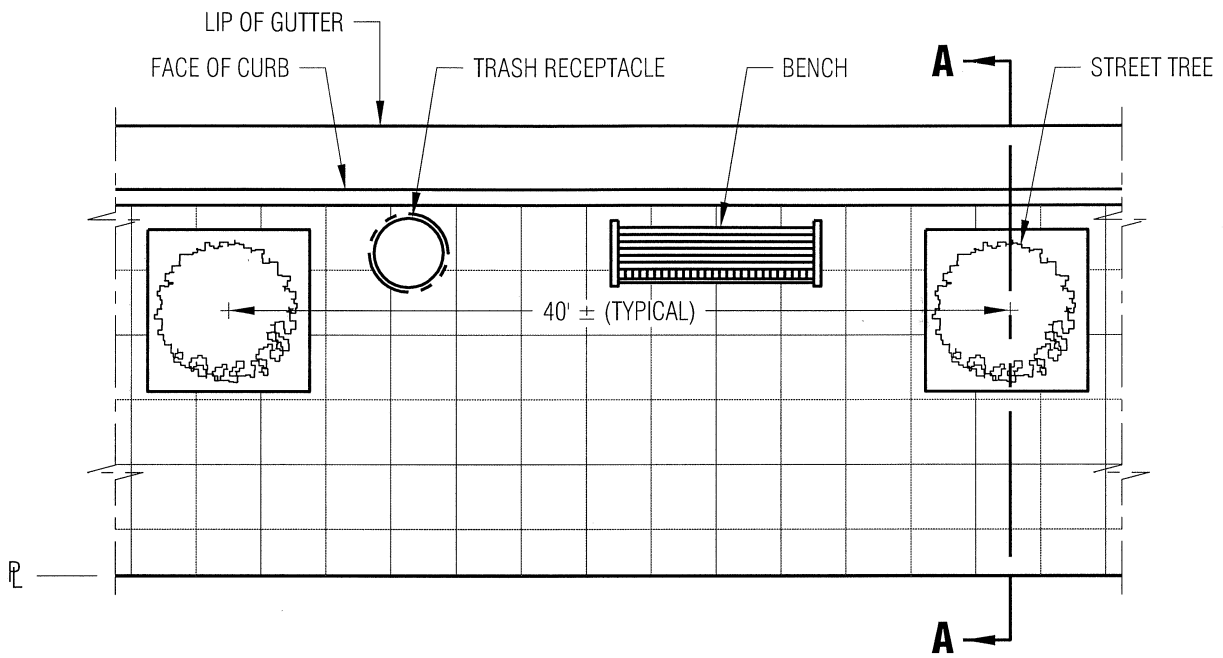
SCALE: 1" = 3'-0"

Approved:  1/4/10
 City Engineer Date



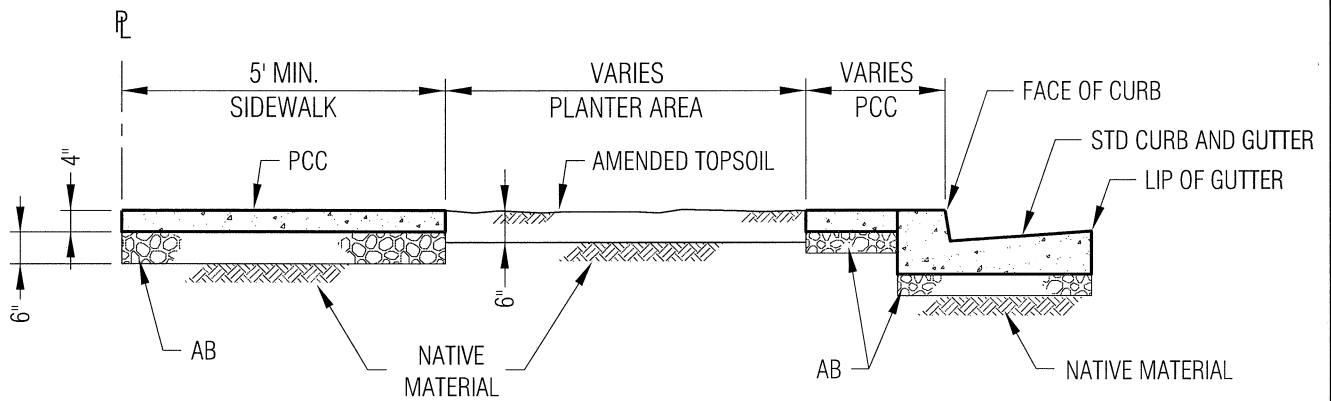
REVISION	
Description	Date

ENGINEERING DIVISION	
DOWNTOWN TYPE 'A' SIDEWALK	SU-3



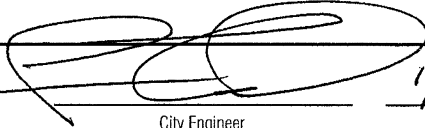
PLAN VIEW

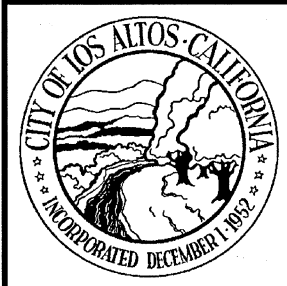
NTS



SECTION A-A

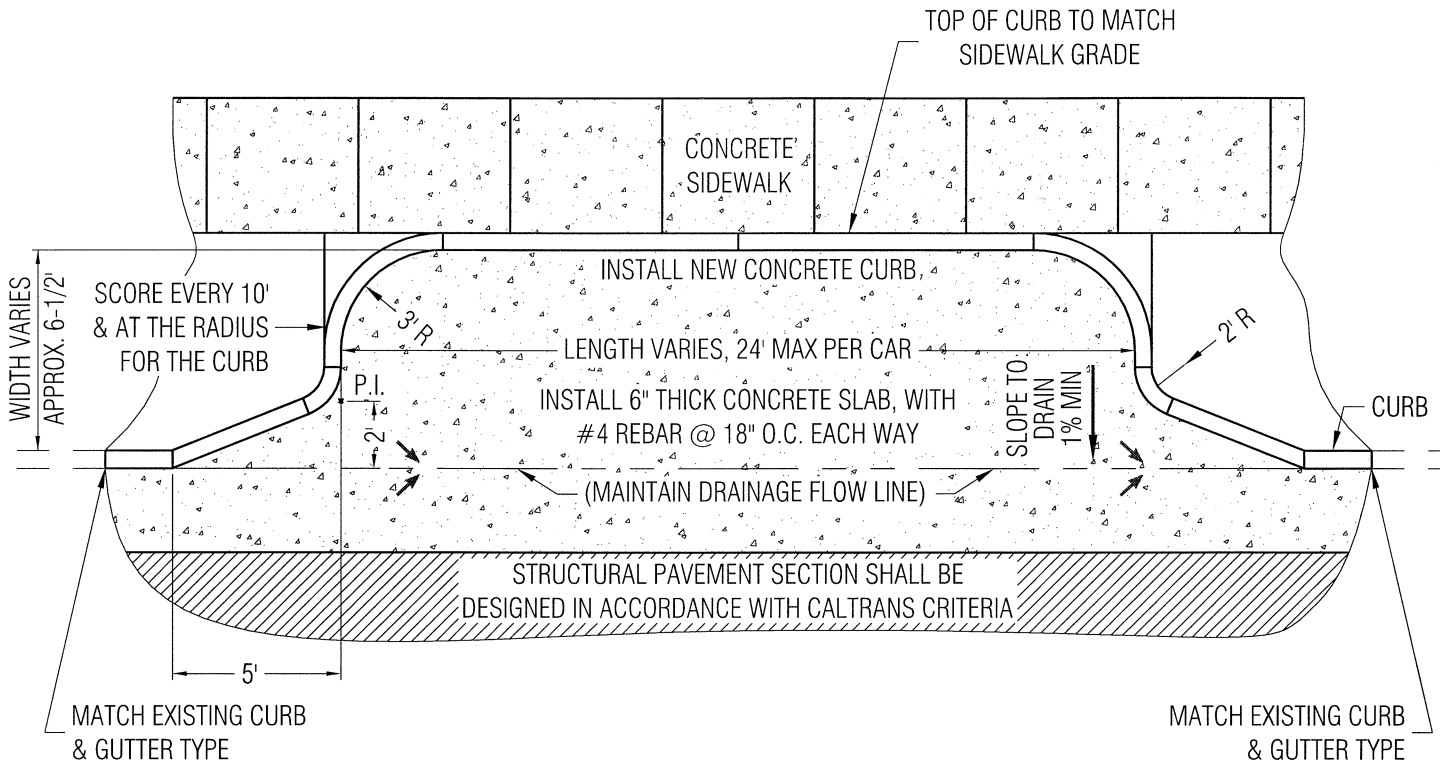
SCALE: 1" = 3'-0"

Approved:  1/4/10
 City Engineer Date



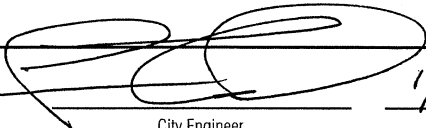
REVISION	
Description	Date

ENGINEERING DIVISION	
DOWNTOWN TYPE 'B' SIDEWALK	SU-4



TYPICAL DUCK-OUT PARKING DETAIL

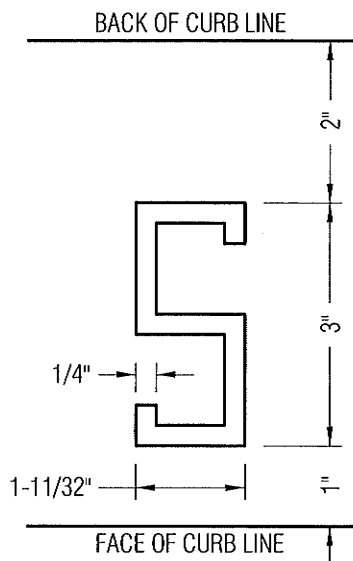
NTS

Approved:  1/4/10
 City Engineer Date



REVISION	
Description	Date

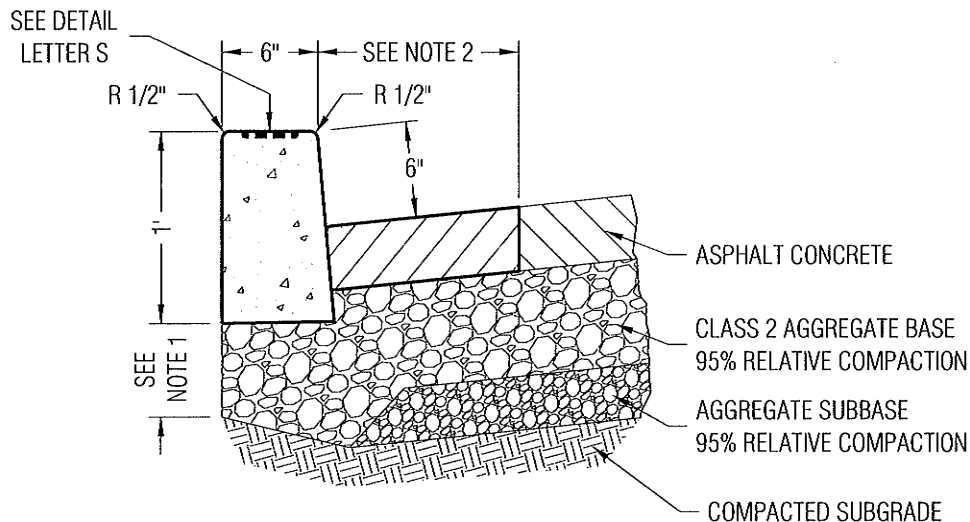
ENGINEERING DIVISION	
DUCK-OUT PARKING DETAIL	SU-5



LETTER S

SCALE: NOT TO SCALE

THE LETTER "S" TO BE EMBEDDED
1/4" DEEP ON TOP OF CONCRETE
CURB OVER SEWER LATERAL.

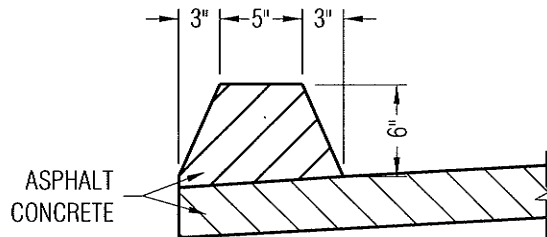


VERTICAL CURB

SCALE: 1" = 1'

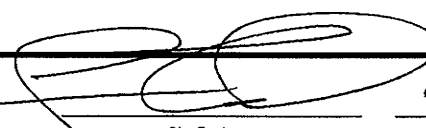
NOTES:

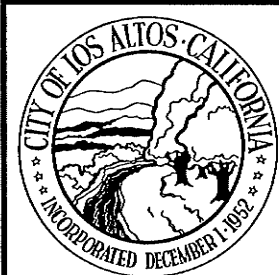
1. THICKNESS OF AGGREGATE BASE SHALL BE:
 - * FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.),
 - OR-
 - * FOR EXISTING STREET SECTION: 6"
2. FOR NEW CURB INSTALLED ADJACENT TO EXISTING PAVEMENT, TWELVE INCHES (12") OF THE AC EDGE SHALL BE SAWCUT, REMOVED AND REPLACED WITH NEW AC PAVEMENT



AC CONCRETE BERM

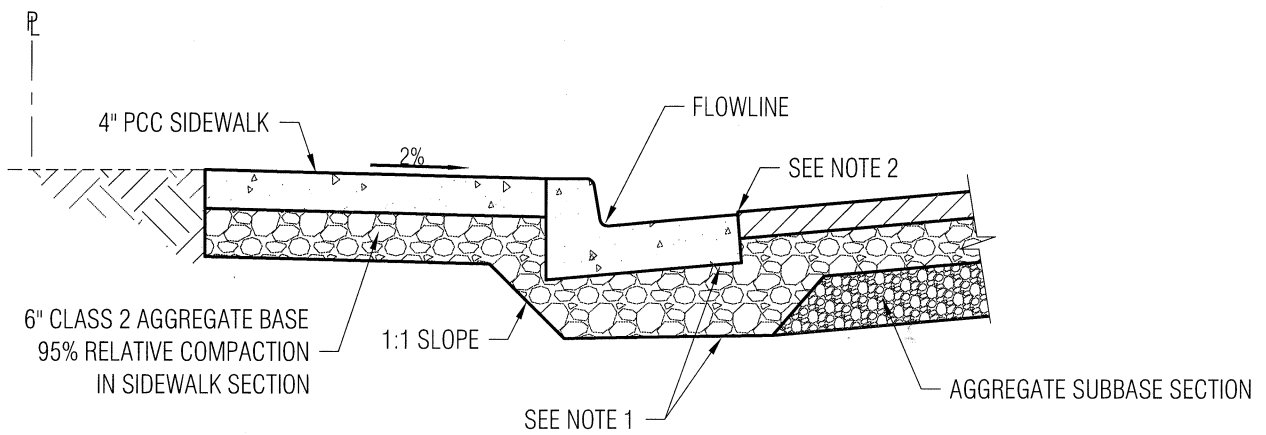
SCALE: 1" = 1'

Approved:  1/4/10
City Engineer Date



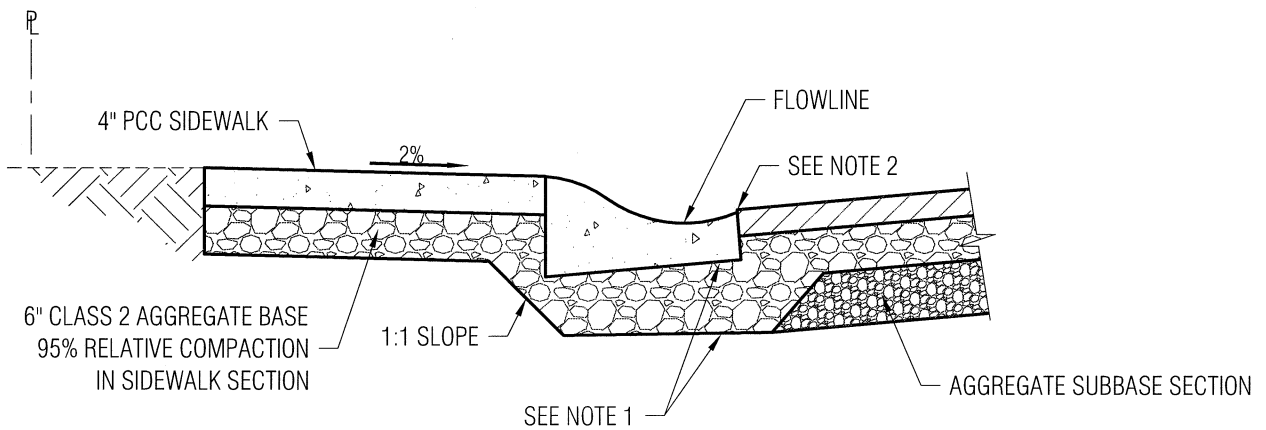
REVISION	
Description	Date
Added Height of Curb	02/16/12

ENGINEERING DIVISION	
VERTICAL CURB, ASPHALT CONCRETE BERM AND CURB STAMP	SU-7



SECTION THROUGH STANDARD SIDEWALK AND VERTICAL CURB

SCALE: NOT TO SCALE



SECTION THROUGH STANDARD SIDEWALK AND ROLLED CURB

SCALE: NOT TO SCALE

STANDARD CROSS SECTIONS

NOTES:

1. THICKNESS OF AGGREGATE BASE UNDER CURB & GUTTER SHALL BE:

* FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.)

OR

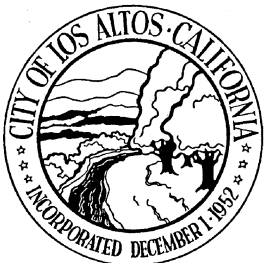
* FOR EXISTING STREET SECTION: 6"

2. SEE VERTICAL CURB AND ROLLED CURB AND GUTTER DETAIL SU-6

Approved: _____

[Signature]
City Engineer

1/4/10
Date



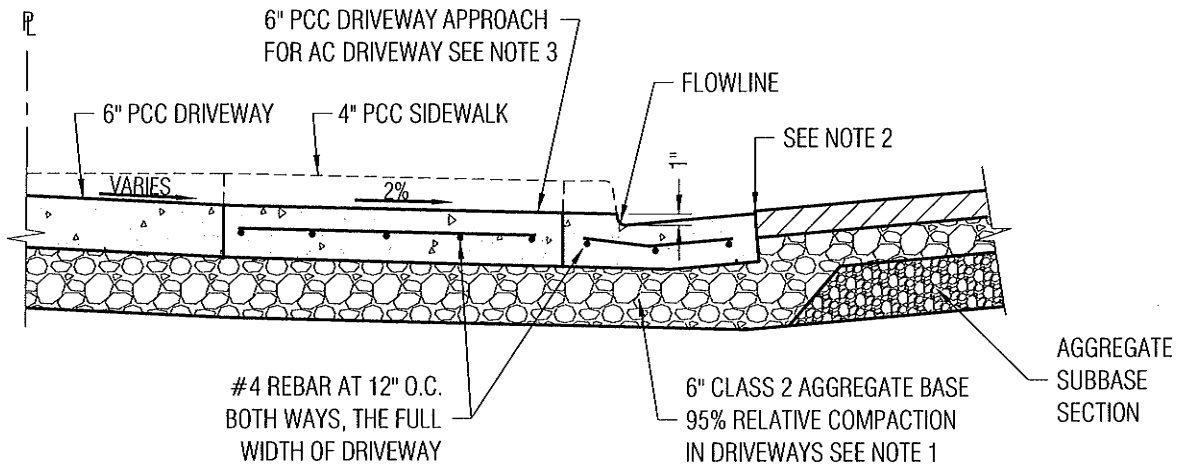
REVISION

Description	Date

ENGINEERING DIVISION

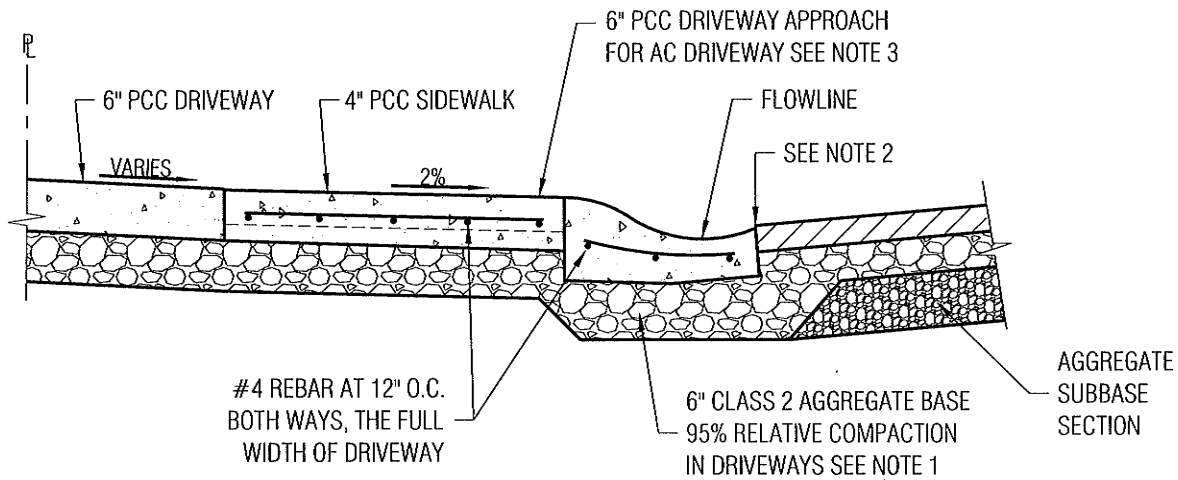
**SIDEWALK
CROSS-SECTION**

SU-8



SECTION THROUGH STANDARD DRIVEWAY APPROACH WITH VERTICAL CURB

SCALE: NOT TO SCALE



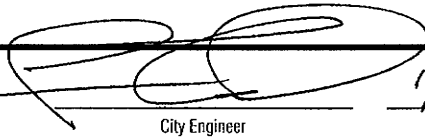
SECTION THROUGH STANDARD DRIVEWAY APPROACH WITH ROLLED CURB

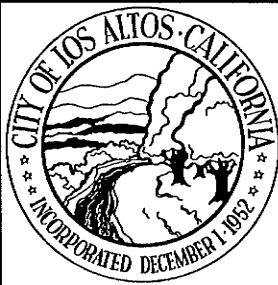
SCALE: NOT TO SCALE

STANDARD CROSS SECTIONS

NOTES:

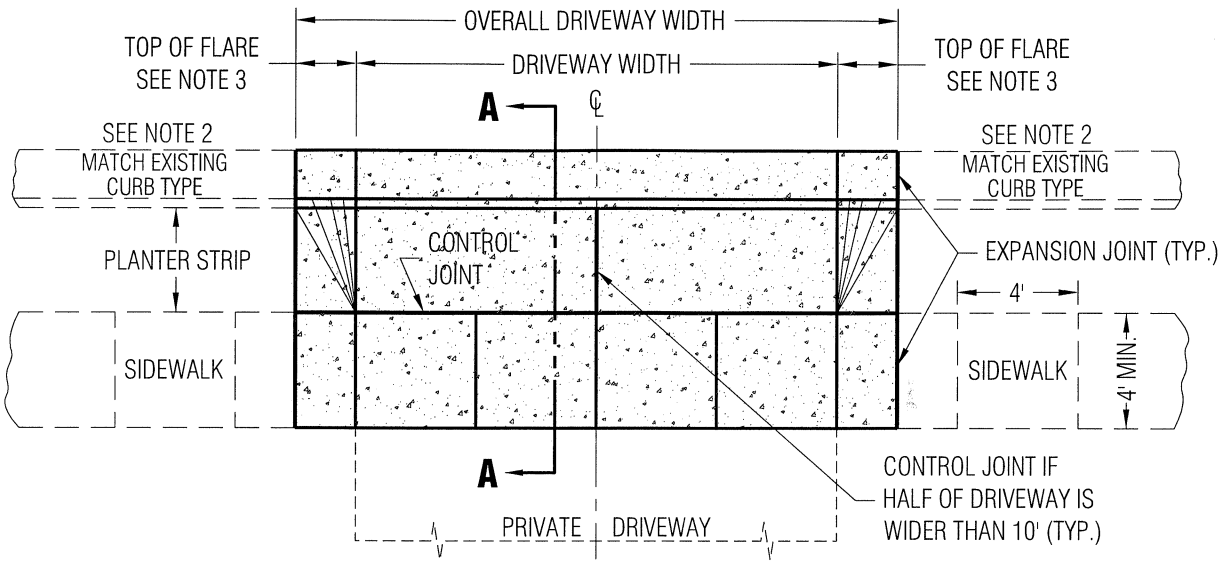
- 1. THICKNESS OF AGGREGATE BASE UNDER CURB & GUTTER SHALL BE:
 - * FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.)
 - OR
 - * FOR EXISTING STREET SECTION: 6"
- 2. SEE VERTICAL CURB AND ROLLED CURB AND GUTTER DETAIL SU-6
- 3. 6" CLASS 2 AGGREGATE BASE 95% RELATIVE COMPACTION, AND 2" ASPHALT CONCRETE

Approved:  1/4/10
 City Engineer Date

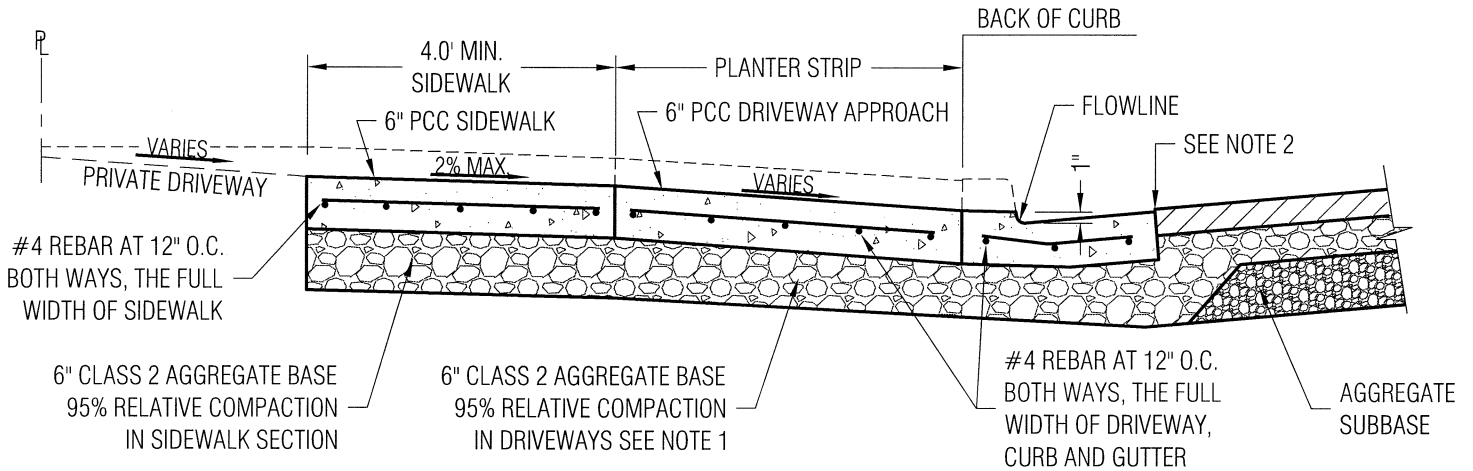


REVISION	
Description	Date
Added Note 3	02/16/12

ENGINEERING DIVISION	
DRIVEWAY CROSS-SECTION	SU-9



PLAN



SECTION A-A

DETACHED SIDEWALK

SCALE: NOT TO SCALE

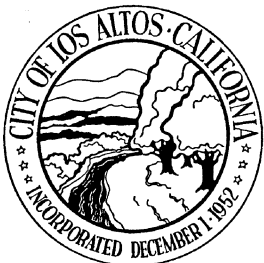
NOTES:

1. THICKNESS OF AGGREGATE BASE UNDER CURB AND GUTTER SHALL BE:
 * FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.) OR
 * FOR EXISTING STREET SECTION: 6"
2. SEE VERTICAL CURB AND ROLLED CURB AND GUTTER DETAIL SU-6
3. DRIVEWAY FLARE WIDTH:
 1.5' FOR RESIDENTIAL
 3.0' FOR COMMERCIAL & INDUSTRIAL
 MUST BE ADA COMPLIANT

Approved: _____

[Signature]
 City Engineer

1/4/10
 Date

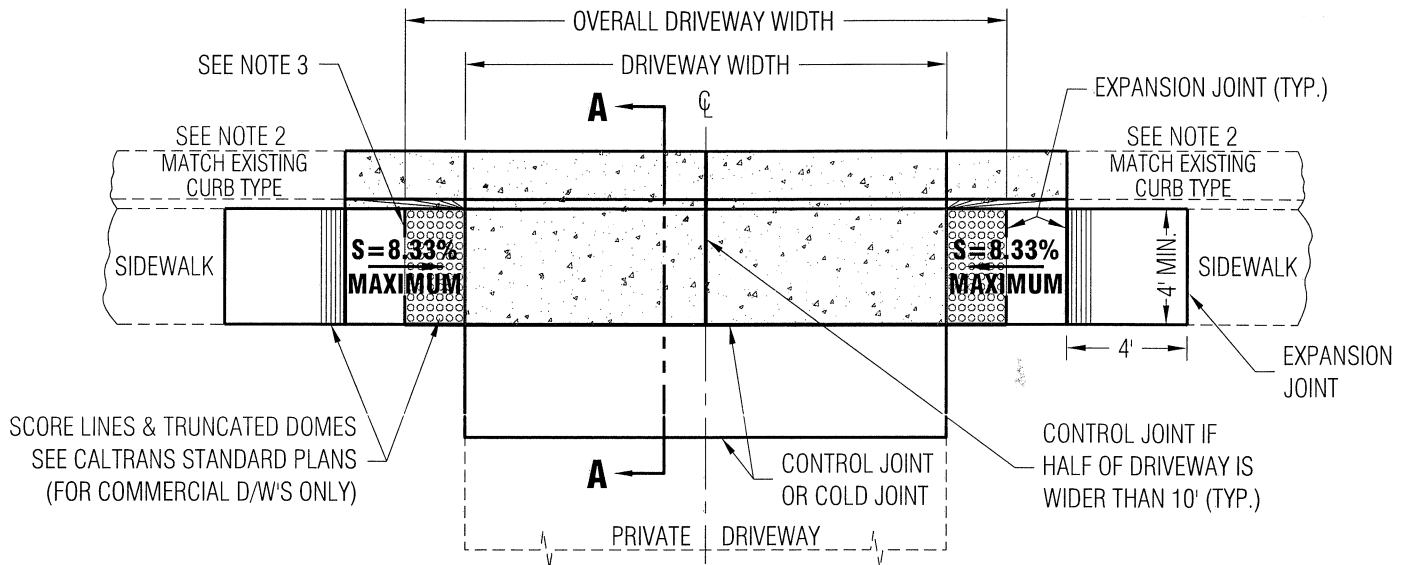


REVISION	
Description	Date

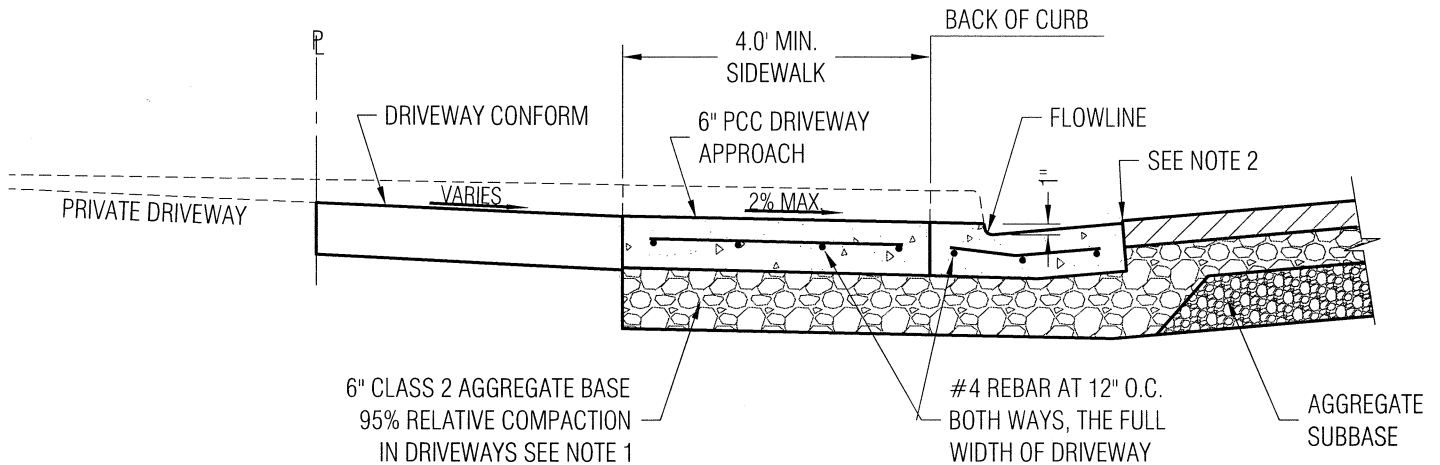
ENGINEERING DIVISION

**DRIVEWAY DETAIL WITH
 PLANTER STRIP AND
 DETACHED SIDEWALK**

SU-10



PLAN



SECTION A-A

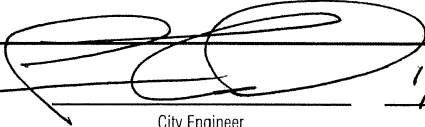
ATTACHED CURB, GUTTER AND SIDEWALK

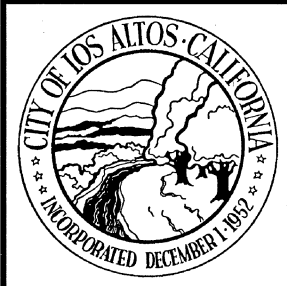
SCALE: NOT TO SCALE

NOTES:

1. THICKNESS OF AGGREGATE BASE UNDER CURB AND GUTTER SHALL BE:
 - * FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.)
 - OR-
 - * FOR EXISTING STREET SECTION: 6"

2. SEE VERTICAL CURB AND ROLLED CURB AND GUTTER DETAIL SU-6
3. DRIVEWAY FLARE WIDTH:
 - 1.5' FOR RESIDENTIAL
 - 3.0' FOR COMMERCIAL & INDUSTRIAL

Approved:  1/4/10
 City Engineer Date

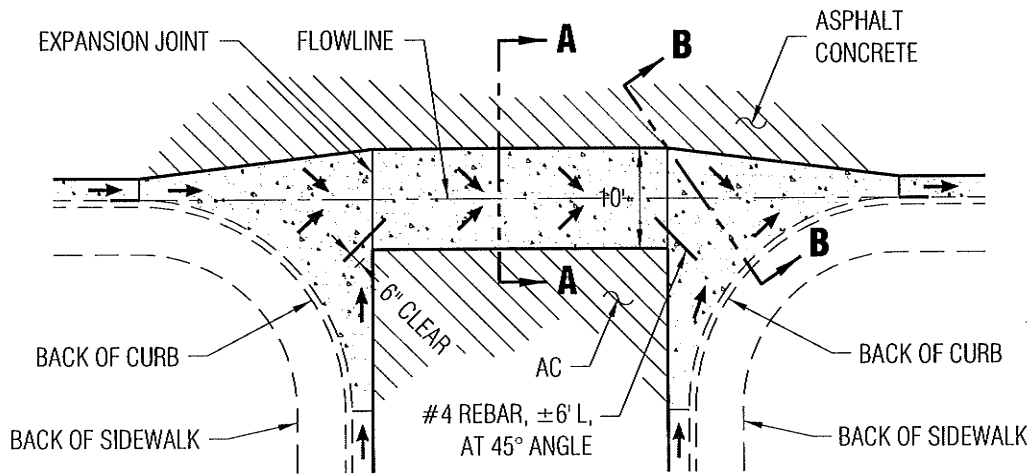


REVISION	
Description	Date

ENGINEERING DIVISION

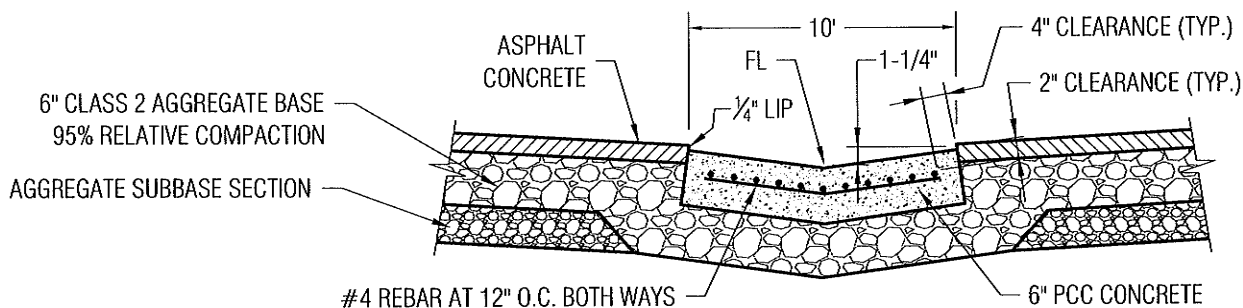
DRIVEWAY DETAIL WITH ATTACHED SIDEWALK

SU-11



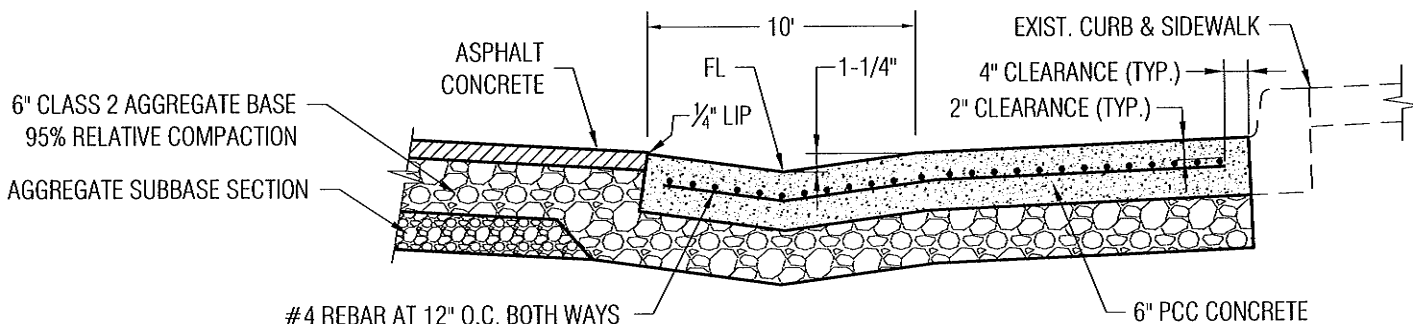
CONCRETE APRON AND VALLEY GUTTER

NTS



SECTION A-A - VALLEY GUTTER

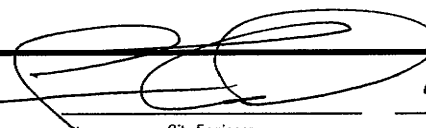
NTS

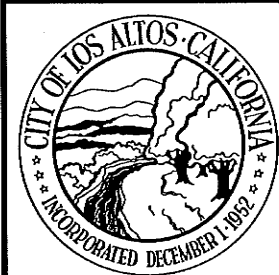


SECTION B-B - CONCRETE APRON

NTS

- NOTES: 1. THICKNESS OF AGGREGATE BASE UNDER THE GUTTER SHALL BE:
 * FOR NEW STREET SECTION: AS DETERMINED BY EXTENSION OF ROADWAY GRADING PLANE (6" MIN.), OR
 * FOR EXISTING STREET SECTION: 6"

