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<b><u>DRAWING NO.</u></b>	<b><u>TITLE</u></b>
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<b><u>DRAWING NO.</u></b>	<b><u>TITLE</u></b>
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<b><u>DRAWING NO.</u></b>	<b><u>TITLE</u></b>
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**RECYCLED WATER**

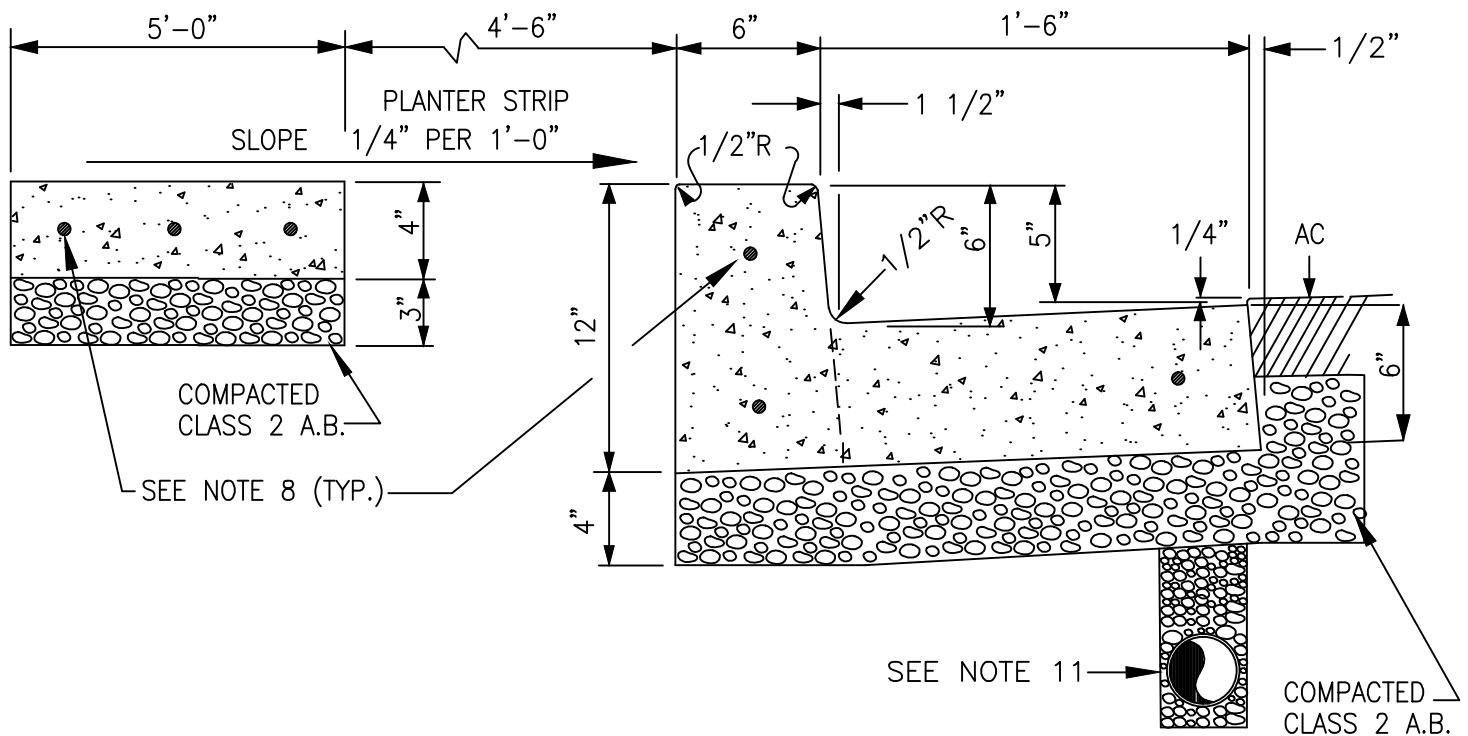
1001	RECYCLED WATER SERVICE
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<b><u>DRAWING NO.</u></b>	<b><u>TITLE</u></b>
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1104	CATHODIC PROTECTION SYSTEM – DETAILS 4
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1106	CATHODIC PROTECTION SYSTEM – DETAILS 6
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1108	CATHODIC PROTECTION SYSTEM – DETAILS 8
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1111	CATHODIC PROTECTION SYSTEM – DETAILS 11
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### GENERAL NOTES FOR CURB, GUTTER & SIDEWALK:

- 1.) LANDSCAPE TREATMENT OF PLANTER STRIP SUBJECT TO CITY APPROVAL.
- 2.) SEE DETAIL NO. 102 FOR SIMILAR SCORING DETAILS.
- 3.) ROOT BARRIERS ARE REQUIRED ON BOTH SIDES WHEN TREES ARE PLANTED WITHIN PLANTER STRIP.
- 4.) WHEN REPLACING EXISTING CURB & GUTTER, THE EXISTING ASPHALT SHALL BE SAW CUT 12" FROM GUTTER LIP AND REPLACED WITH FULL DEPTH ASPHALT AFTER NEW CURB & GUTTER IS PLACED.
- 5.) VAPOR BARRIER SHALL BE INSTALLED AT THE BACK OF CURB/SIDEWALK WHERE THERE IS EXPANSIVE SOIL AS DETERMINED BY CITY ENGINEER.
- 6.) SEE CITY STANDARD DETAIL NO. 208 FOR CURB THROUGH DRAIN DETAILS.
- 7.) ASPHALT SHOULD BE PAVED 1/4" ABOVE GUTTER LIP.
- 8.) WHEN TYING INTO EXISTING CONCRETE CURB, GUTTER OR SIDEWALK, THE EXISTING CONCRETE SHALL BE DOWELED WITH #4 X 18" BARS AT 18" O.C. IN SIDEWALK AND THREE EACH IN CURB. SEE DETAIL NO. 109, SECTION B-B.
- 9.) FOR COMPACTION REQUIREMENTS REFER TO STANDARD SPECIFICATIONS, SECTION 7-03A.
- 10.) SEE DETAIL NO. 824 FOR GRINDING TREE ROOTS OR RETROFITS.
- 11.) INSTALL A SUBDRAIN IN ACCORDANCE WITH DETAIL 209 AS DETERMINED BY THE CITY ENGINEER.
- 12.) CURB HEIGHTS IN COMMERCIAL AREAS MAY BE 8" HIGH. MATCH EXISTING CURB HEIGHTS.
- 13.) IN HACIENDA BUSINESS PARK SEE HBP STANDARD PLANS FOR ADDITIONAL DETAILS.

CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE "A" CURB, GUTTER  
AND SIDEWALK



DRAWN BY: STAFF

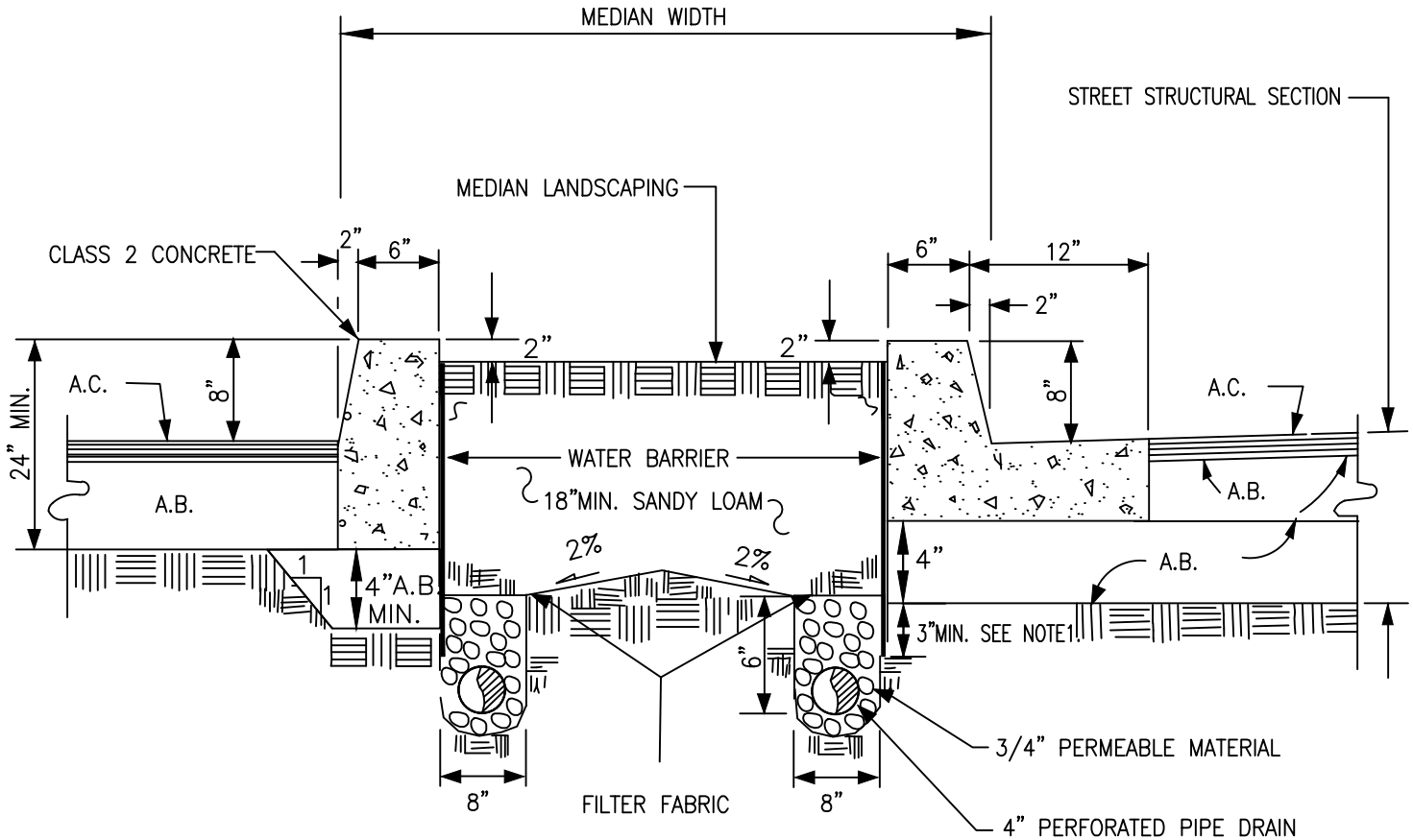
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SCALE: N.T.S.

DATE : 10/16 | DWG NO. 101







**NOTES:**

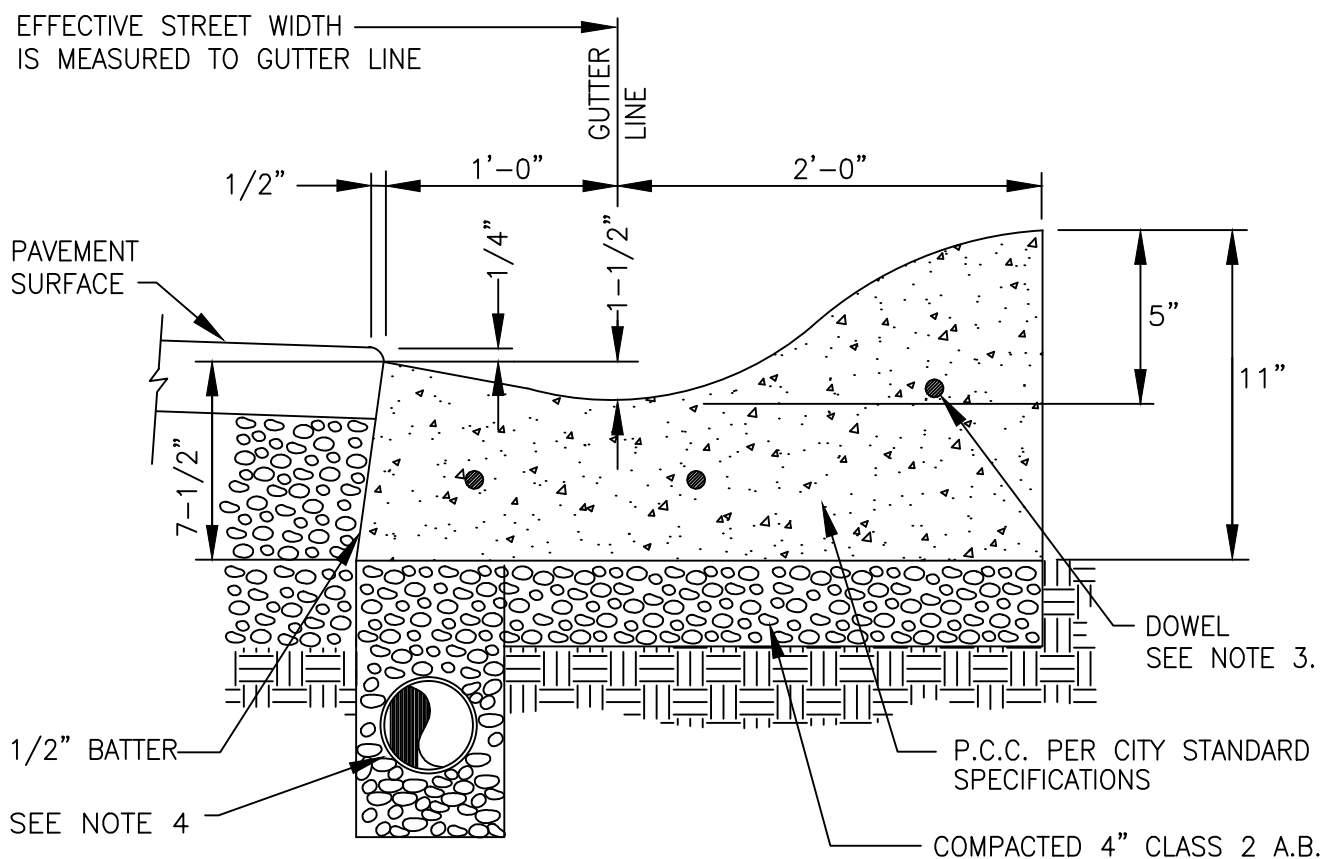
1. IMPERMEABLE WATER BARRIER SHALL BE 30" MIN. DEPTH OR SHALL EXTEND 3" INTO NATIVE SOIL, WHICH EVER IS GREATER.
2. MEDIAN ISLANDS LESS THAN 10' WIDE MAY HAVE ONE SUBDRAIN LOCATED IN THE CENTER OF THE MEDIAN.
3. NOT APPLICABLE FOR STORM WATER TREATMENT.

CITY OF PLEASANTON  
STANDARD DETAILS  
MEDIAN ISLAND CURB  
WITH LANDSCAPING

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 10/16 DWG NO. 104



## DEEP SCORE MARKS ON 10 FOOT CENTERS

### NOTES:

1. USE OF ROLLED CURB SUBJECT TO APPROVAL BY THE CITY ENGINEER
2. WHERE SIDEWALK IS ADJACENT TO CURB, THE CURB AND SIDEWALK SHALL BE POURED MONOLITHIC AND SCORED ACCORDING TO DETAIL NO. 102.
3. SEE DETAIL 101 FOR DOWELS (TYP.) AND GENERAL CURB NOTES.
4. INSTALL A SUBDRAIN IN ACCORDANCE WITH DETAIL 209 AS DETERMINED BY THE CITY ENGINEER.

CITY OF PLEASANTON  
STANDARD DETAILS  
ROLLED CURB

DRAWN BY: STAFF

CHECKED BY: AN

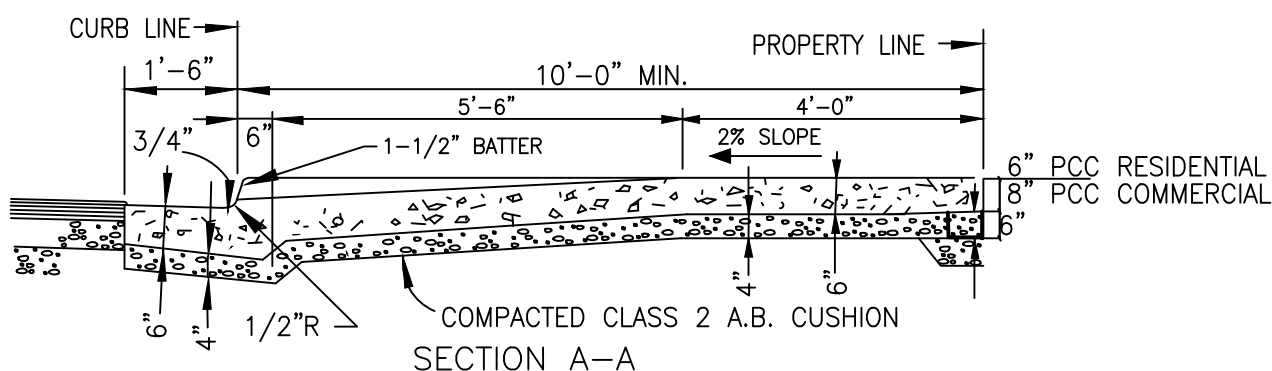
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DATE : 4/16 DWG NO. 105



## SMOOTH REVERSE CURVE TRANSITION



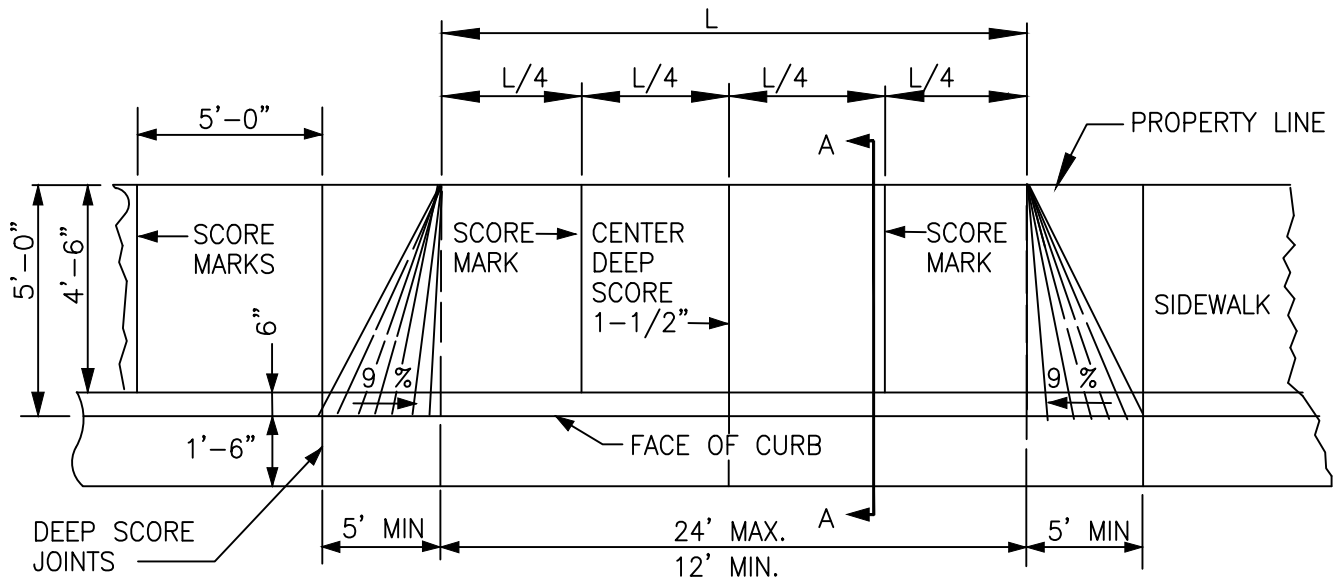
1. SEE DETAIL 101 FOR GENERAL NOTES.

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SCALE: N.T.S.		

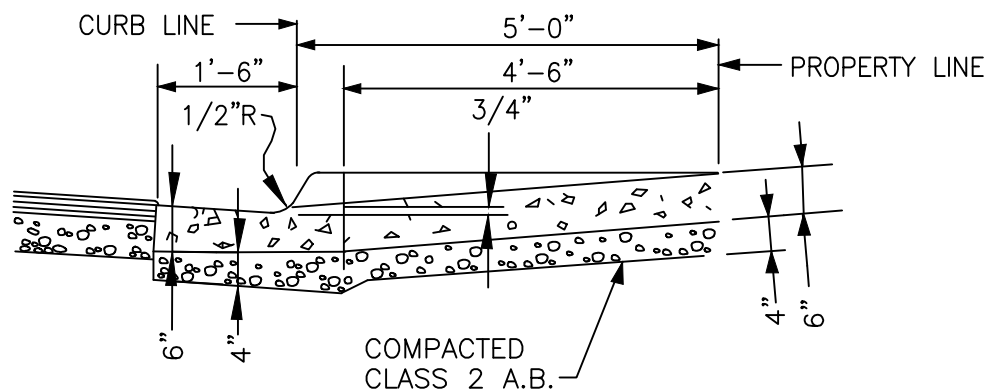
CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE "A"  
DRIVEWAY APPROACH



DATE : 4/16	DWG NO. 106
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PLAN



SECTION A-A

NOTES:

- 1.) NOT TO BE USED UNLESS APPROVED BY CITY ENGINEER TO REPLACE EXISTING DRIVEWAYS AND SIDEWALKS MONOLITHIC TO CURB AND GUTTER.
- 2.) NOT TO BE USED WITH 8 INCH HIGH CURB OR COMMERCIAL DRIVEWAY.
- 3.) SEE DETAIL 101 FOR GENERAL NOTES.

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SCALE: N.T.S.		

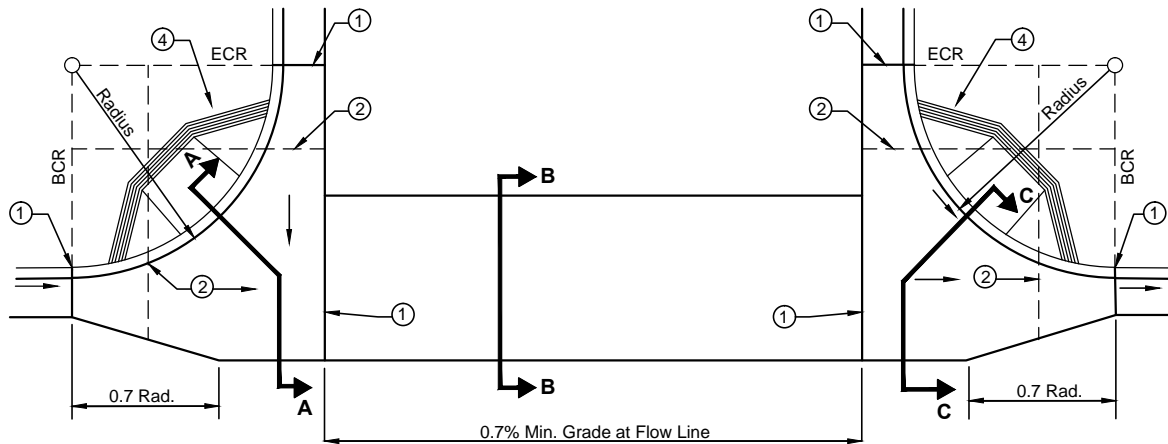
CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE "B"  
DRIVEWAY APPROACH



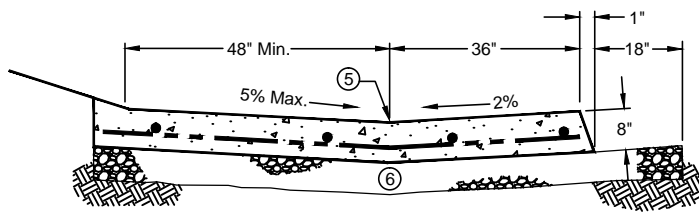
DATE : 10/16 DWG NO. 107



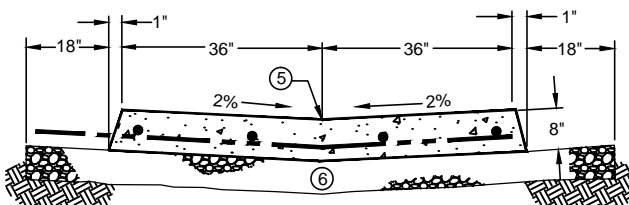




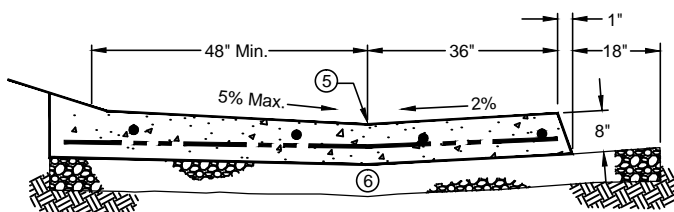
**PLAN**



**SECTION A-A**  
(UPHILL SIDE)



**SECTION B-B**



**SECTION C-C**  
(DOWNHILL SIDE)

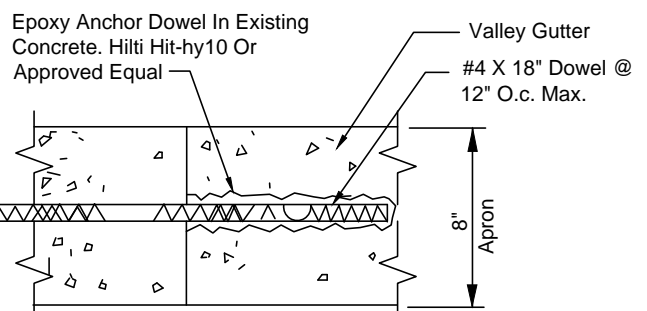
1. Use Of Concrete Valley Gutter Subject To Approval By Engineer.
2. The Design Engineer Shall Specify The F/I Elev. As Noted In Addition To The Standard Curb Return Elev.
3. See Detail 101 For General Notes. 4. Dashed Lines With Arrows Indicate Flow Lines.

**INSTALLATION NOTES:**

- ① Standard expansion joint, see Note ③
- ② If curb return radius is 20' or larger, spandrels shall have extra expansion joints at locations to be determined by the City Engineer. Rebar shall be cut and dowels installed per Note ③
- ③ All expansion joints shall have 1/2"x18" smooth dowels @ 22" O.C., wrapped or greased.
- ④ See City Standards for note regarding required curb ramps.
- ⑤ All flowlines shall have an 8" wide steel-trowel finish.
- ⑥ 6" Class 2 aggregate base.

**GENERAL NOTES:**

- A. All PCC shall be Class 2, including curb.
- B. See City Standard 101 for notes regarding required pavement removal and repair.
- C. Curb ramps shall be install with cross gutter for monolithic pour, no joints will be allowed.



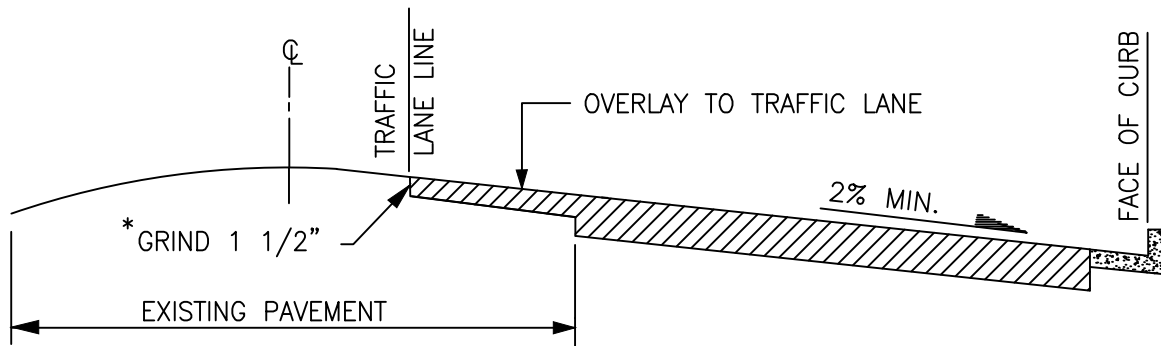
**SECTION B-B**

CITY OF PLEASANTON  
STANDARD DETAILS  
CONCRETE VALLEY GUTTER  
AND APRON

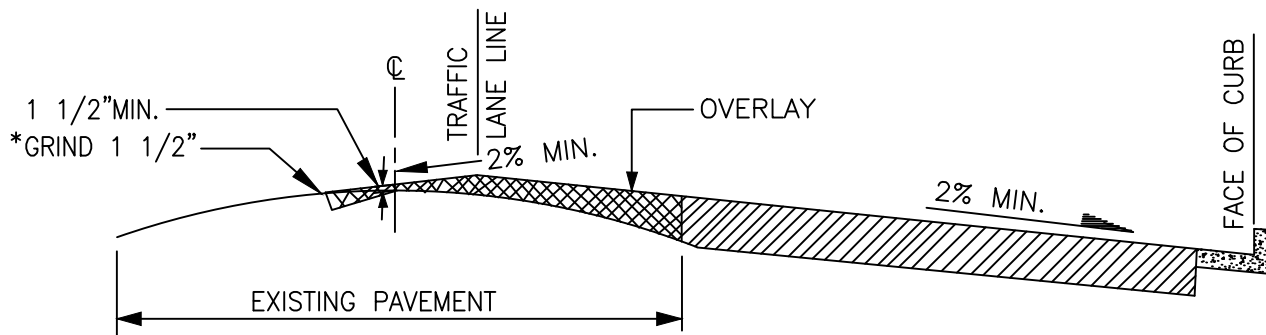
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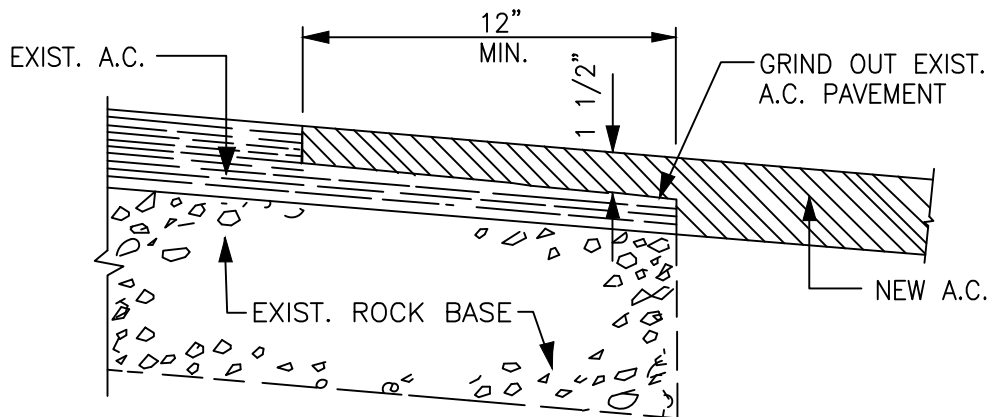
DATE : 4/16 DWG NO. 109



CASE I - CONFORM TO CROWN OF PAVEMENT (STREET WIDENING)



CASE II - CROWN OF PAVEMENT LOW WIDTH OF GRIND TO BE FIELD VERIFIED



A.C. LAP JOINT DETAIL

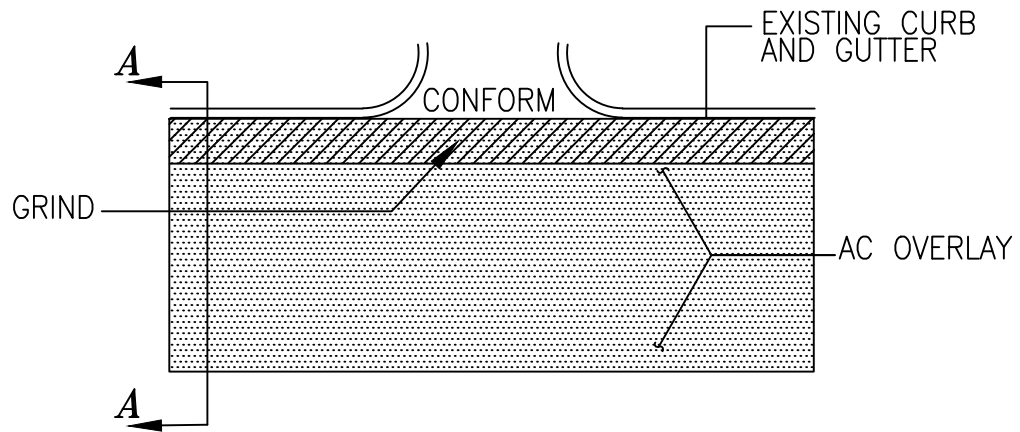
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CITY OF PLEASANTON  
STANDARD DETAILS

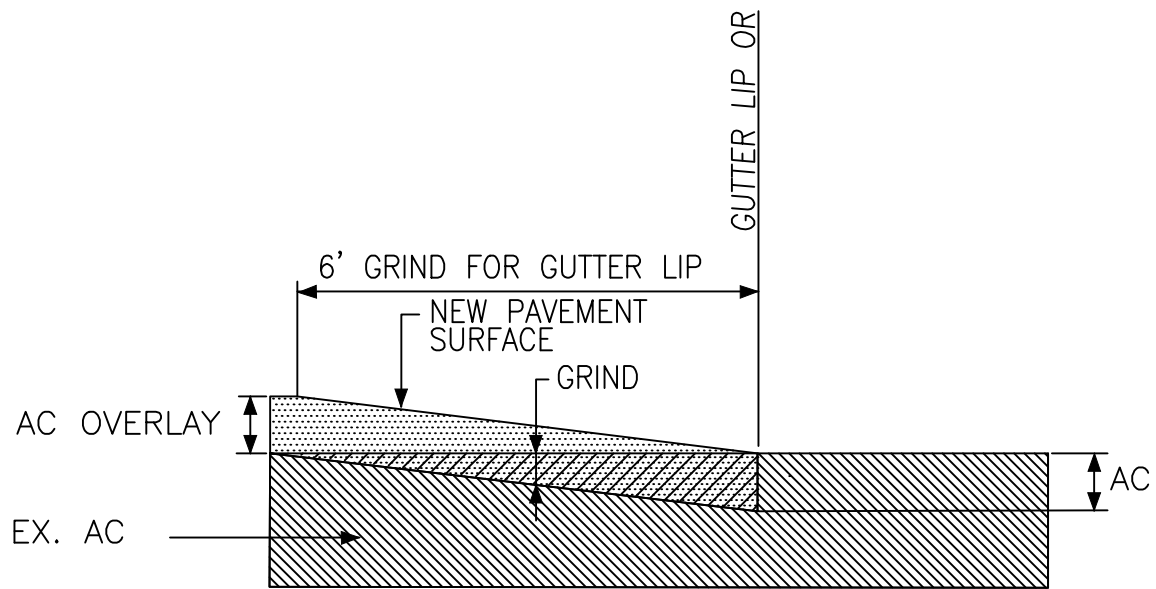
CONFORM TO PAVEMENT



DATE : 4/16 | DWG NO. 110



PLAN



SECTION A-A

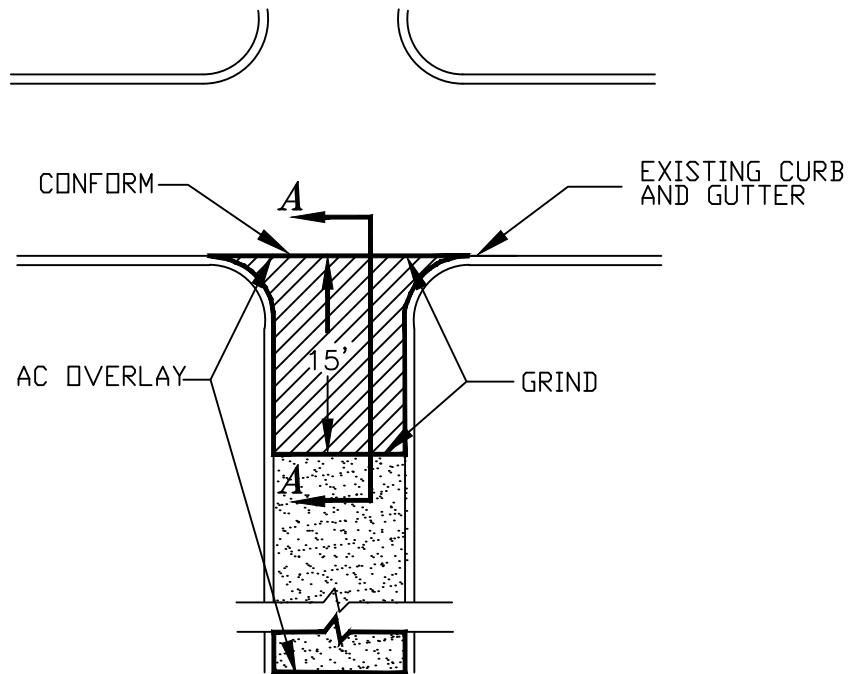
CITY OF PLEASANTON  
STANDARD DETAILS

CONFORM PAVEMENT TO GUTTER

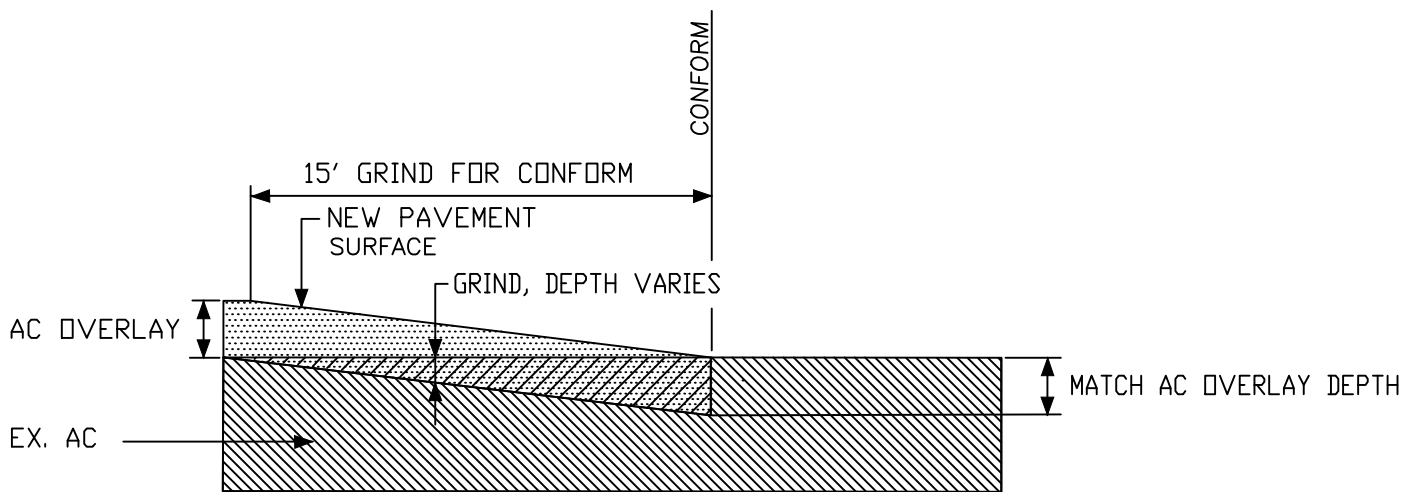
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DATE : 4/16 | DWG NO. 111



PLAN



SECTION A-A

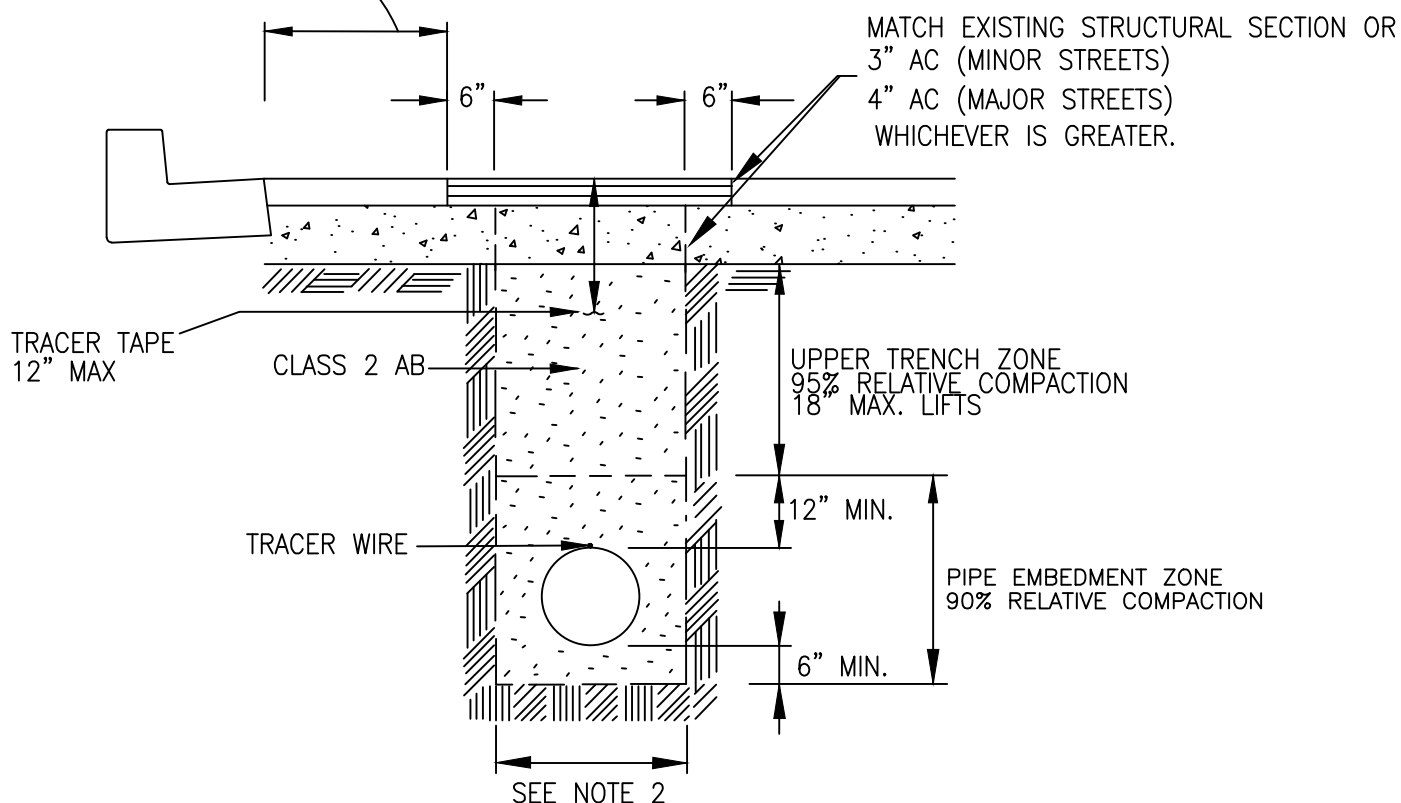
CITY OF PLEASANTON  
STANDARD DETAILS  
CONFORM NEW PAVEMENT  
TO EXISTING PAVEMENT



DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.

DATE : 4/16 DWG NO. 112

IF 2' OR LESS,  
REPAVE TO LIP  
OF GUTTER



#### NOTES:

1. BACKFILL COMPACTION SHALL BE CERTIFIED BY THE SOILS ENGINEER.
2. SEE SPECIFICATIONS FOR TRENCH WIDTH REQUIREMENTS.
3. CEMENT TREATED BASE MAY BE REQUIRED INSTEAD OF AB WHEN SPECIFIED BY THE ENGINEER.
4. TRENCH WIDTH OF 4" OR LESS SHALL BE BACKFILLED WITH 2 SACK CONCRETE SLURRY UPON APPROVAL OF THE CITY ENGINEER.

## CITY OF PLEASANTON

### STANDARD DETAILS

### TRENCH BACKFILL FOR STREETS

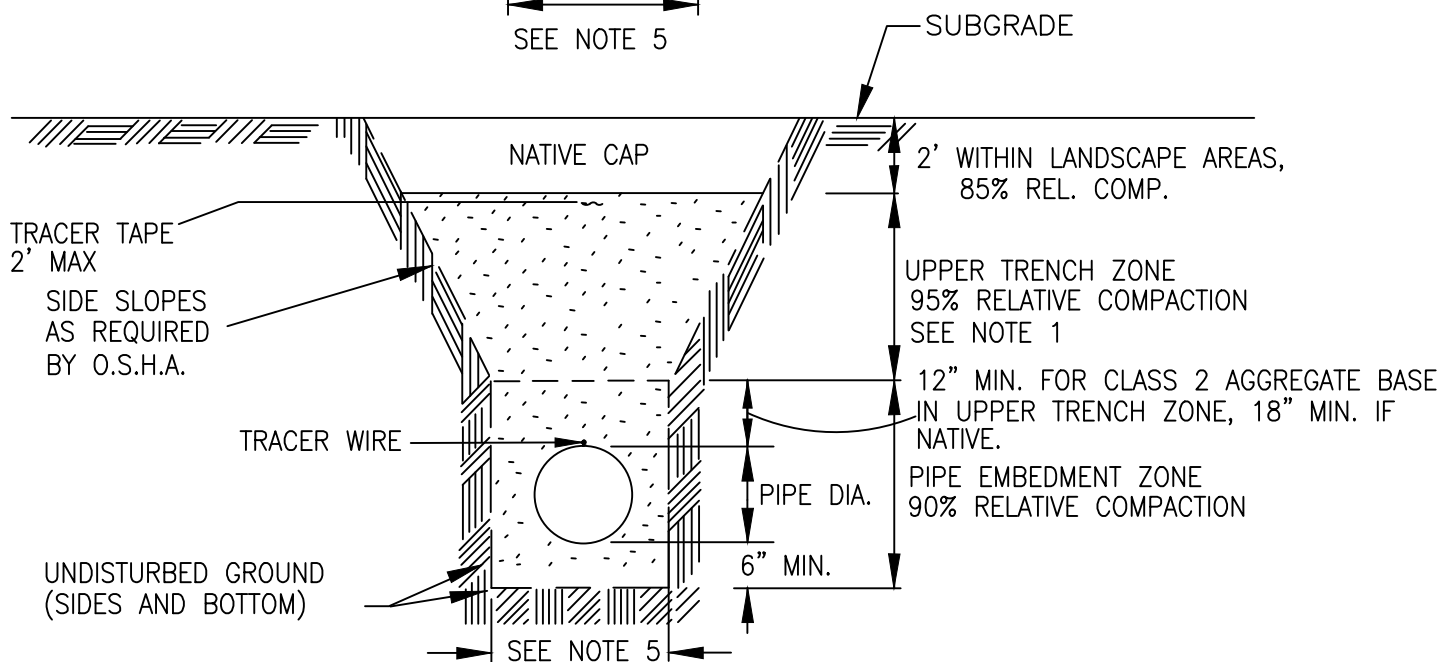
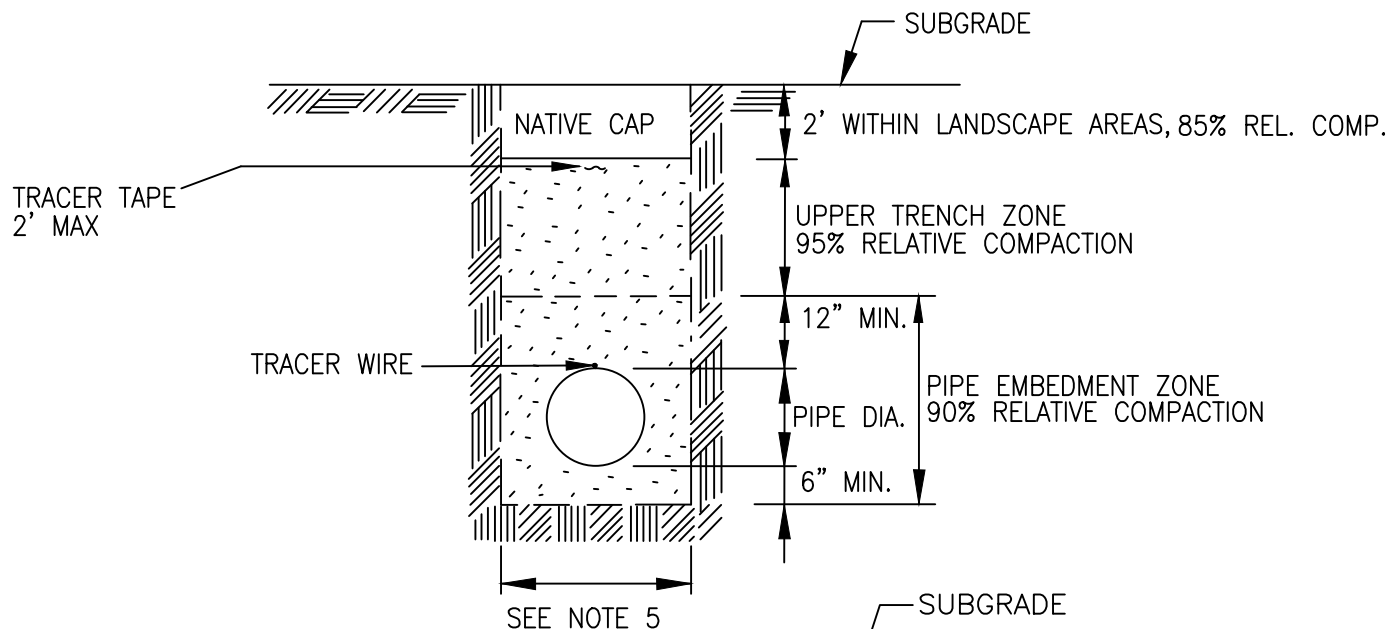
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SCALE: N.T.S.



DATE : 4/16 DWG NO. 113



**NOTES:**

1. NATIVE MATERIAL MAY BE USED WHEN SPECIFICALLY APPROVED BY ENGINEER.
2. THIS DETAIL DOES NOT APPLY TO EXISTING PAVED STREETS.
3. BACK FILL COMPACTION SHALL BE CERTIFIED BY SOILS ENGINEER.
4. 100% IMPORT IN ALL VERTICAL TRENCHES.
5. SEE SPECIFICATIONS FOR TRENCH WIDTH REQUIREMENTS.

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SCALE:	N.T.S.	

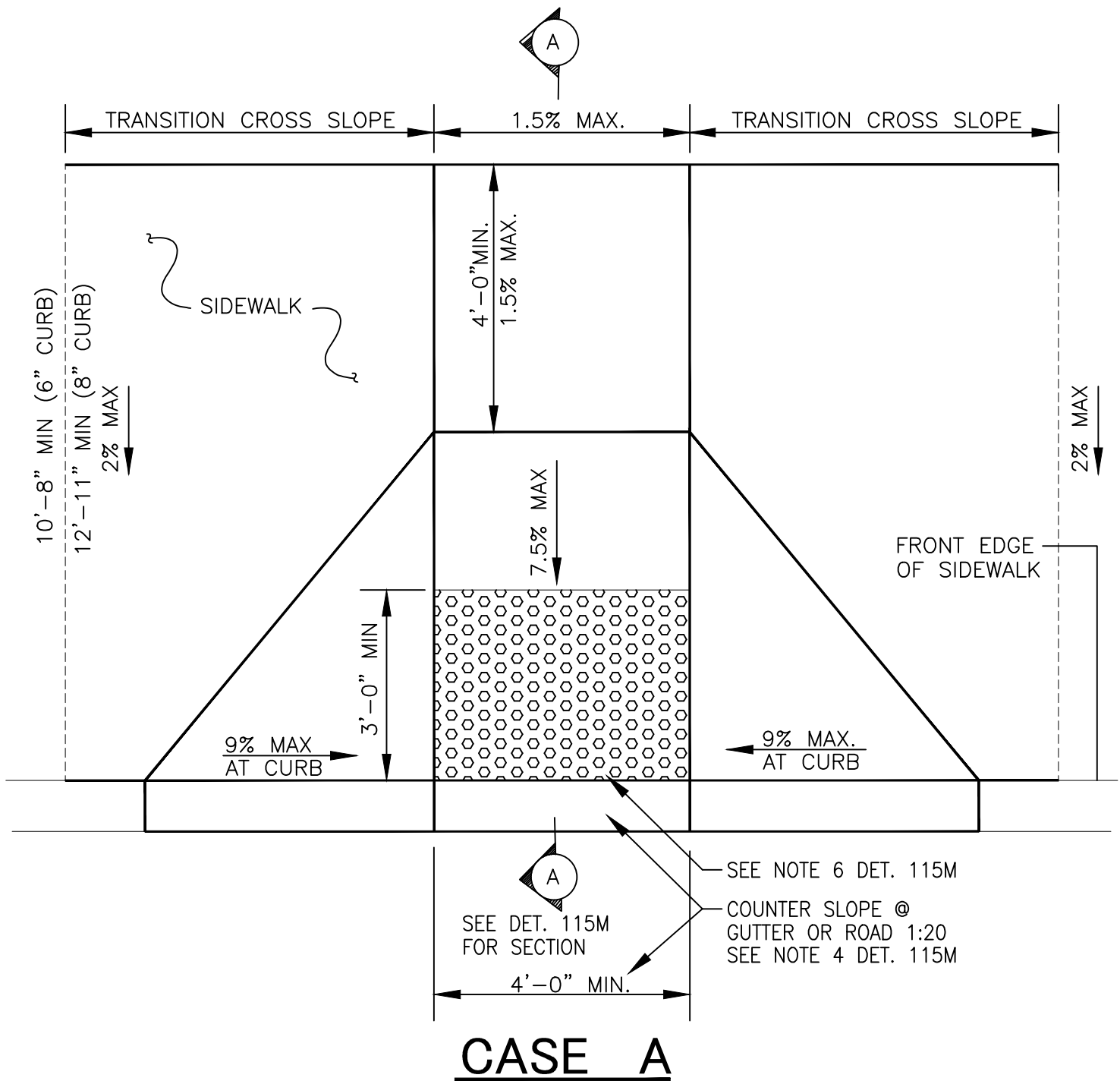
CITY OF PLEASANTON

STANDARD DETAILS

TRENCH BACKFILL FOR  
UNDEVELOPED AREAS



DATE : 4/16 DWG NO.114



**NOTE:**

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15


DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

CITY OF PLEASANTON

STANDARD DETAILS

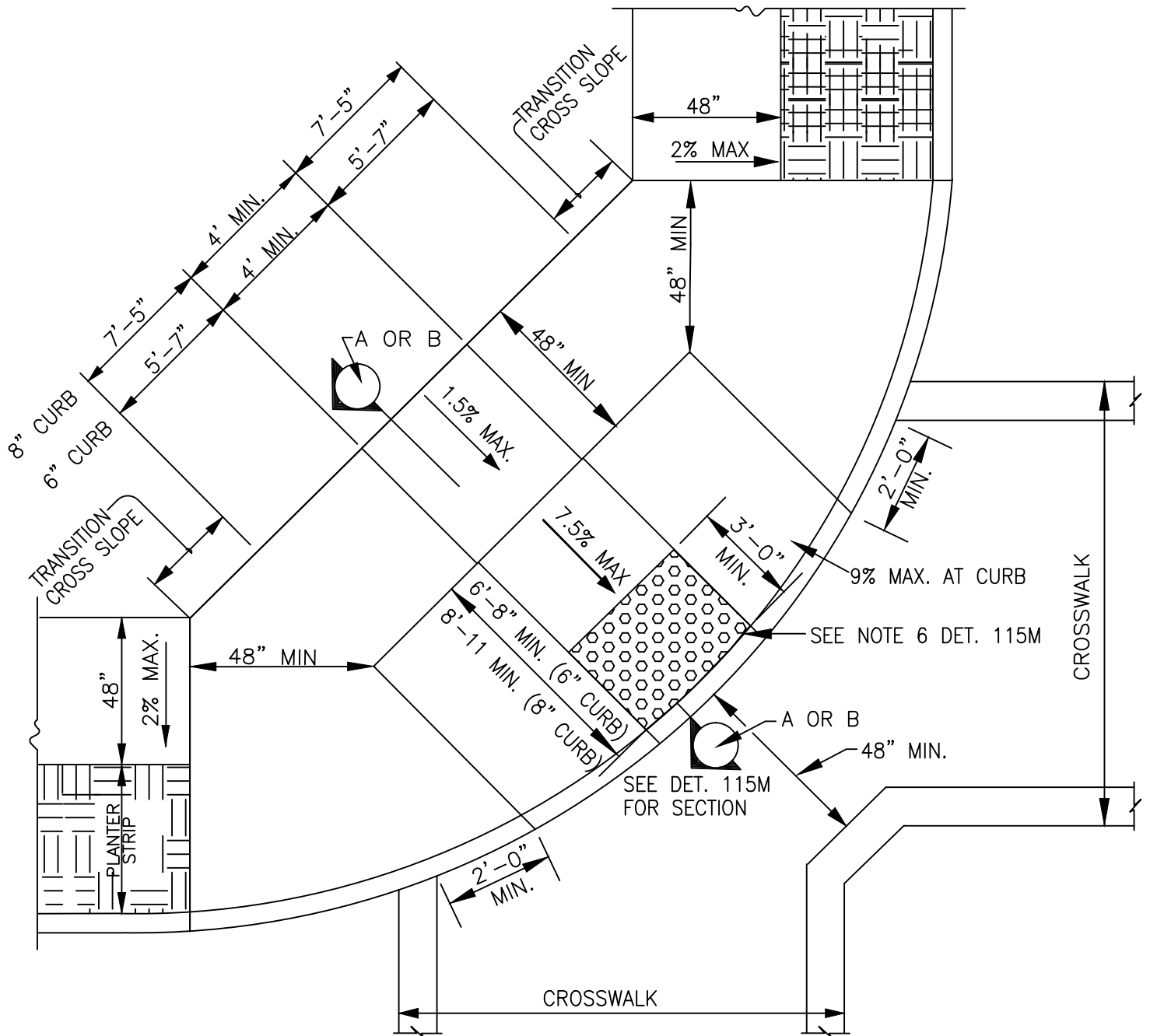
ADA RAMP



DATE: 8/15

DWG NO. 115A





## CASE A1

### NOTES:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL FOR GENERAL NOTES.
2. MAINTAIN 48" MIN. UNOBSTRUCTED AREA AROUND RAMP.

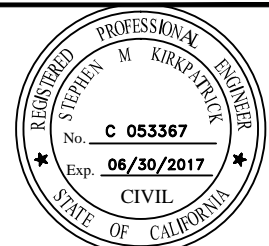
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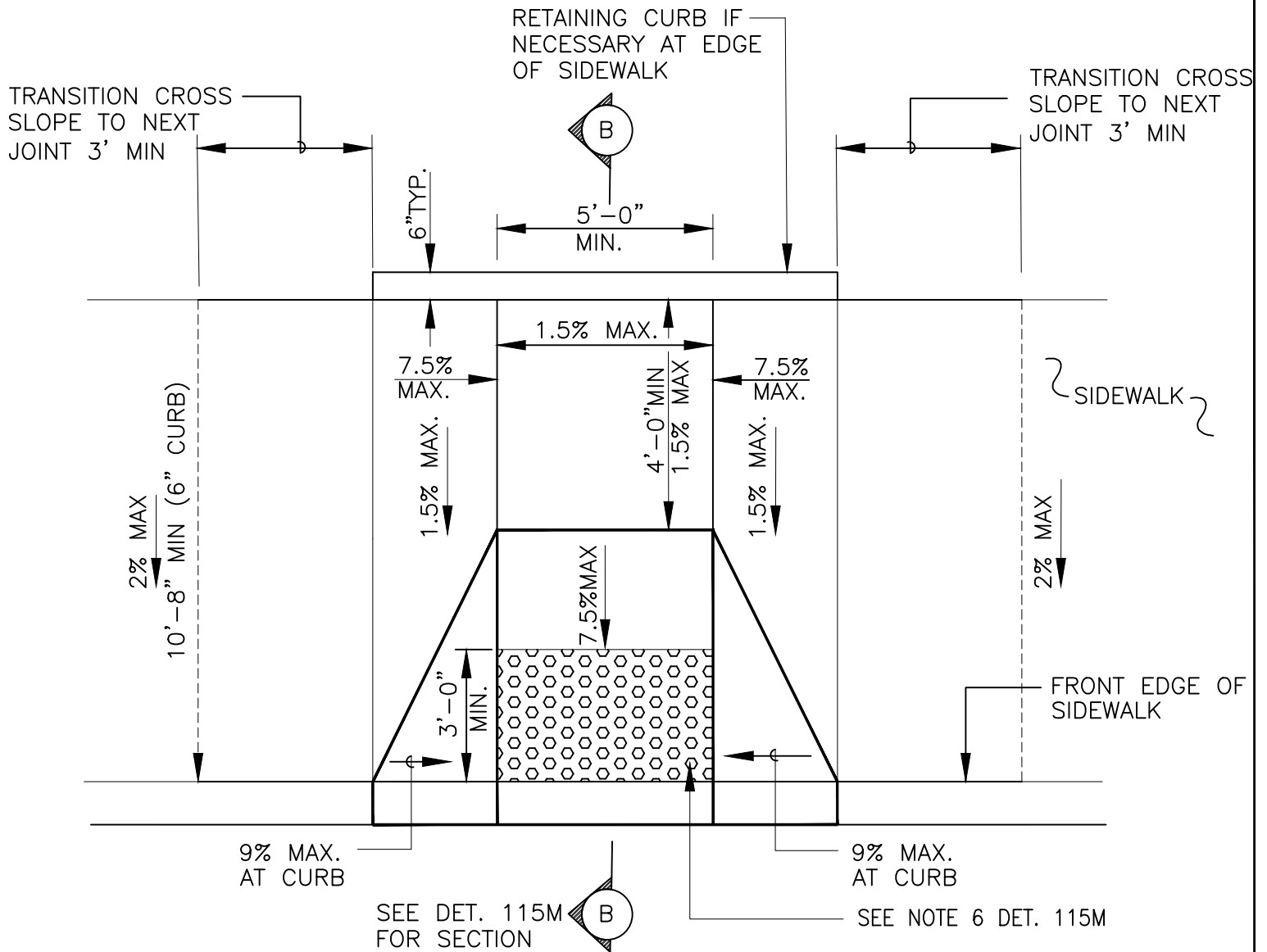
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CITY OF PLEASANTON  
STANDARD DETAILS  
ADA RAMP  
SEPARATED/SIDEWALK



DATE: 10/16 DWG NO. 115B



## CASE B

NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15

CITY OF PLEASANTON

STANDARD DETAILS

ADA RAMP

DRAWN BY: STAFF

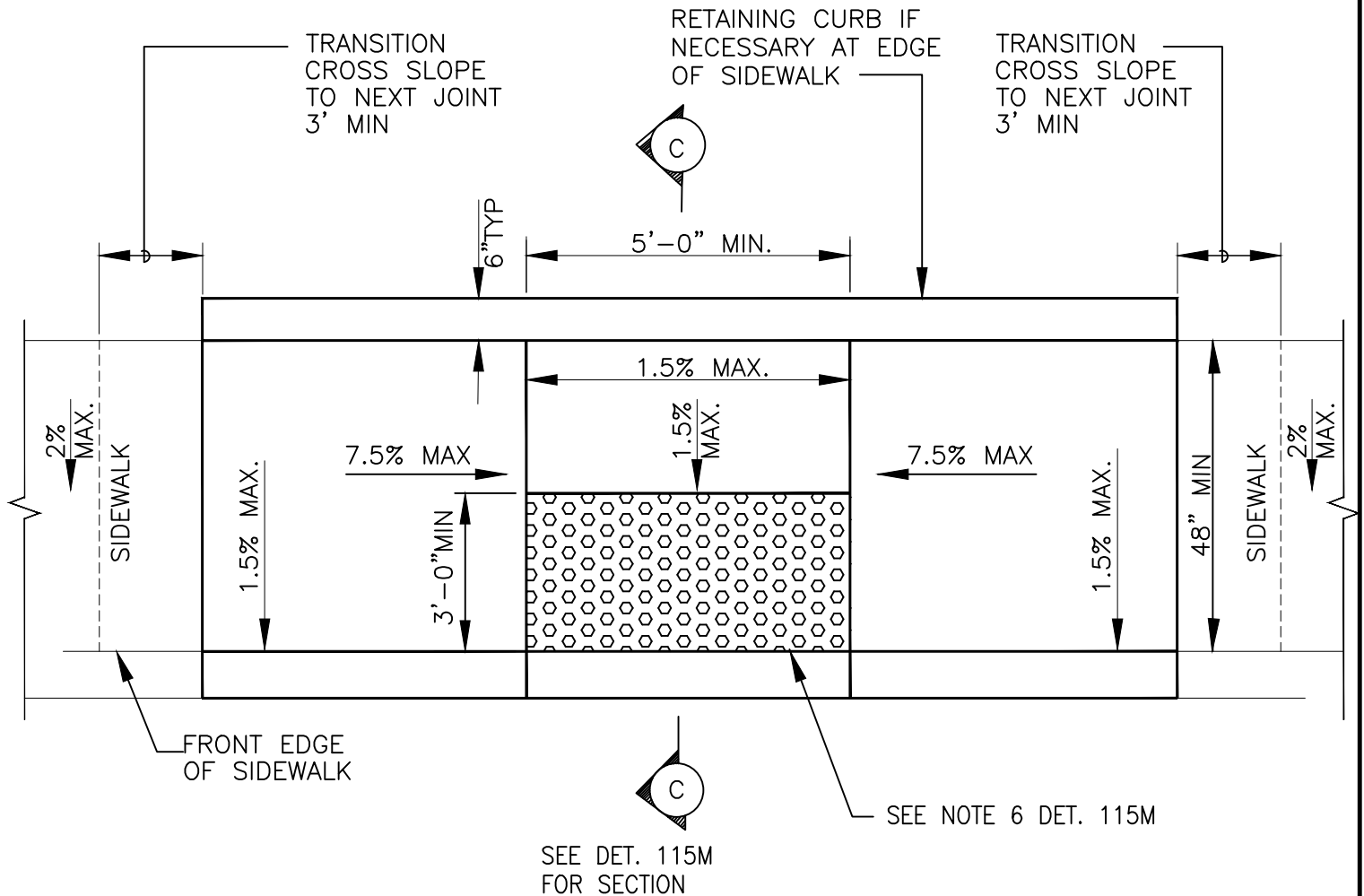
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SCALE: N.T.S.



DATE: 10/16

DWG NO. 115C



## CASE C

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15

CITY OF PLEASANTON

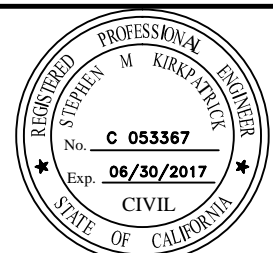
STANDARD DETAILS

ADA RAMP

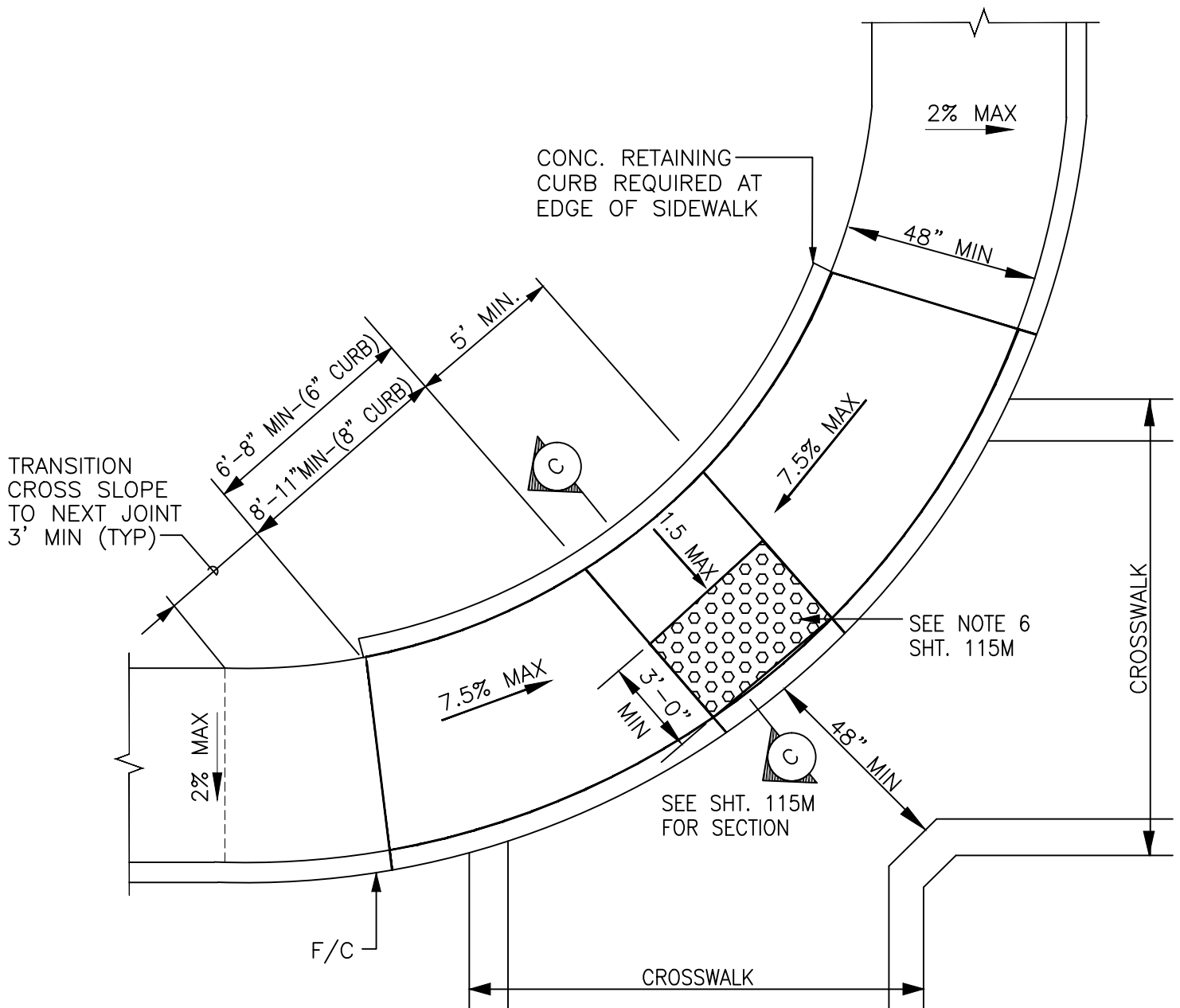
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 10/16 DWG NO. 115D



## CASE C1

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15

CITY OF PLEASANTON  
STANDARD DETAILS

DRAWN BY: STAFF

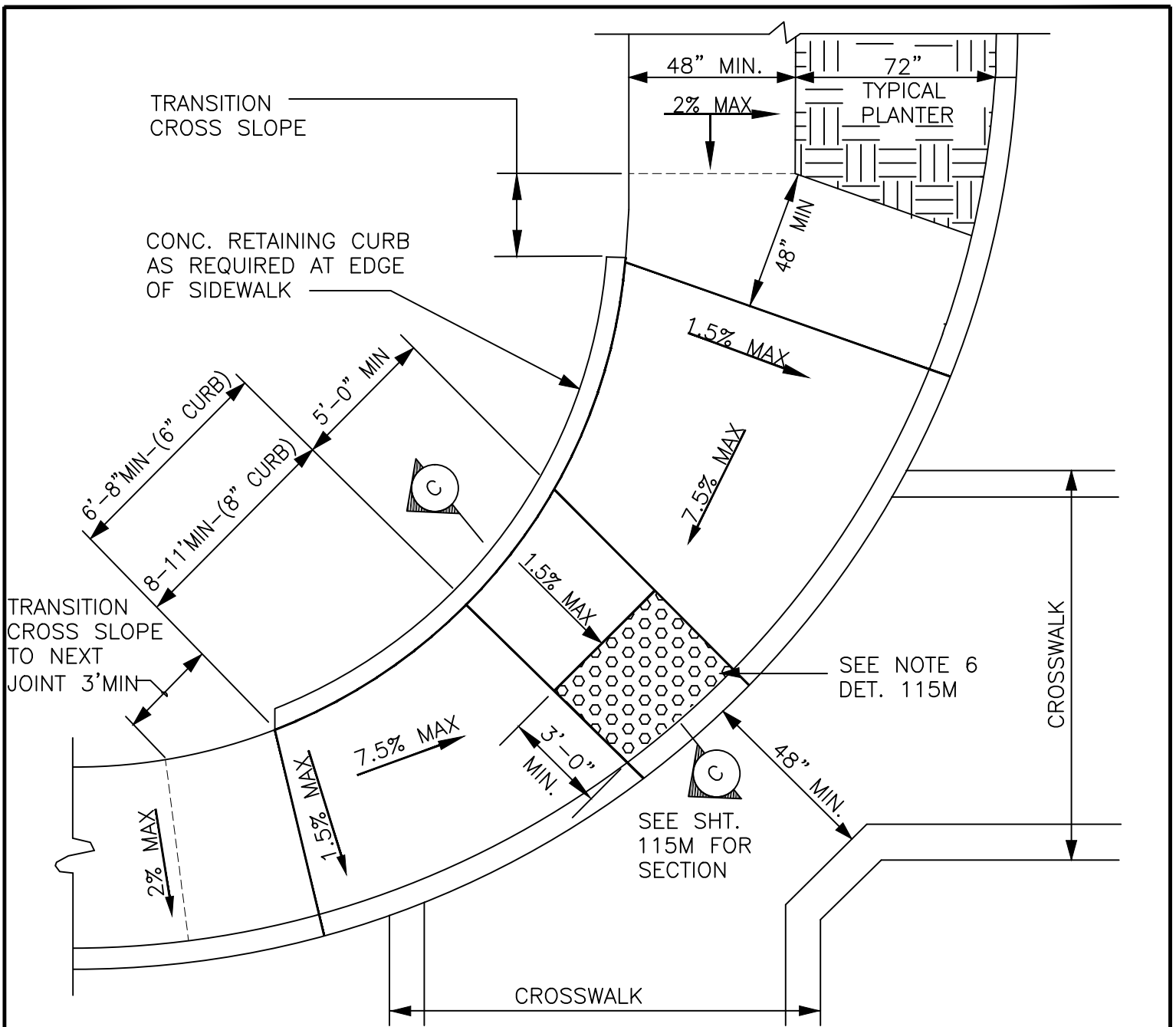
CHECKED BY: AN

SCALE: N.T.S.

ADA RAMP  
MONOLITHIC SIDEWALK



DATE: 10/16 DWG NO. 115E



## CASE C2

### NOTES:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL NOTES,
2. AND SECTION C-C. MAINTAIN 48" MIN. UNOBSTRUCTED AREA AROUND RAMP.

REVISED 8/15

DRAWN BY: STAFF

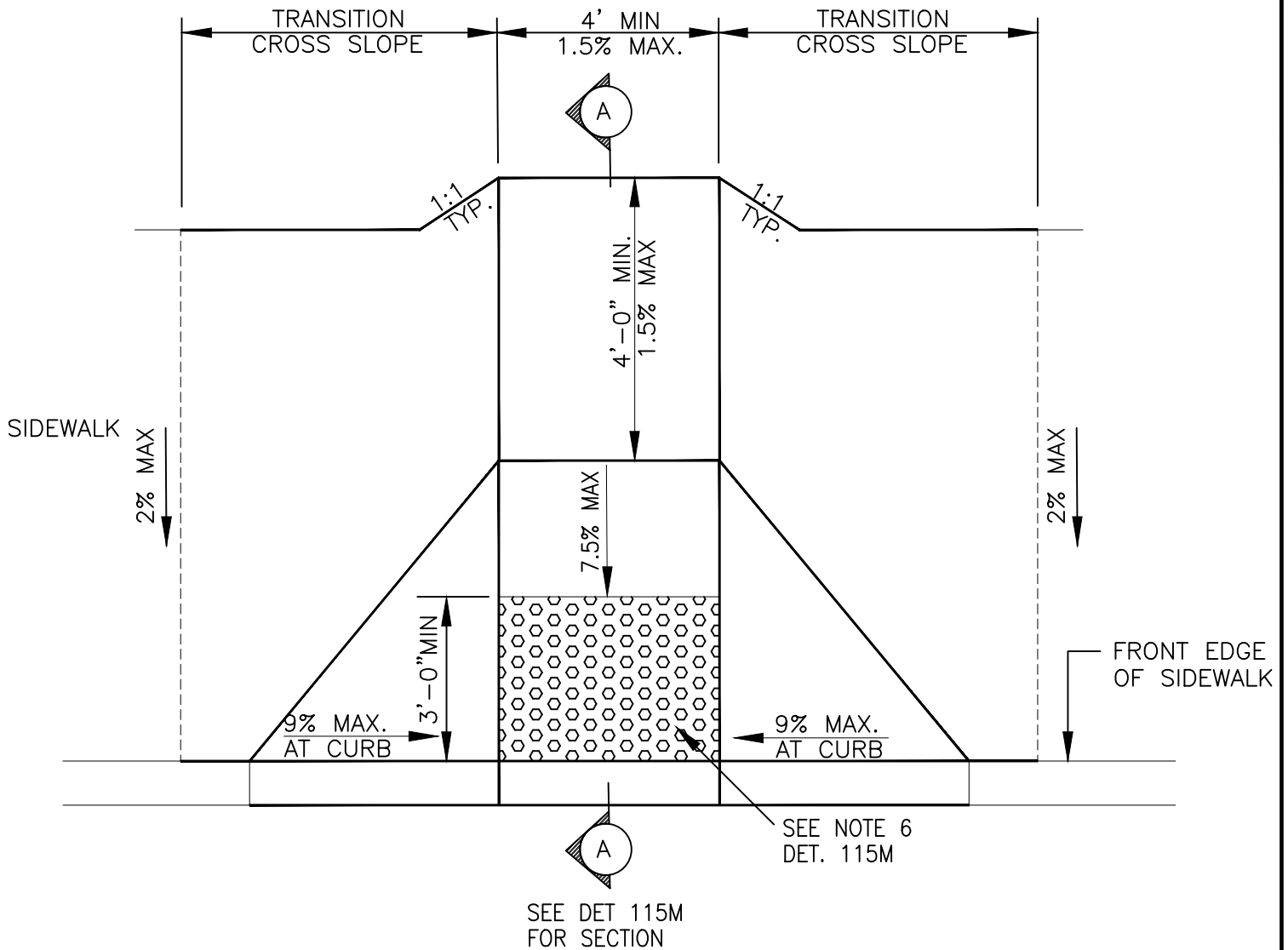
CHECKED BY: AN

SCALE: N.T.S.

CITY OF PLEASANTON  
STANDARD DETAILS  
ADA RAMP  
SEPARATED/MONOLITHIC  
SIDEWALK



DATE: 10/16 DWG NO. 115F



## CASE D

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

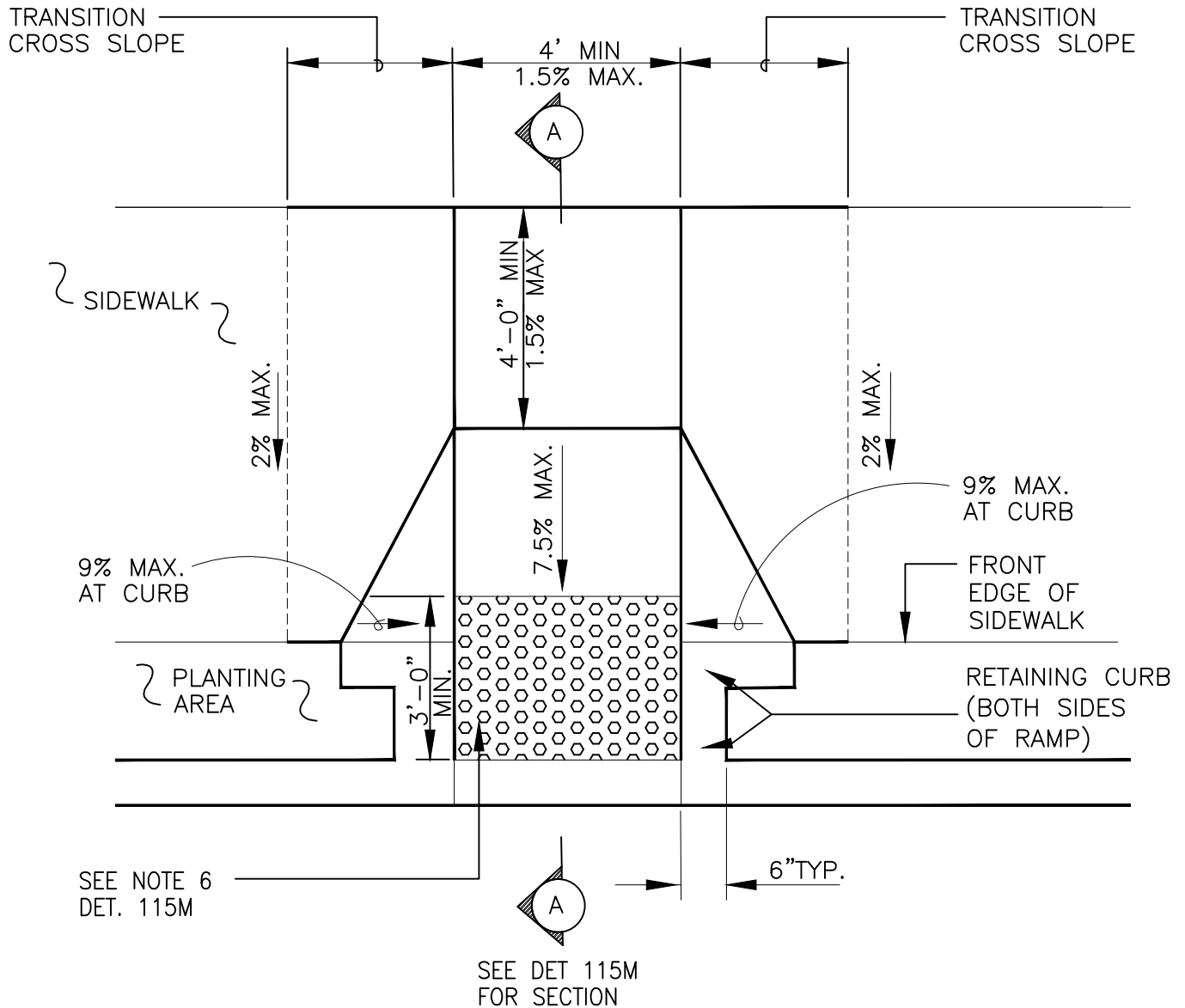
CITY OF PLEASANTON

STANDARD DETAILS

ADA RAMP



DATE: 10/16 DWG NO. 115G



## CASE E

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

REVISED 8/15

DRAWN BY: STAFF

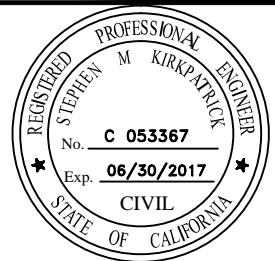
CHECKED BY: AN

SCALE: N.T.S.

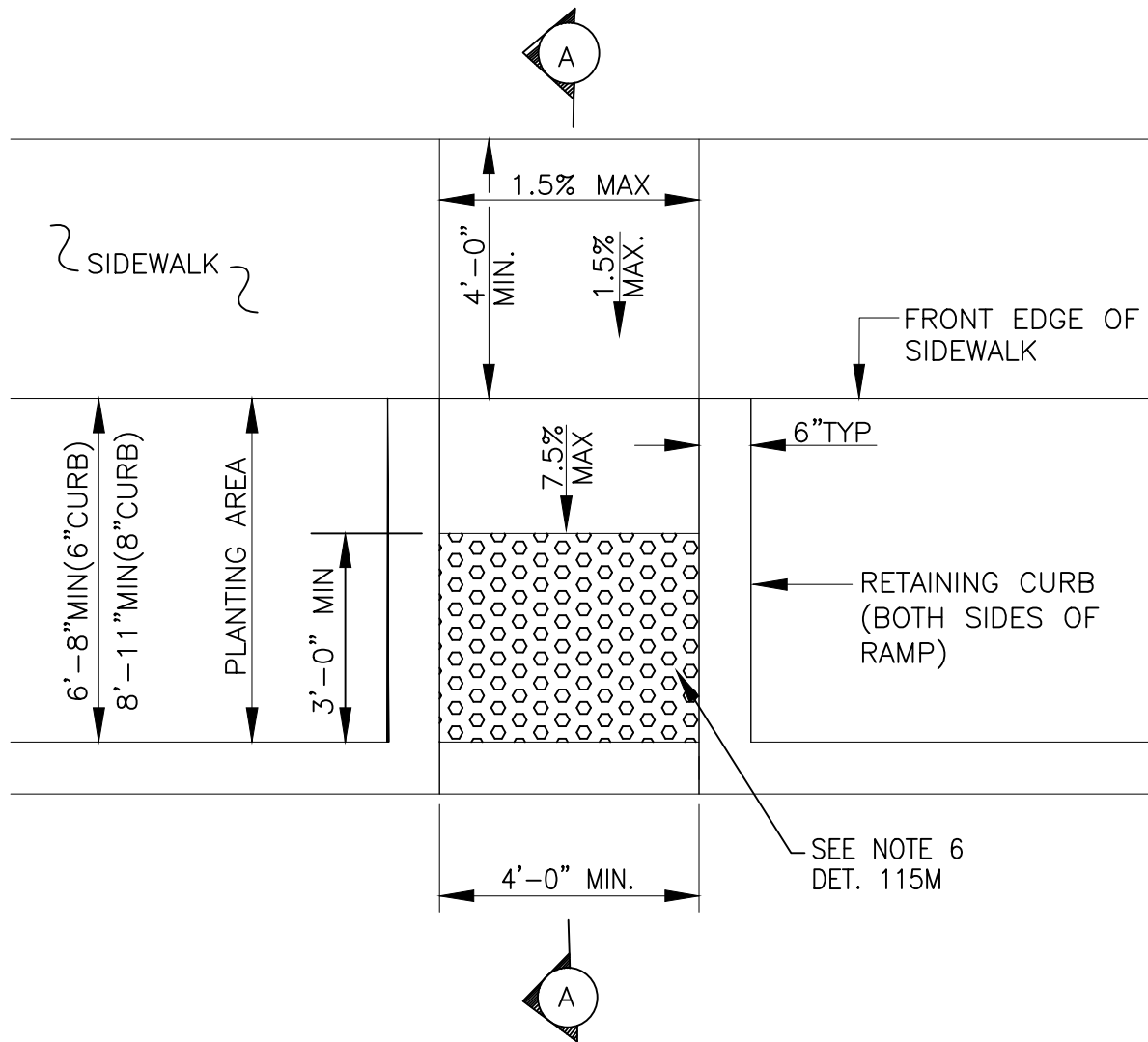
CITY OF PLEASANTON

STANDARD DETAILS

ADA RAMP



DATE: 10/16 DWG NO. 115H



## CASE F

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.
2. SEE DETAIL 115M FOR SECTION A-A

REVISED 8/15

DRAWN BY: STAFF

CHECKED BY: AN

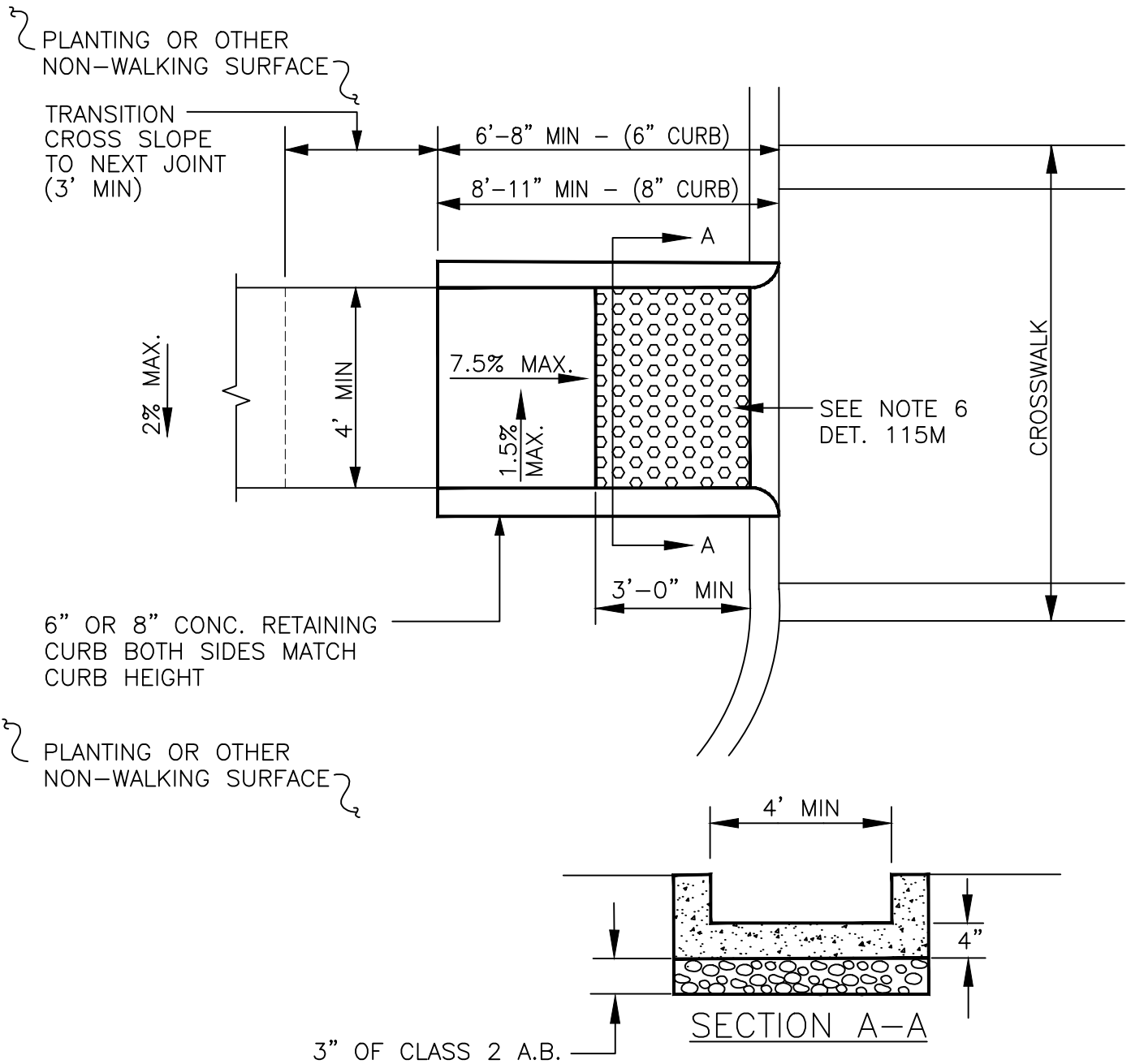
SCALE: N.T.S.

CITY OF PLEASANTON  
STANDARD DETAILS  
ADA RAMP



DATE: 10/16 DWG NO. 115I





## CASE F1

### NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL NOTES.

REVISED 8/15

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

CITY OF PLEASANTON  
STANDARD DETAILS

ADA RAMP  
W/TWO RETAINING CURBS



DATE: 10/16 DWG NO. 115J

TRANSITION CROSS SLOPE  
TO NEXT JOINT 3' MIN

4' MIN  
1.5% MAX.

TRANSITION  
CROSS SLOPE

SIDEWALK  
2% MAX.

4'-0" MIN.  
1.5% MAX.

SIDEWALK

2% MAX.

PLANTING AREA

6" TYP.

7.5%  
MAX.

FRONT EDGE  
OF SIDEWALK

3'-0" MIN

9% MAX.  
AT CURB

RETAINING  
CURB

SEE NOTE 6  
DET. 115M

SEE DET. 115M  
FOR SECTION

## CASE G

NOTE:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL CONSTRUCTION NOTES.

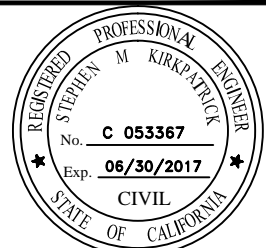
REVISED 8/15

CITY OF PLEASANTON  
STANDARD DETAILS  
ADA RAMP

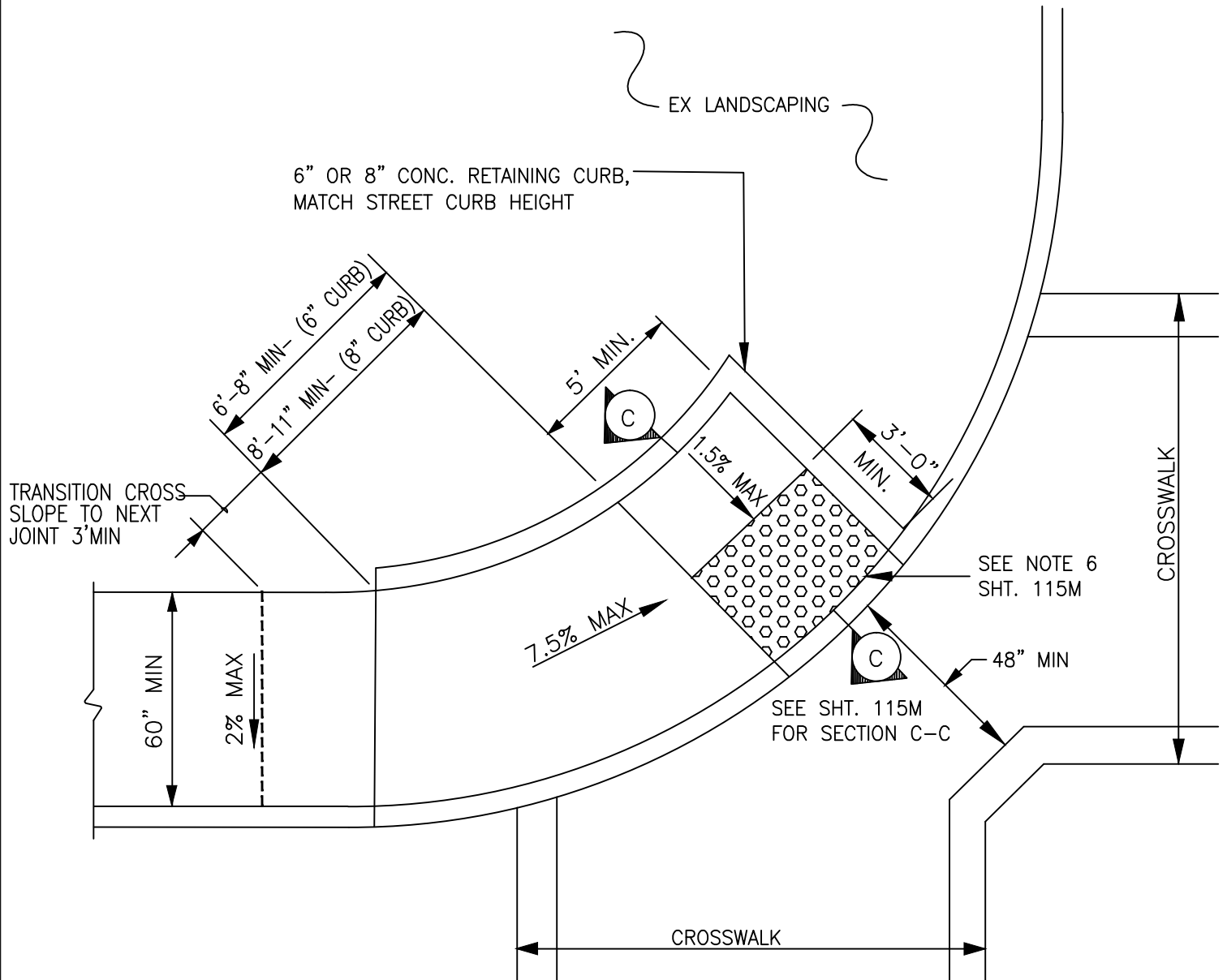
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 10/16 DWG NO. 115K



## CASE G1

### NOTES:

1. SEE DETAIL 101 AND 115M FOR ADDITIONAL GENERAL NOTES.

REVISED 8/15

CITY OF PLEASANTON  
STANDARD DETAILS

DRAWN BY: STAFF

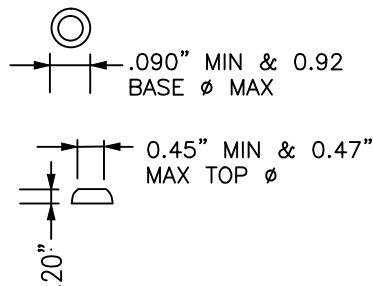
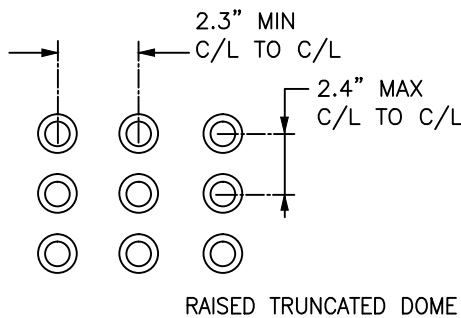
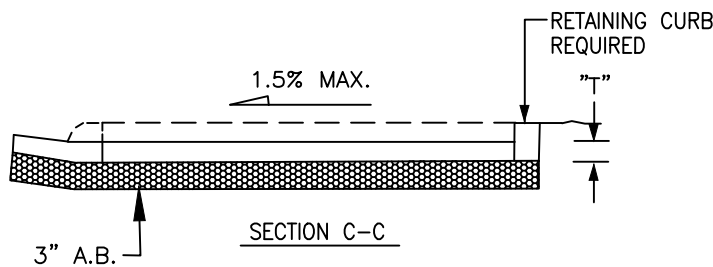
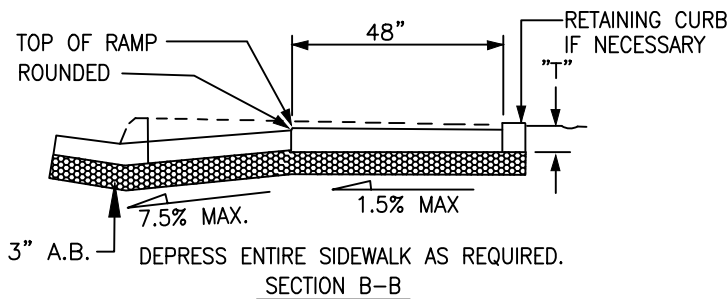
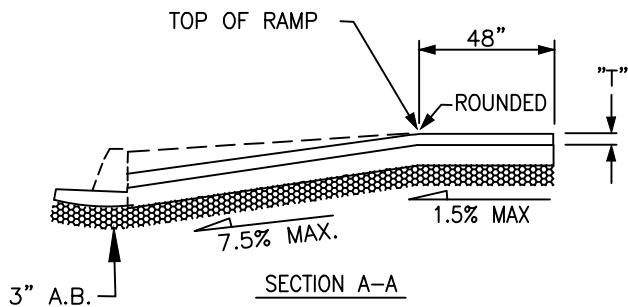
CHECKED BY: AN

SCALE: N.T.S.

ADA RAMP  
END OF SIDEWALK



DATE: 10/16 DWG NO. 115L



#### NOTES:

1. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES, WITHIN THE BOUNDARIES OF THE CURB RAMP, WILL BE RELOCATED BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.
2. WHEN RAMP IS LOCATED IN CENTER OF CURB RETURN, CROSSWALK CONFIGURATION MUST BE SIMILAR TO THAT SHOWN IN CASE A1, C1, C2 AND G1.
3. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP SHALL BE 4'.
4. TRANSITIONS FROM RAMP TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAX 1:20
5. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 4" CONCRETE WITH 3" CLASS II A.B.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH OF THE RAMP. THE TYPE OF DETECTABLE WARNING SURFACES, AT THE OPTION OF THE CONTRACTOR SHALL BE CONSTRUCTED EITHER BY CAST IN PLACE OR STAMPED METHOD, OR CONSIST OF PREFABRICATED SURFACE. THE PREFABRICATED SURFACE SHALL CONFORM TO THE REQUIREMENTS IN THE SPECIAL PROVISIONS. THE COLOR SHALL BE APPROVED BY THE ENGINEER.
7. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF 9% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO THE TOP OF THE RAMP, EXCEPT IN CASE C AND F.
8. MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4' OF THE TOP OR BOTTOM OF THE CURB RAMP.
9. (FOR HACIENDA BUSINESS PARK ONLY) CONCRETE CURB W/# 4 REINFORCING BAR. TOP OF CURB TO BE FLUSH W/ SIDEWALK @ EACH END OF CURB.
10. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" & 8" FROM GUTTER FLOW LINE.

REVISED 8/15

DRAWN BY: STAFF

CHECKED BY: AN

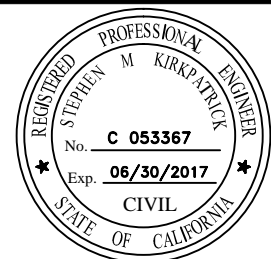
SCALE: N.T.S.

## CITY OF PLEASANTON

### STANDARD DETAILS

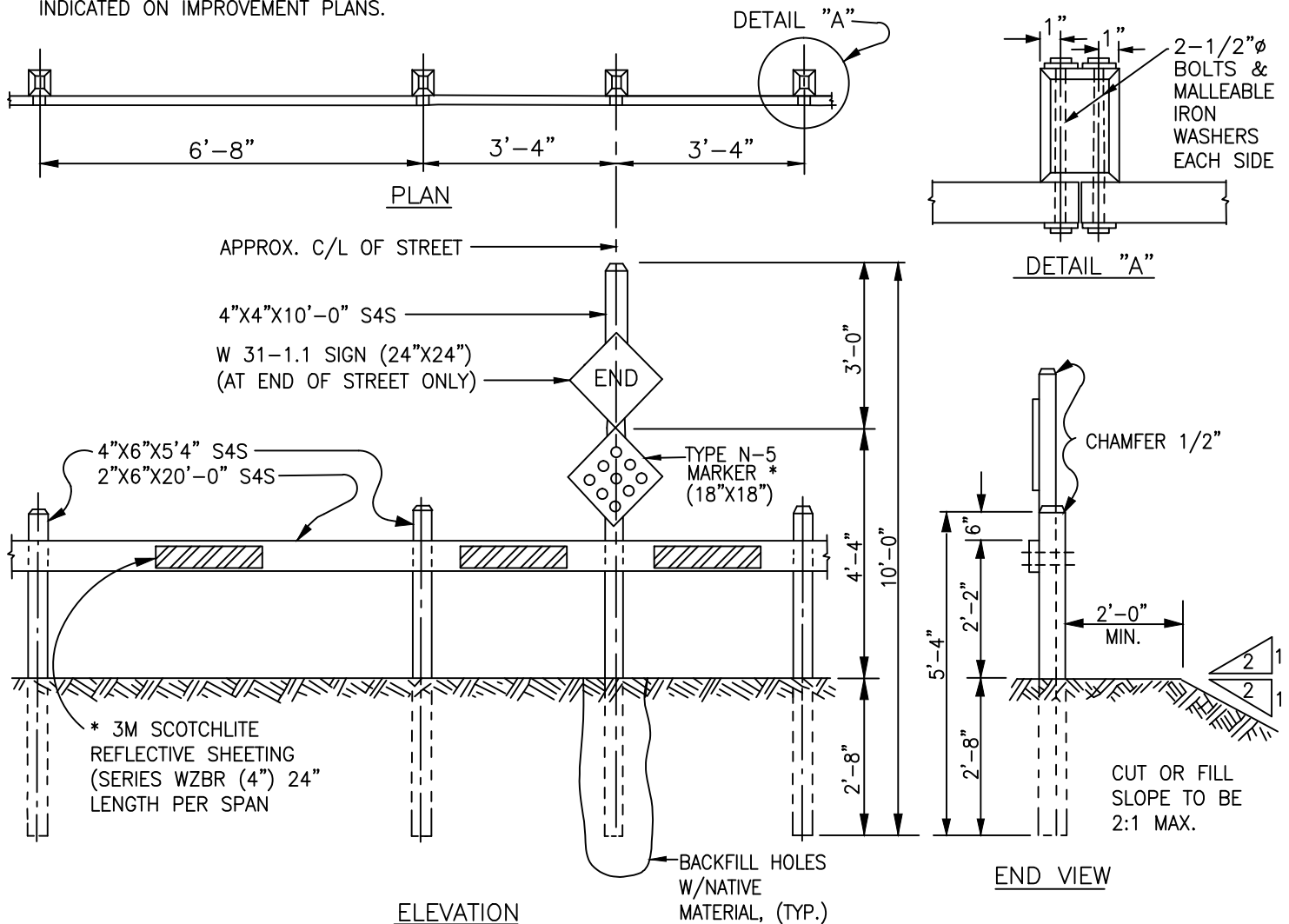
### ADA RAMP

### (NOTES AND DETAILS)



DATE: 10/16 DWG NO. 115M

NOTE: BARRICADE SHALL EXTEND  
ACROSS SIDEWALK AREA WHERE  
INDICATED ON IMPROVEMENT PLANS.



#### MATERIALS

RAILS: DOUGLAS FIR, DENSE  
NO. 1 STRESS GRADE  
OR BETTER.

POSTS: TREATED DOUGLAS FIR,  
DENSE NO. 1, STRESS  
GRADE OR BETTER, OR  
DENSE STRUCTURAL  
GRADE REDWOOD.

PVMT WIDTH	NO. OF SPANS
32'	5
36'	6
40'	6

#### PAINTING

ONE COAT OF WOODPRIMER, STATE  
SPECIFICATION 78-4.02.

TWO COATS OF FAST DRYING FINISH  
PAINT FOR WOOD, STATE SPECIFICA-  
TION 78-4.02. (COLOR: WHITE)

\* RED AT END OF STREET, ALL OTHER  
LOCATIONS YELLOW.

CITY OF PLEASANTON

STANDARD DETAILS  
STREET BARRICADE

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: AS SHOWN



DATE : 4/16 DWG NO. 116

P-TOWN ST.  
4000

SEE DETAILS 118-119

SIGNS AND MOUNTING  
HARDWARE TO CONFORM  
TO CITY STANDARD  
SPECIFICATIONS

WHERE SIGN IS LOCATED  
ADJACENT TO DESIGNATED  
BIKE PATH, SIGN HEIGHT  
SHALL BE A MINIMUM OF  
8'.

2" STANDARD WEIGHT  
GALVANIZED IRON  
PIPE SCHEDULE 40, (0.154")

8'-0" MIN.  
8'-6" MAX.

SEE CALTRANS. TRAFFIC  
MANUAL FOR MOUNTING  
HEIGHT OF OTHER TRAFFIC  
SIGNS

15" ROUND OR  
SQUARE BLOCKOUT

SIDEWALK  
CLASS II CONCRETE  
WHERE APPLICABLE

5/8"x6" STEEL BOLTS

CLASS 2 CONCRETE

2' BEHIND CURB-W/PLANTER STRIP

6" BEHIND SIDEWALK-W/MONOLITHIC  
SIDEWALK LESS THAN 10' WIDE

F/G

SIDEWALK

PLANTER

NOTES:

1. FOR SIGNAGE IN HACIENDDA BUSINESS PARK, PLEASE CONTACT HACIENDDA BUSINESS PARK ASSOCIATION  
CONTACT: JAMES PAXON (925) 463-9040 WWW.HACIENDDA.ORG
2. SEE DWG NO 123 FOR BUSINESS PARK LIMITS.

REVISION:

CITY OF PLEASANTON

STANDARD DETAILS

STREET NAME SIGN POST

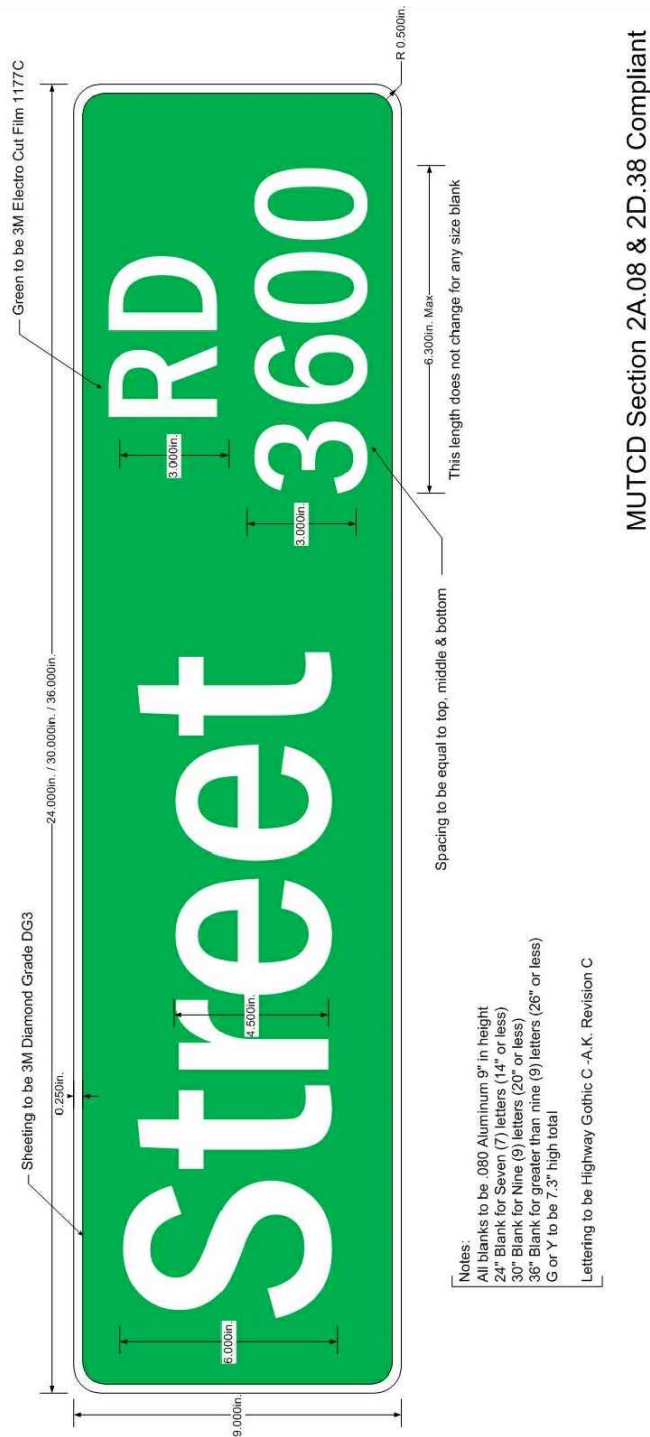
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE : 4/16 DWG NO. 117



CITY OF PLEASANTON  
STANDARD DETAILS  
STREET NAME SIGN



DATE : 4/16 DWG NO. 118

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



Notes:  
 All blanks to be .080 Aluminum 9" in height  
 24" Blank for Seven (7) letters (14" or less)  
 30" Blank for Nine (9) letters (20" or less)  
 36" Blank for greater than nine (9) letters (26" or less)  
 G or Y to be 7.3" high total

Lettering to be Highway Gothic C-A-K. Revision C

THIS SIGN BLANK ONLY AVAILABLE  
 FROM THE CITY SIGN SHOP

MUTCD Section 2A.08 & 2D.38 Compliant

CITY OF PLEASANTON  
 STANDARD DETAILS  
 ARC STREET NAME SIGN



DRAWN BY: STAFF  
 CHECKED BY: AN  
 SCALE: N.T.S.

DATE : 10/16 DWG NO. 119



SIGNS AND MOUNTING  
HARDWARE TO CONFORM TO  
CITY STANDARD SPECIFICATIONS.  
SIGN SIZE SHALL BE CALTRANS  
"STANDARD SIZE" (MIN.).

2" STANDARD WEIGHT GALV.  
IRON PIPE (0.154") OR  
SQUARE TUBING POST

1' BEHIND SIDEWALK W/  
MONOLITHIC SIDEWALK LESS  
THAN 10' WIDE 3' BEHIND CURB  
W/MONOLITHIC SIDEWALK 10'  
WIDE; 3' BEHIND CURB W/  
PLANTER STRIP

CURB FACE

CLASS 2 P.C.C.

5/8" X 6" STEEL BOLTS

12"  
MIN.

VARIABLE  
VARIES  
36" REG. SIGN  
7'-0" MIN. \*  
8'-0" MAX.

6" SQUARE OR  
ROUND BLOCKOUT  
CONC.  
SURFACE

2'-0"

6"

12"

1-3/4" SQUARE  
STEEL TUBING  
POST

FINISH GRADE  
2 DRIVE  
RIVETS  
3/8" X 9/16"  
FACING  
APPROACHING  
TRAFFIC

18"

2-1/4" SQUARE  
STEEL TUBING  
SLEEVE

2" SQUARE  
STEEL TUBING  
ANCHOR

POST/SLEEVE/  
ANCHOR DETAIL

#### NOTES:

1. SEE IMPROVEMENT PLAN FOR LOCATION OF SIGNS.
2. \* WHERE SIGN IS LOCATED ADJACENT TO DESIGNED BIKE PATH, SIGN HEIGHT SHALL BE A MINIMUM OF 8 FEET.
3. SQUARE TUBING POSTS SHALL BE LOCATED AT THE NOSE OF TRAFFIC ISLANDS OR MEDIANS ONLY. ALL OTHER LOCATIONS SHALL BE 2" GALVANIZED IRON POSTS.
4. SEE DETAIL 123A FOR INSTALLATION OF GUIDE SIGNS AND MOUNTING DETAILS.
5. DO NOT INSTALL ANY SIGNS BACK TO BACK WITH A STOP OR YIELD SIGN.

BEND BOLT AFTER INSTALLING  
NUT TO PREVENT REMOVAL

VANDAL PROOF BOLT

#### SIGN BRACKET DETAIL

DRAWN BY:	STAFF	
CHECKED BY:	AN	
SCALE:	N.T.S.	

## CITY OF PLEASANTON

### STANDARD DETAILS

### TRAFFIC SIGN



DATE : 4/16 DWG NO. 120

SIGNS AND MOUNTING  
HARDWARE TO CONFORM TO  
CITY STANDARD SPECIFICATIONS

4" x 4" S4S CONSTRUCTION  
GRADE REDWOOD

CURB FACE

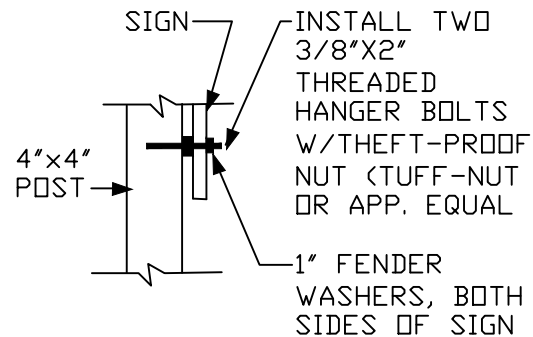
CLASS 2 P.C.C.

5/8" X 8" STEEL BOLTS

12"  
MIN.

7'-0" MIN. \*  
8'-0" MAX.  
SEE NOTE 2, DETAIL 123

VARIABLE  
36" REG. SIGN



SIGN CONNECTION  
TO POST

NOTE:

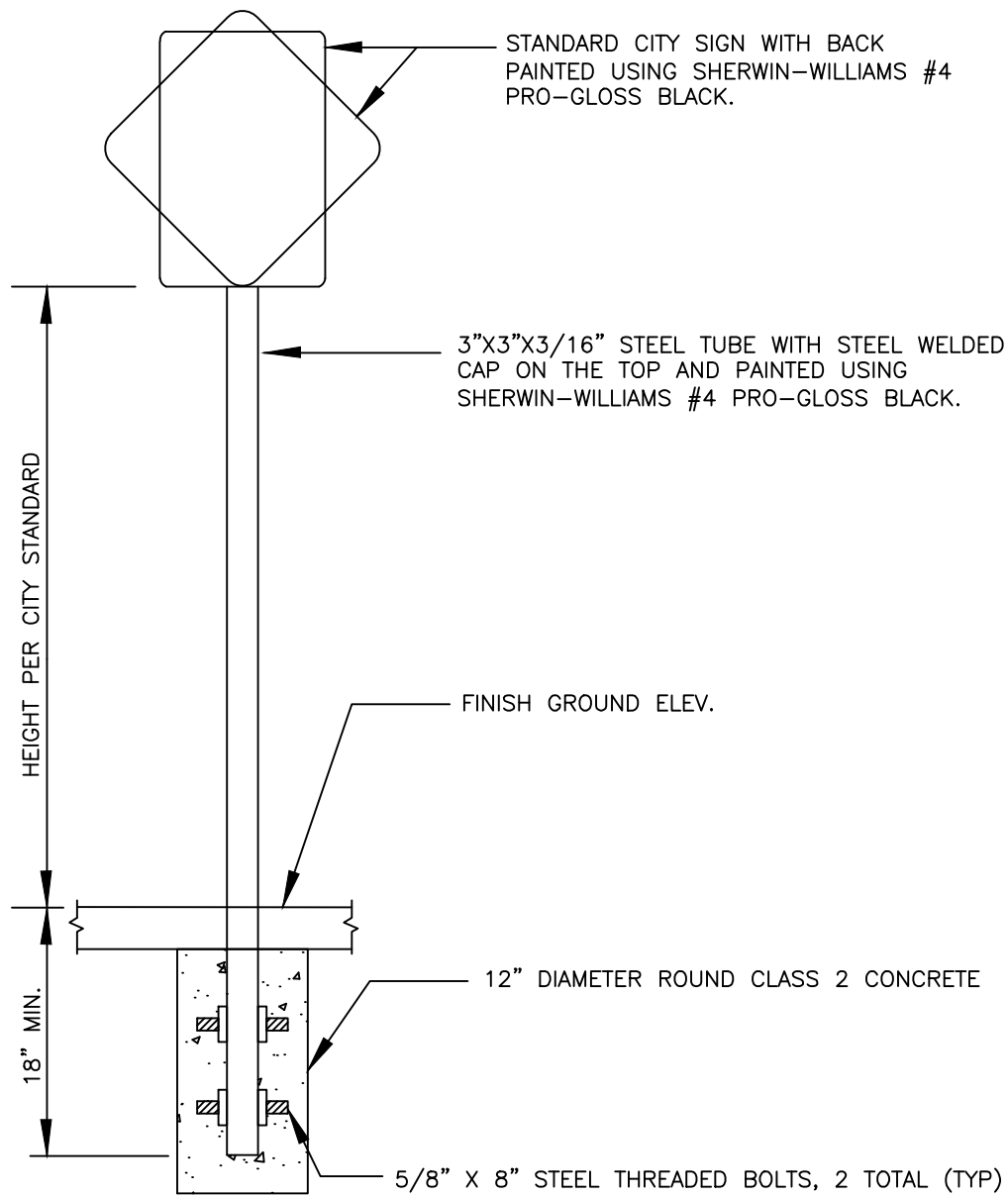
1. SEE IMPROVEMENT PLAN FOR LOCATIONS OF SIGNS.

DRAWN BY:	STAFF	
CHECKED BY:	AN	
SCALE:	N.T.S.	

CITY OF PLEASANTON  
STANDARD DETAILS  
TRAFFIC SIGN-WOOD POST



DATE : 4/16 DWG NO. 121



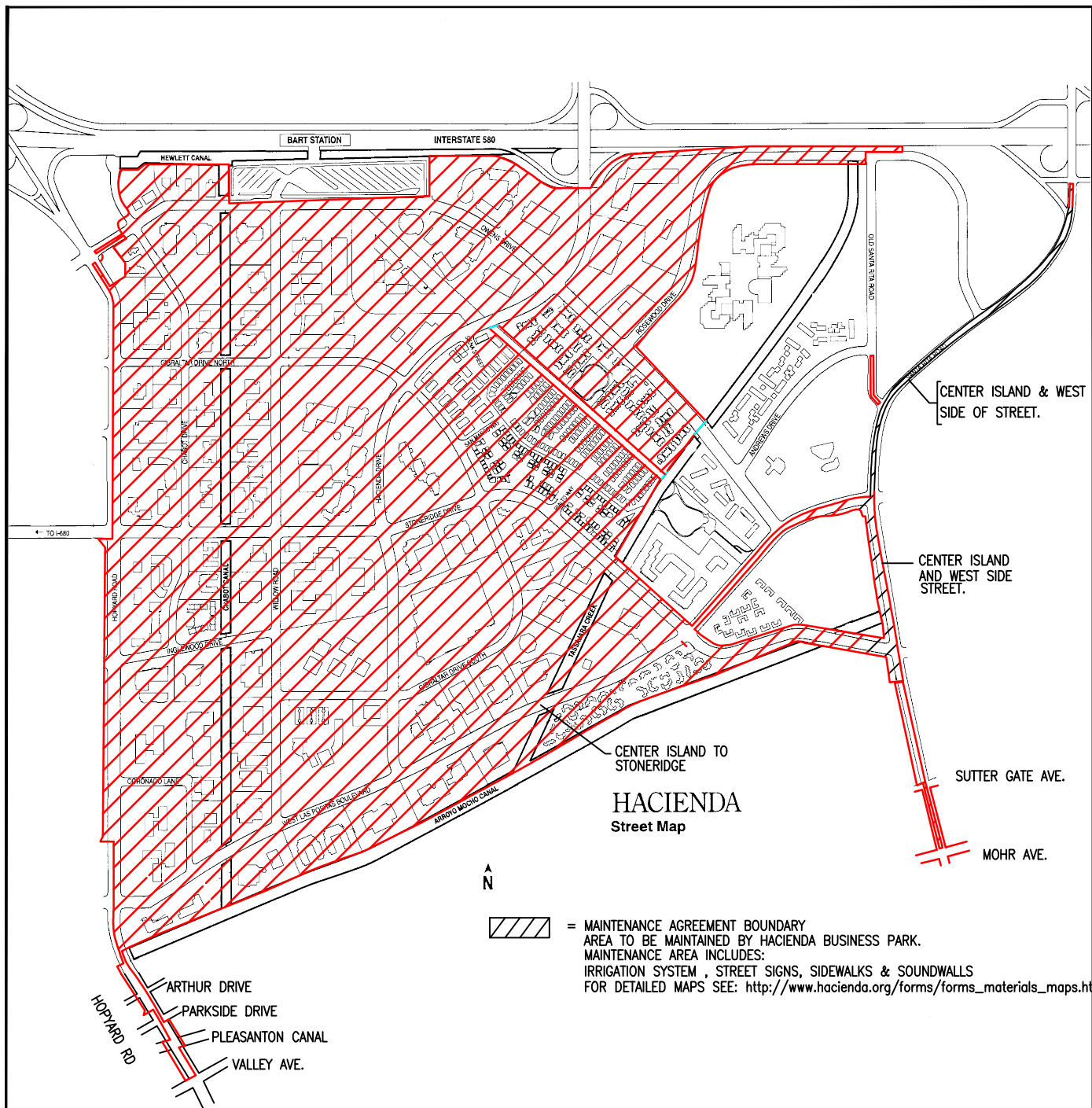
TRAFFIC CONTROL SIGNS HACIENDA BUSINESS PARK

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
HACIENDA BUSINESS PARK  
SIGN DETAIL

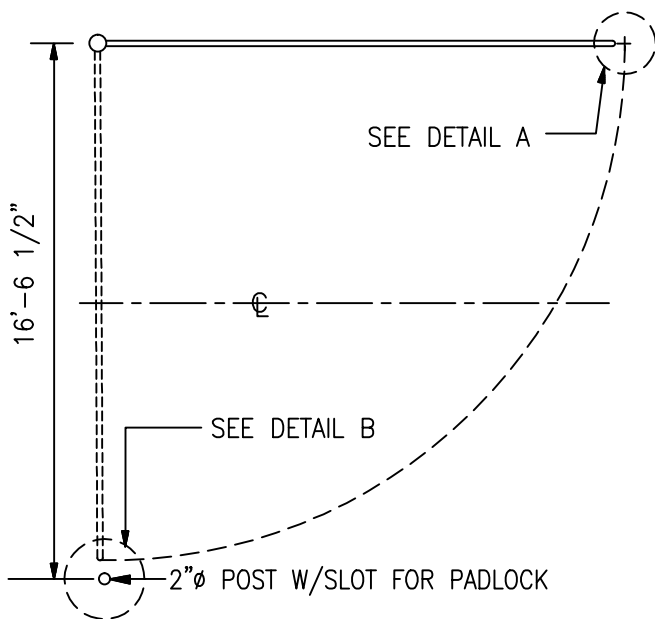


DATE: 4/16 DWG NO. 122

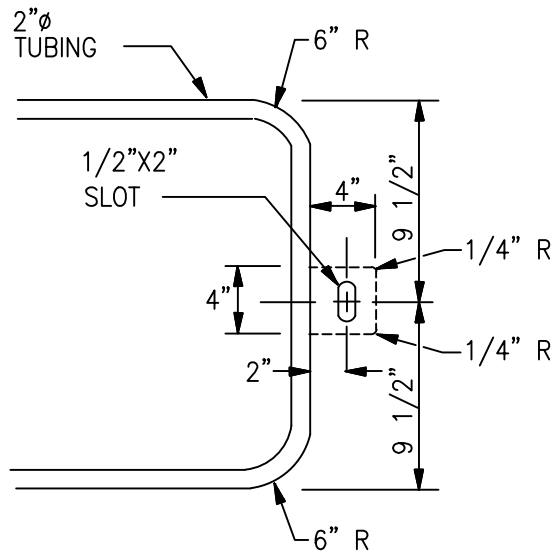


1.) WORK WITHIN THIS AREA SUBJECT TO HACIENDA BUSINESS PARK APPROVAL.

REVISION:			CITY OF PLEASANTON STANDARD DETAILS  HACIENDA BUSINESS PARK LANDSCAPE AND MAINTENANCE BOUNDARY	
DRAWN BY: STAFF				
CHECKED BY: AN				
SCALE: N.T.S.			DATE : 10/16	DWG NO. 123

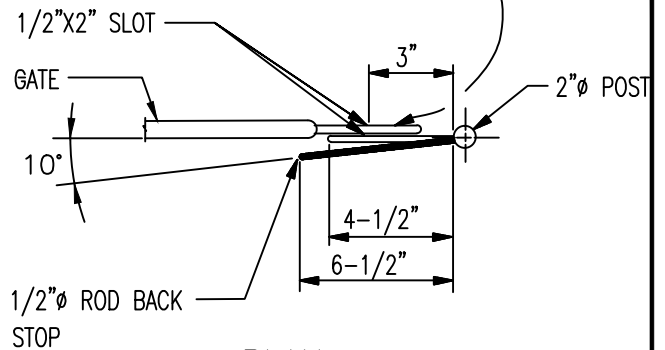


PLAN VIEW

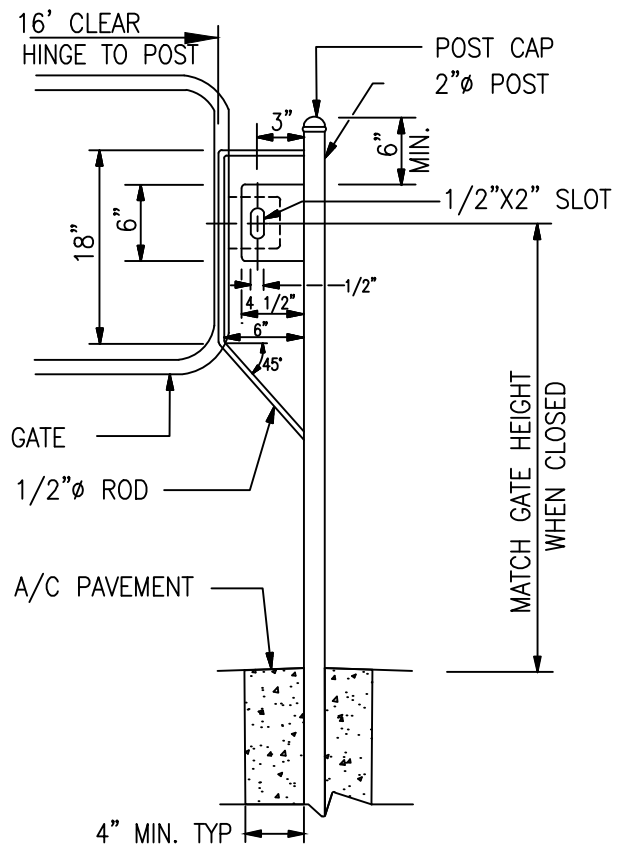


DETAIL A

INSTALL PADLOCK, CONTACT  
LIVERMORE PLEASANTON FIRE  
DEPT. TO PURCHASE LOCK.



PLAN



DETAIL B

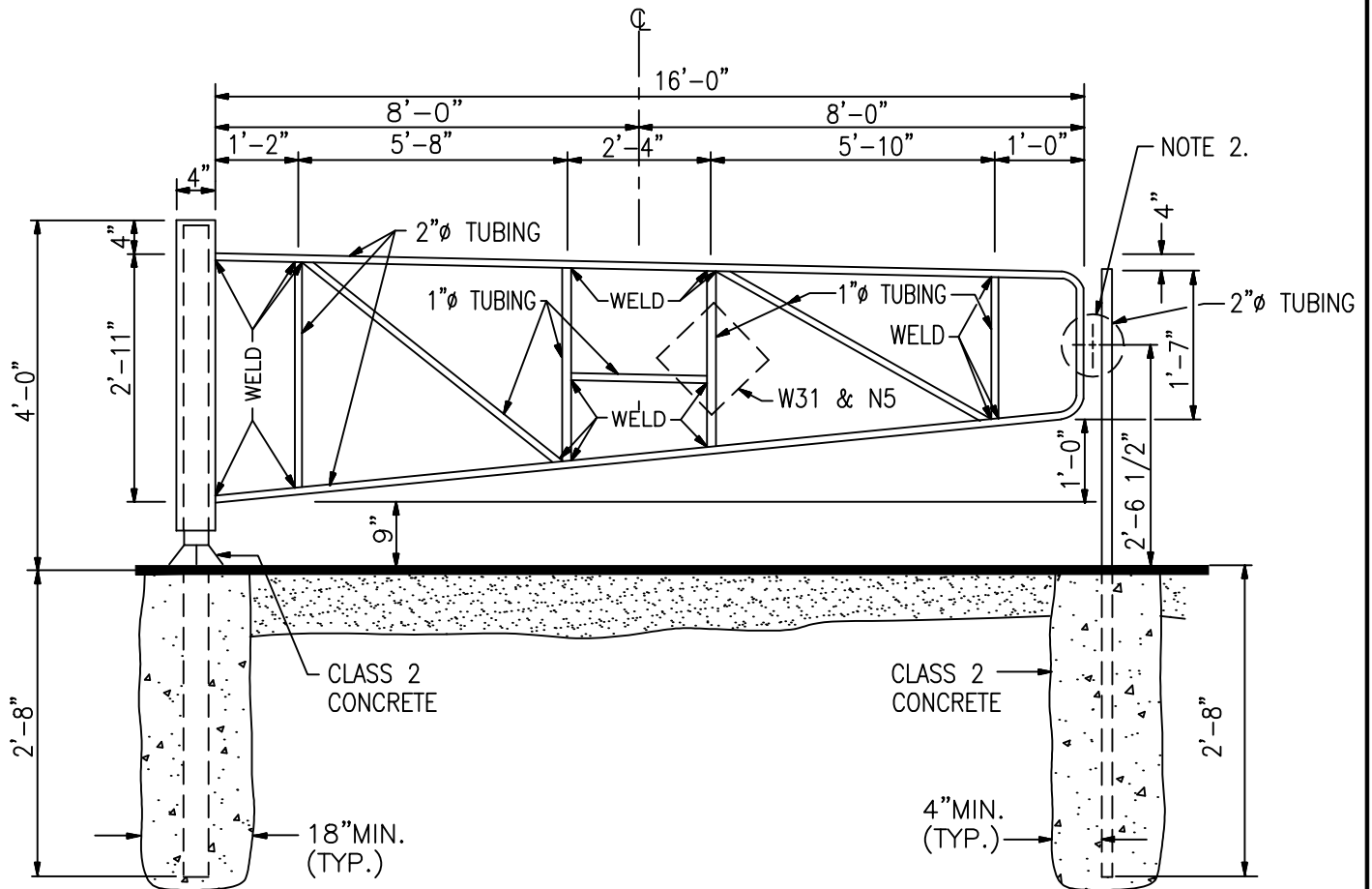
CITY OF PLEASANTON  
STANDARD DETAILS

EMERGENCY VEHICLE  
ACCESS GATE

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 | DWG NO. 124



NOTES:

1. TUBING MATERIAL—ALUMINUM ALLOY PIPE SHALL CONFORM TO THE REQUIREMENTS FOR ALLOY 6063, TEMPER 76, OF ASTM DESIGNATION B429.
2. SEE DET. 124 FOR DETAILS A & B.

CITY OF PLEASANTON  
STANDARD DETAILS

EMERGENCY VEHICLE  
ACCESS GATE

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 125

1/4" PLATE STEEL TABS, WELD CONTINUOUS.  
CENTER ON BOLLARD. PROVIDE 3/8" DIA. HOLE  
FOR CHAIN & PADLOCK.

WELDED METAL CAP

3 STRIPS, 4" 3M REFLECTIVE  
SHEETING, SERIES WZBR

5'-0" LONG X 2-1/2" O.D.  
GALVANIZED PIPE

SEE DETAIL A

PATHWAY SECTION

18" MIN.

CLASS 2 CONCRETE

4" DRAIN ROCK

COMPACTED SUBGRADE

12"

4" MIN

4"

DETAIL A

3" GALV. PIPE SLEEVE

#### NOTES:

1. BOLLARD FINISH TO BE POWDER COAT, COLOR GREEN IN PARK AREAS TO MATCH PLAY EQUIPEMENT POST.
2. ALL OTHER AREAS TO BE FOREST GREEN SUBMIT SAMPLE OF COLOR TO ENGINEER FOR APPROVAL.
3. LABEL OLD REMOVED BOLLARD "NOT FOR DRIVEWAY USE".

## CITY OF PLEASANTON

### STANDARD DETAILS

### REMOVABLE PATHWAY BOLLARD

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 126

1/4" PLATE STEEL TABS, WELD CONTINUOUS.  
CENTER ON BOLLARD. PROVIDE 3/8" DIA. HOLE  
FOR PADLOCK.

SEE DETAIL A

INTERNAL SLEEVE-3 1/2" O.D. SQ. TUBULAR  
STEEL-WELD

3/4" DIA. HOLE FOR BOLT-THROUGH  
STEEL HINGE- BUTT WELD

4" SQ. TUBULAR STEEL-5' OVERALL  
3/16" THICKNESS LENGTH

3 STRIPS, 4" 3M REFLECTIVE  
SHEETING, SERIES WZBR

WELDED METAL CAP

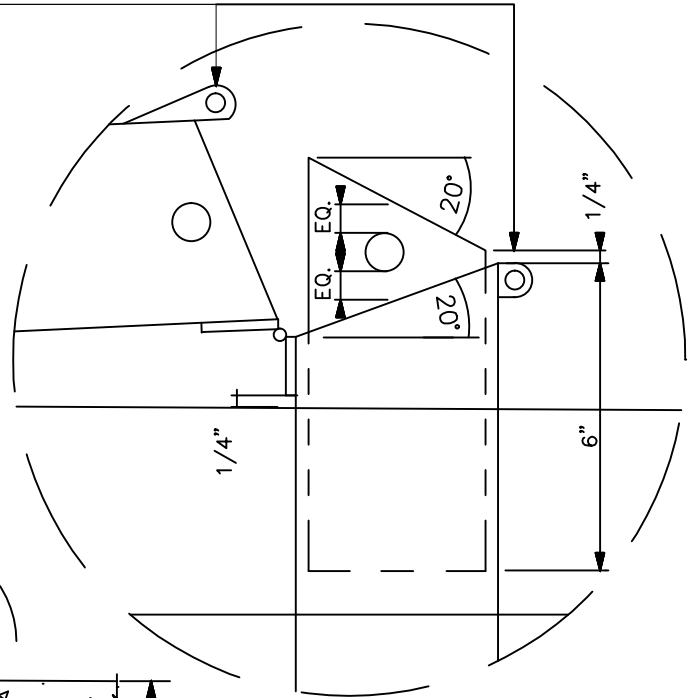
CONCRETE PAVING

CLASS 2 CONCRETE

4" SQ. TUBULAR STEEL-5' OVERALL  
3/16" THICKNESS LENGTH

4" DRAIN ROCK

COMPACTED SUBGRADE



DETAIL A

#### NOTES:

1. BOLLARD FINISH TO BE POWDER COAT, COLOR GREEN IN PARK AREAS TO MATCH  
PLAY EQUIPMENT POSTS.
2. ALL OTHER AREAS TO BE FOREST GREEN, SUBMIT SAMPLE OF COLOR TO ENGINEER FOR APPROVAL.
3. LABEL OLD BOLLARD "NOT FOR DRIVEWAY USE".

CITY OF PLEASANTON

STANDARD DETAILS

PATHWAY BOLLARD

DRAWN BY: STAFF

CHECKED BY: AN

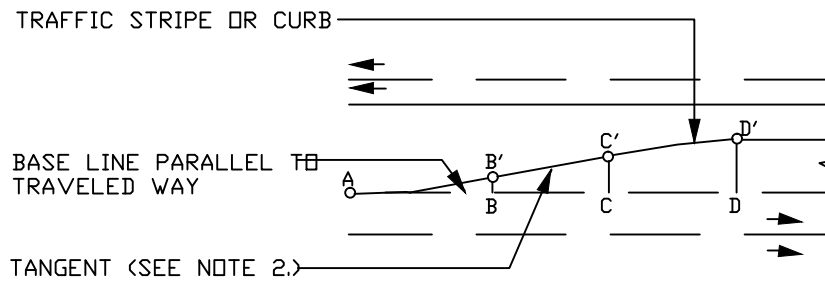
SCALE: N.T.S.



DATE: 4/16 DWG NO. 127







AD = LENGTH OF TAPER  
 AB = BC = CD = 1/3 AD  
 AB' & C'D' ARE PARABOLIC CURVES

LENGTH OF TAPER- FEET			OFFSET DISTANCE			
60	90	120	DD'= 10'	DD'= 11'	DD'= 12'	
DISTANCE FROM POINT A						
-	-	-	0	0	0	
5	7.5	10	0.16	0.17	0.19	
10	15	20	0.62	0.69	0.75	
15	22.5	30	1.41	1.55	1.69	
B'	20	30	40	2.50	2.75	3.00
	30	45	60	5.00	5.50	6.00
C'	40	60	80	7.50	8.25	9.00
	45	67.5	90	8.59	9.45	10.31
	50	75	100	9.38	10.31	11.25
	55	82.5	110	10.0	10.83	11.81
	60	90	120	10.0	11.0	12.0

#### NOTES:

1. THE TABLE GIVES OFFSETS FROM A BASE LINE PARALLEL TO THE EDGE OF TRAVELED WAY AT INTERVALS MEASURED FROM POINT "A".
2. WHERE EDGE OF TRAVELED WAY IS A CURVE, NEITHER BASE LINE NOR TAPER BETWEEN B & C WILL BE A TANGENT. USE PROPORTIONAL OFFSETS FROM B TO C.
3. TAPER LENGTHS

DRAWN BY:	STAFF	
CHECKED BY:	AN	
SCALE:	N.T.S.	

## CITY OF PLEASANTON

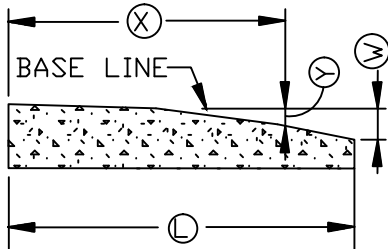
### STANDARD DETAILS

### LEFT TURN LANE TRANSITION



DATE : 4/16 DWG NO. 129

$$Y = \frac{WX^2}{L^2}$$



- (L) = LENGTH OF FLARE IN FEET  
 (W) = MAXIMUM OFFSET IN FEET  
 (X) = DISTANCE ALONG BASE LINE IN FEET  
 (Y) = OFFSET FROM BASE LINE IN FEET

(W) IS SHOWN IN TABLE SHOWN AS

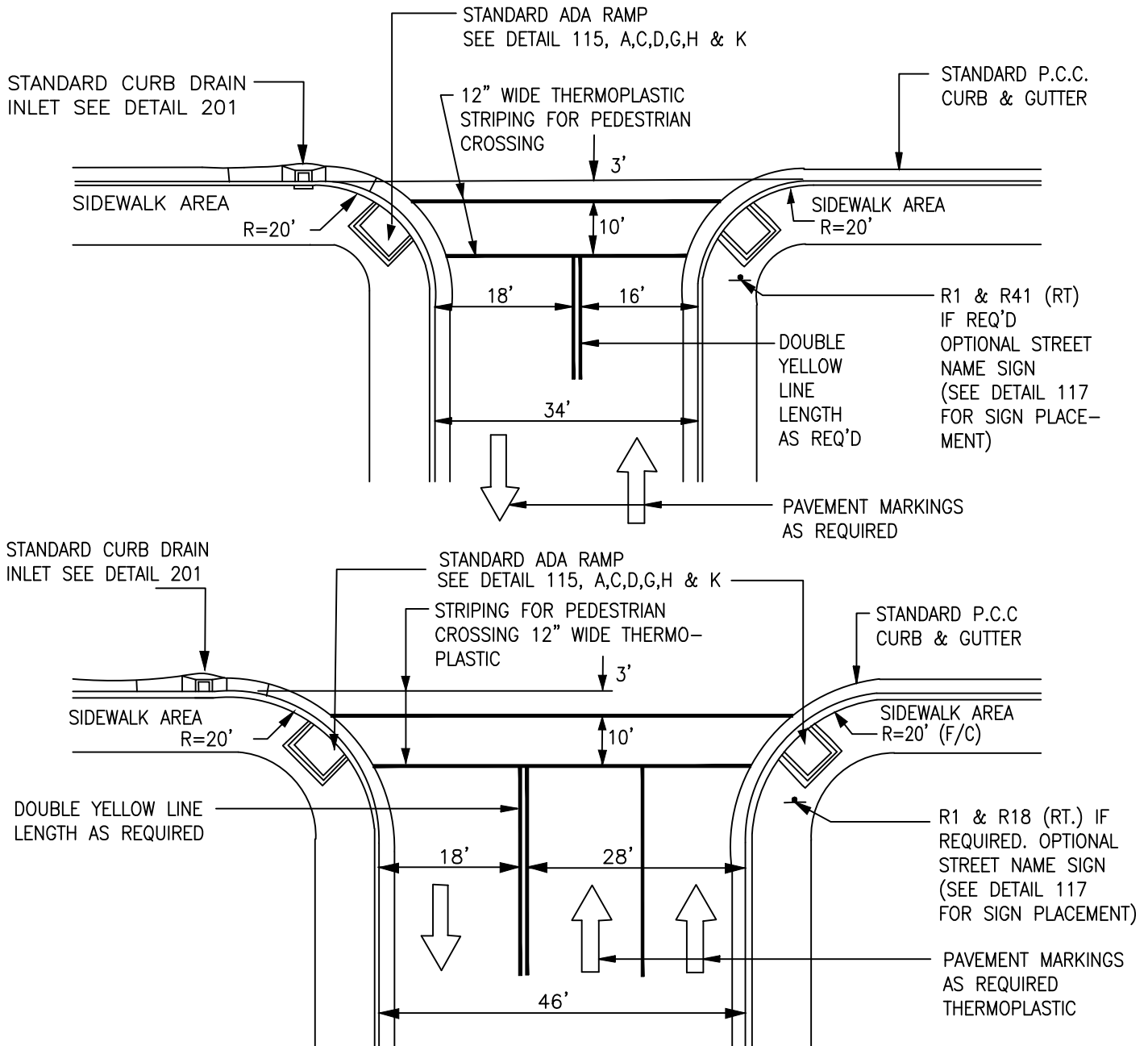
OFFSET IN FEET FOR GIVEN "X" DISTANCE																
(L) DISTANCE LENGTH OF FLARE (X)	10	15	20	25	30	40	45	50	60	70	75	80	90	100	110	120
1:5 FLARES																
25	0.80	1.80	3.20	5.00												
50	0.40		1.60		3.60	6.40		10.0								
1:10 FLARES																
50	0.20		0.80		1.80	3.20		5.00								
100	0.10		0.40		0.90	1.60		2.50	3.60	4.90		6.40	8.10	10.0		
1:15 FLARES																
45	0.15		0.59		1.33	2.37	3.00									
75	0.09		0.36		0.80	1.42		2.22	3.20	4.36	5.00					
90	0.07		0.30		0.67	1.19		1.85	2.67	3.63		4.74	6.00			
120	0.06		0.22		0.50	0.89		1.39	2.00	2.72		3.56	4.50	5.56	6.72	8.00

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
 STANDARD DETAILS  
 MEDIAN FLARES



DATE : 4/16 DWG NO. 130



**NOTES:**

- 1.TIE-IN CURB DRAIN INLET TO UNDERGROUND DRAINAGE SYSTEM.
- 2.WHEN SEMITRAILER TRUCK TRAFFIC IS EXPECTED, DIMENSIONS MAY REQUIRE MODIFICATION.