Approved:  1/4/10
 City Engineer Date

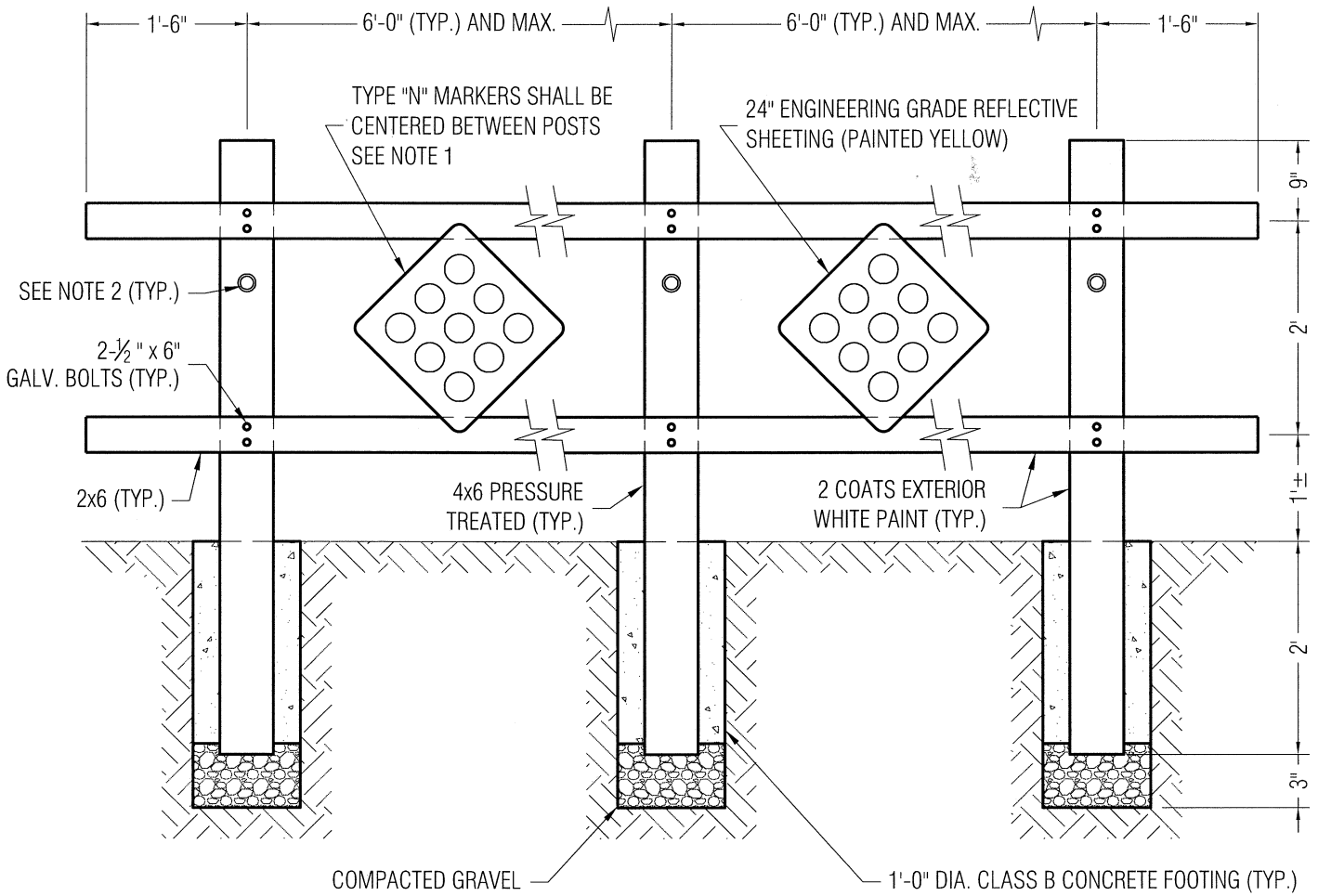


REVISION	
Description	Date
Deleted Driveway Note	02/16/12

ENGINEERING DIVISION

**STREET INTERSECTION
VALLEY GUTTER AND
CONCRETE APRON**

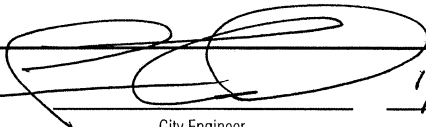
SU-12

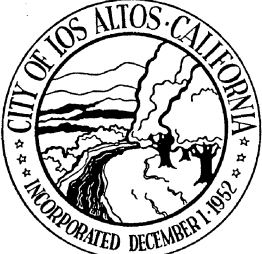


DRAWING: NOT TO SCALE

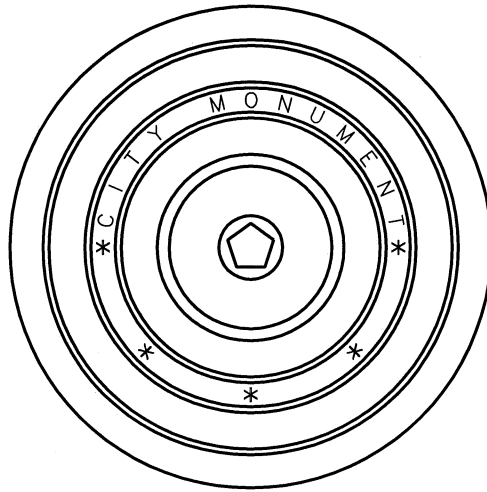
NOTES:

1. TYPE N-4 MARKERS (CALTRANS) WITH AMBER PLASTIC REFLECTORS FOR BARRICADE ON THE SIDES OF THE STREET.
TYPE N-5 MARKERS WITH RED PLASTIC REFLECTORS FOR BARRICADE AT THE DEAD-END OF THE STREET.
2. AMBER PLASTIC DISK FOR BARRICADE ON THE SIDES OF THE STREET.
RED PLASTIC DISK BARRICADE AT DEAD-END OF STREET.

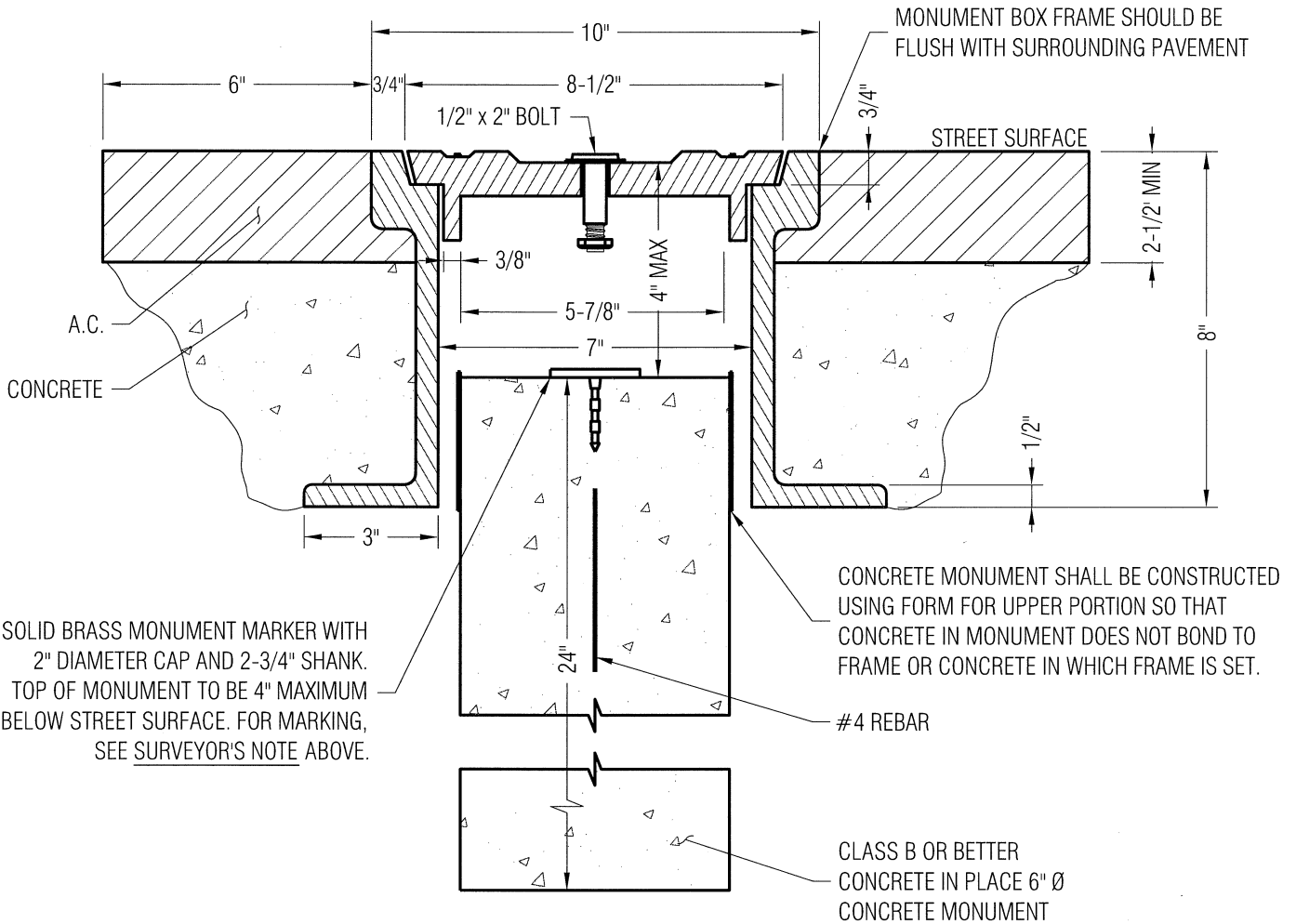
Approved:  1/4/10
City Engineer Date

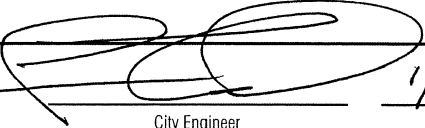
	REVISION		ENGINEERING DIVISION	
	Description	Date	STREET BARRICADE	SU-13

FRAME AND COVER - EMPIRE
 FOUNDARY CO. NO. MN-78,
 PHOENIX IRON WORKS NO
 P-2001, OR APPROVED EQUAL
 OVER MONUMENT. FRAME
 AND COVER TO BE SET IN
 CONCRETE AFTER PAVING.



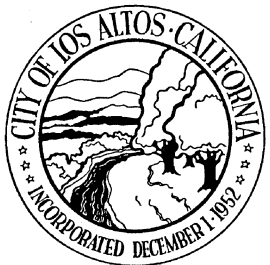
SURVEYOR'S NOTE:
 EXACT POINT TO BE DETERMINED BY
 SURVEY AND CLEARLY PUNCHED IN TOP
 BRASS MARKER TOGETHER WITH
 ENGINEER'S R.C.E. OR SURVEYOR'S R.L.S.
 NUMBER IN 1/8" HIGH NUMERALS

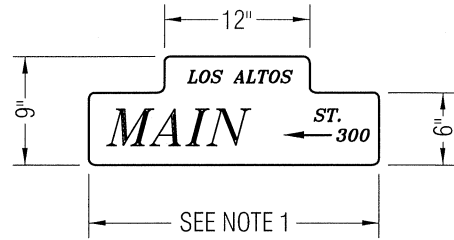
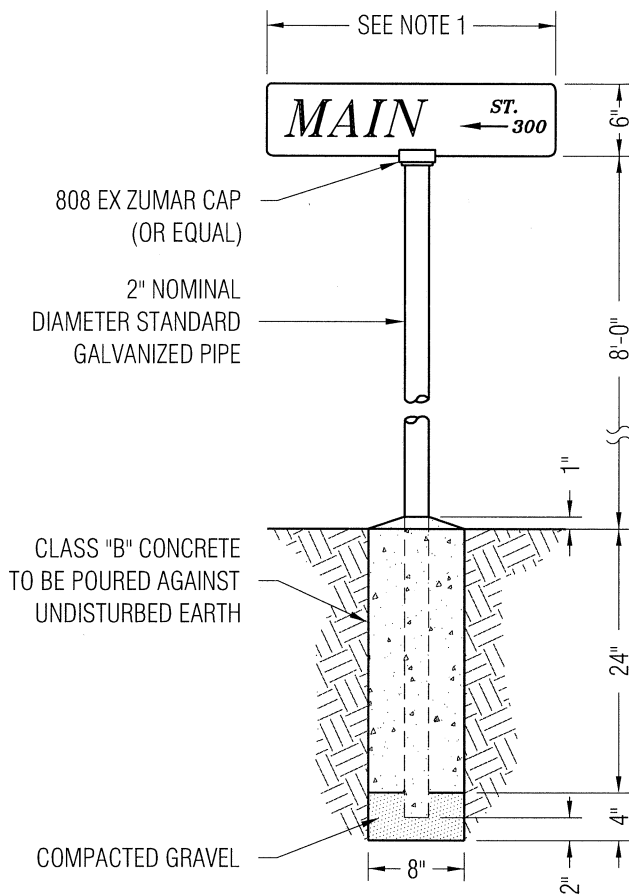


Approved:  Date: 1/4/10

REVISION	
Description	Date

ENGINEERING DIVISION	
SURVEY MONUMENT	SU-14



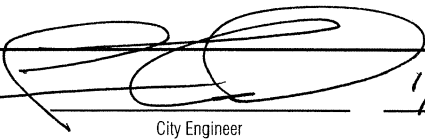


ABOVE PLATE TO BE USED AT CITY LIMITS
WITH "LOS ALTOS" IN 2" LETTERS

STANDARD STREET SIGN

SCALE: NOT TO SCALE

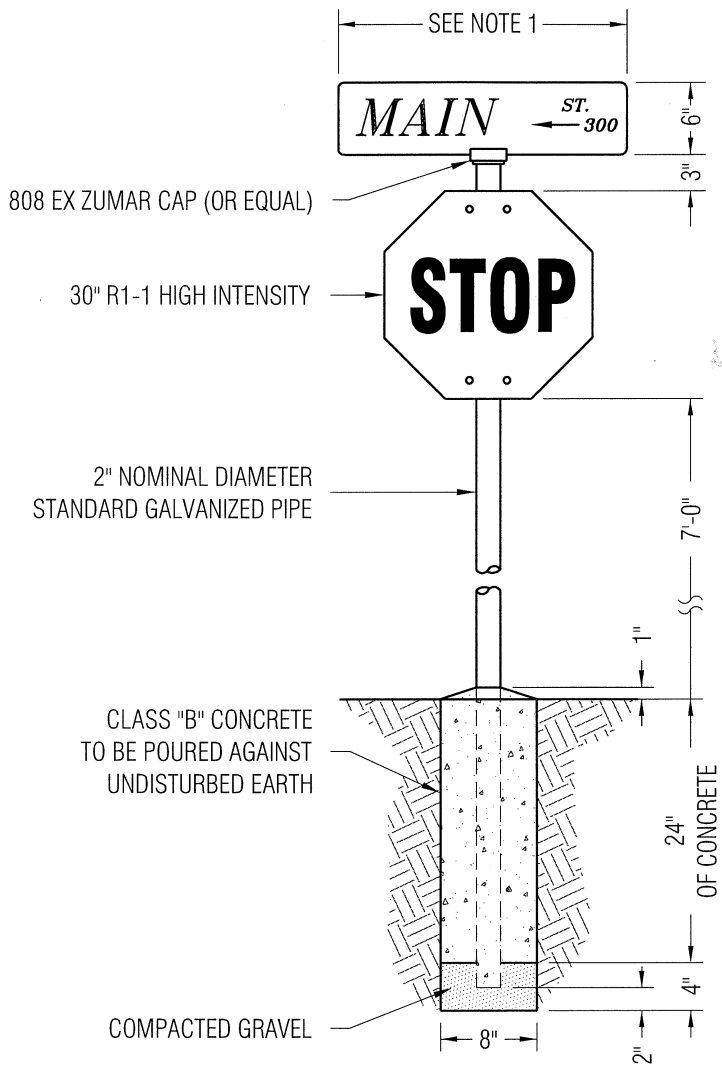
- NOTES:**
1. PLATES TO BE 0.080 GAUGE ALUMINUM, WIDTH VARIES IN 6" INCREMENTS FROM A MINIMUM OF 24" TO A MAXIMUM OF 36" x 6" IN HEIGHT. CORNER RADIUS IS 0.5", WITHOUT HOLES.
 2. SIGN IS SINGLE PLATE, DOUBLE FACE, WITH 3M WHITE 3290 ENGINEER GRADE REFLECTIVE SHEETING OVERLAYED BY 3M 1179 TRANSPARENT FILM FOR OPAQUE BROWN BACKGROUND. LETTERS ARE 3M 3290 WHITE REFLECTIVE ENGINEER GRADE SHEETING APPLIED OVER THE 1179 FILM.
 3. LETTER STYLE IS GARAMOND BOLD ITALIC CONDENSED. 4" ALL UPPERCASE FOR STREET NAME; 2" ALL UPPERCASE FOR SUFFIX & BLOCK NUMBER. SUFFIX IS CENTERED OVER "ARROW" AND BLOCK NUMBER WITH 0.75" SPACE BETWEEN LINES.

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
STREET SIGN	SU-15

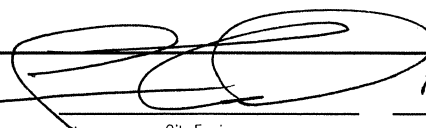


COMBINED STOP SIGN & STREET SIGN

SCALE: NOT TO SCALE

NOTES:

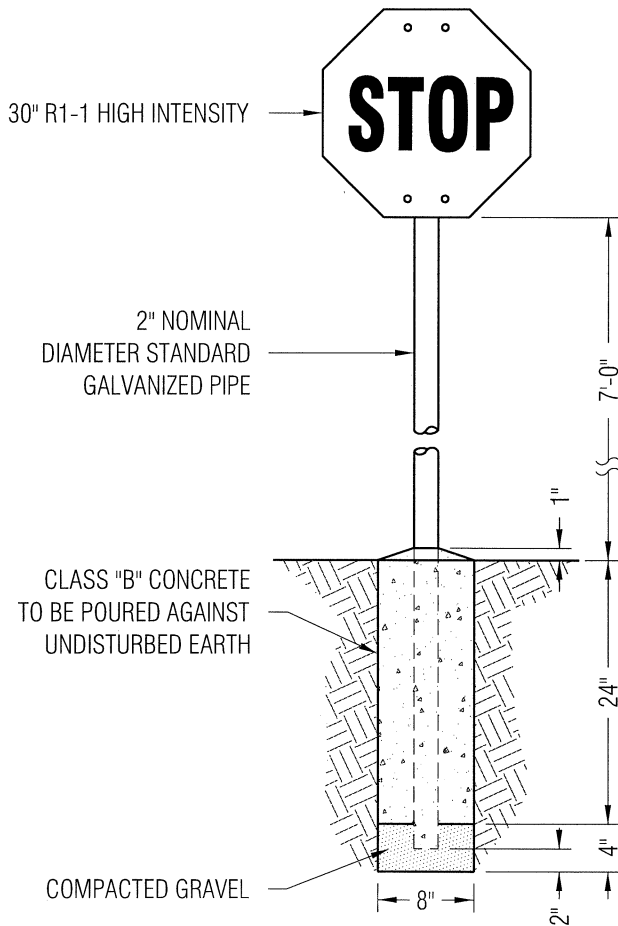
1. PLATES TO BE 0.080 GAUGE ALUMINUM, WIDTH VARIES IN 6" INCREMENTS FROM A MINIMUM OF 24" TO A MAXIMUM OF 36" x 6" IN HEIGHT. CORNER RADIUS IS 0.5", WITHOUT HOLES.
2. SIGN IS SINGLE PLATE, DOUBLE FACE, WITH 3M WHITE 3290 ENGINEER GRADE REFLECTIVE SHEETING OVERLAYED BY 3M 1179 TRANSPARENT FILM FOR OPAQUE BROWN BACKGROUND. LETTERS ARE 3M 3290 WHITE REFLECTIVE ENGINEER GRADE SHEETING APPLIED OVER THE 1179 FILM.
3. LETTER STYLE IS GARAMOND BOLD ITALIC CONDENSED. 4" ALL UPPERCASE FOR STREET NAME; 2" ALL UPPERCASE FOR SUFFIX & BLOCK NUMBER. SUFFIX IS CENTERED OVER "ARROW" AND BLOCK NUMBER WITH 0.75" SPACE BETWEEN LINES.
4. STOP SIGN SHALL BE INSTALLED WITH TWO MOUNTING BRACKETS USING U-BOLTS AND THEFT-PROOF BOLTS.

Approved:  1/4/10
 City Engineer Date



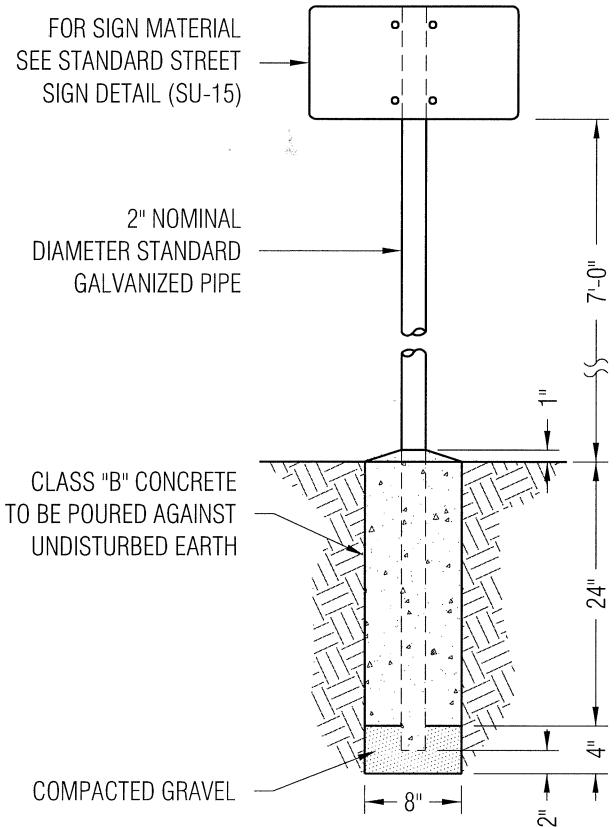
REVISION	
Description	Date

ENGINEERING DIVISION	
COMBINED STOP SIGN & STREET SIGN	SU-16



STANDARD STOP SIGN

SCALE: NOT TO SCALE

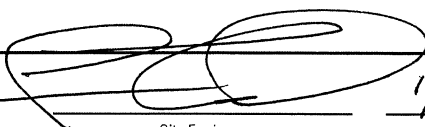


WARNING & REGULATORY SIGNS

SCALE: NOT TO SCALE

NOTES:

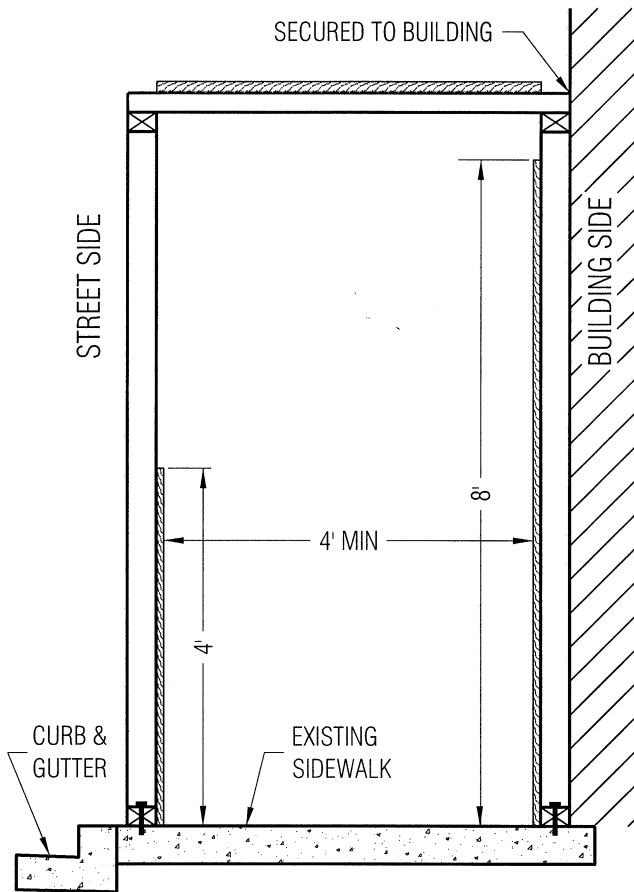
1. STOP SIGN SHALL BE 30" R1-1 HIGH INTENSITY.
2. SIGNS SHALL BE INSTALLED WITH TWO MOUNTING BRACKETS USING U-BOLTS AND THEFT-PROOF BOLTS.

Approved:  1/4/10
 City Engineer Date

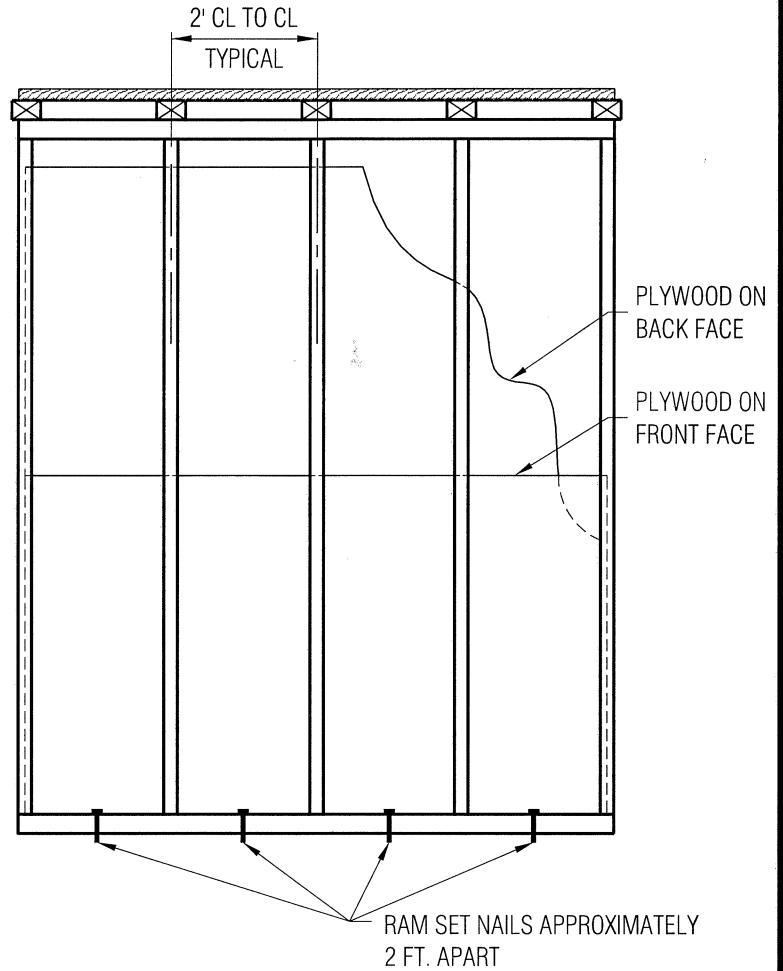


REVISION	
Description	Date

ENGINEERING DIVISION	
STOP, WARNING AND REGULATORY SIGNS	SU-17



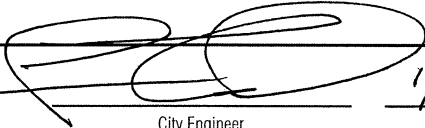
END VIEW

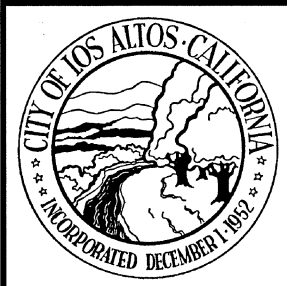


FRONT VIEW

NOTES:

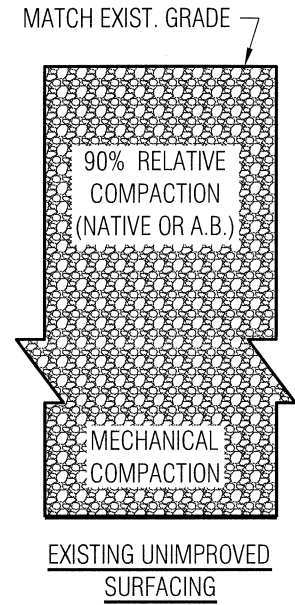
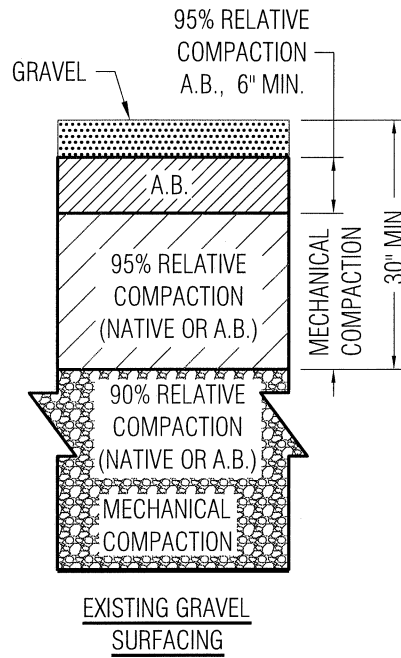
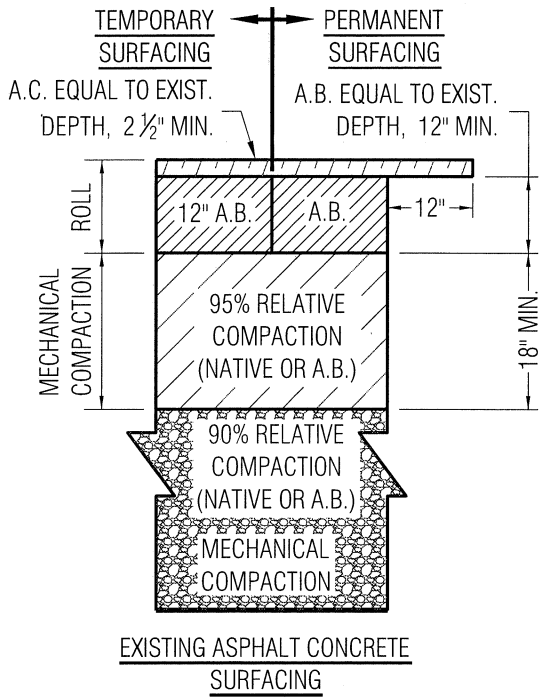
1. PEDESTRIAN SAFETY TUNNEL TO BE EXTENDED A MINIMUM OF 8 FT. BEYOND SCAFFOLDING.
2. ALL HOLES RESULTING FROM RAM SET NAILS IN EXISTING SIDEWALK MUST BE FILLED TO THE SATISFACTION OF THE CITY ENGINEER.
3. PEDESTRIAN TUNNEL TO BE MADE FROM THE FOLLOWING MATERIAL:
 - a. 2x4 DOUGLAS FIR #2 GRADE OR BETTER.
 - b. 4' x 8' x 1/2" CDX PLYWOOD, EXTERIOR GRADE FOR SIDES AND 3/4" FOR TOP.
4. CONSTRUCTION OF TUNNEL TO MEET OSHA & ALL OTHER GOVERNING CODES.

Approved:  1/4/10
 City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
TEMPORARY PEDESTRIAN SAFETY TUNNEL	SU-18



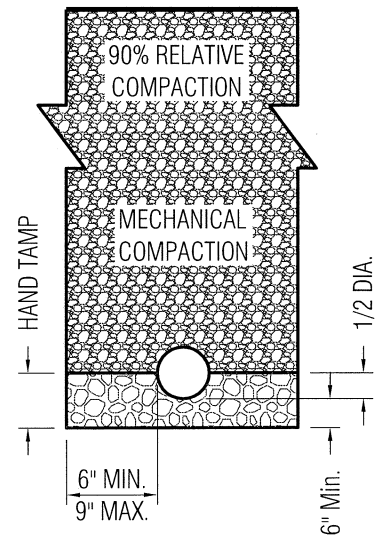
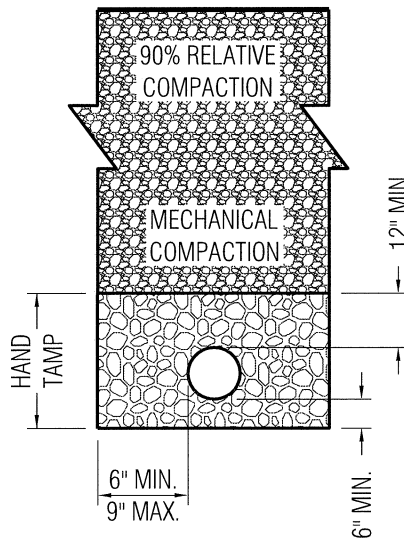
TRENCH PAVING SECTIONS

NOTE:


1. CONTROL DENSITY BACKFILL (CDF) MAY BE USED UPON APPROVAL BY CITY ENGINEER (SEE STANDARD SPECS)

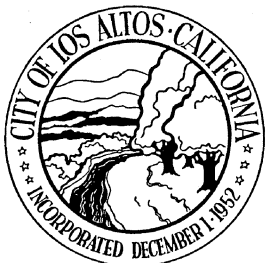
USE WITH V.C.P., D.I.P., P.V.C., C.C.P. AND W.S.P.

USE WITH R.C.P. AND C.M.P.