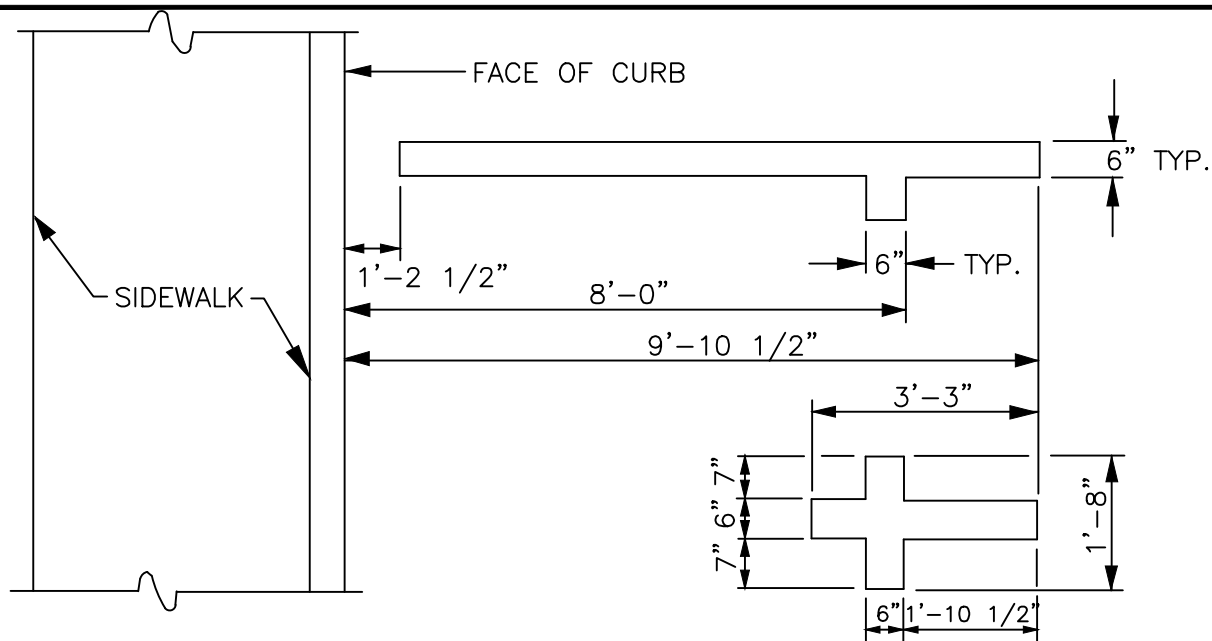
CITY OF PLEASANTON  
STANDARD DETAILS

ACCESS TO OFF-STREET  
PARKING FACILITIES

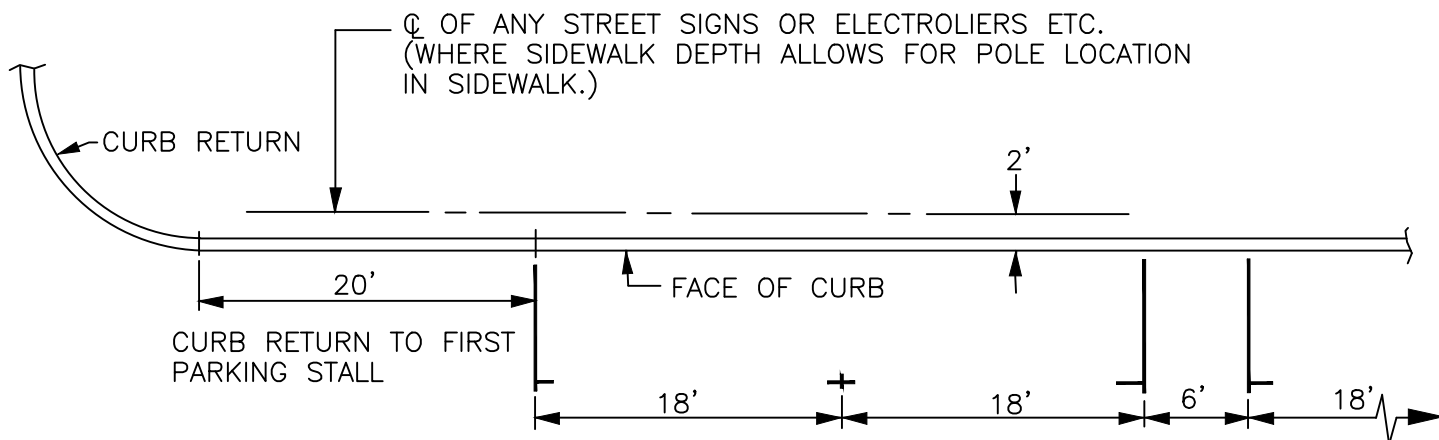


DATE : 4/16 DWG NO. 131

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



STRIPING DETAIL



PARKING STALL

NOTES:

1. ALL EXISTING STRIPING SHALL BE REMOVED BY GRINDING BEFORE NEW THERMOPLASTIC STRIPING IS APPLIED.
2. THE WHITE THERMOPLASTIC SHALL CONTAIN THE REFLECTIVE GLASS BEADS, (PER STATE STANDARD SPECIFICATIONS).
3. ALL DIMENSIONS PARALLEL TO CURB IN PARKING STALL DETAIL ARE CENTERLINE TO CENTERLINE.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

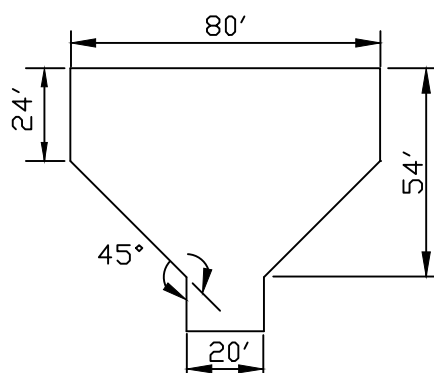
CITY OF PLEASANTON  
STANDARD DETAILS

STRIPING AND  
PARKING STALL DETAIL

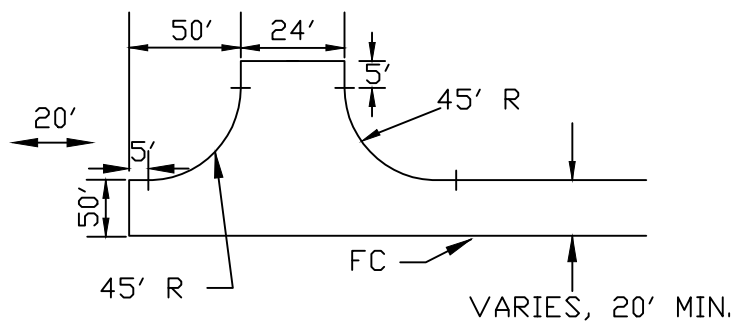


DATE: 4/16 DWG NO. 132

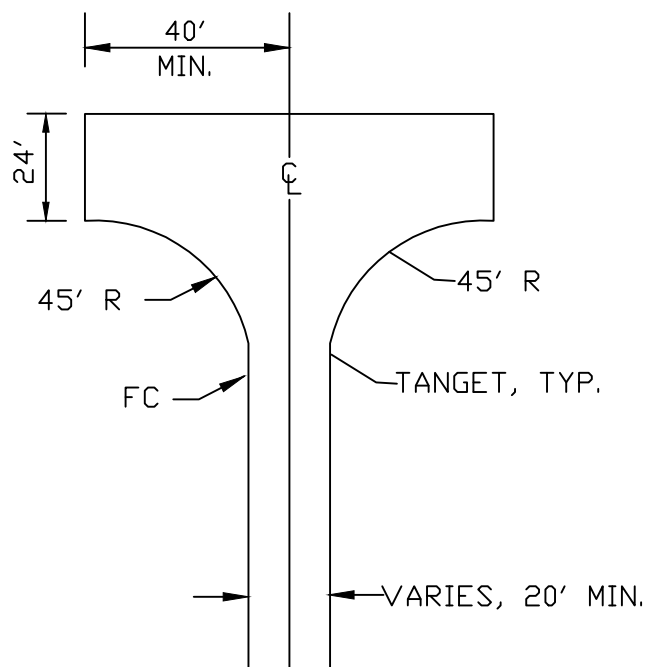




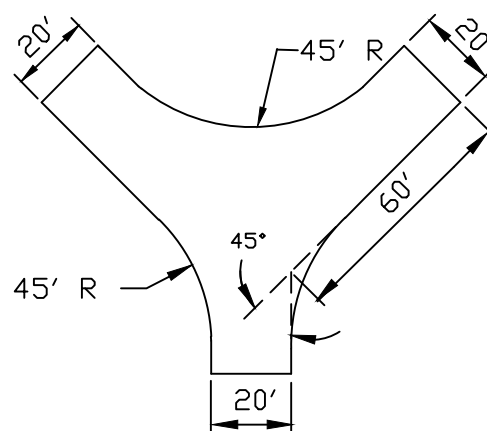
"T" HAMMERHEAD  
(CHAMFER ALTERNATIVE



DOG LEG HAMMERHEAD



"T" HAMMERHEAD



60' "Y"

NOTES:

1. NOT FOR USE IN PUBLIC STREETS.
2. MARK AS FIRE LANE AND SIGN OR PAINT CURB RED.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

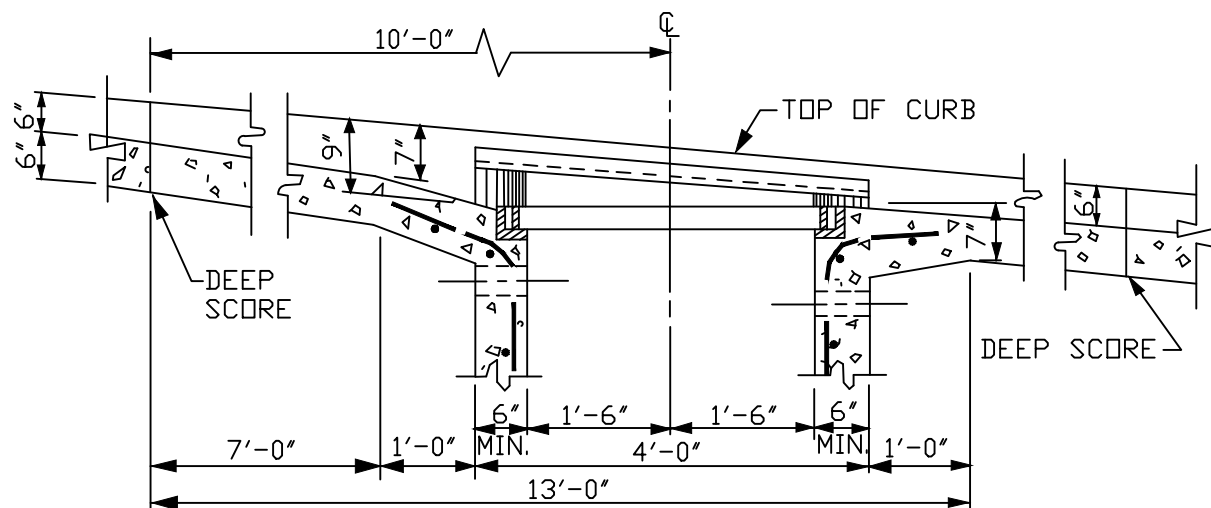
CITY OF PLEASANTON  
STANDARD DETAILS  
FIRE APPARATUS TURN AROUND



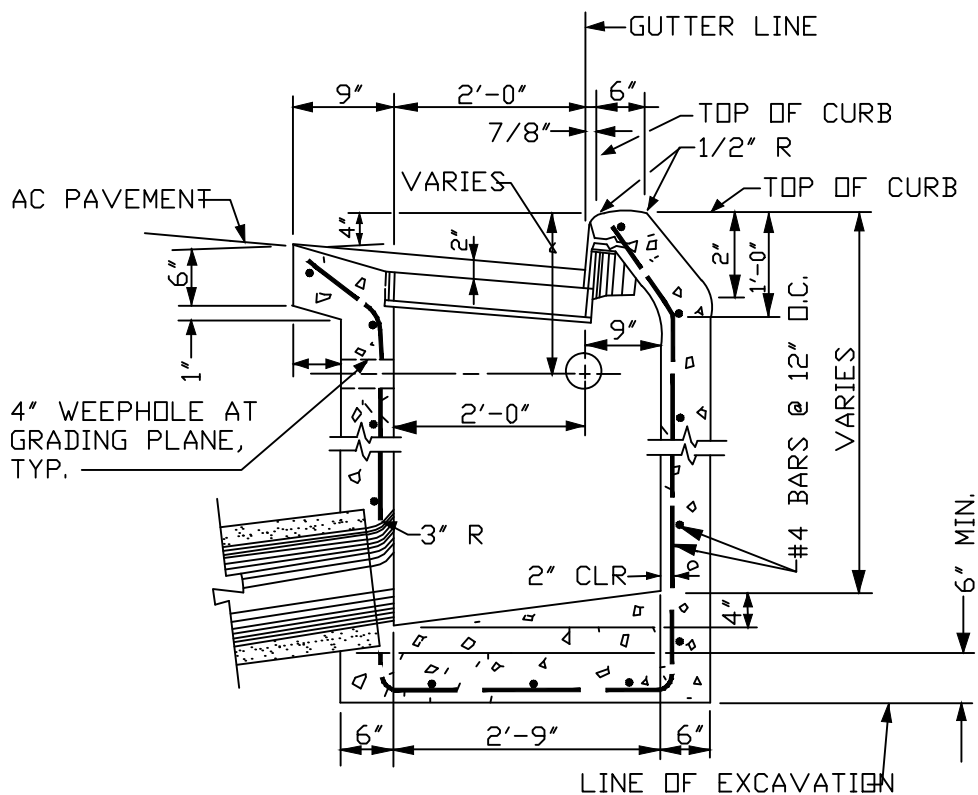
DATE : 4/16	DWG NO. 134
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POSITION OF FRAME AND GRATE  
FOR CURB GRADES 5% OR STEEPER



SECTION B - B

CITY OF PLEASANTON  
STANDARD DETAILS

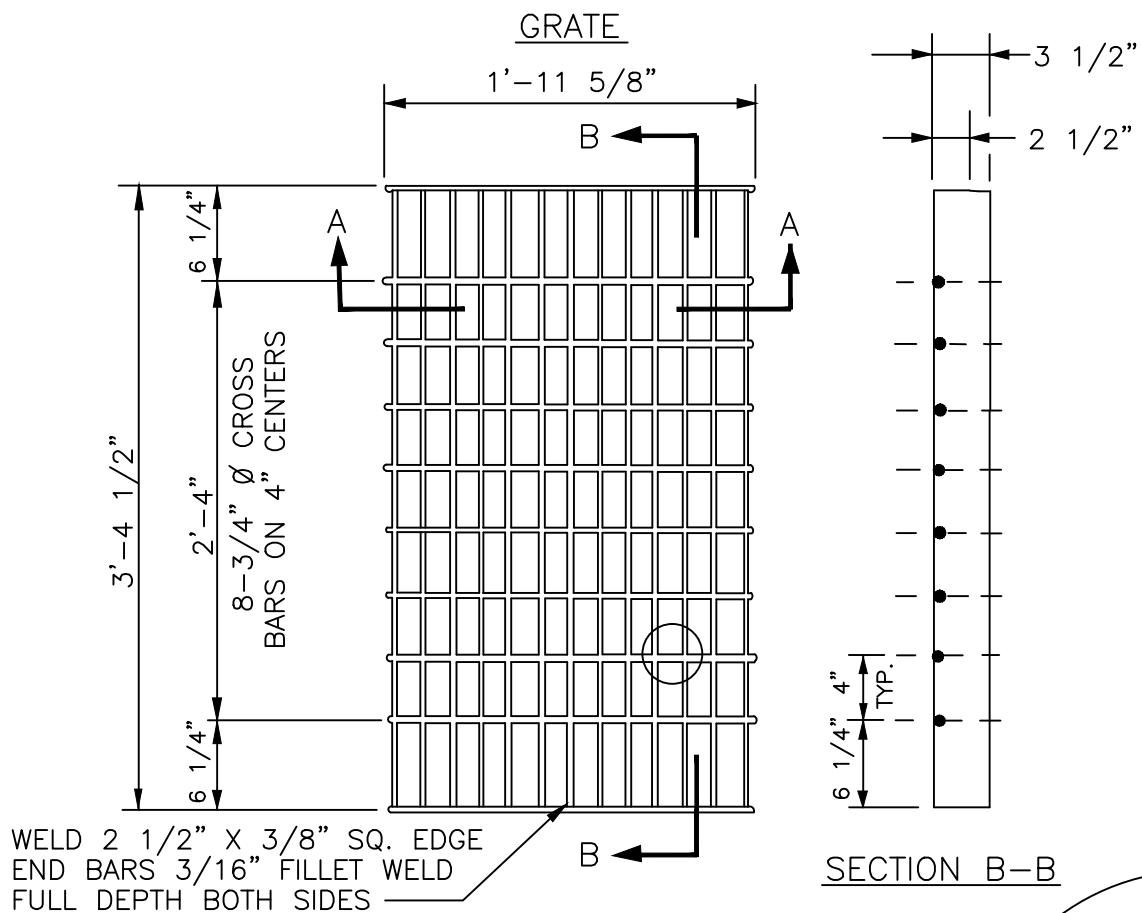
CURB INLET

SHEET 2 OF 5 SHEETS

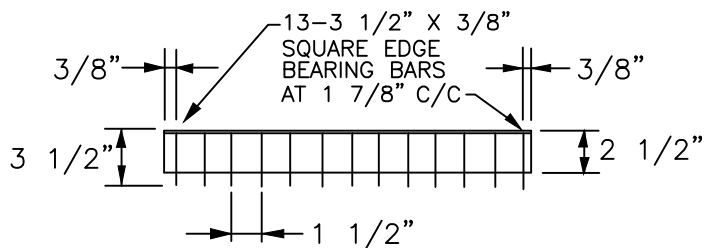


DATE : 4/16 DWG NO. 201B

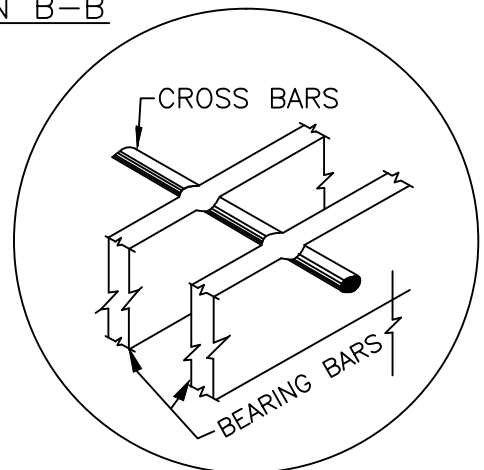
DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



SECTION B-B



SECTION A - A



DETAIL

**NOTE:**

1. ALL BEARING BARS AND  
CROSS BARS SHALL BE  
ELECTROFORGED INTO A ONE  
PIECE CONSTRUCTION.

CITY OF PLEASANTON  
STANDARD DETAILS  
CURB INLET

SHEET 3 OF 5 SHEETS

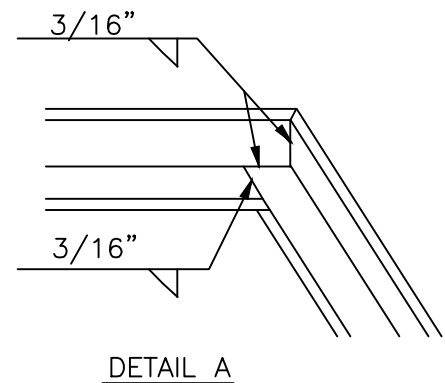
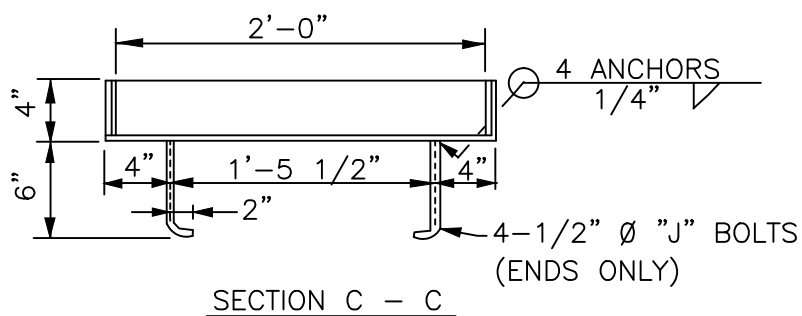
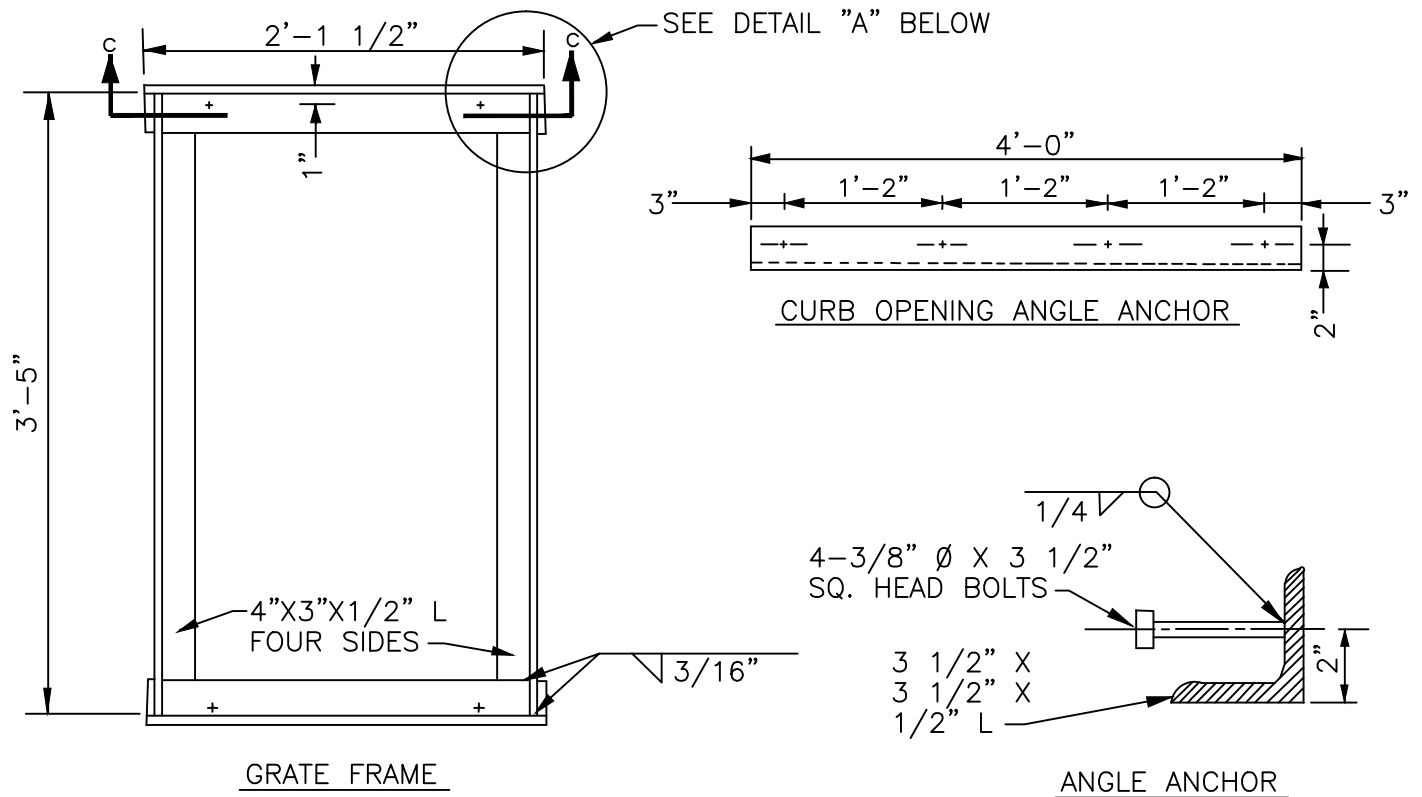
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 4/16 | DWG NO. 201C



CITY OF PLEASANTON  
STANDARD DETAILS  
CURB INLET  
SHEET 4 OF 5 SHEETS



DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.

DATE: 4/16	DWG NO. 201D
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## CURB INLET NOTES

1. ALL MATERIAL SHALL BE STRUCTURAL GRADE STEEL OR BETTER.
2. GRATING AND FRAMES ARE TO BE ASSEMBLED AND MADE TO FIT BEFORE DELIVERY TO JOB SITE.
3. ALL CONCRETE TO BE CLASS 2. ONE PINT OF LAMP BLACK PER CU YD.
4. 4" WEEP HOLES TO BE PLACED AT BOTTOM OF PERVIOUS BASE OR SUBBASE AS DIRECTED BY THE ENGINEER. PLACE DRAIN ROCK IN SACK AROUND EACH HOLE.
5. POSITION OF CONDUIT LEAVING INLET TO BE AS INDICATED ON IMPROVEMENT PLANS. INLET FLOOR TO SLOPE TO OUTLET CONDUIT. CONDUITS SHALL NOT ENTER THE INLET AT THE CORNERS.
6. MINIMUM CLEAR SPACING BETWEEN SURFACES OF THE CONCRETE AND REINFORCING STEEL TO BE 2". WHERE THE CONCRETE IS POURED AGAINST UNDISTURBED SOIL AND WALL THICKNESS EXCEEDS 7", CLEARANCE MAY BE 3".
7. NO CONSTRUCTION JOINTS TO BE PLACED OTHER THAN WHERE SHOWN ON THE PLANS, EXCEPT WITH THE APPROVAL OF THE ENGINEER.
8. ALL EXPOSED STEEL COMPONENTS TO BE GALVANIZED AFTER FABRICATION.
9. MINIMUM COVER FOR CONDUITS TO BE DETERMINED BY FIELD CONDITIONS BY THE ENGINEER.
10. INSTALL THERMOPLASTIC CURB MARKINGS AT ALL STORM WATER INLET LOCATIONS:  
"NO DUMPING – DRAINS TO BAY" ( SEE DETAIL 211).

CITY OF PLEASANTON  
STANDARD DETAILS

CURB INLET  
SHEET 5 OF 5 SHEETS

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 4/16 | DWG NO. 201E

CAST IRON FRAME AND  
NON-SKID CAST IRON  
COVER

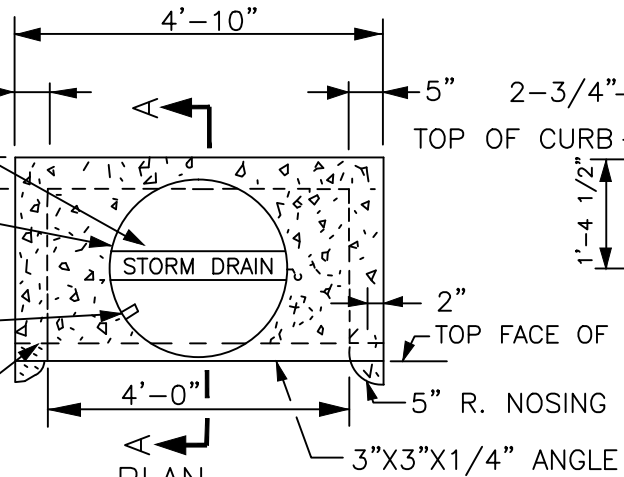
3/8" X 1-3/4"  
ANCHORS

1-1/8"  
PICK HOLE

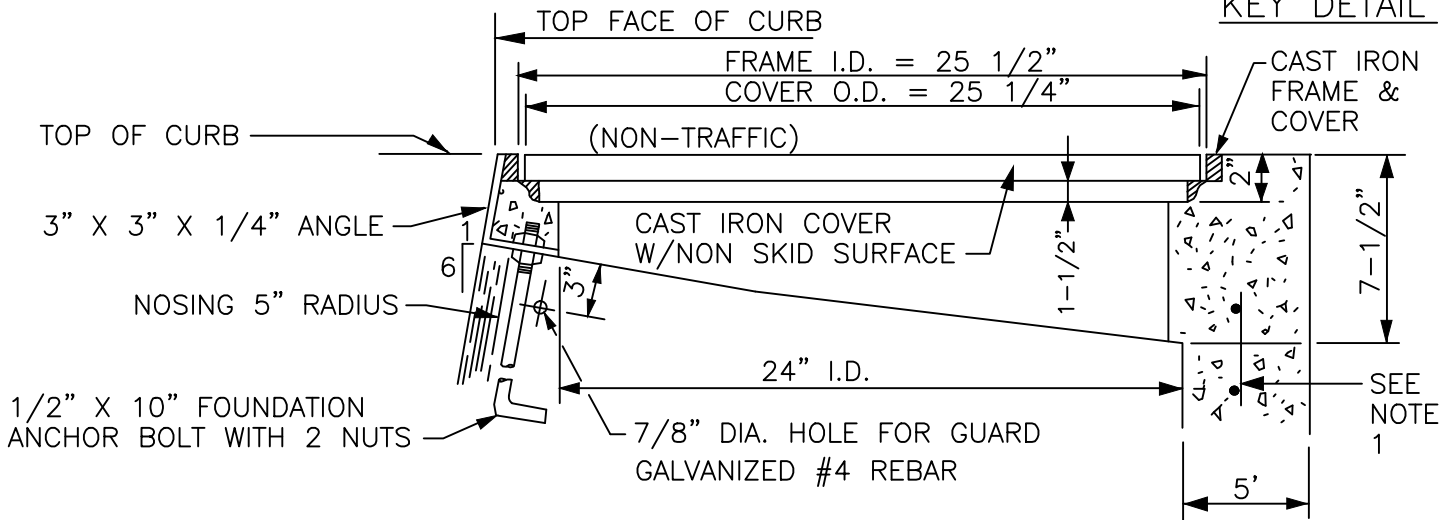
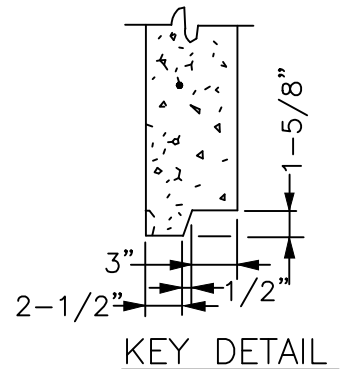
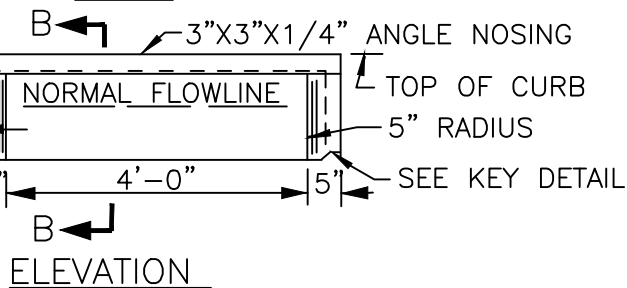
1/2"X10" ANCHOR BOLT

STD. CURB HEIGHT PER  
CONST. PLANS PLUS 2"

1/2" X 10" ANCHOR  
BOLT (REQ'D 2  
PLACES)



SECTION A - A



NOTES:

1. ALL REINFORCING IN CONCRETE TO BE 4" X 4" X #6 MESH.
2. TOP OF COVER TO HAVE NON-SKID SURFACE.

CITY OF PLEASANTON  
STANDARD DETAILS

TYPE II STORM DRAIN  
CURB INLET PRECAST COVER  
TO BE USED ONLY UPON APPROVAL  
OF THE ENGINEER

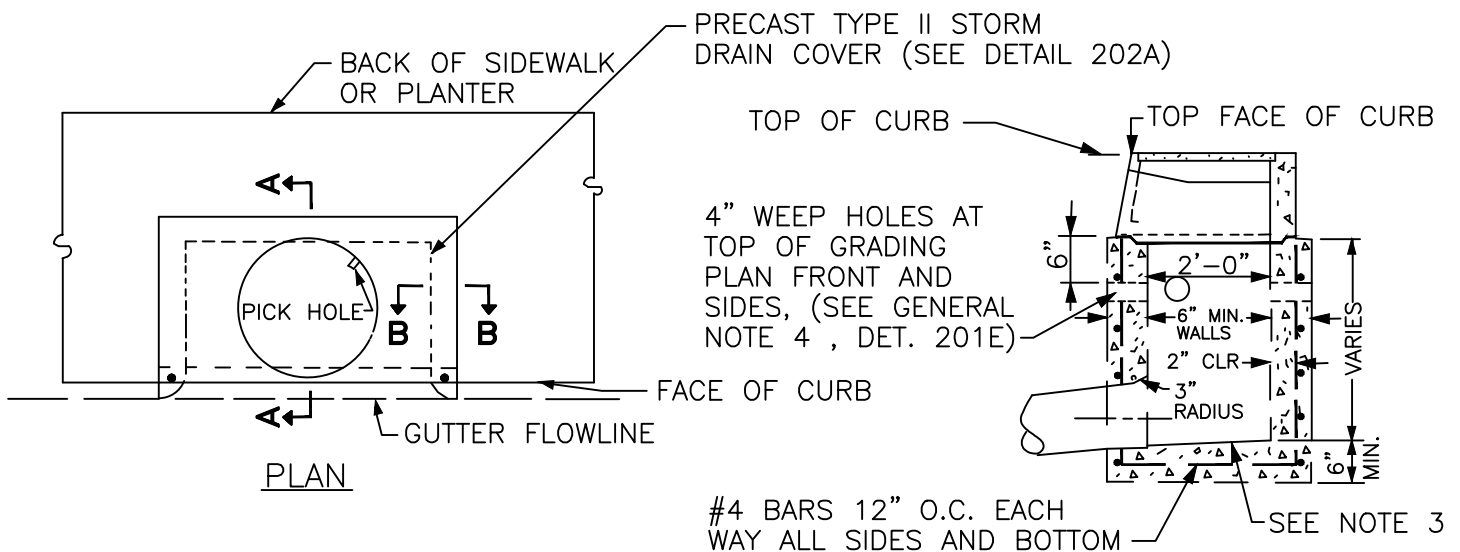


DATE: 4/16 DWG NO. 202A

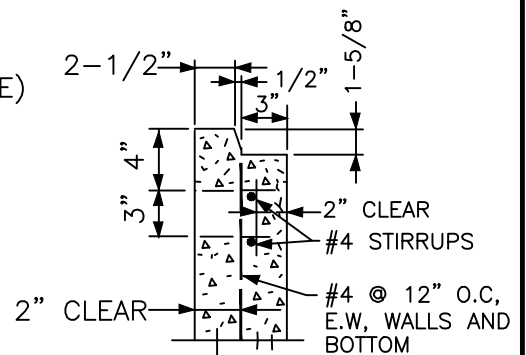
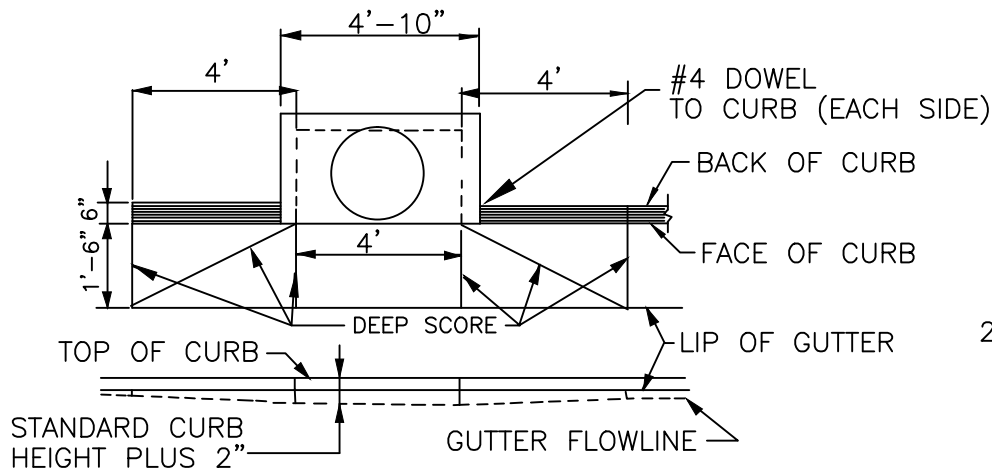
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



SECTION A - A



SECTION B - B

**NOTES:**

1. MAXIMUM SIZE PIPE ENTERING OR EXITING CATCH BASIN SHALL BE 18".
2. A MAXIMUM OF 2 PIPES SHALL CONNECT TO THE CATCH BASIN.
3. SLOPE BOTTOM OF CATCH BASIN TO DRAIN.
4. CURB INLET TO BE CAST IN PLACE UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
5. SEE DET. 201E FOR GENERAL NOTES.

CITY OF PLEASANTON  
STANDARD DETAILS

TYPE II STORM DRAIN  
2' X 4' CURB INLET

TO BE USED ONLY UPON APPROVAL  
OF THE ENGINEER

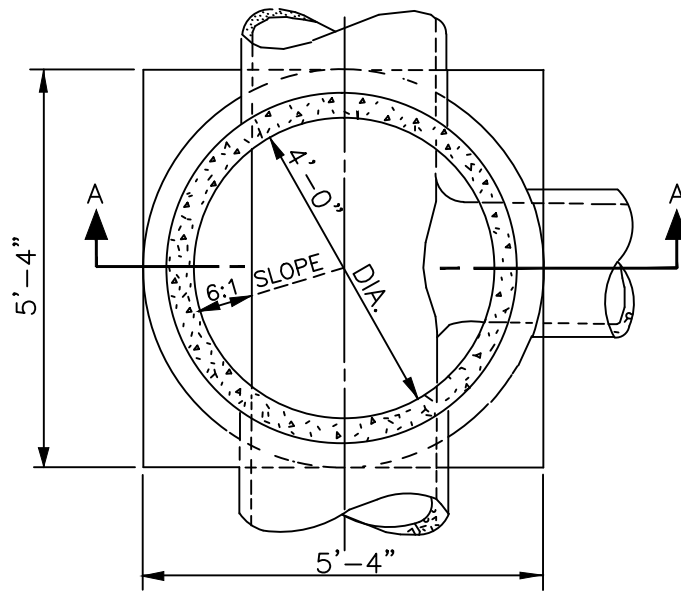


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CHECKED BY: AN

SCALE: N.T.S.

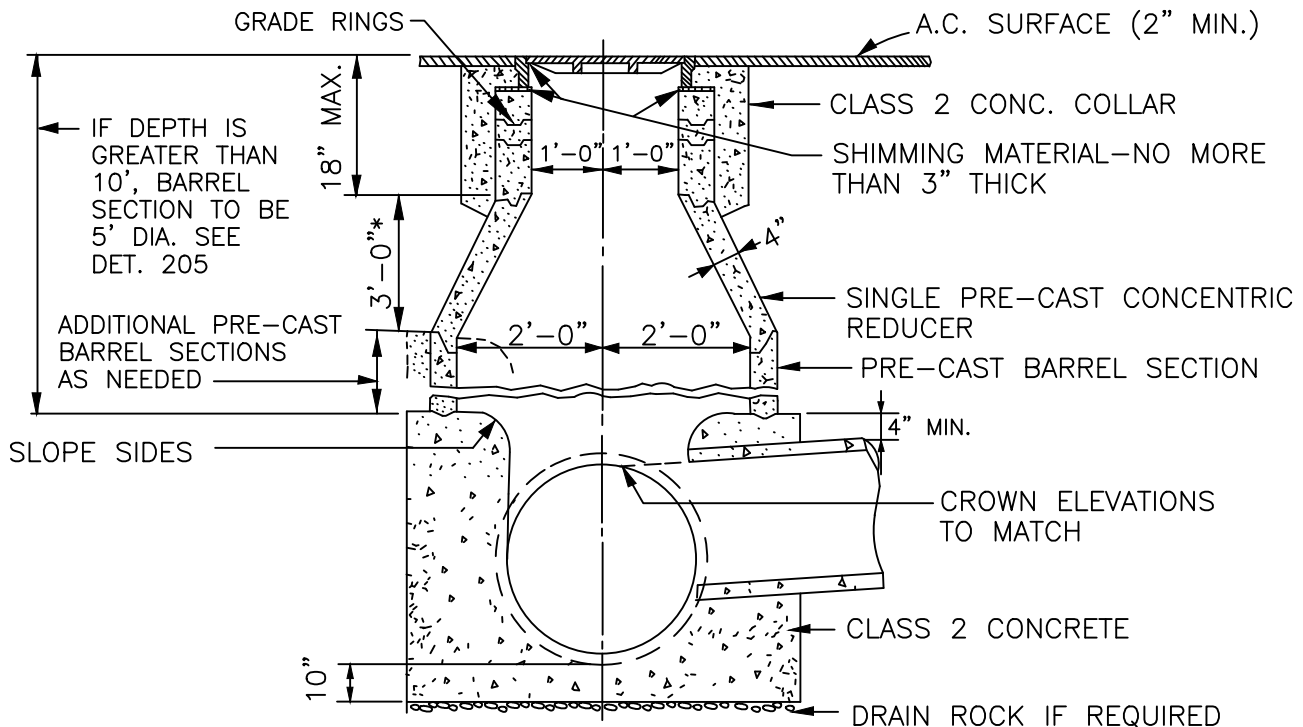
DATE: 4/16 DWG NO. 202B



PLAN OF BASE

**NOTES:**

1. FOR PIPE SIZES LARGER THAN 36", SEE TYPE III STORM DRAIN MANHOLE, DET. 205.
  2. USE RAMNECK OR APPROVED EQUAL BETWEEN JOINTS.
  3. TRIM ALL JOINTS AFTER COMPLETION.
  4. MANHOLES SHALL HAVE NO STEPS.
- \* UNLESS APPROVED BY THE ENGINEER.



SECTION A - A

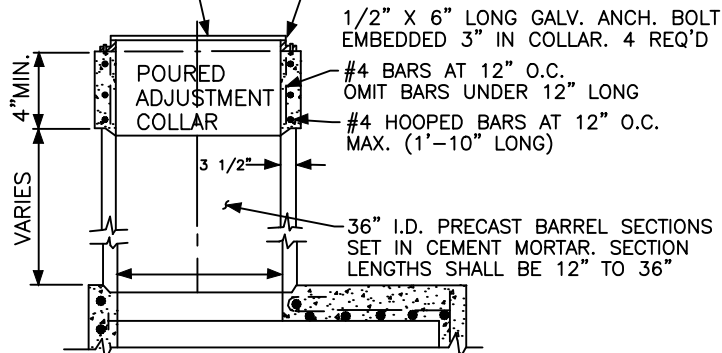
CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE I STORM DRAIN  
MANHOLE  
PIPE SIZES 12" - 36"

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.

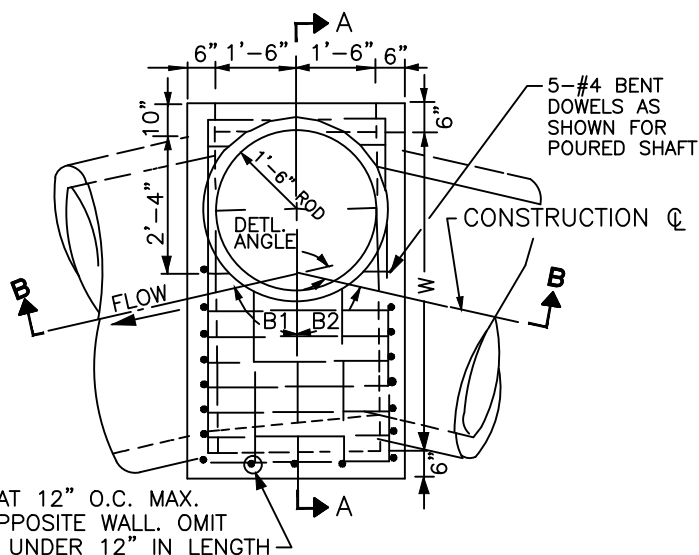


DATE: 4/16 DWG NO. 203

INSTALL STD. 36" M.H. FRAME AND COVER  
SEE DETAIL 207

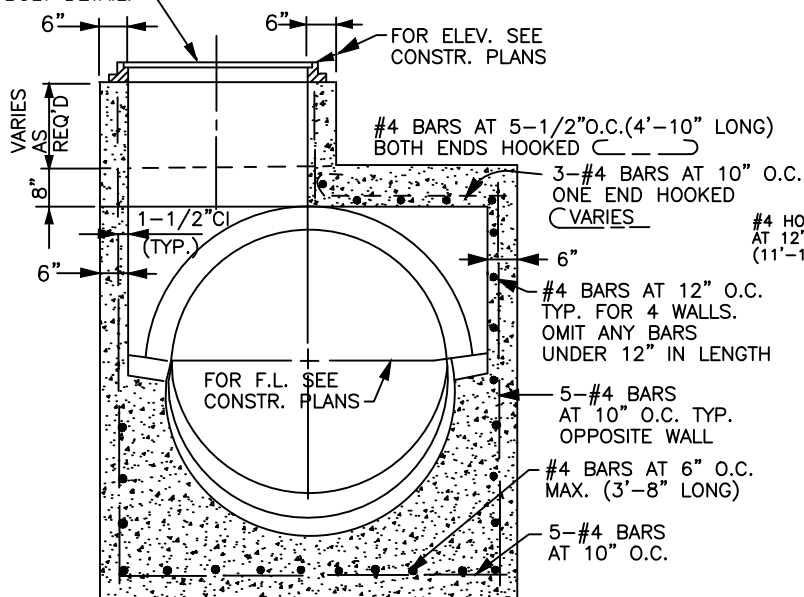


SECTION A-A  
(M.H. WITH PRECAST BARREL SECTIONS  
AND POURED ADJUSTMENT COLLAR)

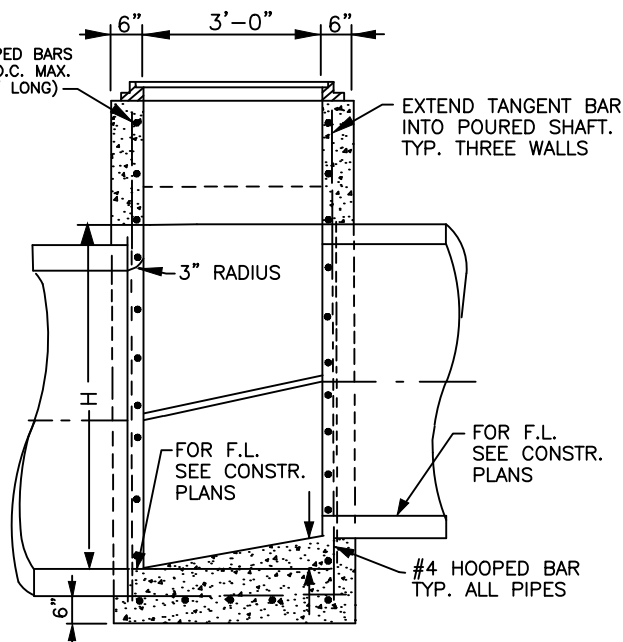


PLAN OF MANHOLE BASE WITH  
TOP SLAB REINFORCEMENT  
(SHAFT REMOVED)

INSTALL STD. 36" M/H FRAME AND COVER.  
SEE CONSTRUCTION PLANS. SEE POURED  
ADJUSTMENT COLLAR FOR ANCHOR  
BOLT DETAIL.



SECTION A-A  
(M.H. WITH POURED SHAFT)



SECTION B-B  
(M.H. WITH POURED SHAFT)

**NOTES**

1. LOCATION AND DIRECTION OF CONDUITS ENTERING AND EXITING MANHOLE ARE SHOWN ON THE CONSTRUCTION PLANS.
2. REINFORCING STEEL MAY BE BENT, CUT, OR SPREAD AS DIRECTED BY THE ENGINEER TO PERMIT CONNECTION OF LATERAL PIPE.
3. SEE CONSTRUCTION PLANS FOR INFORMATION ON SHAFT LOCATION B<sub>1</sub>, B<sub>2</sub>, W AND H.

CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE II STORM DRAIN  
MANHOLE  
FOR PIPE SIZE 54"-84"

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



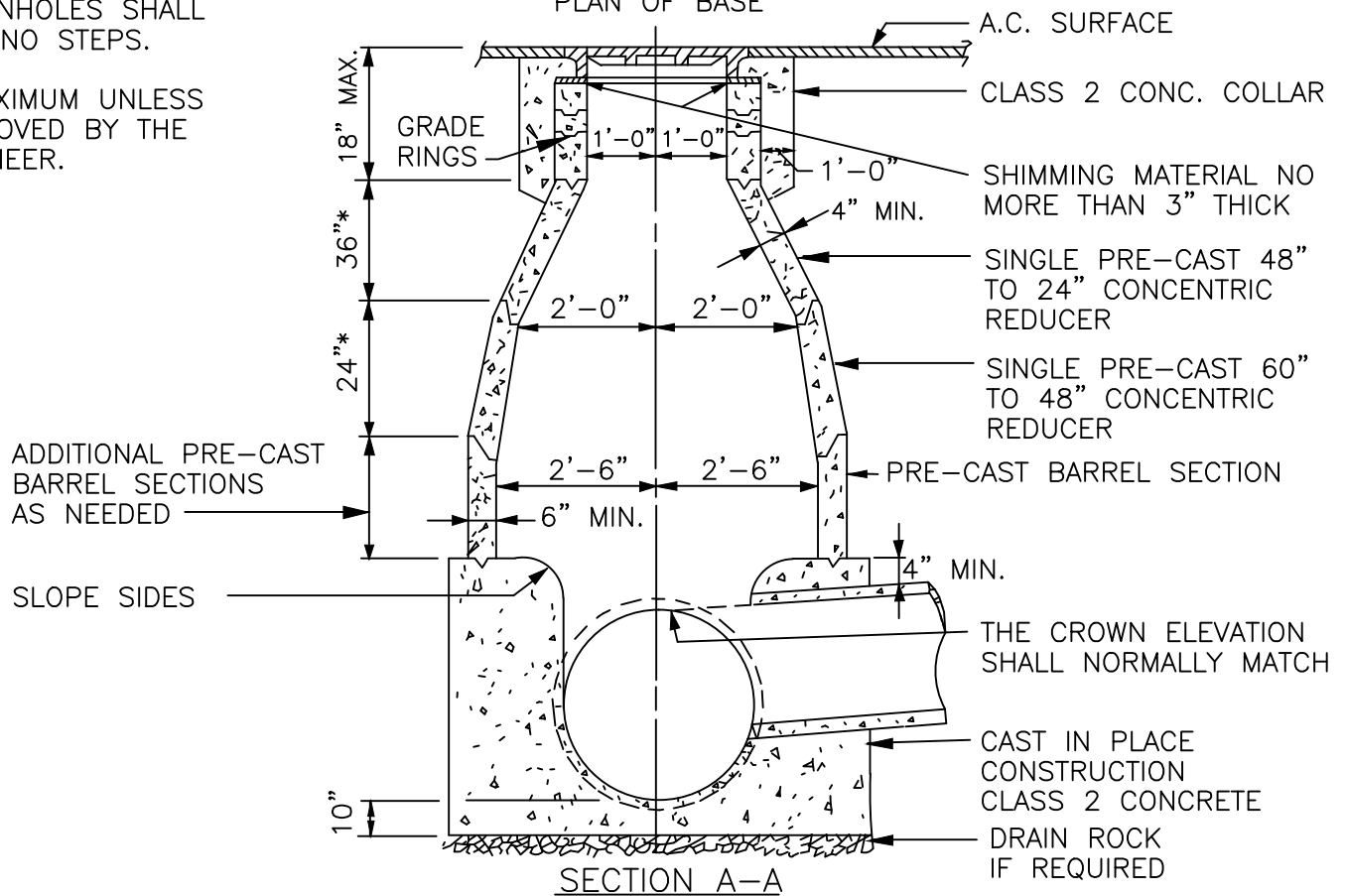
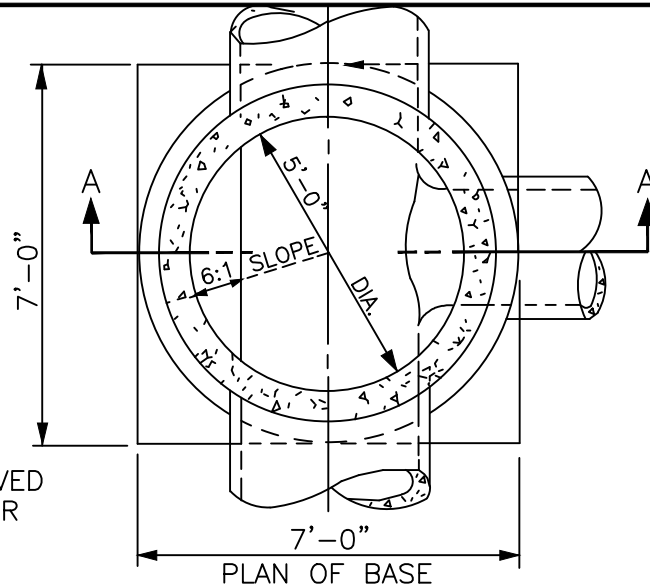
DATE: 4/16 DWG NO. 204



**NOTES:**

1. FOR PIPE SIZES LARGER THAN 48" SEE TYPE II STORM DRAIN MANHOLE DETAIL 204.
2. USE RAMNECK OR APPROVED EQUAL BETWEEN JOINTS AFTER COMPLETION.
3. MANHOLES SHALL HAVE NO STEPS.

\* MAXIMUM UNLESS APPROVED BY THE ENGINEER.

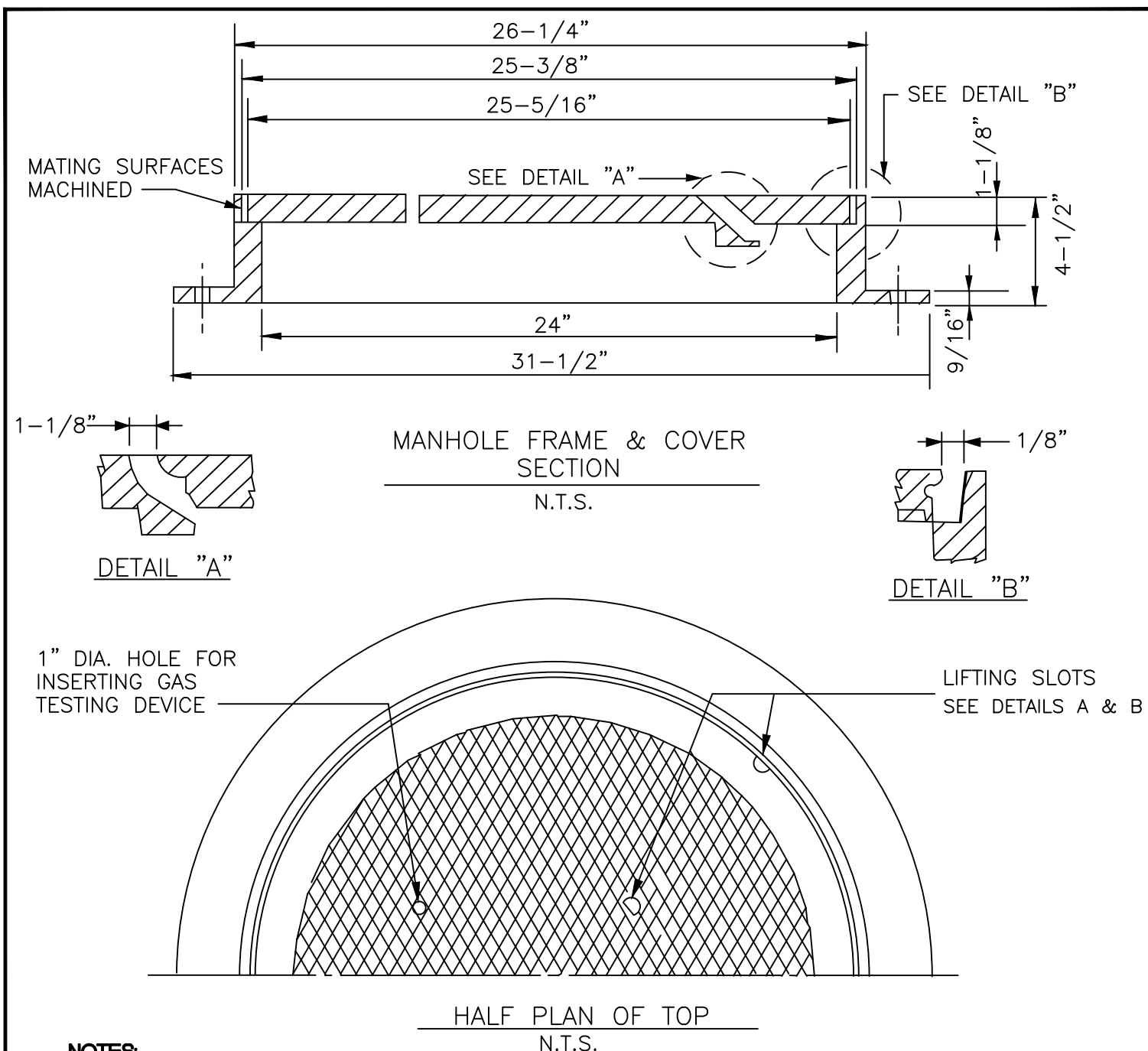


CITY OF PLEASANTON  
STANDARD DETAILS  
TYPE III STORM DRAIN  
MANHOLE  
FOR PIPE SIZES 42" & 48"

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE: 4/16 | DWG NO. 205



**NOTES:**

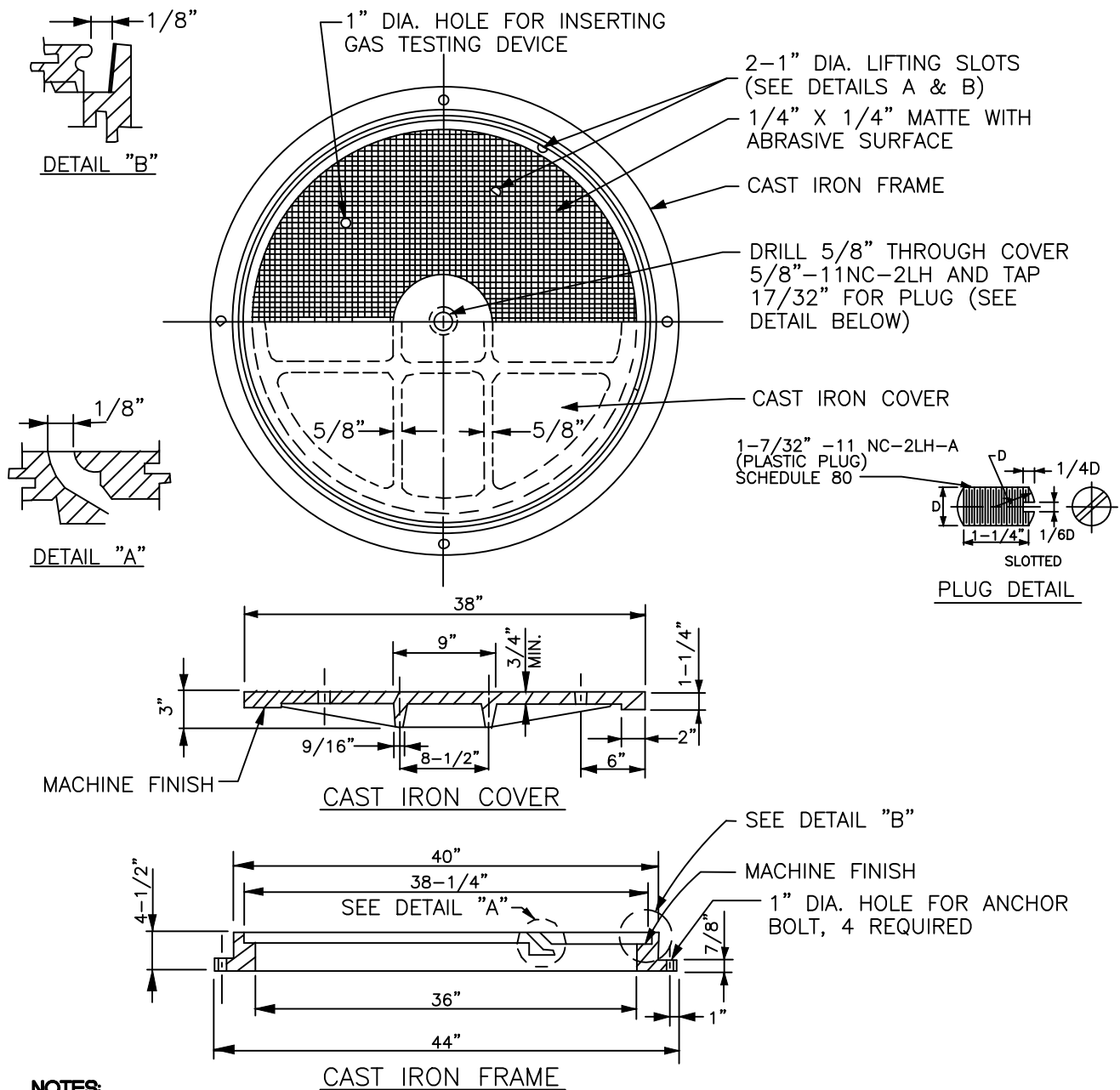
1. COVERS SHALL BE SET FLUSH AND NOT ROCK.
2. SANITARY SEWER AND STORM DRAIN MANHOLE FRAME AND COVERS SHALL BE IDENTICAL EXCEPT FOR THE WORDS "SANITARY SEWER" OR "STORM DRAIN" EMBOSSED ON THE COVERS OR OTHER ACCEPTABLE IDENTIFICATION.

CITY OF PLEASANTON  
STANDARD DETAILS  
MANHOLE  
FRAME & COVER

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE: 4/16 DWG NO. 206



#### NOTES:

1. ALL CONTACT AND BEARING SURFACES OF BOTH FRAME AND COVER SHALL BE MACHINED TO FIT ACCURATELY SO THAT THE COVER WILL NOT ROCK AND SHALL BE MATCHED AND MARKED IN PAIRS BEFORE DELIVERY.
2. SANITARY SEWER AND STORM DRAIN MANHOLE FRAME AND COVERS SHALL BE IDENTICAL, EXCEPT FOR THE WORDS "SANITARY SEWER" OR "STORM DRAIN" EMBOSSED ON THE COVERS, OR OTHER ACCEPTABLE IDENTIFICATION.
3. FRAME AND COVER SHALL EXCEED H-20 WHEEL LOADING.

## CITY OF PLEASANTON

### STANDARD DETAILS

### 36" MANHOLE

### FRAME AND COVER

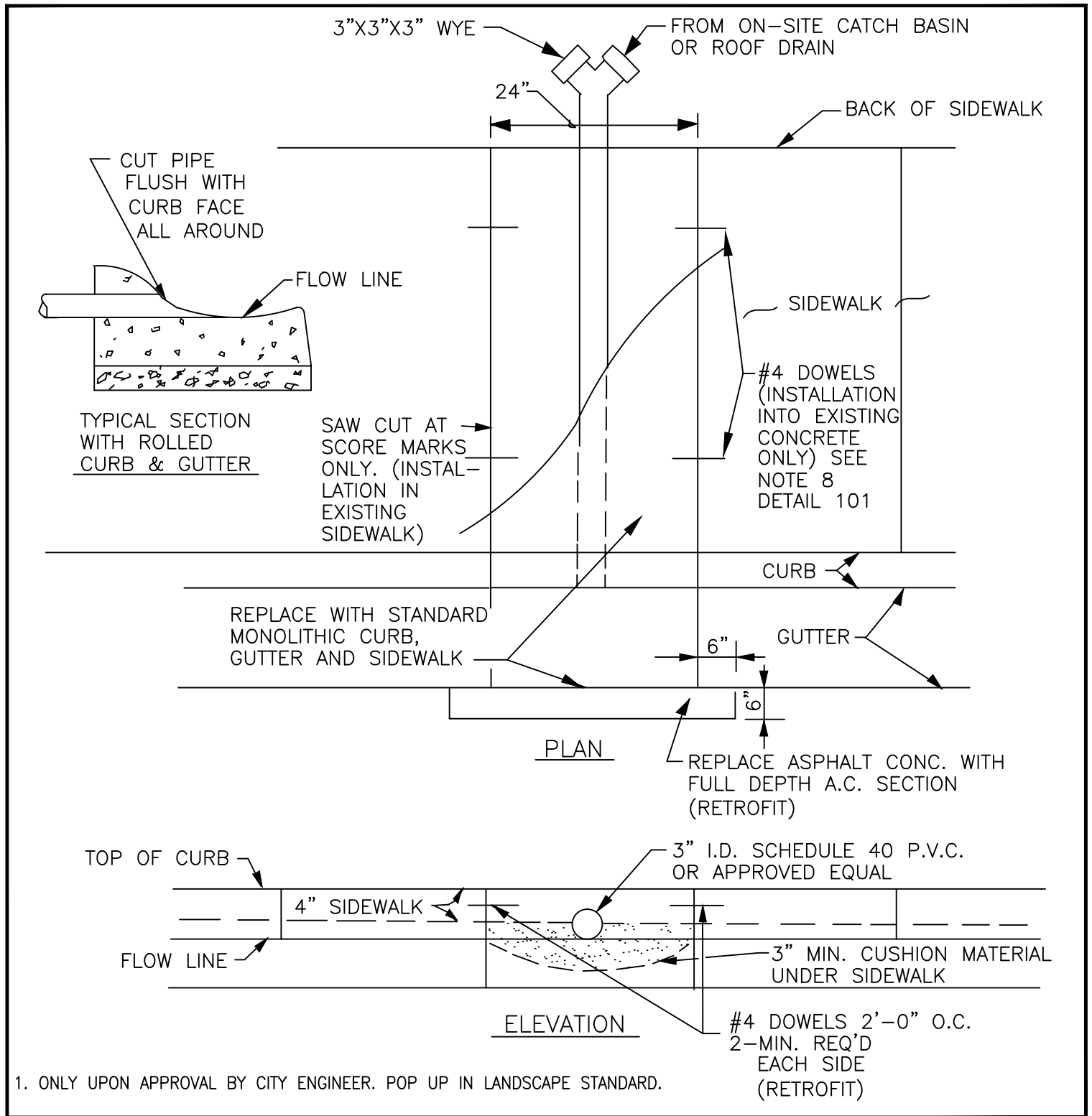
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 4/16 DWG NO. 207

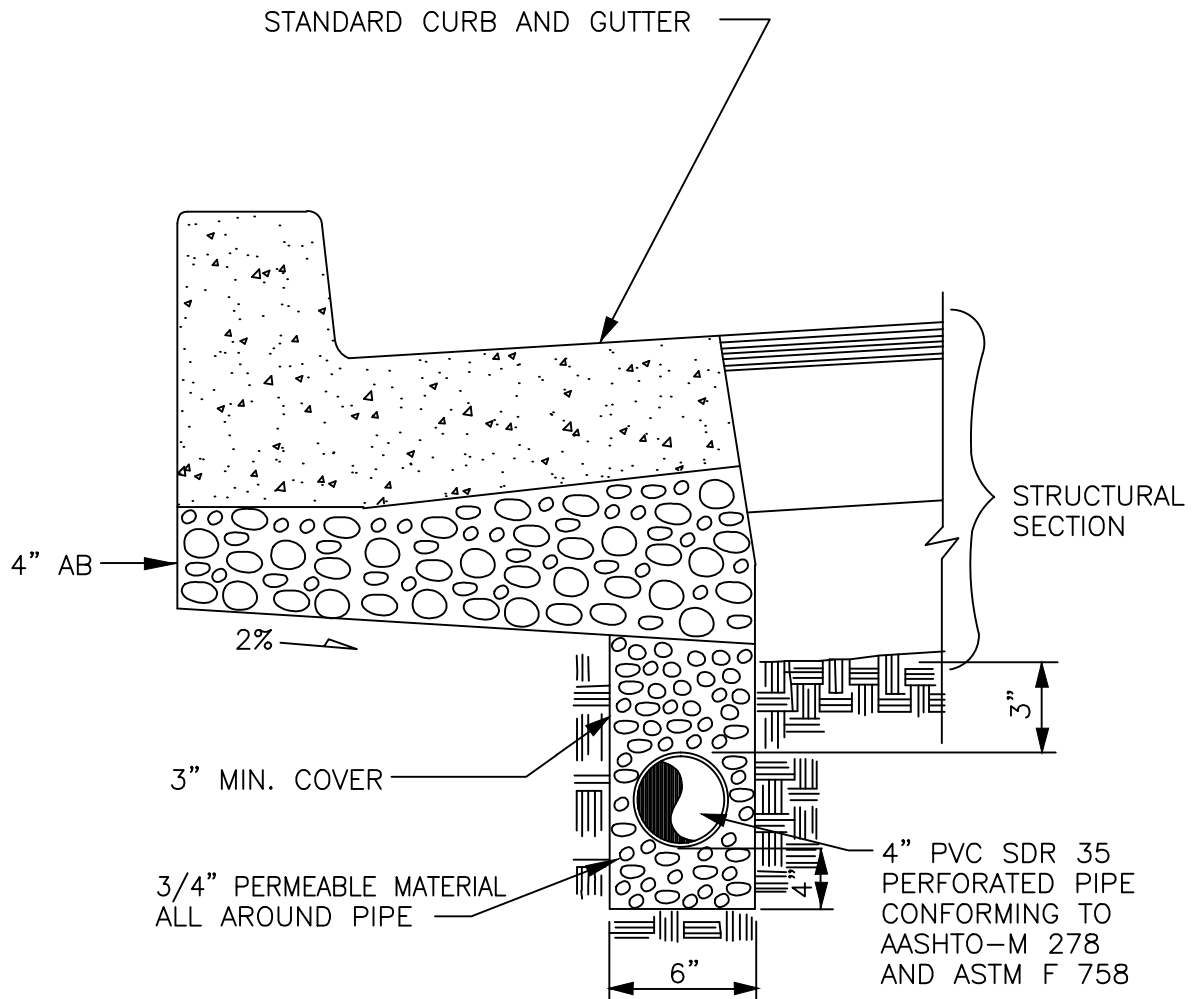


CITY OF PLEASANTON  
STANDARD DETAILS  
OFF-SITE DRAIN  
THROUGH CURB

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE: 4/16 DWG NO. 208



**NOTE:**



1. 4" PERFORATED PIPE TO BE LAYED PARALLEL WITH THE PROPOSED GUTTER.
2. CONNECT TO EXISTING CURB INLET STRUCTURE.
3. PROVIDE 0.10 % SLOPE MINIMUM.

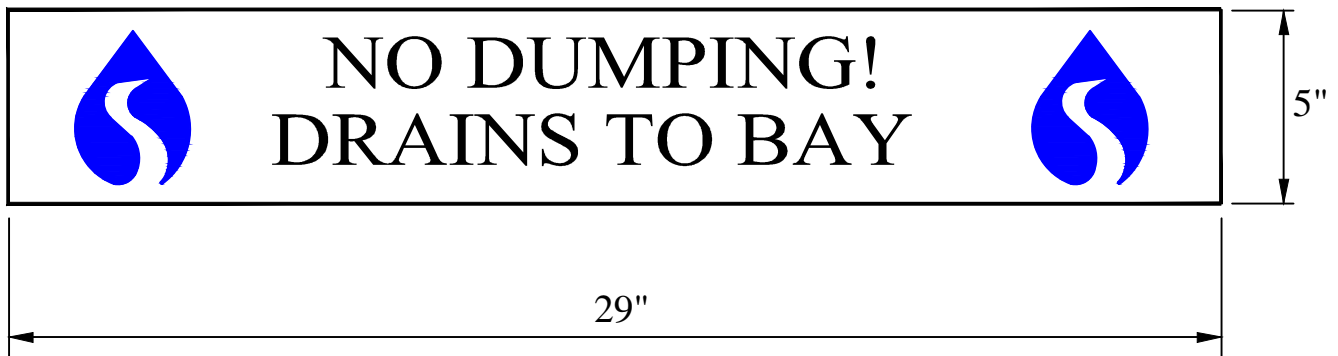
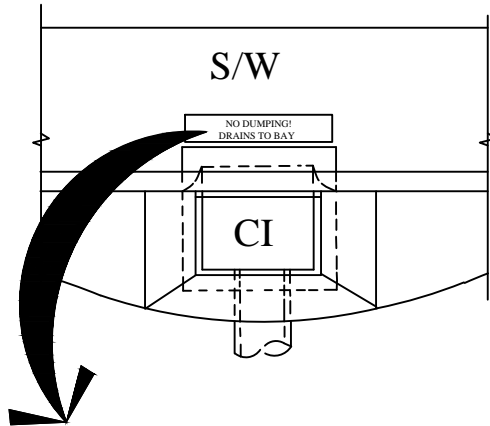
CITY OF PLEASANTON  
STANDARD DETAILS  
SUBDRAIN DETAIL

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE: 10/16 DWG NO. 209


  
 WHITE      BLUE



**NOTES:**



1. NEW CONCRETE SURFACES MUST BE SANDBLASTED TO ENTIRELY REMOVE THE CURING COMPOUND.
2. THE RETROREFLECTIVE THERMOPLASTIC PREFORMED PAVEMENT MARKING SHALL BE APPLIED TO CONCRETE OR ASPHALT BY MEANS OF HEAT FUSION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE MARKING MAY BE OBTAINED FROM ENNIS-FLINT (336) 475-6600
3. THE THERMOPLASTIC SHALL BE A TWO PART APPLICATION: PART ONE SHALL BE BLUE AND PART TWO SHALL BE WHITE.

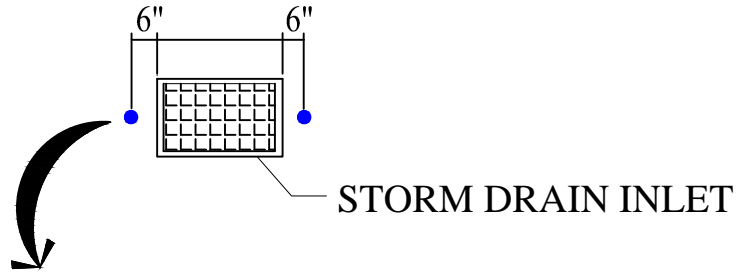
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
 STANDARD DETAILS  
 "NO DUMPING"  
 CURB & GUTTER

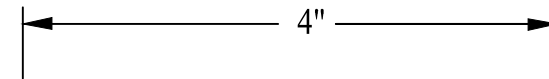


DATE : 10/16 DWG NO. 210

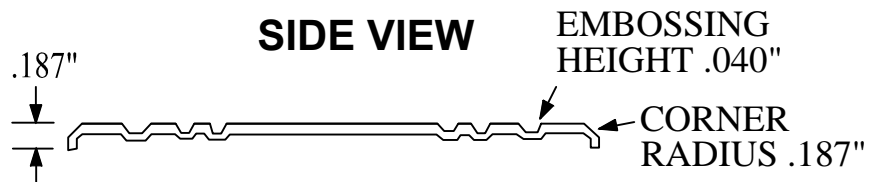

  
 WHITE      BLUE



**TOP VIEW**



**SIDE VIEW**



**NOTES:**

1. TWO STAINLESS STEEL DISK SHALL BE INSTALLED ON THE SIDES OF STORM DRAIN INLET.
2. THE RETROREFLECTIVE DISK SHALL BE INSTALLED AS PER MANUFACTURE RECOMMENDATIONS. THE DISK MAY BE OBTAINED FROM ALMETEK 1-800-248-2080

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

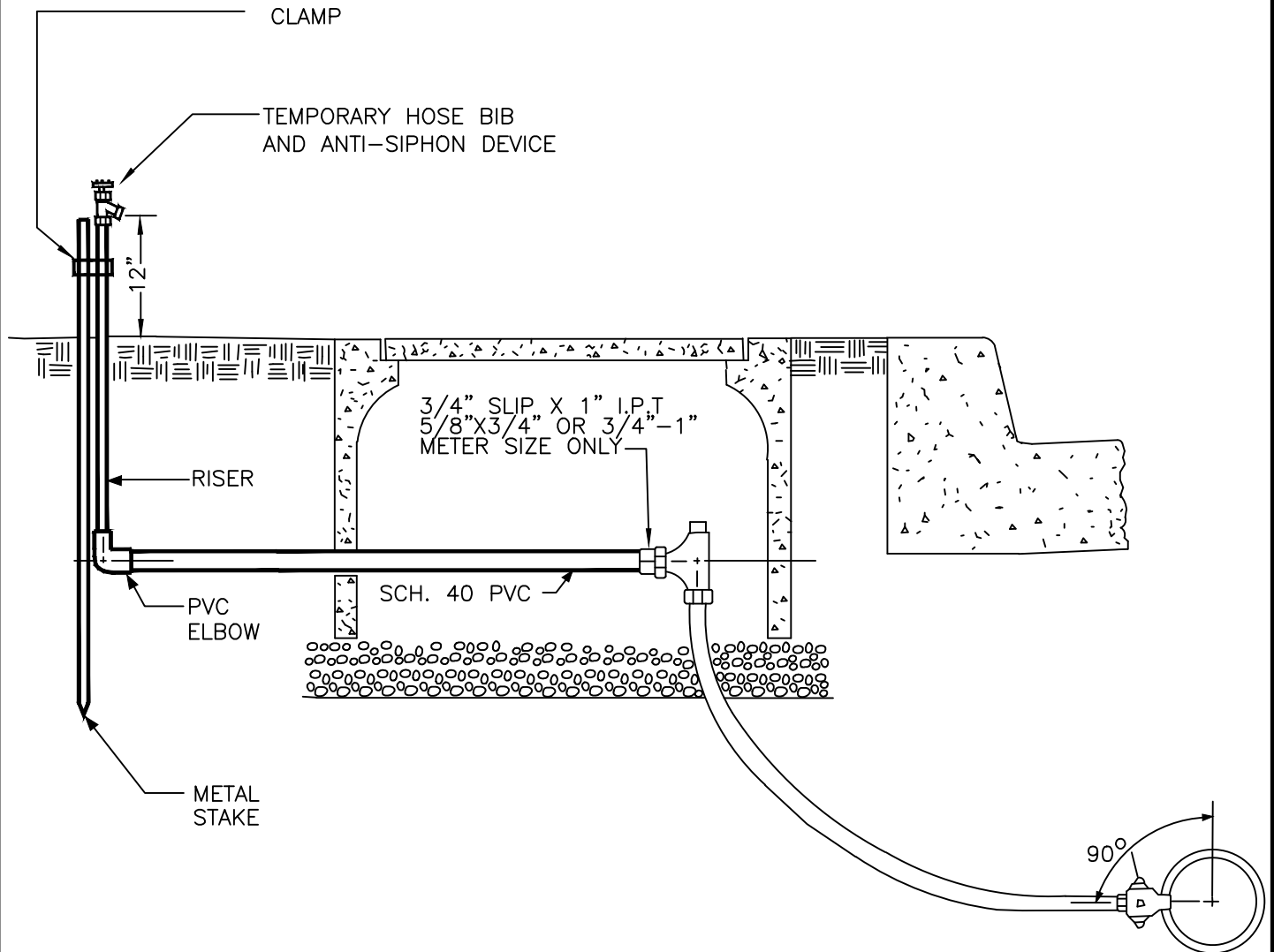
CITY OF PLEASANTON  
 STANDARD DETAILS  
 "NO DUMPING"  
 INLET MARKING



DATE : 10/16 DWG NO. 211







**NOTES:**

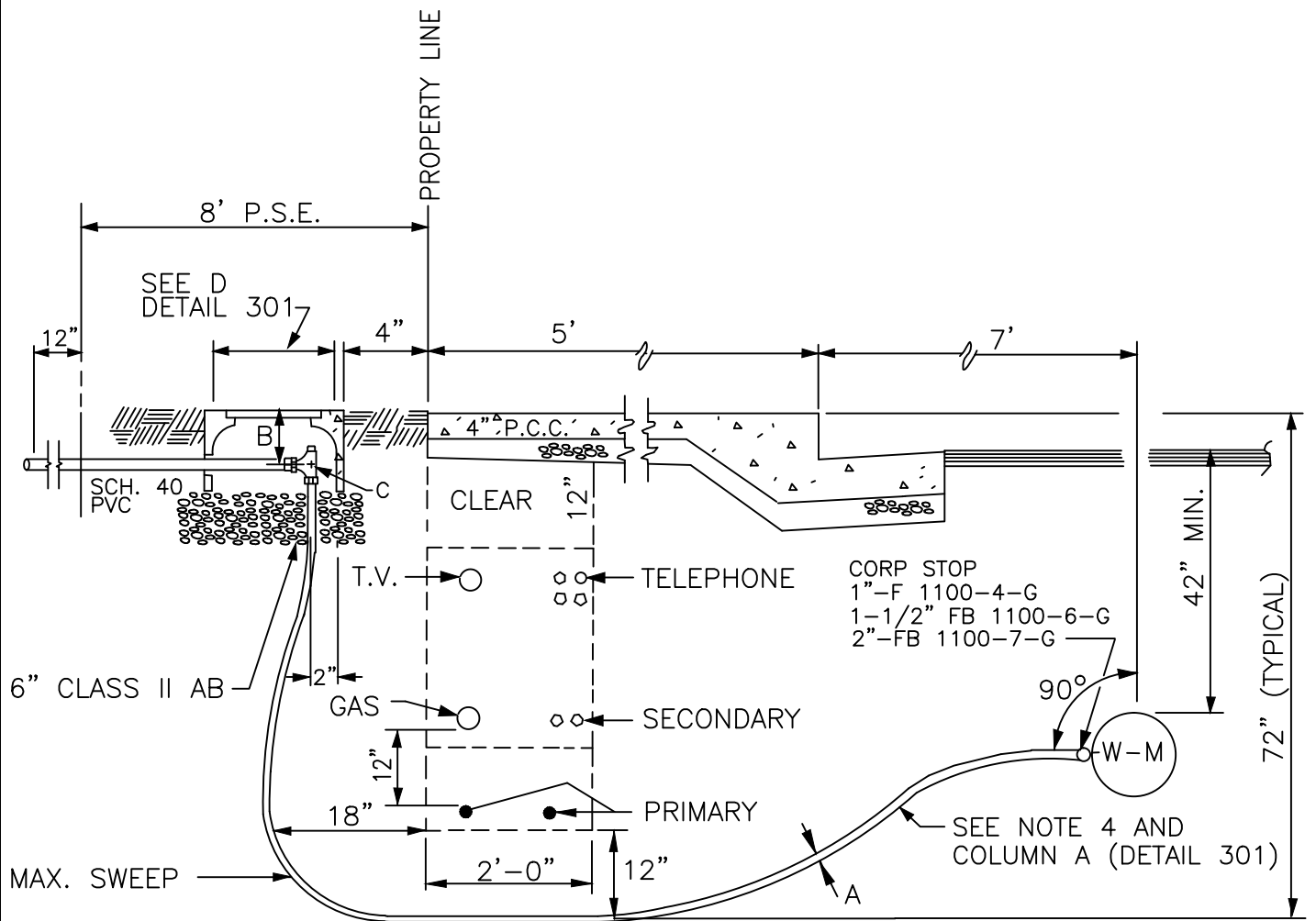
1. THIS DETAIL IS FOR TEMPORARY CONSTRUCTION WATER ONLY.
2. FOR WATER SERVICE NOTES SEE DETAIL 301.
3. METER TO BE INSTALLED PRIOR TO USE OF WATER.

NO.	REVISION	BY
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
TEMPORARY WATER SERVICE  
FOR RESIDENTIAL  
DURING CONSTRUCTION ONLY



DATE : 10/16 | DWG NO. 302



**NOTES:**

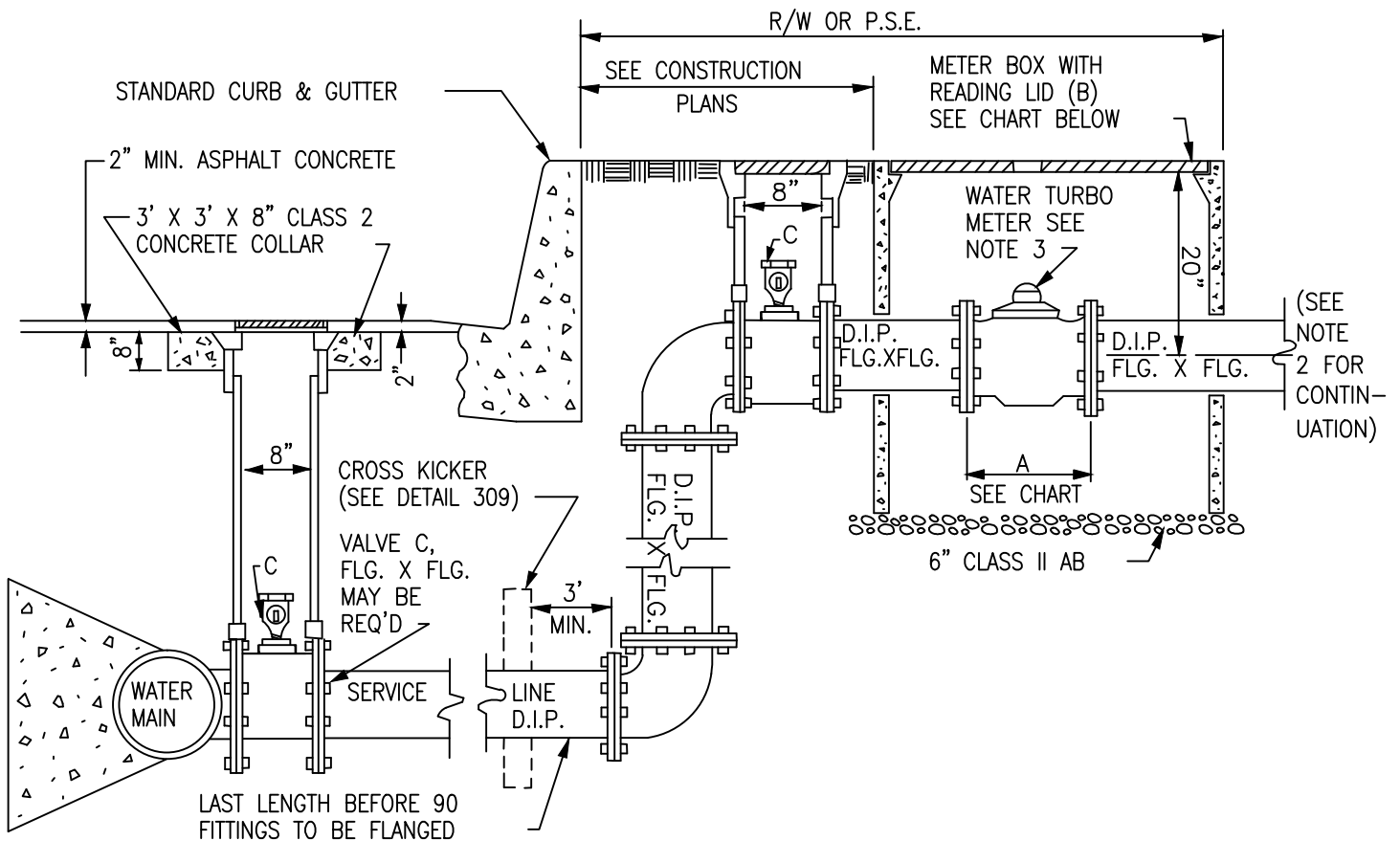
1. JOINT TRENCH DEPTH SHALL BE DETERMINED BEFORE WATER SERVICE IS INSTALLED.
2. FOR ADDITIONAL NOTES SEE DETAIL 301.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
STANDARD WATER SERVICE  
(MONOLITHIC SIDEWALK)  
ON SIDE OF STREET W/Joint TRENCH



DATE : 10/16 | DWG NO. 303



METER SIZE	A	B*	C
3	SPACER PROVIDED BY CITY UTILITY DEPARTMENT	BROOKS #67-S CHRISTY B-36-M-75	GATE VALVE
4		BROOKS #67-S CHRISTY B-36-M-75	GATE VALVE
6		BROOKS #68-2PC CHRISTY B-40-M-75	GATE VALVE
		* OR APPROVED EQUAL	

**NOTES:**

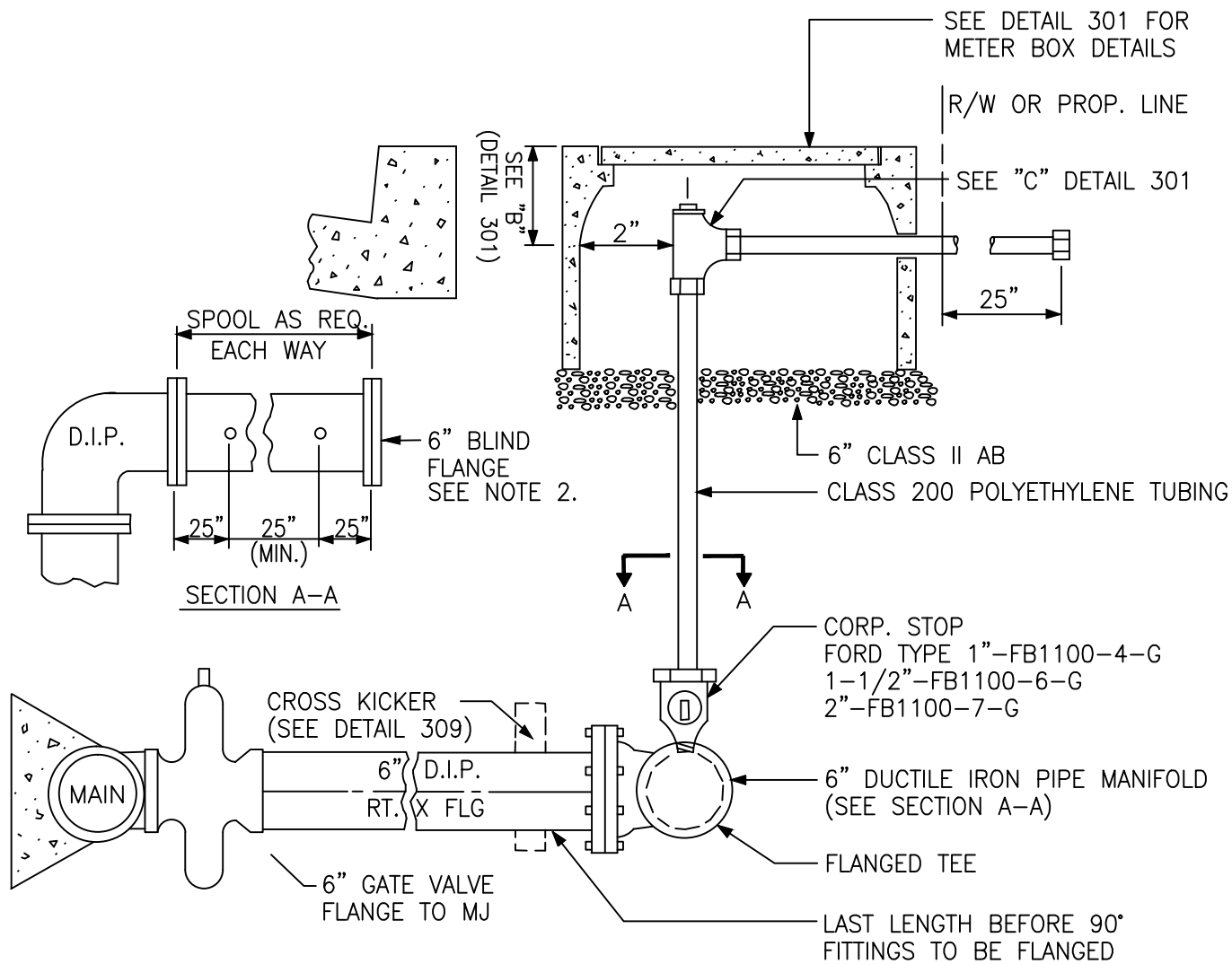
1. ADDITIONAL VALVES SHALL BE REQUIRED TO ISOLATE ADDITIONAL METERS OR WATER SERVICES.
2. SEE BACK FLOW REQUIREMENTS 700 DETAILS.
3. WATER METER SHALL BE PURCHASED FROM AND SET BY THE CITY OF PLEASANTON UTILITIES DEPARTMENT.
4. ALL THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
5. METERS AND BACKFLOW PREVENTORS TO BE LOCATED BEHIND LANDSCAPE BERM WITHIN PSE.

DRAWN BY:	STAFF
CHECKED BY:	AN
SCALE:	N.T.S.

CITY OF PLEASANTON  
STANDARD DETAILS  
COMMERCIAL AND INDUSTRIAL  
WATER SERVICE



DATE : 10/16 DWG NO. 304



**NOTES:**

1. FOR NOTES SEE DETAIL 301.
2. LAST WATER SERVICE LATERAL TO BE TAPED ON END OF BLIND FLANGE.
3. ALL DUCTILE IRON PIPE SHALL BE ENCAPSULATED WITHIN 8 MIL POLYETHYLENE ENCASEMENT PER CITY STANDARD SPECIFICATIONS.
4. WATER METERS CLUSTERED AT A SINGLE MANIFOLD SHALL HAVE THE CORRESPONDING HOUSE NUMBERS ENGRAVED OR STAMPED ON A METAL TAG AND BE ATTACHED WITH A METAL RING TO THE PIPE.

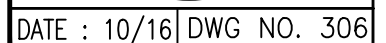
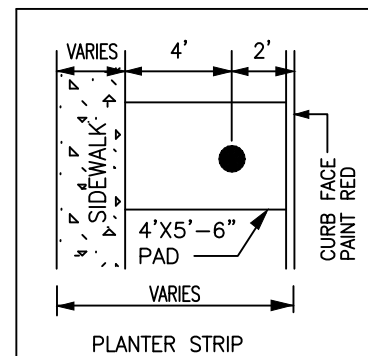
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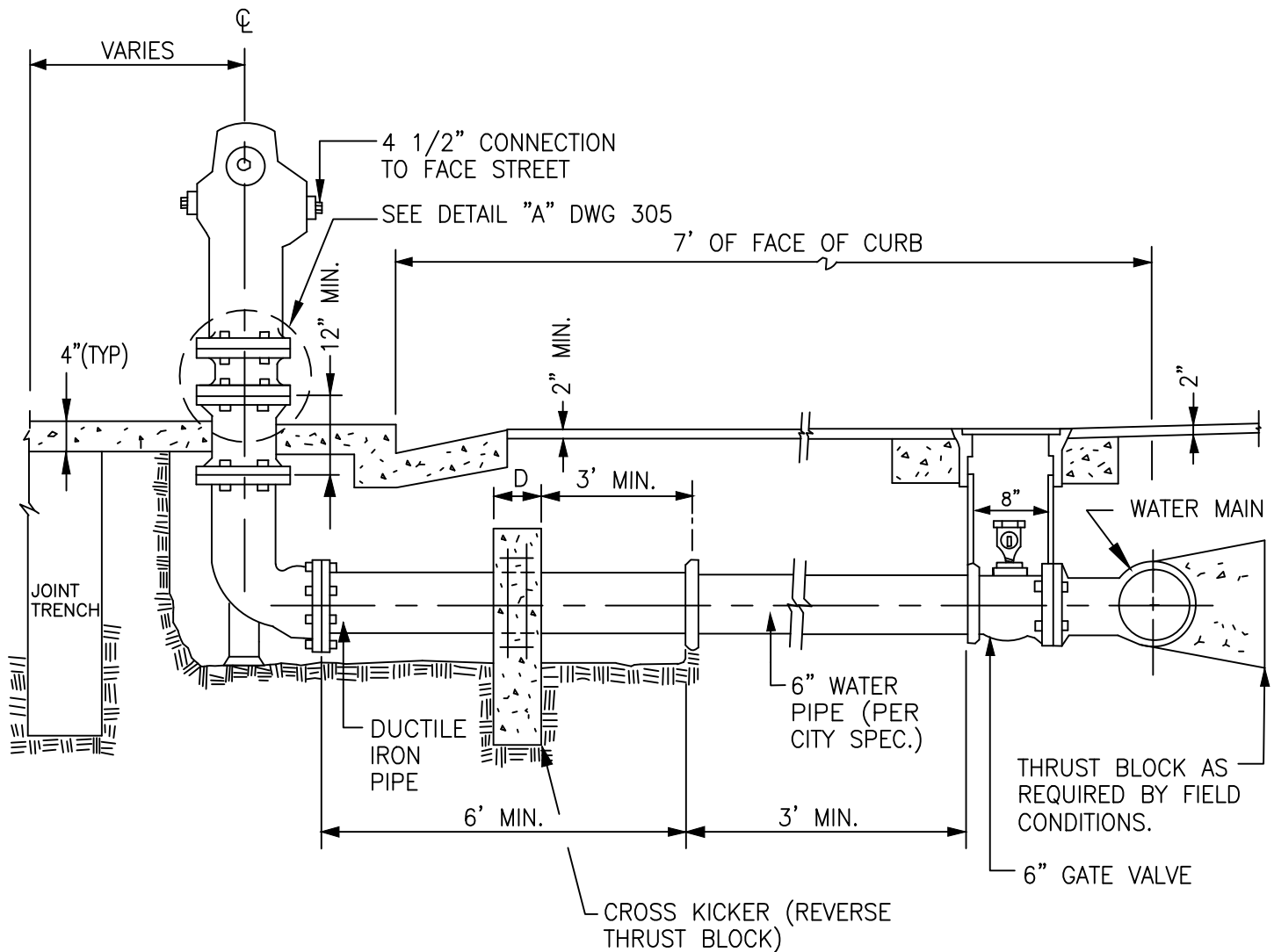
CITY OF PLEASANTON  
STANDARD DETAILS

MANIFOLD WATER SERVICE



DATE : 10/16 | DWG NO. 305





#### NOTES:

1. SEE DETAIL 306 FOR GENERAL FIRE HYDRANT NOTES AND DETAILS.
2. AT THE CONTRACTORS OPTION THE CROSS KICKER MAY BE ELIMINATED IF THE PIPE IS FLANGED FROM THE MAIN TO THE HYDRANT.
3. DUCTILE IRON PIPE SHALL ALSO BE USED IF THE JOINT TRENCH IS IN FRONT OF THE HYDRANT.

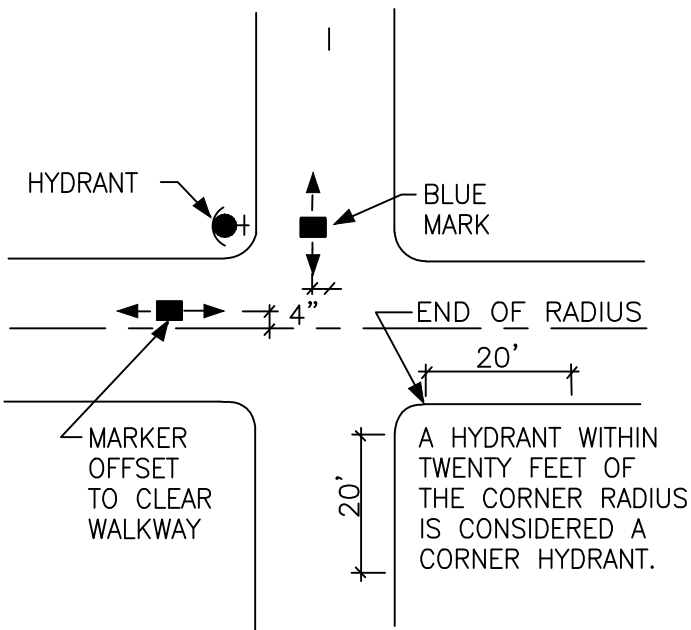
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CITY OF PLEASANTON  
STANDARD DETAILS  
FIRE HYDRANT CONNECTION  
(WITH HYDRANT ON SAME SIDE  
OF STREET AS JOINT TRENCH)



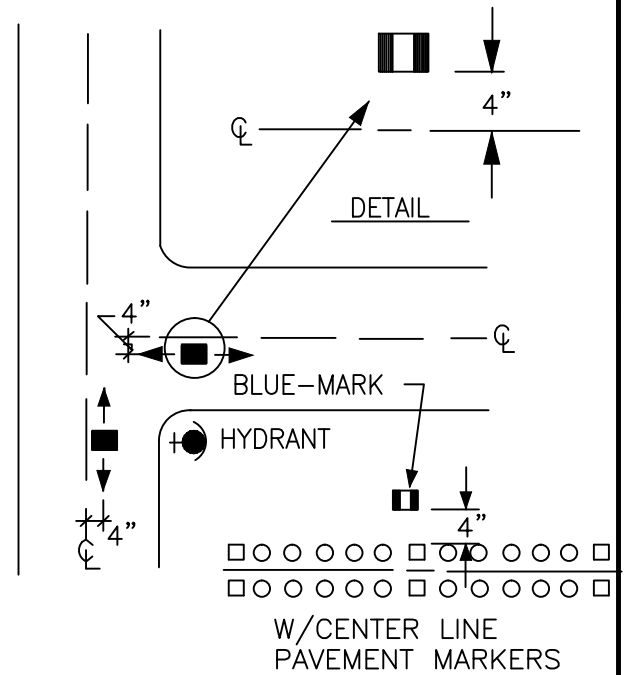
DATE : 10/16 DWG NO. 307

### CORNER HYDRANTS



CASE "A"

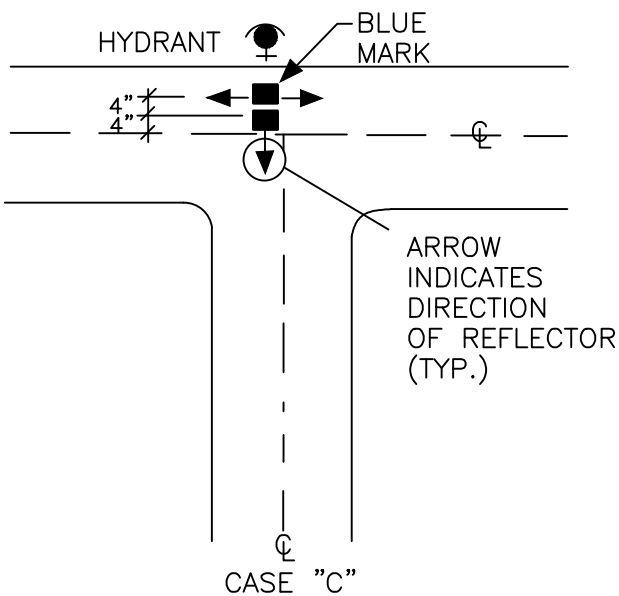
### CORNER HYDRANT TEE INTERSECTION



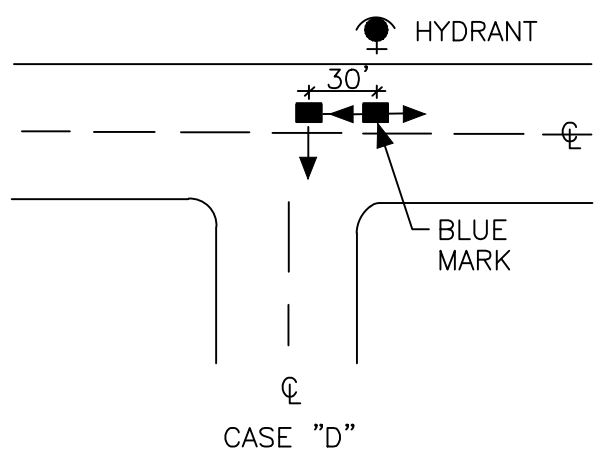
CASE "B"

DETAIL

### TEE INTERSECTION WITH HYDRANT IN THE CENTER



### TEE INTERSECTION WITH HYDRANT OFFSET 30' MAX.



CITY OF PLEASANTON  
STANDARD DETAILS

LOCATING HYDRANT MARKERS

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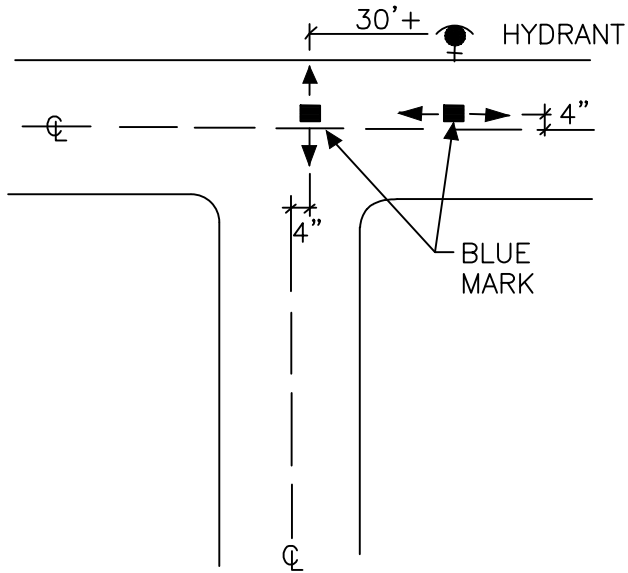
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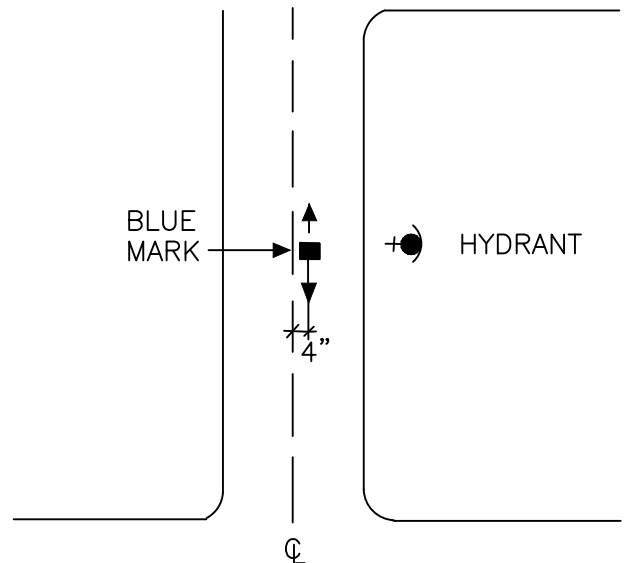
DATE : 10/16 DWG NO. 308A

TEE INTERSECTION WITH  
HYDRANT OFFSET OVER 30'



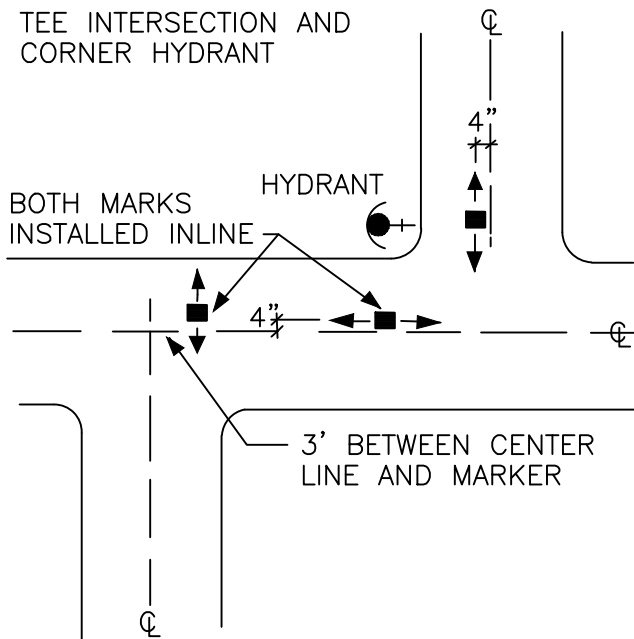
CASE "E"

CENTER OF  
BLOCK HYDRANT



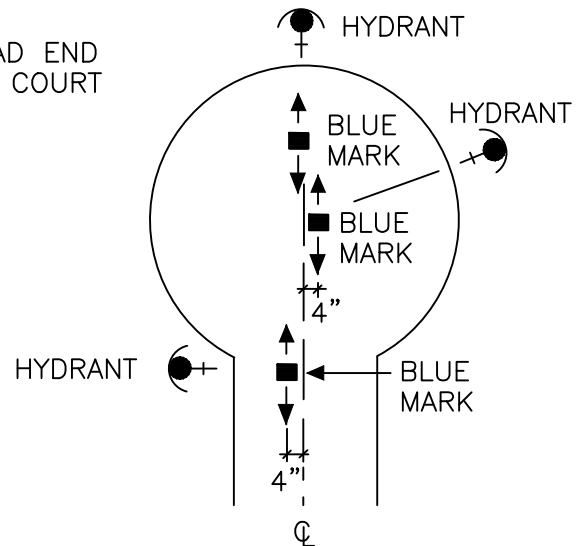
CASE "F"

TEE INTERSECTION AND  
CORNER HYDRANT



CASE "G"

DEAD END  
OR COURT

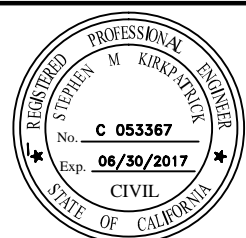


CASE "H"

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SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS

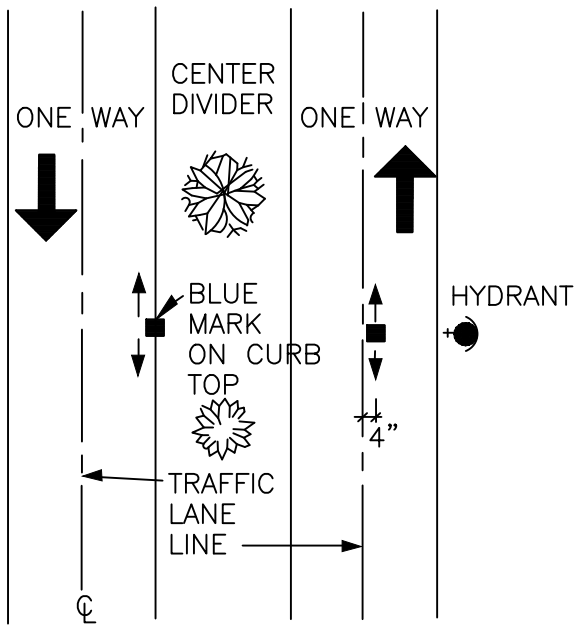
LOCATING HYDRANT MARKERS



DATE : 10/16 DWG NO. 308B

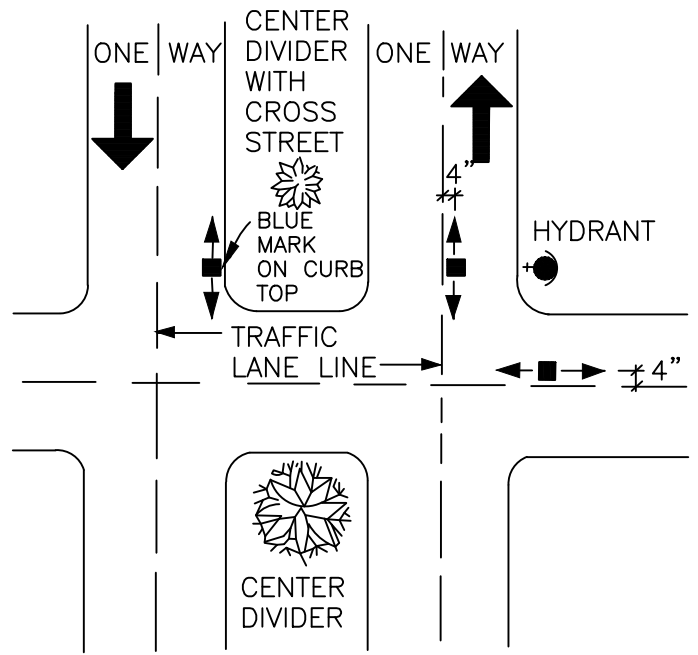


### CENTER OF BLOCK HYDRANT



CASE "I"

### CORNER HYDRANT



CASE "J"

CITY OF PLEASANTON  
STANDARD DETAILS

LOCATING HYDRANT MARKERS

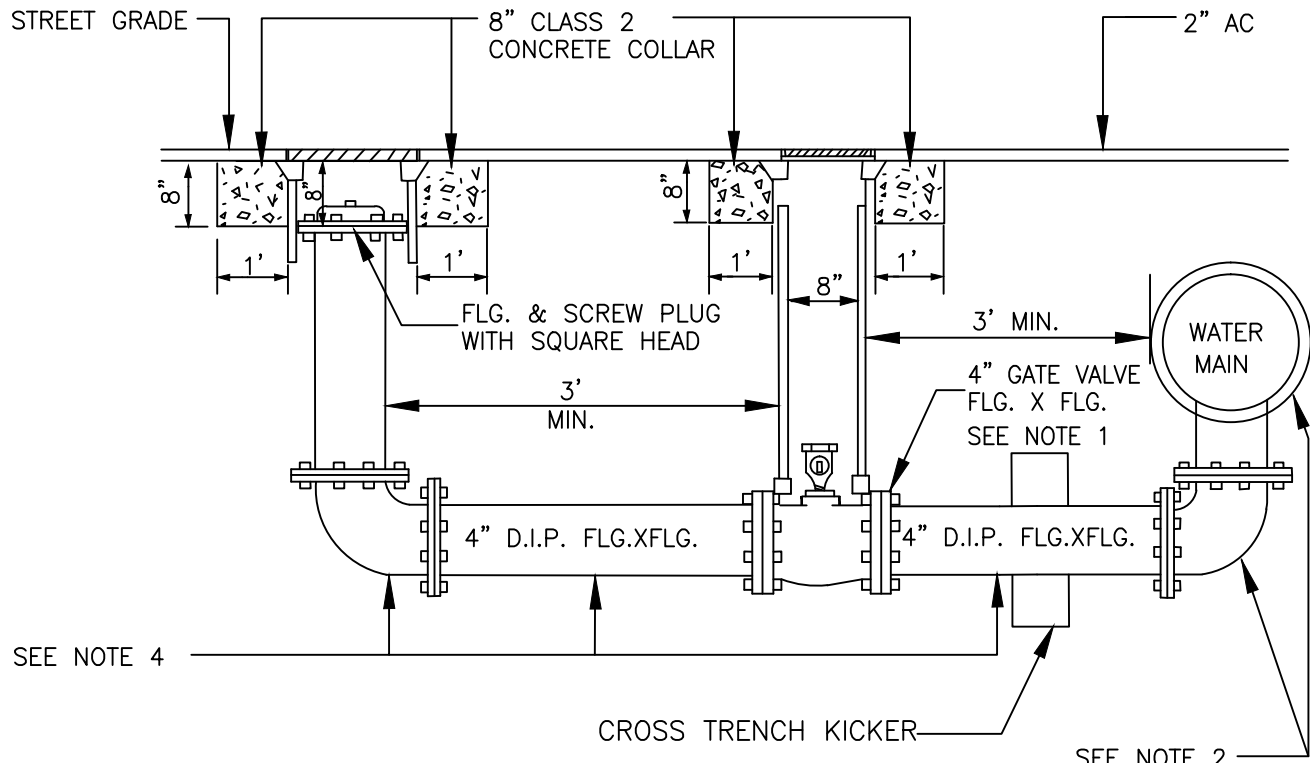
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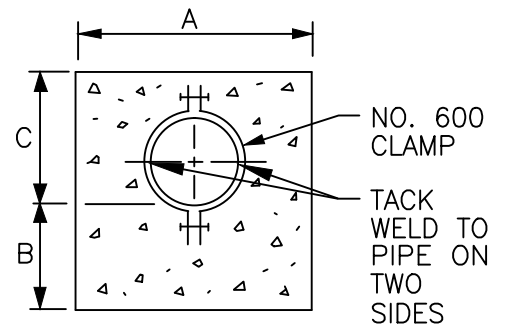


DATE : 10/16 DWG NO. 308C



TYPICAL CROSS KICKER DIMENSIONS  
ADJUST SIZE FOR SOIL CONDITIONS

PIPE-SIZE	A	B	C	D	CU.YDS.
6"	18"	12"	12"	6"	0.1
8"	24"	16"	14"	8"	0.1
10"	30"	21"	18"	10"	0.2
12"	36"	24"	20"	12"	0.4



NOTES:

1. EXTENSION REQUIRED FOR GATE VALVE IF DEPTH IS OVER 60".
2. TEE WITH 4" OR 6" FLANGED OUTLET. ELBOW, FLANGED, STD. 4" OR 6" X 4" REDUCING.
3. TERMINATE BLOWOFF WITH 4" W/SQ. HEAD, SCREWED PLUG.
4. 4" DUCTILE IRON PIPE FLANGED X FLANGED

SECTION A-A

CITY OF PLEASANTON  
STANDARD DETAILS

MID LINE BLOW OFF

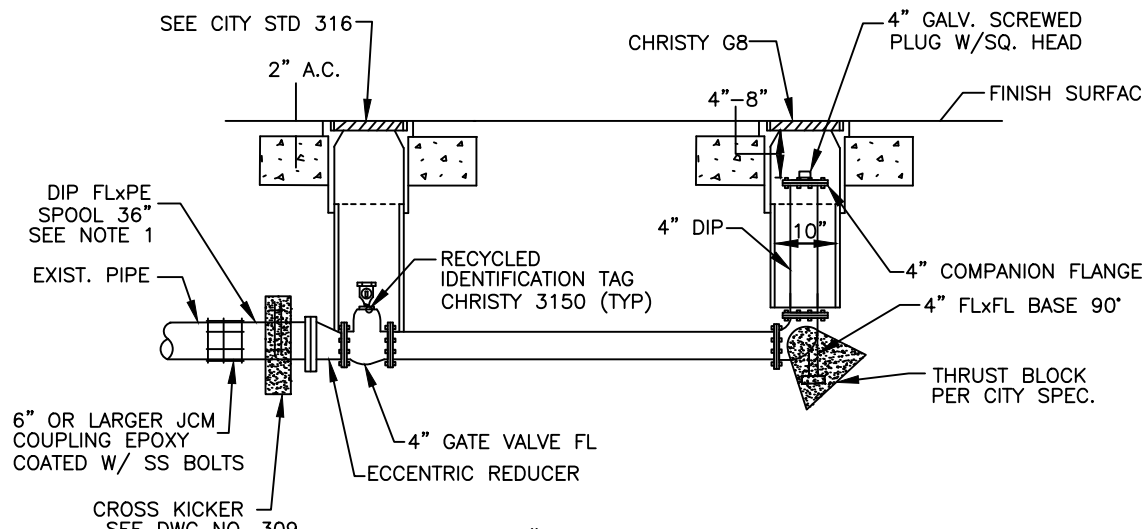
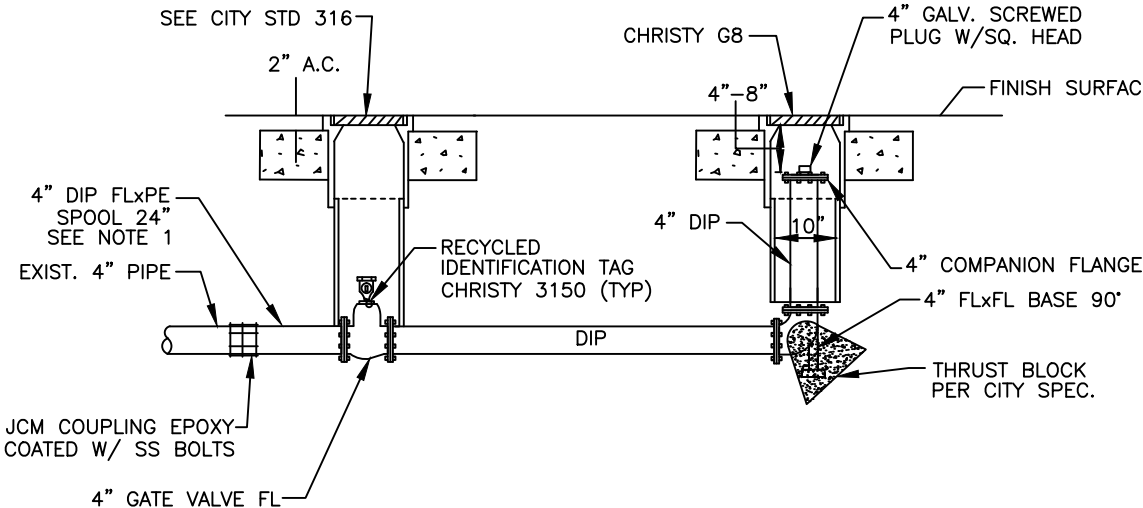
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SCALE: N.T.S.

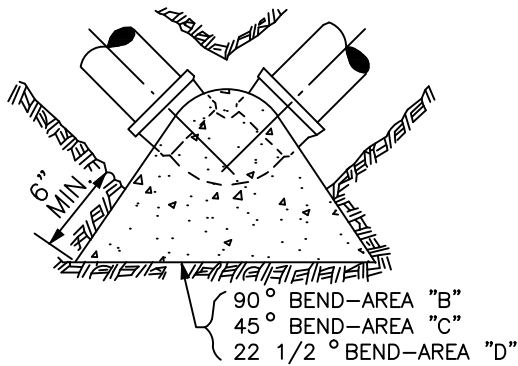


DATE: 10/16 DWG NO. 309

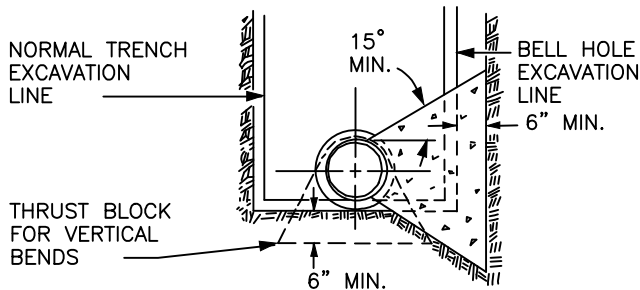


DATE : 10/16	DWG NO. 310
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SCALE: N.T.S.



### HORIZONTAL AND VERTICAL DOWNTHRUST BENDS



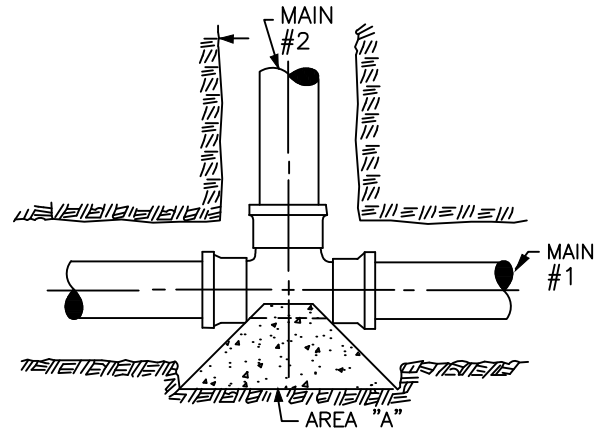
### TYPICAL SECTION

MINIMUM THRUST BLOCK BEARING AREAS IN SQUARE FEET					
PIPE SIZE	AREA				
	A	B	C	D	E
6"	4	6	3	2	3
8"	7	10	5	3	5
10"	11	15	8	4	8
12"	15	22	12	6	11
14"	21	29	16	8	15
16"	27	38	21	12	19

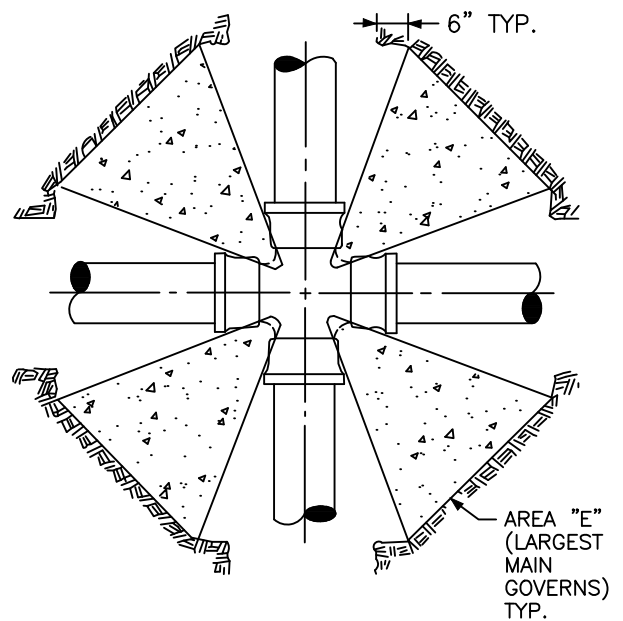
NOTE: VALUES SHOWN ARE BASED ON 1500 PSF SOIL BEARING PRESSURE AND 200 PSI TEST PRESSURE. AREAS MAY BE INCREASED BY THE ENGINEER IF FIELD CONDITIONS WARRANT.

### NOTES:

- THRUST BLOCK SHALL BE CLASS 2 P.C.C.
- CONCRETE SHALL NOT EXTEND BEYOND FACE OF BELL FOR SLIP-ON JOINTS NOR INTERFERE WITH FLANGES, NUTS OR BOLTS ON FLANGED JOINTS.
- A MINIMUM OF 24 HOURS CURING TIME REQUIRED BEFORE WATER INTRODUCED INTO LINE.
- A MINIMUM OF 7 DAYS CURING TIME REQUIRED BEFORE PRESSURE TEST.
- BACK AND BOTTOM OF THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.
- KEEP BOLT UP AREAS FREE OF CONCRETE FOR EASE OF ACCESS.
- CONTRACTOR IS RESPONSIBLE FOR ALL THRUST BLOCK LOCATIONS.
- THIS DETAIL IS TO BE USED AS A DESIGN GUIDE ONLY. ACTUAL SIZE OF THRUST BLOCK TO BE DETERMINED BY THE ENGINEER.



### TEE



### CROSS

CITY OF PLEASANTON  
STANDARD DETAILS

TYPICAL THRUST BLOCKS

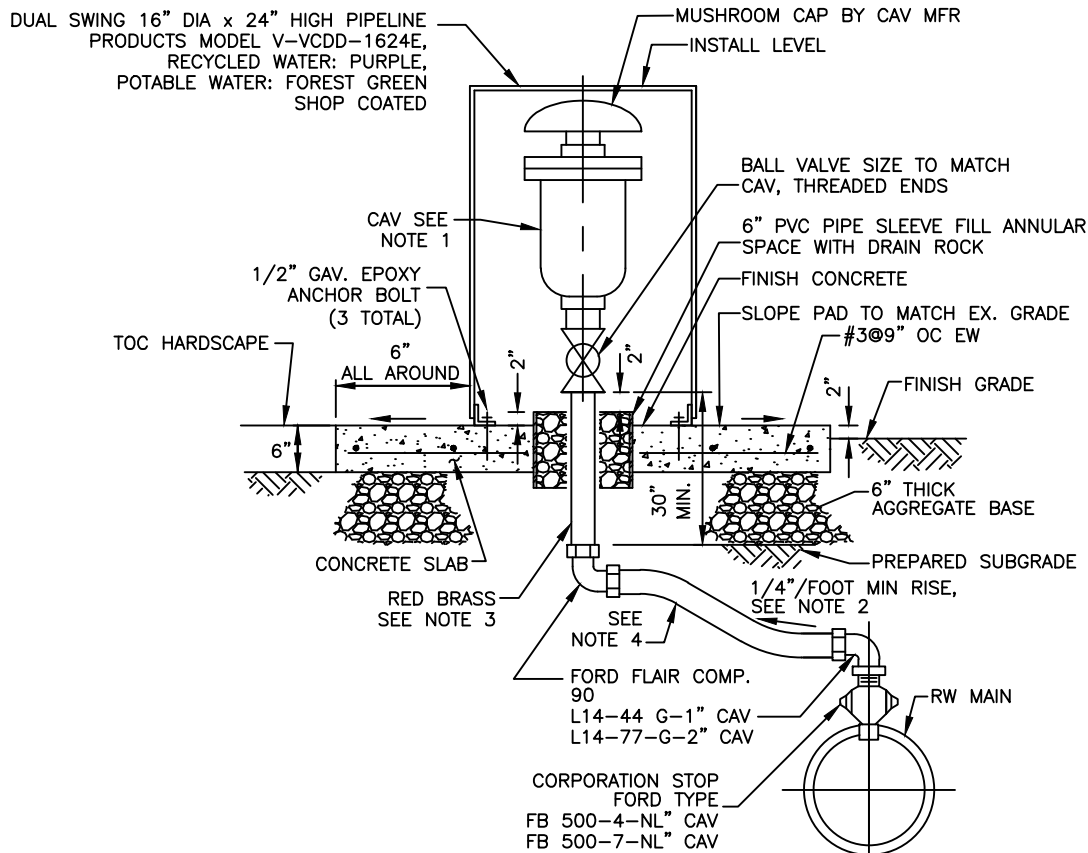
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DATE : 10/16 DWG NO. 311



SECTION (ABOVE GROUND CAV)

## COMBINATION AIR VALVE

NTS

### NOTES:

1. CAV SHALL BE APCO 143C FOR 1" TUBING AND APCO 145C FOR 2" TUBING, OR APPROVED EQUAL.
2. SERVICE LINE SHALL BE RUN IN A STRAIGHT LINE PERPENDICULAR TO PROPERTY LINE FROM MAIN TO PROPERTY LINE AND HAVE POSITIVE SLOPE.
3. 1" RED BRASS FOR 1" CAV. 2" RED BRASS FOR 2" CAV.
4. POLYETHYLENE TUBING SHALL CONFORM TO A.S.T.M. D-2737 & AWWAC-901 WITH A PRESSURE RATING OF 200 PSI AND SHALL BE "INTERSTATE POLY TUBING" OR APPROVED EQUAL. PURPLE TUBING FOR RECYCLE WATER.
5. WARNING TAPE MARKED "CAUTION RECYCLED WATER LINE BURIED BELOW" OR "PORTABLE WATER" SHALL BE INSTALLED 12" ABOVE THE WATER SERVICE.
6. TAPS FOR 2" REQUIRE A SADDLE.
7. 4" BEHIND CURB - WHERE PLANTER AREA EXISTS BETWEEN CURB AND SIDEWALK, 4" BEHIND SIDEWALK - WHERE SIDEWALK IS MONOLITHIC TO CURB.
8. FIELD COAT CAV AND ENCLOSURE W/12 MILS DFT AMINE CURED EPOXY, AMERCOAT 395 OR EQUAL. RECYCLED WATER COLOR: PURPLE PANTONE 512. POTABLE WATER COLOR: FOREST GREEN.
9. SEE PLANS FOR GENERAL PLACEMENT LOCATIONS.

REVISED 4/16

CITY OF PLEASANTON  
STANDARD DETAILS

COMBINATION AIR - VACUUM  
RELEASE VALVE ASSEMBLY

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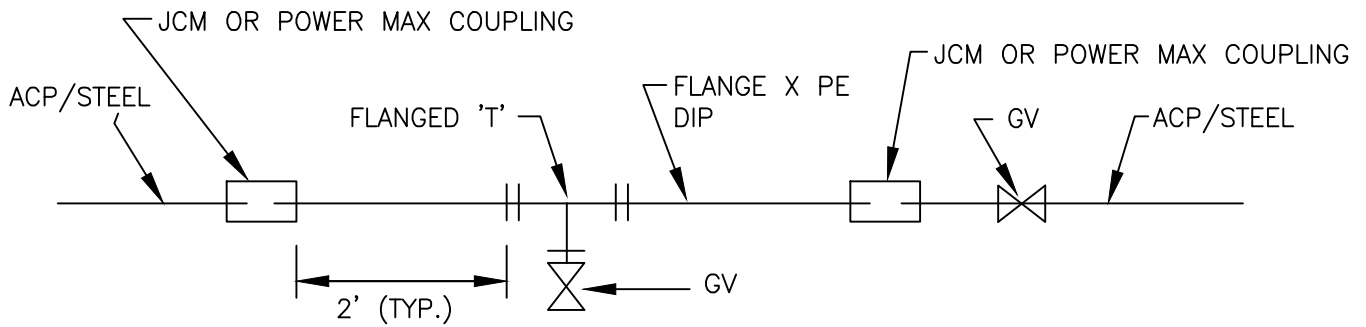
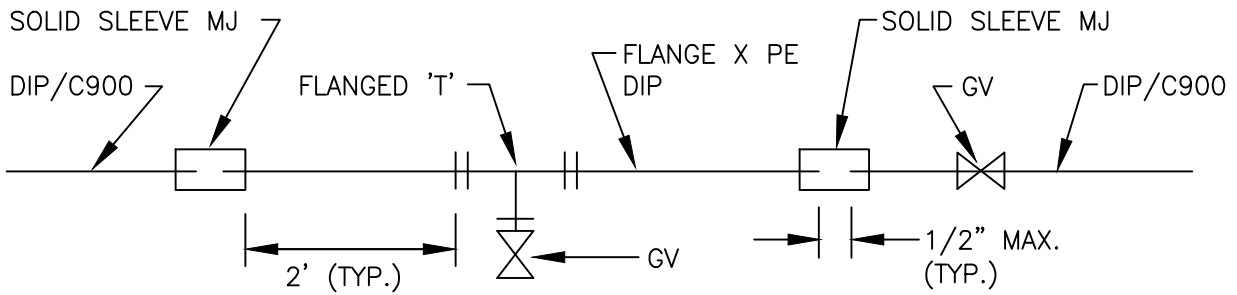
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DATE: 10/16

DWG NO. 312

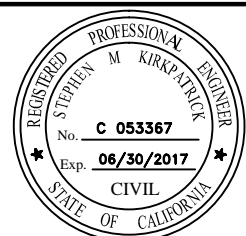


**NOTE:**

CONTRACTOR TO FOLLOW AWWA GUIDELINES FOR CONNECTION TO ACP.

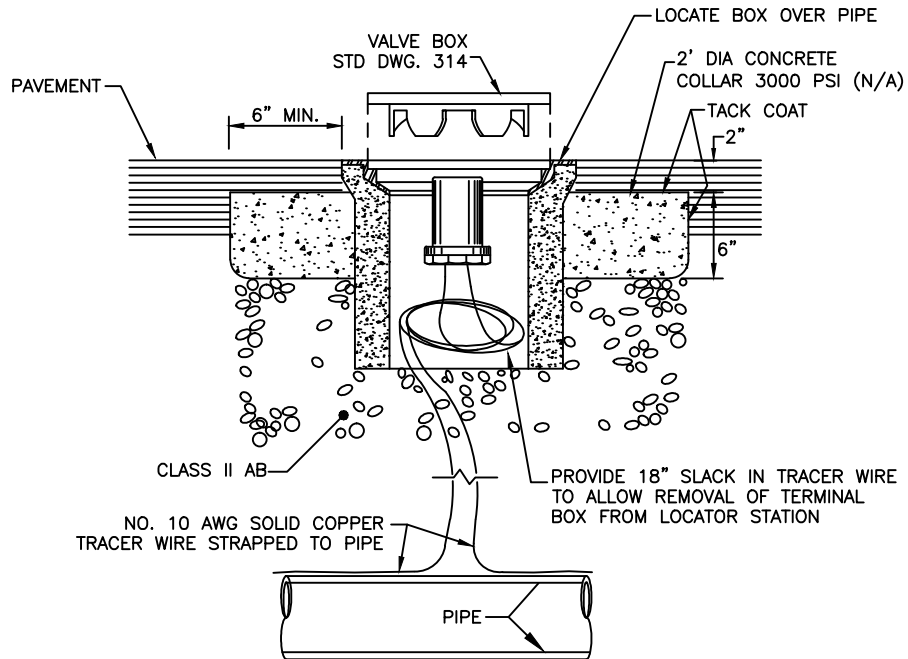
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CITY OF PLEASANTON  
STANDARD DETAILS  
TEE INSTALLATION  
ON EXISTING PIPE



DATE : 10/16 DWG NO. 313

DATE : 10/16	DWG NO. 314
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NOTES:

1. ALL NON FERRIOUS PIPE SHALL HAVE TRACER WIRE AND LOCATOR BOXES INSTALLED.
2. FLUSH MOUNTED LOCATOR STATION SHALL BE AT 500' MAXIMUM INTERVALS.
3. MINIMUM OF TWO (BEGIN & END) LOCATOR STATIONS INSTALLED TRACER WIRE.
4. VALVE BOXES MAY BE USED AS LOCATOR STATION BOX.

FLUSH MOUNTED LOCATOR STATION CONCRETE BOX

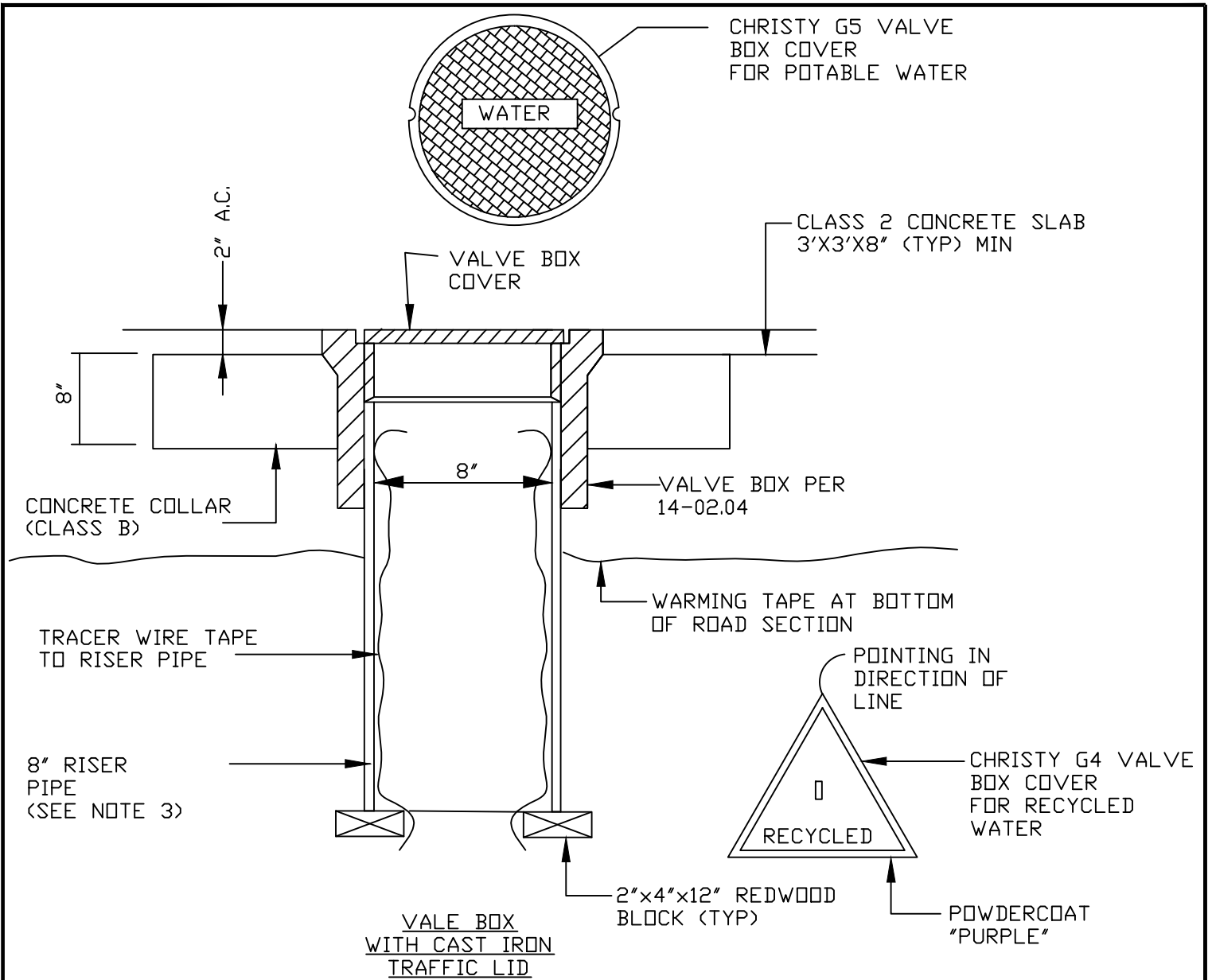
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CITY OF PLEASANTON  
STANDARD DETAILS  
LOCATOR STATION



DATE: 10/16 DWG NO. 315





NOTES:

1. A.C. PAVEMENT TO COMPLY WITH STREET PAVEMENT REQUIREMENTS.
2. FOR VALVE BOXES INSTALLED IN NON-TRAFFIC AREAS, CONCRETE COLLAR SHALL BE EXTENDED TO FINISH GRADE. SLOPE COLLAR TO DRAIN AWAY FROM LID.
3. RISER PIPE TO BE ONE CONTINUOUS PIECE, SDR35 OR C900 FOR RECYCLED WATER RISER PIPE SHALL BE PURPLE
4. VALVE BOX COVERS FOR RECYCLED WATER MAINS SHALL BE TRIANGULAR WITH "RECYCLED" INSCRIPTION CAST ON THE TOP SURFACE AND POWDER COATED PURPLE 3 MIL W/EDGES MASKED. COLOR TO BE MAAS BROTHERS RAL 4006 TRAFFIC PURPLE.