PIPE BEDDING

Approved:  1/4/10
 City Engineer Date

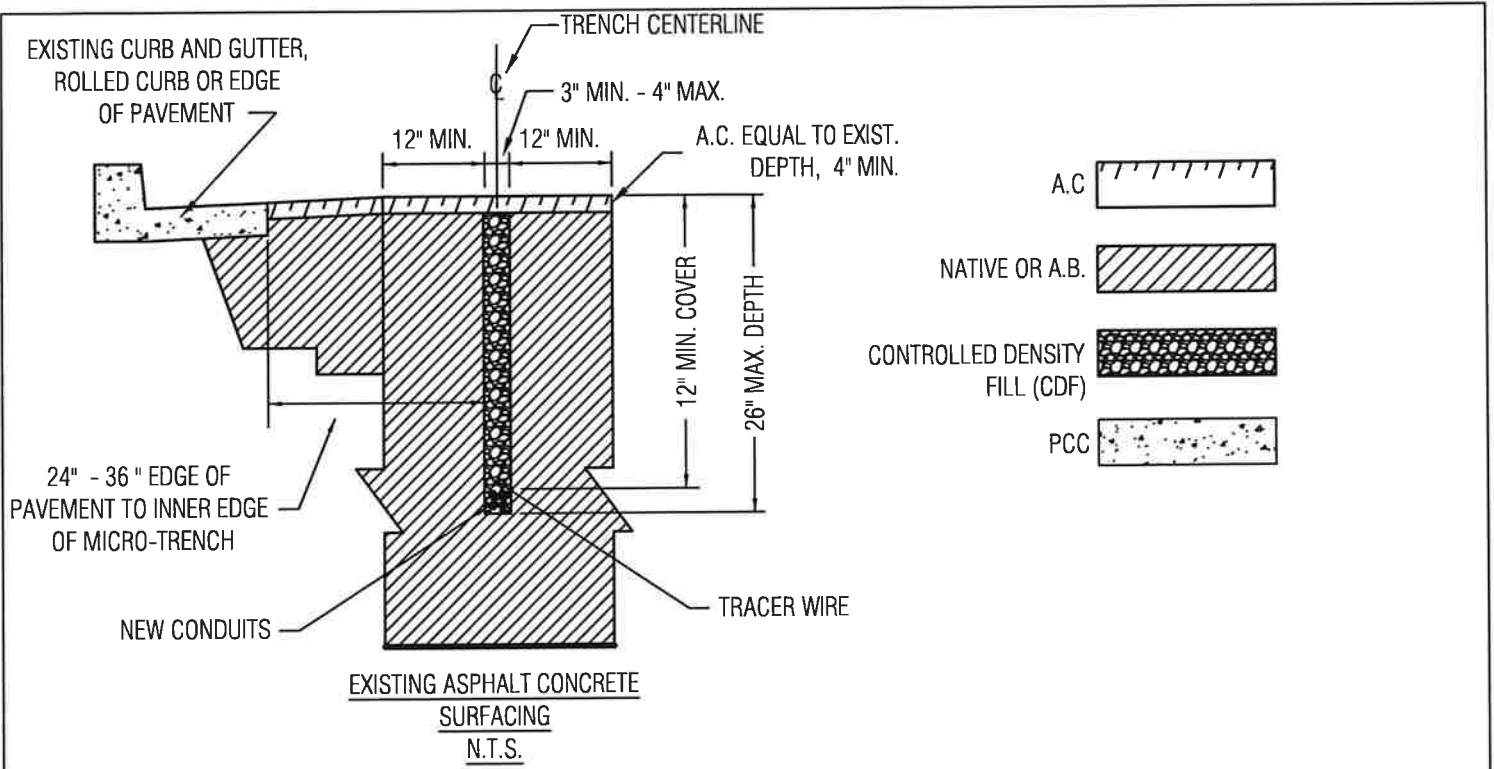


REVISION	
Description	Date

ENGINEERING DIVISION

TRENCH PAVING, BACKFILL AND PIPE BEDDING SECTIONS

SU-19



NOTE:

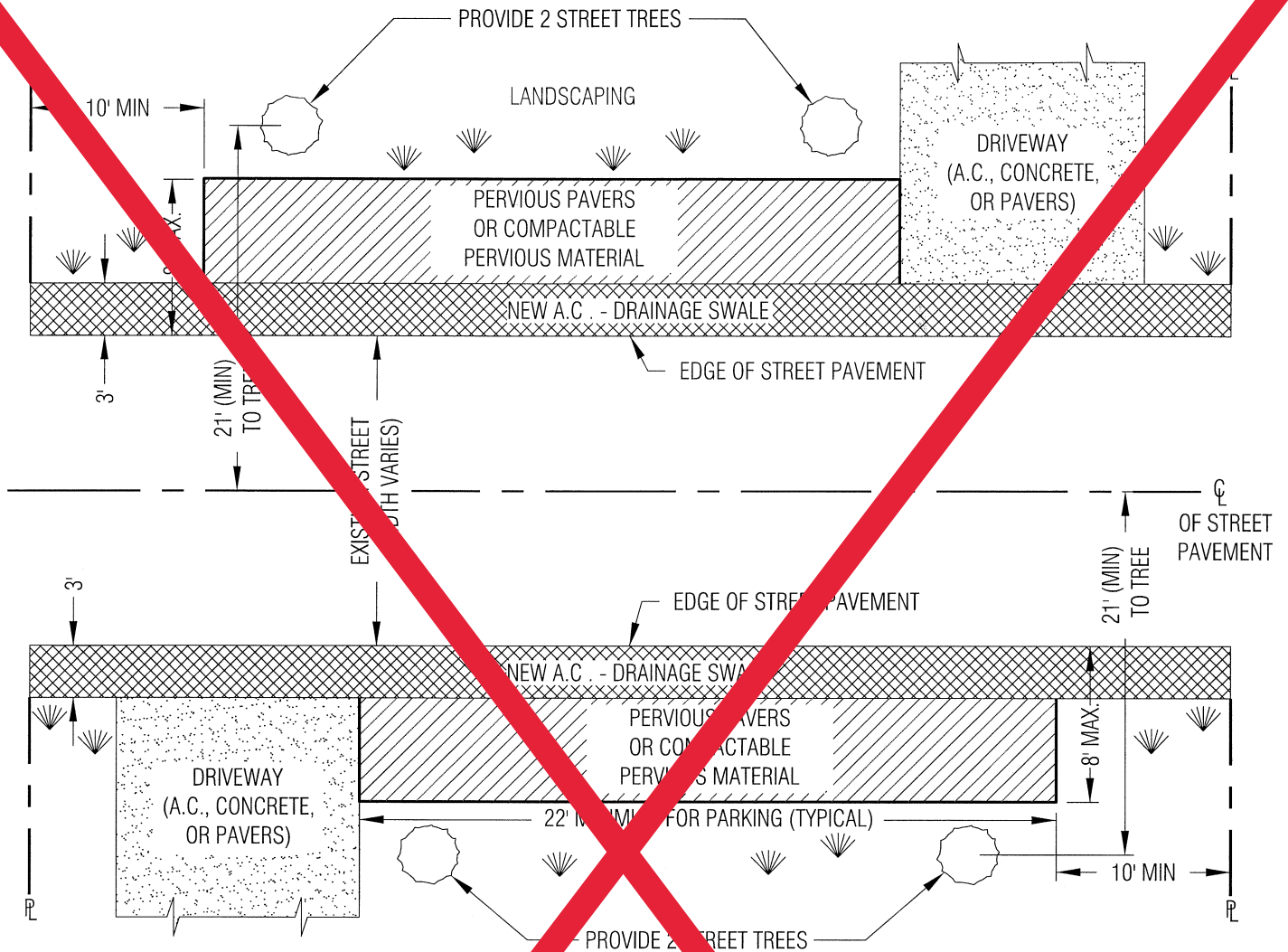
1. CONTROLLED DENSITY FILL (CDF) SHALL BE USED FOR BACKFILL, SEE CURRENT CITY STANDARD SPECIFICATIONS.
2. MICROTRENCHING SHALL ONLY BE USED TO INSTALL BROADBAND INFRASTRUCTURE AS NOTED IN SENATE BILL 378.
3. MICROTRENCHING SHALL NOT BE ALLOWED IN SIDEWALKS, GUTTERS AND DRIVEWAYS.
4. MICROTRENCHING SHALL NOT BE ALLOWED IN SIGNALIZED INTERSECTIONS UNLESS APPROVED BY THE CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
5. THE MICROTRENCH RESTORATION SHALL BE CONSTRUCTED UTILIZING SAW CUTTING WITH CONTINUOUS UNIFORM, STRAIGHT AND NEAT EDGES.
6. MICROTRENCH ALIGNMENTS SHALL CONSIST OF RUNS PARALLEL TO THE CENTERLINE OF THE STREET, AND STREET CROSSINGS SHALL BE ALLOWED WITH ALIGNMENT PERPENDICULAR TO THE CENTERLINE OF THE STREET.
7. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICE CONNECTIONS IN THE FIELD. THE CONTRACTOR SHALL CALL 811 PRIOR TO MICROTRENCHING AND POTHOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 24" OF THE PROPOSED ALIGNMENTS.
8. THE EDGE OF THE MICROTRENCH SHALL BE A MINIMUM OF 24" FROM THE EXISTING EDGE OF PAVEMENT FOR THE STREETS THAT DO NOT HAVE CURB AND GUTTER. IF THE EDGE OF THE MICROTRENCH IS LESS THAN 36" FROM THE EDGE OF EXISTING PAVEMENT EXTEND RESTORATION FROM 12" TO THE EDGE OF PAVEMENT.
9. UP TO (2) VERTICALLY STACKED CONDUITS CAN BE PLACED WITHIN A MICROTRENCH.
10. TRACER WIRE SHALL BE INSTALLED ALONG ENTIRE LENGTH OF CONDUIT RUN.
11. ALL MICROTRENCHES SHALL BE COMPLETELY BACKFILLED WITH CDF TO FINISH GRADE AND PLATED BY THE END OF THE WORK DAY.
12. AS SOON AS CDF HAS CURED AND NOT EXCEEDING 30 CALENDAR DAYS, ASPHALT CONCRETE SHALL BE GROUND AND OVERLAID AS SHOWN IN THE DETAIL.
13. IF THE EDGE OF THE MICROTRENCH IS MORE THAN 36" FROM THE LIP OF GUTTER OR EDGE OF PAVEMENT, THE EXISTING A.C. AND CDF SHALL BE GROUND DOWN VERTICALLY 4" MINIMUM OR EQUAL TO EXISTING DEPTH AND HORIZONTALLY 12 INCHES MIN. FROM THE OUTER EDGE OF THE MICROTRENCH, AND RESURFACED WITH HOT MIX ASPHALT AS SPECIFIED, SEE CURRENT CITY GUIDANCE TECHNICAL SPECIFICATIONS. HOT MIX ASPHALT SHALL BE PLACED THE SAME DAY AS EDGE PAVEMENT GRINDING.
14. CONTRACTOR SHALL USE TANDEM VIBRATORY ROLLERS, OR SIMILAR EQUIPMENT, TO ENSURE PROPER COMPACTION. THE USE OF A PLATE COMPACTOR IS NOT ALLOWED.
15. CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, AND APPURTENANCES SHALL BE DONE SUCH THAT CURB AND GUTTER IS NOT DISTURBED. REMOVAL AND REPLACEMENT OF SIDEWALK SHALL FOLLOW CITY STANDARDS.

Approved. Wida Tang 5/15/24
Public Works Director Date



REVISION	
Description	Date

ENGINEERING DIVISION	
MICROTRENCHING A.C. RESTORATION	SU-19A



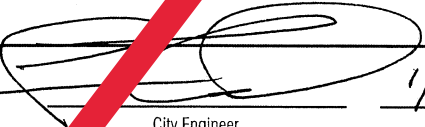
PLAN VIEW

LEGEND:

- A.C. ASPHALT CONCRETE
- ℙ PROPERTY LINE
- ℄ CENTERLINE
- Existing or new landscaping
- Street tree (new or existing)
- NEW PERMEABLE SURFACE
- NEW A.C. - DRAINAGE SWALE

NOTES:

1. **IF THE STREET PAVEMENT WIDTH IS 36 FEET OR GREATER,** NO SHOULDER IMPROVEMENTS ARE PERMITTED WITH THE EXCEPTION OF LANDSCAPING AND DRAINAGE.
2. POLICY DOES NOT APPLY FOR REPAIRS, RESEALING, AND REPAVING IN KIND OF EXISTING SHOULDERS, NOR DOES IT REQUIRE THAT SHOULDERS MUST BE PAVED.
3. THE SHOULDER OF A NEWLY CONSTRUCTED OR 50% OR GREATER SQUARE FOOTAGE REMODELED RESIDENCE IS REQUIRED TO BE BROUGHT INTO COMPLIANCE WITH THIS POLICY.

Approved:  1/4/10
 City Engineer Date

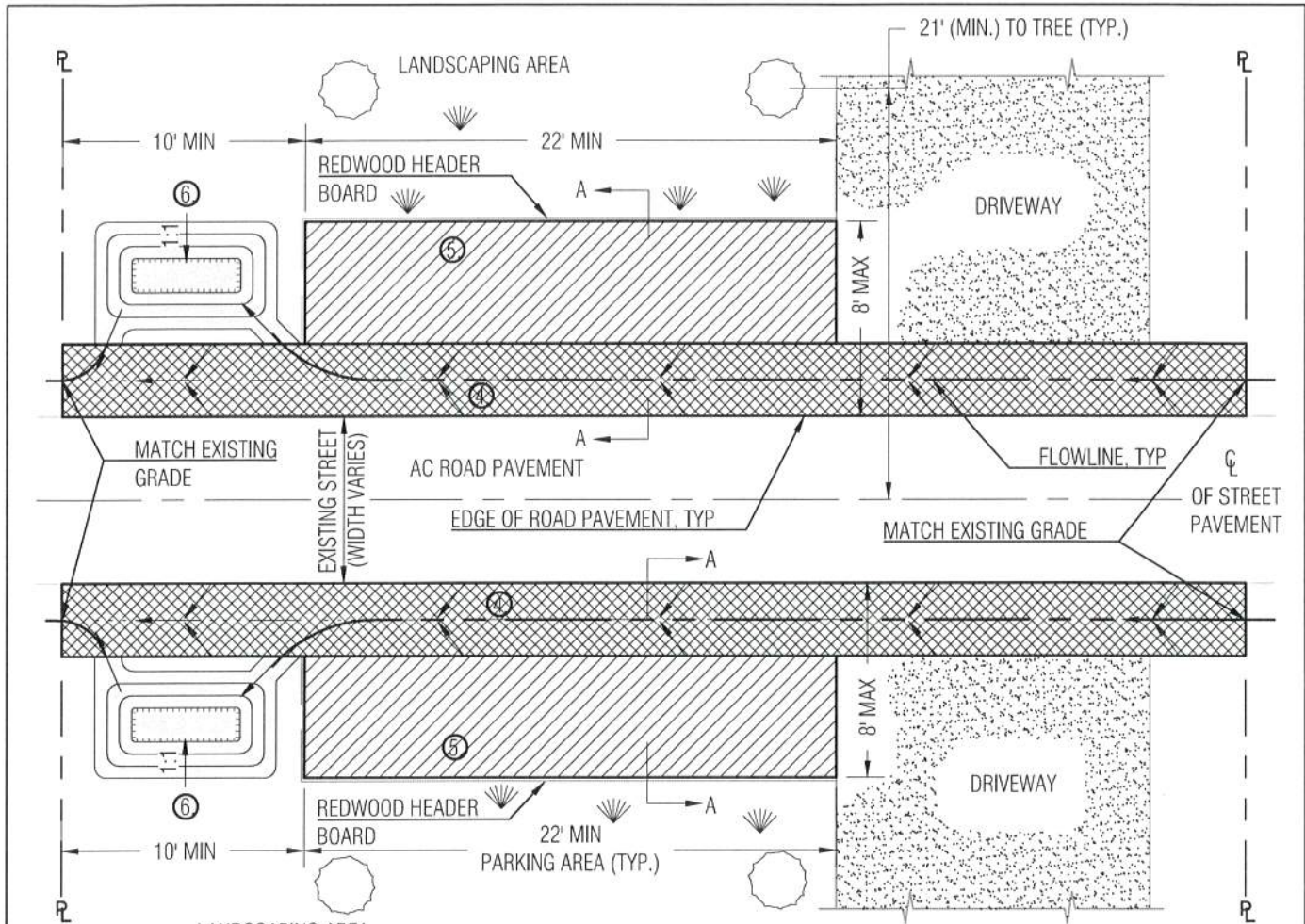


REVISION	
Description	Date

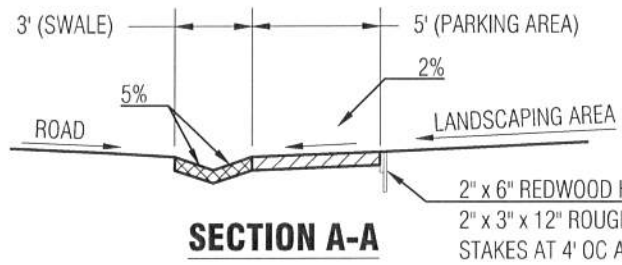
ENGINEERING DIVISION

SHOULDER PAVING POLICY

SU-20



PLAN VIEW



SECTION A-A

LEGEND:

- AC ASPHALT CONCRETE
- P PROPERTY LINE
- C CENTERLINE
- EXISTING OR NEW LANDSCAPING
- STREET TREE (NEW OR EXISTING)
- BIOSWALE/RAIN GARDEN
- NEW PERMEABLE SURFACE
- NEW DRAINAGE SWALE
- FLOWPATH
- NOTES, SEE SU-20B

SEE STANDARD DETAIL SU-20B FOR NOTES RELATED TO THE STREET SHOULDER IMPROVEMENT POLICY.

Approved, *[Signature]* 12/12/18
 City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION

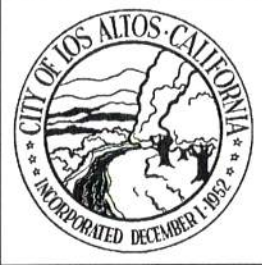
STREET SHOULDER IMPROVEMENT POLICY (SHEET 1 OF 3)

SU-20A

NOTES:

1. IF THE STREET PAVEMENT WIDTH IS 36 FEET OR GREATER, NO SHOULDER IMPROVEMENTS ARE PERMITTED WITH THE EXCEPTION OF LANDSCAPING AND IRRIGATION.
2. POLICY DOES NOT APPLY FOR REPAIRS, RESEALING, AND REPAVING IN KIND OF EXISTING SHOULDERS, NOR DOES IT REQUIRE THAT SHOULDERS MUST BE PAVED.
3. THE SHOULDER OF A NEWLY CONSTRUCTED OR 50% OR GREATER SQUARE FOOTAGE REMODELED RESIDENCE IS REQUIRED TO BE BROUGHT INTO COMPLIANCE WITH THIS POLICY.
4. DRAINAGE SWALE:
 - a. 3' WIDE;
 - b. MAXIMUM CROSS SLOPE 5%;
 - c. DRAINAGE SWALE SHALL BE CONSTRUCTED USING PERMEABLE MATERIALS PER DETAIL SU-20C.
5. PARKING AREA SHALL FEATURE ONE OF THE FOLLOWING MATERIALS:
 - a. PERMEABLE CONCRETE PAVERS AND OPEN CELL CONCRETE BLOCKS:
 CONCRETE PAVER BLOCKS BOTH SOLID AND GRIDDED SYSTEMS (WITH OPEN CELLS FOR AGGREGATE, GRAVEL, OR GRASS) HAVE BEEN DEVELOPED IN A LARGE VARIETY OF SHAPES, TEXTURES, PATTERNS, AND COLORS. THE CONCRETE PAVERS AND OPEN CELL CONCRETE BLOCKS SHALL BE INSTALLED PER MANUFACTURE'S RECOMMENDATIONS. GAPS OF CONCRETE PAVERS, IF FEATURED BY THE TYPE OF PAVER, SHALL BE FILLED WITH SAND. OPEN CELL CONCRETE BLOCKS VARY IN SIZE BASED ON BLOCK TYPE AND SHALL BE FILLED IN WITH GRAVEL OR GRASS, ALLOWING WATER TO ENTER THE SUBGRADE. CONCRETE PAVERS AND OPEN CELL CONCRETE BLOCKS SHALL BE INSTALLED OVER A SAND BEDDING COURSE (MINIMUM 1" THICK OR PER PAVER MANUFACTURER'S RECOMMENDATION). FURTHER WATER RESERVOIR CAPACITY CAN BE ADDED BY INSTALLING OPEN GRADED BASE AND STONE SUBBASE WITH AN OPTIONAL UNDERDRAIN (TO BE ROUTED TO THE BIOSWALE/RAIN GARDEN), WITH GEOTEXTILE ON BOTTOM AND SIDES. TYPICALLY AN EDGE CONSTRAINT IS INSTALLED AT THE PERIMETER OF THE PAVERS OR LOCATIONS SUBJECT TO LATERAL LOADING. SUBGRADE EXCAVATION DEPTH REQUIRED IS 8-12 INCHES, BUT CAN BE GREATER IN DEPTH IF ADDITIONAL RESERVOIR CAPACITY IS DESIRED.
 - b. COMPACTED AGGREGATE BASE (AB):
 1-1/2 INCH OR 3/4 INCH CLASS 2 AGGREGATE BASE (6 INCHES THICK ON COMPACTED NATIVE SOIL)
 - c. COMPACTED STABILIZED DECOMPOSED GRANITE (DG):
 SMALL SIZED GRANITE AGGREGATE MIXED WITH A STABILIZING AGENT, COMPACTED AND PLACED OVER EXISTING PERMEABLE SURFACES AND 6 INCHES OF AGGREGATE BASE IF SUBGRADE IS LESS SUITABLE. SUBGRADE EXCAVATION REQUIRED IS 8-12 INCHES, BUT CAN BE GREATER IN DEPTH IF ADDITIONAL RESERVOIR CAPACITY IS CONSIDERED. DG LAYER SHALL BE MINIMUM 4 INCHES THICK. GRADE TO DRAIN.
6. BIOSWALE/RAIN GARDEN IN LANDSCAPE AREA DESIGNED TO RECEIVE RUNOFF FROM DRAINAGE SWALE/PARKING AREA. DESIGN AND SHAPE OF BIOSWALE/RAIN GARDEN BY ARCHITECT OR ENGINEER. MINIMUM DEPTH SHALL BE 2.5'. REFER TO THE C.3 STORMWATER HANDBOOK FOR DESIGN PARAMETERS AND SPECIFICATIONS OF SOILS OR PLANTS. AREA SHALL BE DEPENDING ON LENGTH OF FRONTAGE (DISTANCE MEASURED PARALLEL TO EDGE OF ROAD BETWEEN PROPERTY LINES) AS FOLLOWS:
 - a. FRONTAGE < 75': 50 SF MINIMUM
 - b. 75' < FRONTAGE < 100' 100 SF MINIMUM
 - c. 100' < FRONTAGE < 150' 200 SF MINIMUM
 - d. FRONTAGE > 150': 300 SF MINIMUM
7. LOTS LOCATED ALONG SUGGESTED ROUTES TO SCHOOL MAY REQUIRE MODIFICATION TO THIS STANDARD DETAIL AS APPROVED BY THE CITY ENGINEER. OTHER MODIFICATIONS MAY BE MADE AS APPROVED BY THE CITY ENGINEER.

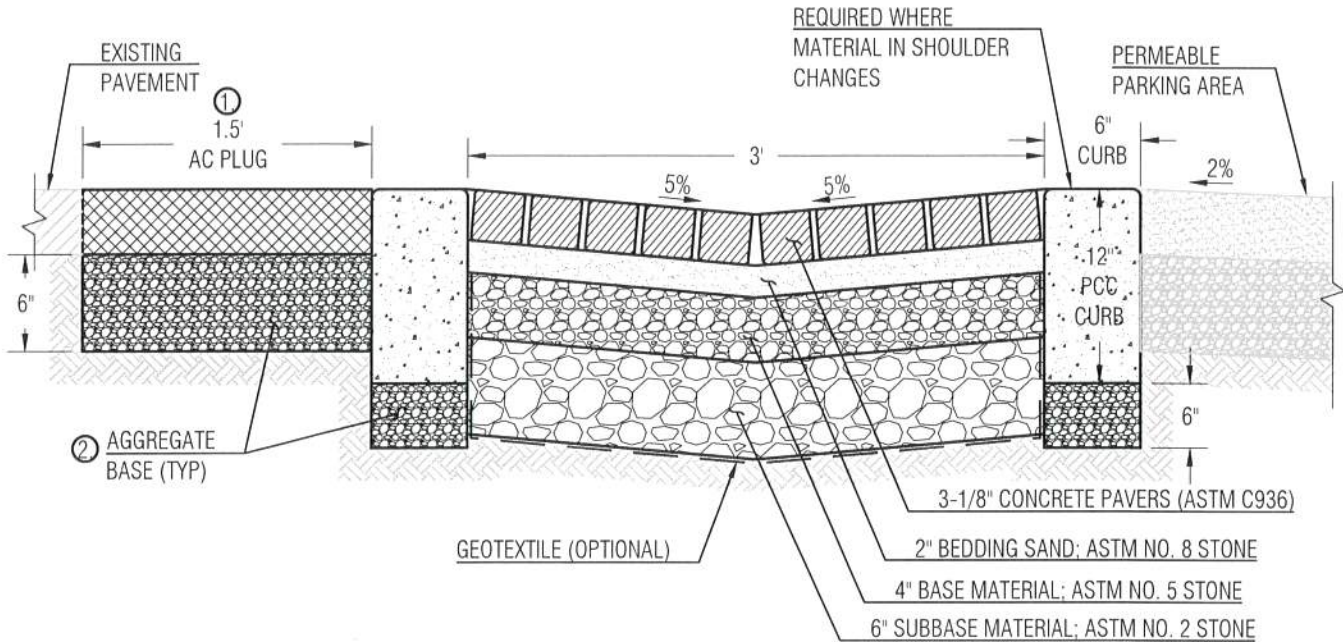
Approved.  12/12/18
 City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
STREET SHOULDER IMPROVEMENT POLICY (SHEET 2 OF 3)	SU-20B

PERMEABLE DRAINAGE SWALE



NOTES:

1. AC PLUG SHALL BE 4" THICK OR MATCH EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER.
2. AGGREGATE BASE SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL PAVERS AND ALL BASE MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.
4. ALTERNATE DRAINAGE SWALE MAY BE CONSTRUCTED WITH 1-1/2 INCH OR 3/4 INCH COMPACTED CLASS 2 AB (6 INCH THICK ON COMPACTED NATIVE SOIL).

LEGEND:

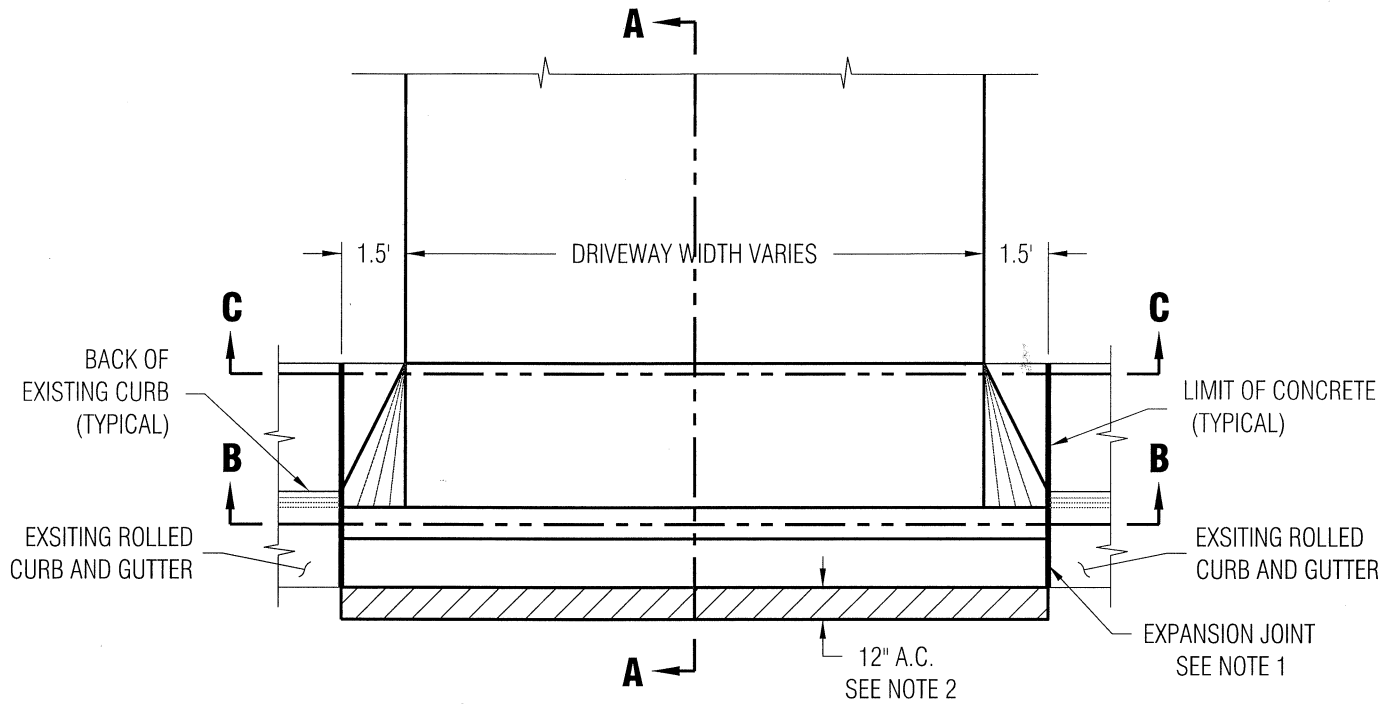
- | | | | |
|--|---|--|------------------------|
| | CONCRETE PAVERS, OR APPROVED PERMEABLE MATERIAL FROM SU-20B NOTE 5.a. | | AGGREGATE BASE |
| | BEDDING SAND | | AC PLUG |
| | BASE MATERIAL | | EXISTING PAVEMENT |
| | SUBBASE MATERIAL | | PERMEABLE PARKING AREA |
| | PCC | | NATIVE MATERIAL |
| | | | NOTES |

Approved: 12/12/18
Date
City Engineer



REVISION	
Description	Date

ENGINEERING DIVISION	
STREET SHOULDER IMPROVEMENT POLICY (SHEET 3 OF 3)	SU-20C



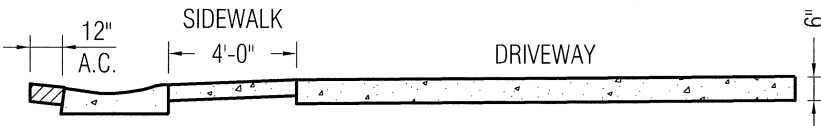
PLAN VIEW



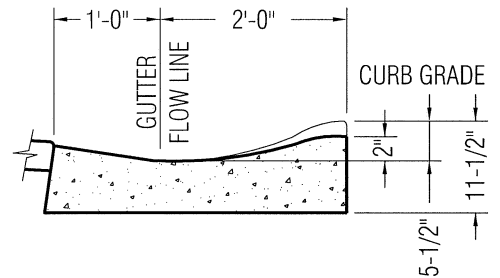
SECTION C-C



SECTION B-B



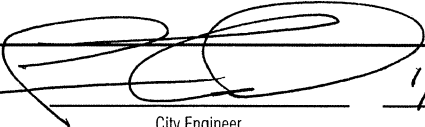
SECTION A-A

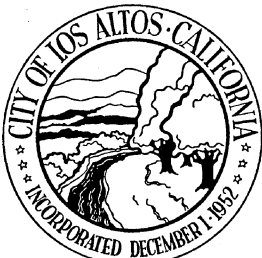


MODIFIED ROLLED CURB

NOTES:

1. SAW CUT TO THE NEXT SCORE MARK AS DETERMINED BY THE ENGINEER.
2. SAW CUT AND REMOVE EXISTING PAVEMENT SECTION. REPLACE WITH NEW CL2 A.B. ROCK AND MIN. 3" A.C. AFTER CONCRETE FORMS HAVE BEEN REMOVED.

Approved:  1/4/10
 City Engineer Date

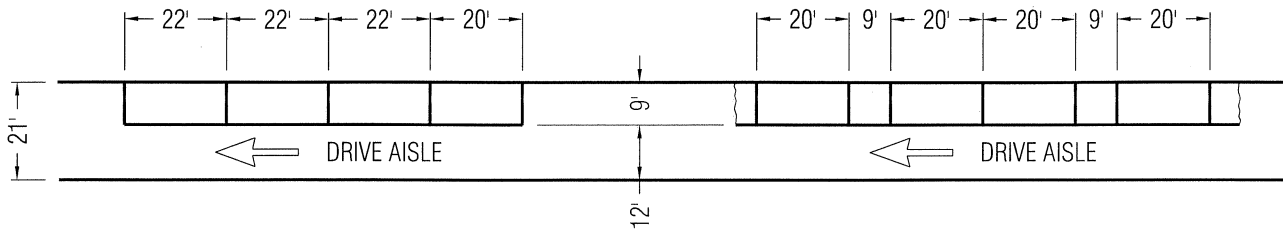


REVISION	
Description	Date

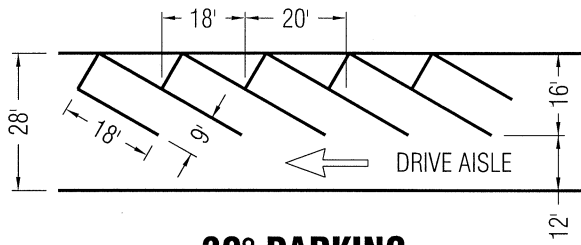
ENGINEERING DIVISION

**ROLLED CURB AND
SIDEWALK MODIFICATION
AT DRIVEWAY**

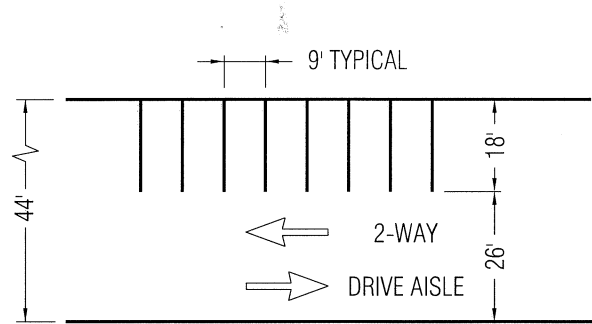
SU-21



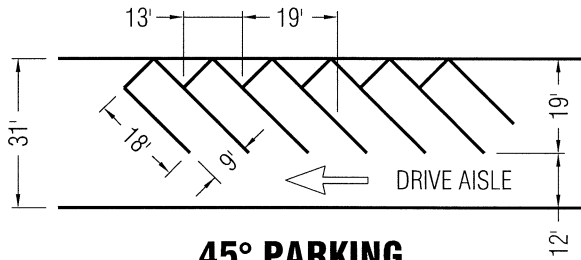
PARALLEL PARKING ALTERNATES



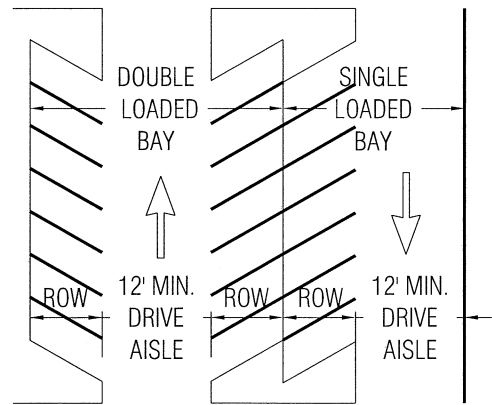
30° PARKING



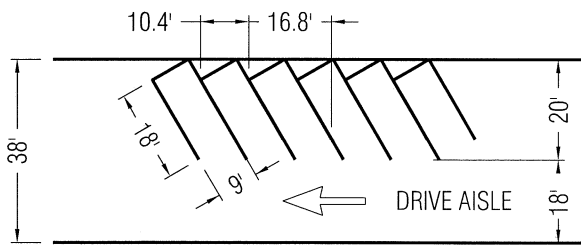
90° PARKING



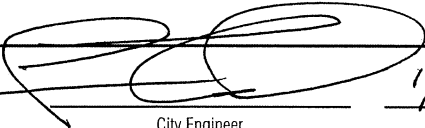
45° PARKING

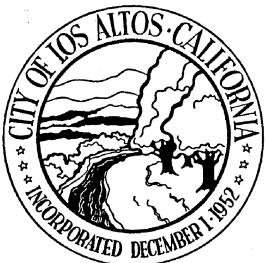


ONE WAY



60° PARKING

Approved: 
 City Engineer Date 1/4/10



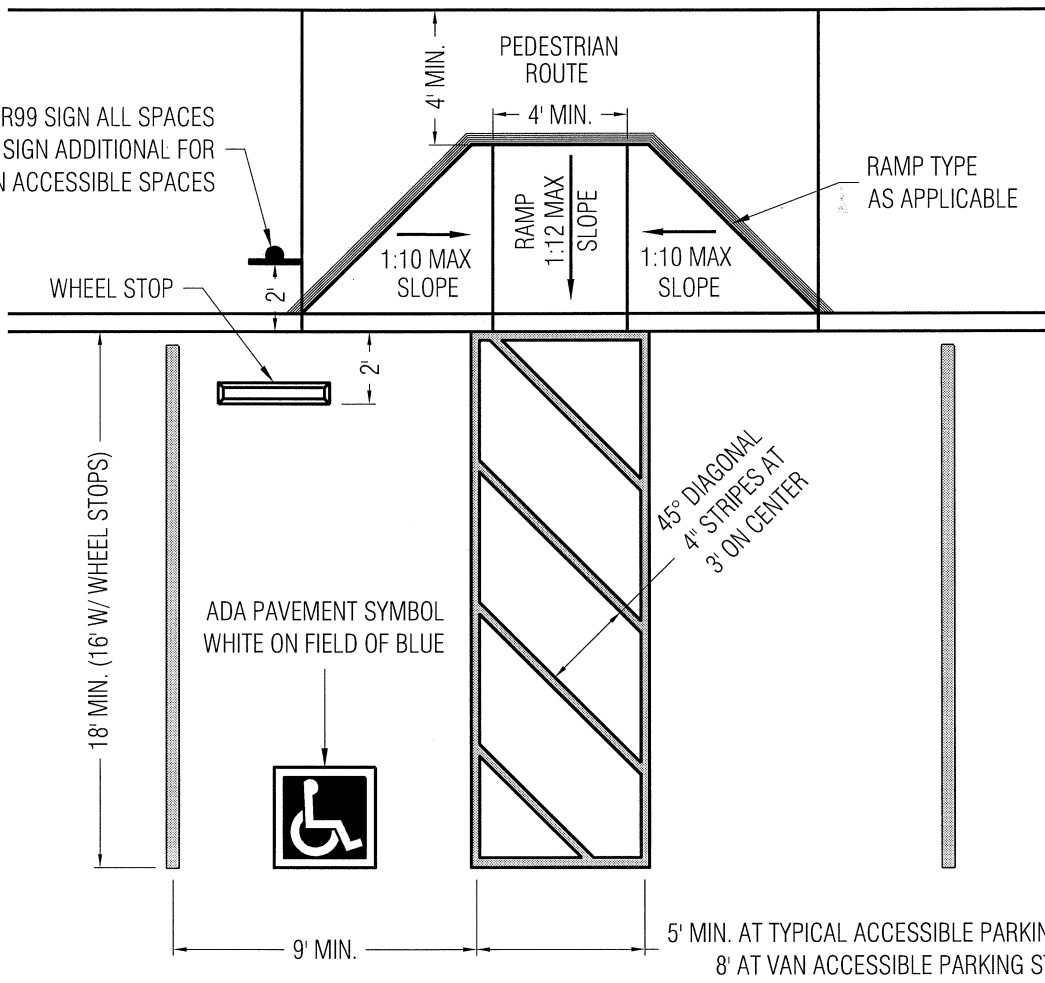
REVISION	
Description	Date

ENGINEERING DIVISION

PARKING STALL DETAILS

SU-22

CALTRANS R99 SIGN ALL SPACES
R99A SIGN ADDITIONAL FOR
VAN ACCESSIBLE SPACES



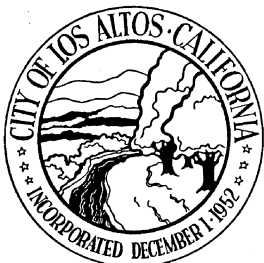
NOTE:
REFER TO CALTRANS STANDARD DRAWINGS FOR ALL OTHER ACCESSIBLE PARKING DETAILS.

Approved:

City Engineer

Date

1/4/10



REVISION

Description

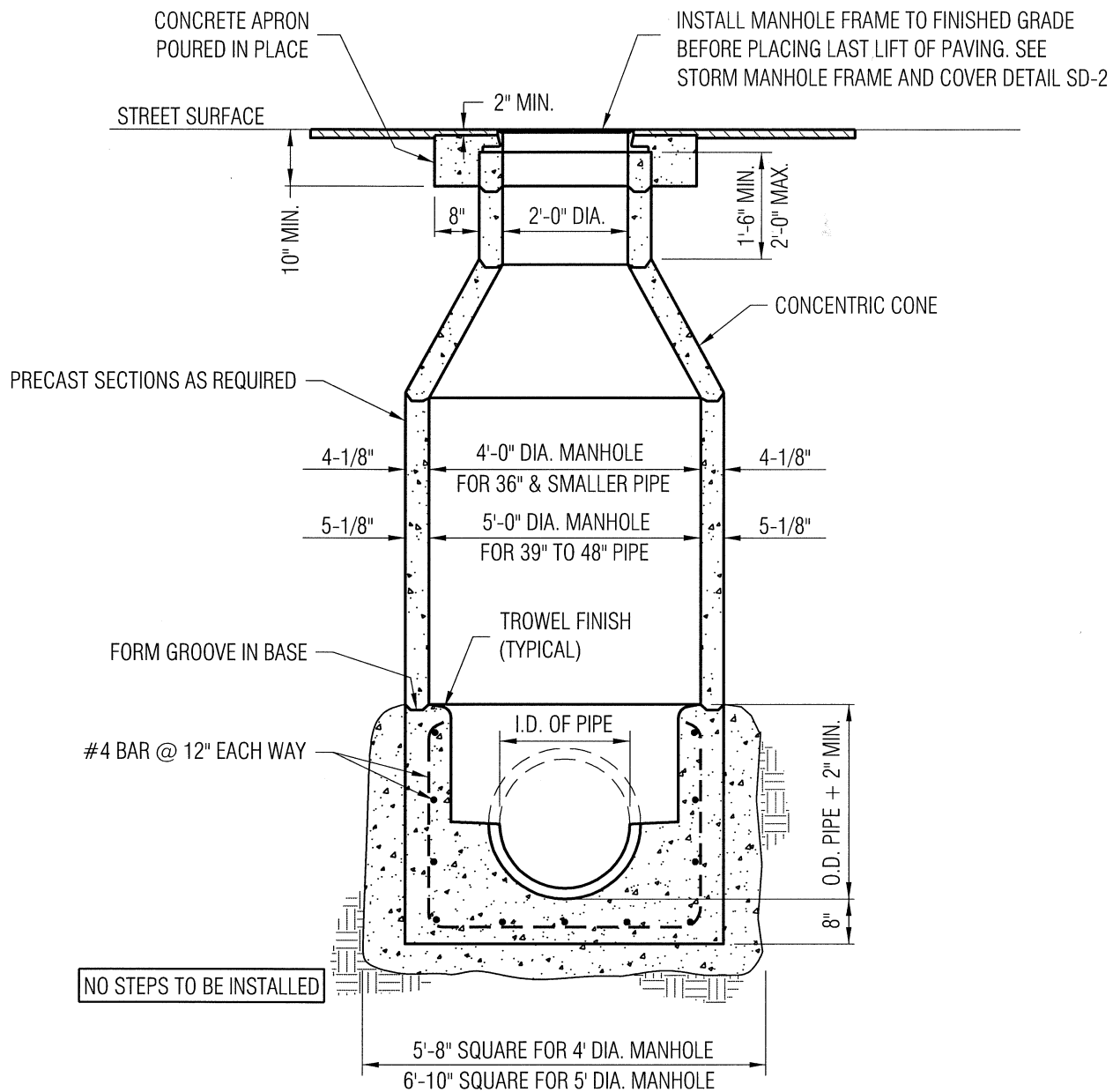
Date

Description	Date

ENGINEERING DIVISION

**ADA PARKING STALL
DETAILS**

SU-23



NOTE:

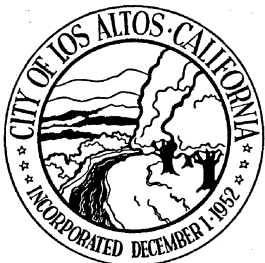
- LAY PIPE THRU BOTTOM OF MANHOLES. AFTER CONCRETE IN BASE HAS SET, KNOCK OUT PORTION OF PIPE INDICATED WITH DASHED LINES. (FOR BRANCHED BASE SEE SD-3)

Approved: _____

[Signature]

City Engineer

1/4/10
Date



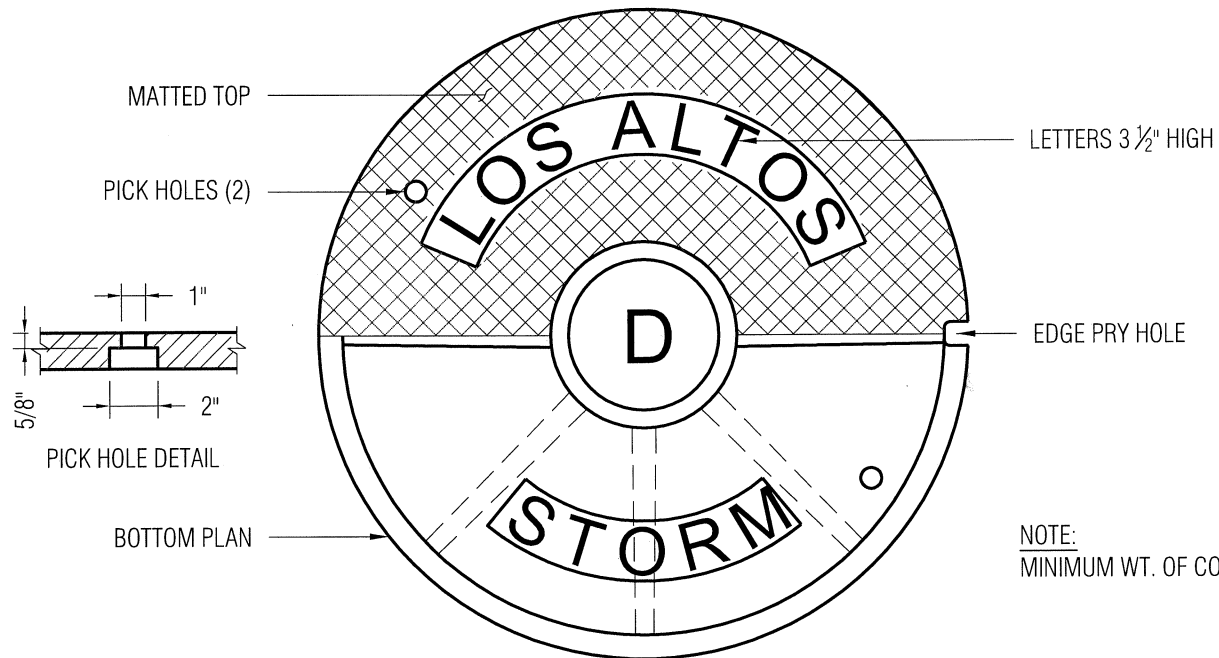
REVISION

Description	Date

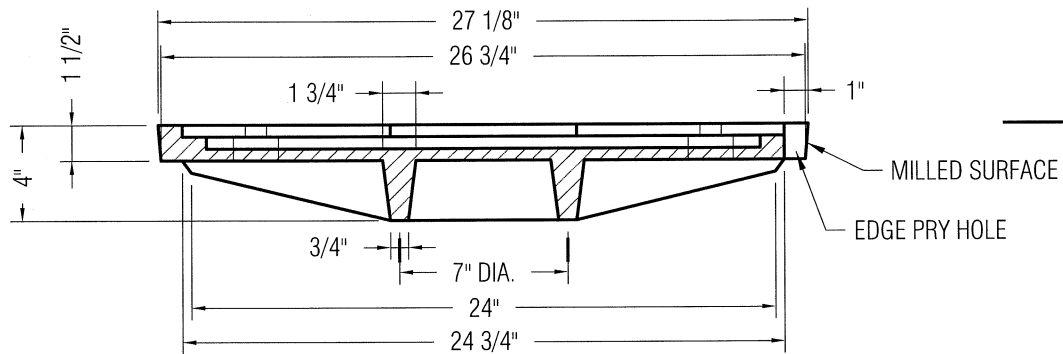
ENGINEERING DIVISION

**STORM DRAIN MANHOLE
(CONCENTRIC CONE)**

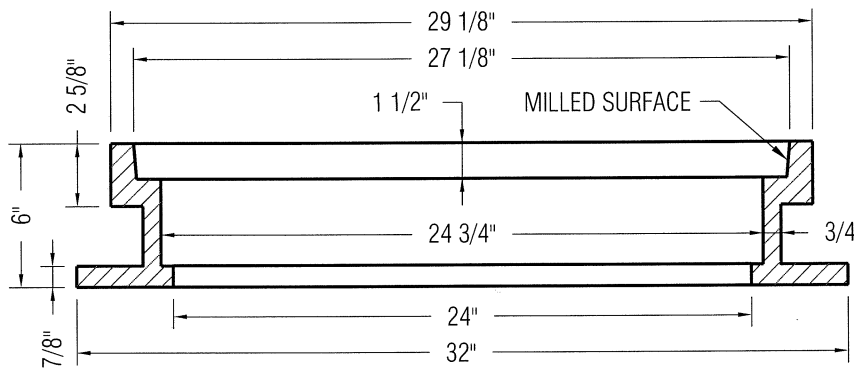
SD-1



NOTE:
MINIMUM WT. OF COVER 225 LBS.



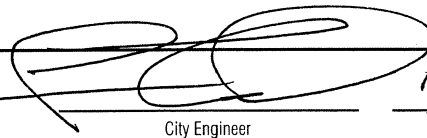
COVER

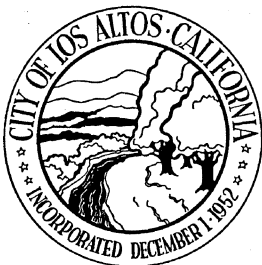


FRAME

SECTION THRU COVER & FRAME

NOTE:
MINIMUM WT. OF FRAME 190 LBS.

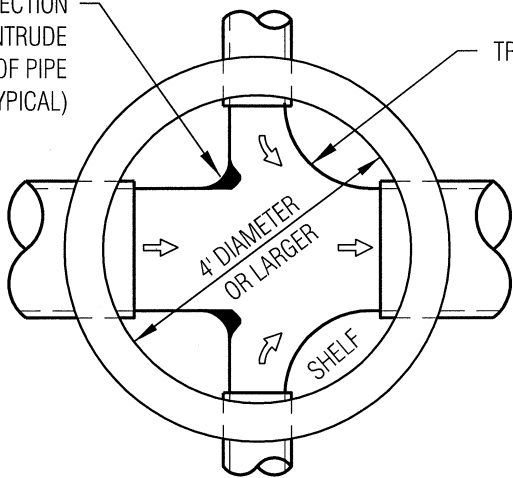
Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

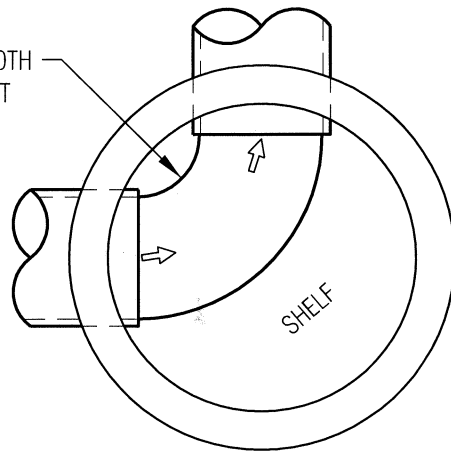
ENGINEERING DIVISION	
STORM MANHOLE FRAME AND COVER	SD-2

CHANNELIZE IN DIRECTION OF FLOW (DO NOT INTRUDE MORE THAN 20% OF PIPE DIAMETER, TYPICAL)



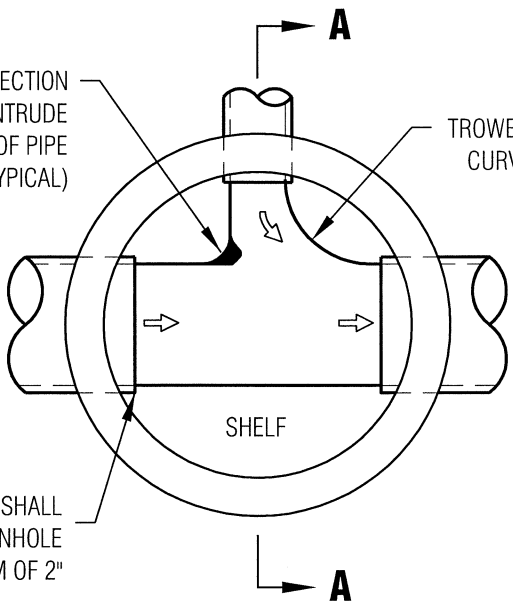
TYPICAL MANHOLE WITH TWO BRANCHES

TROWEL SMOOTH CURVE TO FIT



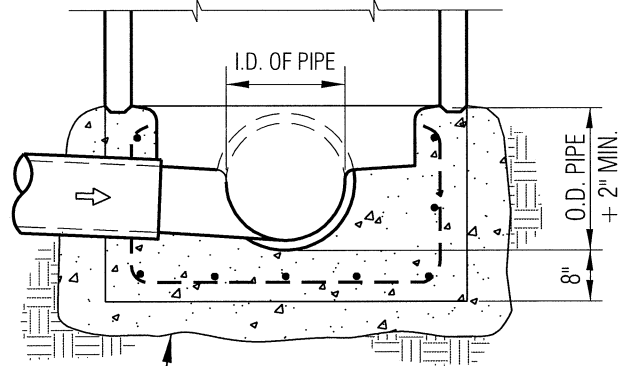
TYPICAL CURVED MANHOLE

CHANNELIZE IN DIRECTION OF FLOW (DO NOT INTRUDE MORE THAN 20% OF PIPE DIAMETER, TYPICAL)



TYPICAL MANHOLE WITH ONE BRANCH

TROWEL SMOOTH CURVE TO FIT



SEE SS-1 FOR MANHOLE DETAILS

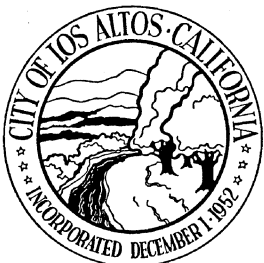
SECTION A-A

Approved:

City Engineer

Date

1/4/10



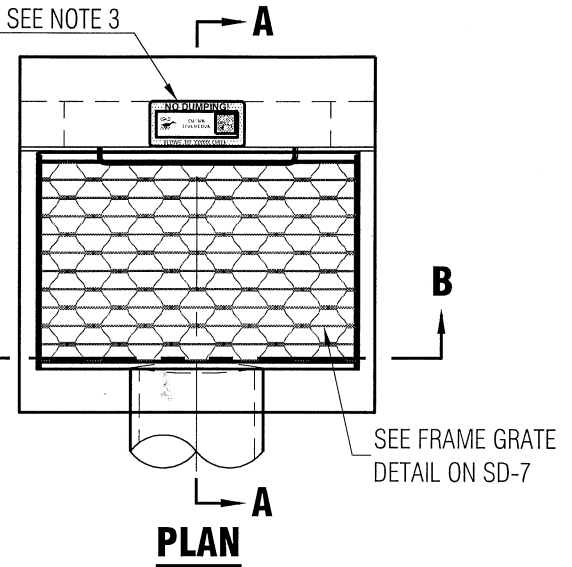
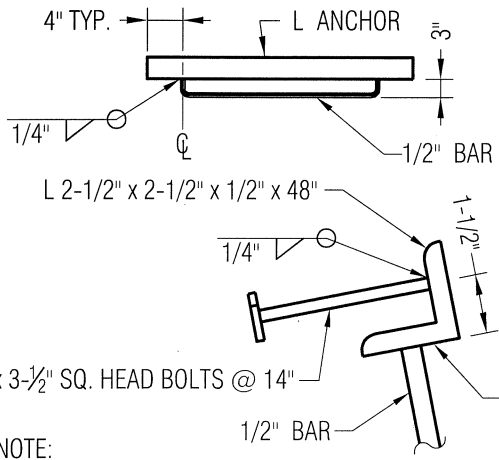
REVISION

Description	Date

ENGINEERING DIVISION

STORM MANHOLE BASE WITH BRANCHES

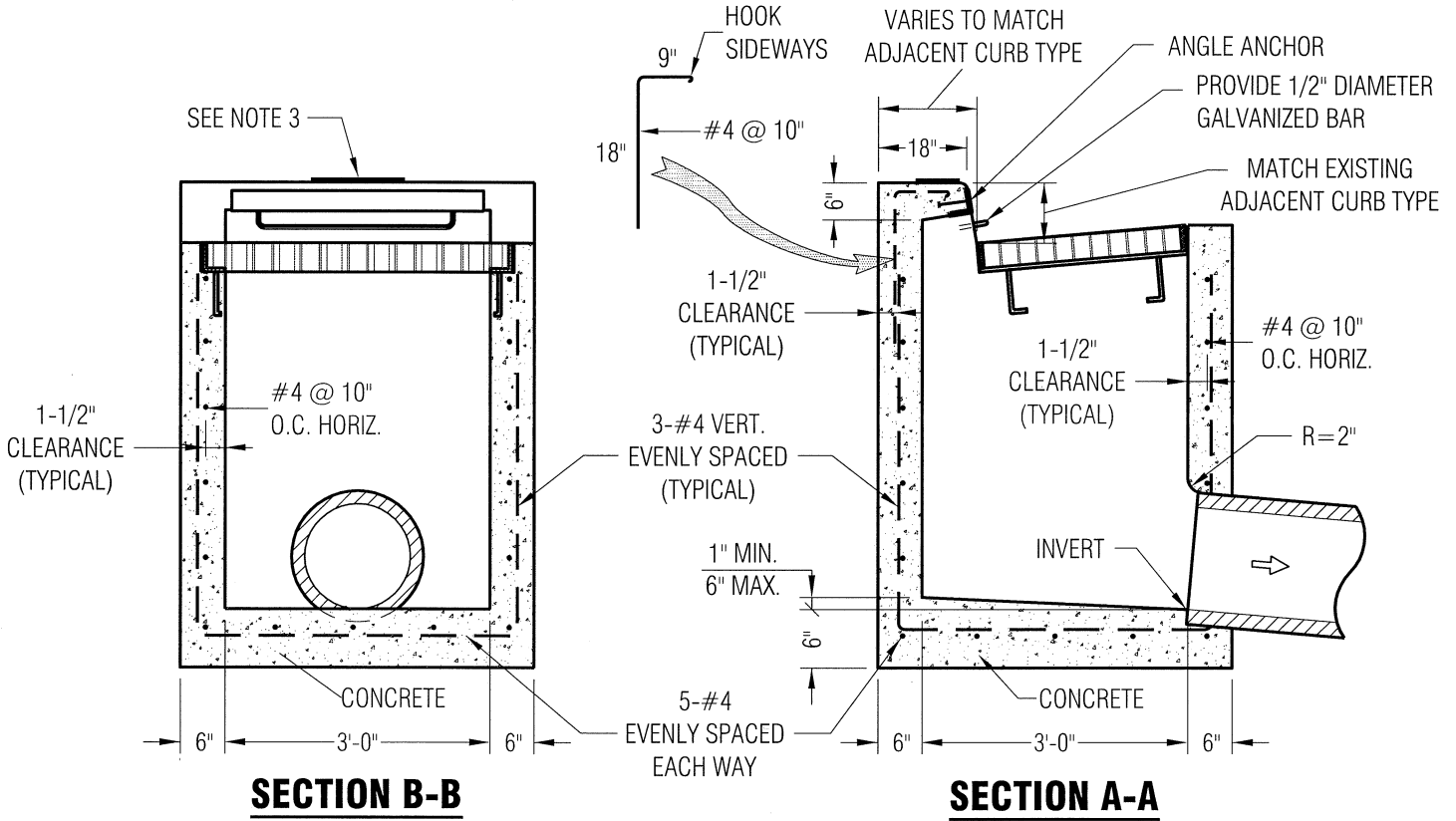
SD-3




(4) 1/2" x 3-1/2" SQ. HEAD BOLTS @ 14" METAL ASSEMBLY SHALL BE GALVANIZED

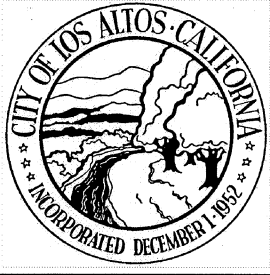
NOTE:
WHERE INLET IS LOCATED WITHIN A RETURN, ANGLE ANCHOR SHALL BE CURVED TO MATCH FACE OF CURB RADIUS.

ANGLE ANCHOR



- NOTES:**
1. CONFORM TO GUTTER OR ROADWAY SECTION FOR GUTTER DEPRESSION SEE SD-5
 2. SEE CONSTRUCTION NOTES ON SD-6
 3. INSTALL APPROPRIATE "CREEK" PLACARD

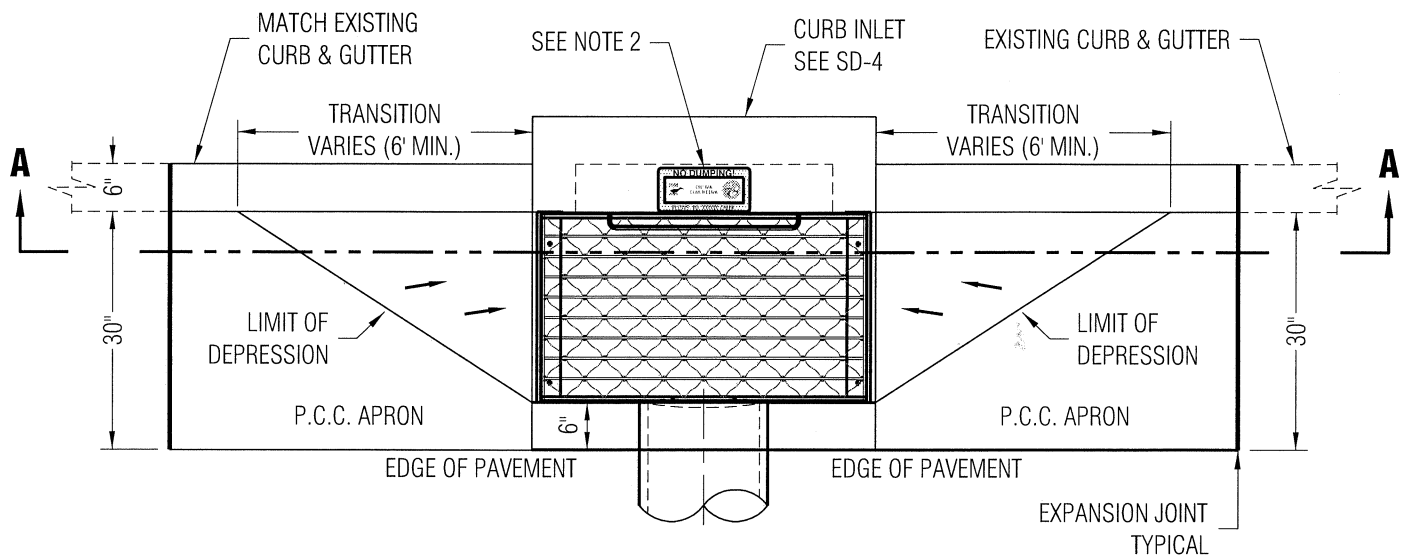
Approved:  1/4/10
City Engineer Date



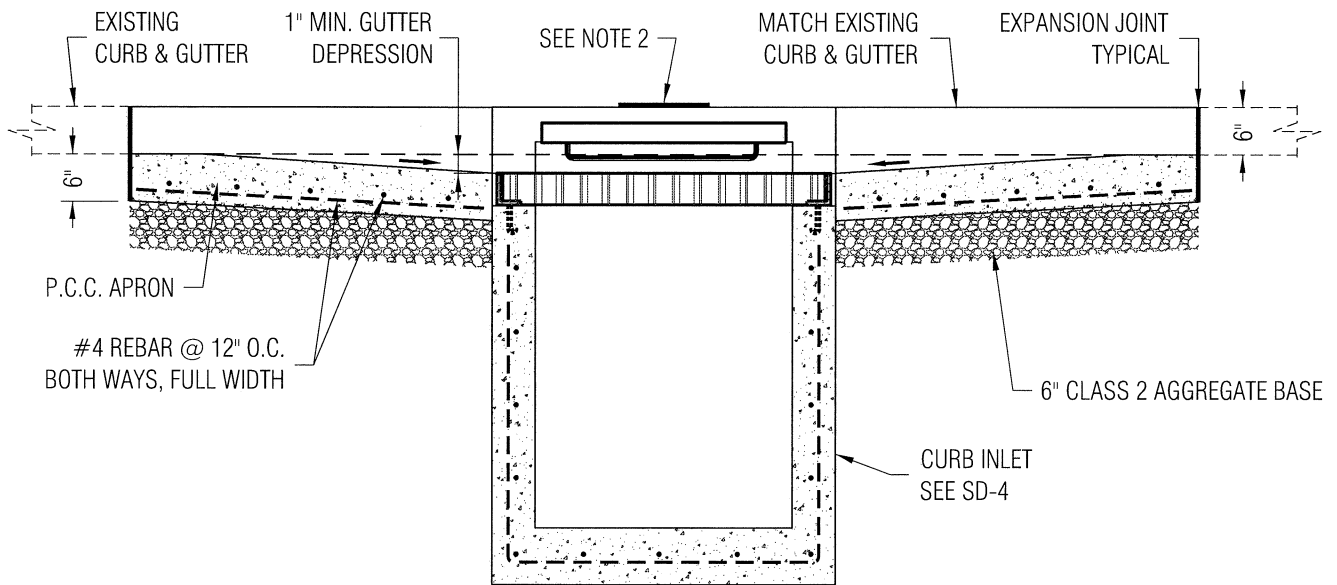
REVISION	
Description	Date

ENGINEERING DIVISION

CURB INLET	SD-4
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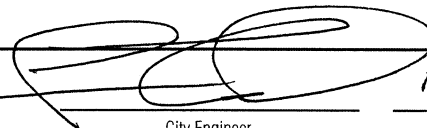


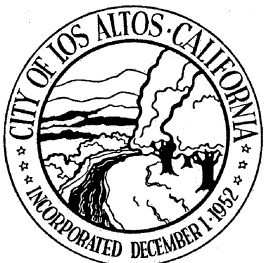
PLAN
NTS



SECTION A-A
NTS

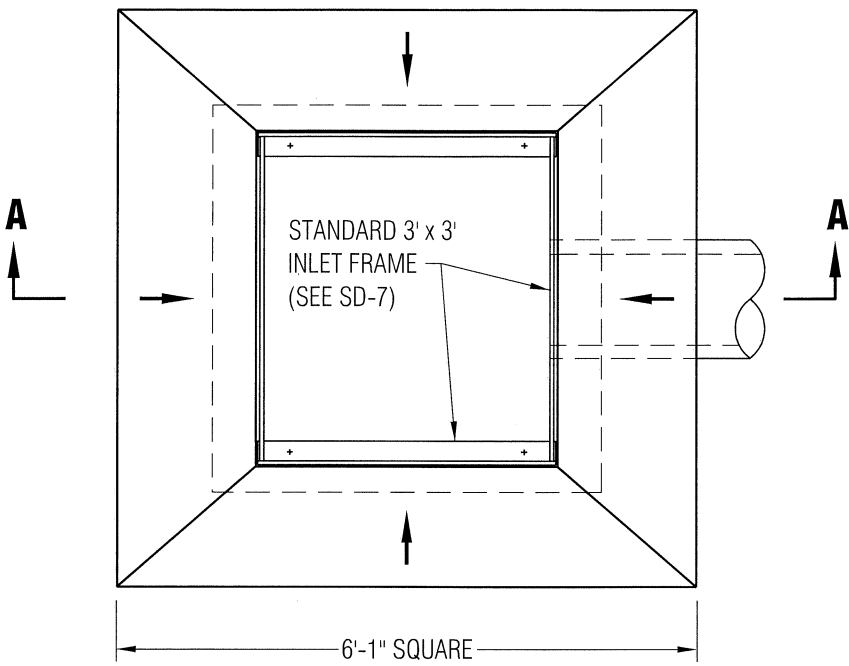
- NOTES:
1. SEE CONSTRUCTION NOTES ON SD-6
2. INSTALL APPROPRIATE "CREEK" PLACARD

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

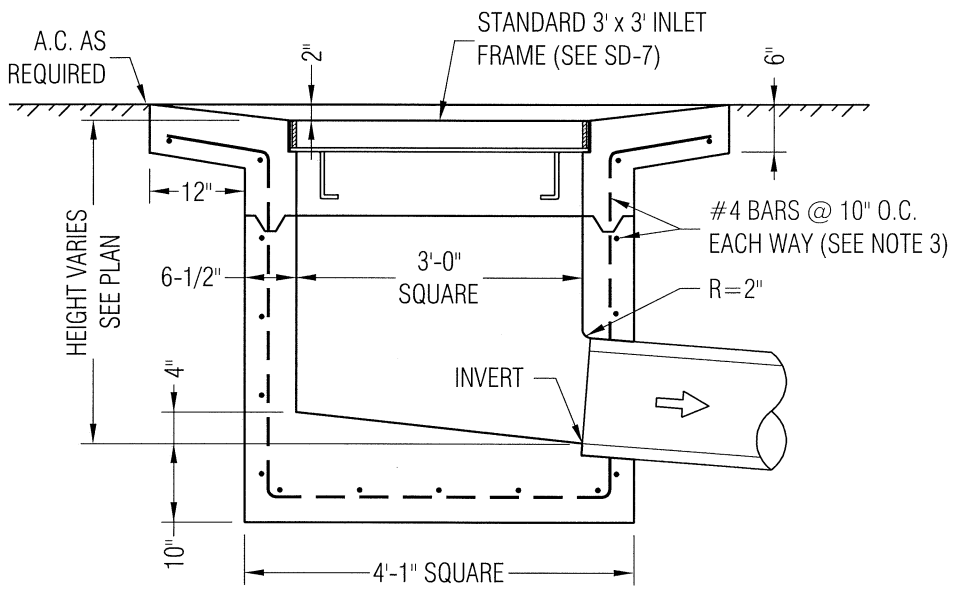
ENGINEERING DIVISION	
CURB INLET GUTTER DEPRESSION	SD-5



PLAN

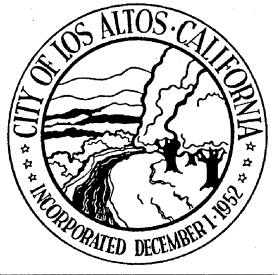
NOTES:

1. INLET BASE TO BE POURED AGAINST UNDISTURBED EARTH. SIDES MAY BE FORMED OR MAY BE POURED AGAINST UNDISTURBED EARTH.
2. NO CONCRETE SHALL BE POURED PRIOR TO CHECKING OF FORMS AND STEEL PLACEMENT BY THE ENGINEER.
3. ALL REINFORCING STEEL SHALL HAVE A MINIMUM CLEAR DISTANCE OF 3" AND SHALL BE CONTINUOUS AROUND CORNERS OR SHALL BE LAPPED AT LEAST 15" AFTER THE BEND. THE MINIMUM OVERLAP FOR A LAPPED SPLICE SHALL BE 15".
4. INDICATES OPTIONAL CONSTRUCTION JOINT.



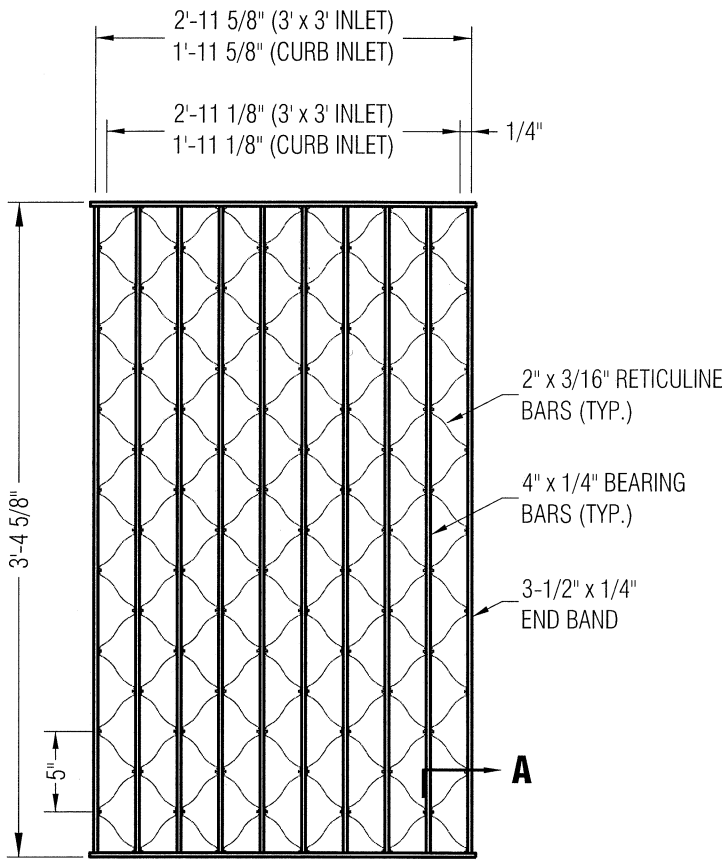
SECTION A-A

Approved: 1/4/10
 City Engineer Date

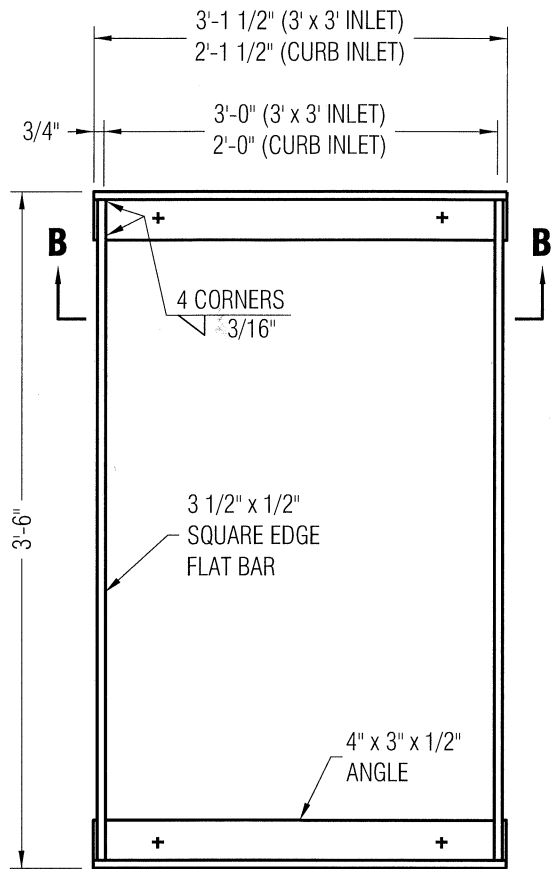


REVISION	
Description	Date

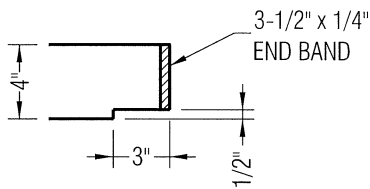
ENGINEERING DIVISION	
3' x 3' STORM DRAIN INLET	SD-6



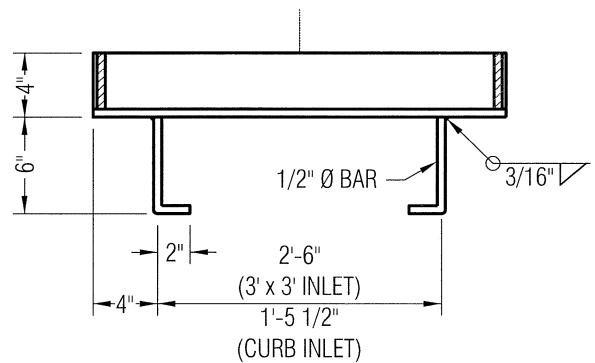
GRATE PLAN



FRAME PLAN



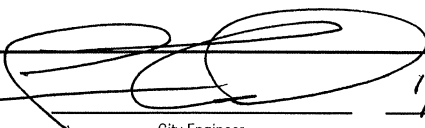
SECTION A-A

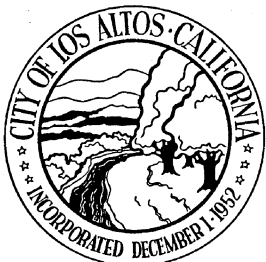


SECTION B-B

NOTES:

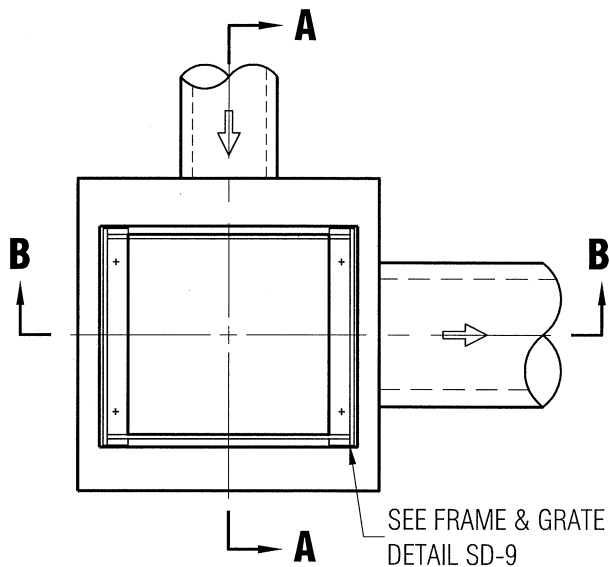
1. PLACE GRATE BARS PARALLEL TO FLOW.
2. FRAME, GRATE, ANCHORS AND ALL MISCELLANEOUS HARDWARE SHALL BE GALVANIZED AFTER FABRICATION.
3. CALTRANS TYPE 600-10S RETICULINE GRATE.