CITY OF PLEASANTON

STANDARD DETAILS

VALVE BOX INSTALLATION

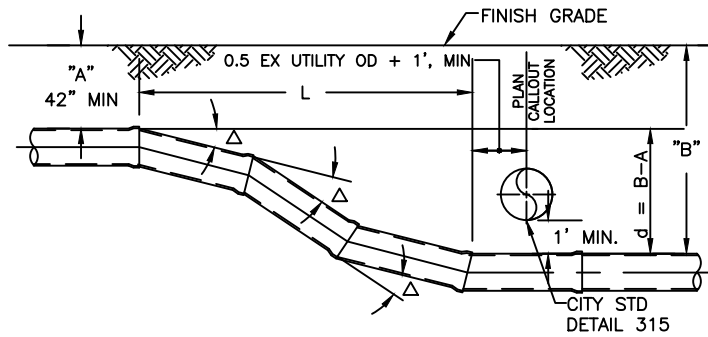
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DATE : 10/16 DWG NO. 316



**NOTES:**

1. CONTRACTOR SHALL MEET ALL PIPE SEPARATION, UTILITY CROSSING CLEARANCE AND MINIMUM COVER REQUIREMENTS INDICATED.
2. PULLED JOINTS SHALL BE LIMITED TO 75% OF PIPE MANUFACTURER'S RECOMMENDED ALLOWABLE JOINT DEFLECTION.
3. ASSUMES MAXIMUM JOINT DEFLECTION SHOWN. VERIFY WITH PIPE MANUFACTURER.
4. ASSUMES FULL 20 FT PVC OR DIP PIPE SECTION LENGTHS.

**UTILITY UNDERCROSSING DETAIL 1**

Ductile Iron			
Pipe Size (inches)	Maximum Allowable Deflection Angle, $\Delta$ (degrees)	Vertical Offset, $d$ (ft)	Minimum Allowable Transition Length, $L$ (ft)
6	3.75	1	20
		2	40
		3	60
		4	60
		5	80
8	3.75	1	20
		2	40
		3	60
		4	60
		5	80
12	3.75	1	20
		2	40
		3	60
		4	60
		5	80
>12	3.75	1	20
		2	40
		3	60
		4	60
		5	80

TR Flex			
Pipe Size (inches)	Maximum Allowable Deflection Angle, $\Delta$ (degrees)	Vertical Offset, $d$ (ft)	Minimum Allowable Transition Length, $L$ (ft)
6	3.75	1	20
		2	40
		3	60
		4	60
		5	80
8	3.75	1	20
		2	40
		3	60
		4	60
		5	80
12	3.75	1	20
		2	40
		3	60
		4	60
		5	80
16	2.4	1	40
		2	60
		3	80
		4	100
		5	120

PVC			
Pipe Size (inches)	Maximum Allowable Deflection Angle, $\Delta$ (degrees)	Vertical Offset, $d$ (ft)	Minimum Allowable Transition Length, $L$ (ft)
6	1.0	1	60
		2	80
		3	100
		4	120
		5	140
8	1.0	1	60
		2	80
		3	100
		4	120
		5	140
12	1.0	1	60
		2	80
		3	100
		4	120
		5	140
16	1.5	1	40
		2	80
		3	120
		4	160
		5	200
20	1.5	1	40
		2	80
		3	120
		4	160
		5	200

**Notes:**

1. Assumes maximum allowable joint deflection shown. Verify with pipe manufacturer
2. Assumes full 20 ft PVC or DIP pipe section lengths

CITY OF PLEASANTON  
STANDARD DETAILS

UTILITY UNDERCROSSING  
DETAIL 1

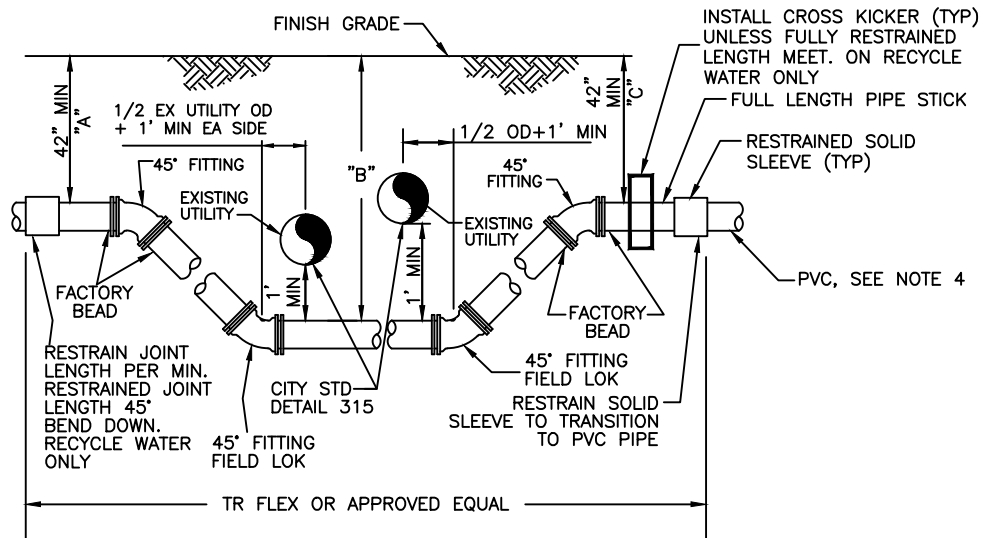
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DATE: 10/16 DWG NO. 317



**NOTES:**

1. CONTRACTOR MAY SUBSTITUTE DIFFERENT FITTING DEFLECTION ANGLES, OFFSET FITTINGS OR MAY PULL JOINTS TO ACHIEVE THE CONFIGURATION. PULLED JOINTS SHALL BE LIMITED TO 75% OF PIPE MANUFACTURER'S RECOMMENDED ALLOWABLE JOINT DEFLECTION.
2. CONTRACTOR SHALL MEET ALL PIPE SEPARATION, UTILITY CROSSING CLEARANCE AND MINIMUM COVER REQUIREMENTS INDICATED.
3. RESTRAIN PER RESTRAINT JOINT LENGTH TABLE VERTICAL DOWN BEND, OR INSTALL CROSS TRENCH KICKER PER DETAIL 309.

UTILITY UNDERCROSSING DETAIL 2

CITY OF PLEASANTON  
STANDARD DETAILS

UTILITY UNDERCROSSING  
DETAIL 2



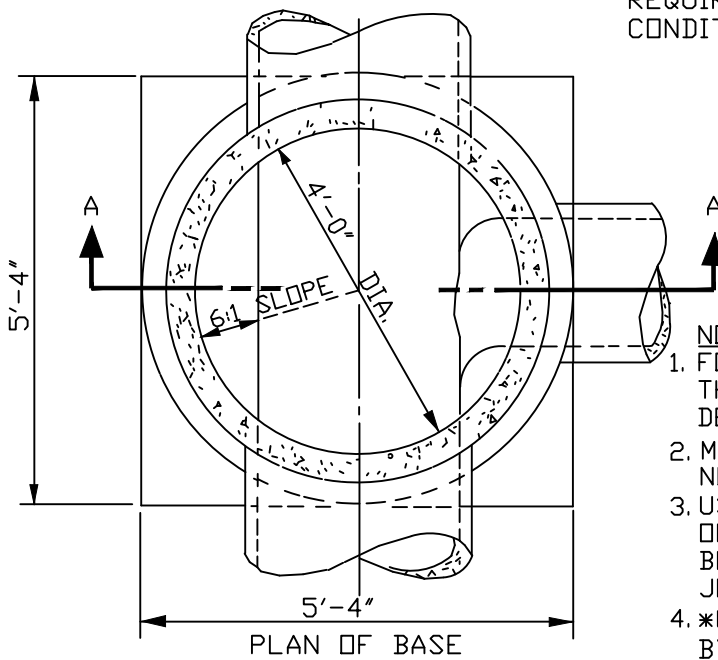
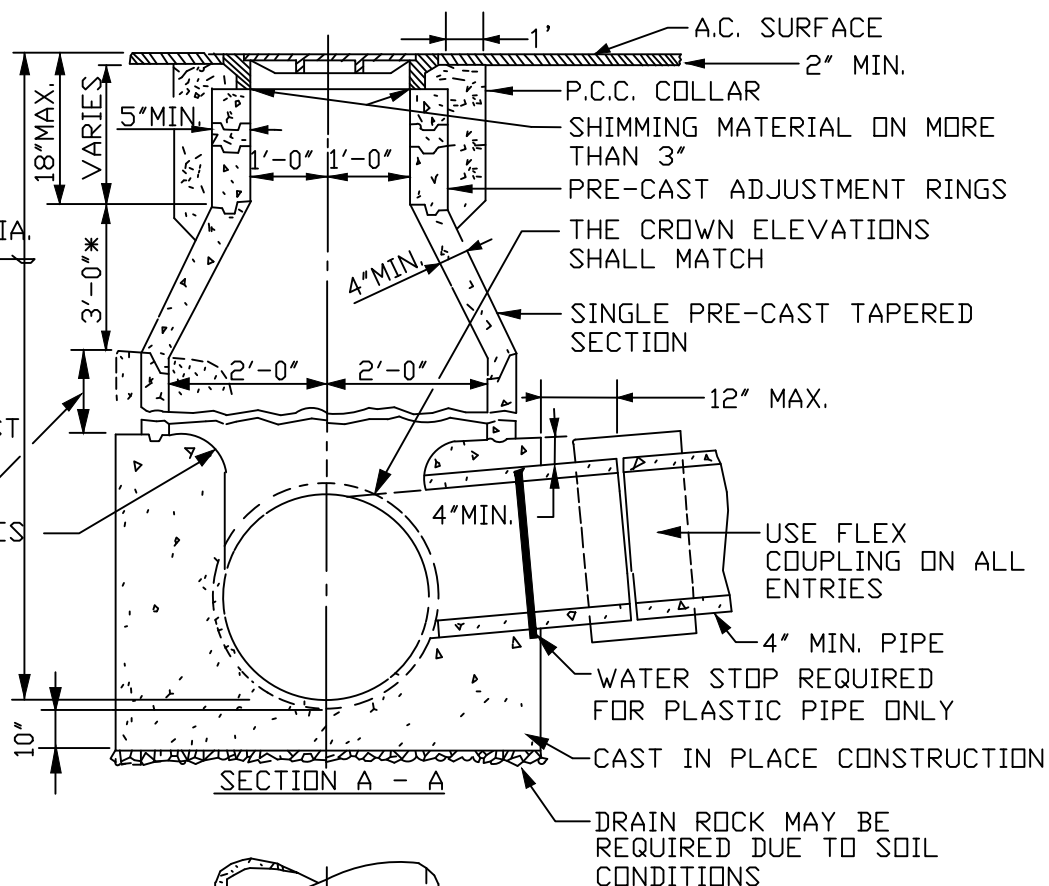
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DATE: 10/16 DWG NO. 318

IF DEPTH IS GREATER  
THAN 10' TO FLOW  
LINE - BARREL  
SECTIONS TO BE 5' DIA.  
SIMILAR TO DET. 205

ADDITIONAL PRE-CAST  
BARREL SECTIONS  
AS NEEDED

SLOPE SIDES



**NOTE:**

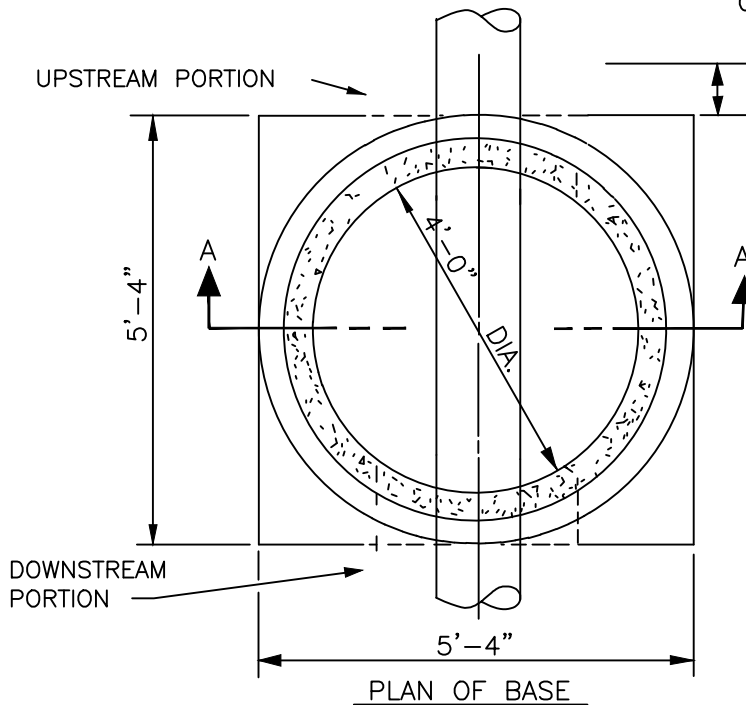
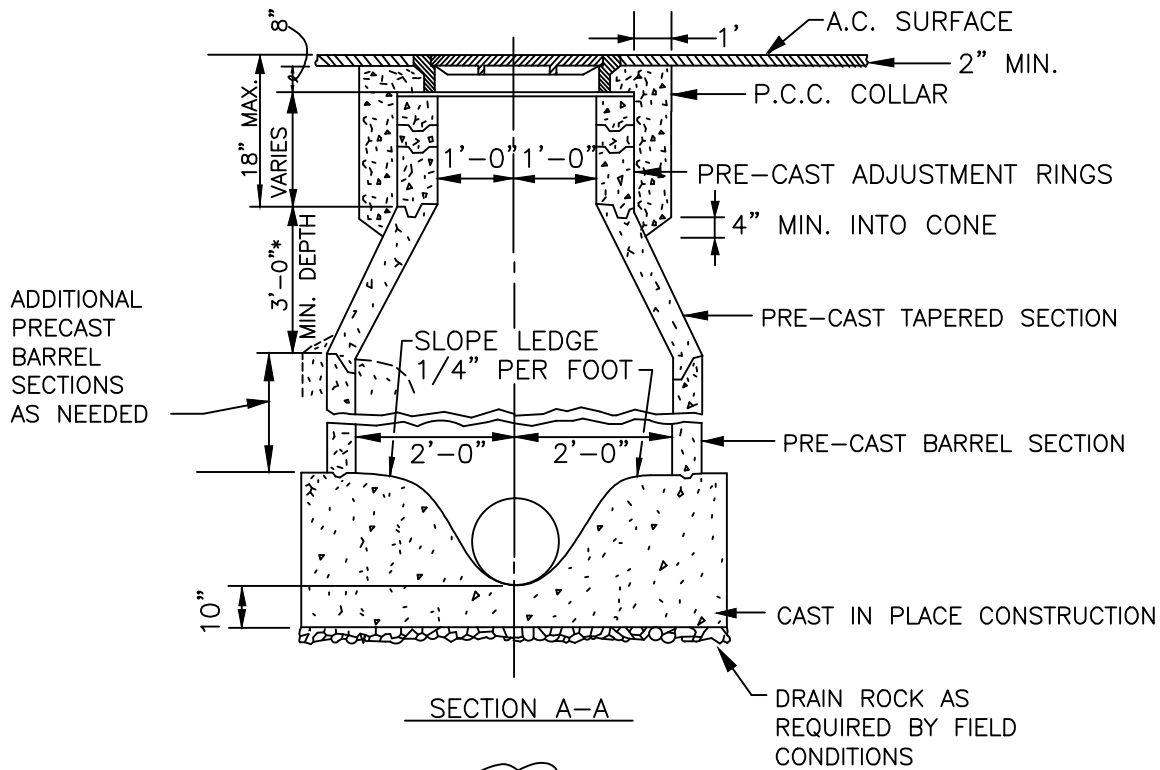
1. FOR PIPE SIZES LARGER THAN 36" PROVIDE A DESIGNED STRUCTURE.
2. MANHOLES SHALL HAVE NO STEPS.
3. USE RAMNECK W/PRIMER OR APPROVED EQUAL BETWEEN JOINTS. TRIM ALL JOINTS AFTER COMPLETION.
4. \*UNLESS APPROVED BY THE ENGINEER

CITY OF PLEASANTON  
STANDARD DETAILS  
SANITARY SEWER  
MANHOLE

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 401



10' MIN. STRAIGHT RUN FOR  
 LATERALS 4"-6" OR  
 15' MIN. STRAIGHT RUN FOR  
 LATERALS LARGER THAN 6"  
 MAINTAIN CONSTANT SLOPE  
 UPSTREAM AND THRU  
 MANHOLE

NOTES:

1. MAINTENANCE HOLES SHALL HAVE NO STEPS.
2. \* UNLESS APPROVED BY THE ENGINEER.
3. USE RAMNECK OR APPROVED EQUAL BETWEEN JOINTS. TRIM ALL JOINTS AFTER COMPLETION.
4. WATER STOPS SHALL BE REQUIRED WHEN P.V.C. PIPE IS USED.
5. THERE SHALL BE NO ANGLES IN MANHOLE. IT SHALL ONLY BE A STRAIGHT THRU FLOWLINE.
6. FOR FLEX JOINTS SEE DETAIL 401.

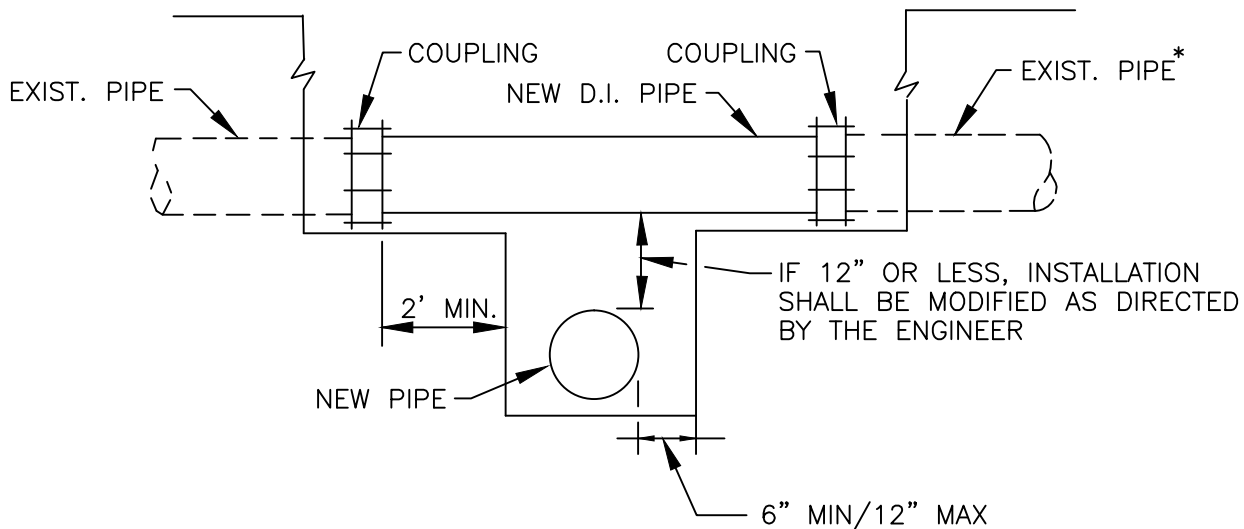
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CITY OF PLEASANTON  
 STANDARD DETAILS

SAMPLING MANHOLE



DATE : 4/16 DWG NO. 402



### NEW PIPE UNDER EXISTING

#### NOTES:

1. THIS STANDARD APPLIES TO PIPES UP TO AND INCLUDING 16" DIAMETER. ALL CROSSINGS INVOLVING PIPES OF LARGER DIAMETER SHALL BE AS APPROVED BY THE ENGINEER.
2. WHEN NEW PIPES ARE TO BE INSTALLED WITHIN THE LIMITS SHOWN, DUCTILE IRON PIPE SECTIONS SHALL BE INSTALLED IN THE NEW AND OR EXISTING PIPES AS SHOWN ON THE DETAILS, EXCEPT WHEN THE NEW OR EXISTING PIPE IS STEEL OR CAST IRON.
3. FUSION EPOXY COATED DUCTILE IRON PIPE SHALL BE CLASS 50 MINIMUM.
4. COUPLINGS TO BE APPROVED BY THE ENGINEER.
5. \* CAN REMAIN IN PLACE IF APPROVED BY THE ENGINEER, DEPENDENT ON EXISTING CONDITIONS.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

## CITY OF PLEASANTON

### STANDARD DETAILS

### NEW PIPE INSTALLATION UNDER EXISTING PIPE



DATE : 4/16 DWG NO. 403

## SANITARY SEWER AND WATER CROSSING DETAIL

A NEW WATER MAIN CROSSING AN EXISTING SEWER LINE SHALL BE CONSTRUCTED OF:

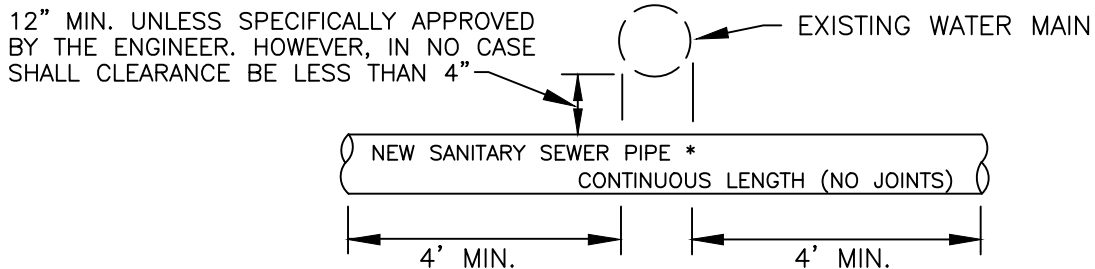
1. DUCTILE IRON PIPE, CLASS 50, INSTALLED WITH POLYWRAP.
2. DIPPED AND WRAPPED ONE FOURTH INCH THICK WELDED STEEL PIPE.
3. MORTAR LINED INSIDE AND OUTSIDE SCHEDULE 40 STEEL PIPE AND ALL JOINTS MORTAR COATED.
4. CLASS 235, PRESSURE RATED PVC PLASTIC WATER PIPE (DR 18 PER AWWA C900) OR EQUIVALENT.

A NEW SEWER LINE CROSSING AN EXISTING WATER MAIN SHALL BE CONSTRUCTED OF:

1. FUSION EPOXY-COATED DIP (SEE SPECIFICATIONS) AND MECHANICAL JOINTS.
2. A CONTINUOUS SECTION OF SDR-35 PVC PLASTIC PIPE OR EQUIVALENT, CENTERED OVER/UNDER THE PIPE BEING CROSSED. (WHERE P.V.C. LINES ARE PERMITTED BY CITY SPECIFICATIONS).
3. A CONTINUOUS SECTION OF CLASS 235 PVC (AWWA C905) WATER PIPE CENTERED OVER/UNDER THE PIPE BEING CROSSED.
4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE.

---

IF THE EXISTING WATER LINE IS OTHER THAN CLASS 50 DUCTILE IRON WELDED STEEL PIPE OR C900 P.V.C., THE WATER LINE SHALL BE REPLACED IN ACCORDANCE WITH DETAIL 403.



\*SEE GENERAL NOTES ABOVE FOR ACCEPTABLE TYPES OF PIPES.

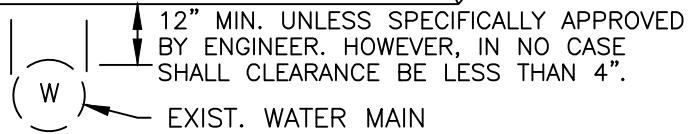
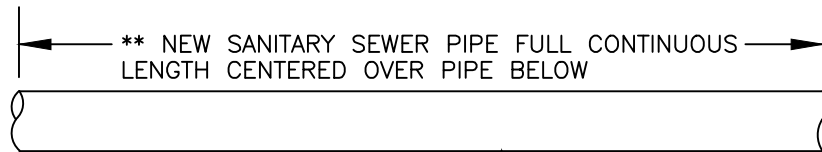
### NEW SANITARY SEWER CROSSING DETAIL UNDER EXISTING WATER MAIN

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

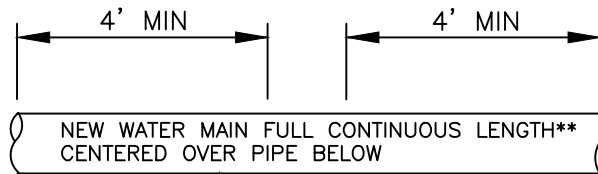
CITY OF PLEASANTON  
STANDARD DETAILS  
SANITARY SEWER AND  
WATER MAIN SEPARATION



DATE : 4/16 DWG NO. 404



NEW SANITARY SEWER CROSSING OVER EXISTING WATER MAIN  
(TO BE USED ONLY WITH SPECIAL PERMISSION FROM THE ENGINEER)

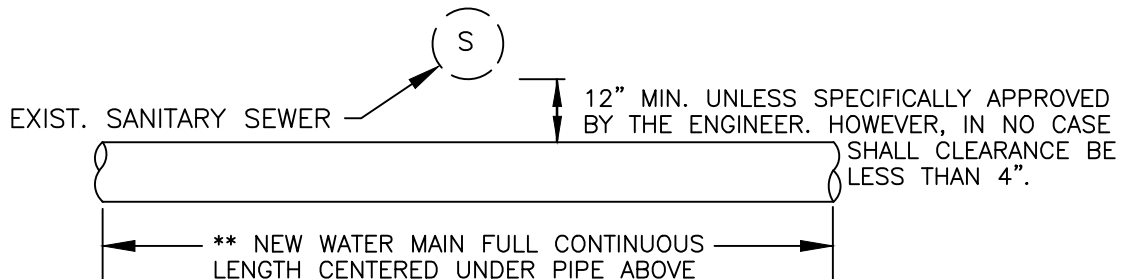


12" MIN. UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. HOWEVER, IN NO CASE SHALL CLEARANCE BE LESS THAN 4".



NEW WATER MAIN CROSSING OVER EXISTING SANITARY SEWER

THE EXIST. SANITARY SEWER SHALL BE REPLACED IN ACCORDANCE WITH DETAIL 403.



NEW WATER MAIN CROSSING UNDER EXISTING SANITARY SEWER  
(TO BE USED ONLY WITH SPECIAL PERMISSION FROM THE ENGINEER.)

\*\*SEE GENERAL NOTES ON DETAIL 404 FOR ACCEPTABLE TYPES OF PIPES.

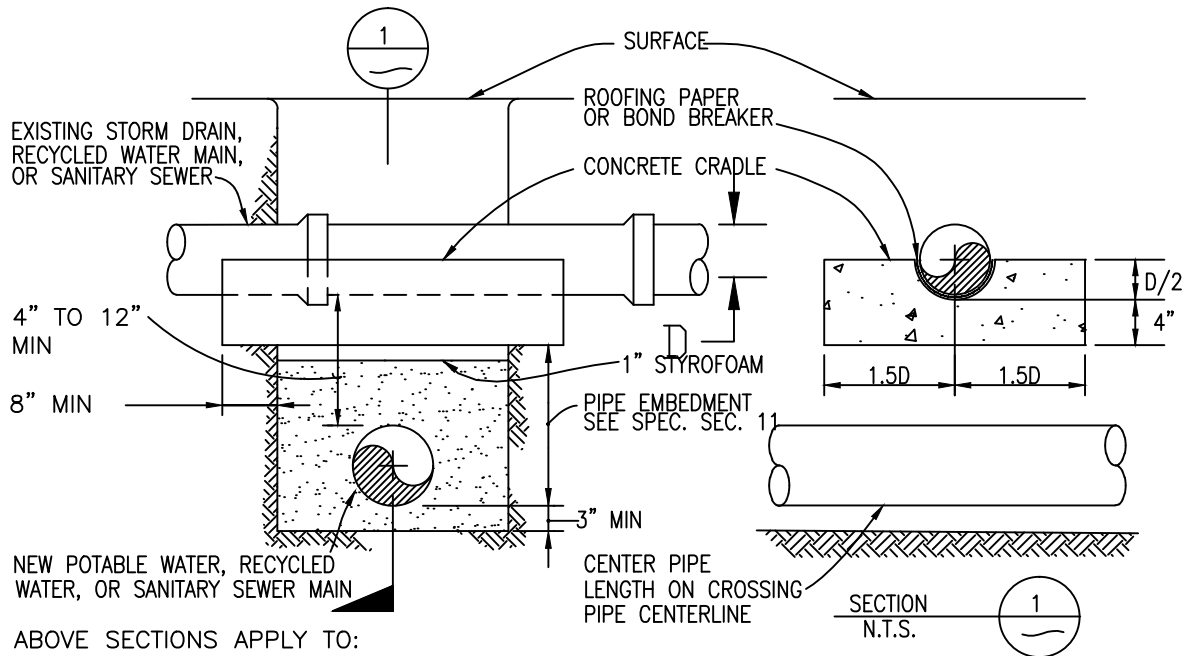
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
SANITARY SEWER AND  
WATER MAIN SEPARATION



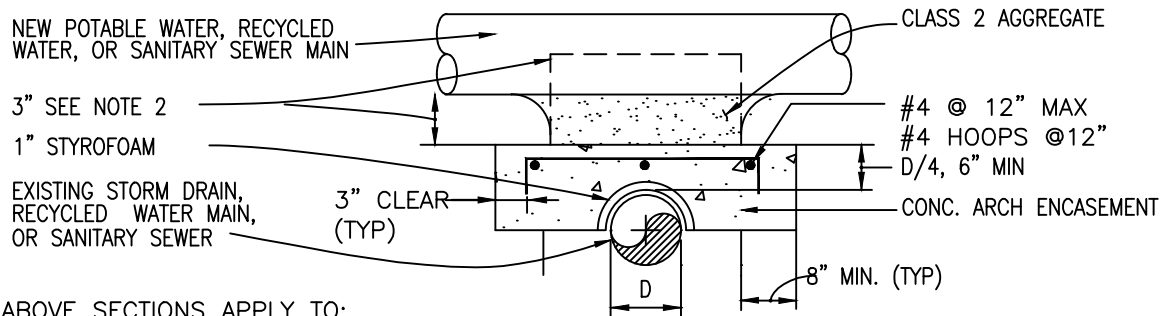
DATE : 4/16 DWG NO. 405





ABOVE SECTIONS APPLY TO:

1. SANITARY SEWER CROSSING UNDER EXISTING STORM DRAIN OR SANITARY SEWER.
2. RECYCLED WATER CROSSING UNDER EXISTING STORM DRAIN OR RECYCLED WATER
3. POTABLE WATER CROSSING UNDER EXISTING STORM DRAIN
4. ONLY USED IF APPROVED BY CITY ENGINEER.



ABOVE SECTIONS APPLY TO:

1. SANITARY SEWER CROSSING OVER EXISTING STORM DRAIN OR SANITARY SEWER
2. RECYCLED WATER CROSSING OVER EXISTING STORM DRAIN OR RECYCLED WATER
3. POTABLE WATER CROSSING OVER EXISTING STORM DRAIN
4. ONLY USED IF APPROVED BY CITY ENGINEER.

NOTES:

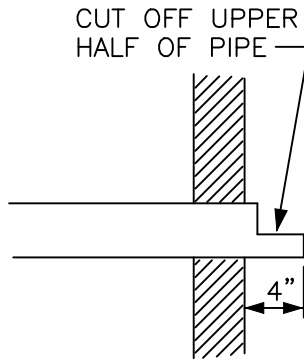
1. CROSSING OF POTABLE WATER MAINS, RECYCLED WATER MAINS, AND SANITARY SEWERS: SEPARATION, CONSTRUCTION, AND PIPE CRITERIA SHALL BE AS REQUIRED BY SECTION I-C5 AND THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH.
2. IF CLASS 2 AGGREGATE BASE MATERIAL CANNOT BE ATTAINED, THEN RAISE PIPE CRADLE TO CONTACT LOWER HALF OF NEW PIPE. PROVIDE ROOFING PAPER OR BOND BREAKER BETWEEN NEW PIPE AND CONCRETE AS SHOWN IN SECTION 1 ABOVE.
3. APPROVAL OF THE CITY ENGINEER REQUIRED TO USE ABOVE DETAILS.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

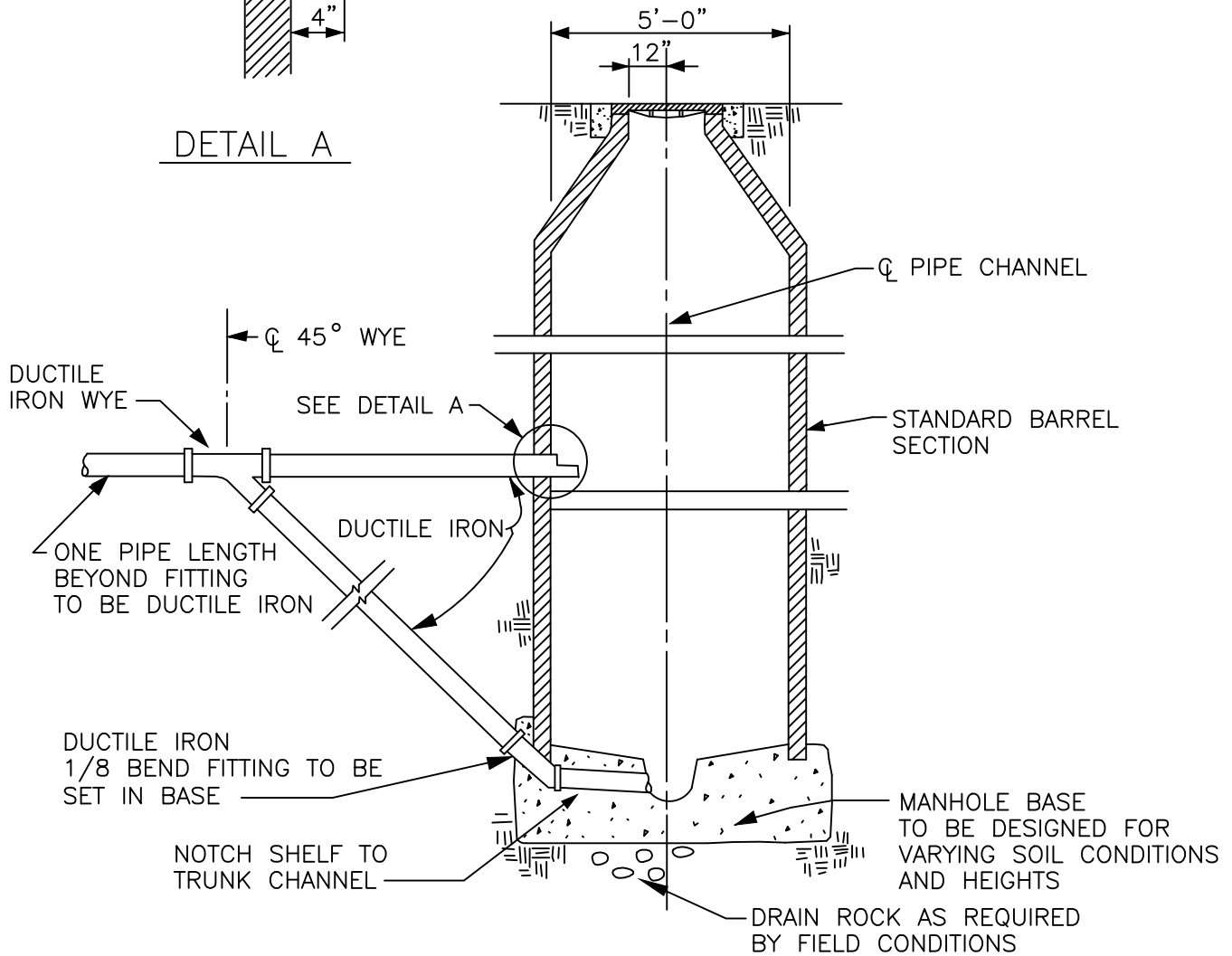
# CITY OF PLEASANTON STANDARD DETAILS CLOSE CROSSING DETAIL



DATE :10/16 DWG NO. 406



DETAIL A



**NOTES:**

1. DROP MANHOLES ARE ONLY TO BE USED WITH THE APPROVAL OF THE ENGINEER.
2. SEE DETAIL 401 FOR GENERAL DESIGN AND SPECS.
3. FOR SPECIFICATIONS ON DUCTILE IRON PIPE SEE SECTION 13-02-B.

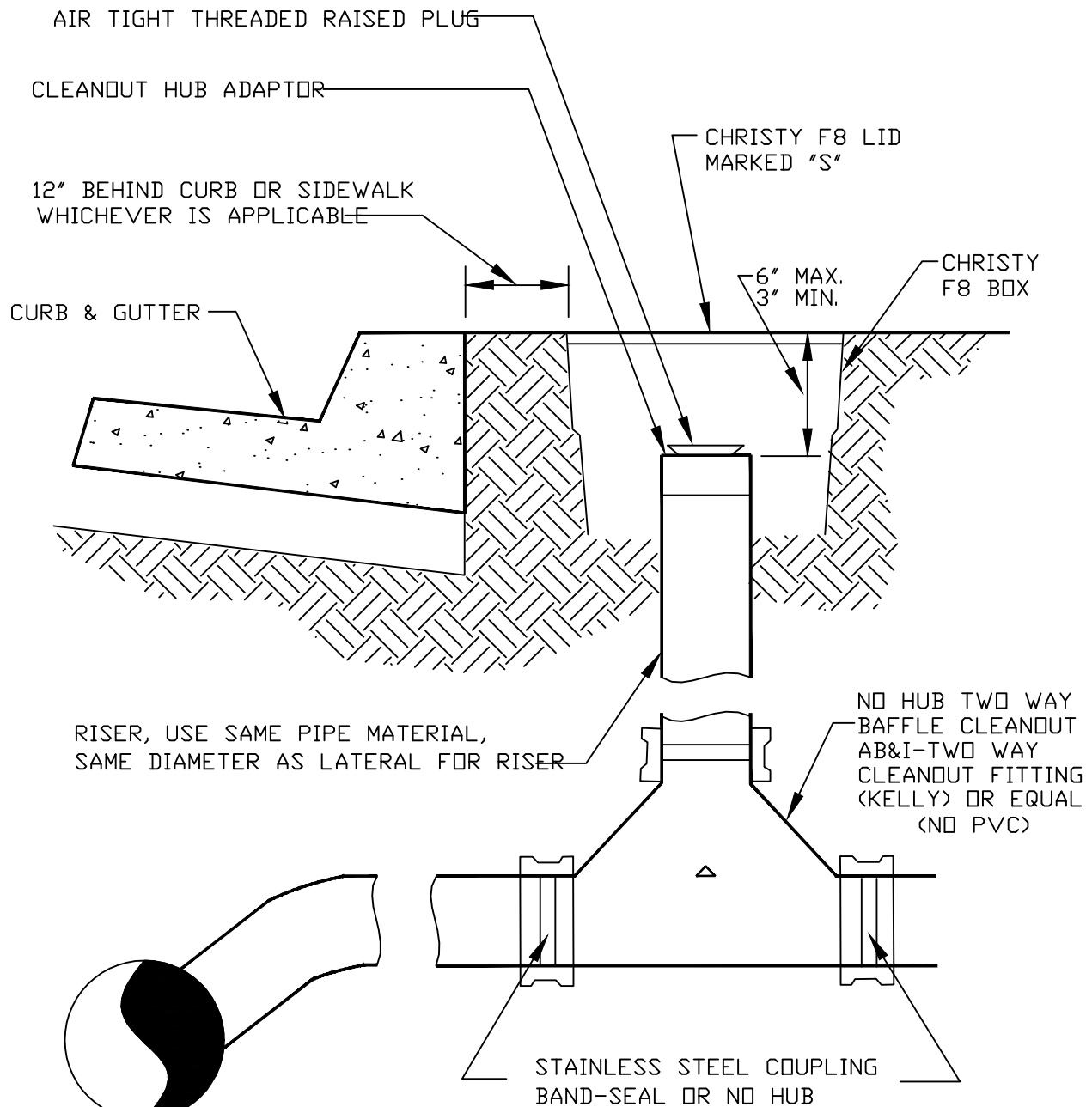
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
SANITARY SEWER DROP  
MANHOLE



DATE : 4/16 DWG NO. 407





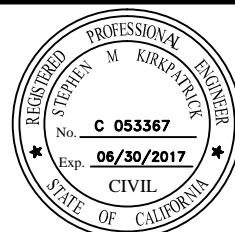
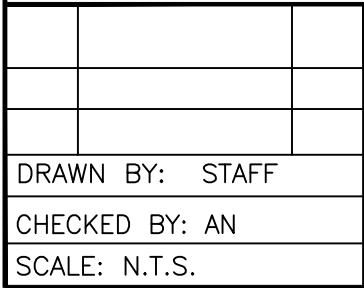
CONTRACTOR SHALL USE 4" MIN. PLEASANTON FINE FILL  
FOR CLEAN-OUT BEDDING.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

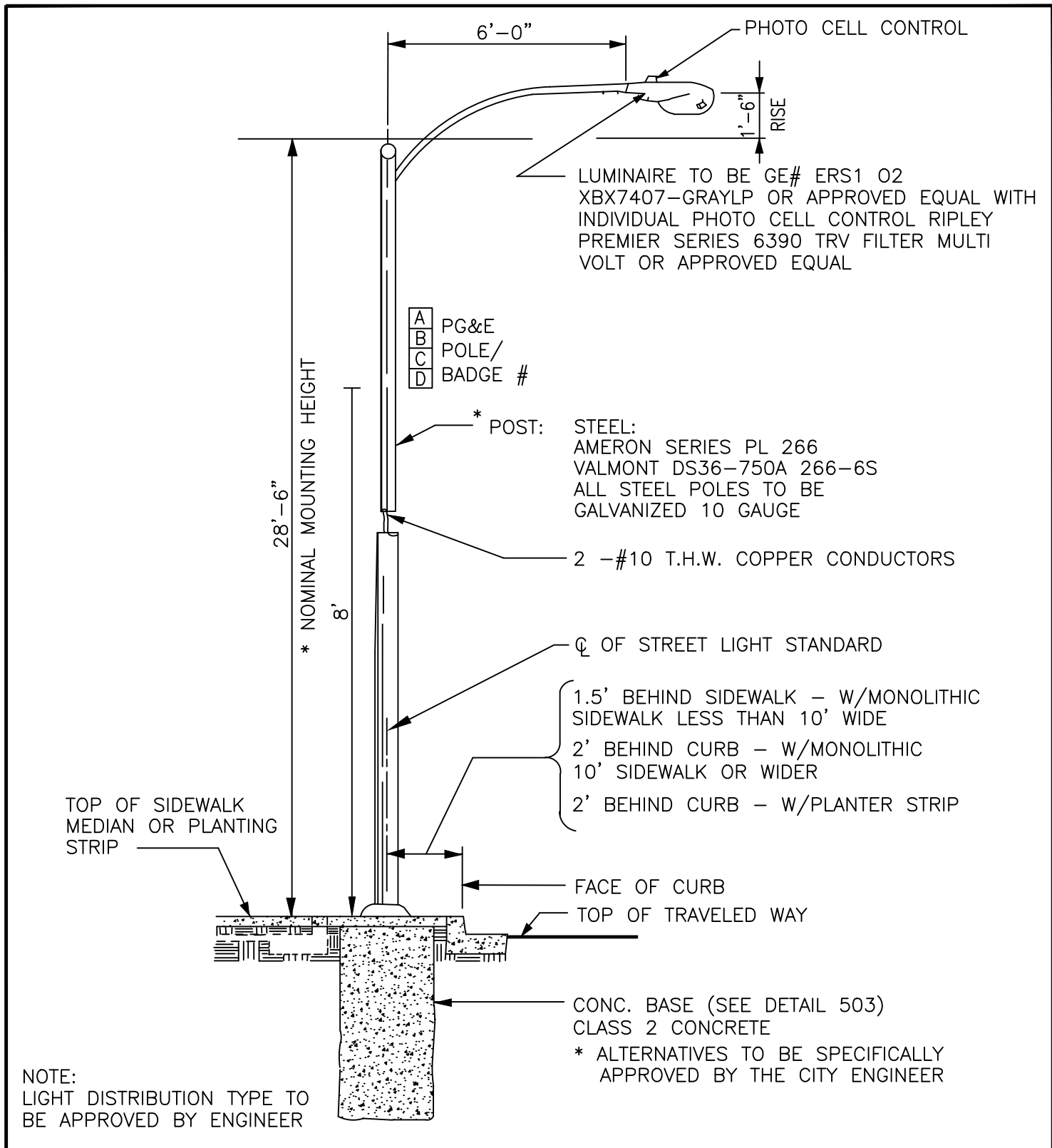
# CITY OF PLEASANTON STANDARD DETAILS CLEAN-OUT



DATE : 10/16 DWG NO. 409



DATE : 4/16	DWG NO. 501
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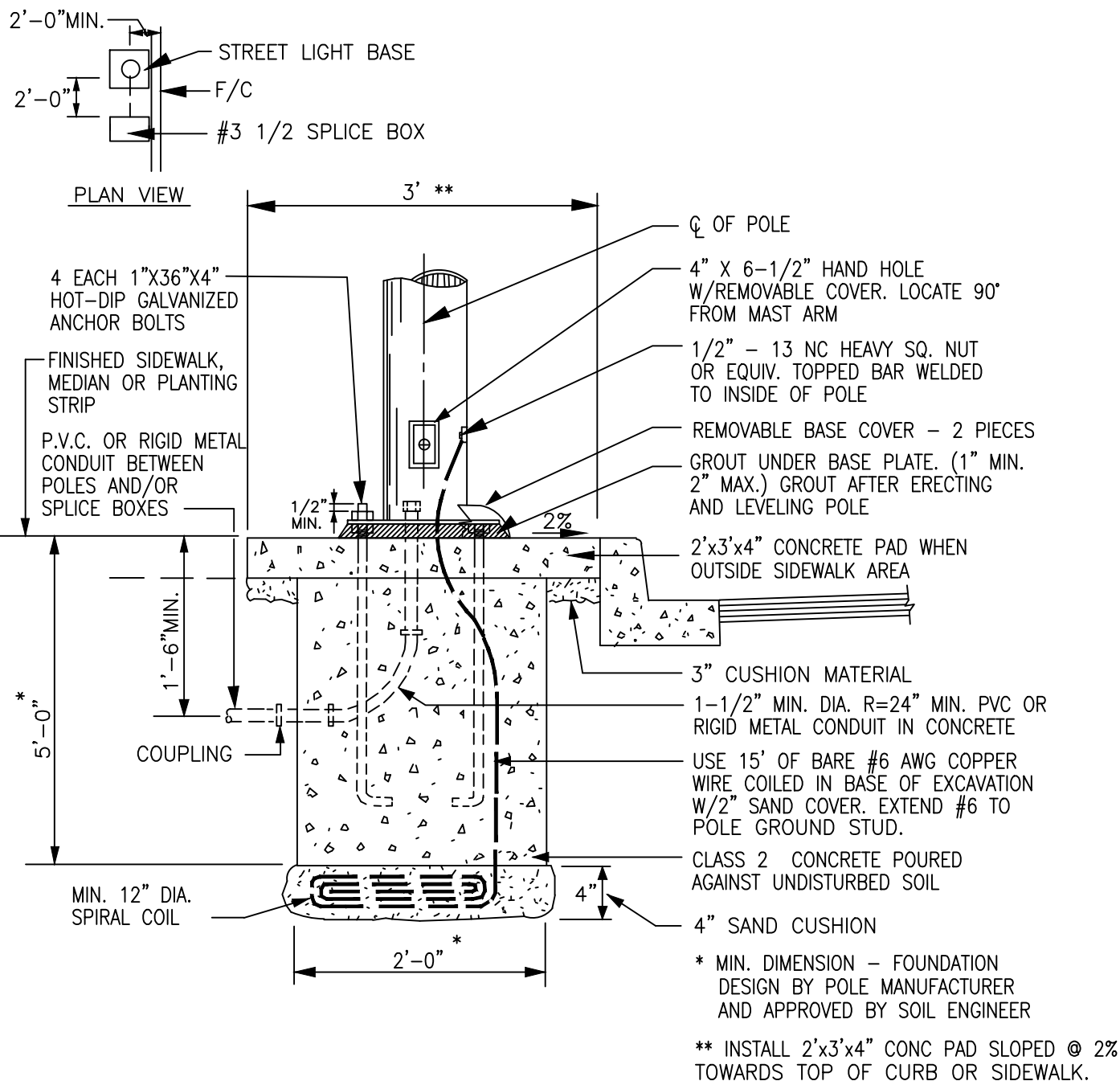


CITY OF PLEASANTON  
STANDARD DETAILS  
STREET LIGHT STANDARD  
MINOR STREET

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 502



#### NOTES:

1. CONCRETE SHALL BE CLASS 2 P.C.C. POURED AGAINST UNDISTURBED SOIL.
2. GROUT IN BOTTOM OF SPLICE BOXES WILL NOT BE REQUIRED. DEPTH OF CRUSHED ROCK SUMP AT BOTTOM OF PULL BOXES SHALL BE A MINIMUM DEPTH OF 12".
3. ALL CONDUIT SHALL ENTER THE SPLICE BOX FROM THE BOTTOM. SIDE ACCESS WILL NOT BE ALLOWED.
4. COVER OF SPLICE BOX SHALL BE MARKED "STREET LIGHTING". PLACE TOP OF SPLICE BOX 0.10' ABOVE SURROUNDING GRADE.

## CITY OF PLEASANTON STANDARD DETAILS

### STREET LIGHT STANDARD CONCRETE FOOTING DETAIL

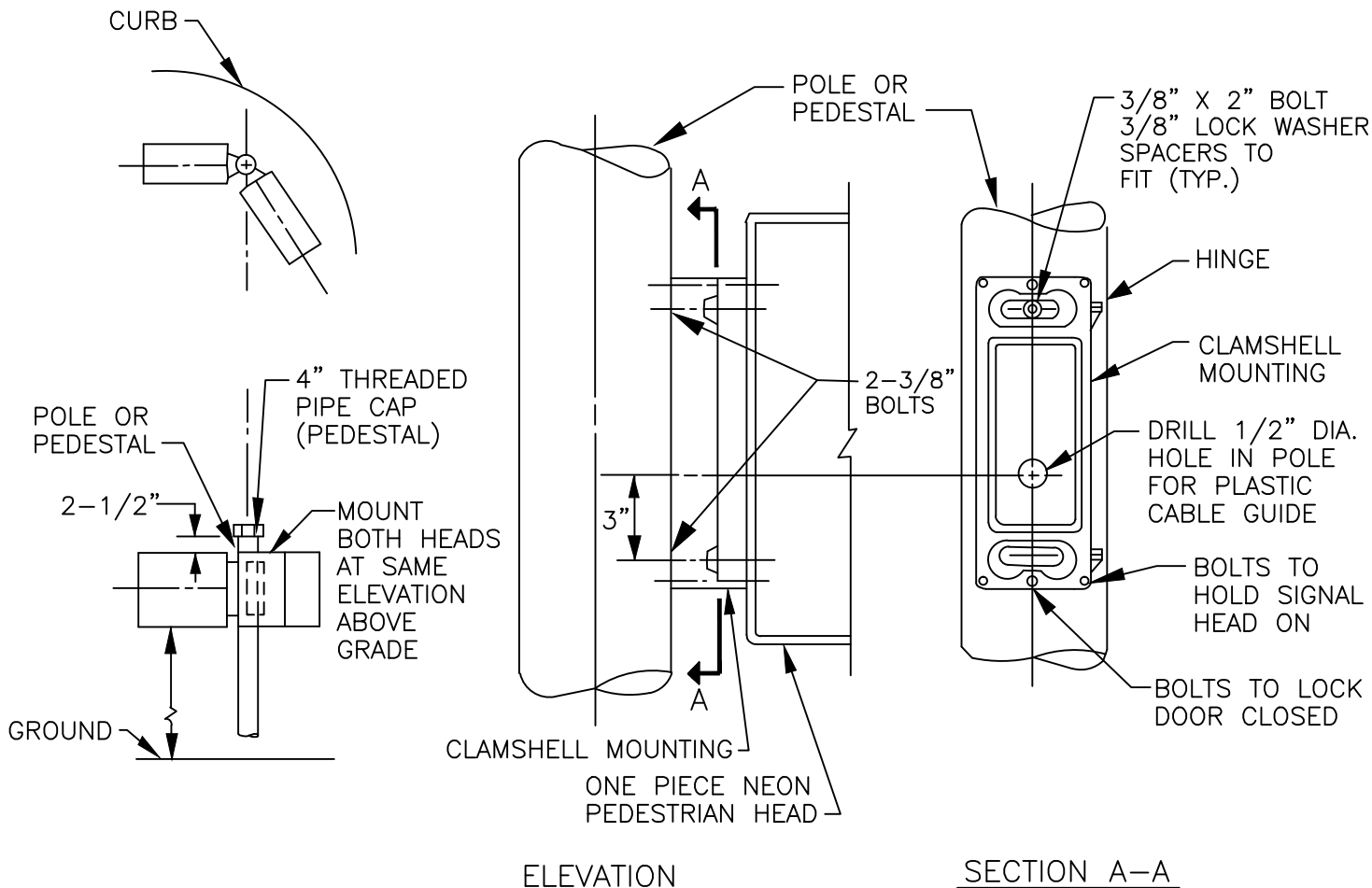
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE : 4/16 | DWG NO. 503



**NOTES:**

1. BOLTS AND WASHERS SHALL BE STAINLESS STEEL.
2. MOUNTING SHALL BE AS FOLLOWS:  
 ON METAL POLES THINNER THAN 7 GAUGE, USE 3/8" STAINLESS STEEL RIVNUTS.  
 ON METAL POLES 7 GAUGE OR THICKER, DRILL AND TAP FOR 3/8" BOLT. (STAINLESS STEEL RIVNUTS OPTIONAL)  
 ON POLES FILLED WITH OR MADE FROM CONCRETE USE 3/8" X 2-1/2" STUD. BOLT ANCHORS WITH HEX NUTS.
3. BOTTOM OF PEDESTRIAN SIGNAL HOUSING SHALL BE 8' ABOVE SIDEWALK GRADE.

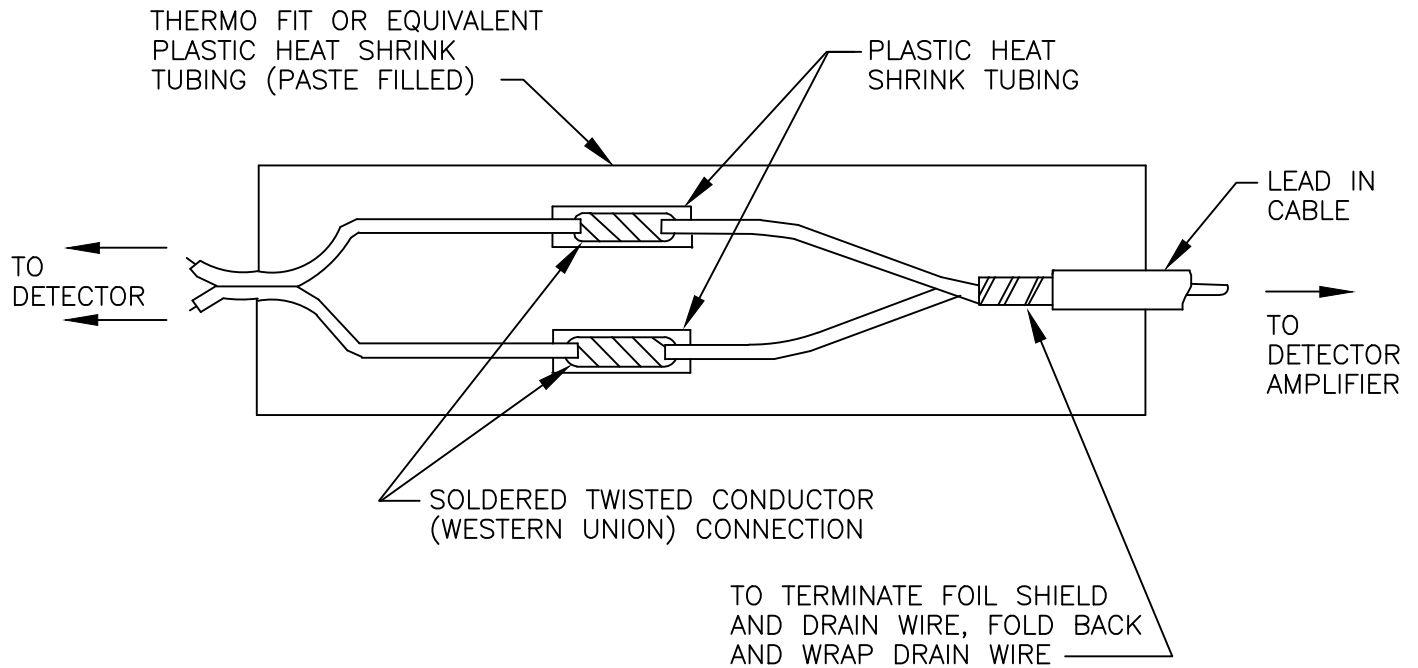
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
 STANDARD DETAILS  
 PEDESTRIAN SIGNAL  
 CLAMSHELL MOUNTING

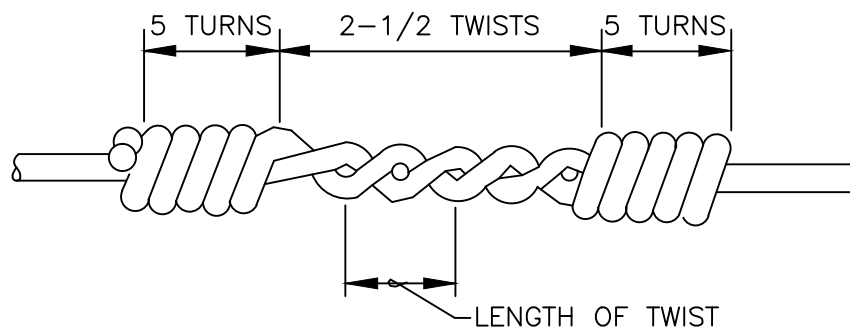


DATE : 4/16 DWG NO. 504





### DETECTOR LEAD-IN WIRE SPLICE DETAIL



CAUTION: BE SURE BOTH WIRES ARE TWISTED EQUALLY.

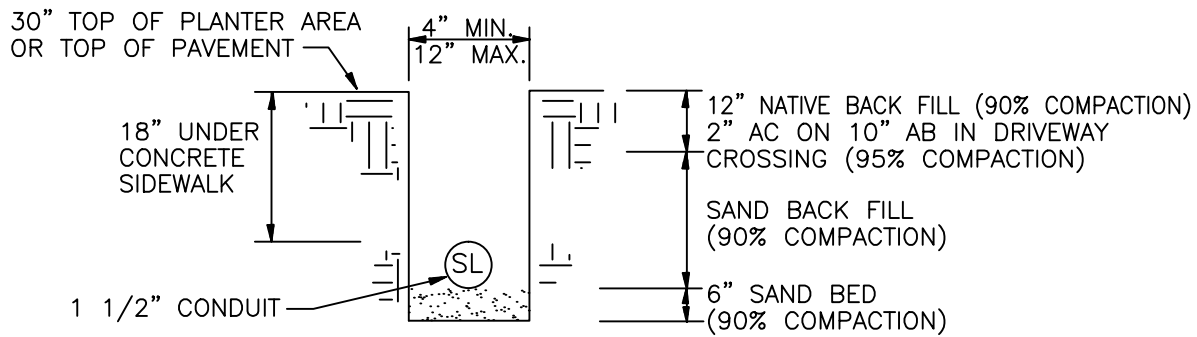
### TWISTED CONDUCTOR SPLICE

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

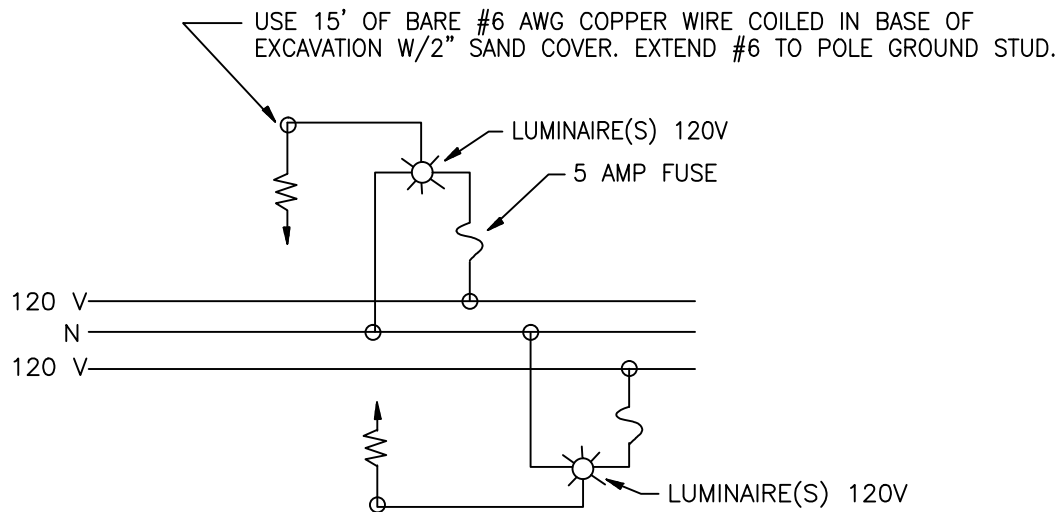
CITY OF PLEASANTON  
STANDARD DETAILS  
DETECTOR LOOP  
WIRE SPLICE



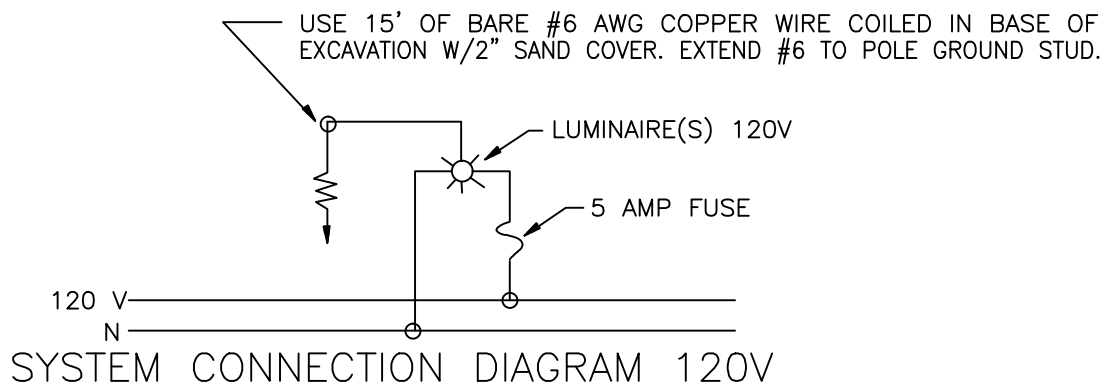
DATE : 4/16 DWG NO. 505



TRENCH DETAIL



SYSTEM CONNECTION DIAGRAM 120V/3-WIRE

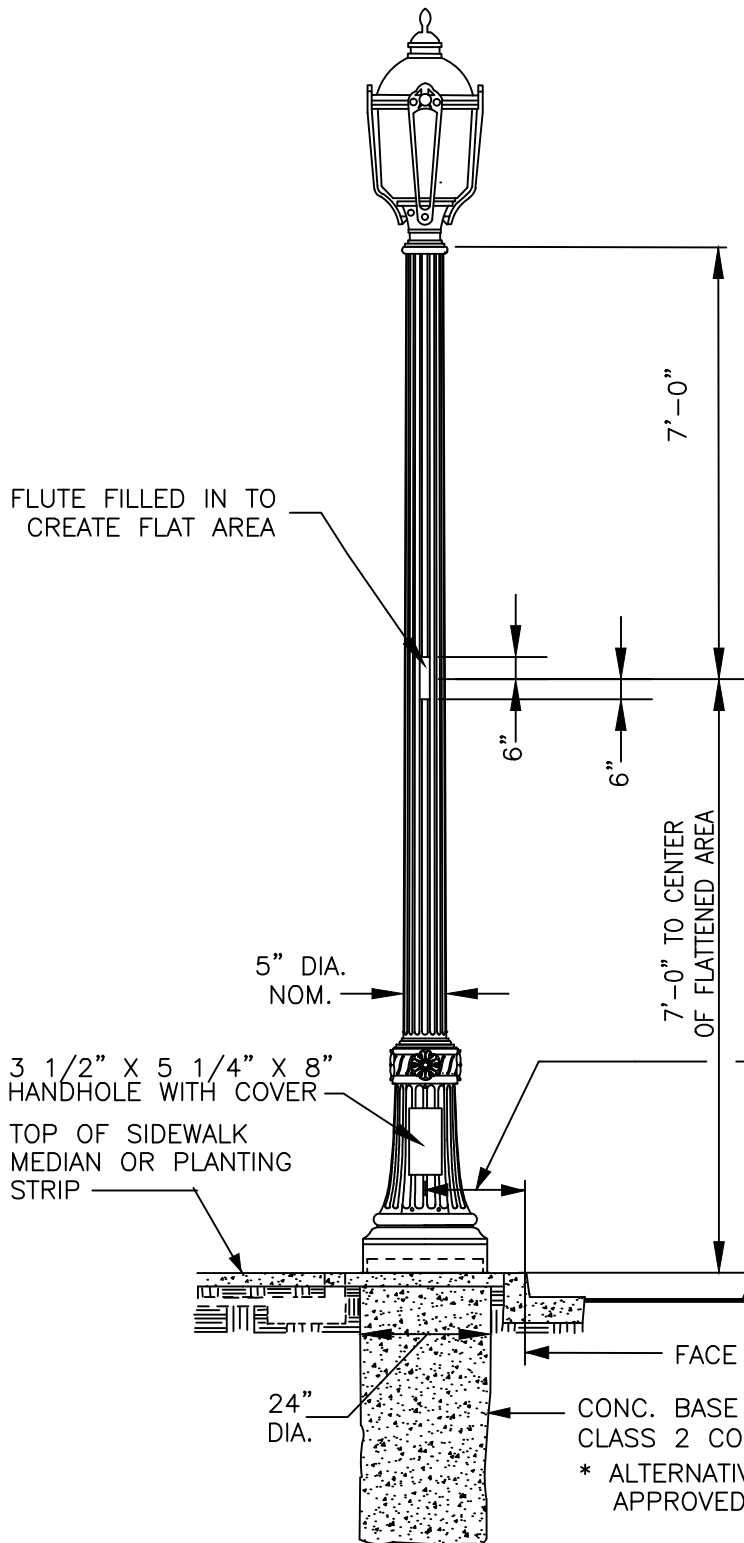


DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
STREET LIGHT STANDARD  
TRENCH DETAIL & SYSTEM  
CONNECTION DIAGRAMS



DATE : 4/16 DWG NO. 506



**NOTES:**

1. COLOR - BLACK
2. FINISH - POWDER COAT
3. MATERIAL - FLUTED EXTRUDED ALUMINUM
4. LUMINAIRE-75W H.P.S.,120V,W/P.E.C.  
Z40-100S-3-1-PC-HS-BKTX-MOG  
OR APPROVED LED EQUAL
5. POLE-HAPCO #79246-003-BK  
OR APPROVED EQUAL
6. USE ONLY UPON APPROVAL OF  
PLANNING AND ENGINEERING

- 1.5' BEHIND SIDEWALK-W/MONOLITHIC  
SIDEWALK LESS THAN 10' WIDE
- 2' BEHIND CURB-W/MONOLITHIC  
10' SIDEWALK OR GREATER
- 2' BEHIND CURB-W/PLANTER STRIP

CITY OF PLEASANTON  
STANDARD DETAILS

STREET LIGHT STANDARD  
POST TOP ELECTROLIER

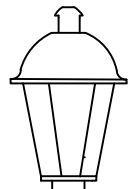


DATE : 4/16 DWG NO. 507

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CHECKED BY: AN

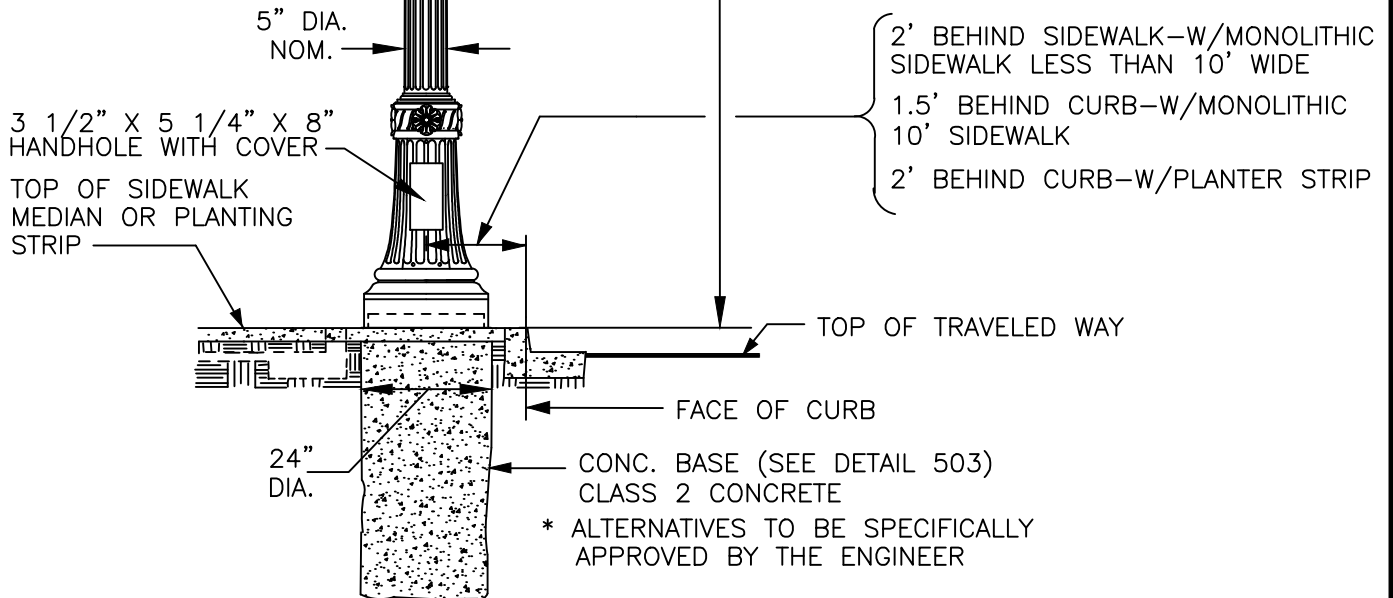
SCALE: N.T.S.



NOTE:  
USE ONLY UPON APPROVAL OF  
PLANNING AND ENGINEERING

LUMINAIRE  
BLACK, 70 W, HPS, 120V W/PHOTO  
ELECTRIC CELL,  
W/HOUSE SIDE SHIELDING, GE  
SEMT07S1A2TAMS2B OR APPROVED  
LED EQUAL.