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

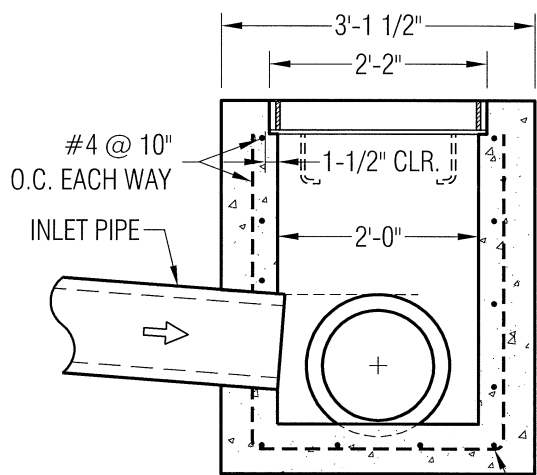
ENGINEERING DIVISION	
3' x 3' INLET AND STANDARD CURB INLET FRAME AND GRATE	SD-7



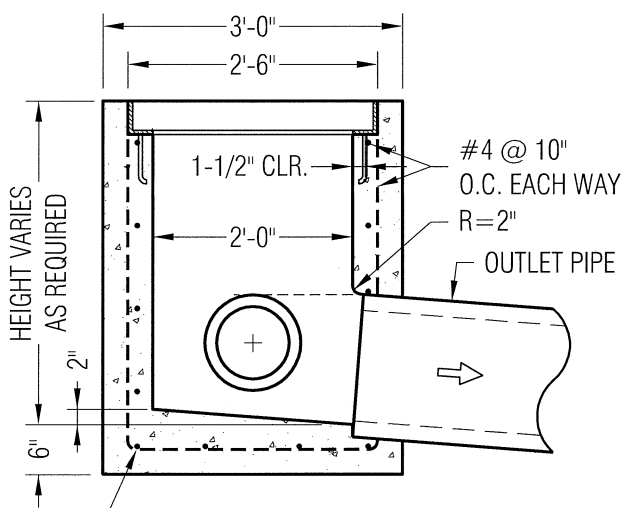
PLAN

NOTE:

1. OUTLET PIPE SHALL BE MIN. 12" - MAX. 18" DIAMETER.
2. ALL CONCRETE SHALL BE CLASS "A", 3/4" MAX. AGGREGATE, 3,300 PSI.
3. THE CROWN OF THE INLET PIPE SHALL BE SET AT THE SAME ELEVATION OF THE CROWN OF THE OUTLET PIPE.
4. REINFORCING STEEL SHALL BE REQUIRED FOR WALLS GREATER THAN 6" IN DEPTH. BOTTOM REBAR MAT IS REQUIRED REGARDLESS OF HEIGHT OF WALLS.
5. CHRISTY U23 CATCH BASIN (2' x 2' WITH 6" WALLS) OR AN APPROVED EQUAL.
6. SEE NOTES ON SD-6.



SECTION A-A



SECTION B-B

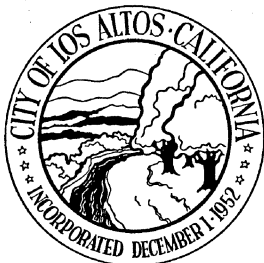
4-#4 EVENLY SPACED
SEE NOTE 4

Approved: _____

City Engineer

Date

1/4/10



REVISION

Description

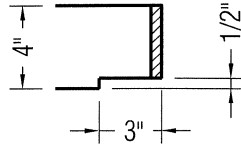
Date

Description	Date

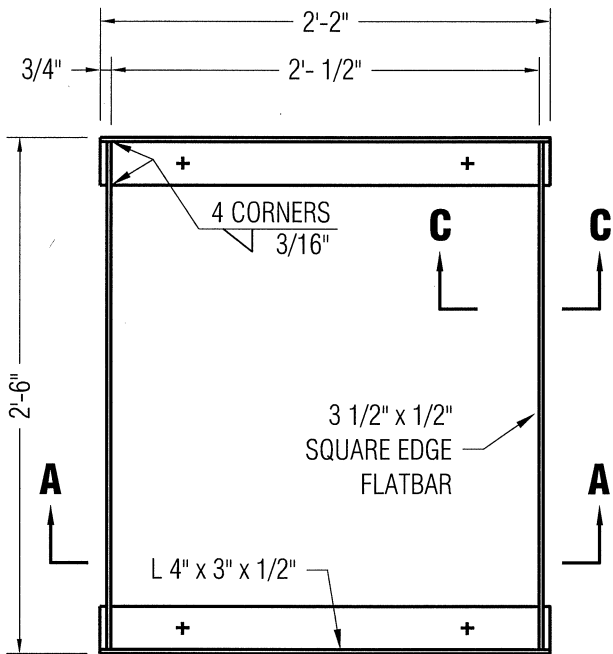
ENGINEERING DIVISION

**2' X 2'
STORM DRAIN
INLET**

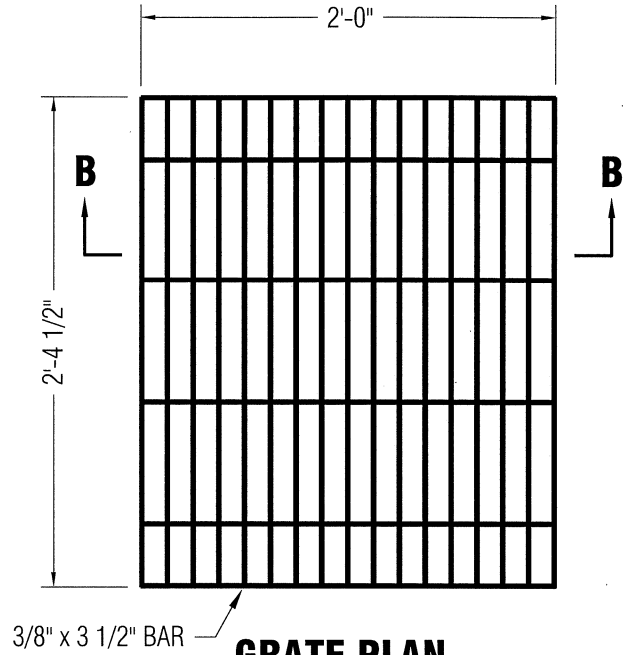
SD-8



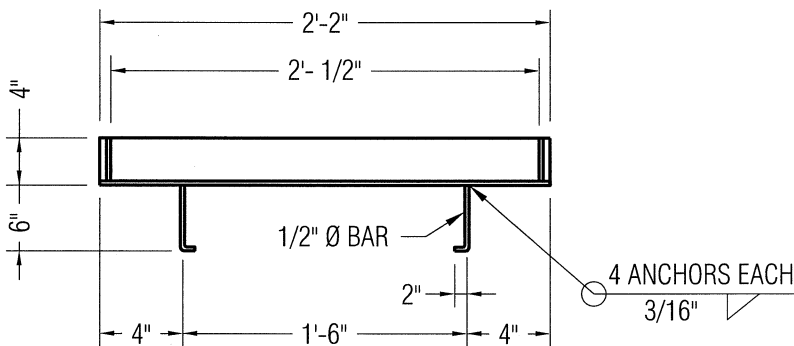
SECTION C-C



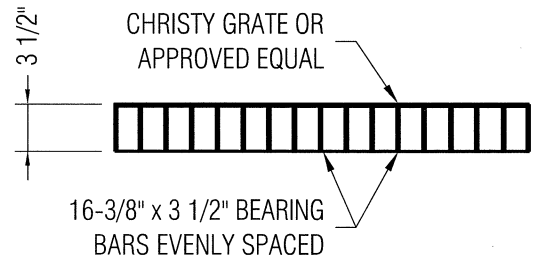
FRAME PLAN



GRATE PLAN



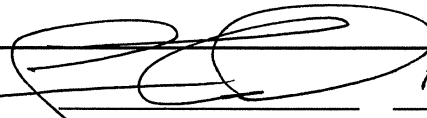
SECTION A-A

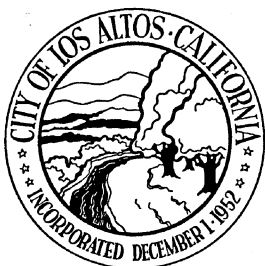


SECTION B-B

NOTES:

1. FRAME AND GRATE TO BE MADE OF CARBON STEEL.
2. ALL SURFACES TO BE GALVANIZED AFTER FABRICATION.
3. PLACE GRATE BEARING BARS PARALLEL TO CL OF OUTLET PIPE.
4. FASTEN GRATE TO FRAME AT CORNERS WITH REMOVABLE CLIPS.

Approved:  1/4/10
 City Engineer Date

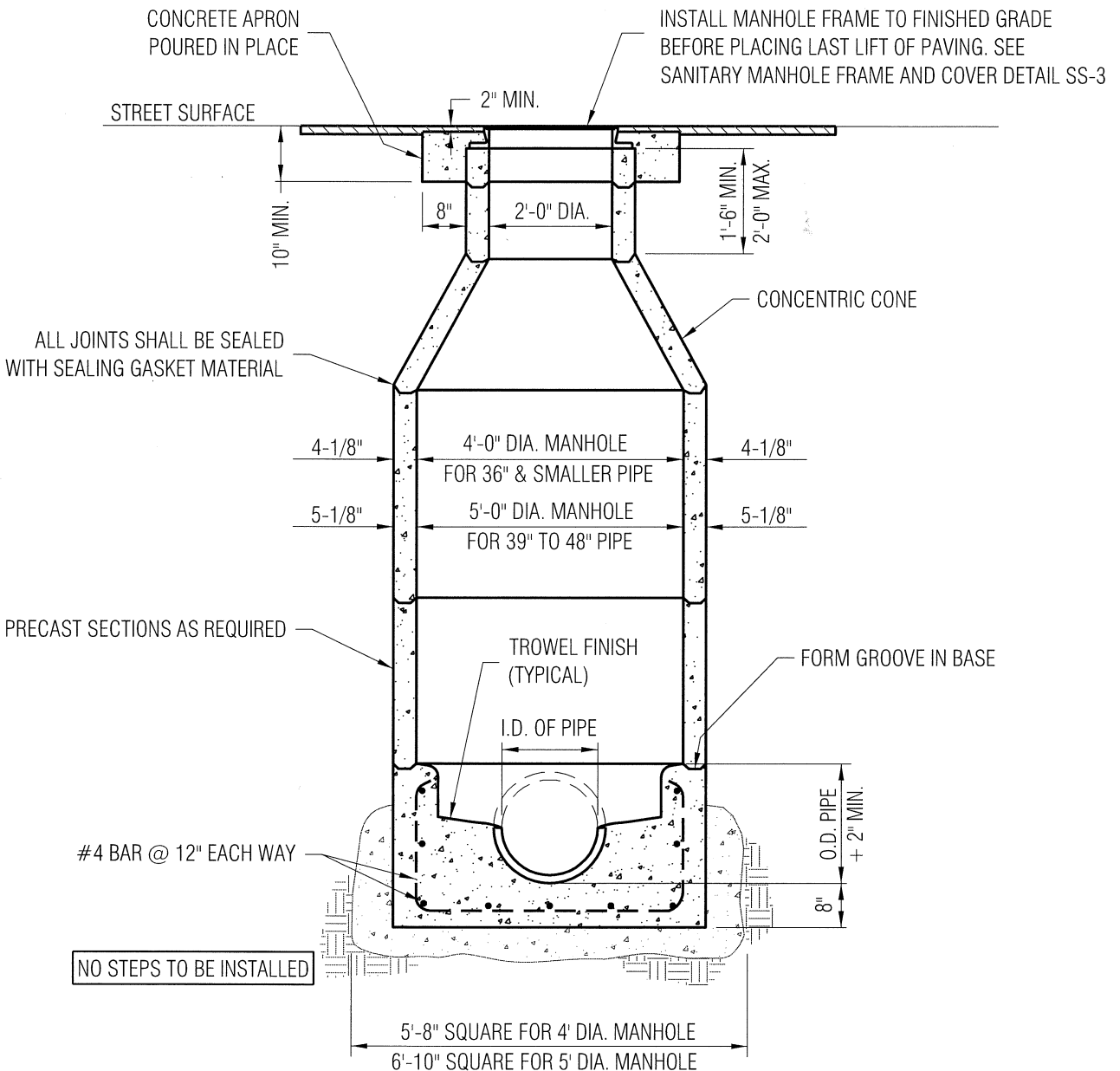


REVISION	
Description	Date

ENGINEERING DIVISION

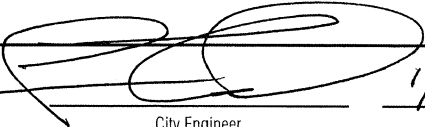
**2' X 2'
STORM DRAIN INLET
FRAME & GRATE**

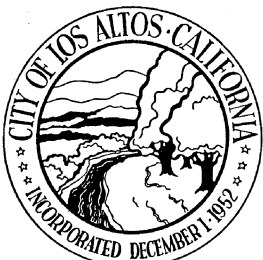
SD-9



NOTE:

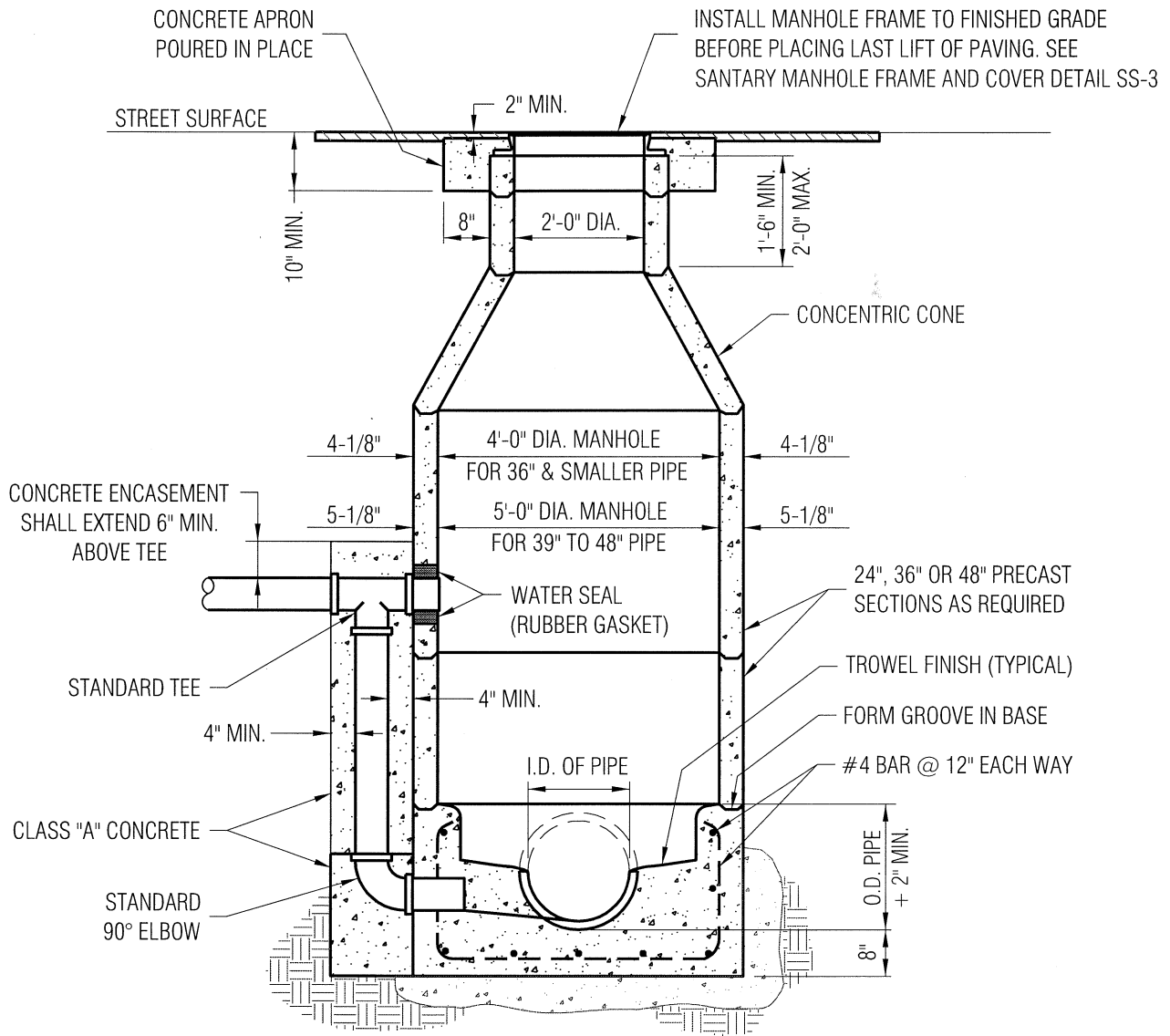
1. FOR INLINE MANHOLES LAY PIPE THRU BOTTOM OF MANHOLES. AFTER CONCRETE IN BASE HAS SET, KNOCK OUT PORTION OF PIPE INDICATED WITH DASHED LINES. (FOR BRANCHED BASE SEE SS-4)

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
SANITARY SEWER MANHOLE (CONCENTRIC CONE)	SS-1

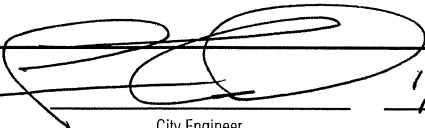


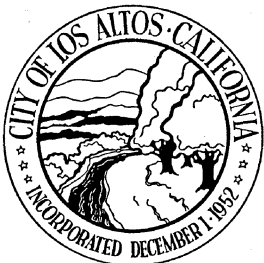
NO STEPS TO BE INSTALLED

NOTES:

1. FOR INLINE MANHOLES LAY PIPE THRU BOTTOM OF MANHOLES. AFTER CONCRETE IN BASE HAS SET, KNOCK OUT PORTION OF PIPE INDICATED WITH DASHED LINES. (FOR BRANCHED BASE SEE SS-4)

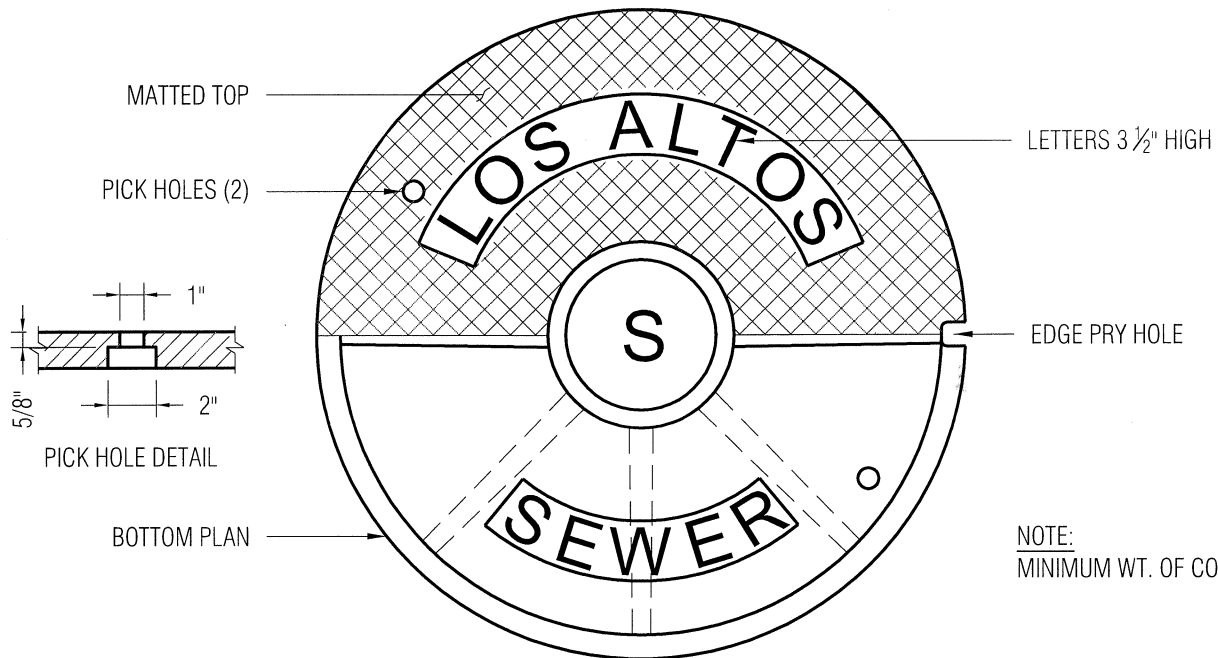
2. A DROP CONNECTION SHALL BE INSTALLED WHEN THE PIPE INVERTS INTO THE MANHOLE ARE 2 FEET OR MORE ABOVE THE OUTFLOW INVERT

Approved:  1/4/10
 City Engineer Date

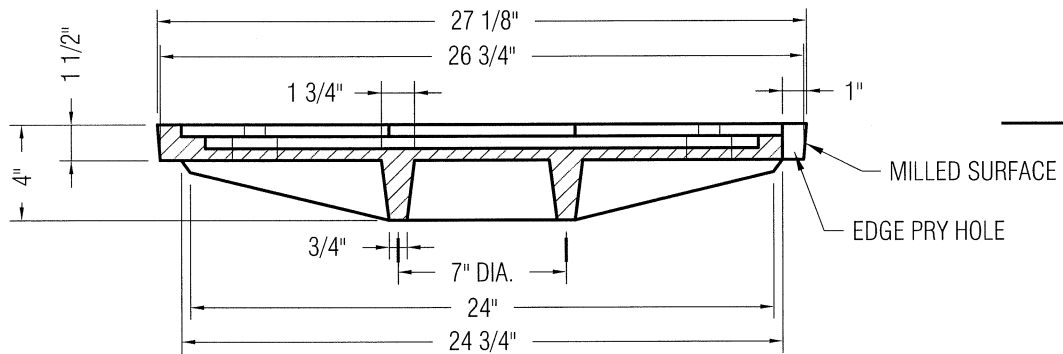


REVISION	
Description	Date

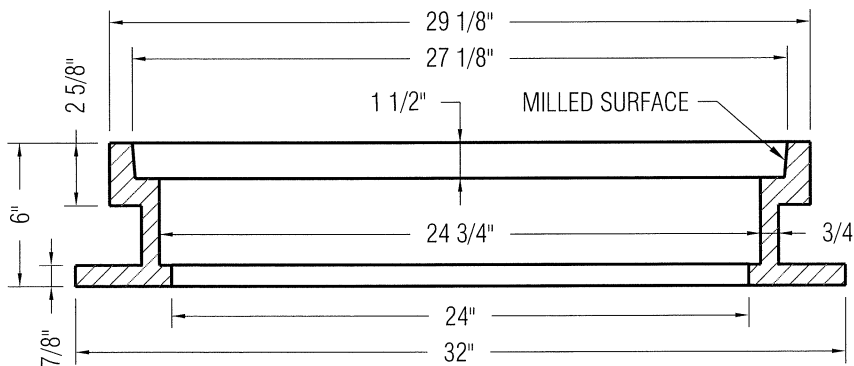
ENGINEERING DIVISION	
SANITARY SEWER MANHOLE (OUTSIDE DROP)	SS-2



NOTE:
MINIMUM WT. OF COVER 225 LBS.



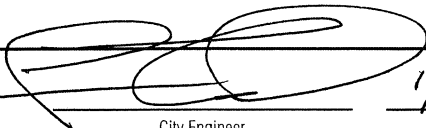
COVER

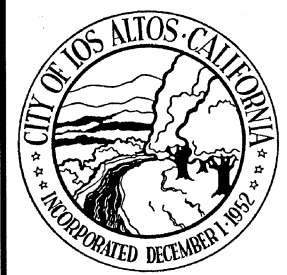


FRAME

SECTION THRU COVER & FRAME

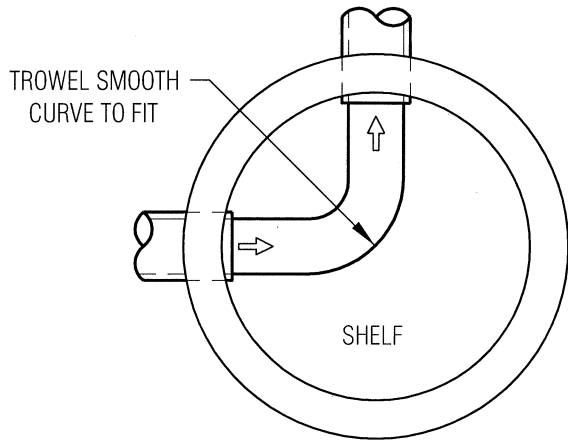
NOTE:
MINIMUM WT. OF FRAME 190 LBS.

Approved:  1/4/10
City Engineer Date

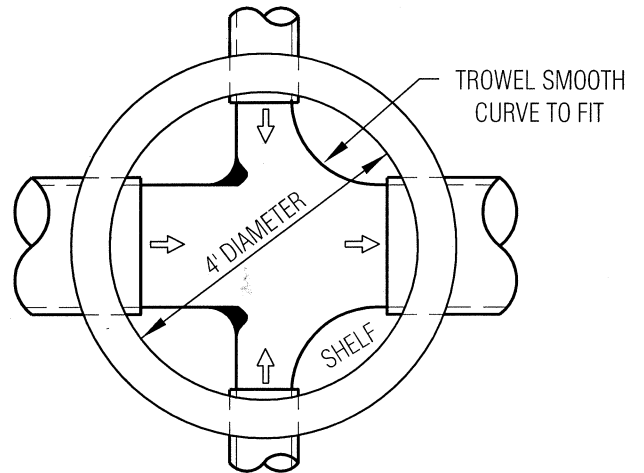


REVISION	
Description	Date

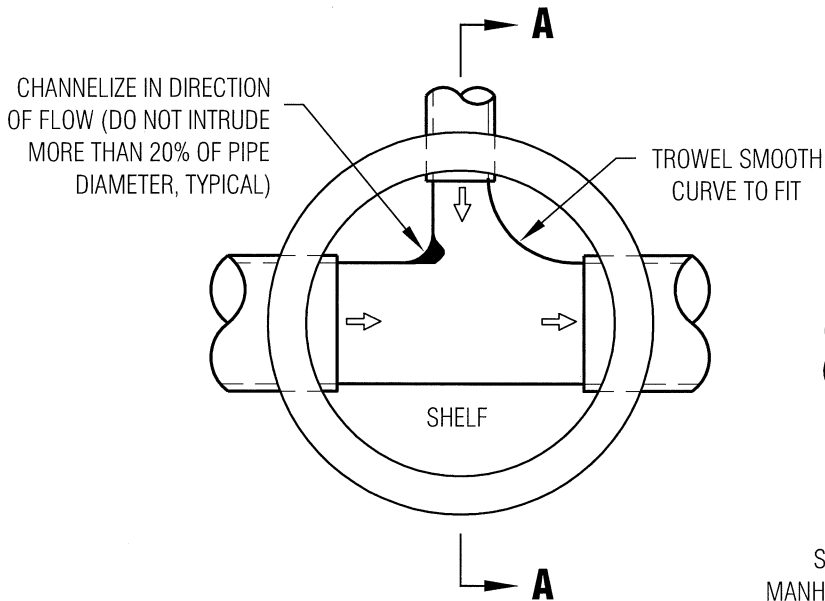
ENGINEERING DIVISION	
SANITARY SEWER MANHOLE FRAME AND COVER	SS-3



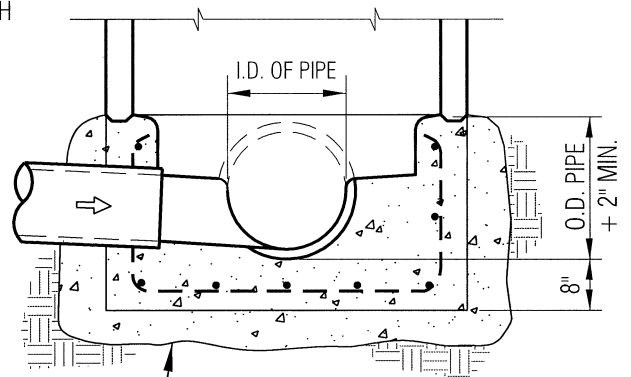
TYPICAL CURVED MANHOLE



TYPICAL MANHOLE WITH TWO BRANCHES



TYPICAL MANHOLE WITH ONE BRANCH

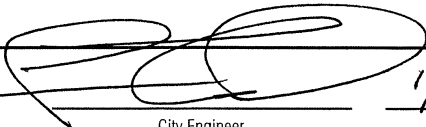


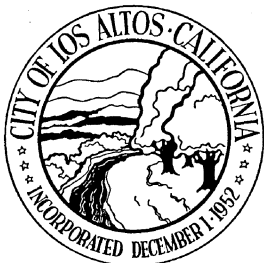
SEE SS-1 FOR MANHOLE DETAILS

SECTION A-A

NOTE:

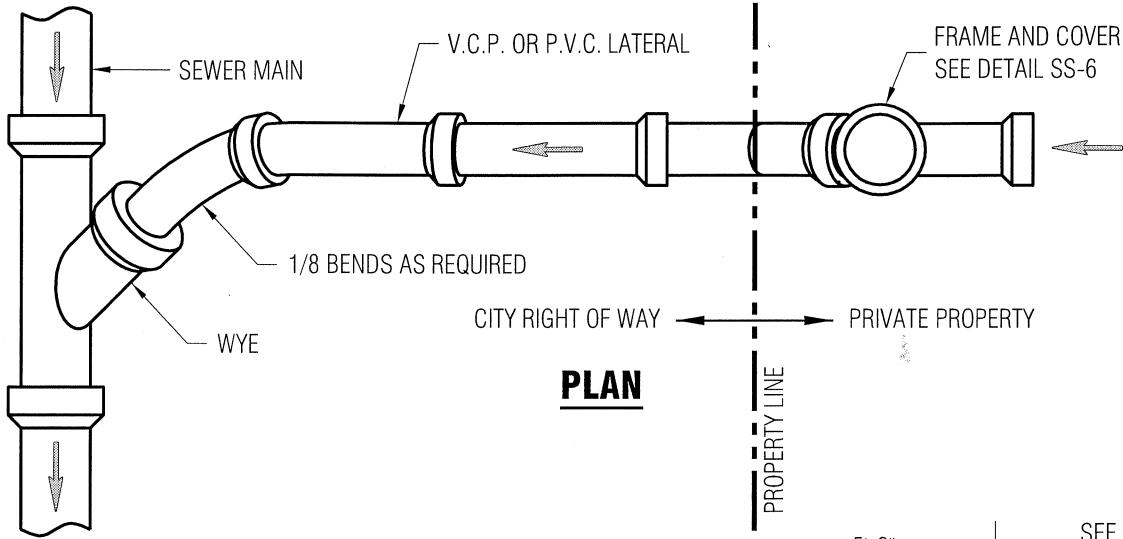
- LAY PIPE THRU BOTTOM OF MANHOLES. AFTER CONCRETE IN BASE HAS SET. KNOCK OUT PORTION OF PIPE INDICATED WITH DASHED LINES.

Approved:  1/4/10
 City Engineer Date

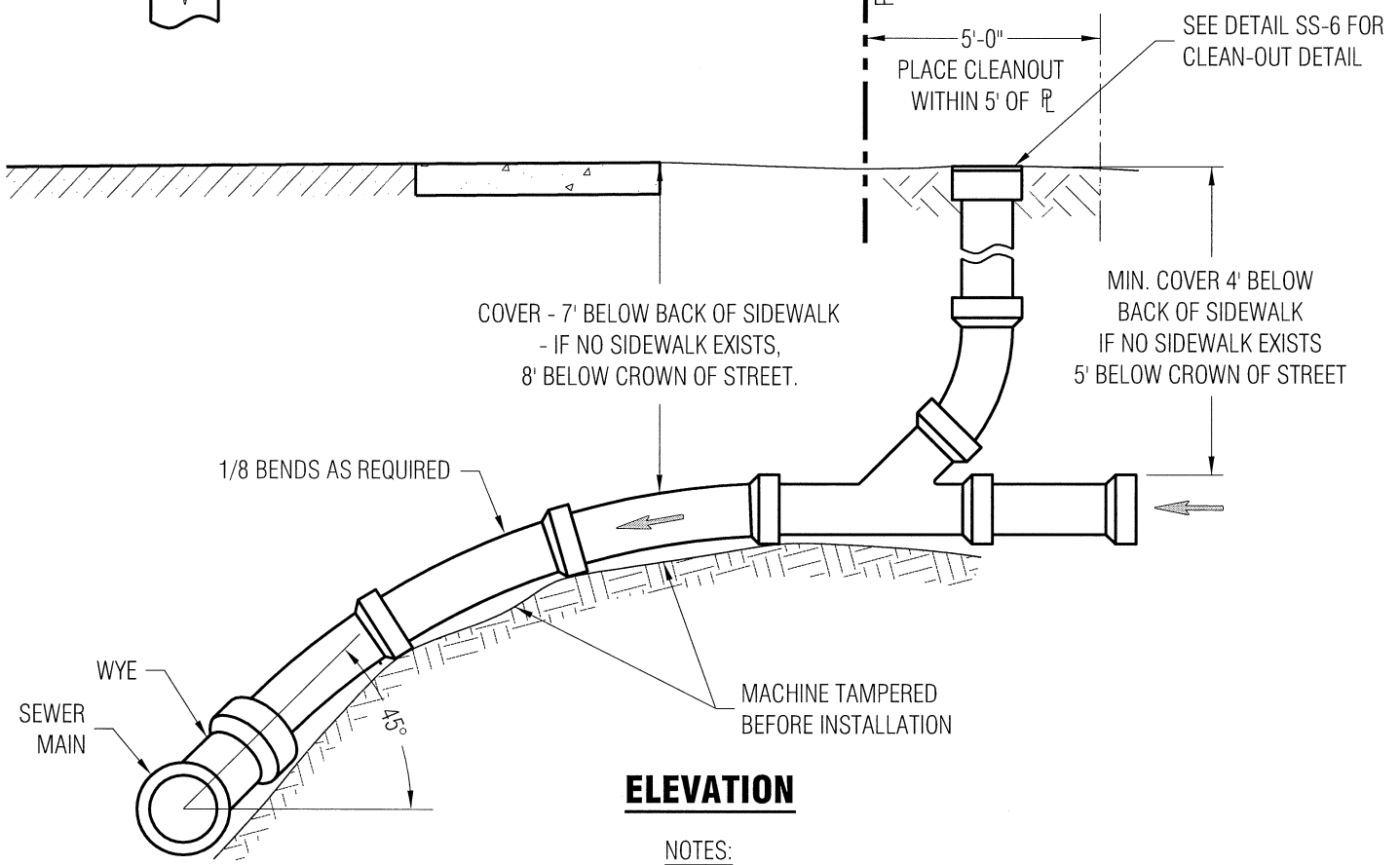


REVISION	
Description	Date

ENGINEERING DIVISION	
SANITARY SEWER MANHOLE BASE WITH BRANCHES	SS-4

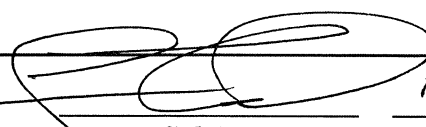


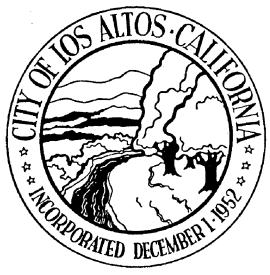
PLAN



ELEVATION

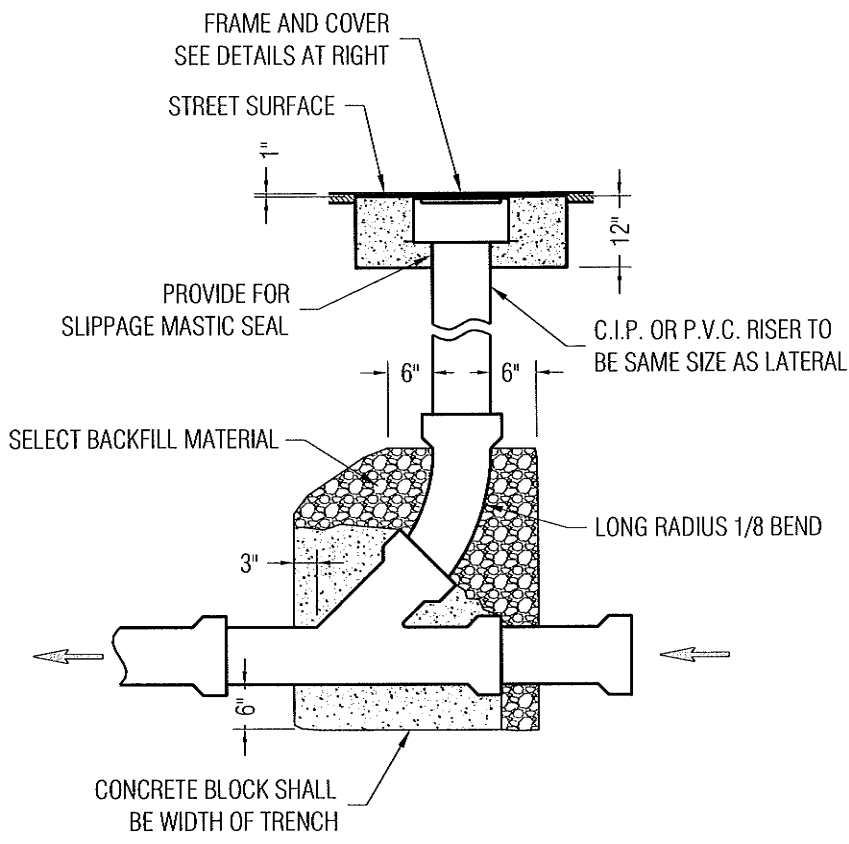
- NOTES:
1. STAMP "S" IN CURB FACE TO SHOW LOCATION OF LATERAL SEE DETAIL SU-7
 2. MINIMUM SLOPE OF LATERAL SHALL BE 1/4" PER 12"

Approved:  1/4/10
 City Engineer Date

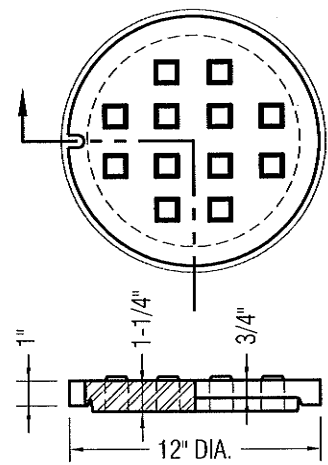


REVISION	
Description	Date

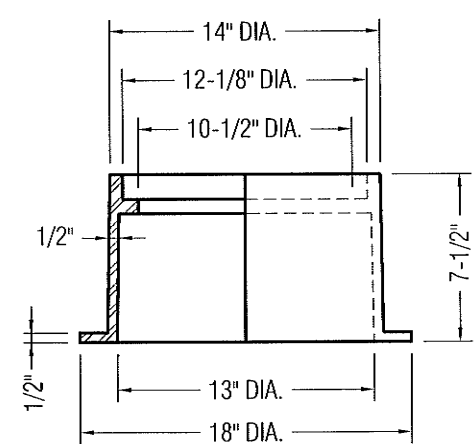
ENGINEERING DIVISION	
SEWER LATERAL AND SEWER RISER	SS-5



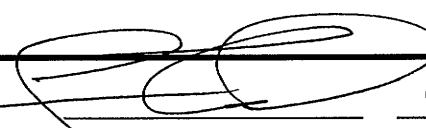
STANDARD SEWER LATERAL CLEAN-OUT

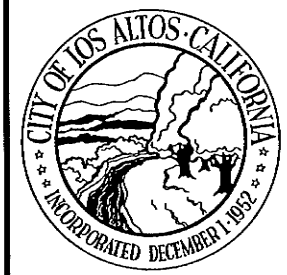


COVER DETAIL



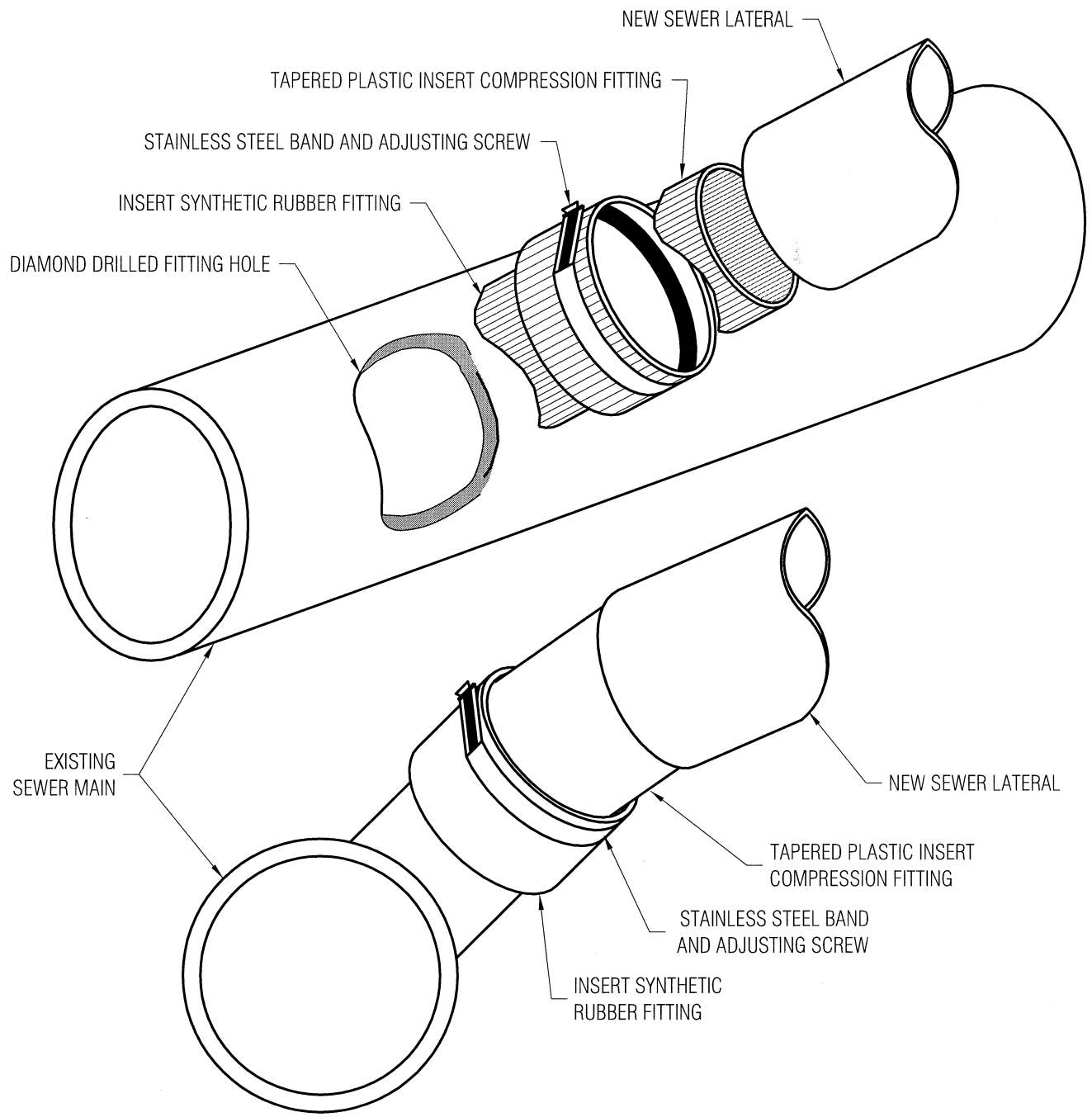
FRAME DETAIL

Approved:  1/4/10
 City Engineer Date

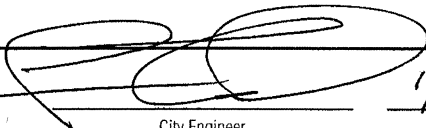


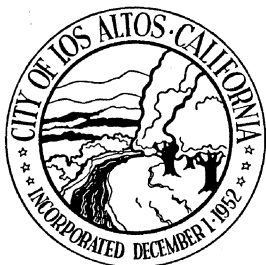
REVISION	
Description	Date
Changed Detail Title	02/16/12

ENGINEERING DIVISION	
SEWER LATERAL CLEAN-OUT	SS-6



STANDARD SEWER TAP

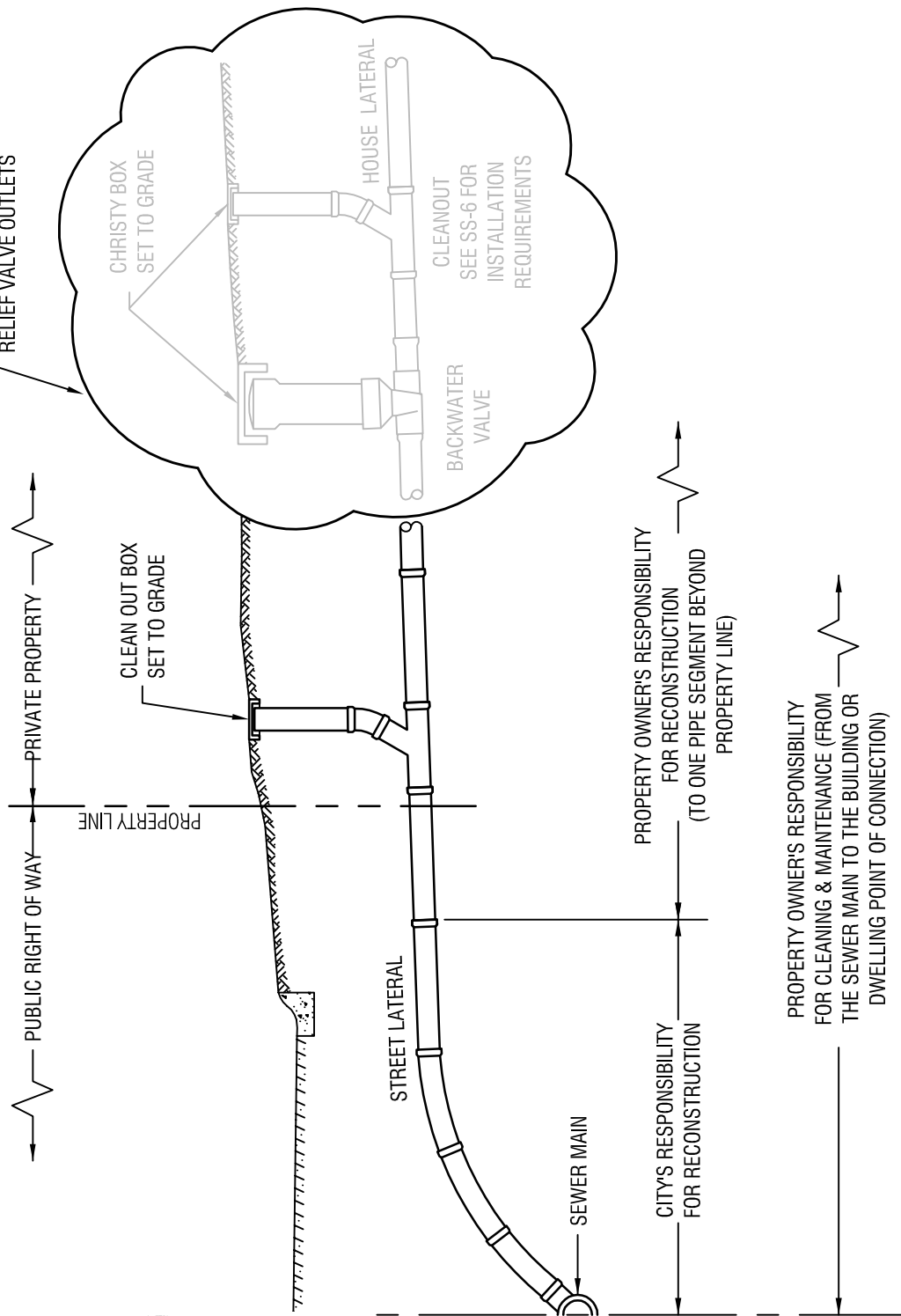
Approved:  '14/10
 City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
SEWER TAP	SS-7

PLEASE CONTACT THE **BUILDING DIVISION** FOR DETAILS AND REQUIREMENTS REGARDING THE COMBO BACK WATER VALVE WITH RELIEF VALVE OUTLETS

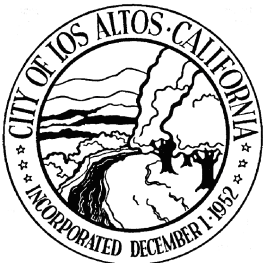


Approved:

City Engineer

1/4/10

Date



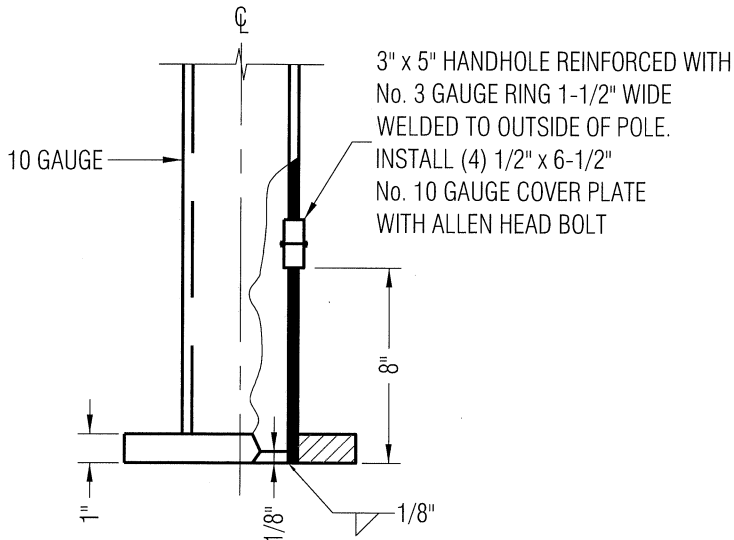
REVISION

Description	Date
REVISED	9/18/2012
REVISED	11/6/2013

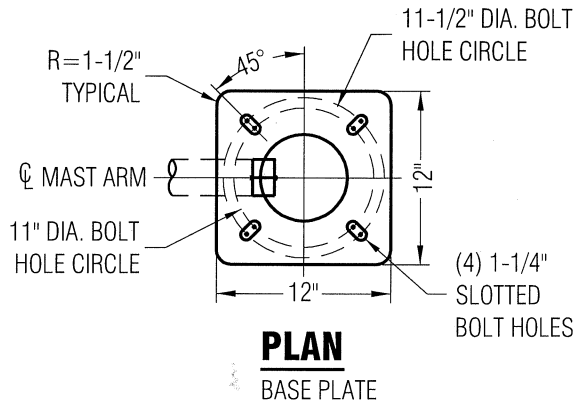
ENGINEERING DIVISION

SEWER LATERAL DIVISION OF RESPONSIBILITY

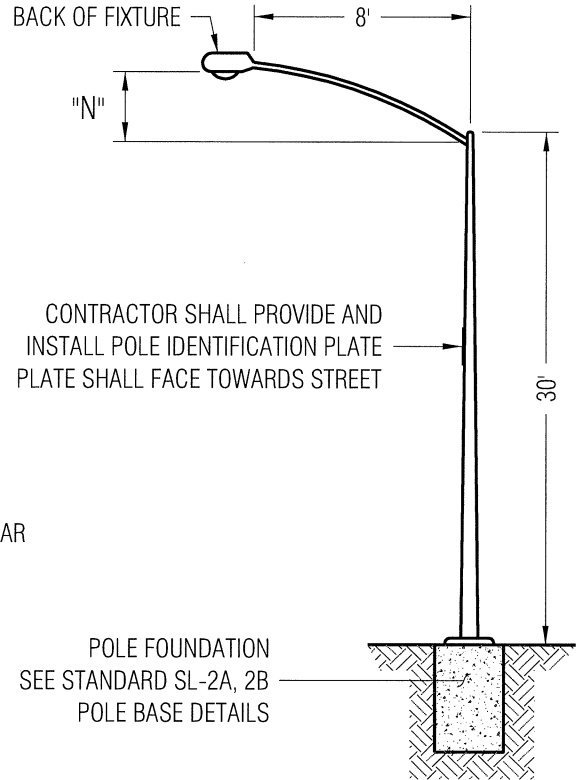
SS-8



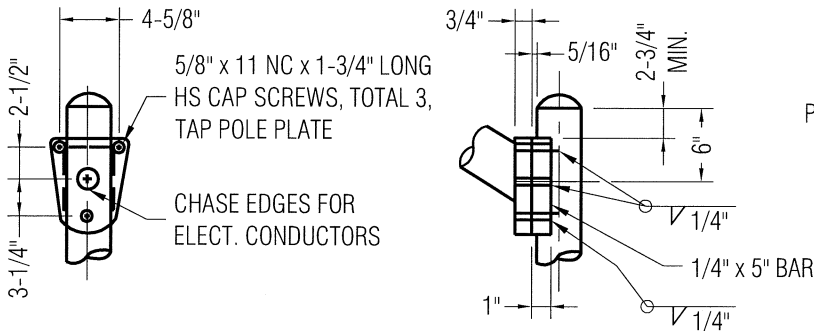
ELEVATION



PLAN
BASE PLATE



ELEVATION-TYPE 15



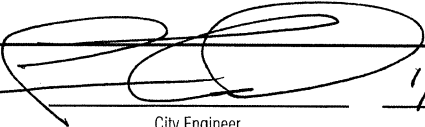
LUMINAIRE ARM CONNECTION

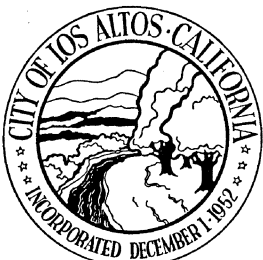
POLE DATA					
POLE TYPE	HEIGHT	MIN. O D		THICKNESS	LUMINAIRE ARM LENGTH
		BASE	TOP		
15	30'-0"	8"	3-7/8"	0.1196"	8'-0"

LUMINAIRE ARM DATA				
CLEARANCE HEIGHT	"N" RISE	MIN. O.D. AT POLE	THICKNESS	PROJECTED LENGTH
32'-0"±	2'-6"±	3-1/2"	0.1196"	8'-0"

NOTE:

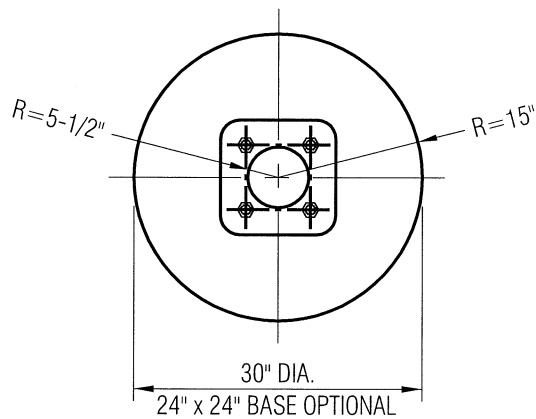
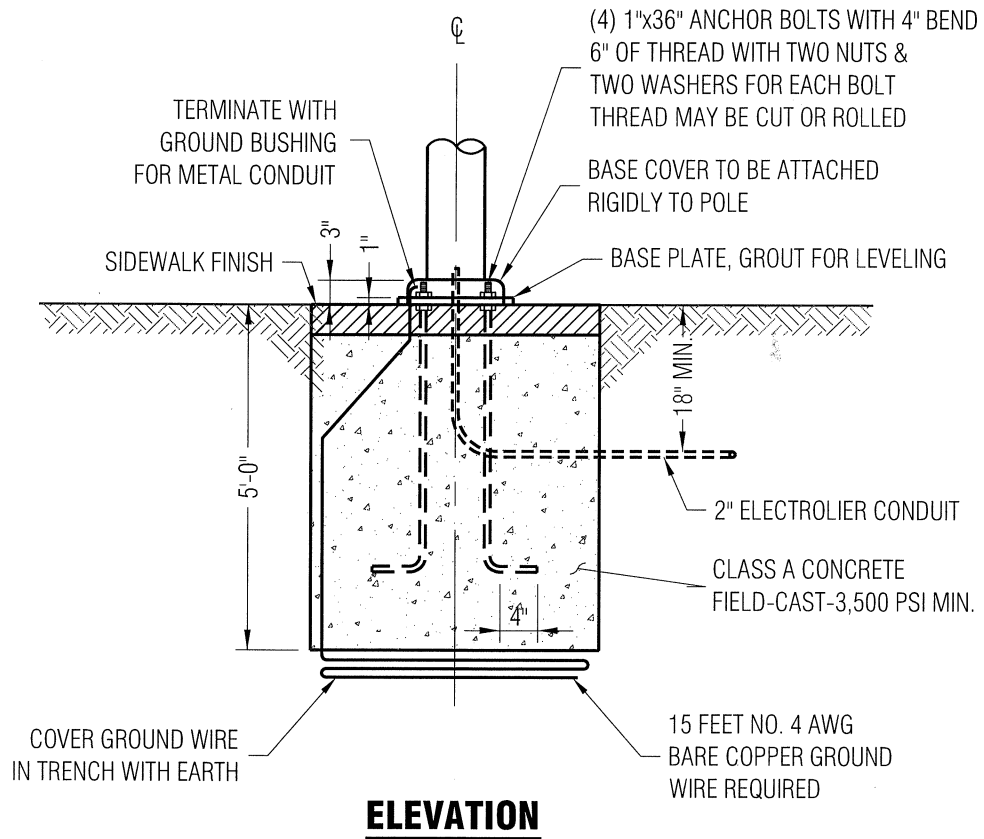
1. ALL POLES LOCATED ON SAN ANTONIO ROAD OR DOWNTOWN AREA SHALL HAVE A BLACK FINISH
2. ARM LENGTH TO BE 8' UNLESS OTHERWISE NOTED ON PLAN

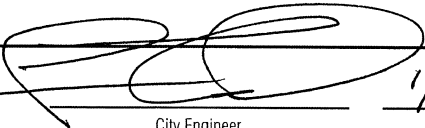
Approved:  1/4/10
City Engineer Date

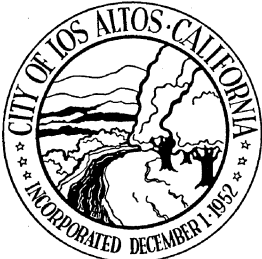


REVISION	
Description	Date

ENGINEERING DIVISION	
ELECTROLIER	SL-1

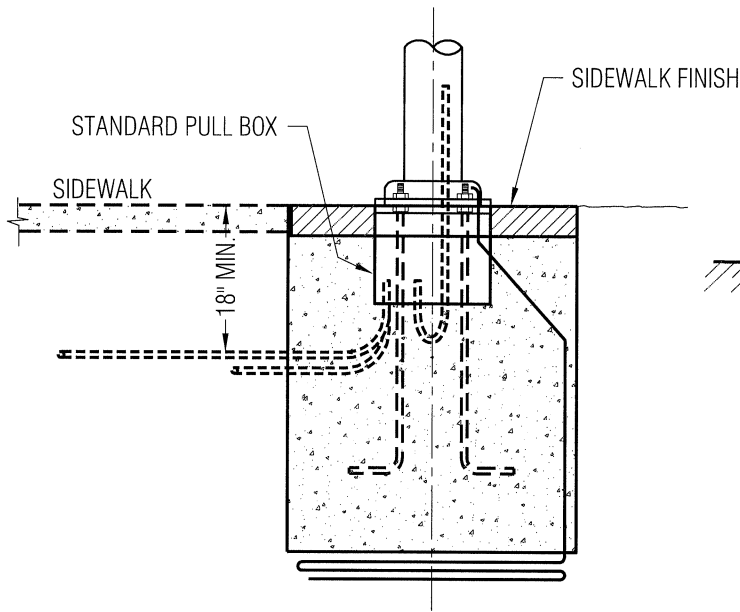


Approved:  1/4/10
City Engineer Date

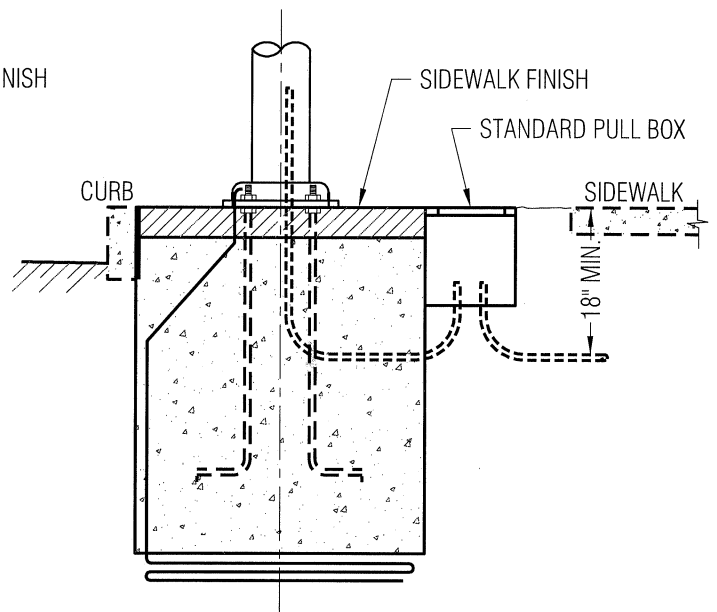


REVISION	
Description	Date

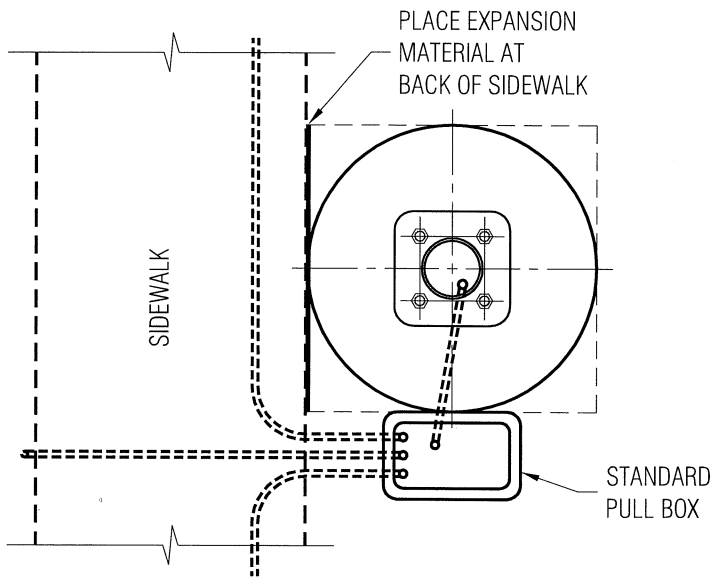
ENGINEERING DIVISION	
ELECTROLIER POLE BASE DETAILS (SHEET 1 OF 2)	SL-2A



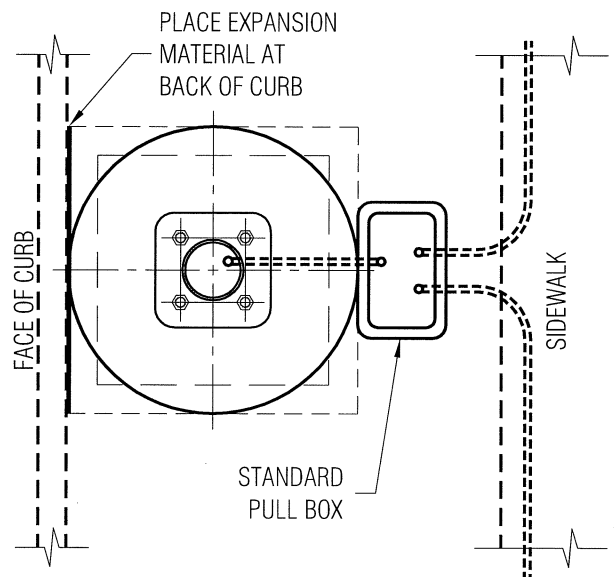
ELEVATION



ELEVATION

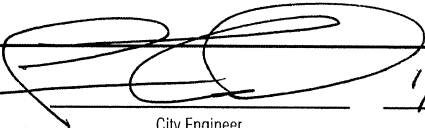


PLAN - 5' SIDEWALK



PLAN - NON-MONOLITHIC SIDEWALK

BASE INSTALLATION TO BE USED FOR LOCATIONS WHERE AREA BETWEEN CURB & SIDEWALK IS WIDER THAN 6 FEET

Approved:  1/4/10
 City Engineer Date

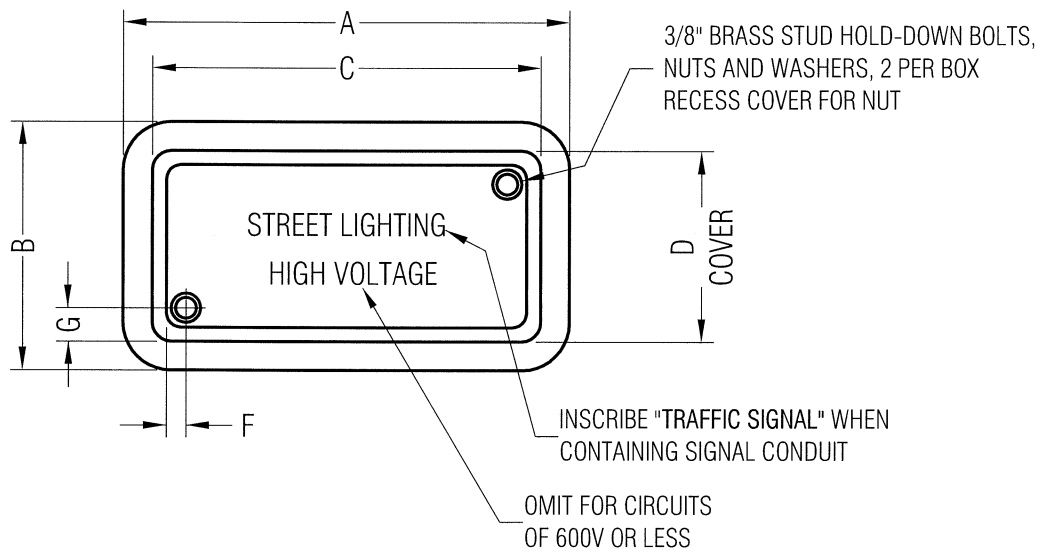


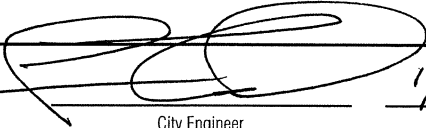
REVISION	
Description	Date

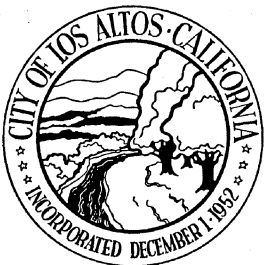
ENGINEERING DIVISION	
ELECTROLIER POLE BASE DETAILS (SHEET 2 OF 2)	SL-2B

PULL BOX No.	BOX			COVER				
	DEPTH	A	B	C	D	E*	F	G
N9	12"	19-3/4"	14-1/4"	15-1/4"	10"	1-3/4"	N/A	N/A
N16	12"	25-1/4"	15-3/4"	20-5/8"	10-1/2"	2"	2-1/2"	1-3/4"

E* = COVER THICKNESS

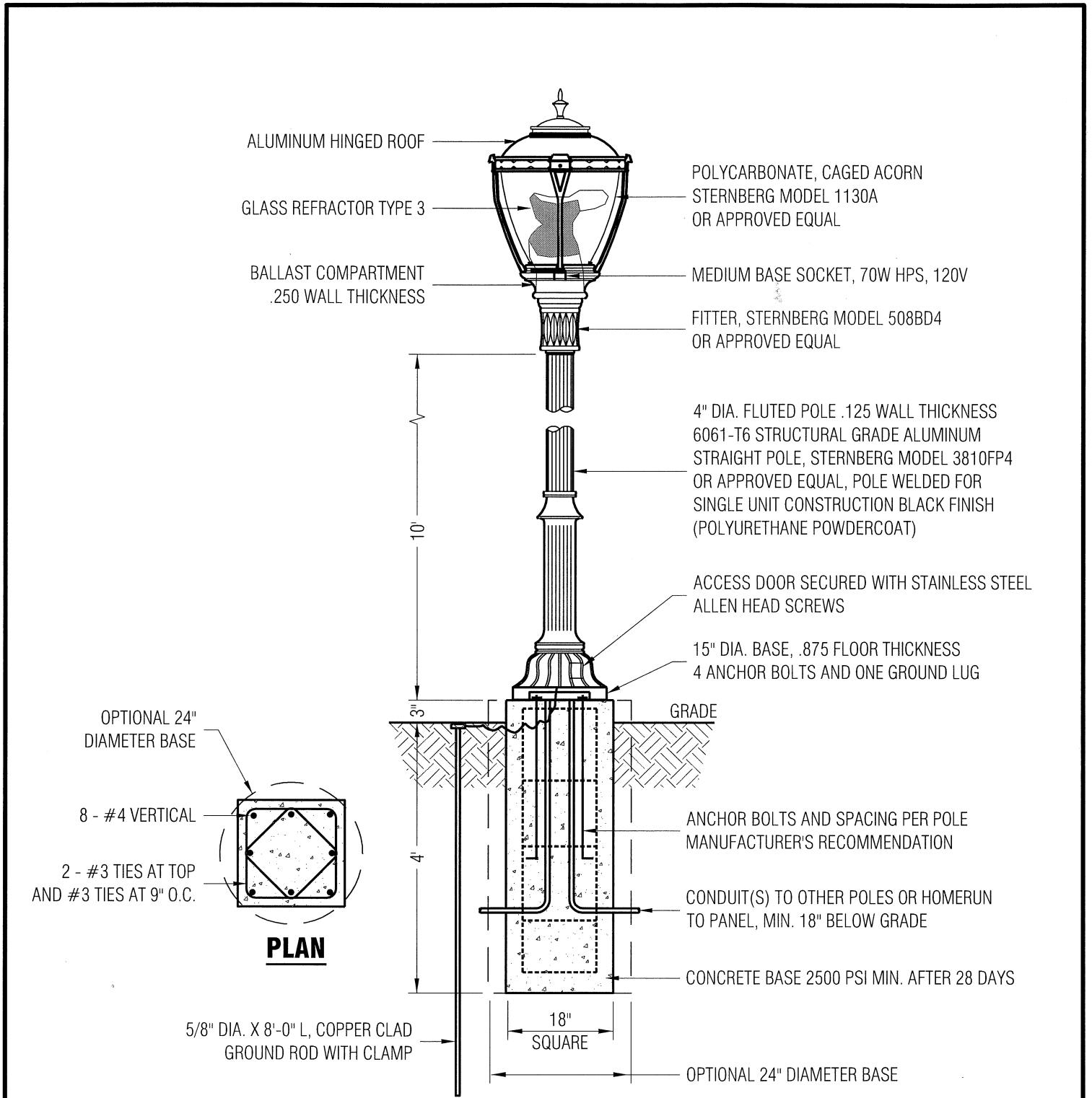


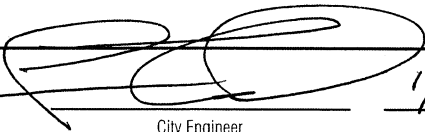
Approved:  1/4/10
 City Engineer Date

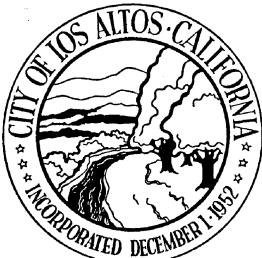


REVISION	
Description	Date

ENGINEERING DIVISION	
PULL BOX	SL-3

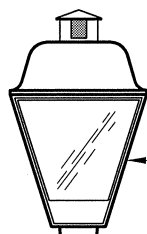


Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

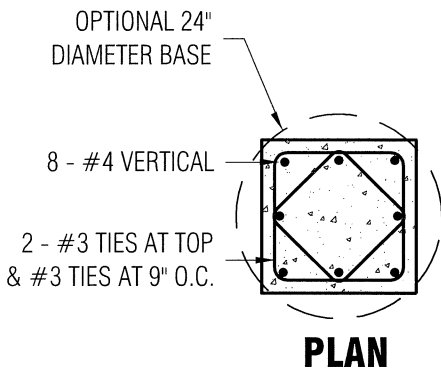
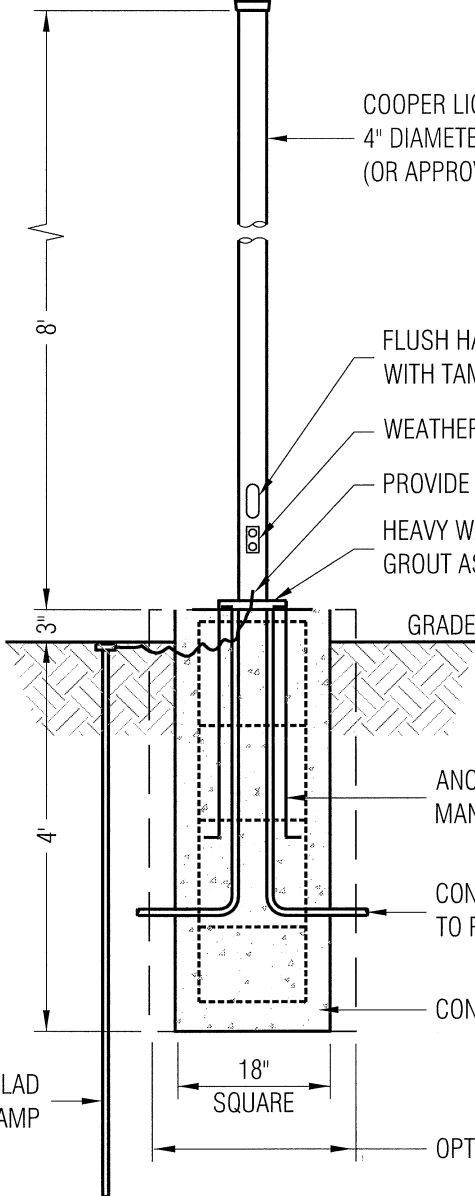
ENGINEERING DIVISION	
DOWNTOWN DECORATIVE ELECTROLIER	SL-4



COOPER LIGHTING FIXTURE TYPE UTR TRADITIONAIRE (OR APPROVED EQUAL), HID LUMINAIRE, 70W HPS LAMP, 120V, TYPE V DISTRIBUTION, UL LISTED FOR WET LOCATION

COOPER LIGHTING LIGHT POLE CATALOG No. RSA4T08AD 4" DIAMETER, DIE-CAST ALUMINUM, BLACK ANODIZED FINISH (OR APPROVED EQUAL)

FLUSH HANDHOLE IN BASE OF POLE WITH TAMPER RESISTANT SCREWS
 WEATHERPROOF, CFGI RECEPTACLE
 PROVIDE GROUND LUG
 HEAVY WALL ALUMINUM BASE COVER
 GROUT AS REQUIRED



5/8" DIA. X 8'-0" L, COPPER CLAD GROUND ROD WITH CLAMP

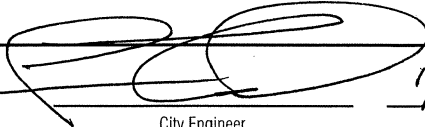
ANCHOR BOLTS AND SPACING PER POLE MANUFACTURER'S RECOMMENDATION

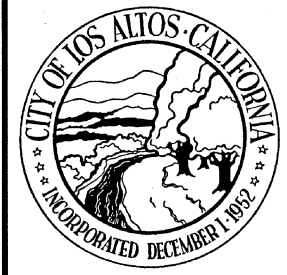
CONDUIT(S) TO OTHER POLES OR HOMERUN TO PANEL, MIN. 18" BELOW GRADE

CONCRETE BASE 2500 PSI MIN. AFTER 28 DAYS

OPTIONAL 24" DIAMETER BASE

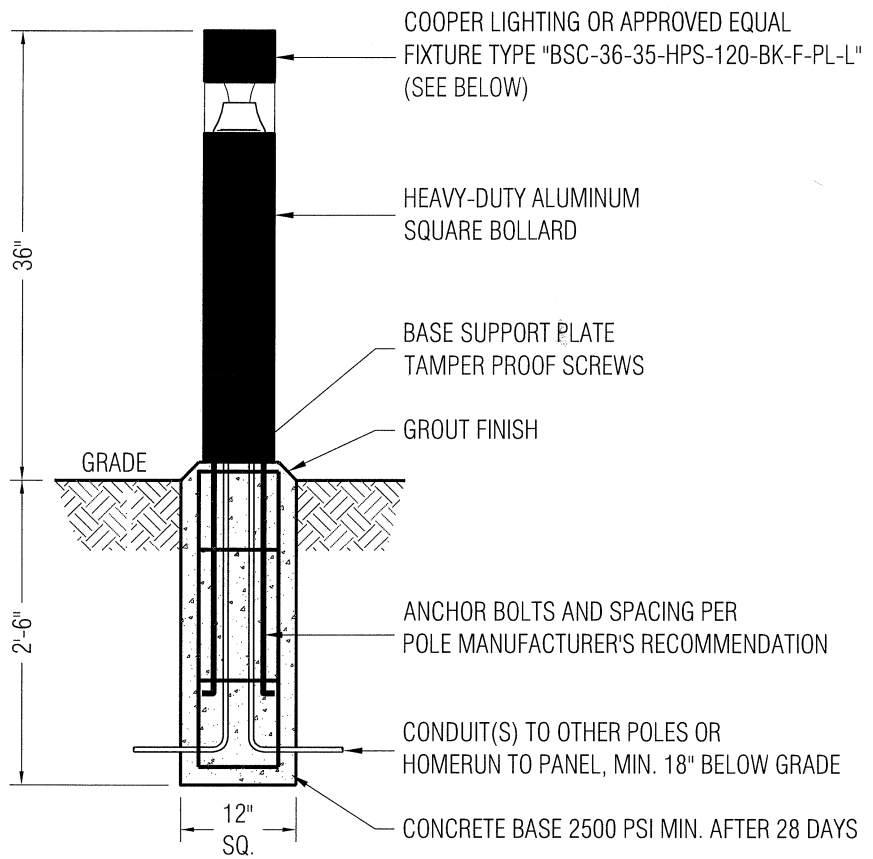
NOTE:
 CONTRACTOR SHALL SUBMIT A FOOTCANDLE POINT TO POINT DIAGRAM FOR APPROVAL PRIOR TO ORDERING. SUBMITTAL SHALL USE LIGHT POLE MANUFACTURER'S PHOTOMETRIC DATA

Approved:  1/4/10
 City Engineer Date

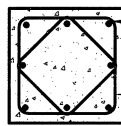


REVISION	
Description	Date

ENGINEERING DIVISION	
PARK ELECTROLIER	SL-5



NOTE:
CONTRACTOR SHALL SUBMIT A FOOTCANDLE
POINT TO POINT DIAGRAM FOR APPROVAL
PRIOR TO ORDERING. SUBMITTAL SHALL USE
BOLLARD LIGHT MANUFACTURER'S
PHOTOMETRIC DATA

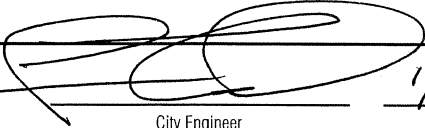


8 - #4 VERTICAL

2 - #3 TIES AT TOP AND #3 TIES @ 9" O.C.