POLE  
BLACK ANODIZED ROUND TAPERED  
ALUMINUM ANODIZING TO BE  
ARCHITECTURE CLASS I PROCESS  
MATCHING BASE COVER SHAFT  
DIMENSIONS 5'x3'x16'x0.0125'  
NOMINAL MOUNTING HEIGHT = 16'

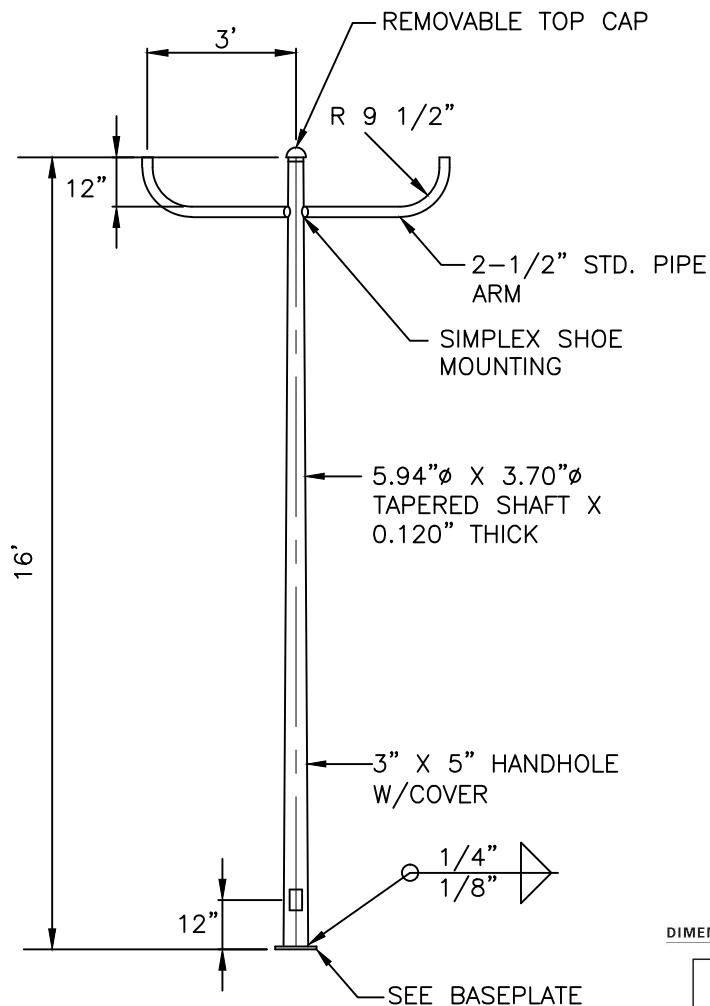


CITY OF PLEASANTON  
STANDARD DETAILS  
STREET LIGHT STANDARD  
POST TOP ELECTROLIER  
FOR RESIDENTIAL STREETS

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



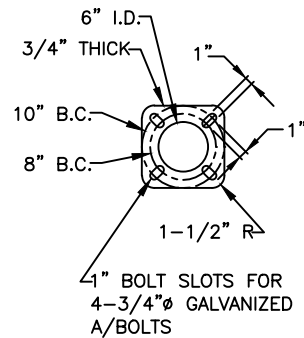
DATE : 4/16 DWG NO. 508



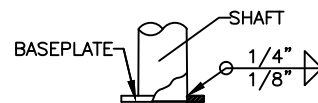
**UTLD**  
TRADITIONAIRE  
LED DOWNLIGHT

1 - 3 LightBARs  
Solid State LED

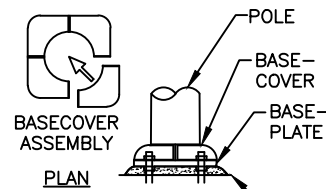
DECORATIVE POST TOP  
LUMINAIRE



BASEPLATE



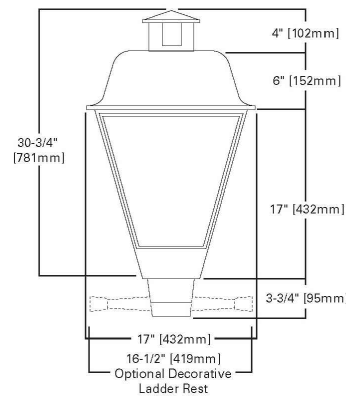
BASE DETAIL



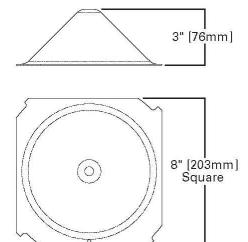
BASE COVER

FOUNDATION SHALL BE  
PER CITY OF  
PLEASANTON'S STANDARD  
DETAIL DRAWING NO. 503

DIMENSIONS



OPTIONAL BIRD CONE



NOTES:

1. LUMINAIRE SHALL BE UTLD-E01-LED-E-U-T3
2. INSTALL ACRYLIC LENS
3. USE ONLY UPON APPROVAL OF PLANNING AND ENGINEERING

**EATON**  
Powering Business Worldwide

CITY OF PLEASANTON  
STANDARD DETAILS

DOWNTOWN STREET LIGHT POLE

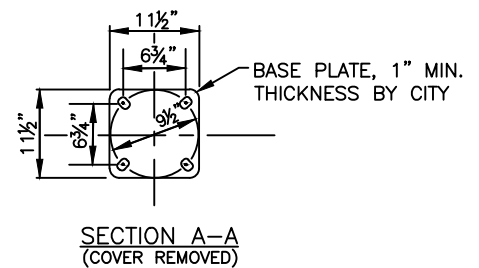
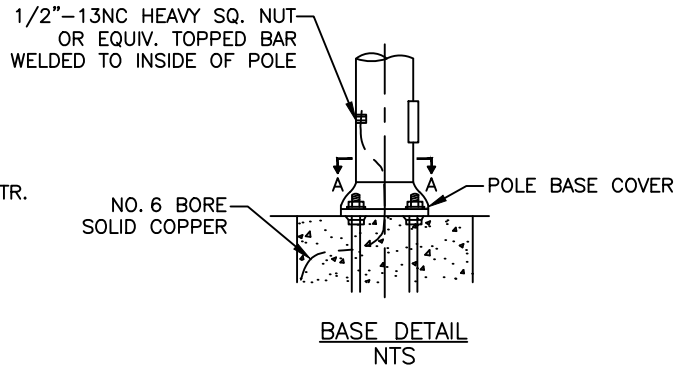
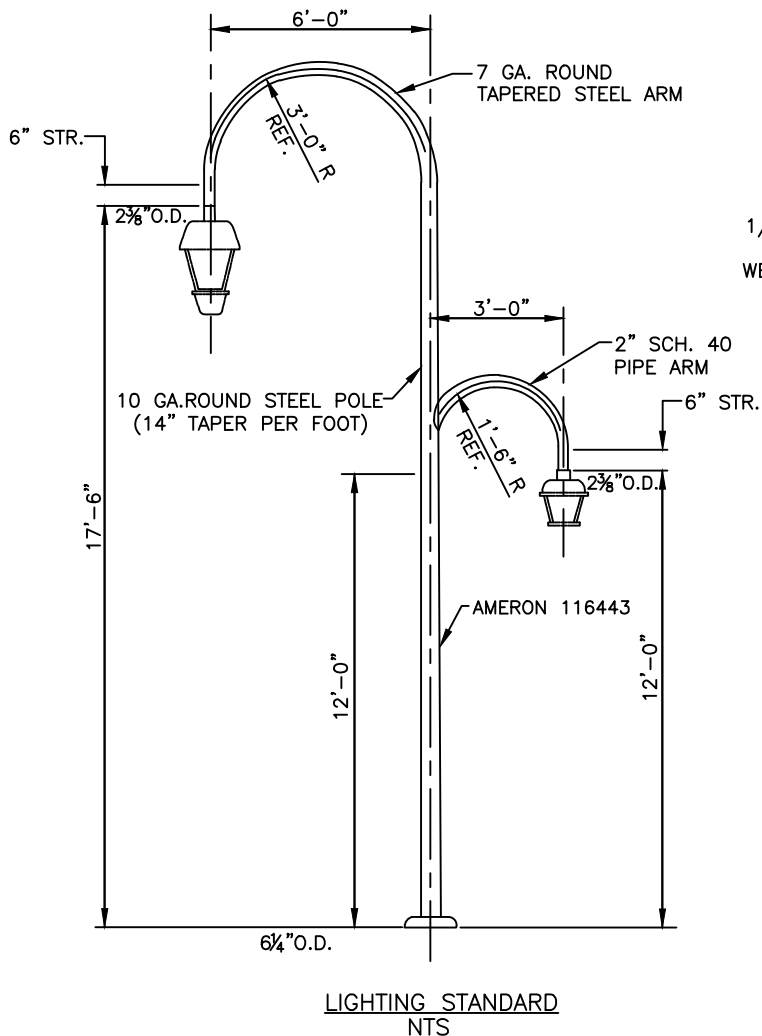
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE: 4/16 DWG NO. 509



**NOTE:**

1. FOUNDATION SHALL BE PER CITY OF PLEASANTON'S STANDARD DETAIL DRAWING NO. 503
2. USE ONLY UPON APPROVAL OF PLANNING AND ENGINEERING

CITY OF PLEASANTON  
STANDARD DETAILS

DOWNTOWN CANDY CANE  
STREET POLE

DRAWN BY: STAFF

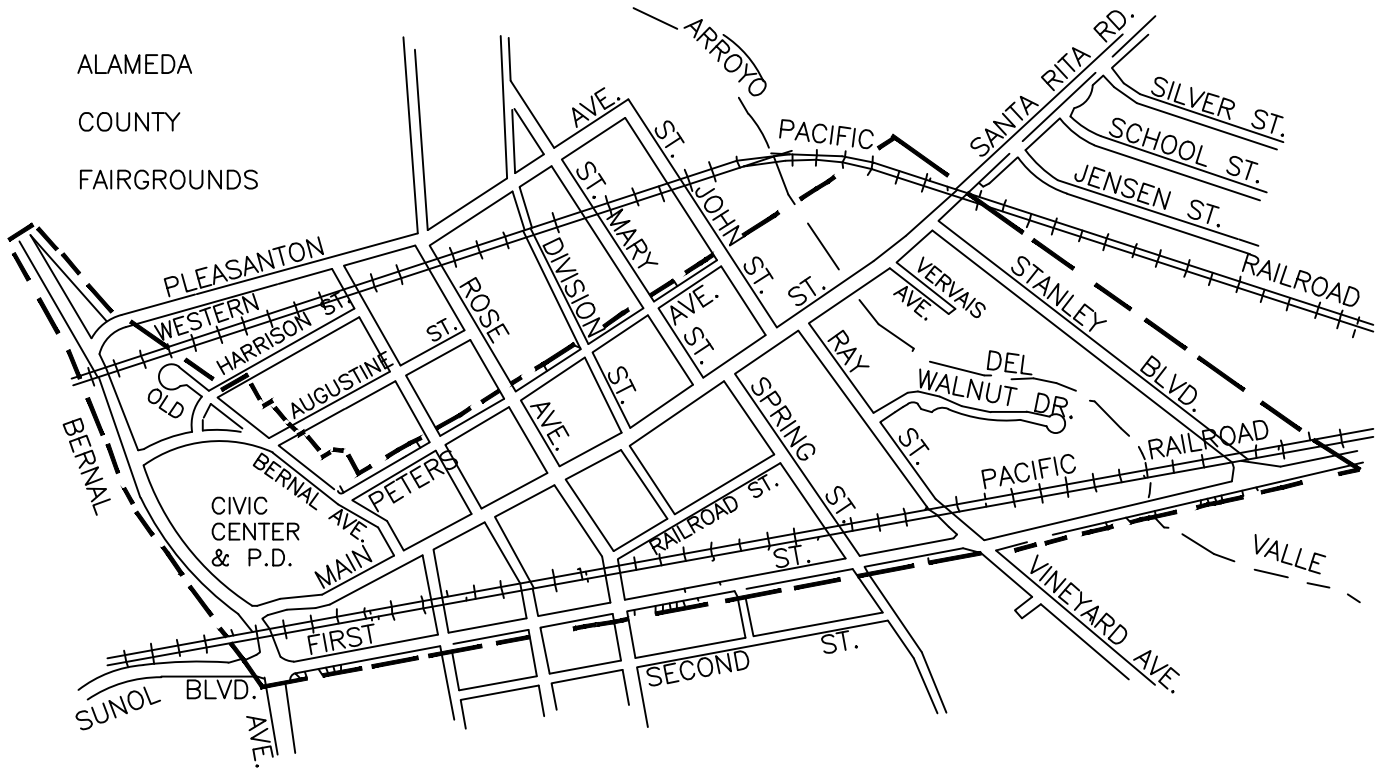
CHECKED BY: AN

SCALE: N.T.S.



DATE: 4/16 DWG NO. 510

ALAMEDA  
COUNTY  
FAIRGROUNDS



## DOWN TOWN SPECIFIC PLAN

### GENERAL NOTES

1. AN ENCROACHMENT PERMIT IS REQUIRED FOR ALL NEWSPAPER RACKS, PERMANENT OR TEMPORARY. (ORD. NO. 1103, SEC. 5-9.09)
2. ALL NEWSPAPER RACKS WITHIN THE HISTORICAL BUSINESS DISTRICT SHALL BE OF A MULTI-UNIT CONFIGURATION PERMANENTLY AFFIXED TO THE GROUND UNLESS OTHERWISE PERMITTED BY THE ENGINEER, (SEC. 5-9.09A) SEE ABOVE MAP.
3. SINGLE-UNIT NEWSPAPER RACKS SHALL NOT BE CHAINED, BOLTED OR OTHERWISE ATTACHED TO ANY PROPERTY WITHOUT PERMISSION OF THE OWNER; NOR SHALL THEY BE ATTACHED TO ANY TREE, SHRUB OR OTHER PLANT OR SITUATED UPON ANY LANDSCAPED AREA AT ANY TIME.
4. NEWSPAPER RACK UNITS WILL NOT BE PERMITTED AT THE FOLLOWING LOCATIONS:
  - A. WITHIN 3' OF ANY CROSSWALK, DRIVEWAY, BUILDING ENTRANCE, OR NO PARKING/STOPPING ZONES.
  - B. WITHIN 5' RADIUS OF ANY FIRE HYDRANT, FIRE CALL BOX, POLICE CALL BOX OR OTHER EMERGENCY FACILITY.
  - C. WITHIN 150' RADIUS OF ANOTHER NEWSPAPER RACK UNIT IF NOT SEPARATED BY THE STREET.
  - D. AS DETERMINED UNSUITABLE BY THE ENGINEER.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

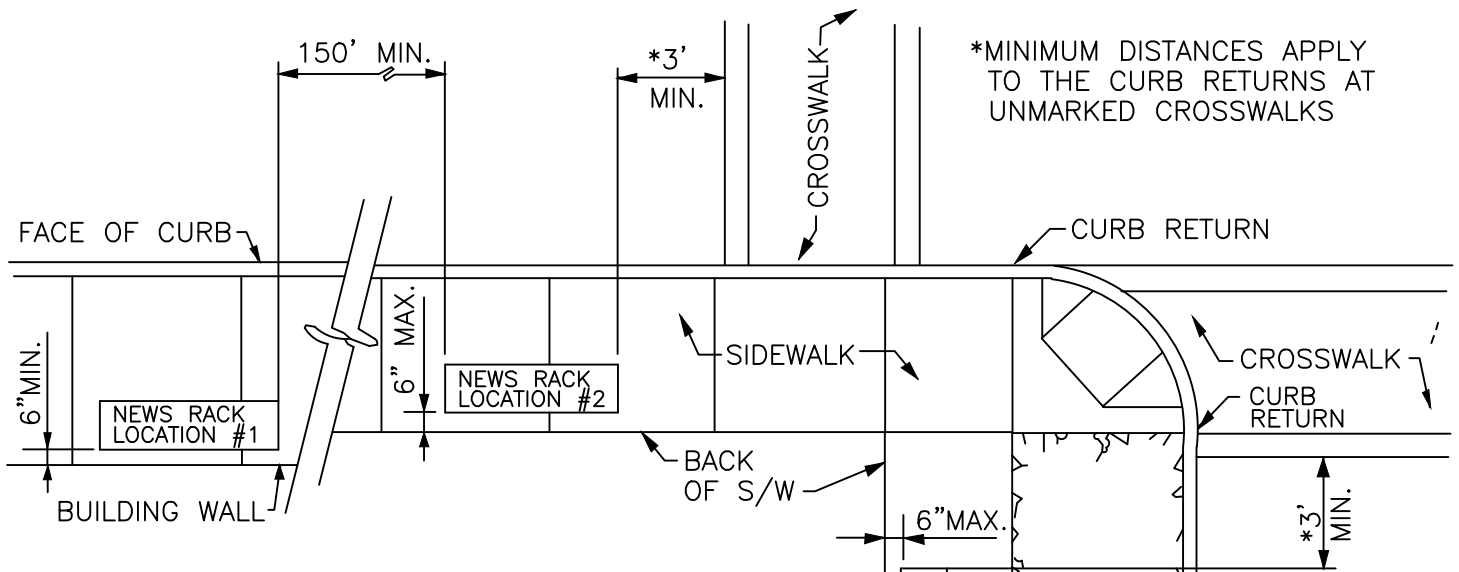
## CITY OF PLEASANTON

### STANDARD DETAILS

## NEWSPAPER RACKS AND SIMILAR DISPENSERS

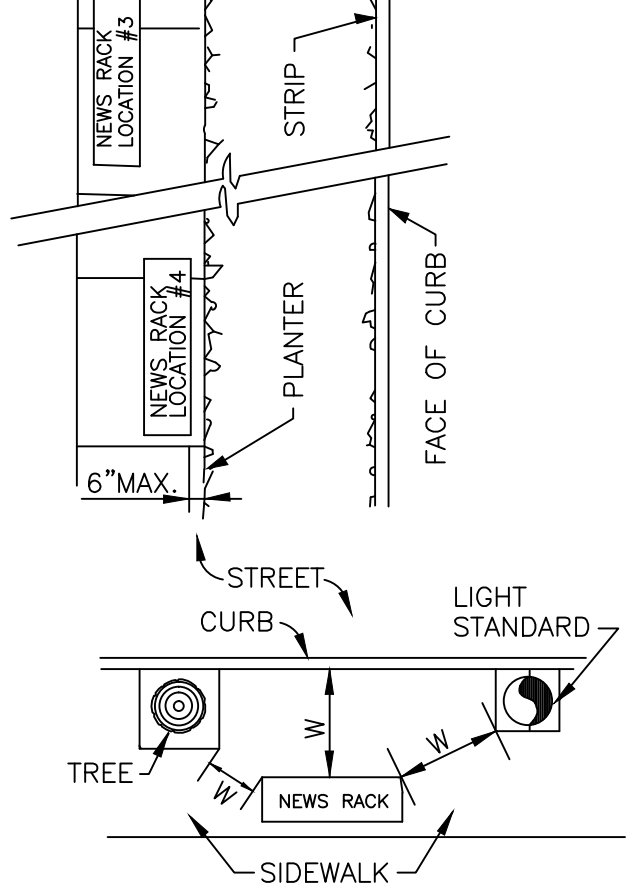


DATE: 4/16 DWG NO. 601A



## APPROVED NEWS RACK LOCATIONS

1. ADJACENT TO THE WALL OF A BUILDING, PARALLEL TO THE WALL.
2. AT THE BACK EDGE OF SIDEWALKS CONTIGUOUS TO A STREET CURB, PARALLEL TO THE CURB.
3. AT THE BACK EDGE OF SIDEWALKS SEPARATED FROM THE STREET CURB BY A PLANTER STRIP, PARALLEL TO THE SIDEWALK.
4. AT THE PLANTER STRIP EDGE OF SEPARATED SIDEWALKS, PARALLEL TO THE SIDEWALK.
5. ANY LOCATION APPROVED BY THE ENGINEER.



## CLEAR PASSAGE REQUIREMENTS

MINIMUM CLEAR PASSAGE WIDTHS (W)  
SHALL BE AS FOLLOWS:

- 6' WHERE SIDEWALK IS GREATER THAN 8' WIDE
- 4' WHERE SIDEWALK IS LESS THAN 8' WIDE
- 8' AT ANY BICYCLE/PEDESTRIAN PATH

## CITY OF PLEASANTON STANDARD DETAILS

### NEWSPAPER RACKS AND SIMILAR DISPENSERS

DRAWN BY: STAFF

CHECKED BY: AN

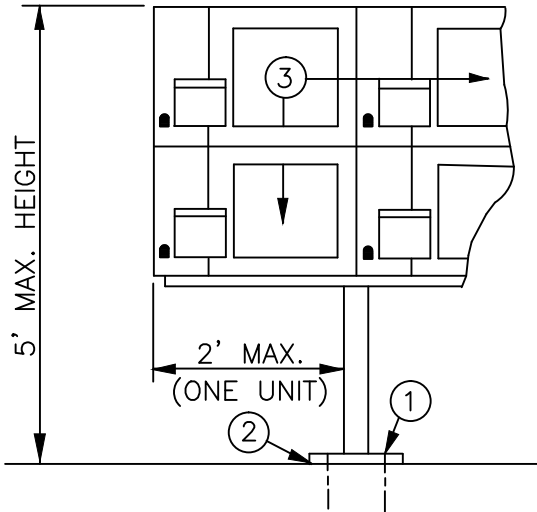
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DATE: 4/16 DWG NO. 601B

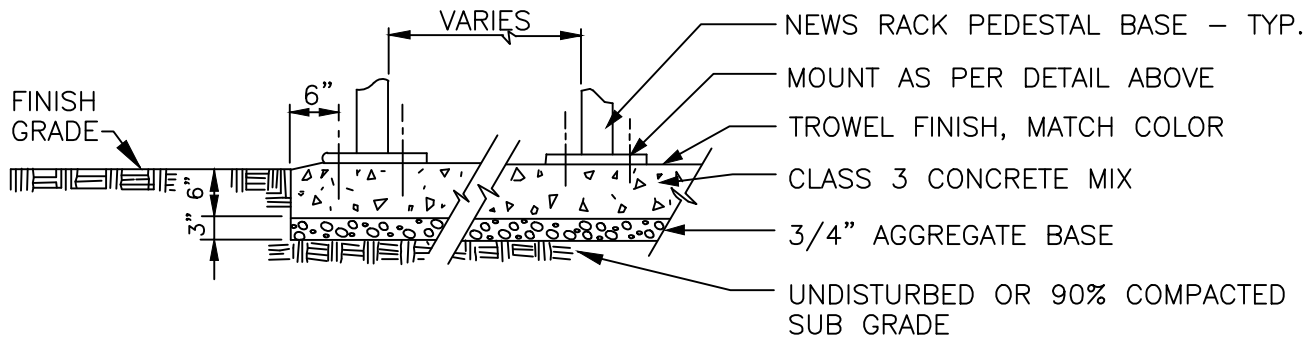


## MULTI-UNIT INSTALLATIONS

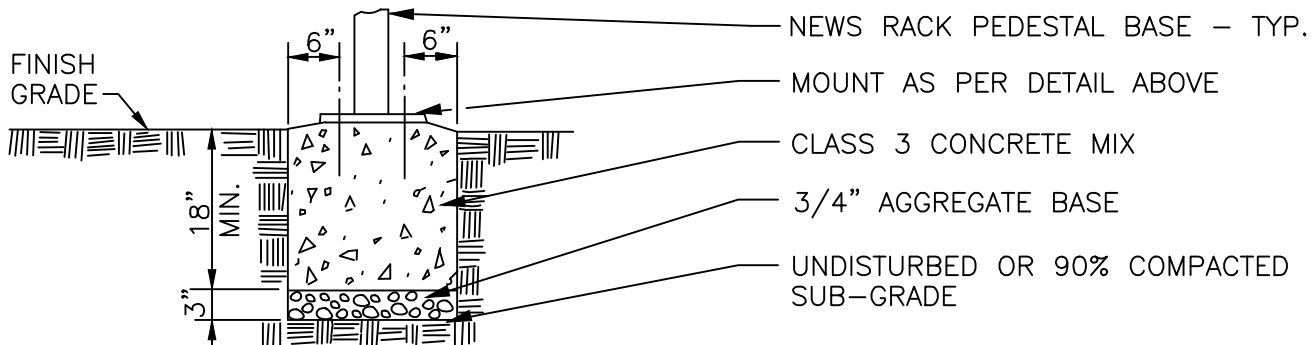


1. FOR INSTALLATIONS IN EXISTING SIDEWALK AREAS, DRILL INTO CONCRETE AND BOLT NEWS RACK BASE TO SURFACE WITH 4-3/8" Ø X 2 1/2" MOLLY BOLTS. DRILL SIZE AND DEPTH AS PER MANUFACTURER'S SPECIFICATIONS.
2. GROUT ALL GAPS, IF ANY, AT NEWS RACK BASE.
3. MULTI-UNIT CONFIGURATIONS SHALL BE LIMITED TO 2 ROWS OF UNITS IN HEIGHT, 6 UNITS PER ROW.
4. NEWS RACKS SHALL BE INSTALLED AS PLUMB AND LEVEL AS PRACTICABLE.
5. FOR INSTALLATIONS WHERE THERE IS NO EXISTING CONCRETE SURFACE REFER TO DETAILS BELOW.
6. MOUNTING SURFACES ARE TO BE RESTORED UPON REMOVAL OF UNIT BY THE DISTRIBUTOR.

## MULTIPLE BASE CONCRETE PAD



## SINGLE BASE CONCRETE PIER



CITY OF PLEASANTON  
STANDARD DETAILS

NEWSPAPER RACKS AND  
SIMILAR DISPENSERS

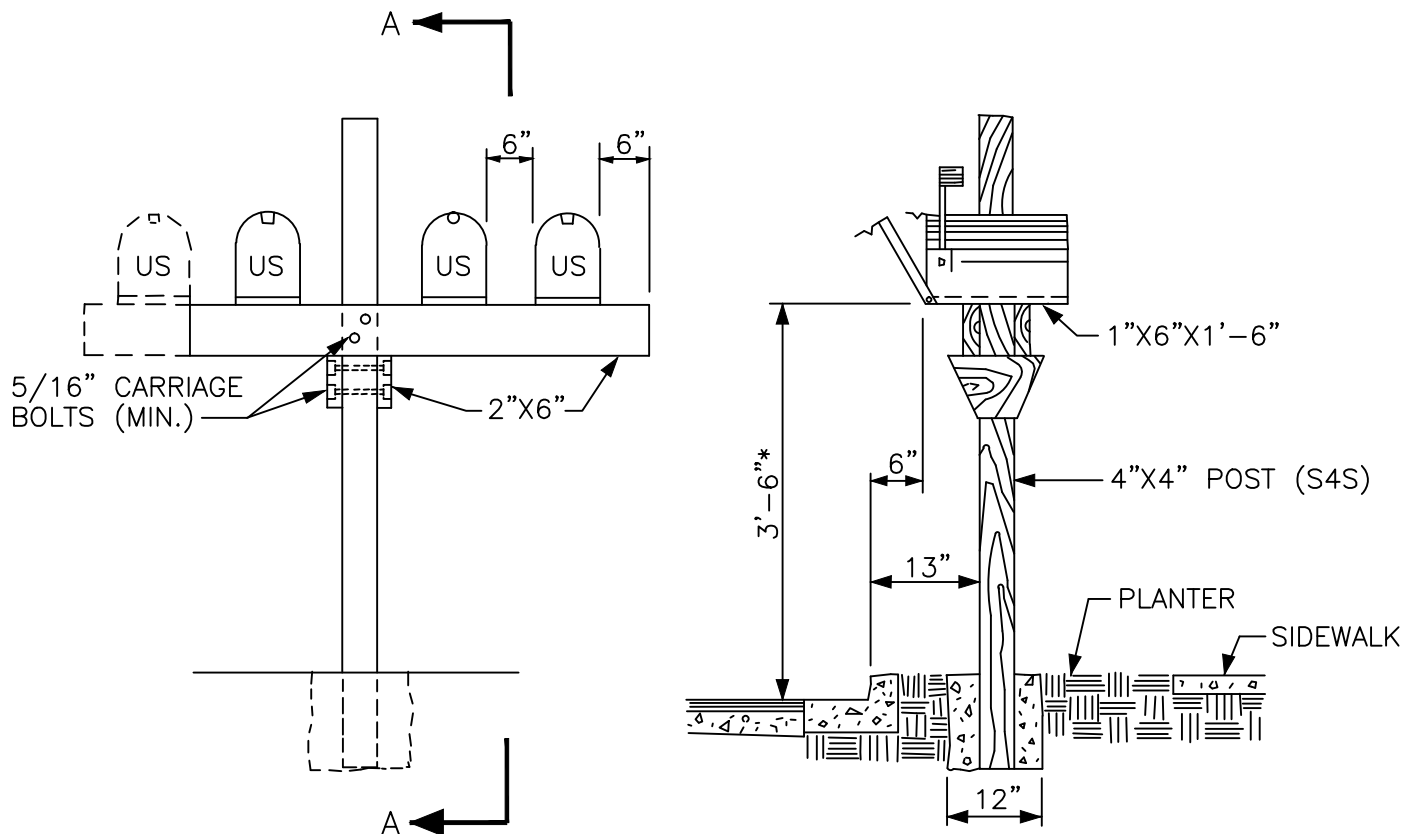
DRAWN BY: STAFF

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SCALE: N.T.S.



DATE: 4/16 DWG NO. 601C



SECTION A - A

## CLUSTERED MAILBOX

### NOTES:

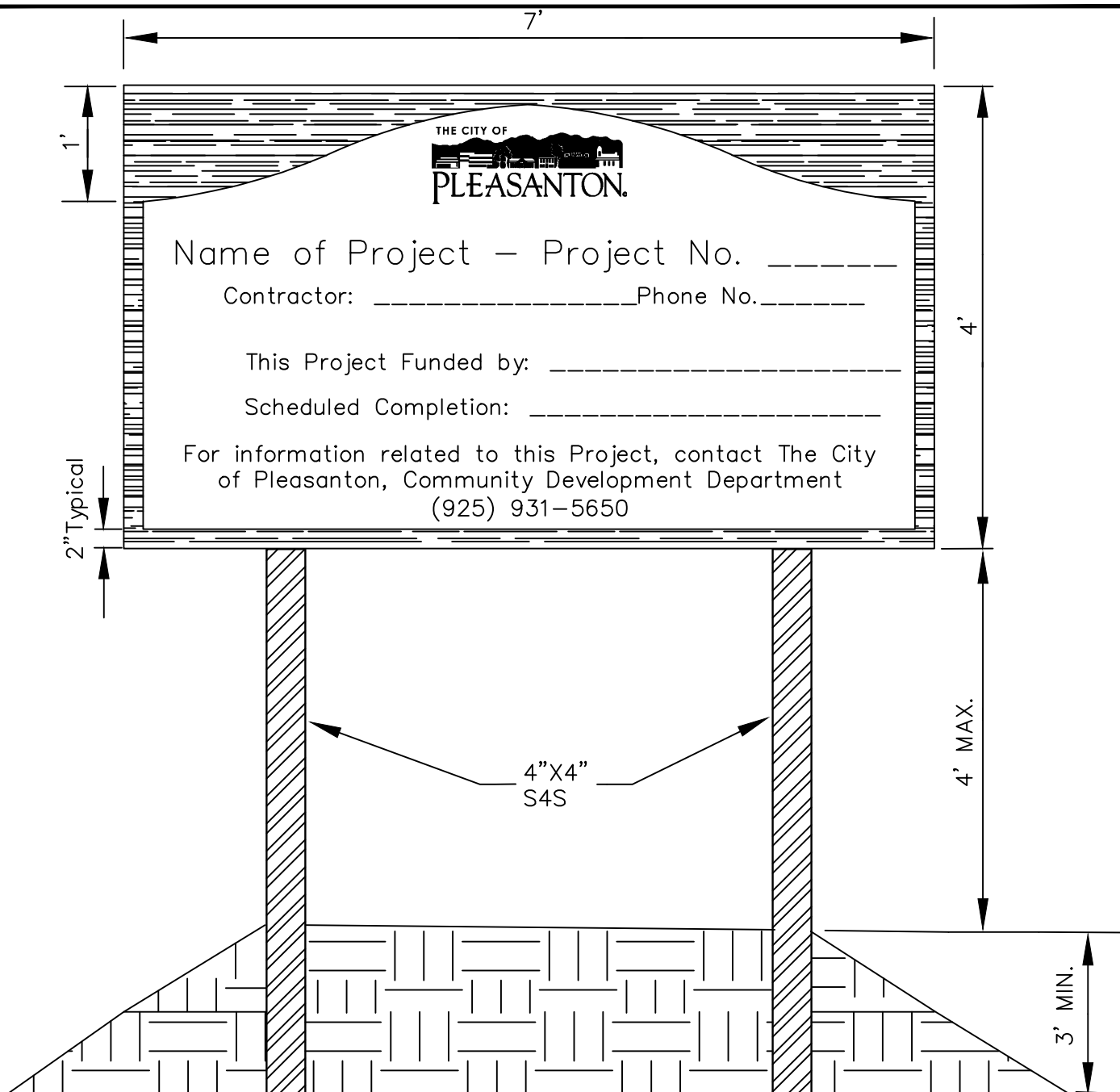
1. ALL LUMBER SHALL CONFORM TO STATE STANDARD SPECIFICATION 56-2.02B "WOOD POSTS."
2. ALL HARDWARE SHALL BE HOT DIP GALVANIZED.
3. CONCRETE SHALL BE CLASS 4.
4. SEE IMPROVEMENT PLANS FOR LOCATION OF MAIL BOXES AND NUMBER OF BOXES CLUSTERED AT EACH LOCATION.
5. THE MAILBOX DETAIL IS A MINIMUM STANDARD AND MAY BE UPGRADED ON A PER TRACT BASIS. A DETAIL SKETCH OF ANY MODIFICATION TO THIS DETAIL SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
MAILBOX DETAILS



DATE: 4/16 DWG NO. 602

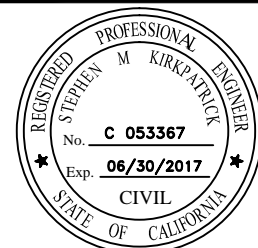


**NOTES:**

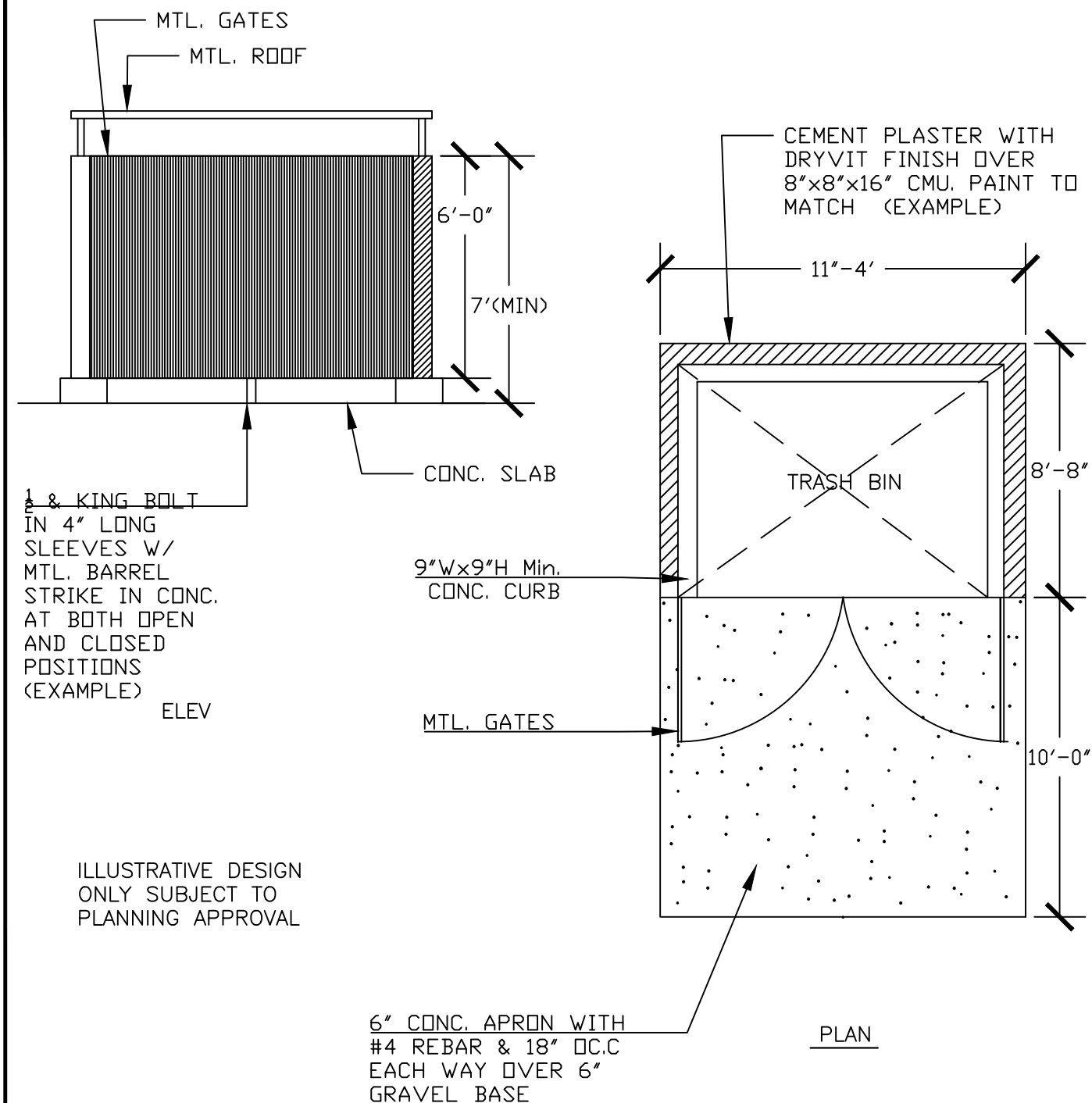
1. THE SIGN MAY BE PURCHASED FROM SIGN PRO, DUBLIN, CA 925-829-5000;  
AT THE CONTRACTORS' OPTION, OTHER FABRICATORS MAY BE SUBMITTED FOR APPROVAL.
2. ATTACH POSTS TO 1/2" EXTERIOR PLYWOOD SIGN FACE WITH FOUR 1 1/2" STOVE BOLTS.
3. POSTS SHALL BE PRESURE TREATED DOUGLAS FIR OR DENSE, STRUCTURAL GRADE REDWOOD.
4. POSTS SHALL BE SET 3' DEEP IN FIRMLY COMPACTED SOIL OR CONCRETE.
5. SIGN COLORS SHALL BE: SIGN BACKGROUND-PANTONE 5545C; SIGN BODY- PANTONE 155C.  
PAINT SHALL BE EXTERIOR ENAMEL.
6. SIGN TO BE PLACED IN A NON-WALKWAY AREA.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
PROJECT IDENTIFICATION SIGN



DATE: 4/16 DWG NO. 603



DRAWN BY: STAFF		
CHECKED BY:		
SCALE: N.T.S.		

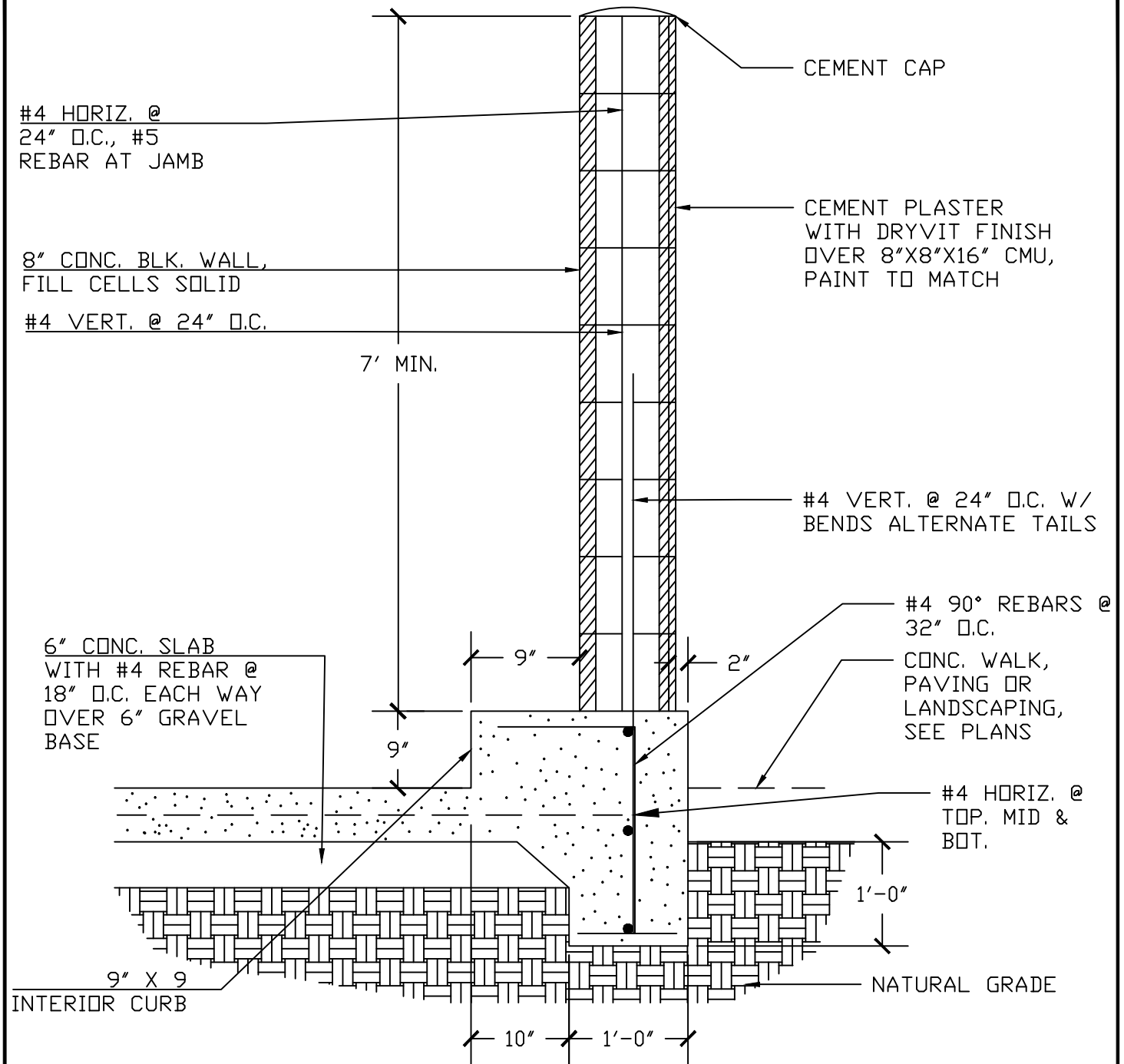
CITY OF PLEASANTON

STANDARD DETAILS

TRASH ENCLOSURE



DATE: 10/16 DWG NO. 604A



CITY OF PLEASANTON

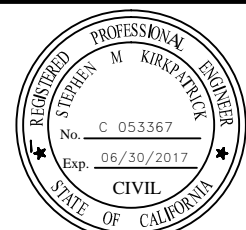
STANDARD DETAILS

TRASH ENCLOSURE

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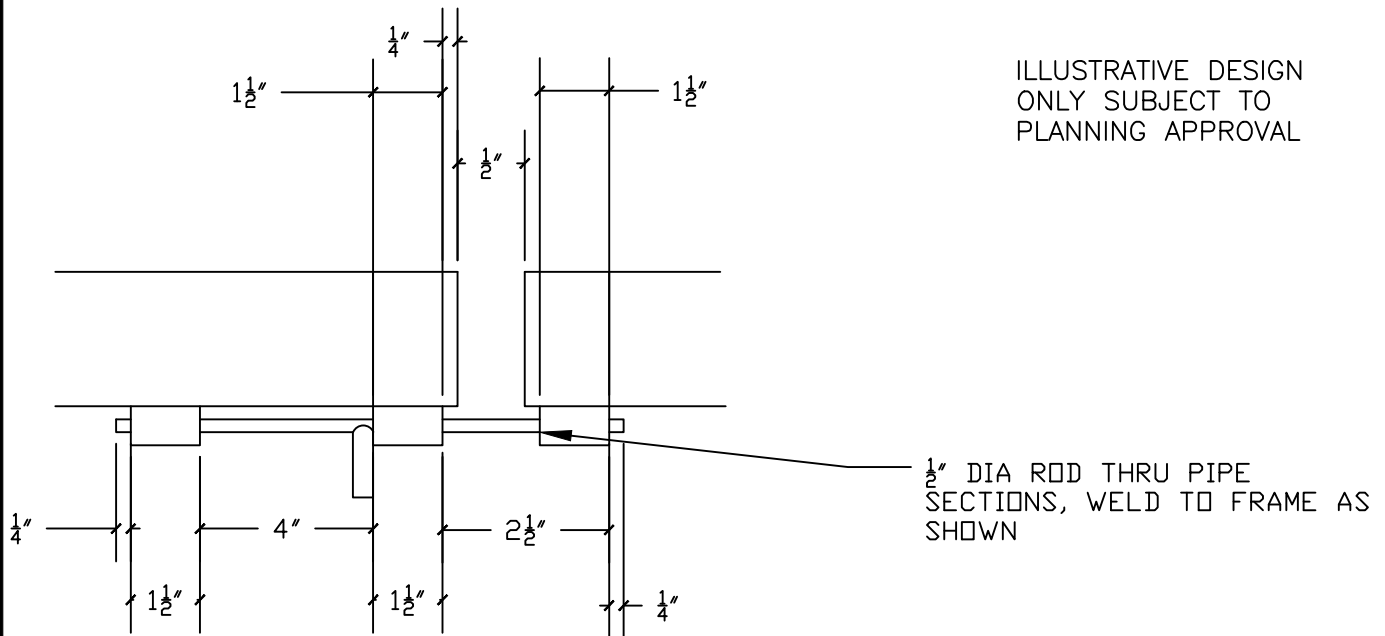
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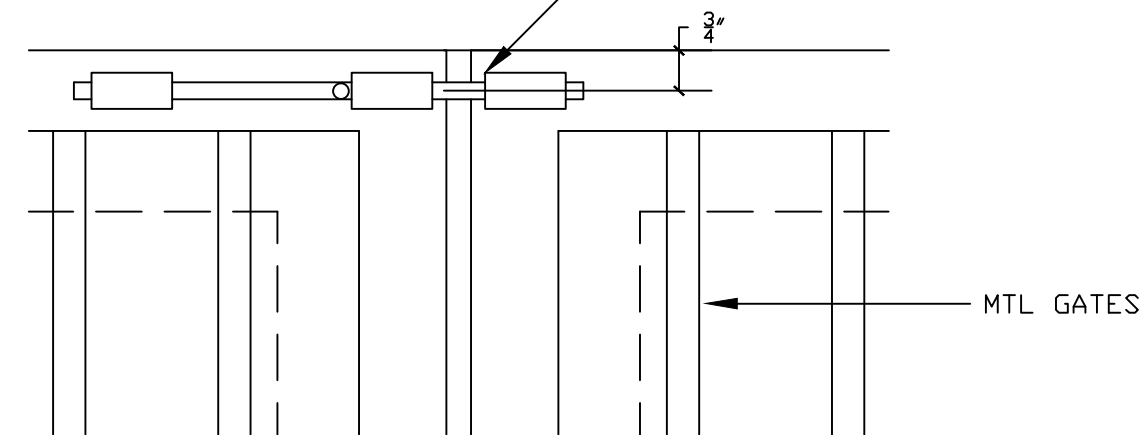
DATE: 10/16 DWG NO. 604B

ILLUSTRATIVE DESIGN  
ONLY SUBJECT TO  
PLANNING APPROVAL



PLAN

MITER CORNERS & GRIND WELDS SMOOTH



ELEV

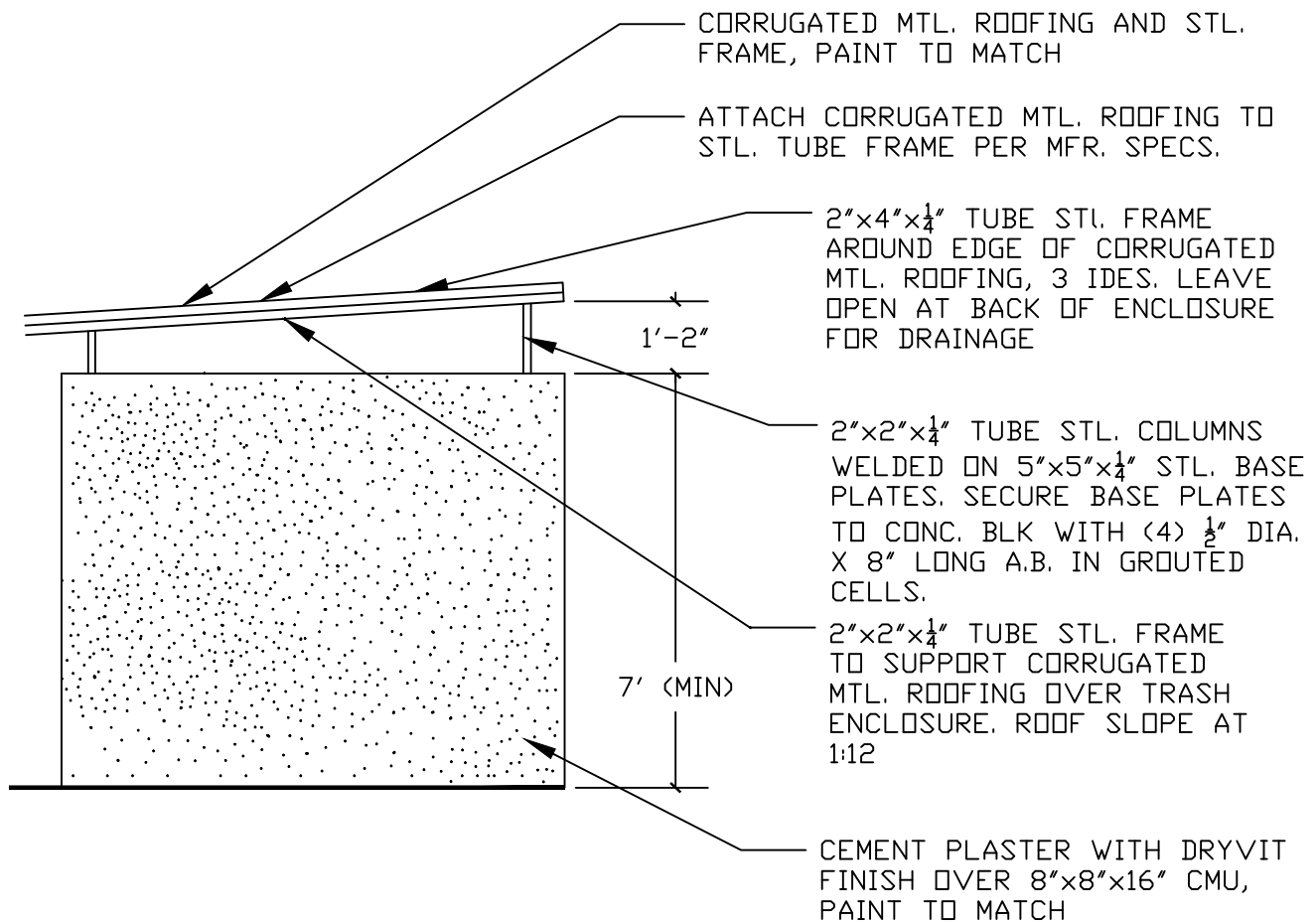
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CITY OF PLEASANTON  
STANDARD DETAILS  
TRASH ENCLOSURE



DATE: 10/16 | DWG NO. 604C

ILLUSTRATIVE DESIGN  
ONLY SUBJECT TO  
PLANNING APPROVAL



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CITY OF PLEASANTON

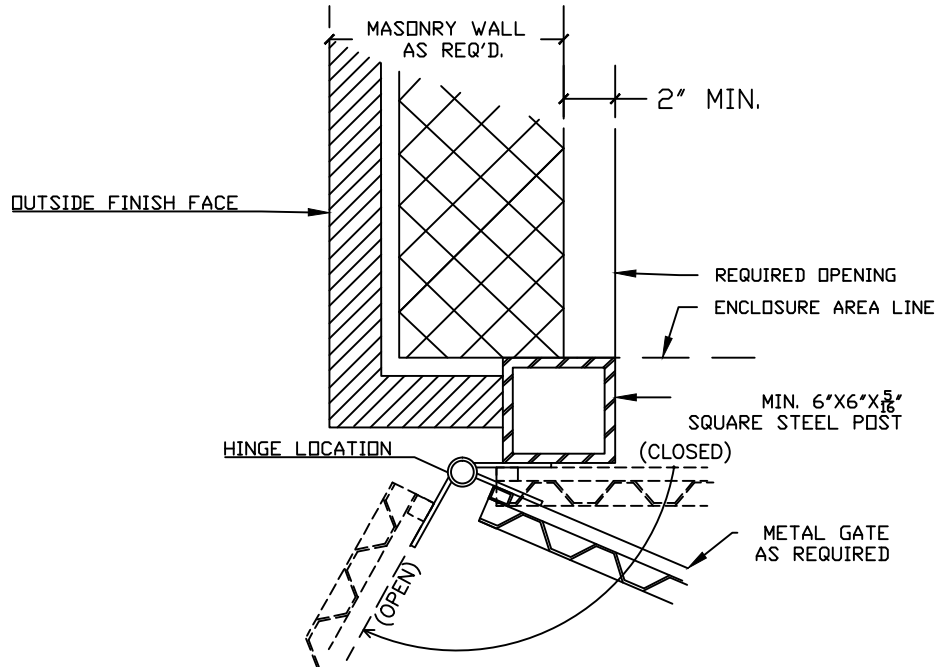
STANDARD DETAILS

TRASH ENCLOSURE



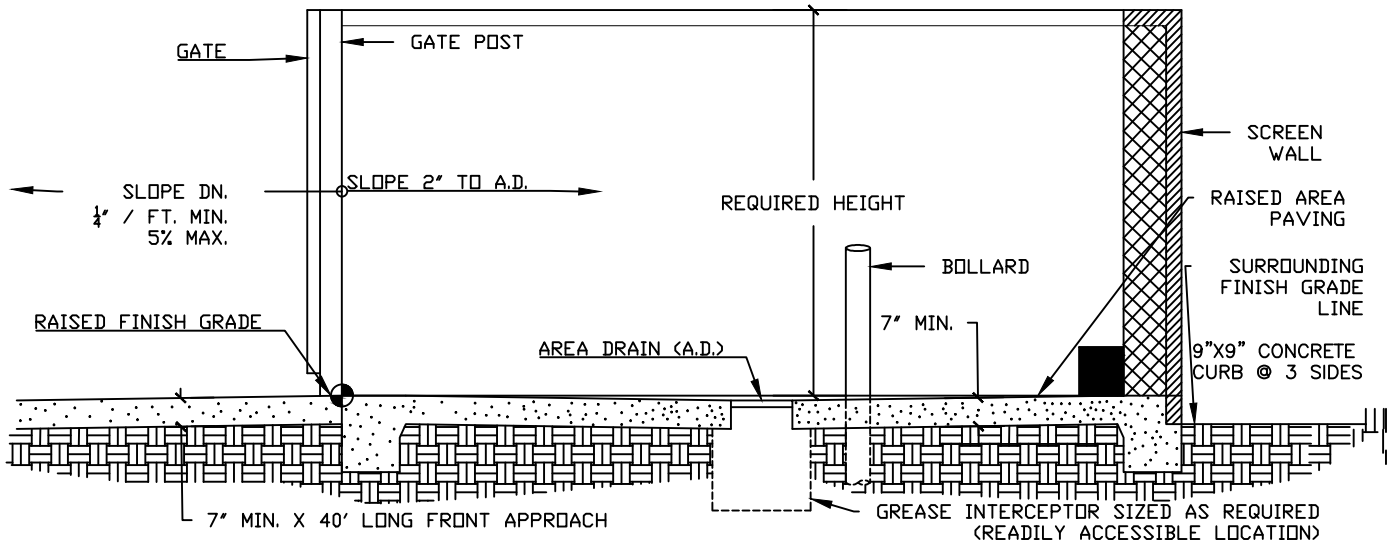
DATE: 10/16 | DWG NO. 604D

ILLUSTRATIVE DESIGN  
ONLY SUBJECT TO  
PLANNING APPROVAL



## GATE POST PLAN DETAIL

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



## ENCLOSED AREA CROSS SECTION

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SCALE: N.T.S.		

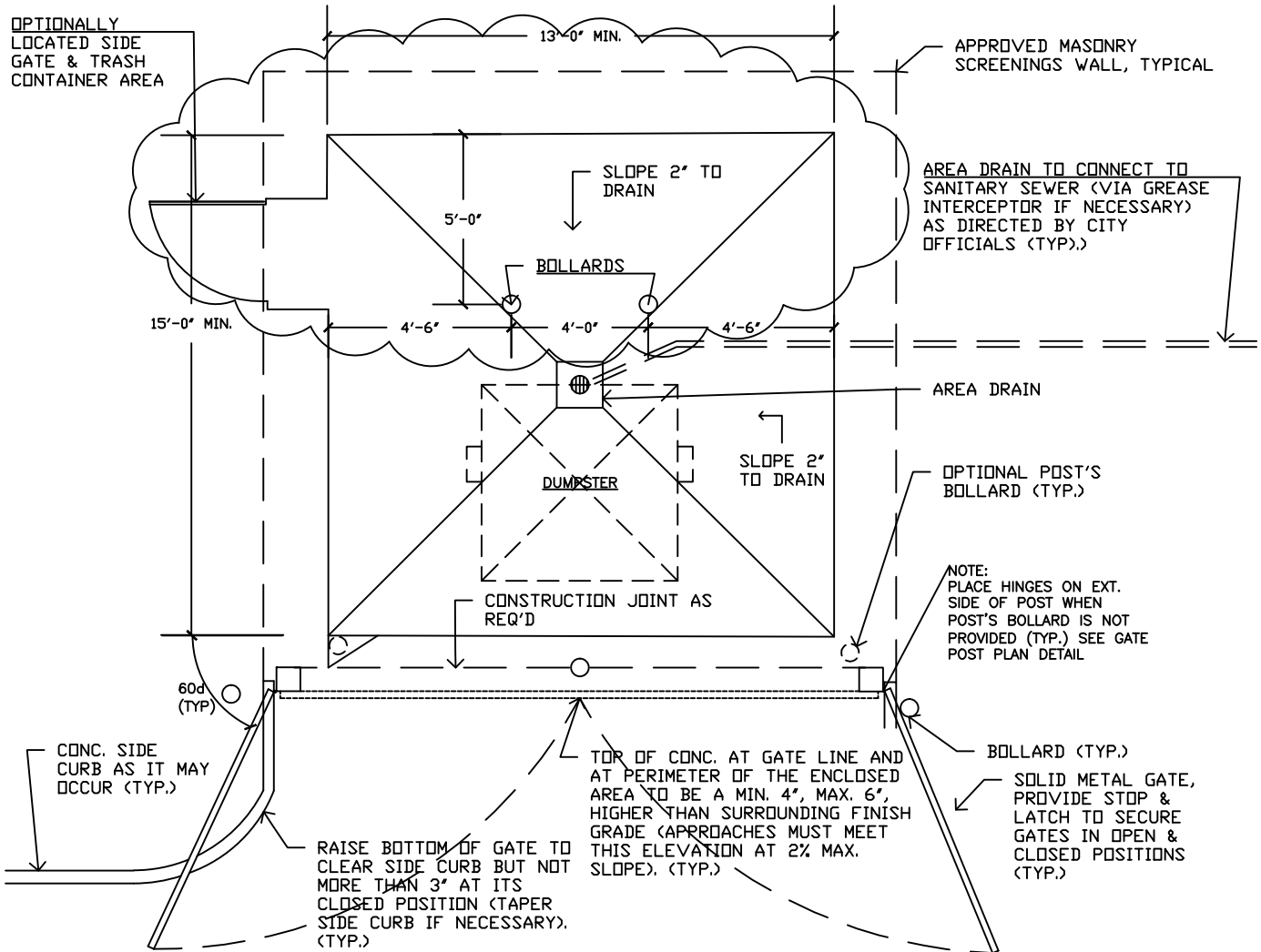
CITY OF PLEASANTON  
STANDARD DETAILS  
TRASH ENCLOSURE



DATE: 10/16 DWG NO. 604E



ILLUSTRATIVE DESIGN  
ONLY SUBJECT TO  
PLANNING APPROVAL



# SINGLE CONTAINER

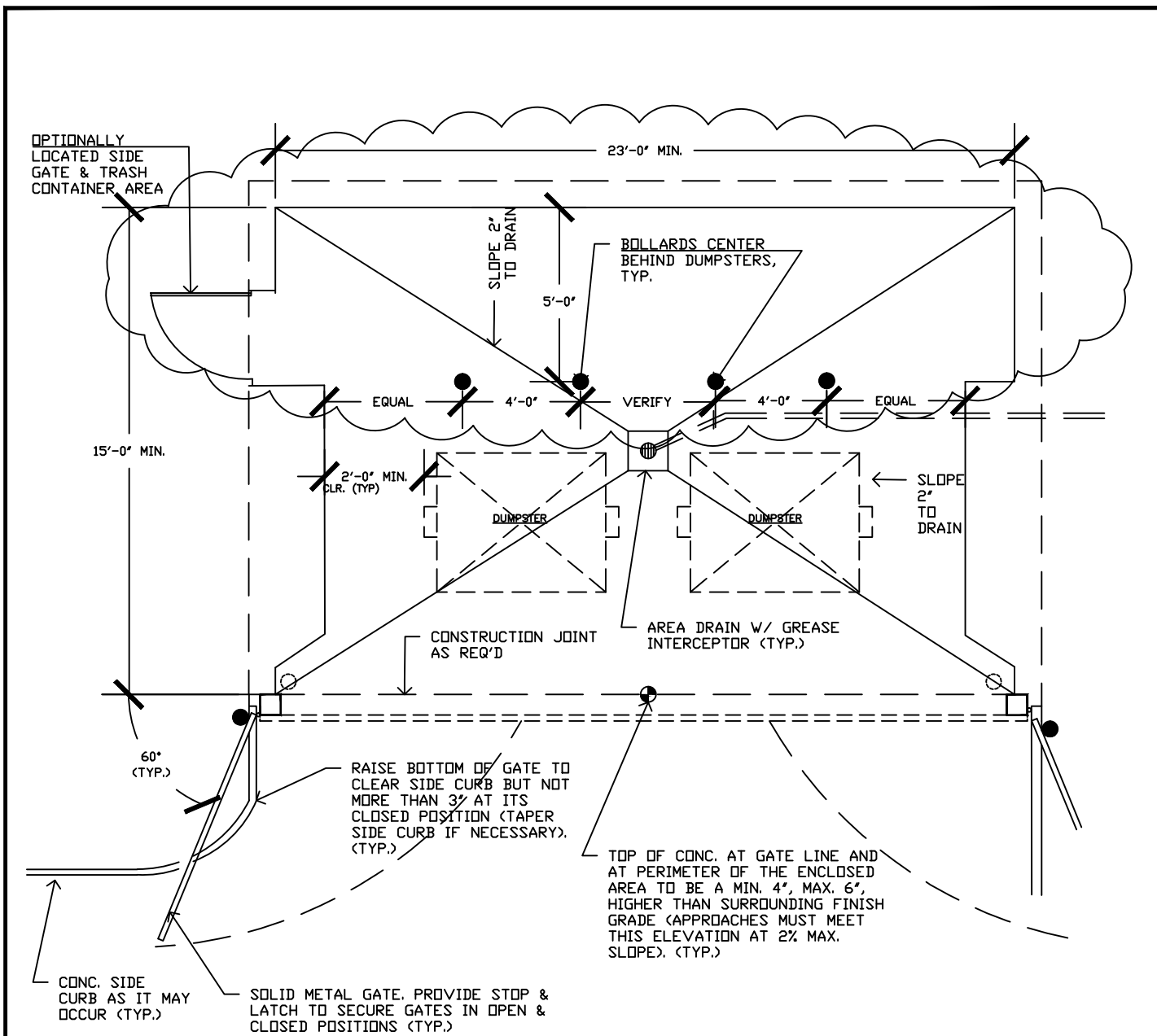
(WHERE PERMITTED)  
NTS

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CITY OF PLEASANTON  
STANDARD DETAILS  
TRASH ENCLOSURE  
SINGLE CONTAINER



DATE: 10/16 DWG NO. 604F



## DOUBLE CONTAINER

(SCHEMES MAY COMBINE FOR LARGER SYSTEMS)  
NTS

SEE GENERAL NOTES FOR ALL ENCLOSURES ON THE SINGLE CONTAINER SPEC SHEET

FOR REFERENCE ONLY:

DRAWN BY: STAFF		
CHECKED BY:		
SCALE: N.T.S.		

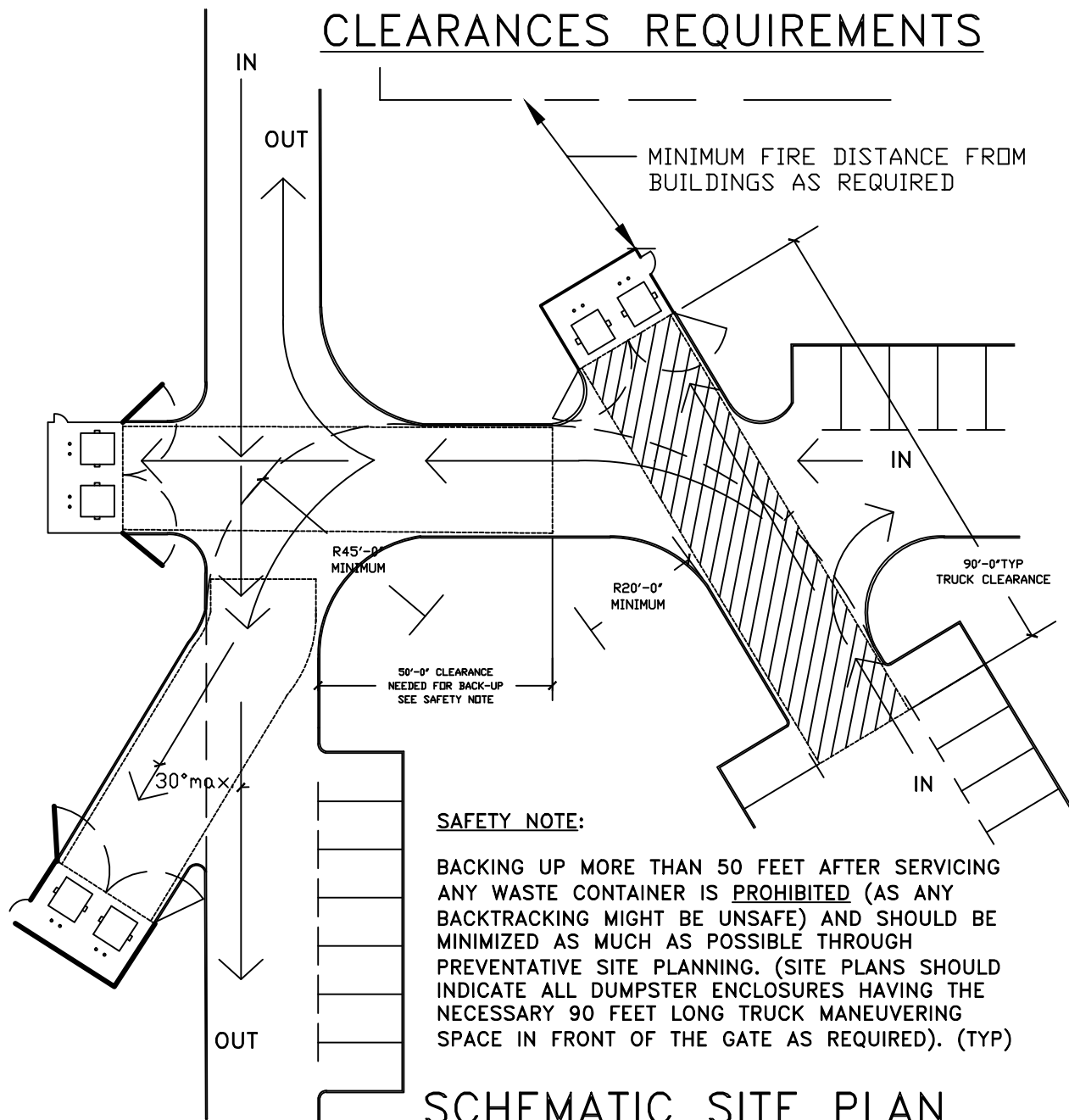
CITY OF PLEASANTON  
STANDARD DETAILS  
TRASH ENCLOSURE  
DOUBLE CONTAINER



DATE: 10/16 | DWG NO. 604G

FOR REFERENCE  
ONLY:

# SOLID WASTE VEHICLE OPERATION SCHEMATIC TYPICAL ROUTE CONDITIONS AND TRUCK MANEUVERING SPACE CLEARANCES REQUIREMENTS



## SAFETY NOTE:

BACKING UP MORE THAN 50 FEET AFTER SERVICING ANY WASTE CONTAINER IS PROHIBITED (AS ANY BACKTRACKING MIGHT BE UNSAFE) AND SHOULD BE MINIMIZED AS MUCH AS POSSIBLE THROUGH PREVENTATIVE SITE PLANNING. (SITE PLANS SHOULD INDICATE ALL DUMPSTER ENCLOSURES HAVING THE NECESSARY 90 FEET LONG TRUCK MANEUVERING SPACE IN FRONT OF THE GATE AS REQUIRED). (TYP)

## SCHEMATIC SITE PLAN

CITY OF PLEASANTON

STANDARD DETAILS

TRASH ENCLOSURE

DRAWN BY: STAFF

CHECKED BY:

SCALE: N.T.S.



DATE: 10/16

DWG NO. 604H

# SOLID WASTE VEHICLE OPERATION SCHEMATIC TYPICAL ROUTE CONDITIONS AND TRUCK MANEUVERING SPACE CLEARANCES REQUIREMENTS

## GENERAL NOTES:

1. ALL CURBS ARE TO BE ALIGNED ON THE OUTSIDE OF ENCLOSURE WALLS. THE CURBS SHALL NOT INTERFERE WITH THE ROUTE OF THE SOLID WASTE COLLECTION VEHICLE.
2. ALL SOLID WASTE COLLECTION ROUTES SHALL MEET ENGINEERING DESIGN CRITERIA (WIDTHS TURNING RADII, ETC.), SITE SHALL BE DESIGNED TO PROVIDE SOLID WASTE COLLECTION VEHICLES WITH SAFE APPROACH TO DUMPSTER ENCLOSURES AND LIFT EACH CONTAINER WITHOUT GROUND LEVEL OR AERIAL OBSTRUCTIONS AS REQUIRED.
3. FOR THE SAFETY OF OTHERS, ROUTE LAYOUT AND OPERATION CLEARANCES SHALL BE SUCH THAT SOLID WASTE VEHICLES WILL NOT NEED TO BACK UP MORE THAN 50 FEET TO EXIT THE SITE AFTER SERVICING A DUMPSTER.
4. NO AWNING OR BUILDING PROJECTIONS ARE TO ENCROACH THE SOLID WASTE COLLECTION VEHICLE'S OPERATION AREA AND/OR SPACE. MINIMUM OVERHEAD CLEARANCE OF 14 FEET IS REQUIRED IN DRIVE AND 25 FEET OVER AND ABOUT THE DUMPSTER ENCLOSURE AREA FROM STEEL SAFETY BOLLARDS BACK TO 50 FEET.
5. ROUTES SHALL BE CLEAR OF ALL OBSTRUCTIONS (CURBS, WALLS, OVERHEAD WIRES, AWNINGS, ROOF PROJECTIONS, ETC.) TO PREVENT DAMAGE FROM THE COLLECTION VEHICLE.
6. IDEALLY, THE MOST DESIRED SITE PLANNING SHALL BE WHENEVER IS POSSIBLE TO SELECT A ROUTE FOR THE COLLECTION VEHICLE TO TRAVEL THE SITE WITHOUT BACKTRACKING, MULTIPLE FACILITIES SHOULD BE LOCATED IN SEQUENCE TO ALLOW CONSECUTIVE SERVICING ON ONE-WAY TRUCK ROUTE AS MUCH AS POSSIBLE (TYPICAL, UNLESS OTHERWISE APPROVED BY ENVIRONMENTAL SERVICES).
7. ALL DUMPSTER ENCLOSURES MUST BE ORIENTED TO FACE 90 FEET LONG OF OPEN SPACE, THE ONLY EXCEPTION IS FOR DUMPSTER ENCLOSURES PLACED ALONG A STRAIGHT COLLECTION VEHICLE ROUTE WHERE THE ENCLOSURES NEED TO BE ANGLED WITH NOT MORE THAN 30 DEGREES DEVIATION FROM THE ROUTE DIRECTION LINE AND PLACED DEEP ENOUGH TO ALLOW THE TYPICAL 50 FEET BACK UP FOR THE VEHICLE TO RESUME ITS ROUTE.
8. DUMPSTER ENCLOSURES SHALL BE LOCATED AWAY FROM ENTRANCES AND EXISTS SO SOLID WASTE COLLECTION VEHICLES DO NOT CREATE A SAFETY HAZARD BY BLOCKING INCOMING OR OUR-GOING TRAFFIC.