PLAN

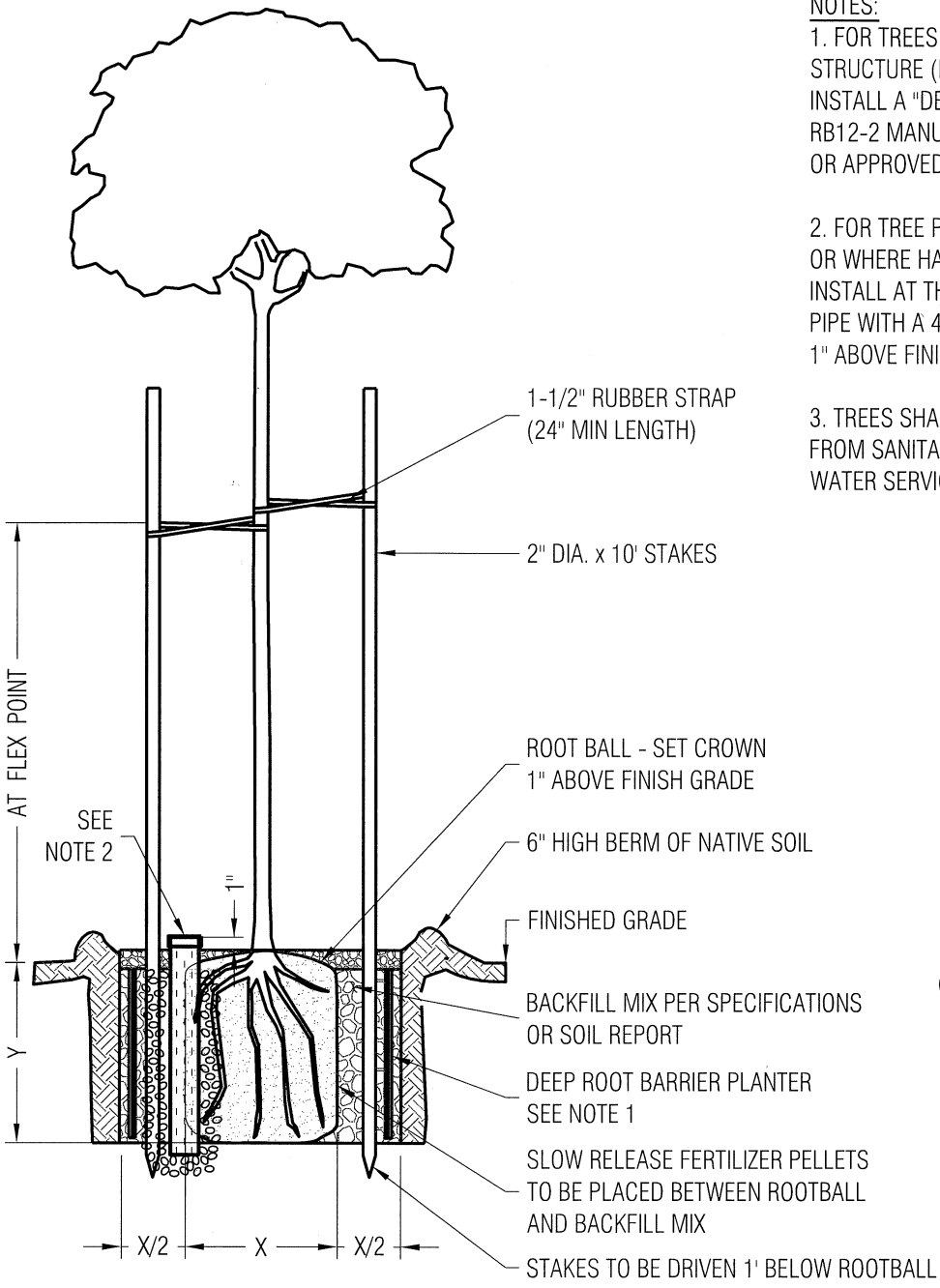
LIGHTING FIXTURE SCHEDULE								
TYPE	HEIGHT	LAMP WATTS	LAMP TYPE	VOLTAGE	COLOR FINISH	FUSE	LENS	OTHER OPTIONS
BSC	36"	35W	HIGH PRESSURE SODIUM	120V	BLACK POLYESTER POWDER COAT	SINGLE	POLYCARBONATE	LAMP INCLUDED

Approved:  1/4/10
City Engineer Date



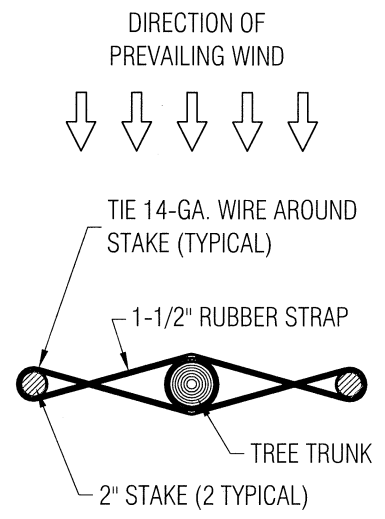
REVISION	
Description	Date

ENGINEERING DIVISION	
BOLLARD LIGHT DETAIL	SL-6

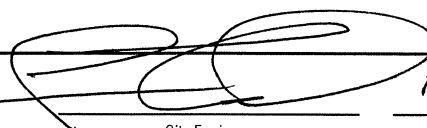


X: DIAMETER OF ROOT BALL
 Y: HEIGHT OF ROOT BALL

- NOTES:**
1. FOR TREES PLANTED WITHIN 6' OF A PERMANENT STRUCTURE (DRIVEWAY, SIDEWALK, CURB, ETC.) INSTALL A "DEEP ROOT BARRIER PLANTER NO. RB12-2 MANUFACTURED BY DEEP ROOT CORP." OR APPROVED EQUAL
 2. FOR TREE PLANTED IN A NON-IRRIGATED AREA OR WHERE HAND WATERING IS NECESSARY, INSTALL AT THE PERIMETER A 4"x30" P.V.C. DRAIN PIPE WITH A 4" SLOAN GRATE OR APPROVED EQUAL 1" ABOVE FINISH GRADE
 3. TREES SHALL BE PLANTED A MINIMUM OF 10' FROM SANITARY SEWER LATERALS AND 5' FROM WATER SERVICES AND DRIVEWAYS



PLAN

Approved:  1/4/10
 City Engineer Date

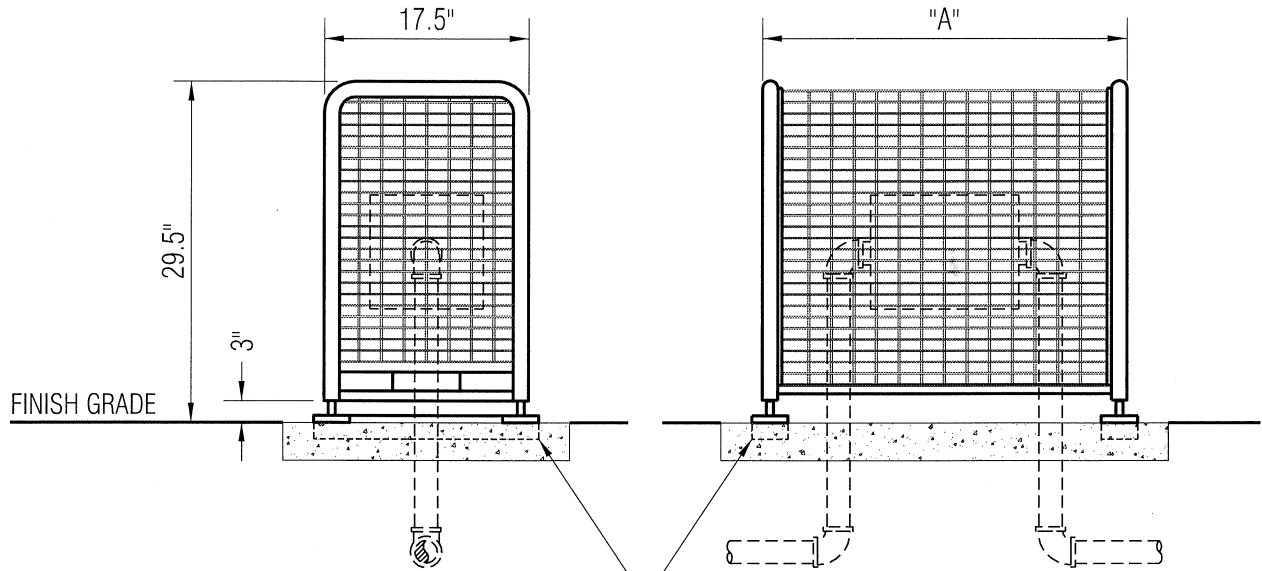


REVISION	
Description	Date

ENGINEERING DIVISION

TREE PLANTING AND STAKING

LI-1



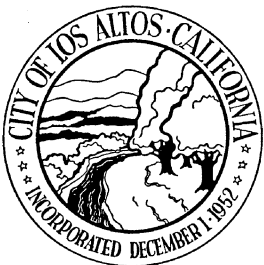
EMBED STAINLESS STEEL ANCHORS IN CONCRETE (SEE LI-2 FOR CONCRETE PAD)

SPECIFICATIONS FOR BACKFLOW ENCLOSURE		
DESCRIPTION	MODEL NO.	DIM. A
V.I.T. PRODUCTS, INC. STRONG BOX ENCLOSURE	SBBC-30CR	30"
	SBBC-45CR	45"
	SBBC-75CR	75"
EXPANSION MODULE FOR 30" & 45" ENCLOSURES	EXP-15CR	15"

Approved: _____

City Engineer

1/4/10
Date



REVISION

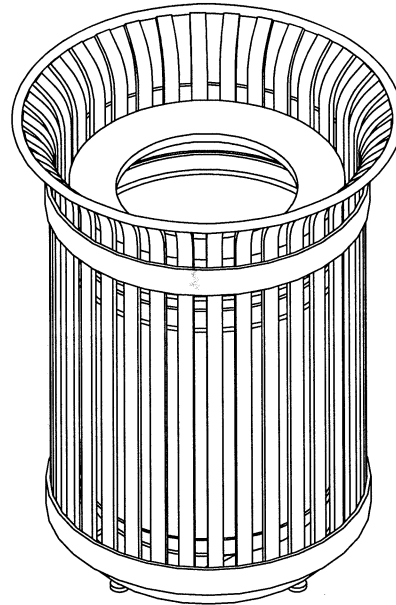
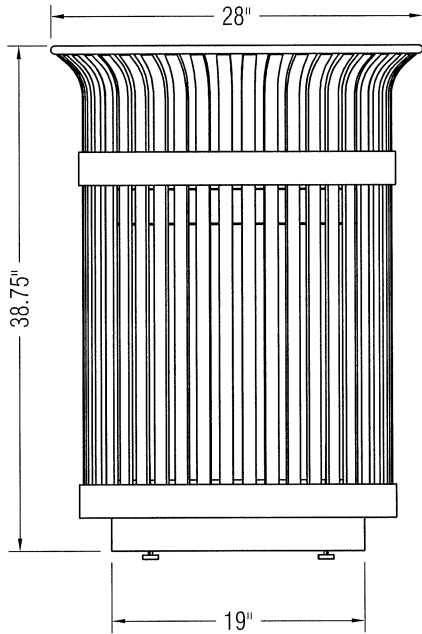
Description

Date

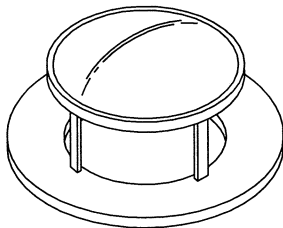
ENGINEERING DIVISION

BACKFLOW PREVENTION ENCLOSURE

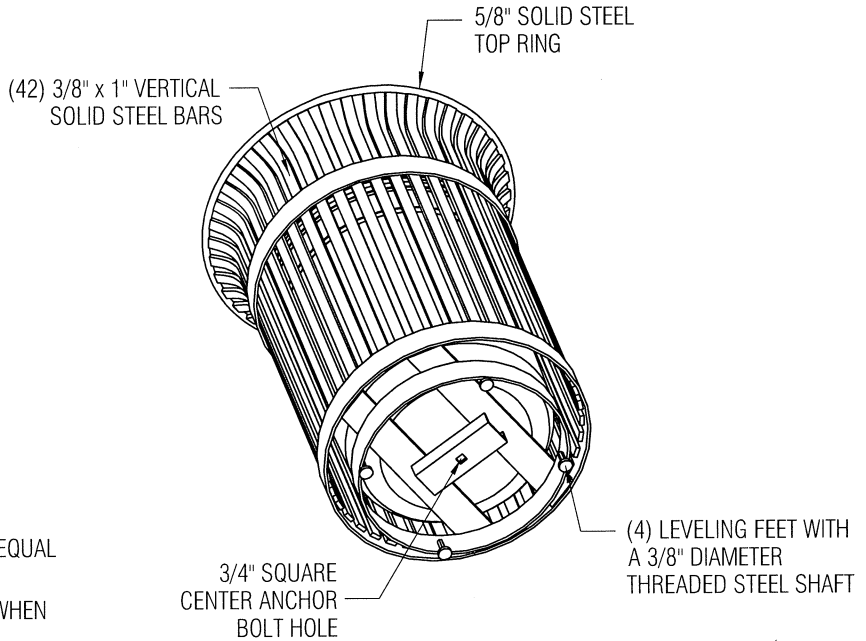
LI-3



PERSPECTIVE



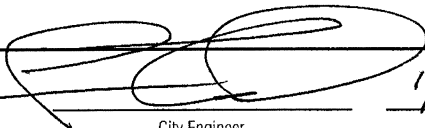
OPTIONAL RAIN BONNET LID
SEE NOTE 2

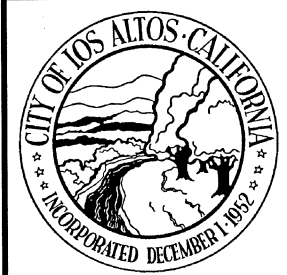


UNDER VIEW

NOTES:

1. VICTOR STANLEY S-42 (36 GAL) OR APPROVED EQUAL GLOSSY BLACK FINISH
2. OPTIONAL RAIN BONNET LID TO BE INSTALLED WHEN LOCATED IN RAIN EXPOSED AREAS

Approved:  1/4/10
City Engineer Date

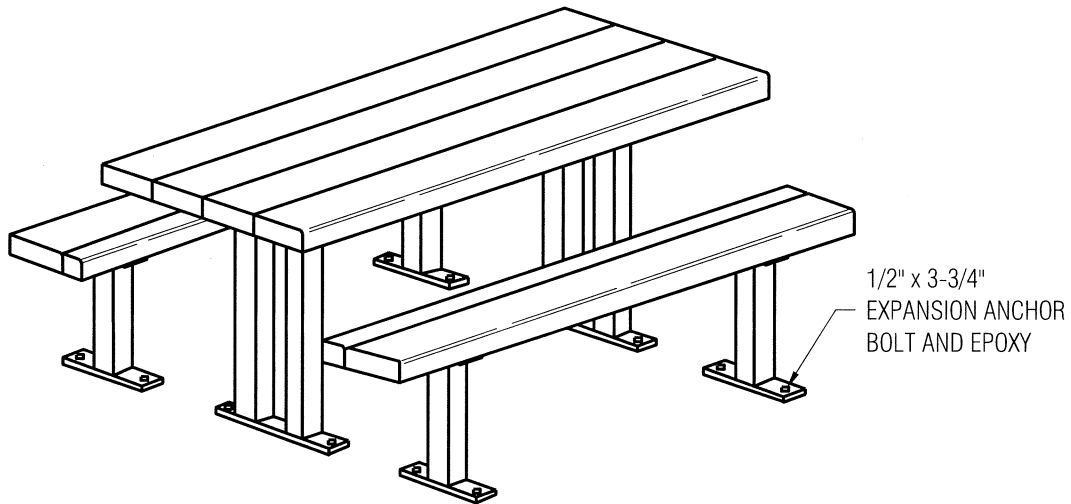
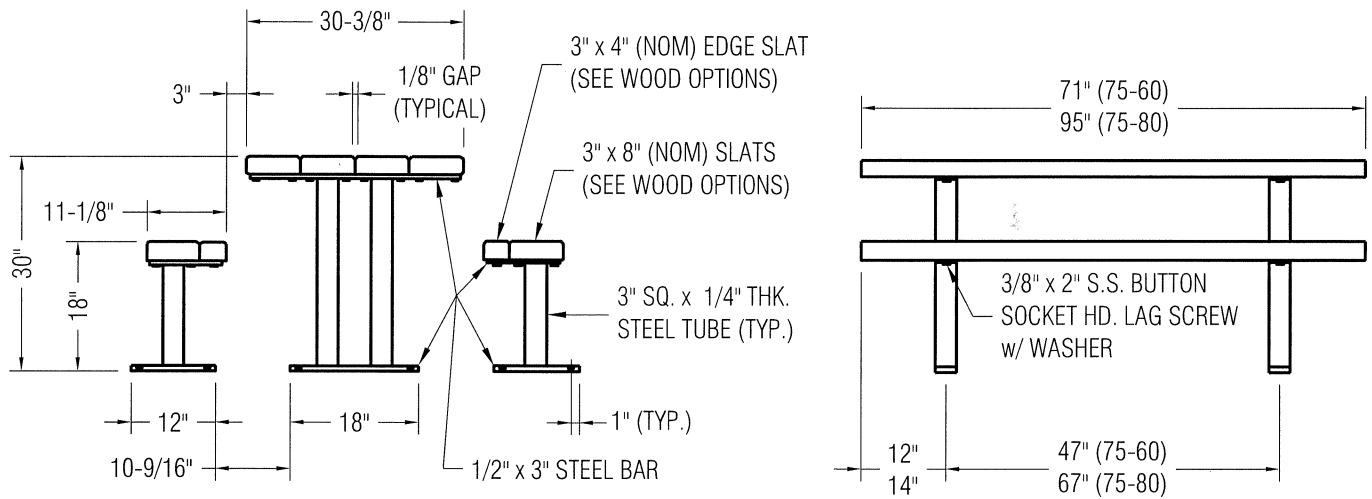


REVISION	
Description	Date

ENGINEERING DIVISION

LITTER RECEPTACLE

LI-4



NOTES:

1. DuMor, inc. 75 SERIES PICNIC TABLE OR APPROVED EQUAL
2. ALL STEEL MEMBERS COATED w/ZINC RICH EPOXY THEN FINISHED w/ A BLACK POLYESTER POWDER COATING
3. ALL WOOD MEMBERS TREATED w/ CLEAR PRESERVATIVE

LENGTH OPTIONS

1. 6' TABLE
2. 8' TABLE

WOOD OPTIONS

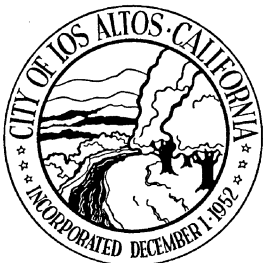
1. CLEAR ALL HEART REDWOOD S4S EE
2. 'C' & BTR. DOUGLAS FIR KD S4S EE
3. CLEAR WESTERN RED CEDAR S4S EE

Approved: _____

City Engineer

Date

1/4/10



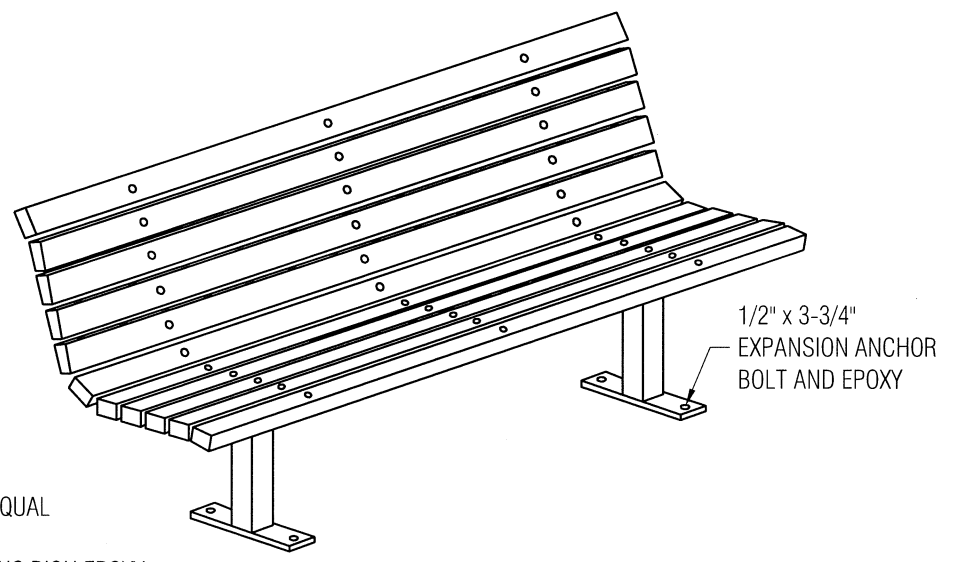
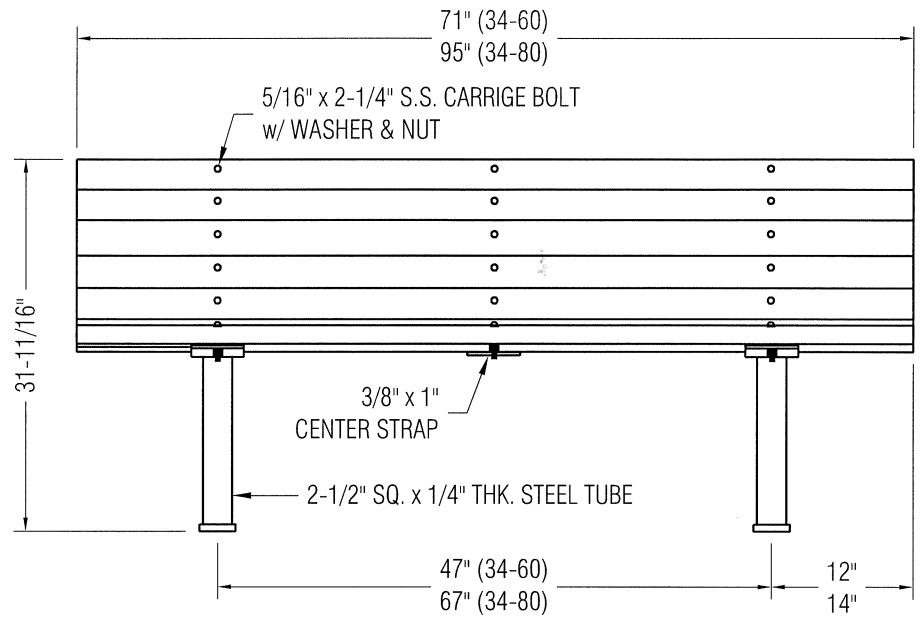
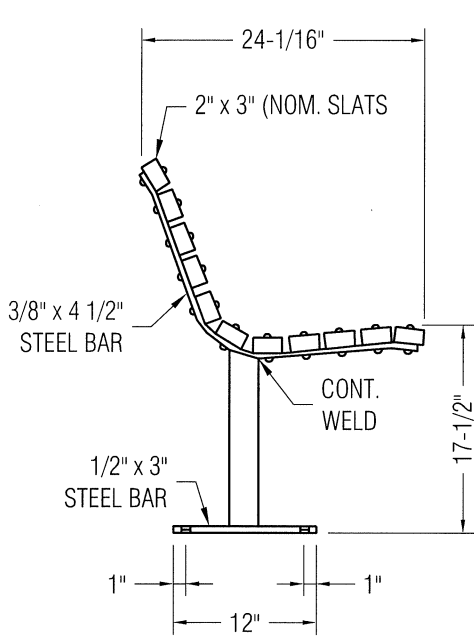
REVISION

Description	Date

ENGINEERING DIVISION

PICNIC TABLE

LI-5



NOTES:

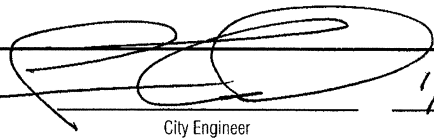
1. DuMor, Inc. 34 SERIES BENCH OR APPROVED EQUAL
2. ALL STEEL MEMBERS SHALL BE FINISHED w/ZINC RICH EPOXY THEN FINISHED w/ A BLACK POLYESTER POWER COATING
3. ALL WOOD MEMBERS SHALL BE TREATED w/ A CLEAR PRESERVATIVE

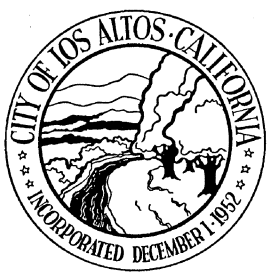
LENGTH OPTIONS

1. 6' BENCH
2. 8' BENCH

WOOD OPTIONS

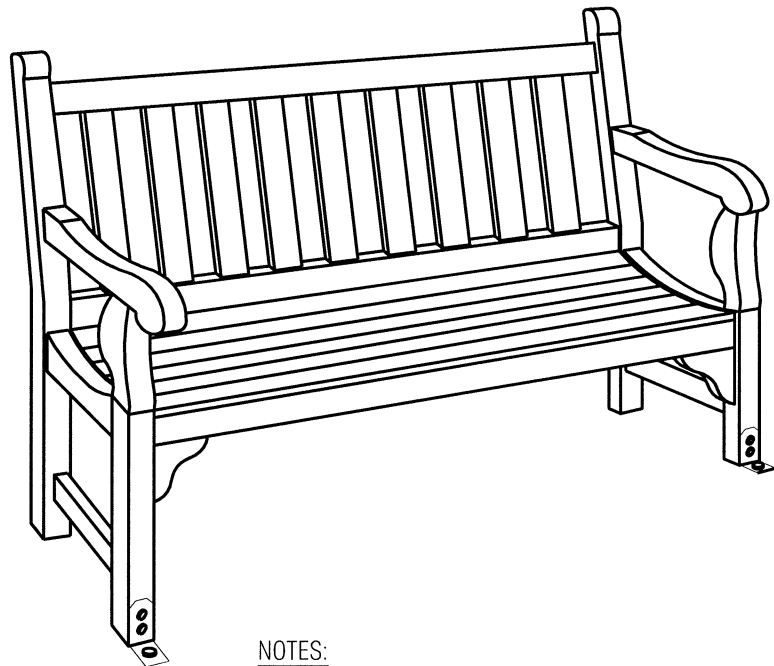
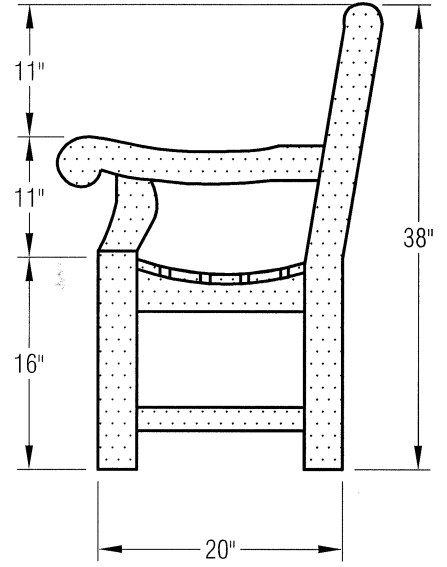
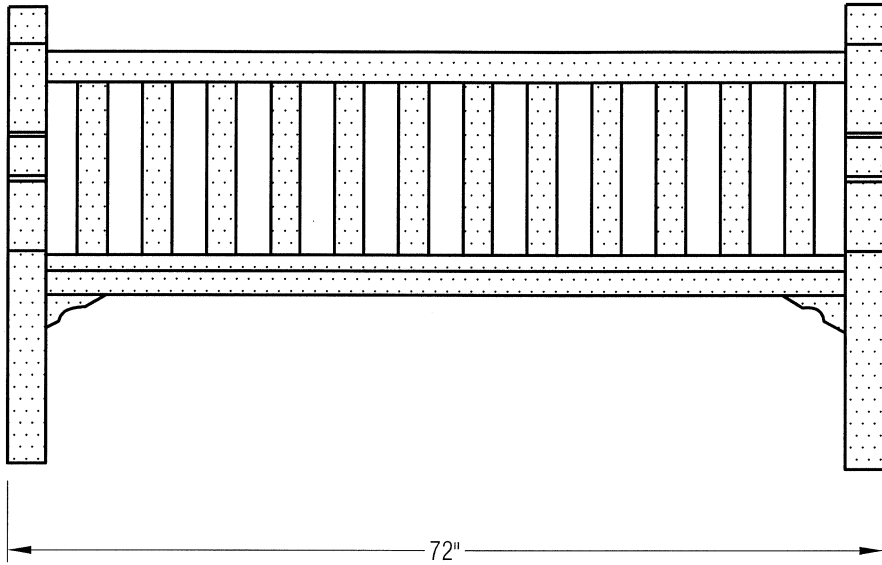
1. CLEAR ALL HEART REDWOOD S4S EE
2. 'C' & BTR. DOUGLAS FIR KD S4S EE
3. CLEAR WESTERN RED CEDAR S4S EE

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
PARK BENCH	LI-6

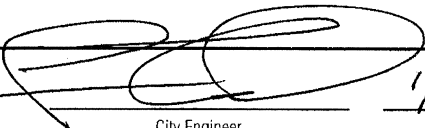


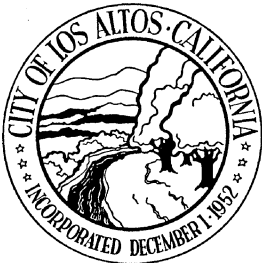
INSTALLATION NOTES:

1. USE 5/8" x 10" ALL-THREAD BOLT INSERTED 6" DEEP INTO CONCRETE WITH EPOXY
2. DRILL 4" INTO BOTTOM OF LEG OF BENCH SLIP OVER ALL-THREAD BOLT
3. ATTACH "L" BRACKET TO LEG AND ATTACH 3/8" x 2-1/2" EXPANSION ANCHOR BOLT INTO CONCRETE WITH EPOXY

NOTES:

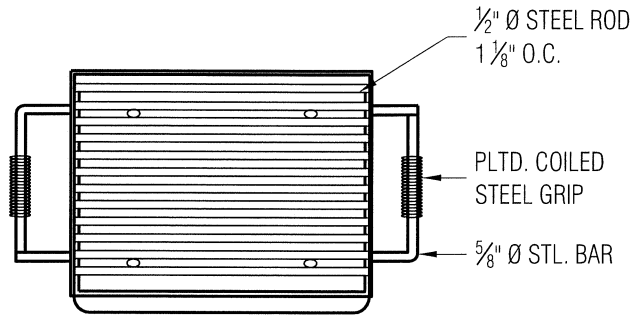
1. MONARCH 6', COUNTRY CASUAL, TEAK BENCH OR APPROVED EQUAL (4' BENCH SIMILAR)
2. ALL WOOD MEMBERS TREATED W/ CLEAR PRESERVATIVE

Approved:  1/4/10
 City Engineer Date

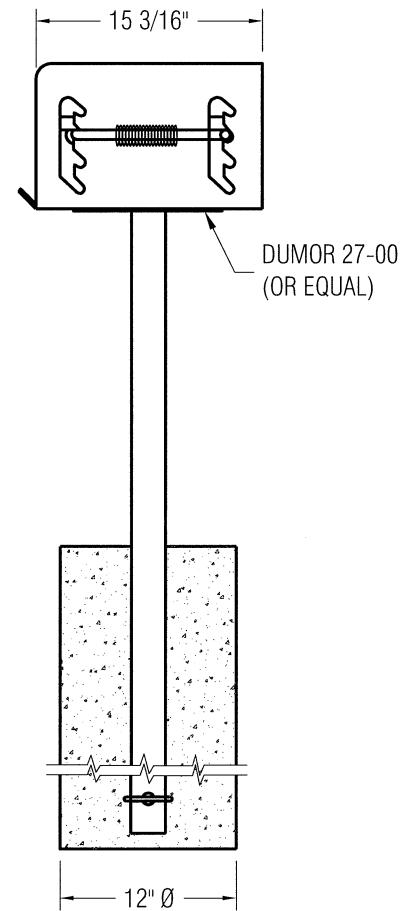
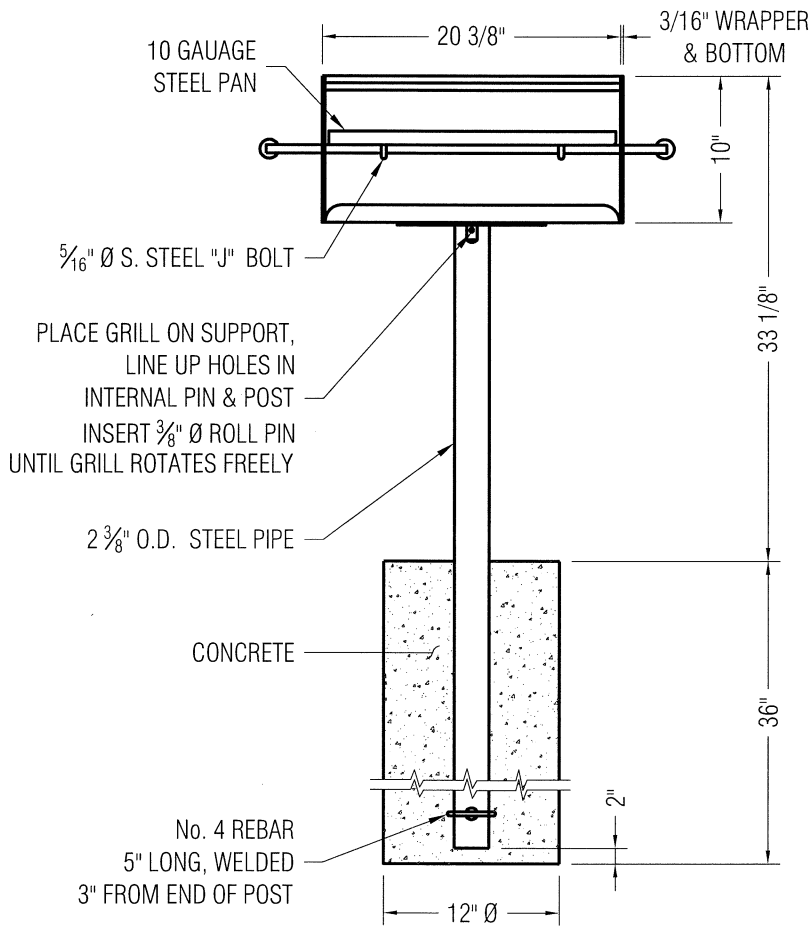


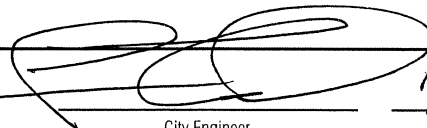
REVISION	
Description	Date

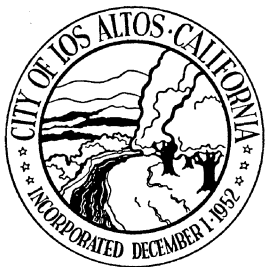
ENGINEERING DIVISION	
DOWNTOWN BENCH	LI-7