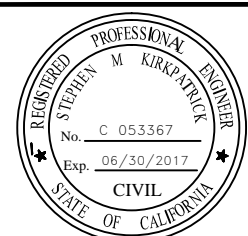
FOR REFERENCE  
ONLY:

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SCALE: N.T.S.		

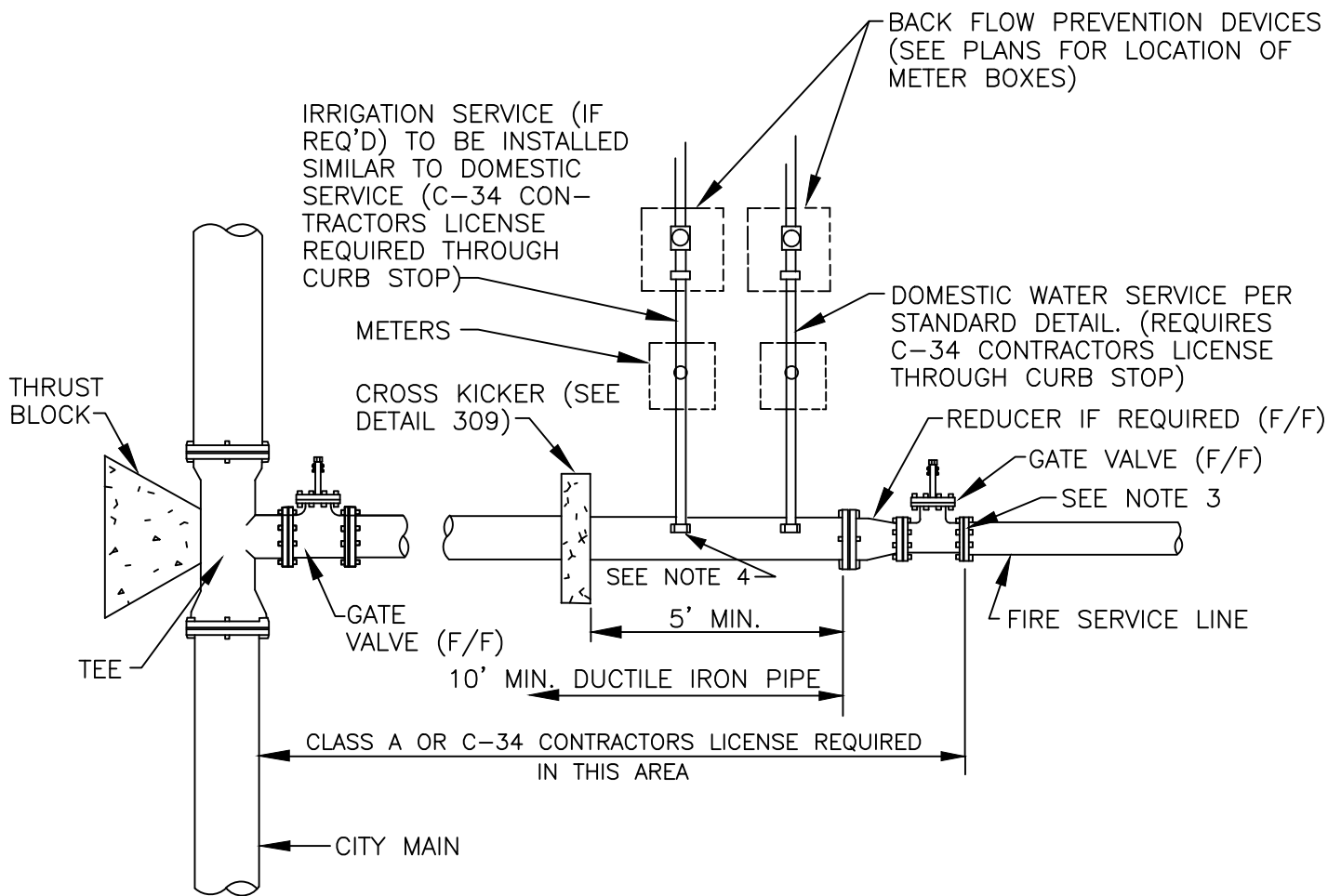
CITY OF PLEASANTON

STANDARD DETAILS

TRASH ENCLOSURE



DATE: 10/16	DWG NO. 604I
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**NOTES:**

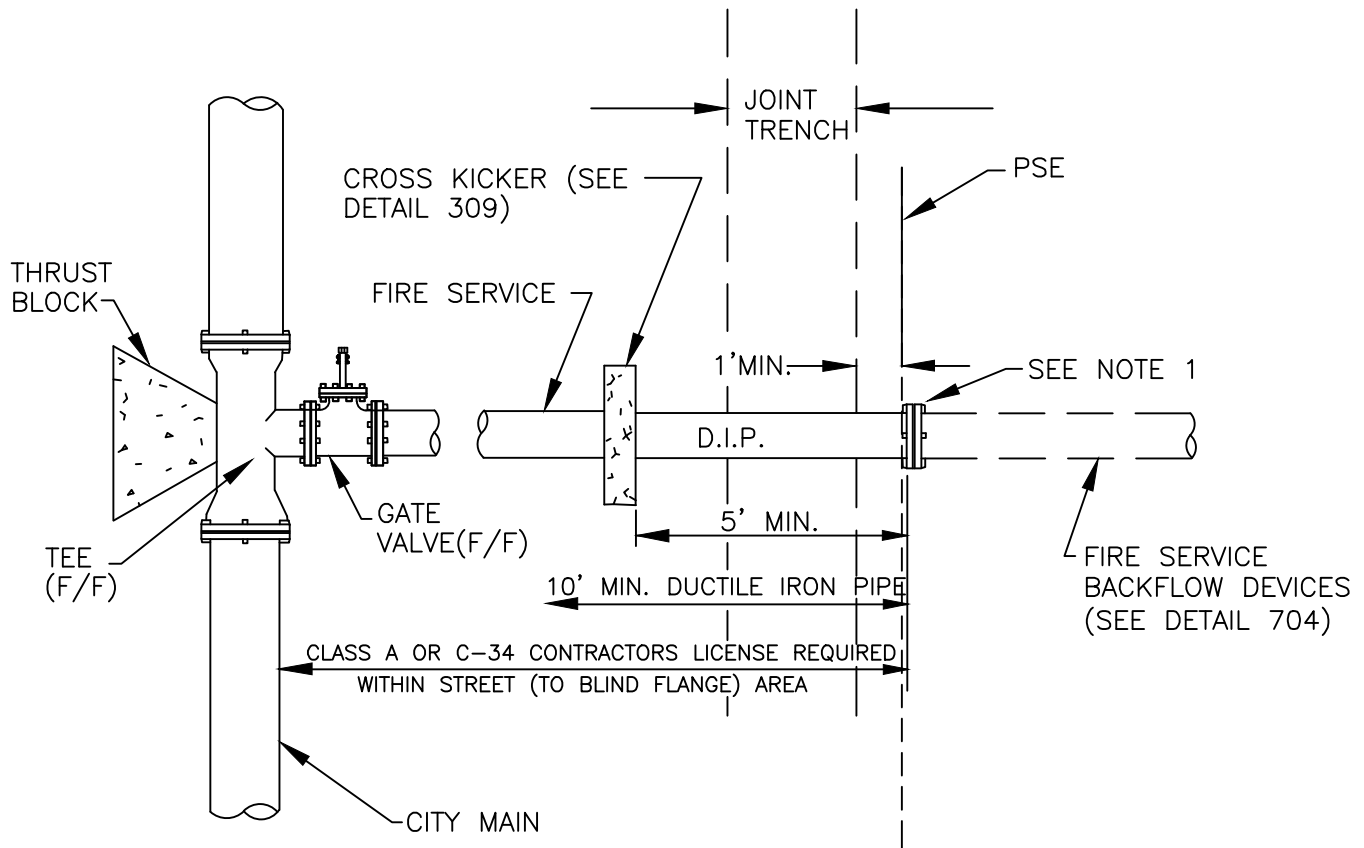
1. CLASS A OR C-34 CONTRACTORS LICENSE REQUIRED FOR WORK FROM THE CITY MAIN THROUGH THE FIRST ON-SITE CONTROL APPARATUS.
2. CLASS A OR C-34 CONTRACTORS LICENSE REQUIRED TO MAKE ALL TAPS AND SERVICE RUNS THROUGH METER.
3. ALL PIPES AND/OR VALVES SHALL BE TERMINATED WITH A BLIND FLANGE AND BLOW-OFF PER CITY STD 310.
4. SEE DETAIL 301 FOR APPROVED REQUIREMENTS.
5. ALL BACK FLOW PREVENTION DEVICES SHALL BE PLACED WITHIN 12" OF METER LOCATION.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
BACK FLOW PREVENTION  
COMMERCIAL AND INDUSTRIAL  
WATER SERVICE WITH FIRE  
SERVICE SYSTEM



DATE : 4/16 DWG NO. 701



**NOTES:**

1. ALL PIPES AND/OR VALVES SHALL BE TERMINATED WITH A BLIND FLANGE AND 4" GALVANIZED BLOW-OFF UNTIL BACKFLOW DEVICE IS INSTALLED. (SEE DETAIL 309)
2. CLASS A OR C-34 CONTRACTORS LICENSE REQUIRED THROUGH BACKFLOW DEVICE.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS

BACKFLOW PREVENTION  
FIRE SERVICE SYSTEM ONLY  
(NO DOMESTIC)

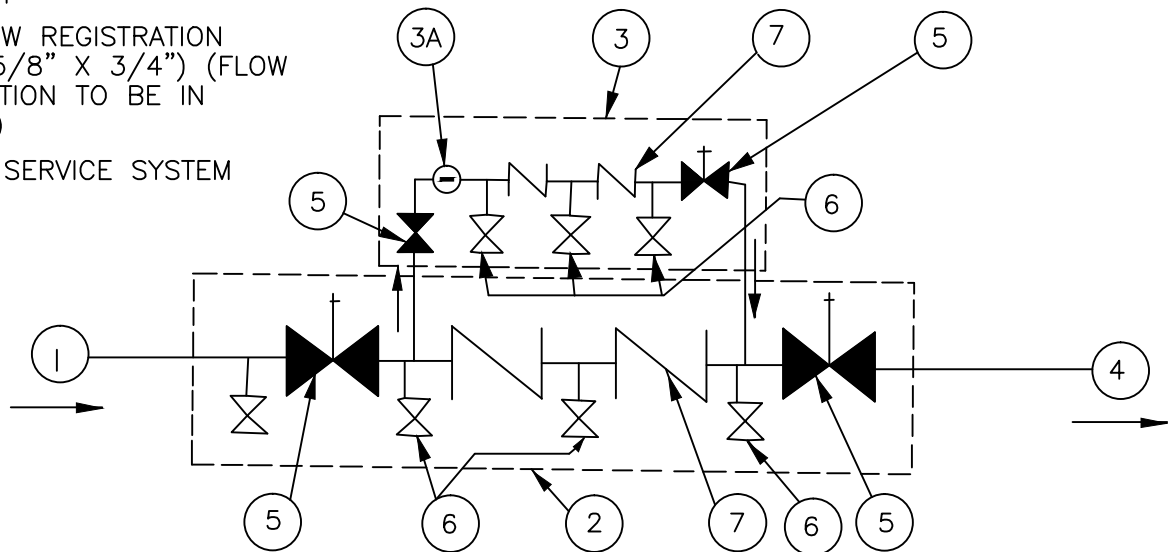


DATE : 4/16 DWG NO. 702

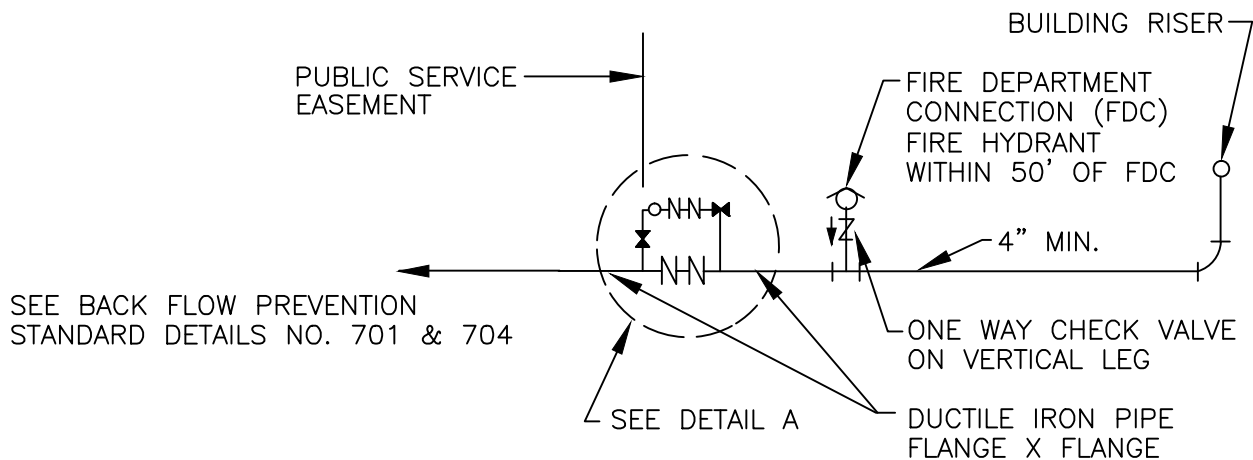
# TYPICAL INSTALLATION

1. FROM SYSTEM WATER SUPPLY
2. MAINLINE DOUBLE CHECK ASSEMBLY
3. BY-PASS LINE DOUBLE CHECK ASSEMBLY
- 3A. LOW-FLOW REGISTRATION METER (5/8" X 3/4") (FLOW REGISTRATION TO BE IN GALLONS)
4. TO FIRE SERVICE SYSTEM

5. SHUTOFF VALVES SHALL BE ELECTRONICALLY MONITORED
6. TEST COCKS (TYPICAL)
7. CHECK VALVES (TYPICAL)



DETAIL A  
TYPICAL DOUBLE CHECK DETECTOR CHECK ASSEMBLY  
(SEE SHEET 704)



## NOTE:

THE ENTIRE ASSEMBLY SHALL BE  
FACTORY ASSEMBLED.

## TYPICAL FIRE SPRINKLER SYSTEM

CITY OF PLEASANTON  
STANDARD DETAILS

BACKFLOW PREVENTION  
FIRE SERVICE CONNECTION  
TO SPRINKLERED BUILDINGS

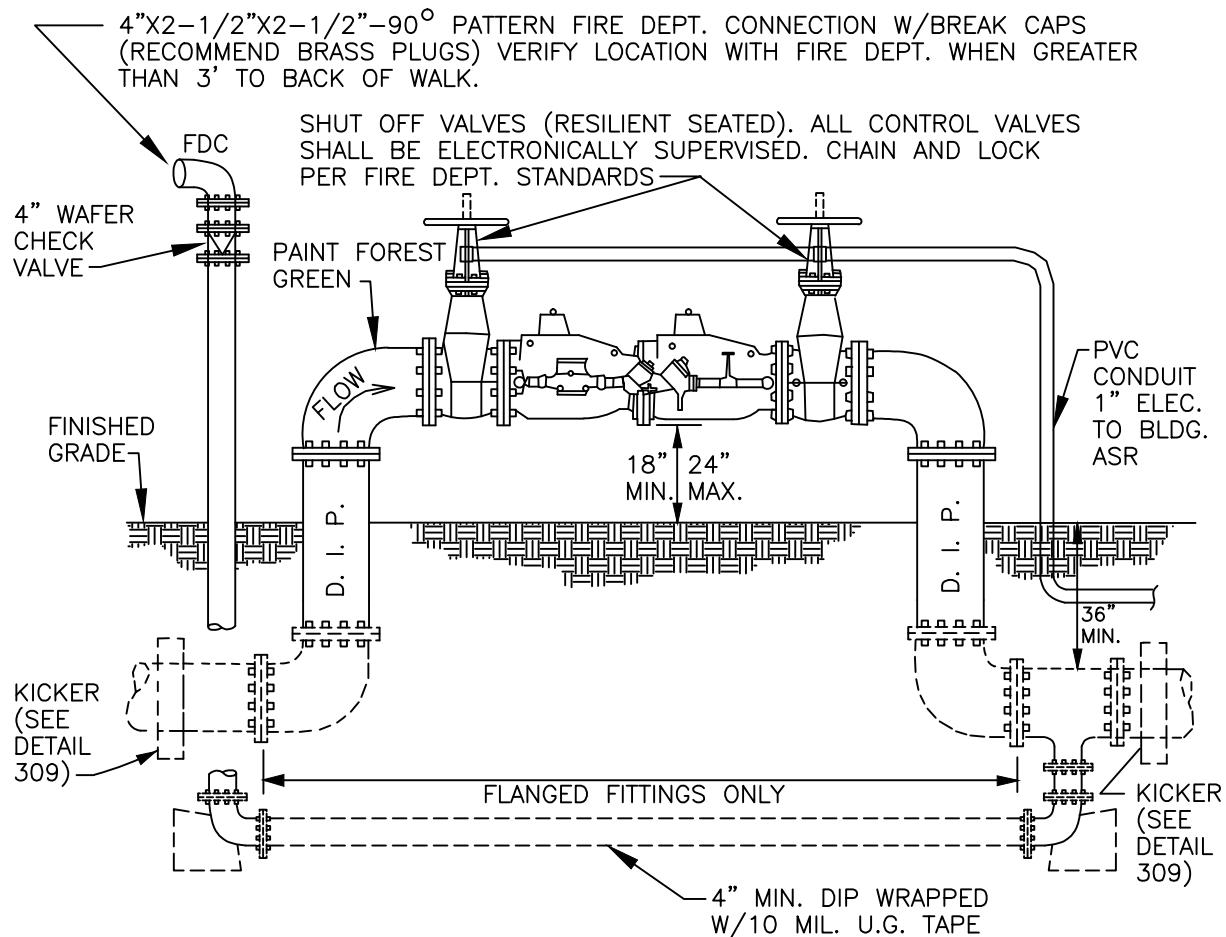


DATE : 4/16 DWG NO. 703

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CHECKED BY: AN

SCALE: N.T.S.



TYPICAL DOUBLE CHECK DETECTOR CHECK SIDE VIEW

NOTES:

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE ON THE APPROVED LIST OF THE USCFCCHR.
2. DOUBLE CHECK DETECTOR CHECK ASSEMBLY SHALL BE INSTALLED ABOVE FINISHED GRADE AT BACK OF PSE.
3. MAXIMUM DISTANCE BETWEEN FIRE DEPARTMENT CONNECTION (FDC) AND PUBLIC FIRE HYDRANT SHALL BE 50', UNLESS SPECIFICALLY APPROVED BY FIRE DEPT.
4. FDC TO REMAIN ACCESSIBLE AND FIRE APPARATUS ACCESS ROAD MARKED PER VEHICLE CODE.
5. DIP BELOW GROUND SHALL BE ENCASED IN POLYETHYLENE TUBING. SEE SPEC. 14-03B.
6. ALL CONNECTIONS TO BE FLANGED.
7. ALL TRIM HARDWARE TO BE BRASS OR BRONZE.
8. METER TO REGISTER IN GALLONS.
9. BY-PASS METER PIPING TO BE INSULATED AGAINST FREEZING.
10. MASTIC ALL BOLTS/NUTS OR USE STAINLESS STEEL COMPONENTS.
11. BACKFLOW PREVENTION ASSEMBLIES SHALL BE RETESTED AT THE TIME THE VALVE TO THE STREET IS OPENED.

CITY OF PLEASANTON  
STANDARD DETAILS

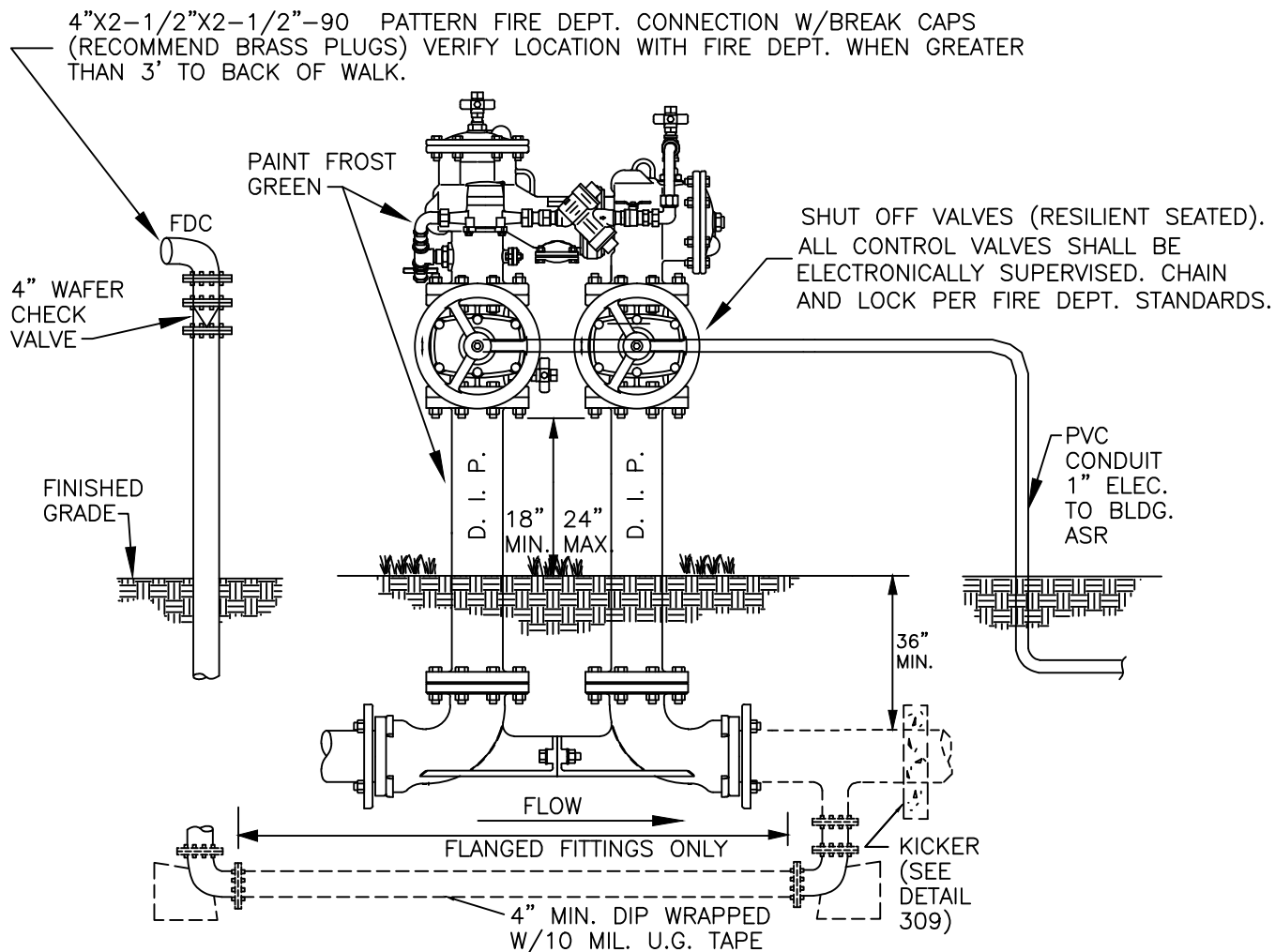
BACK FLOW PREVENTION  
FIRE SERVICE CONNECTION TYPE 1  
TO SPRINKLERED BUILDINGS

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 704





TYPICAL DOUBLE CHECK DETECTOR CHECK SIDE VIEW

NOTES:

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE ON THE USC FCCCHR APPROVED LIST.
2. DOUBLE CHECK DETECTOR CHECK ASSEMBLY SHALL BE INSTALLED ABOVE FINISHED GRADE AT BACK OF PSE.
3. MAXIMUM DISTANCE BETWEEN FIRE DEPARTMENT CONNECTION (FDC) AND PUBLIC FIRE HYDRANT SHALL BE 50', UNLESS SPECIFICALLY APPROVED BY FIRE DEPT.
4. FDC TO REMAIN ACCESSIBLE AND FIRE APPARATUS ACCESS ROAD MARKED PER VEHICLE CODE.
5. DIP BELOW GROUND SHALL BE ENCASED IN POLYETHYLENE TUBING. SEE SPEC. 14-03B.
6. ALL CONNECTIONS TO BE FLANGED.
7. ALL TRIM HARDWARE TO BE BRASS OR BRONZE.
8. METER TO REGISTER IN GALLONS.
9. BY-PASS METER PIPING TO BE INSULATED AGAINST FREEZING.
10. MASTIC ALL BOLTS/NUTS OR USE STAINLESS STEEL COMPONENTS.
11. BACKFLOW PREVENTION ASSEMBLIES SHALL BE RETESTED AT THE TIME THE VALVE TO THE STREET IS OPENED.

CITY OF PLEASANTON  
STANDARD DETAILS

BACK FLOW PREVENTION  
FIRE SERVICE CONNECTION TYPE 2  
TO SPRINKLERED BUILDINGS

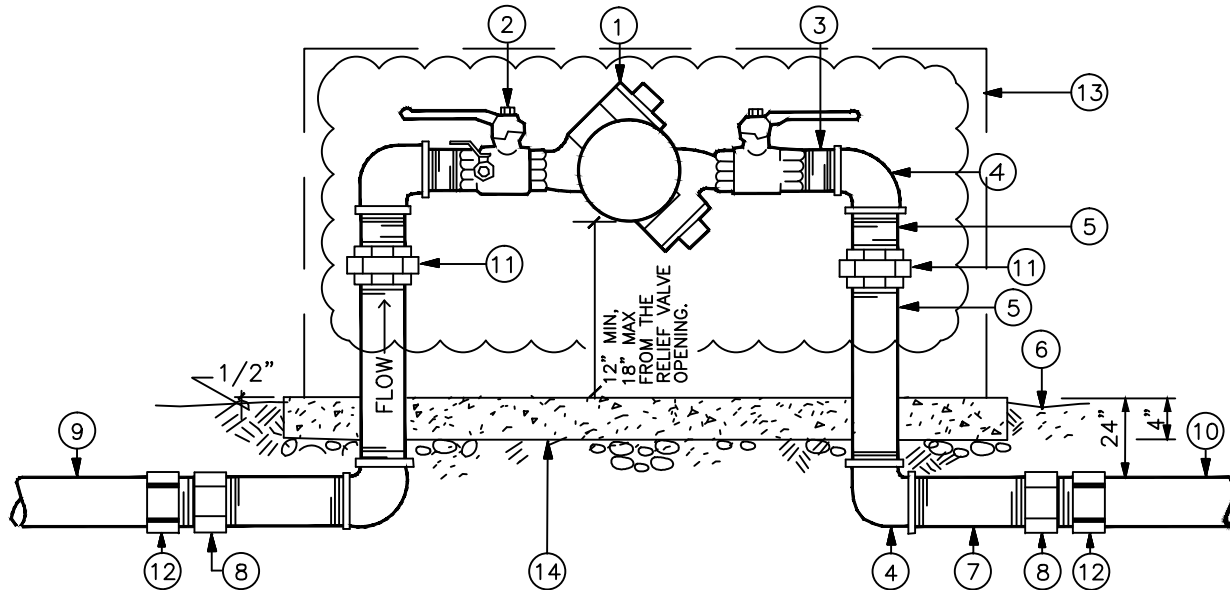
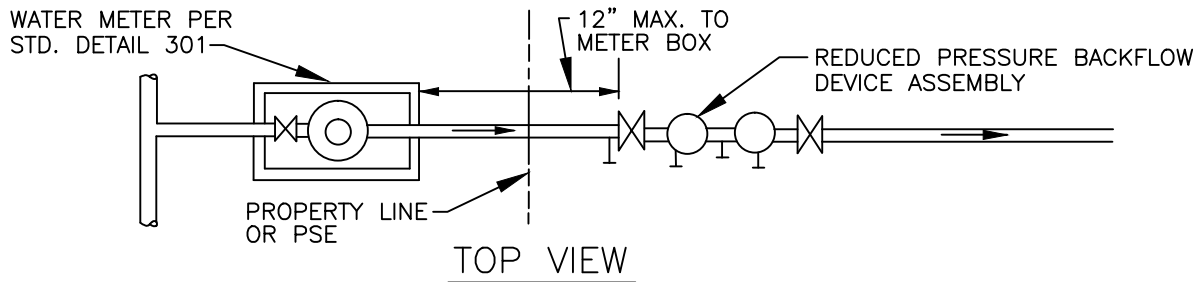


DATE : 4/16 DWG NO. 705

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CHECKED BY: AN

SCALE: N.T.S.



- ① REDUCED PRESSURE BACKFLOW PREVENTER DEVICE
- ② SHUTOFF VALVE, BALL TYPE
- ③ SHORT NIPPLE; RED BRASS
- ④ ELBOW; BRONZE
- ⑤ NIPPLE; LENGTH AS REQUIRED, RED BRASS
- ⑥ FINISH GRADE
- ⑦ SHORT NIPPLE; RED BRASS
- ⑧ COUPLING; RED BRASS

- ⑨ PRESSURE LINE FROM WATER METER
- ⑩ MAIN LINE; SIZE PER PLAN
- ⑪ UNION; BRONZE OR BRASS
- ⑫ SCH 80 PVC MALE ADAPTER (SXT)
- ⑬ PROVIDE INSULATED BAG INSIDE "STRONG BOX" (SEE NOTE 4)
- ⑭ CONCRETE PAD AS REQ'D FOR "STRONG BOX" (SEE NOTE 4)

**NOTES:**

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE ON THE USC FCCCHR APPROVED LIST.
2. IF MAX. DISTANCE BETWEEN WATER METER BOX AND REDUCED PRESSURE PRINCIPAL ASSEMBLY EXCEEDS 12", A CONCRETE CAP SHALL BE PLACED OVER THE WATER LINE.
3. ALL PIPING SHALL CONFORM WITH THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
4. WEATHER PROTECTION DEVICES TO PROTECT PIPES FROM FREEZING SHALL REQUIRE APPROVAL BY THE PLANNING DIVISION PRIOR TO INSTALLATION. SUCH MATERIAL SHALL BE REPLACED AS THEY BECOME WORN OUT. CITY MAINTAINED SYSTEMS SHALL HAVE "STRONG BOX" AND INSULATED BAGS UNLESS NOTED OTHERWISE.
5. TYPE "L" COPPER CAN BE USED FOR ALL FITTINGS ONLY WITH THE APPROVAL OF THE ENGINEER.

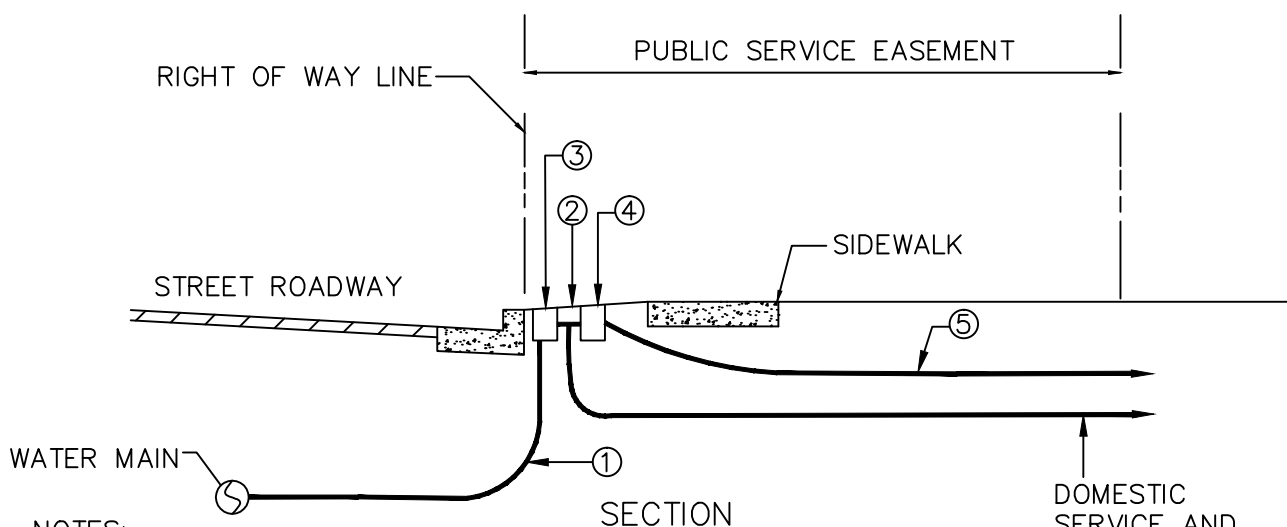
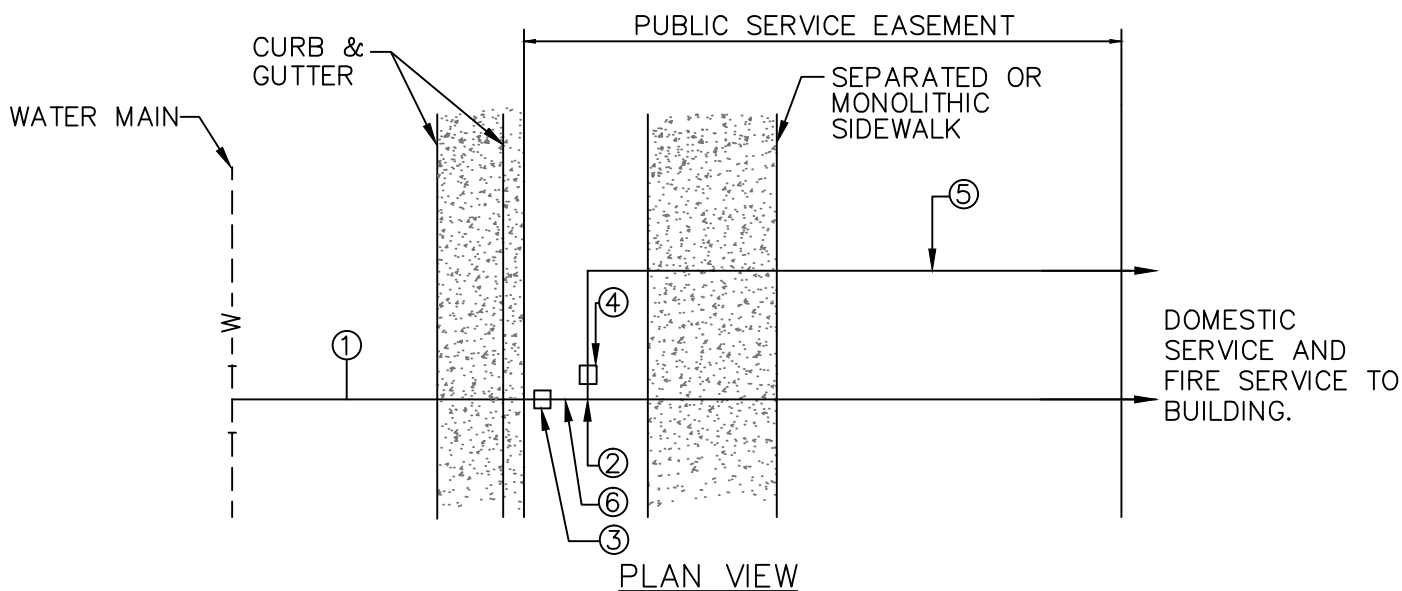
CITY OF PLEASANTON  
STANDARD DETAILS

BACKFLOW PREVENTER FOR  
DOMESTIC OR IRRIGATION SERVICE

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CHECKED BY: AN  
SCALE: N.T.S.



DATE : 4/16 DWG NO. 706



NOTES:

- ① NEW DOMESTIC WATER SERVICE PER CITY DETAIL 301.
  - ② TAP DOMESTIC SERVICE LINE AND INSTALL IRRIGATION METER BOX FOR IRRIGATION SERVICE PER DETAIL 301.
  - \* ③ NEW DOMESTIC WATER METER PER DETAIL 301.
  - \* ④ IRRIGATION SUB METER. (OWNER/DEVELOPER PAYS FOR METER COST ONLY)
  - ⑤ IRRIGATION SERVICE AS PER CITY BUILDING DEPARTMENT AND UPC REQUIREMENTS.
  - \* ⑥ PRESSURE REDUCER AND/OR REDUCED PRESSURE BACK FLOW DEVICE ON DOMESTIC AND IRRIGATION SERVICE IF REQUIRED.
- \* METER BOXES AND PRESSURE REDUCER AND/OR REDUCED PRESSURE BACK FLOW DEVICE SHALL BE PLACED OUTSIDE OF SIDEWALK.

CITY OF PLEASANTON  
STANDARD DETAILS

RESIDENTIAL DOMESTIC  
WATER SERVICE AND  
IRRIGATION SERVICE

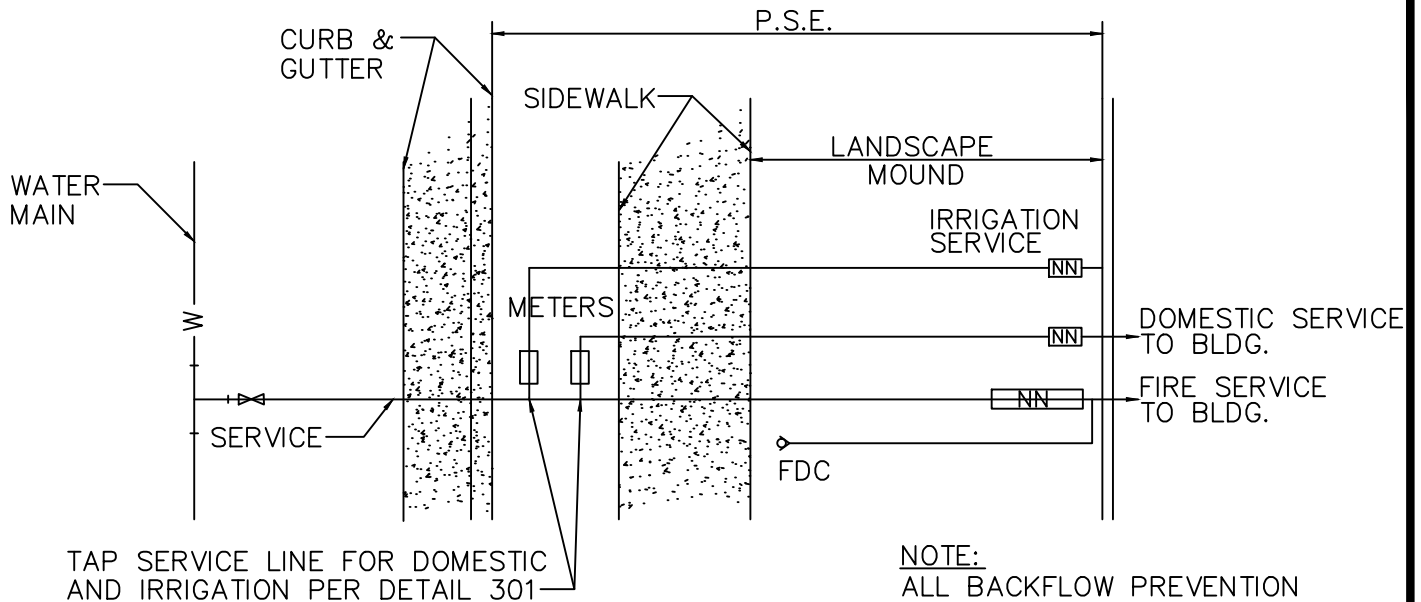
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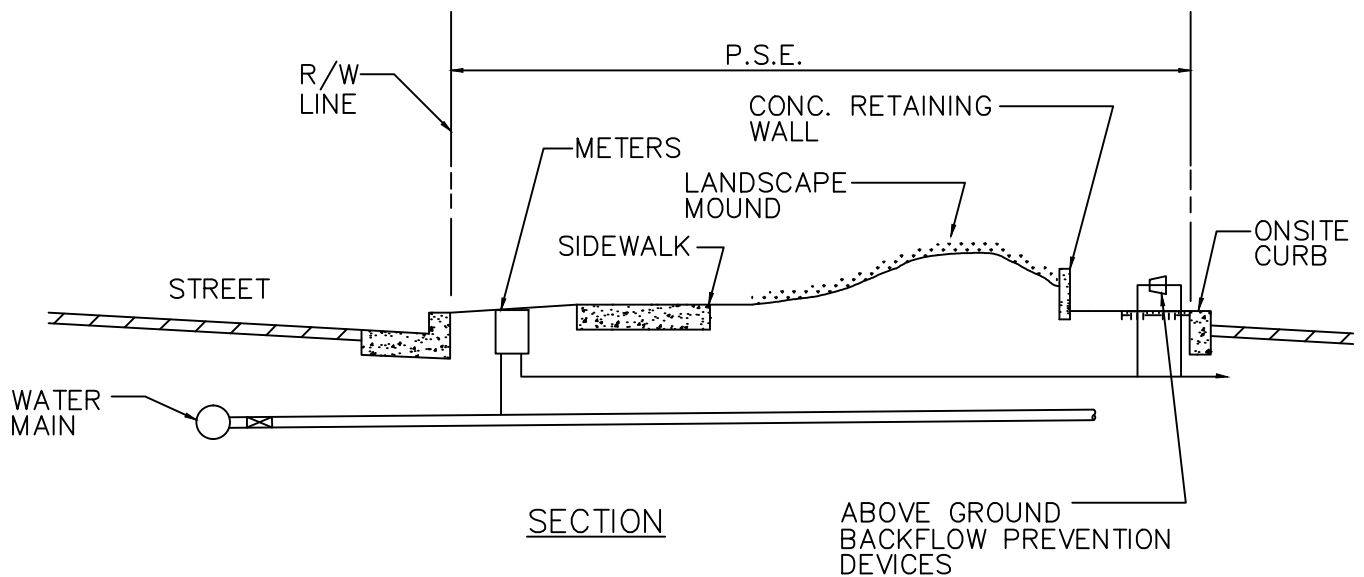


DATE : 4/16 DWG NO. 707



PLAN VIEW

**NOTE:**  
ALL BACKFLOW PREVENTION DEVICES AND DETECTOR CHECKS TO BE ON THE BACKSIDE OF LANDSCAPE BERM, AWAY FROM STREET, WITHIN PUBLIC SERVICE EASEMENT.



**NOTE:**  
WHERE DISTANCE FROM METER TO BACKFLOW DEVICE EXCEEDS 12 INCHES, SERVICE LINE FROM METER TO BACKFLOW DEVICE SHALL HAVE A 4 INCH THICK CONCRETE CAP.

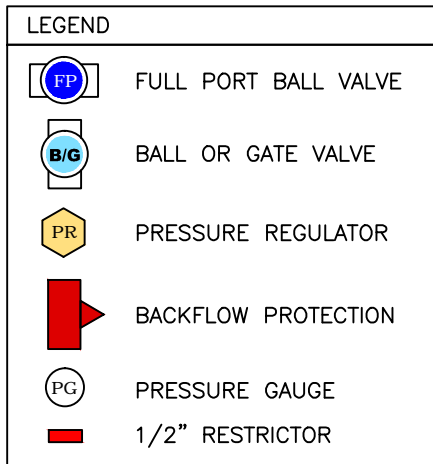
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CITY OF PLEASANTON  
STANDARD DETAILS

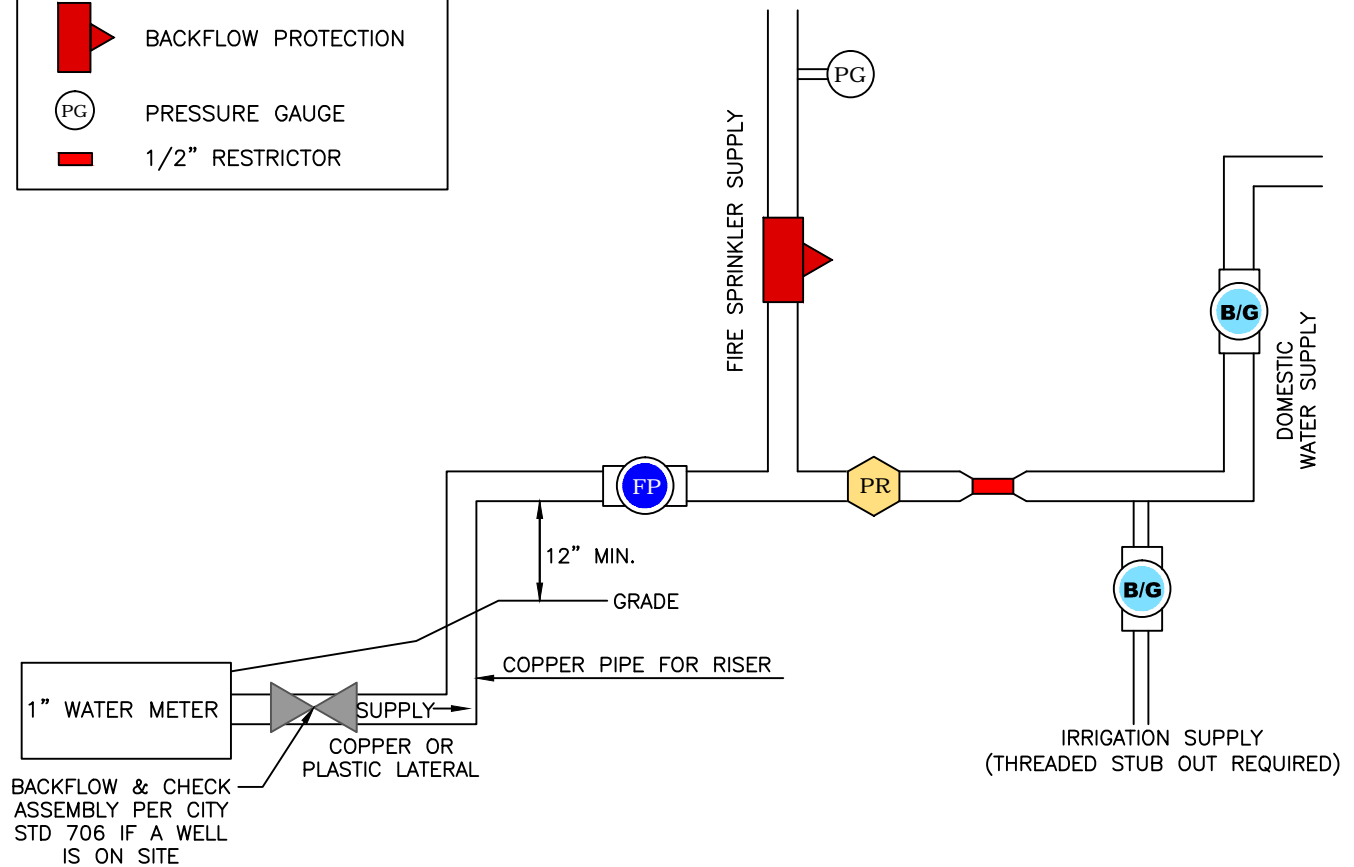
COMMERCIAL AND INDUSTRIAL  
FIRE AND WATER SERVICES  
BUSINESS PARKS



DATE : 4/16 DWG NO. 708



(HOUSES WITH FIRE SPRINKLERS)



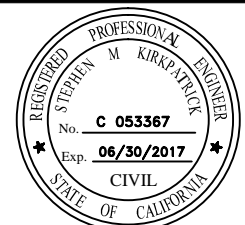
**NOTES:** ALL PIPING SHALL FOLLOW THIS SEQUENCE

1. 1" WATER METER
2. SUPPLY LINE (SIZED FOR DEMAND)
3. FULL PORT BALL VALVE
4. FIRE SPRINKLER BRANCH
5. PRESSURE REGULATOR (WHEN REQUIRED-80LBSMAX.)
6. 1/2" RESTRICTOR BRANCH
7. IRRIGATION AND HOUSE WITH BALL OR GATE VALVES

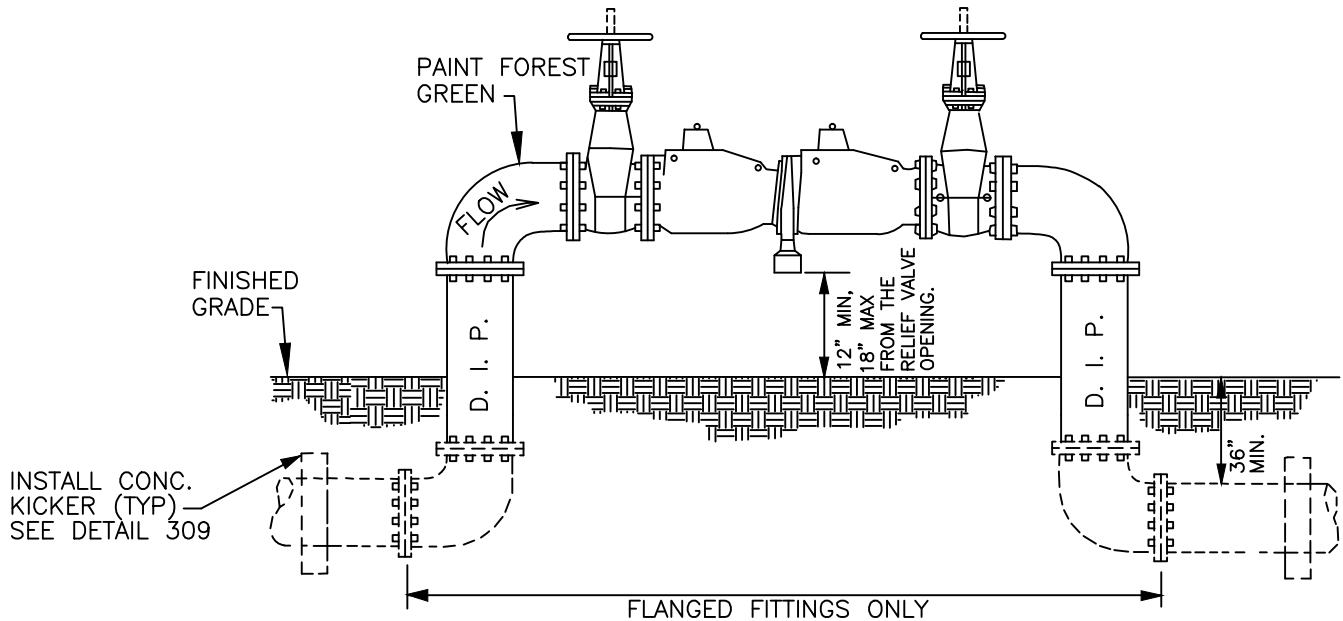
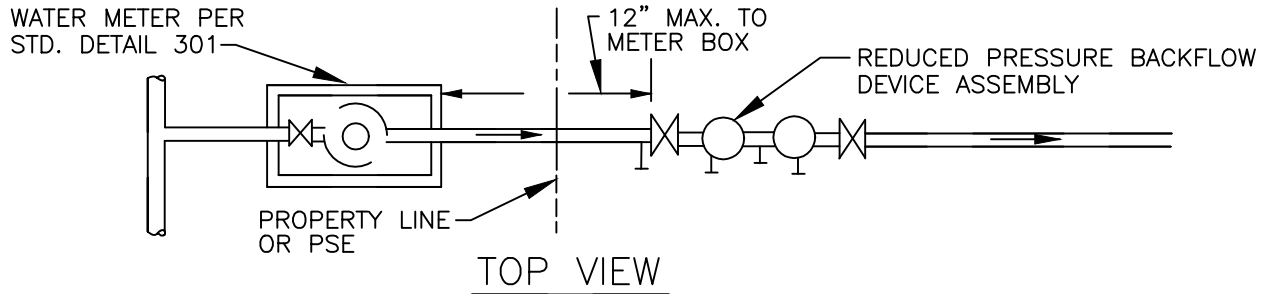
**ATTENTION:** ONLY FIRE SPRINKLER SUPPLY MAY BE CONNECTED BEFORE 1/2" REDUCER!

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
WATER SERVICE RISER  
REQUIREMENTS



DATE : 4/16 DWG NO. 709



#### NOTES:

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE ON THE USC FCCCHR APPROVED LIST.
2. THE BOTTOM OF THE RELIEF VALVE ON REDUCED PRESSURE PRINCIPAL ASSEMBLY SHALL BE INSTALLED A MINIMUM OF 12" OR MAXIMUM OF 18" ABOVE FINISHED GRADE.
3. DIP BELOW GROUND SHALL BE ENCASED IN POLYETHYLENE TUBING. SEE SPEC. 14-03B.
4. ALL CONNECTIONS TO BE FLANGED.
5. ALL TRIM HARDWARE TO BE BRASS OR BRONZE.
6. MASTIC ALL BOLTS AND NUTS UNDERGROUND OR USE STAINLESS STEEL COMPONENTS.
7. BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED WITHIN 14 DAYS AFTER THE VALVE IN THE STREET IS OPENED.
6. IF MAX. DISTANCE BETWEEN WATER METER BOX AND REDUCED PRESSURE PRINCIPAL ASSEMBLY EXCEEDS 12", A CONCRETE CAP SHALL BE PLACED OVER THE WATER LINE.
7. WEATHER PROTECTION DEVICES TO PROTECT PIPES FROM FREEZING SHALL REQUIRE APPROVAL BY THE PLANNING DIVISION PRIOR TO INSTALLATION. SUCH MATERIAL SHALL BE REPLACED AS THEY BECOME WORN OUT.

## CITY OF PLEASANTON STANDARD DETAILS

### BACK FLOW PREVENTER INSTALLATION FOR 3" & LARGER

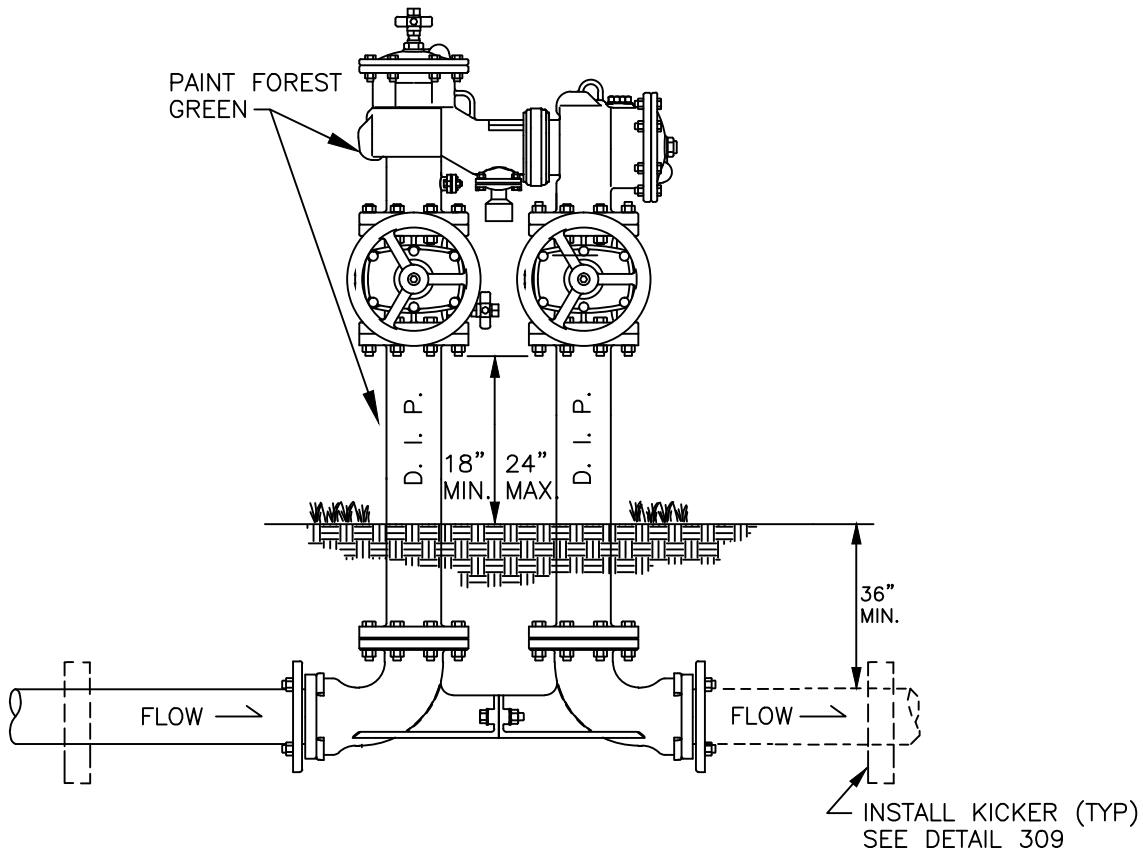
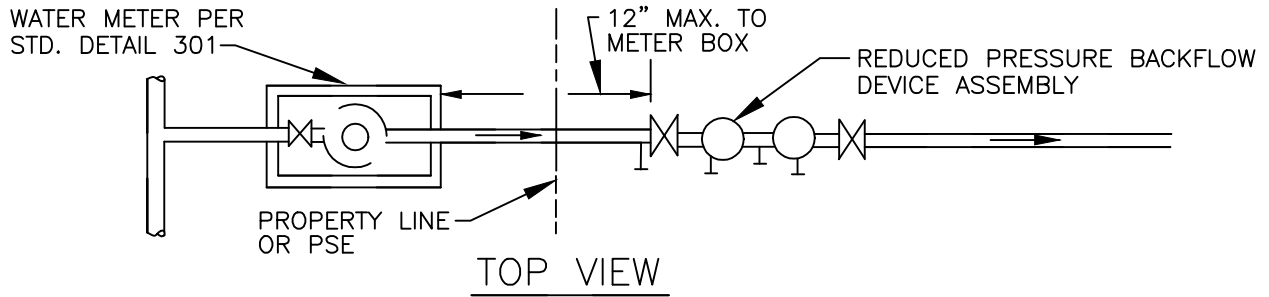
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CHECKED BY: AN

SCALE: N.T.S.



DATE : 4/16 DWG NO. 710



**NOTES:**

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE ON THE USC FCCCHR APPROVED LIST.
2. DIP BELOW GROUND SHALL BE ENCASED IN POLYETHYLENE TUBING. SEE SPEC. 14-03B.
3. ALL TRIM HARDWARE TO BE BRASS OR BRONZE.
4. MASTIC ALL BOLTS AND NUTS UNDERGROUND OR USE STAINLESS STEEL COMPONENTS.
5. BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED WITHIN 14 DAYS AFTER THE VALVE IN THE STREET IS OPENED.
6. IF MAX. DISTANCE BETWEEN WATER METER BOX AND REDUCED PRESSURE PRINCIPAL ASSEMBLY EXCEEDS 12", A CONCRETE CAP SHALL BE PLACED OVER THE WATER LINE.
7. WEATHER PROTECTION DEVICES TO PROTECT PIPES FROM FREEZING SHALL REQUIRE APPROVAL BY THE PLANNING DIVISION PRIOR TO INSTALLATION. SUCH MATERIAL SHALL BE REPLACED AS THEY BECOME WORN OUT.

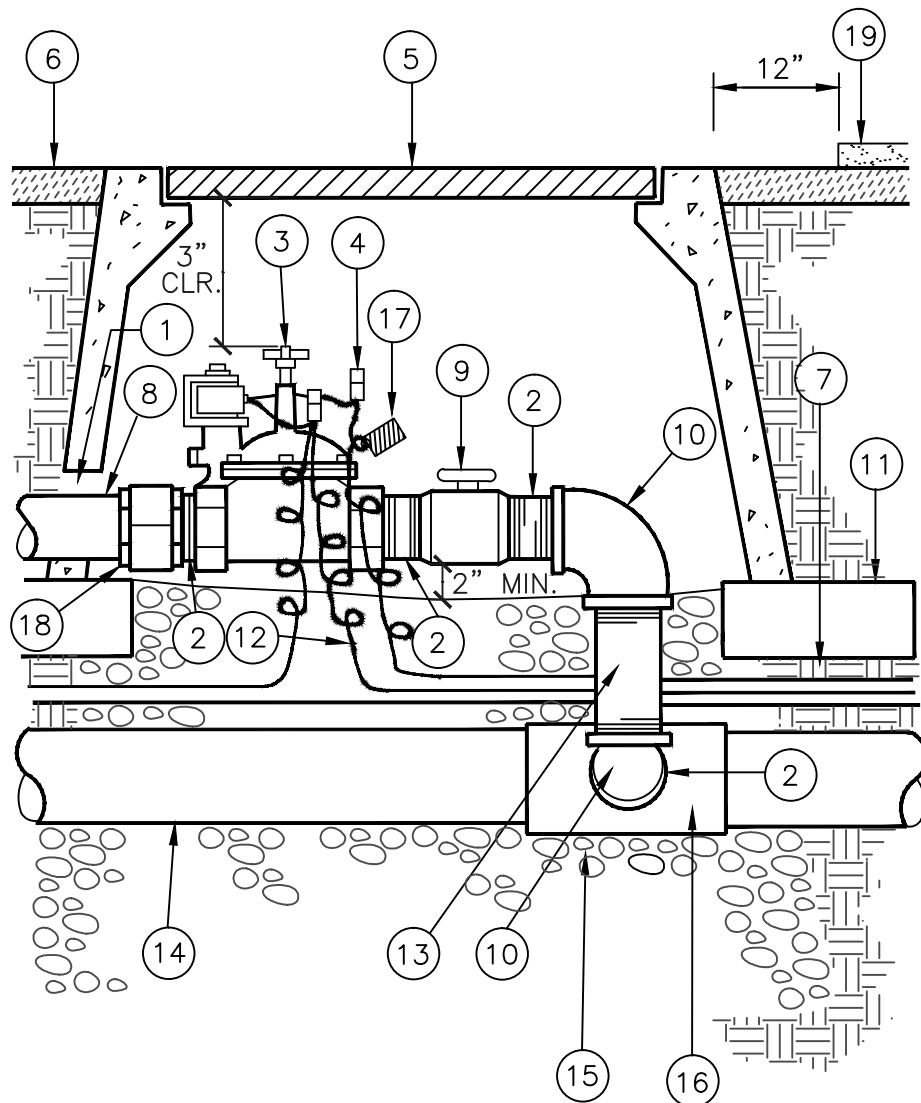
CITY OF PLEASANTON  
STANDARD DETAILS

BACK FLOW PREVENTER  
COMPACT INSTALLATION  
FOR 3" & LARGER

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		



DATE : 4/16 DWG NO. 711



- (1) 1" CLEARANCE OVER PIPE
- (2) SCHEDULE 80 PVC SHORT NIPPLE
- (3) REMOTE CONTROL VALVE
- (4) 3M DBY DIRECT BURY WATERPROOF SPLICE KIT
- (5) LOCKING VALVE BOX WITH LID PER SPECS
- (6) BOX SHALL BE FLUSH WITH GRADE IN TURF AREAS, 1" ABOVE GRADE IN MULCH AREAS
- (7) COMPACTED SUB GRADE
- (8) LATERAL LINE; 8" LENGTH PRIOR TO FIRST FITTING
- (9) LINE SIZE FORD BRASS BALL VALVE
- (10) SCHEDULE 80 PVC ELBOW
- (11) COMMON BRICK, TYPICAL ALL FOUR CORNERS OF VALVE BOX
- (12) 14 GAUGE CONTROL AND COMMON WIRES, PROVIDE MIN. 18" COILED EXTRA
- (13) SCHEDULE 80 PVC NIPPLE; LENGTH AS REQUIRED
- (14) SOLVENT WELD SCHEDULE 40 MAINLINE; 24" MIN. COVER
- (15) PEA GRAVEL; 6" MIN.
- (16) SCHEDULE 80 PVC TEE SxSxT
- (17) BRASS OR PLASTIC VALVE I.D. TAG
- (18) PVC THREADED UNION
- (19) EDGE OF PAVING OR HEADBOARD

**NOTES:**

- 1. USE MIN. 3 WRAPS OF TEFLON TAPE AT EACH THREADED CONNECTION OR PIPE THREAD SEALANT.
- 2. VALVES ARE PARALLEL TO THE MAINLINE.
- 3. PROVIDE RECYCLED WATER I.D. TAG IF NON-POTABLE WATER.
- 4. IF IRRIGATION USES RECYCLED WATER, DETAIL SHALL CONFORM WITH RECYCLED WATER USE GUIDELINES.

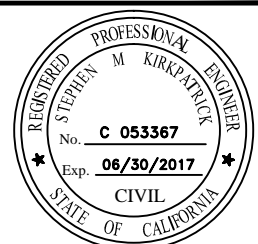
CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE

REMOTE CONTROL VALVE

DRAWN BY: STAFF

CHECKED BY: AN

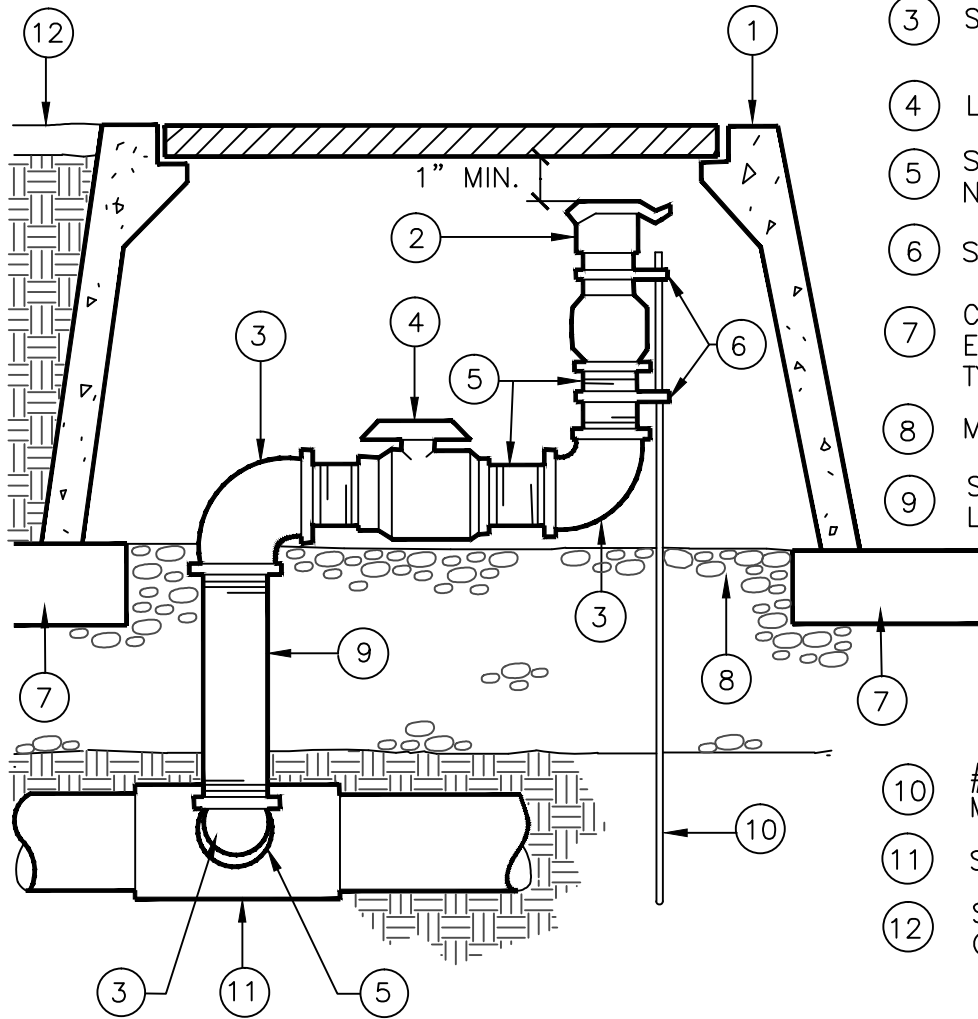
SCALE: NTS



DATE : 10/16 DWG NO. 801



- ① ROUND VALVE BOX WITH LOCKING LID PER SPECIFICATIONS.
- ② QUICK COUPLING VALVE WITH LOCKING RUBBER COVER; RAINBIRD 44-LRC OR APPROVED EQUAL
- ③ SCHEDULE 80 PVC ELBOW
- ④ LINE SIZE PVC BALL VALVE
- ⑤ SCHEDULE 80 PVC SHORT NIPPLE
- ⑥ STAINLESS STEEL HOSE CLAMPS
- ⑦ COMMON RED BRICK, ONE AT EACH CORNER OF VALVE BOX, TYPICAL
- ⑧ MINIMUM 6" DEPTH PEA GRAVEL
- ⑨ SCHEDULE 80 PVC NIPPLE; LENGTH AS REQUIRED
- ⑩ #4 REBAR STAKE; 36" MINIMUM LENGTH
- ⑪ SCHEDULE 80 PVC TEE
- ⑫ SET BOX FLUSH WITH FINISH GRADE



#### NOTES:

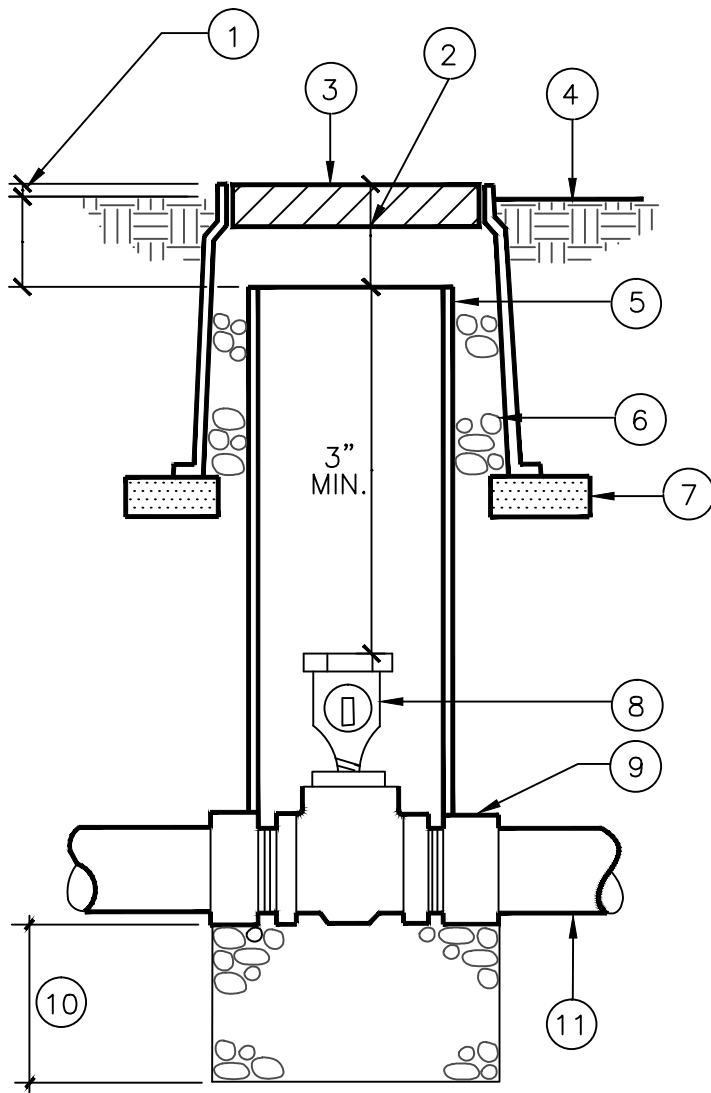
1. ALL THREADED CONNECTIONS SHALL RECEIVE MIN. 3 WRAPS OF TEFLON TAPE.
2. PROVIDE RECYCLED WATER I.D. TAG IF NON-POTABLE WATER.
3. IF IRRIGATION USES RECYCLED WATER, DETAIL SHALL CONFORM WITH RECYCLED WATER USE GUIDELINES.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: NTS		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
QUICK COUPLER  
IN LOCKING BOX



DATE : 4/16 DWG NO. 802



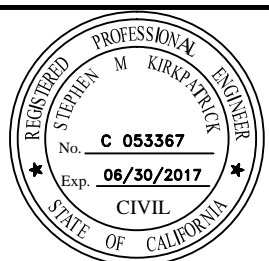
- ① SET TOP OF BOX 1/2" MAXIMUM ABOVE FINISH SURFACE OF MULCH FLUSH WITH FINISH GRADE IN TURF AREAS
- ② ALLOW 3" BETWEEN TOP OF VALVE BOX AND PVC PIPE
- ③ LOCKING VALVE BOX WITH LID PER SPECS
- ④ FINISH SURFACE
- ⑤ 6" DIAMETER SCHEDULE 40 PVC PIPE, LENGTH AS REQUIRED
- ⑥ PEA GRAVEL
- ⑦ COMMON RED BRICK, 4 MINIMUM
- ⑧ LINE SIZE FORD BRASS BALL VALVE
- ⑨ SCHEDULE 80 MALE ADAPTER
- ⑩ PEA GRAVEL 6" MINIMUM DEPTH
- ⑪ PRESSURE LINE; 24" MINIMUM COVER

**NOTES:**

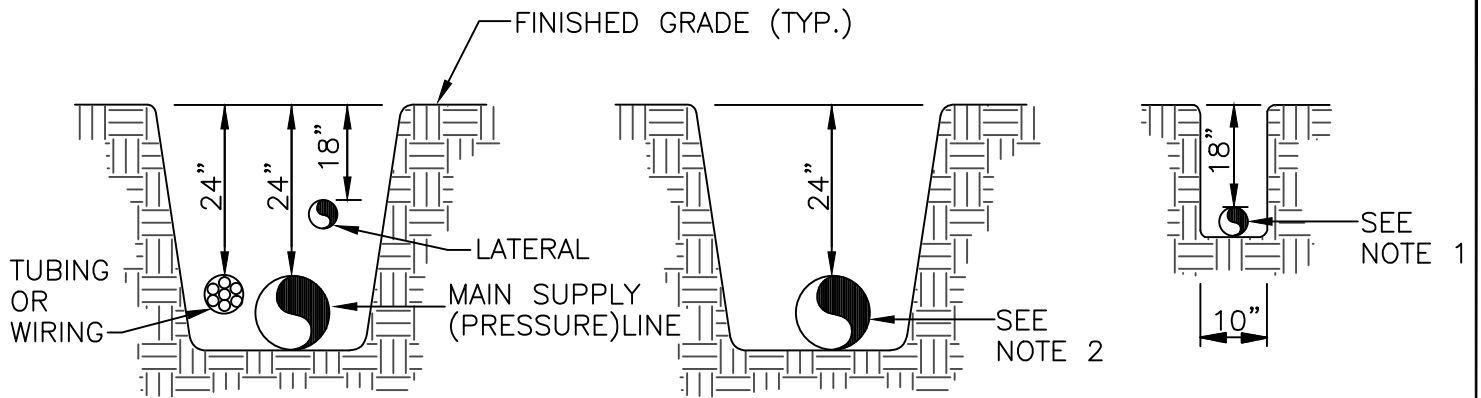
- 1. IRRIGATION USES RECYCLED WATER, DETAIL SHALL CONFORM WITH RECYCLED WATER USE GUIDELINES.