- NOTE:**
1. GRILL FINISHED W/ HEAT RESISTANT BLACK ENAMEL
 2. GRILL ROTATES FREELY 360° FOR DRAFT CONTROL

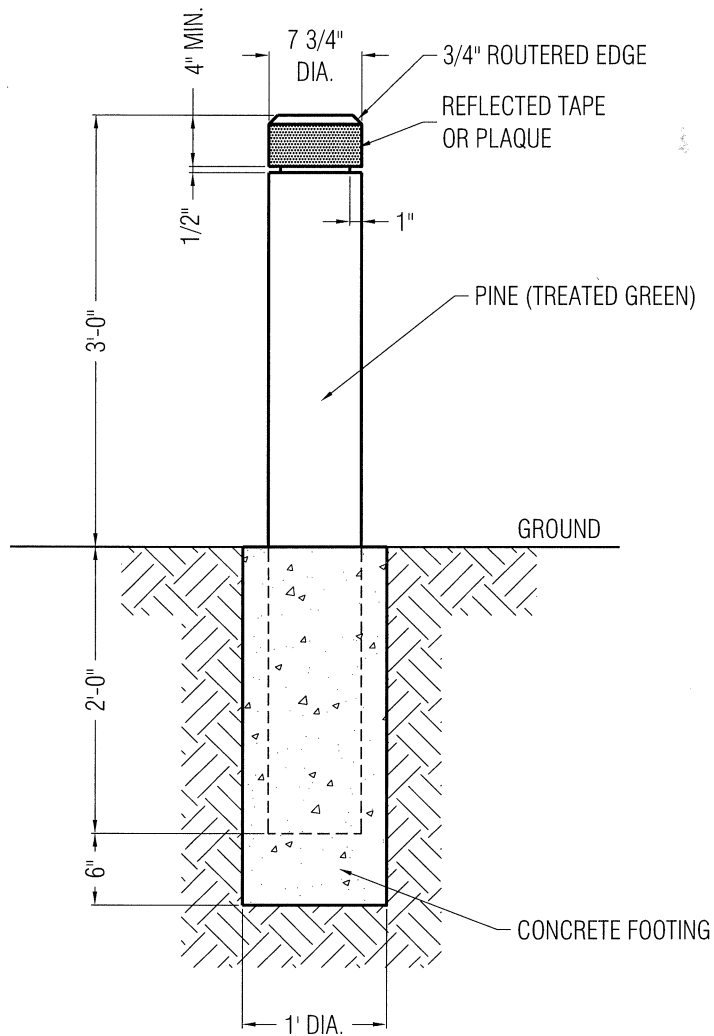


Approved: 
 City Engineer Date 1/4/10



REVISION	
Description	Date

ENGINEERING DIVISION	
PARK GRILL	LI-8



Approved:

City Engineer

Date

1/4/10



REVISION

Description

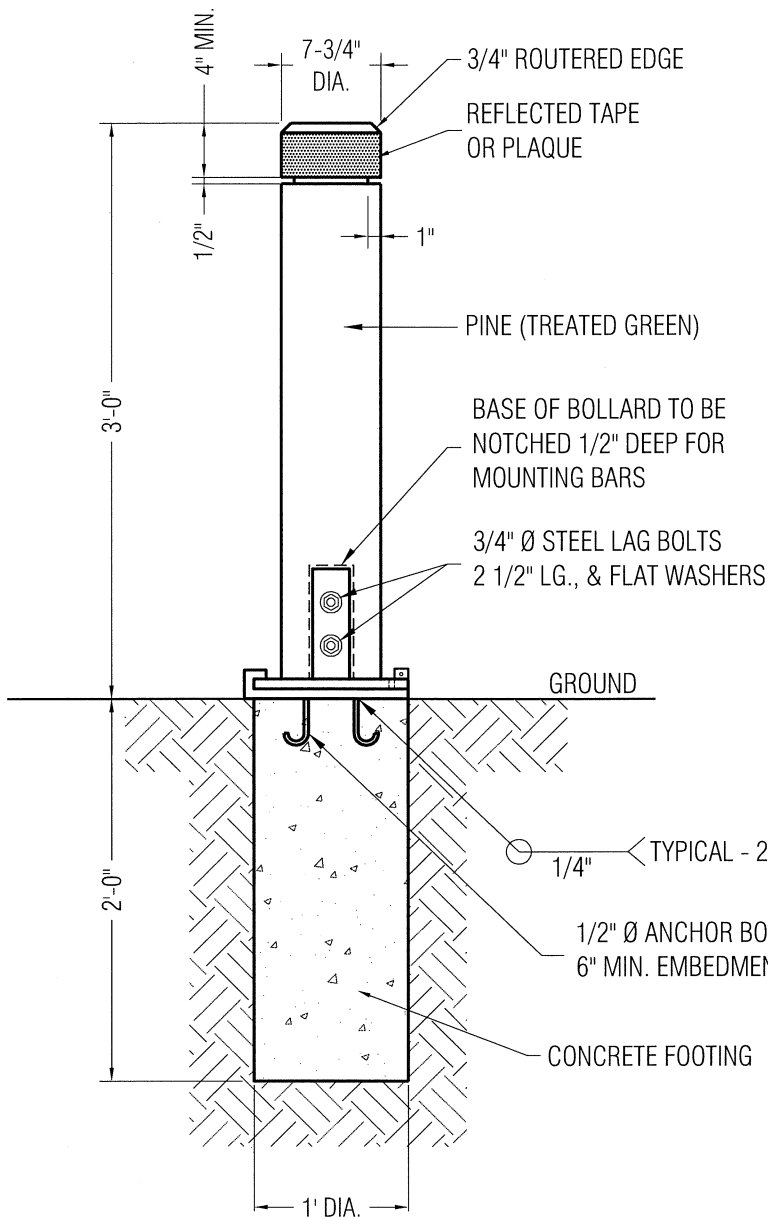
Date

Description	Date

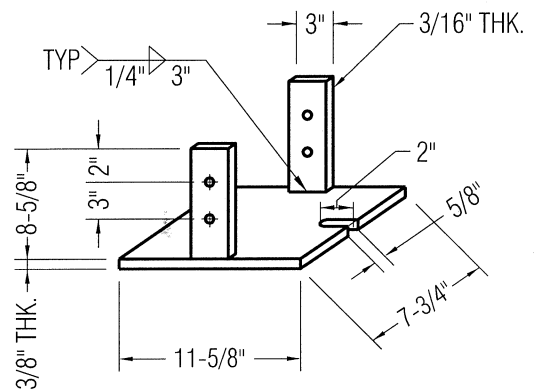
ENGINEERING DIVISION

FIXED BOLLARD

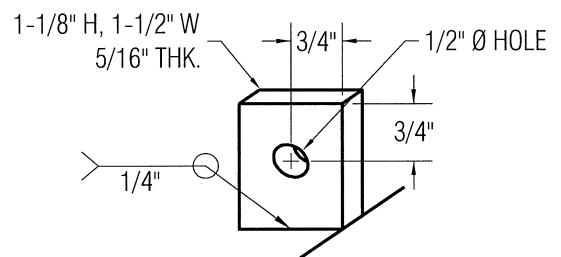
LI-9



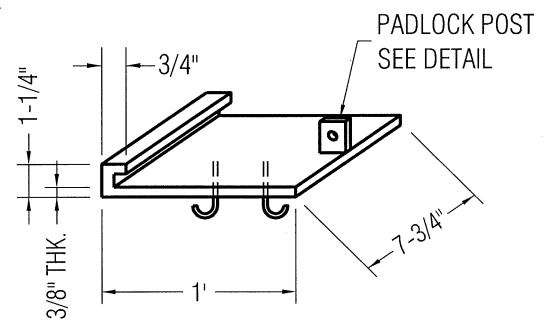
NOTE:
ALL METAL ITEMS SHALL BE MADE OF GALVANIZED STEEL



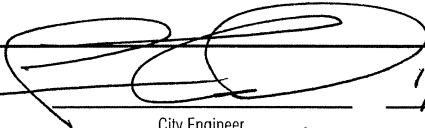
MOUNTING PLATE

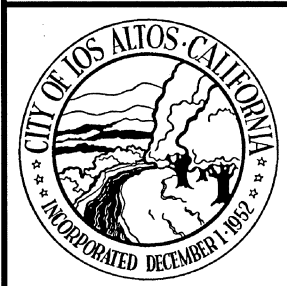


PADLOCK POST



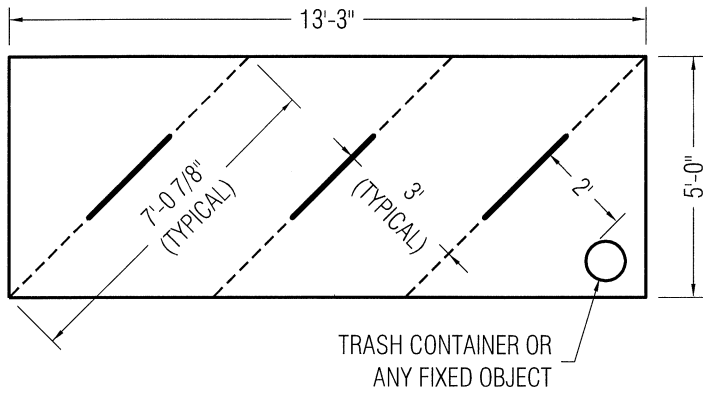
MOUNTING PLATE BASE

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City Engineer Date



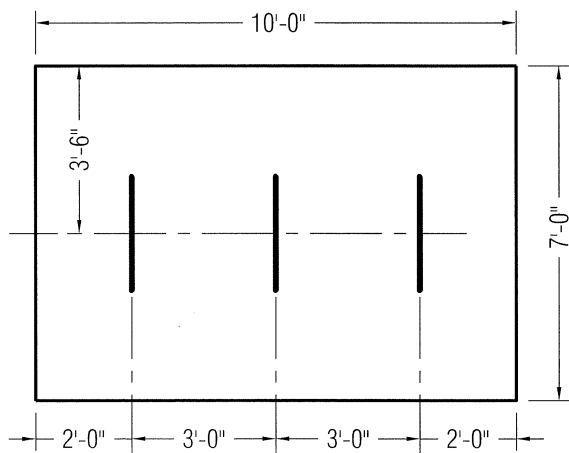
REVISION	
Description	Date

ENGINEERING DIVISION	
REMOVABLE BOLLARD	LI-10

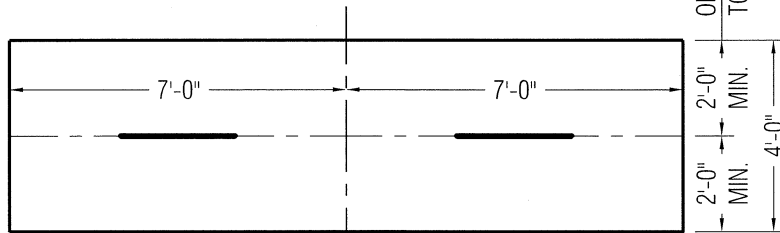


PLAN VIEW

3/8" ϕ ROUNDED CORNERS
BOLTS SHALL BE 1/2" ϕ x 4"
CONCRETE WEDGE ANCHORS
WITH HEX HEAD

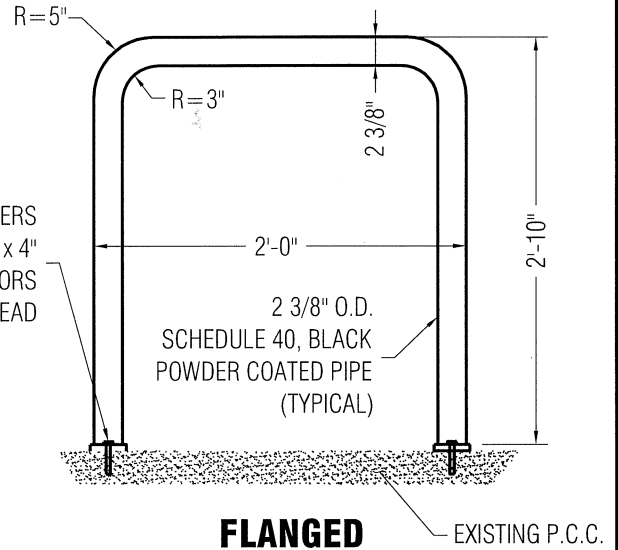
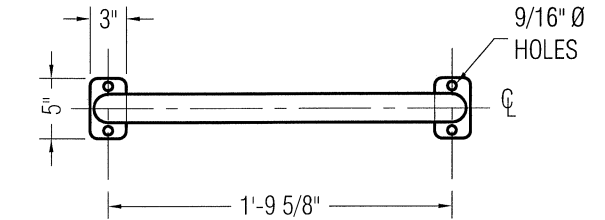


PLAN VIEW

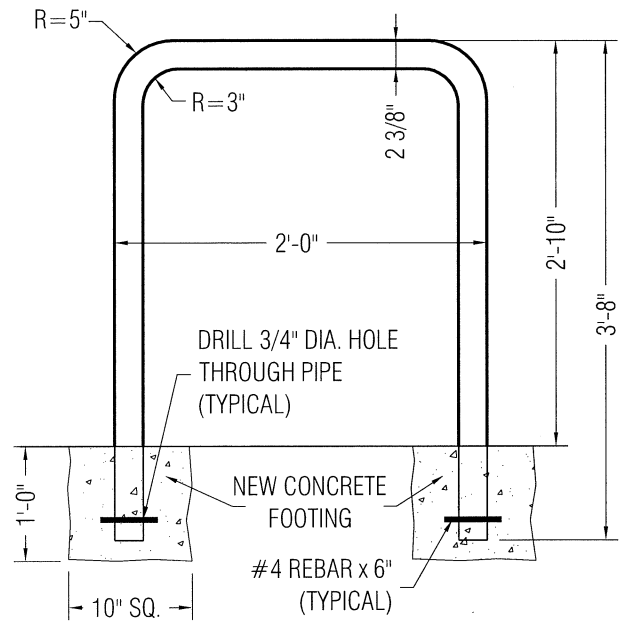


PLAN VIEW

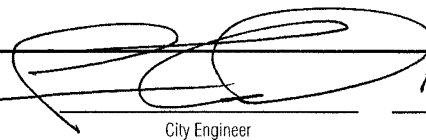
OR 4'-0" WHEN ADJACENT
TO PARALLEL PARKED CARS

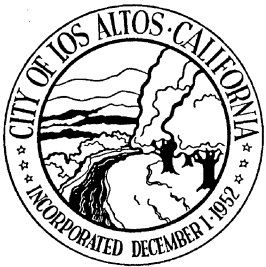


FLANGED



IN GROUND

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City Engineer Date

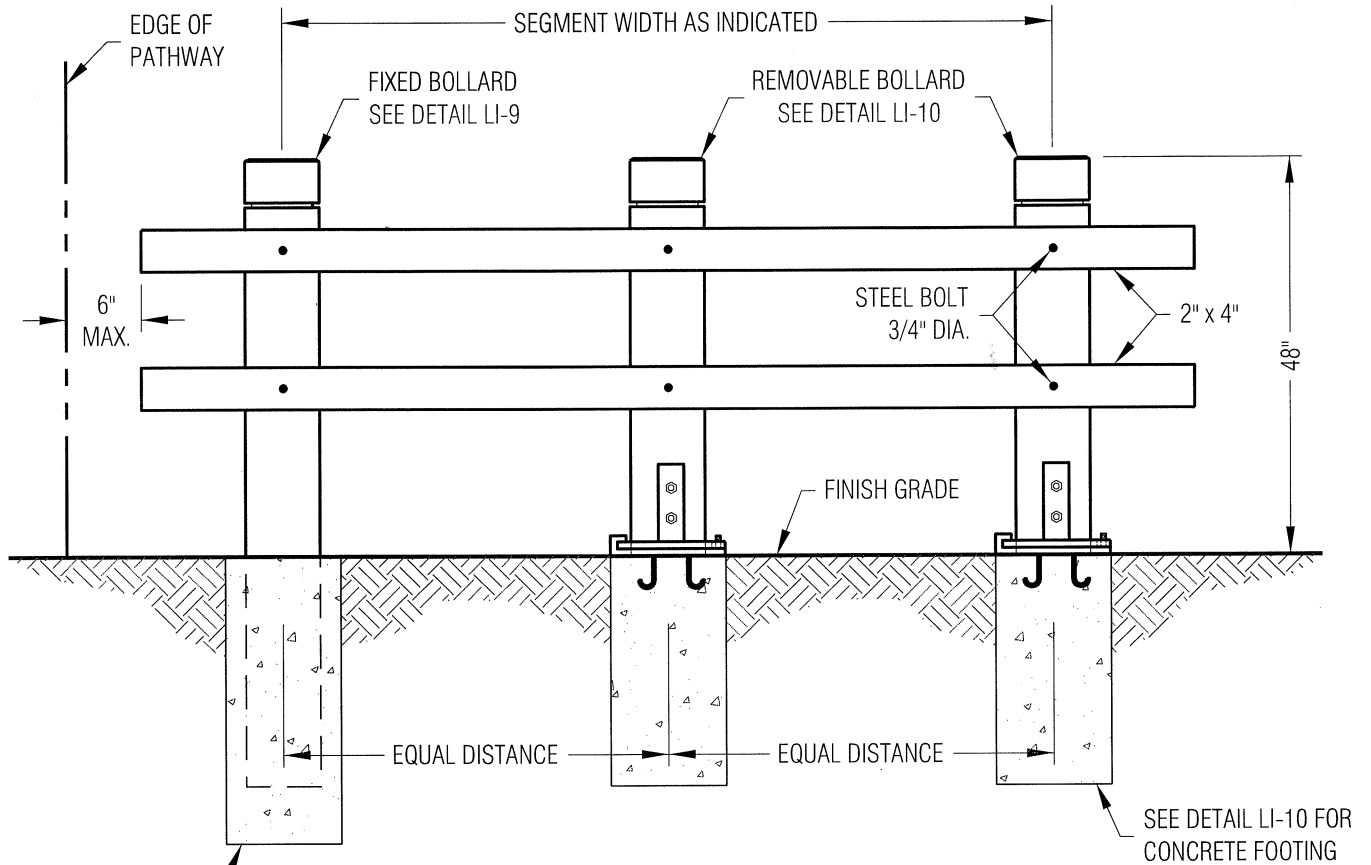


REVISION	
Description	Date

ENGINEERING DIVISION

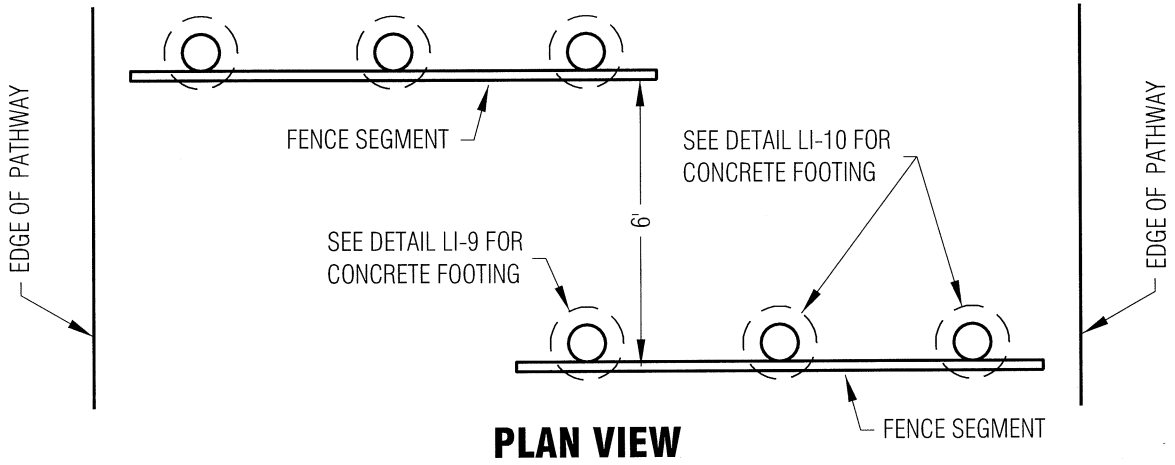
**BICYCLE RACK
DETAILS AND
INSTALLATION PLANS**

LI-11

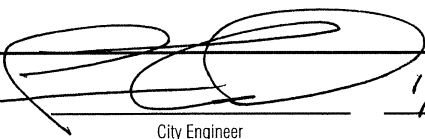


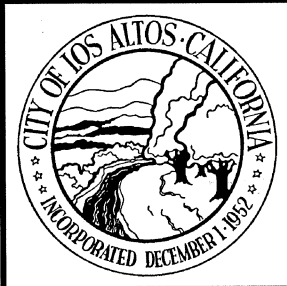
WOOD MAZE DETAILS

SEE DETAIL LI-9 FOR CONCRETE FOOTING



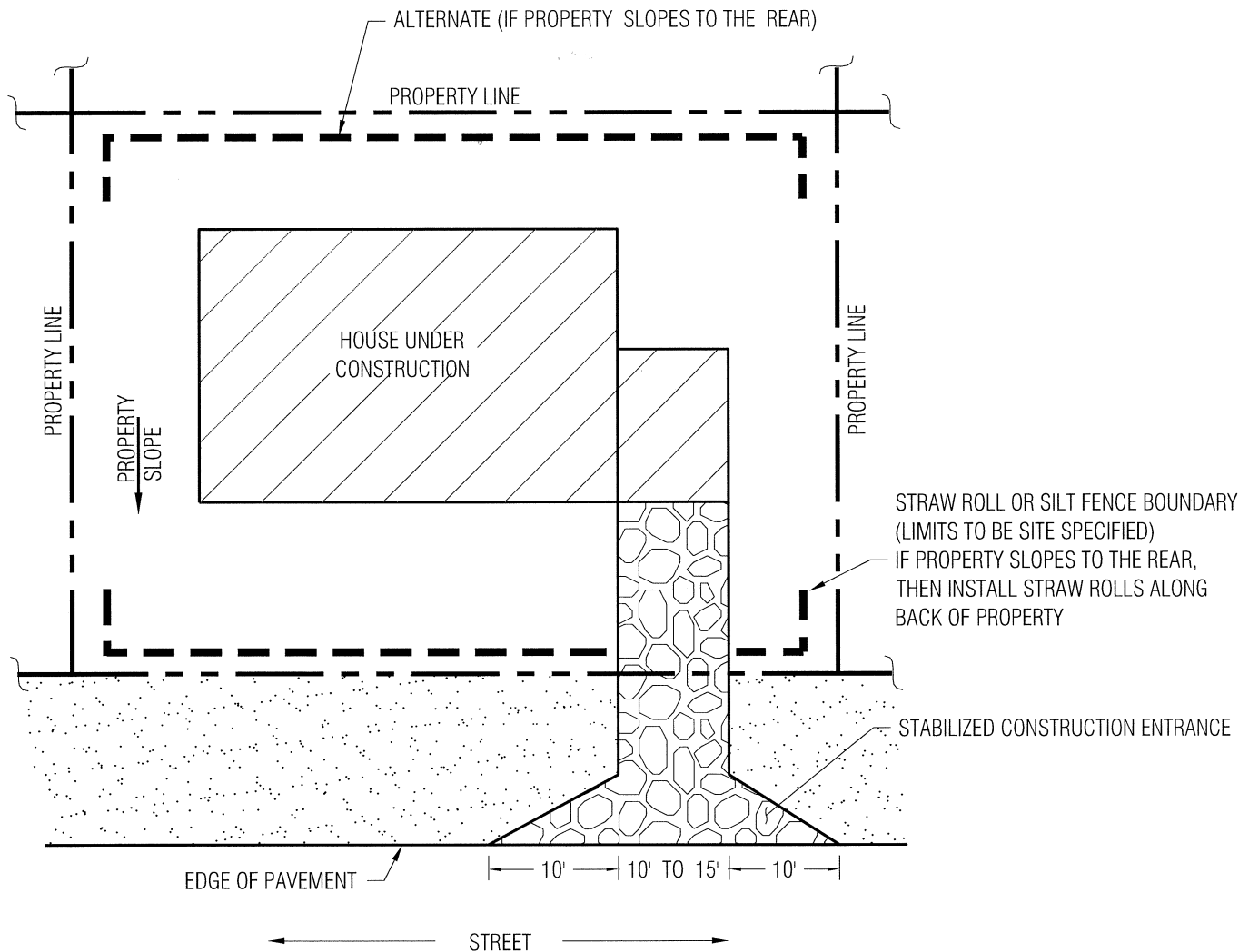
PLAN VIEW

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 City Engineer Date

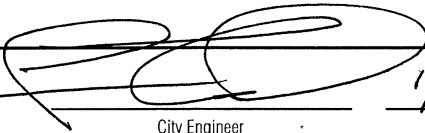


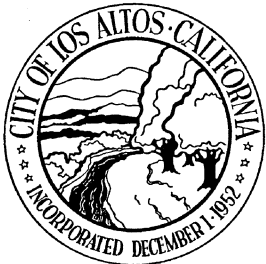
REVISION	
Description	Date

ENGINEERING DIVISION	
WOOD MAZE DETAILS	LI-12



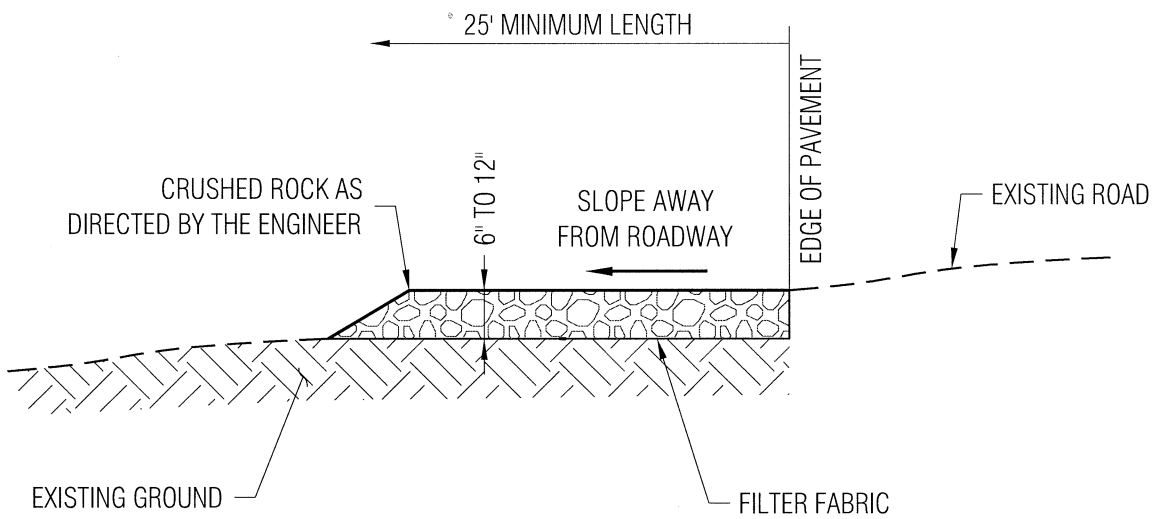
GENERIC CONSTRUCTION SITE PLAN

Approved:  1/4/10
 City Engineer Date



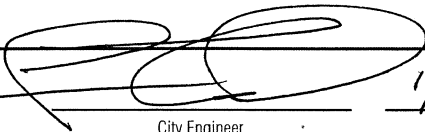
REVISION	
Description	Date

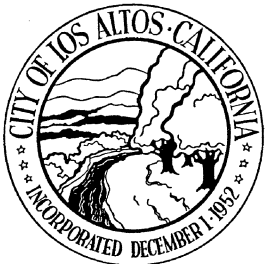
ENGINEERING DIVISION	
TYPICAL EROSION AND SEDIMENT CONTROL AT SINGLE FAMILY CONSTRUCTION SITE	EC-1



NOTES:

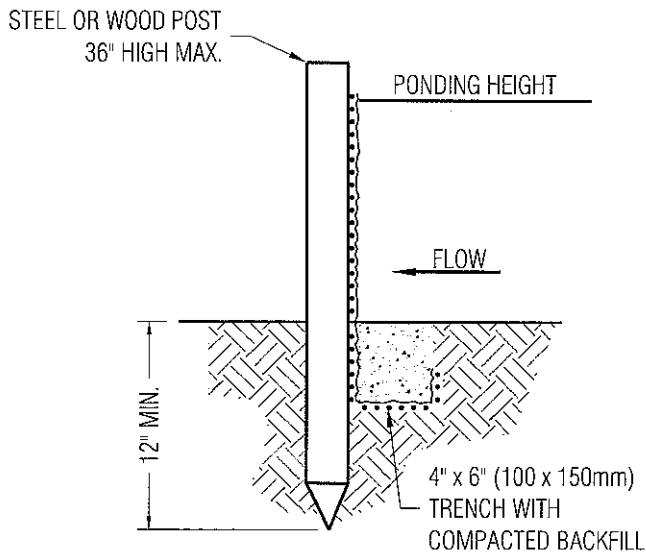
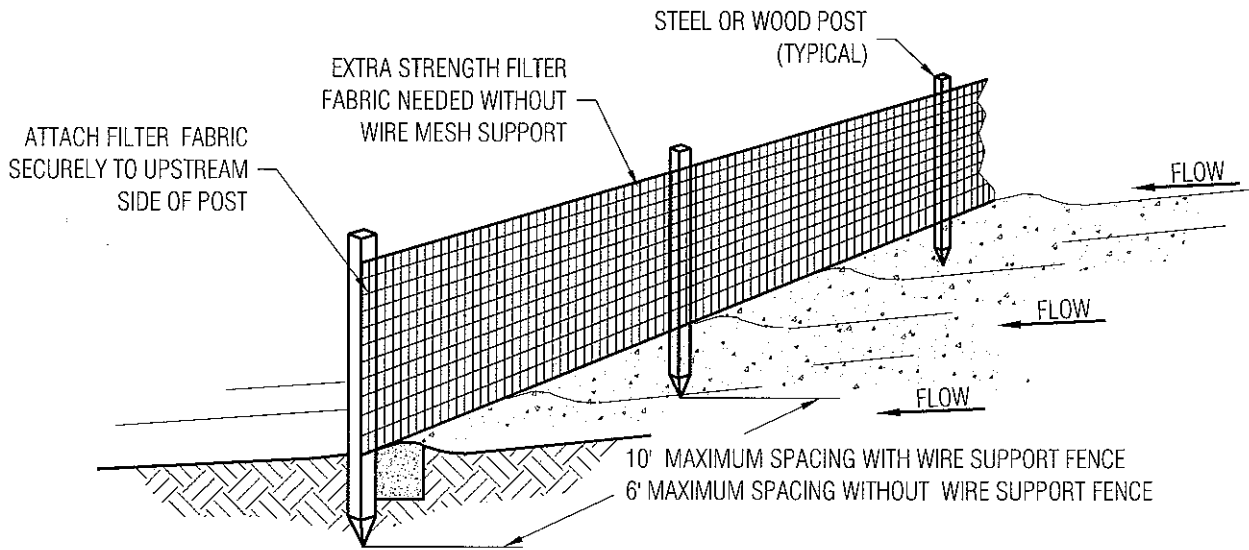
1. PROVIDE A FANNED STABILIZED CONSTRUCTION ENTRANCE TO ACCOMODATE THE TURNING RADIUS OF CONSTRUCTION EQUIPMENT ON AND OFF THE PUBLIC STREET
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE ALONG NEW DRIVEWAY CORRIDOR FOR THE FULL PROPOSED WIDTH

Approved:  1/4/10
 City Engineer Date

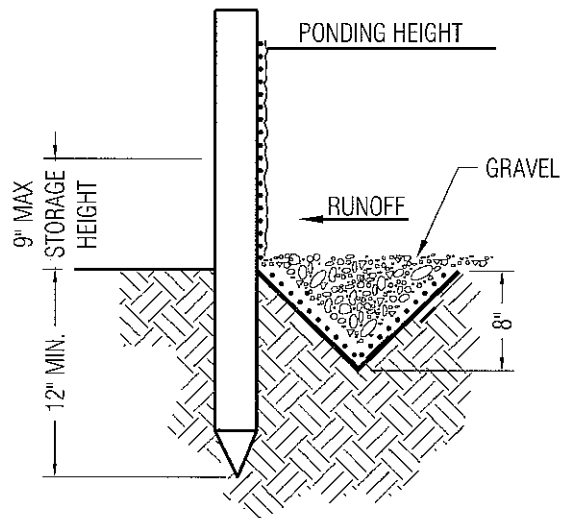


REVISION	
Description	Date

ENGINEERING DIVISION	
STABILIZED CONSTRUCTION SITE ENTRANCE	EC-2



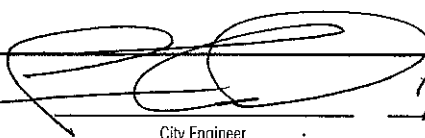
**STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL**

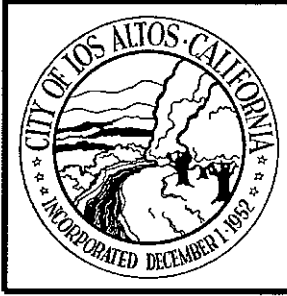


**ALTERNATE DETAIL
TRENCH WITH GRAVEL**

NOTES:

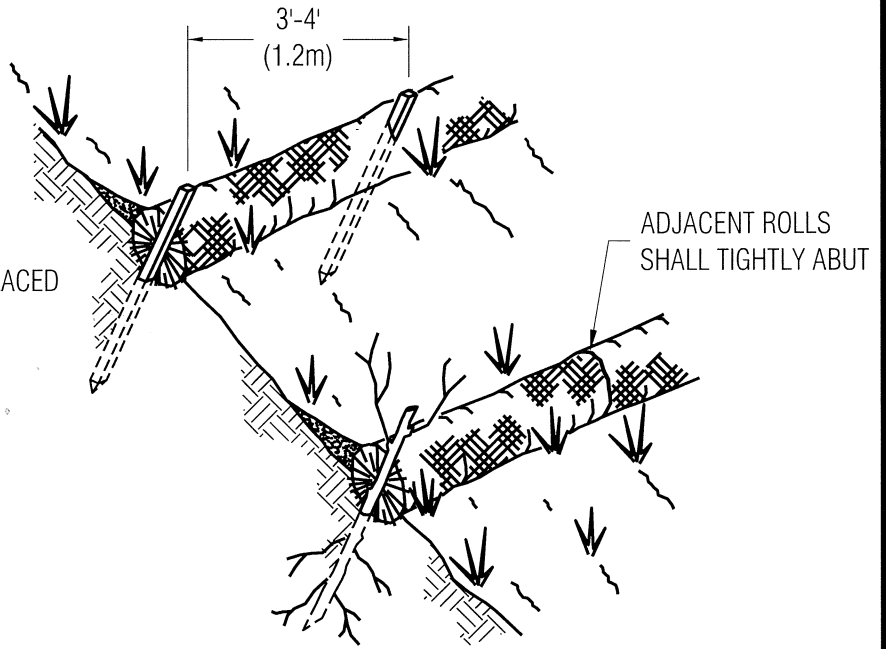
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHERE NECESSARY
2. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT TO RUN OFF-SITE AND CAN BE PERMANENTLY STABILIZED
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY

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 City Engineer Date

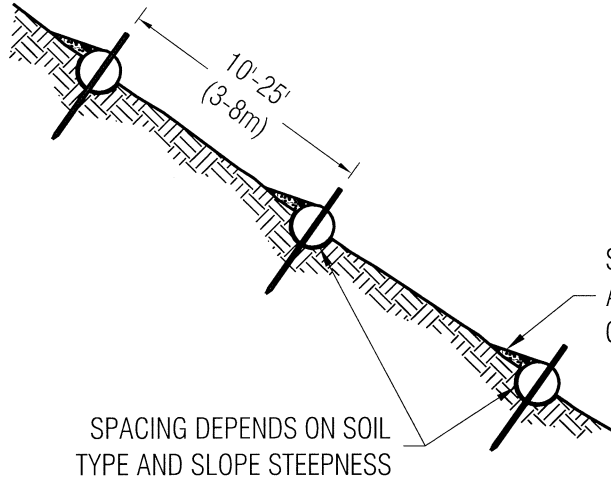


REVISION	
Description	Date

ENGINEERING DIVISION	
SILT FENCE	EC-3

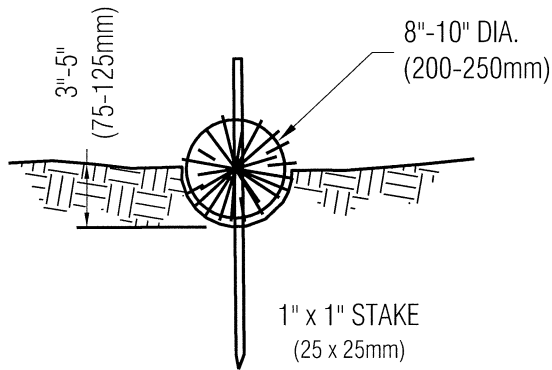


NOTE:
STRAW ROLLS MUST BE PLACED
ALONG SLOPE CONTOURS



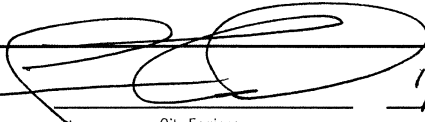
SPACING DEPENDS ON SOIL
TYPE AND SLOPE STEEPNESS

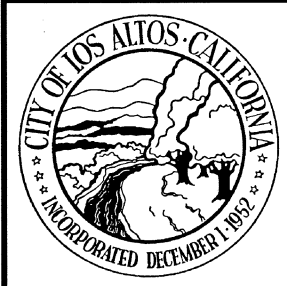
SEDIMENT, ORGANIC MATTER,
AND NATIVE SEEDS ARE
CAPTURED BEHIND THE ROLLS



NOTES:

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
2. VERTICAL SPACING FOR SLOPE INSTALLATIONS
 - 1:1 SLOPES = 10 FEET APART
 - 2:1 SLOPES = 20 FEET APART
 - 3:1 SLOPES = 30 FEET APART
 - 4:1 SLOPES = 40 FEET APART
 - <4:1 SLOPE = ONE ROW AT LOW POINT
3. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT TO RUN OFF-SITE AND CAN BE PERMANENTLY STABILIZED

Approved:  1/4/10
City Engineer Date



REVISION	
Description	Date

ENGINEERING DIVISION	
STRAW ROLLS	EC-4