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CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
SMALL BALL VALVE



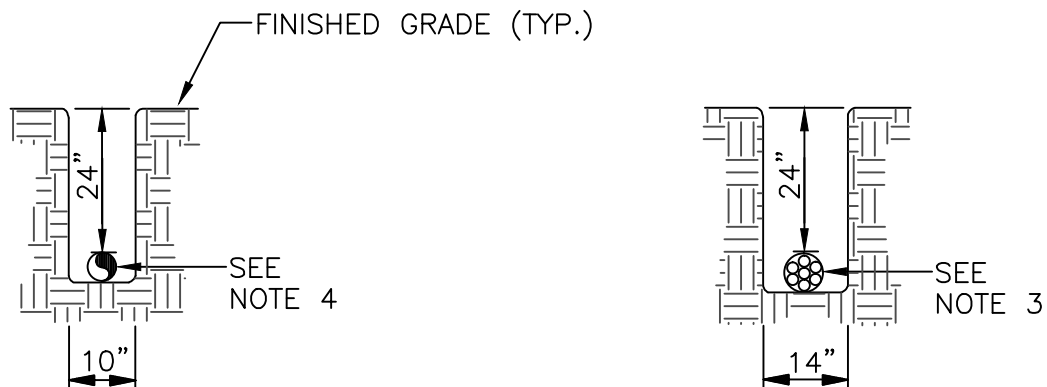
DATE : 10/16 DWG NO. 803



JOINT TRENCH

MAIN SUPPLY  
PRESSURE LINE

PLASTIC LATERAL



120 VOLT IN CONDUIT

TUBING OR WIRING

NOTES:

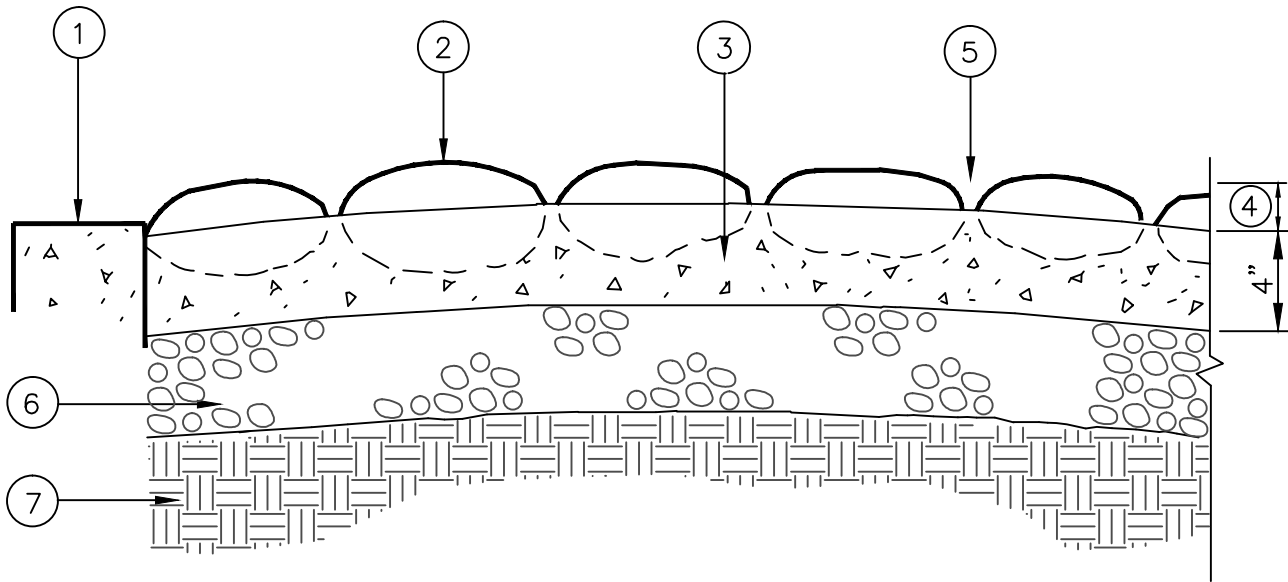
1. ALL PLASTIC PIPING SHALL BE INSTALLED IN THE TRENCH IN A SERPENTINE MANNER AS PER THE MANUFACTURER'S SPECIFICATIONS.
2. ALL MAIN SUPPLY LINES TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. TAPE AND BUNDLE TUBING OR WIRING AT 10 FT INTERVALS.
4. ALL 120 VOLT WIRING IN CONDUIT TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.

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CHECKED BY: AN		
SCALE: NTS		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
IRRIGATION TRENCHING



DATE : 10/16 DWG NO. 804



- ① FINISH SURFACE CURB OR SIDEWALK FLUSH WITH MORTAR BED
- ② SMOOTH ROUNDED RIVER COBBLES 4"–6" SIZE. SELECTED COBBLES SHALL BE BUFF TO GRAY COLOR WITH NO JAGGED OR SHARP EDGES EXPOSED
- ③ CONCRETE MORTAR BED; CLASS 2 CONCRETE USING SAND AGGREGATE ONLY
- ④ HAND-SET COBBLES TO AT LEAST HALF THEIR DEPTH
- ⑤ SET COBBLES APPROXIMATELY FINGER-WIDTH APART; ALL JOINTS TO BE CONCAVED
- ⑥ 3" DEPTH CLASS II AGGREGATE BASE, COMPACT TO 90% RELATIVE
- ⑦ COMPACTED AT SUB GRADE, 85%

NOTE:

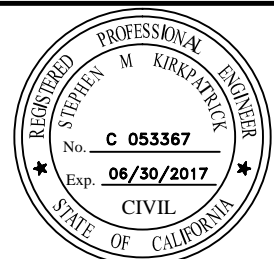
1. AFTER COBBLE IN CONCRETE IS SET, WASH ALL DIRT AND CONCRETE FROM COBBLES AND APPLY 2 COATS OF CLEAR MASONRY SEALER (BURKE'S OR EQUAL).

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
COBBLE PAVING

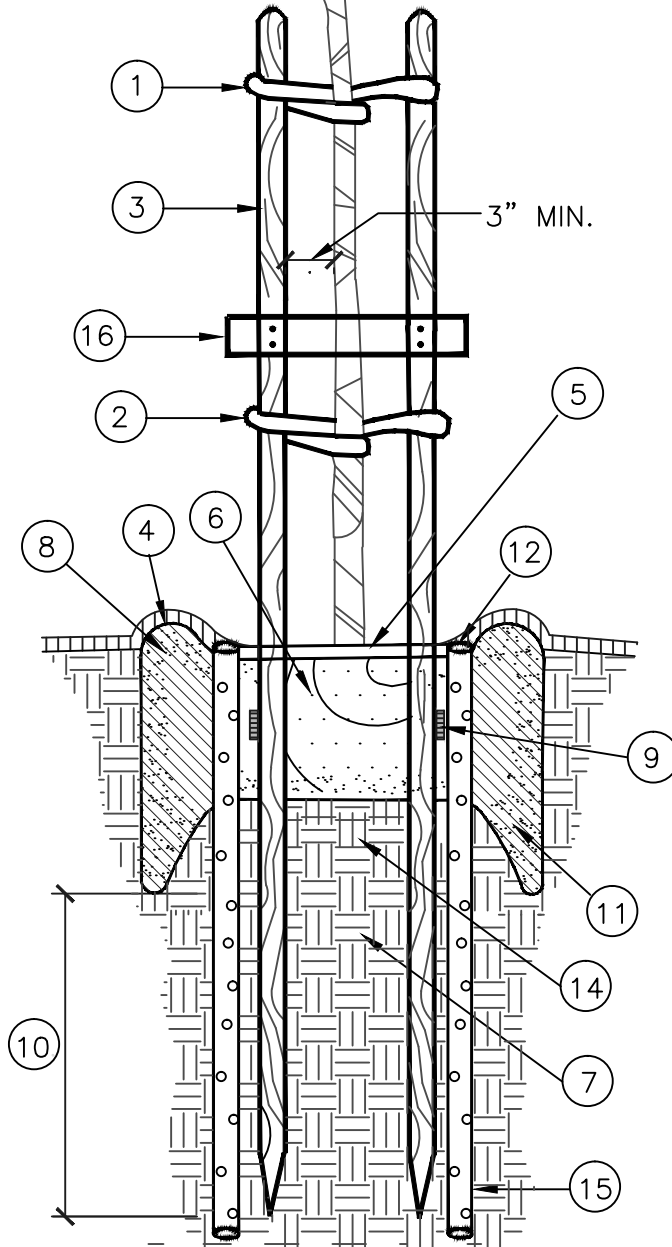
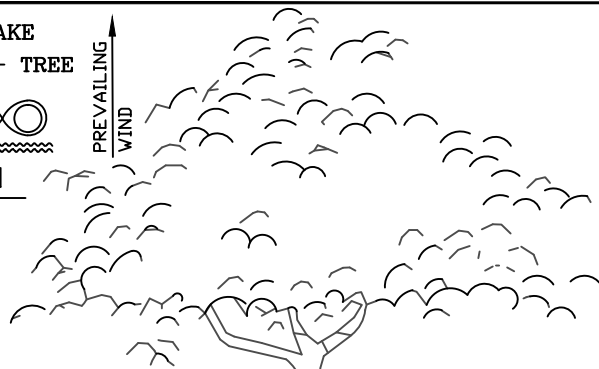
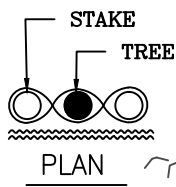
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SCALE: NTS



DATE : 10/16 DWG NO. 805



- ① ATTACH TREE TIE TO STAKE WITH 2 GALVANIZED ROOFING NAILS
- ② 1" WIDE X 30" RECYCLED TIRE RUBBER TREE TIE IN FIGURE 8 PATTERN; 2 PER TREE
- ③ 3" DIAMETER X 10' TREATED LODGE POLE PINE STAKE. STAKE TO PLUMB AND DRIVEN 6" BELOW LOWEST SCAFFOLD BRANCH
- ④ TEMPORARY WATERING BASIN: 4" HIGH BERM X MINIMUM 3' DIAMETER. (NOT TO BE USED IN TURF AREAS)
- ⑤ SET TOP OF ROOT BALL 2" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT; KEEP MULCH 2" CLEAR
- ⑥ WELL DEVELOPED TREE ROOT BALL
- ⑦ NATIVE SOIL
- ⑧ BACKFILL MIX PER SPECIFICATIONS OR SOILS REPORT
- ⑨ FERTILIZER TABLETS PER SPECIFICATIONS
- ⑩ DRIVE STAKE 1'-0" MINIMUM INTO UNDISTURBED SOIL. INSTALLED STAKE SHOULD SUSTAIN 50 POUNDS DEFLECTION AT TOP OF STAKE AND RETURN TO PLUMB POSITION WHEN RELEASED
- ⑪ PLANTING HOLE SHALL BE TWICE DIAMETER OF TREE ROOT BALL; SCARIFY SIDES AND BOTTOM OF HOLE
- ⑫ 3" MULCH
- ⑬ TREES MAY REQUIRE ROOT SHIELD/BARRIER IF PLANTED WITHIN 6 FT. OF PAVED AREAS SUBJECT TO CITY LANDSCAPE ARCHITECT
- ⑭ EXISTING SUB GRADE; CULTIVATE ONLY TO 6" BELOW BOTTOM OF ROOT BALL
- ⑮ INSTALL (2) 4" DIA. PERFORATED PVC DRAINPIPES TO 36" DEPTH. FILL WITH 3/4" DRAINROCK. TOP OF PIPE SHALL BE FLUSH W/TOP OF ROOT BALL FACE PERFORATIONS TOWARDS ROOT BALL
- ⑯ 1" X 4" X 24" DOUGLAS FIR SPACER. ATTACH TO LODGEPOLE STAKES W/4 COMMON 8d NAILS

CITY OF PLEASANTON

STANDARD DETAILS

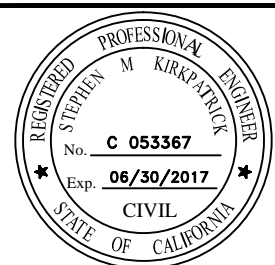
LANDSCAPE

TREE PLANTING DETAIL

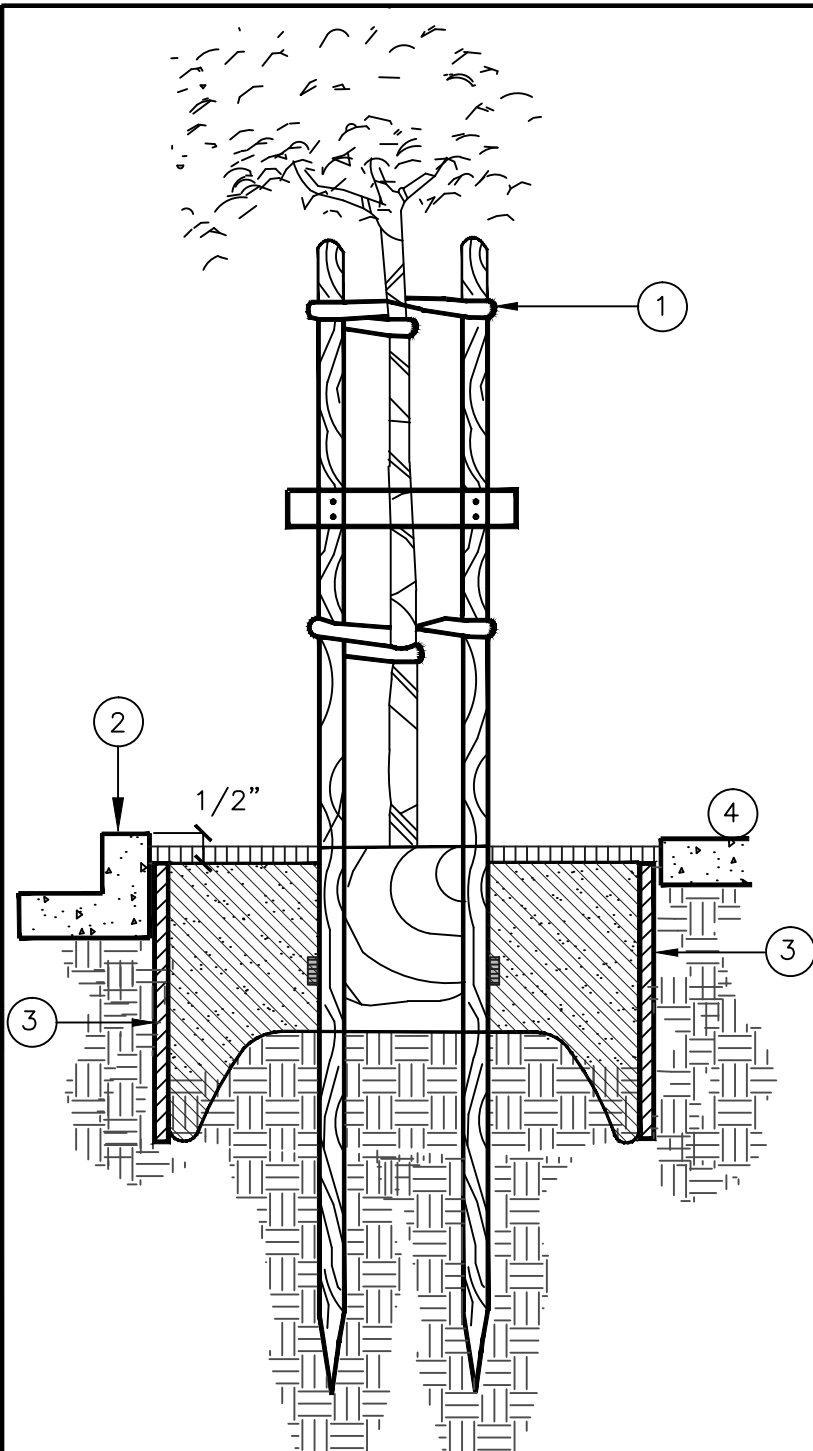
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SCALE: NTS



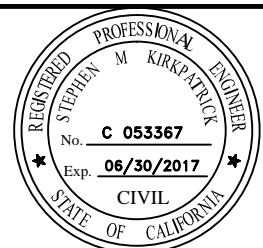
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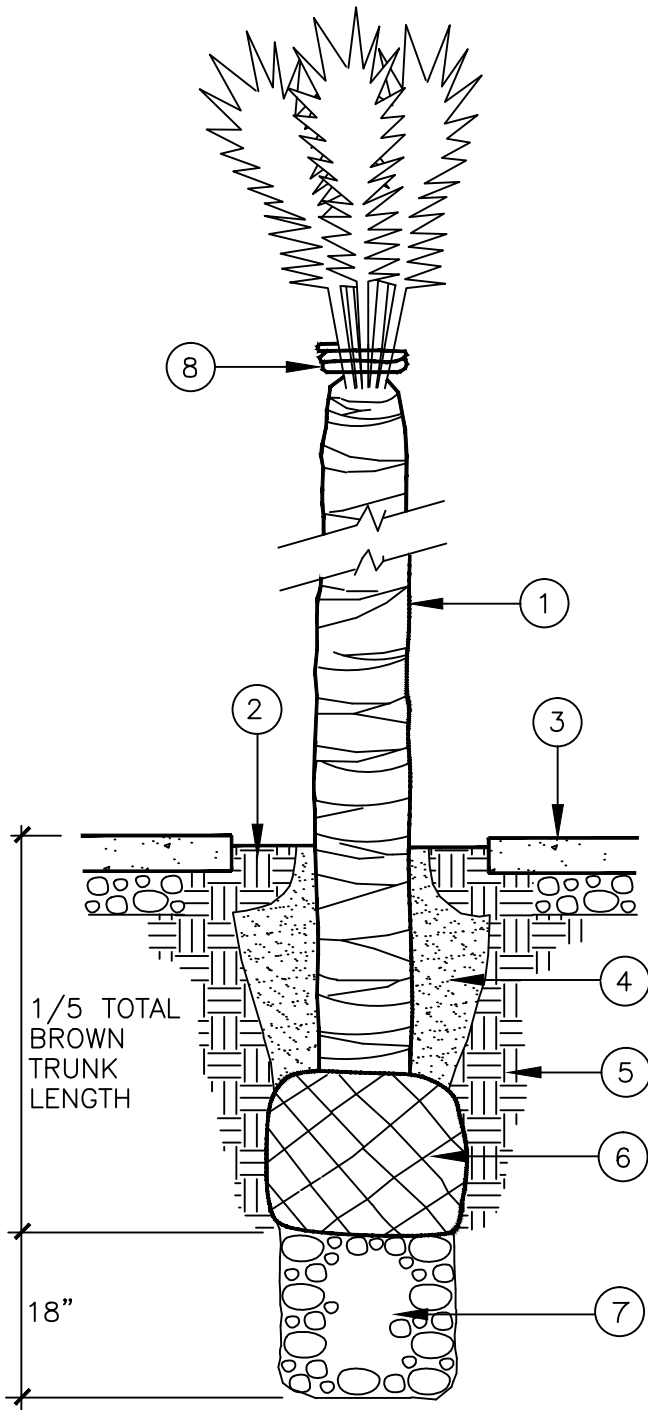
- ① TREE, REFER TO CITY STANDARD DETAIL 806
- ② CURB AND GUTTER OR OTHER PAVING
- ③ UB-24" PANEL TYPE" ROOT CONTROL BARRIER BY "DEEP ROOT CORP." OR APPROV. EQ.
- ④ SIDEWALK

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CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
ROOT BARRIER DETAIL



DATE : 10/16 DWG NO. 807



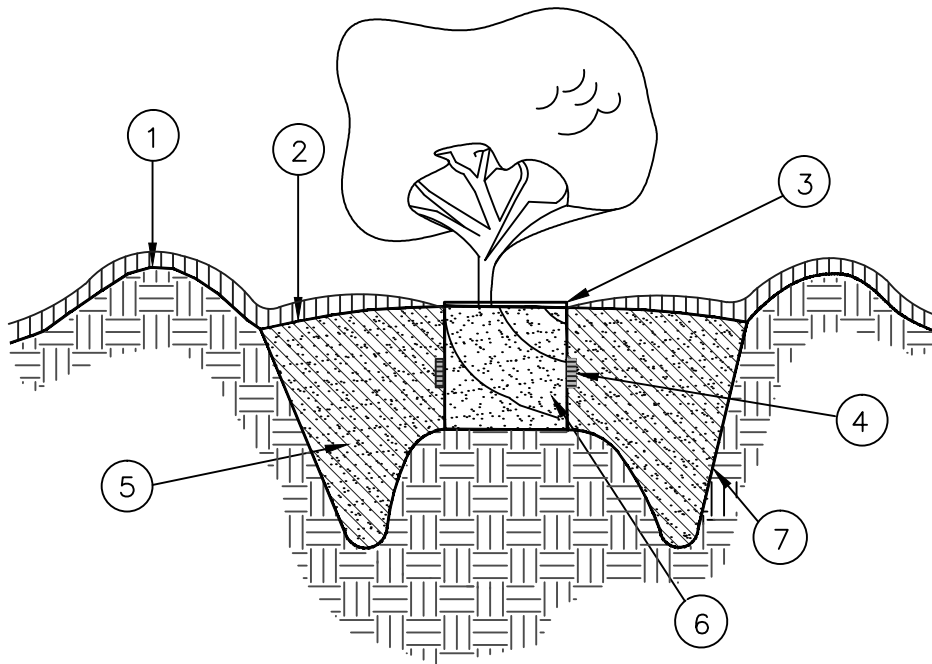
- ① PALM TREE; SPECIES AND TRUNK HEIGHT PER PLAN
- ② 8" RICH ORGANIC BACK FILL MIX PER SPECIFICATIONS
- ③ SIDEWALK OR OTHER PAVING
- ④ COARSE SAND AROUND TRUNK
- ⑤ UNDISTURBED SUBSOIL; SCARIFY SIDES OF PLANTING HOLE
- ⑥ WELL DEVELOPED ROOT BALL
- ⑦ CLEAN PEA GRAVEL OR DRAIN ROCK
- ⑧ REMOVE ALL BUT TOP 3 TO 5 FRONDS; TIE IN 2 PLACES WITH 1/8" NATURAL FIBER TWINE

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
PALM TREE PLANTING

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SCALE: NTS



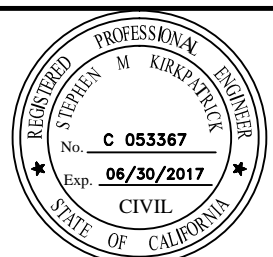
DATE : 4/16 DWG NO. 808



- ① TEMPORARY WATERING BASIN; 4" HIGH BERM X 3' DIAMETER.
- ② MULCH PER SPECIFICATIONS. ROOT CROWN SHALL BE KEPT 6" CLEAR OF MULCH
- ③ SET CROWN OF PLANT ABOVE FINISH GRADE SOIL.  
SIDES OF ROOT BALL SHALL NOT BE EXPOSED.
- ④ FERTILIZER TABLET(S) PER SPECIFICATIONS.
- ⑤ BACK FILL MIXTURE PER SPECIFICATIONS.
- ⑥ WELL DEVELOPED SHRUB ROOTBALL.
- ⑦ PLANTING HOLE SHALL BE TWICE DIAMETER OF SHRUB ROOT BALL;  
SCARIFY SIDES AND BOTTOM OF HOLE.

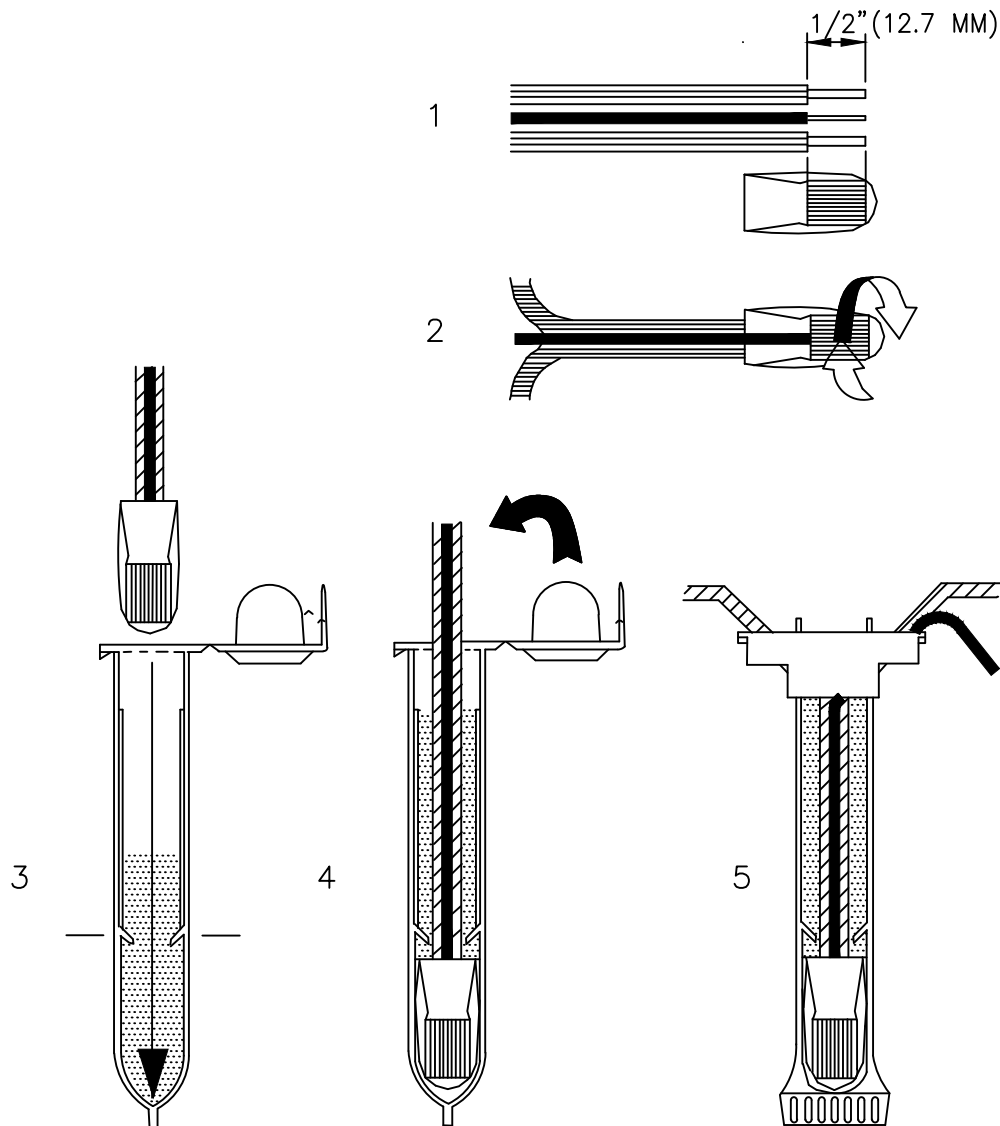
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CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
SHRUB PLANTING DETAIL



DATE : 4/16 DWG NO. 809





NOTES.

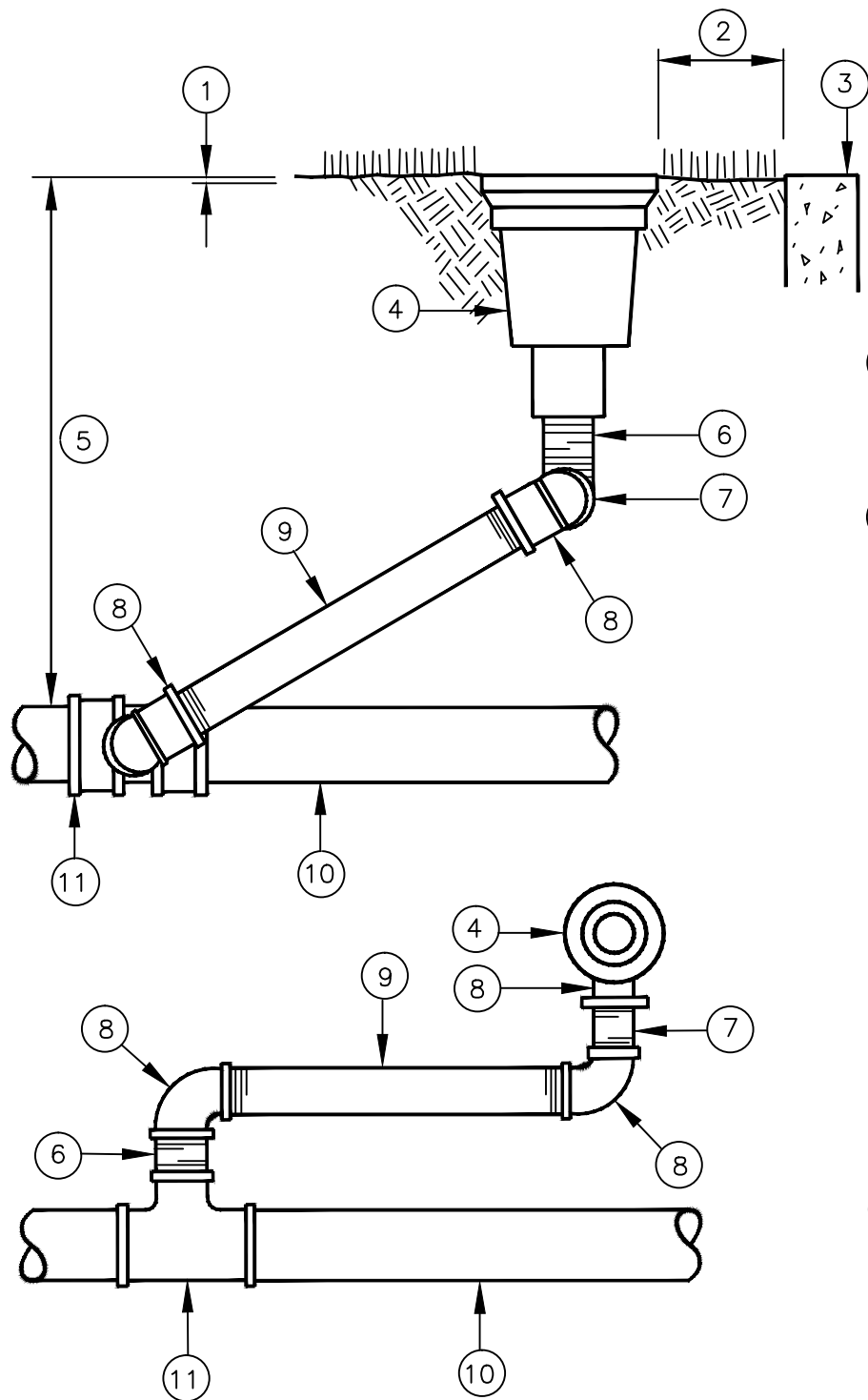
1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS.
2. TWIST ENDS TOGETHER WITH CAP.
3. PUSH WIRES TO END OF BASE SOCKET TO ASSURE SEALING.
4. & 5. CLIP TOP OVER FINISHED ASSEMBLY.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
IRRIGATION SPLICE ASSEMBLY



DATE : 4/16 DWG NO. 810



- ① SET SPRINKLER HEAD FLUSH WITH FINISH GRADE IN MULCH OR 1/8" BELOW FINISH GRADE IN TURF AREAS
- ② SET HEADS 2" FROM CURB, HEADER OR EDGE OF PAVING
- ③ CURB, HEADER OR EDGE OF PAVING
- ④ SHRUB OR TURF POP-UP SPRINKLER
- ⑤ MIN. 18" COVER FOR LATERAL LINE
- ⑥ SCHEDULE 80 PVC NIPPLE; LENGTH AS REQUIRED
- ⑦ SCHEDULE 80 PVC SHORT NIPPLE
- ⑧ SCHEDULE 80 ELBOW
- ⑨ SCHEDULE 80 PVC NIPPLE; MIN. 6" LENGTH
- ⑩ LATERAL LINE
- ⑪ SCHEDULE 80 PVC TEE

**NOTE:**

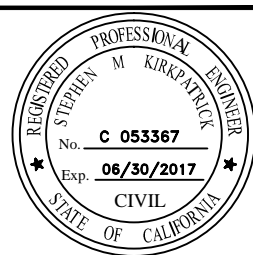
1. ALL THREADED CONNECTIONS SHALL RECEIVE MIN. 3 WRAPS OF TEFLON TAPE.

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SCALE: N.T.S.		

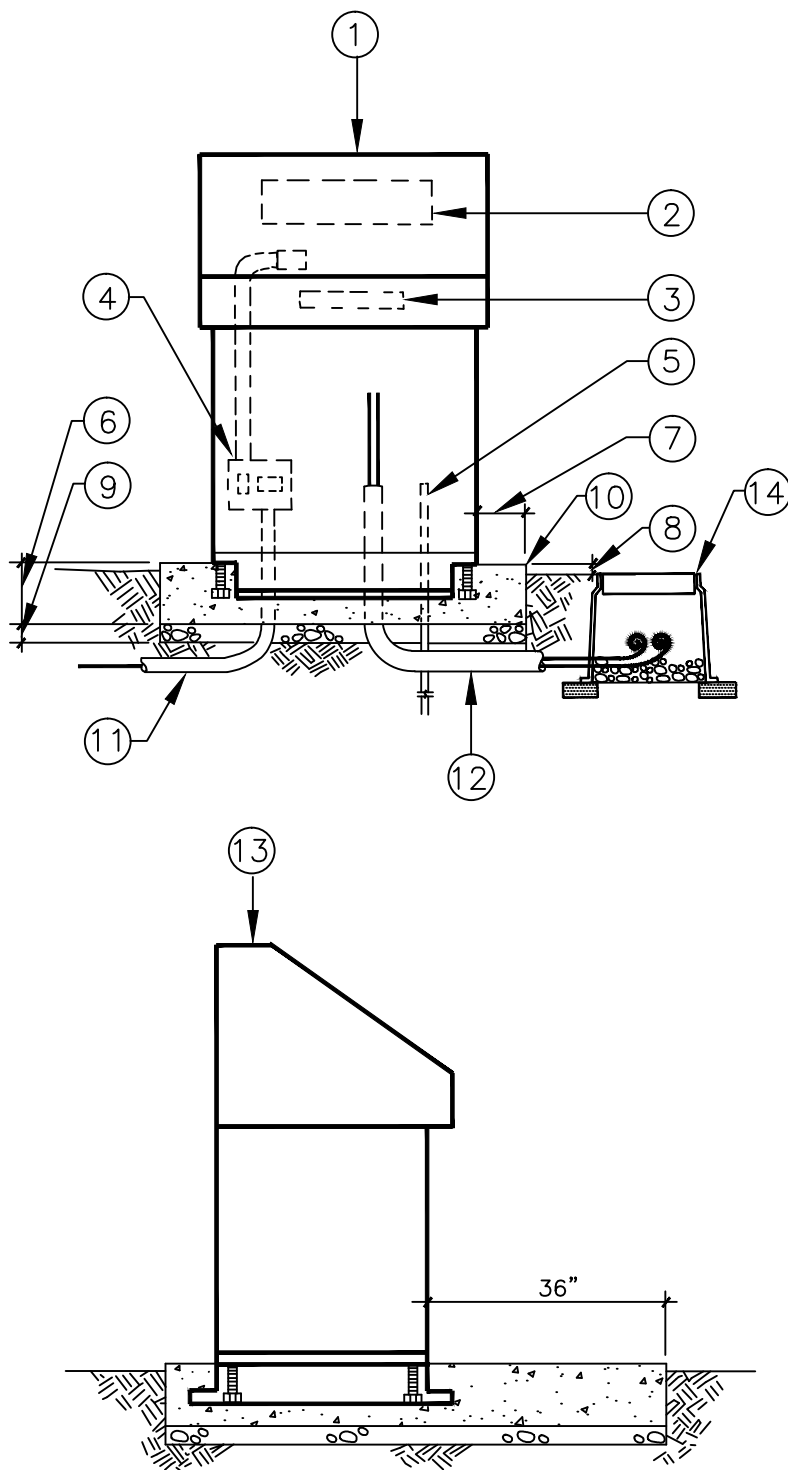
CITY OF PLEASANTON

STANDARD DETAILS  
LANDSCAPE

POP-UP SPRINKLER  
ON TRIPLE SWING ASSEMBLY



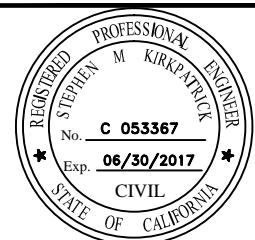
DATE : 4/16 DWG NO. 811



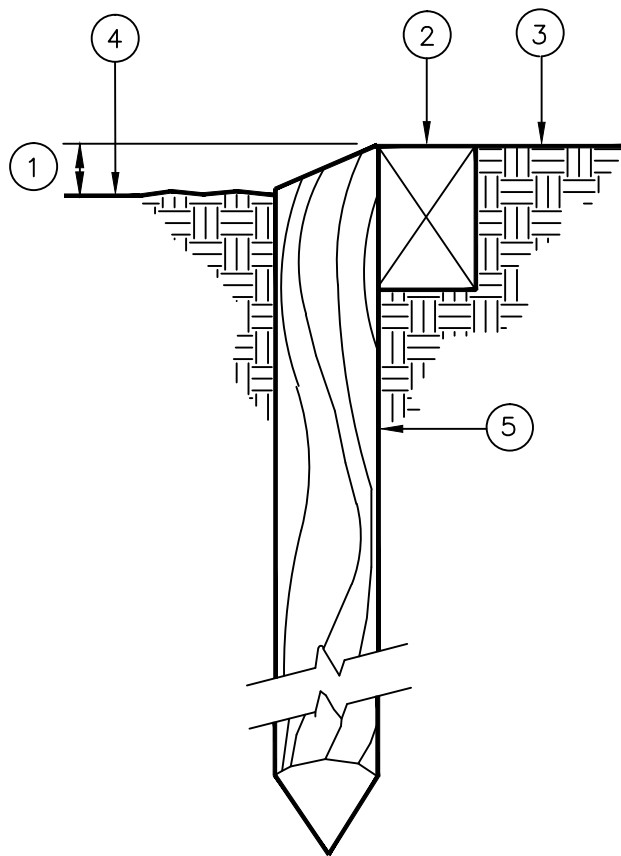
- ① FRONT VIEW; STAINLESS STEEL CONTROLLER ENCLOSURE WITH BASE. "STRONG BOX" SB 22 SS WITH CSA.
- ② IRRIGATION CONTROLLER, SEE SPECS.
- ③ TERMINAL STRIP; PART OF CSA (CONTROLLER SUBASSEMBLY).
- ④ SWITCH AND 120V OUTLET (PART OF CSA).
- ⑤ 1/2" X 8' COPPER GROUND ROD WITH CLAMP.
- ⑥ MOUNT CONTROLLER BASE WITHIN 6" CONCRETE SLAB.
- ⑦ PROVIDE 6" CONCRETE BAND AROUND ENCLOSURE ON SIDES AND BACK.
- ⑧ FINISH SURFACE SLAB 3" ABOVE FINISH GRADE IN PLANTING AREAS, FLUSH IN PAVED AREAS.
- ⑨ 3" CLASS II AB.
- ⑩ 6" THICK CONCRETE SLAB.
- ⑪ 120V SERVICE IN CONDUIT PER SPECIFICATIONS; 30" MIN. COVER.
- ⑫ CONTROL WIRES IN SCHEDULE 40 CONDUIT/SWEEP L; 24" MIN. COVER.
- ⑬ SIDE VIEW; CONTROLLER ENCLOSURE.
- ⑭ ROUND, PLASTIC, LOCKING SPLICE BOX.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
IRRIGATION CONTROLLER  
AND ENCLOSURE  
8 STATIONS OR LESS



DATE : 4/16 DWG NO. 812



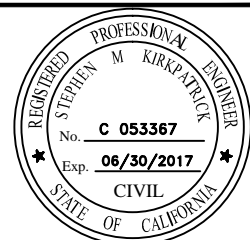
- ① SET HEADER 2" ABOVE FINISH GRADE IN SHRUB OR GROUND COVER AREAS, FLUSH WITH FINISH GRADE IN TURF AREAS
- ② 2"x4" ROUGH CONSTRUCTION GRADE PRESSURE TREATED DOUGLAS FIR. SUBSTITUTE 2-1"x4" OR 4-1/2"x4" REDWOOD AS REQUIRED FOR CURVES. LAP JOINTS 2'-0" MIN.
- ③ FINISH GRADE SEEDED TURF, DECOMPOSED GRANITE, OR PAVING; 3/4" LOWER FOR SOD LAWN
- ④ FINISH GRADE SOIL IN SHRUB OR GROUND COVER AREA
- ⑤ PRESSURED TREATED DOUGLAS FIR STAKE, 2"x3", 18" LENGTH MINIMUM, 4'-0" O.C. MINIMUM SPACING

NOTES:

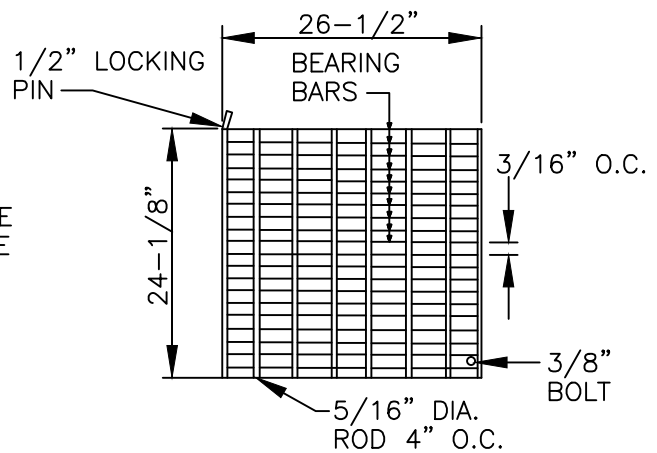
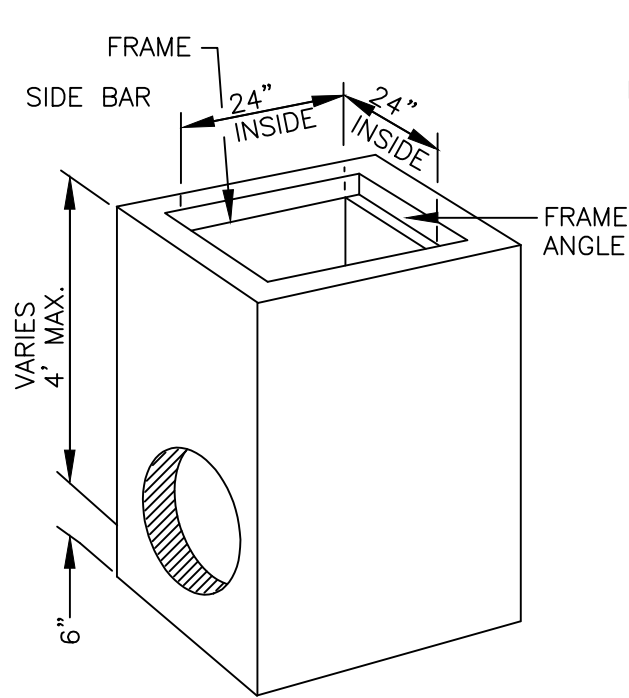
1. NAILS AT STAKES SHALL BE 12d GALVANIZED COMMON, 2 PER STAKE MIN.
2. NAILS AT SPLICES SHALL BE 6d GALVANIZED COMMON.

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SCALE: N.T.S.		

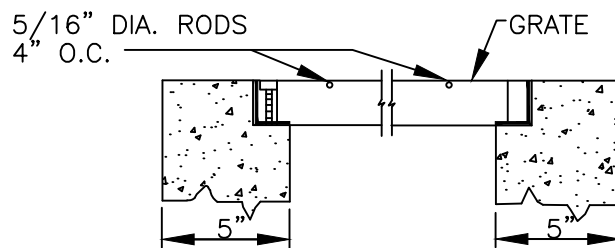
CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
HEADERBOARD



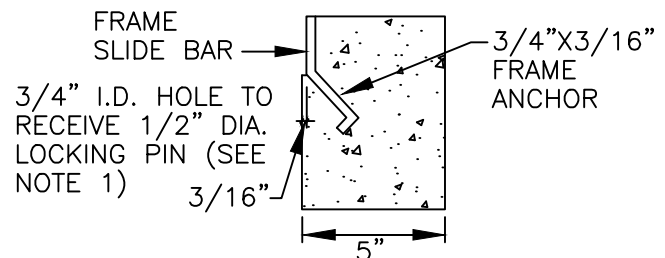
DATE : 4/16 DWG NO. 813



GRATE DETAIL



TYPICAL SECTION



FRAME ANCHORAGE DETAIL

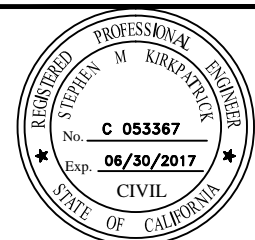
NOTES:

1. GRATE SHALL BE SECURED TO DROP INLET FRAME WITH TWO 3/8" DIA. UNC. STAINLESS STEEL MACHINE BOLT. USE REQUIRED IN ALL CASES.
2. OPENINGS SHALL BE CAST AS REQUIRED TO MEET CONNECTING STORM DRAIN PIPING.
3. DEFLECTED OPENINGS MAY BE CHIPPED IN GREEN CONCRETE.
4. CONCRETE SHALL BE 3000 P.S.I. AT 28 DAYS.
5. WALLS ARE REINFORCED WITH 4"X4"-10-10 WELDED WIRE MESH.
6. WALLS ARE 5" THICK AND BASE IS 6" THICK. METAL FRAME AND GRATE SHALL BE GALVANIZED.
7. AFTER FABRICATION PER ASTM SPECIFICATION A123-59.
8. CLEAR GRATE OPENING IS 3.12 SQUARE FEET.
9. BASE SHALL BE 34"X34"X6".
10. GRATE SHALL BE HEAVY DUTY: 21 BEARING BARS, 2-1/4"X3/16" 2 BANDING BARS, 2"X3/16".
11. FRAME SHALL BE HEAVY DUTY: 2-1/2"X1-1/2"X1/4" ANGLES 2-1/2"X3/8" SIDE BARS.
12. DEPTHS GREATER THAN 4" REQUIRE APPROVAL OF THE ENGINEER.

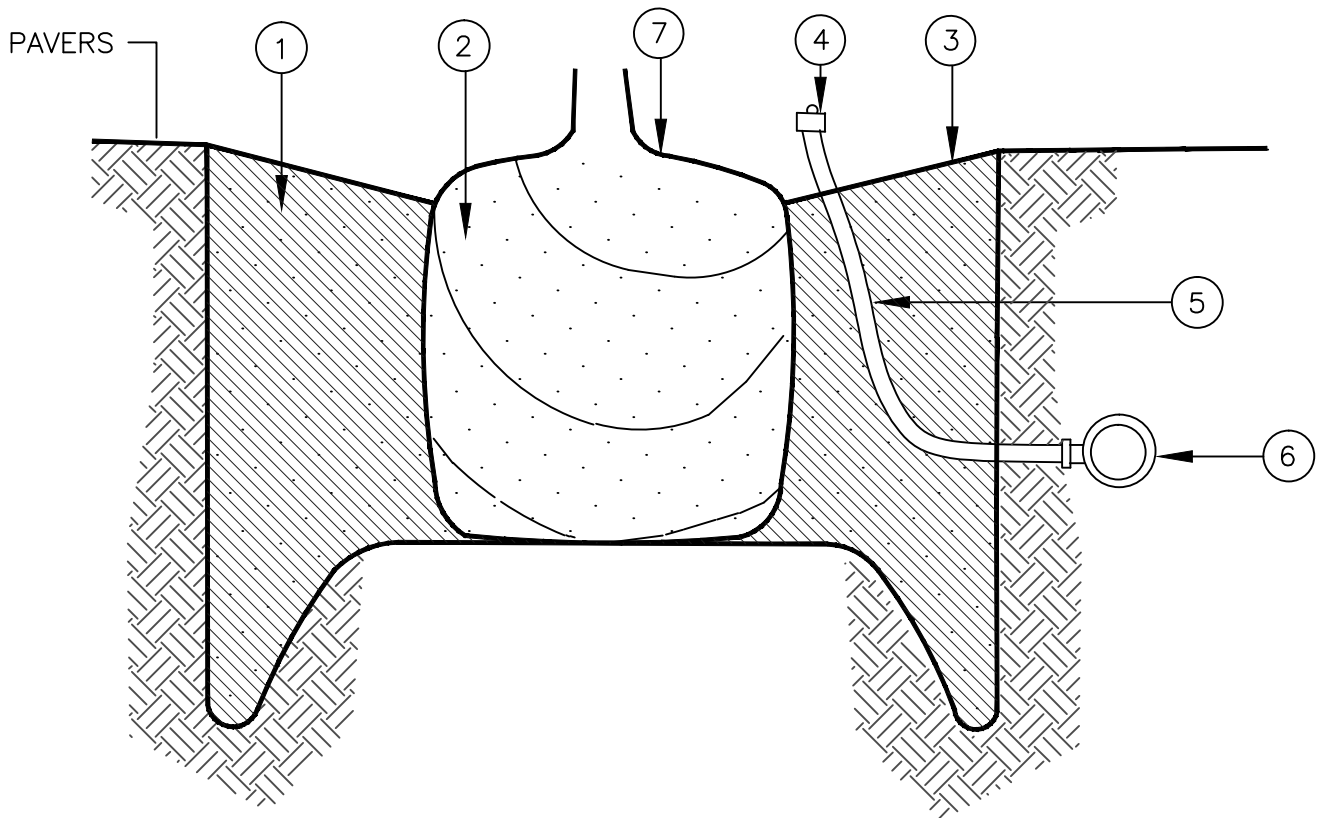
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SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE

DROP INLET FOR PARK  
AND PARKWAY USE ONLY  
4' MAX. DEPTH



DATE : 4/16 DWG NO. 814



- ① BACKFILL MIX PER SPECIFICATIONS
- ② WELL DEVELOPED TREE ROOT BALL
- ③ FINISH GRADE
- ④ LOW FLOW BUBBLER, SEE PLANS FOR MANUFACTURER AND MODEL;  
SET TOP OF BUBBLER 2" ABOVE FINISH SOIL GRADE. 2 BUBBLERS PER TREE
- ⑤ 1/2" FLEXIBLE PVC PIPE
- ⑥ IRRIGATION LATERAL LINE
- ⑦ ROOT BALL 2" HIGH; SIDES OF ROOT BALL ARE NOT TO BE EXPOSED.

NOTE:

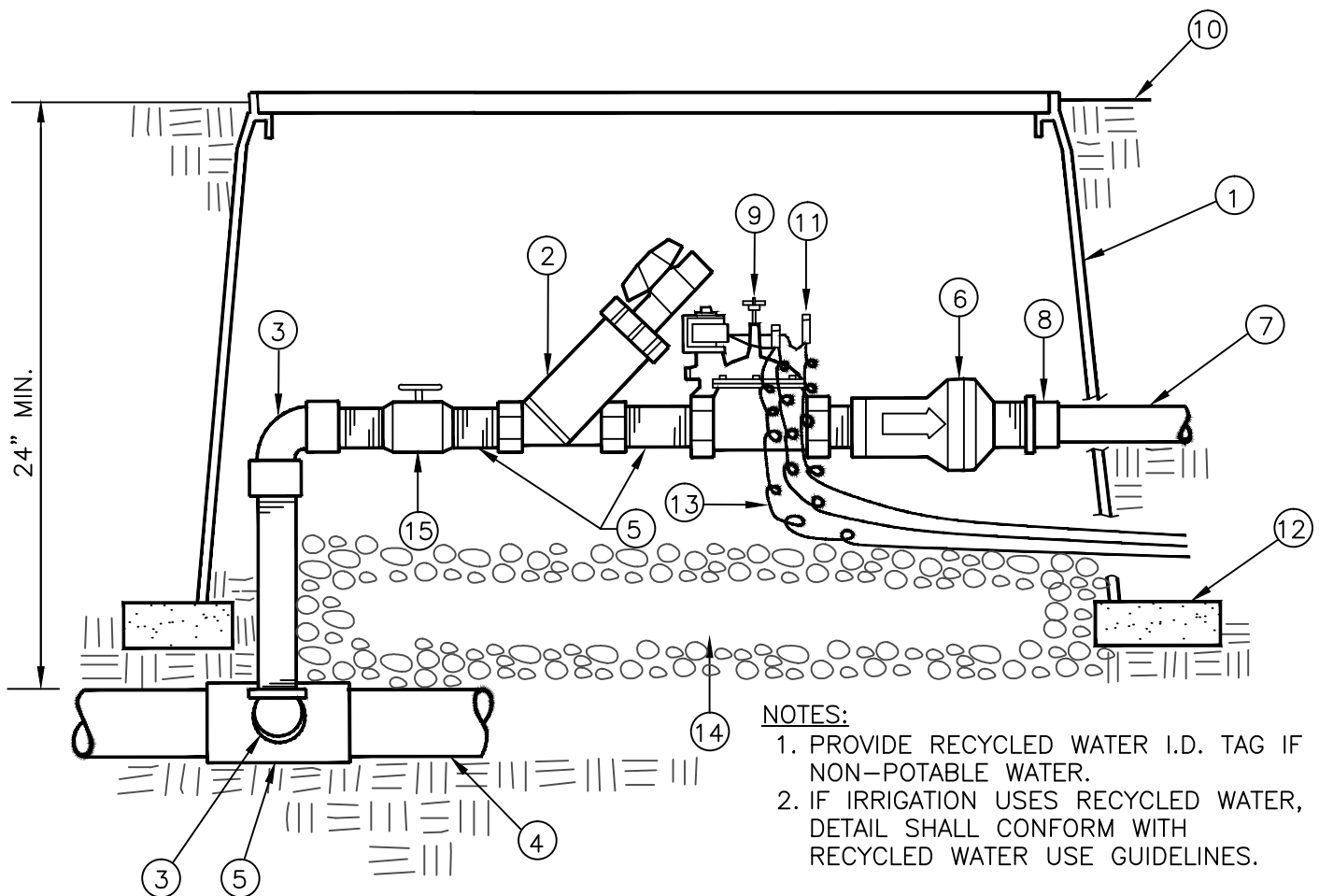
REFER ALSO TO STANDARD DETAIL #806, TREE PLANTING DETAIL.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
STREET TREE  
BUBBLER DETAIL



DATE : 4/16 DWG NO. 815

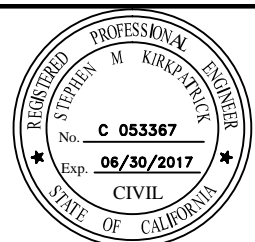


- ① LOCKING VALVE BOX WITH LID PER SPECS.
- ② WYE STRAINER SALCO #HYSFG-100, OR APPROVED EQUAL
- ③ SCH. 80 PVC T X T 90° ELL
- ④ PRESSURE LINE
- ⑤ SCH. 80 PVC TEE (SIZE AS REQUIRED)
- ⑥ PRESSURE REGULATOR
- ⑦ DRIP LATERAL LINE
- ⑧ SCH. 40 PVC MALE ADAPTER

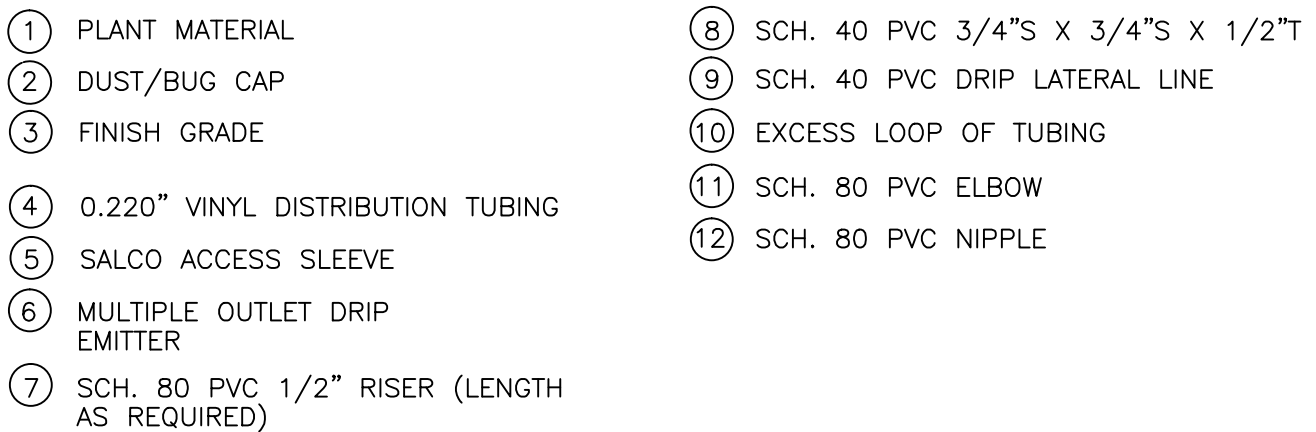
- ⑨ GRISWOLD 2000 SERIES 1" REMOTE CONTROL VALVE, OR APPROVED EQUAL
- ⑩ FINISH SURFACE, 1" IN MULCH AREA AND FLUSH IN TURF AREA
- ⑪ DBY, PENTITE OR OTHER CITY APPROVED SPLICE
- ⑫ COMMON BRICK, TYPICAL ALL FOUR CORNERS OF VALVE BOX
- ⑬ 14 GAUGE CONTROL AND COMMON WIRES, PROVIDE MINIMUM 18" COILED EXTRA
- ⑭ PEA GRAVEL; 6" MIN. BELOW BOTTOM OF VALVE
- ⑮ BALL VALVE, FORD, LINE SIZE

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
DRIP IRRIGATION  
VALVE ASSEMBLY



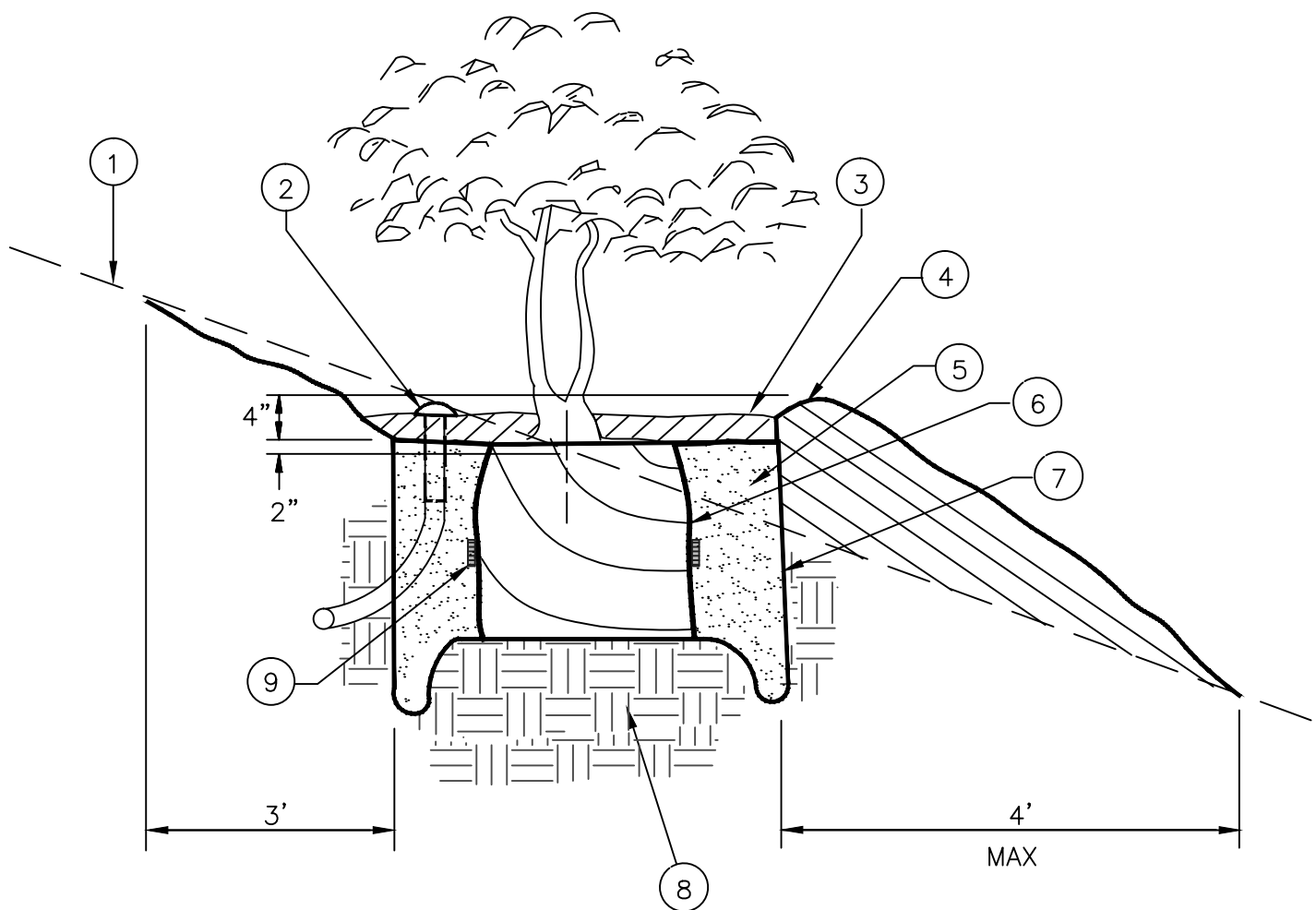
DATE : 4/16 DWG NO. 816



CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
DRIP IRRIGATION  
EMITTER ASSEMBLY



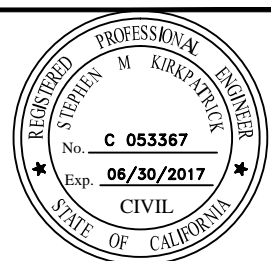




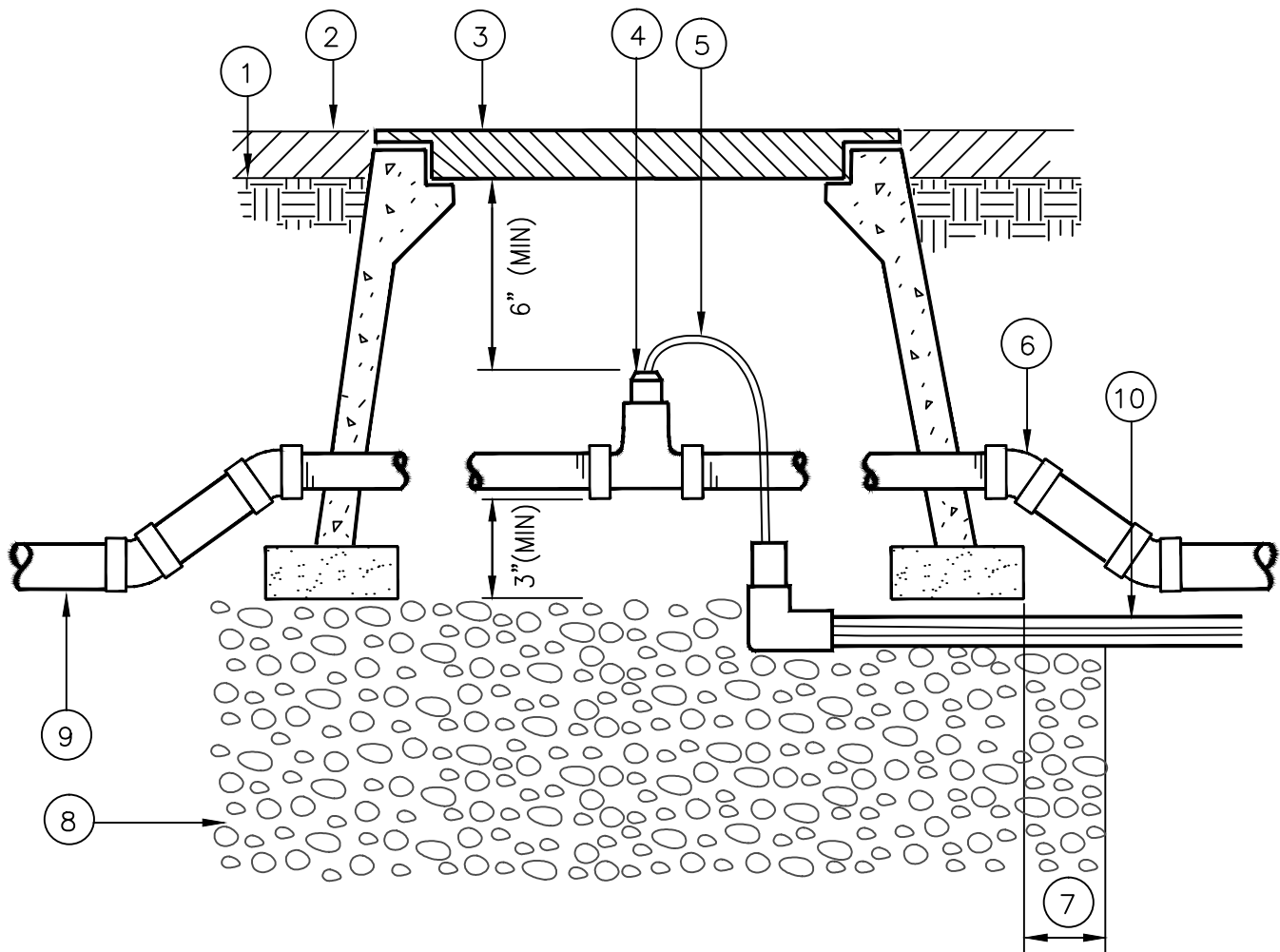
- ① EXISTING SLOPE
- ② IRRIGATION, INSTALL ON UPHILL SIDE OF PLANT
- ③ MULCH, 3" DEPTH. KEEP ROOT CROWN 6" CLEAR OF MULCH.
- ④ EARTH BERM. OMIT IN LAWN.
- ⑤ BACKFILL MIX. SEE SPECIFICATIONS.
- ⑥ SHRUB ROOTBALL.
- ⑦ PLANTING HOLE – SCARIFY WALLS
- ⑧ NATIVE SOIL
- ⑨ AGRIFORM TABLETS. SEE SPECIFICATIONS.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
SHRUB PLANTING  
ON SLOPES



DATE : 4/6 DWG NO. 818



- |  |  |
|--|--|
| <p>1 FINISH GRADE</p> <p>2 SPECIFIED MULCH. SEE PLANTING PLANS</p> <p>3 ROUND VALVE BOX WITH LOCKING LID PER SPECS.</p> <p>4 FLOW SENSOR, PER PLANS.</p> <p>5 SENSOR CABLE</p> | <p>6 PVC SCHEDULE 80 45° ELL (TYP.)</p> <p>7 INSTALL PEA GRAVEL 2" MIN. BEYOND PERIMETER OF BOX</p> <p>8 PEA GRAVEL, 12" MIN. DEPTH</p> <p>9 IRRIGATION SUPPLY PRESSURE LINE (TYP.)</p> <p>10 CONDUIT, 3/4" PVC, SCH. 40</p> |
|--|--|

**NOTES:**

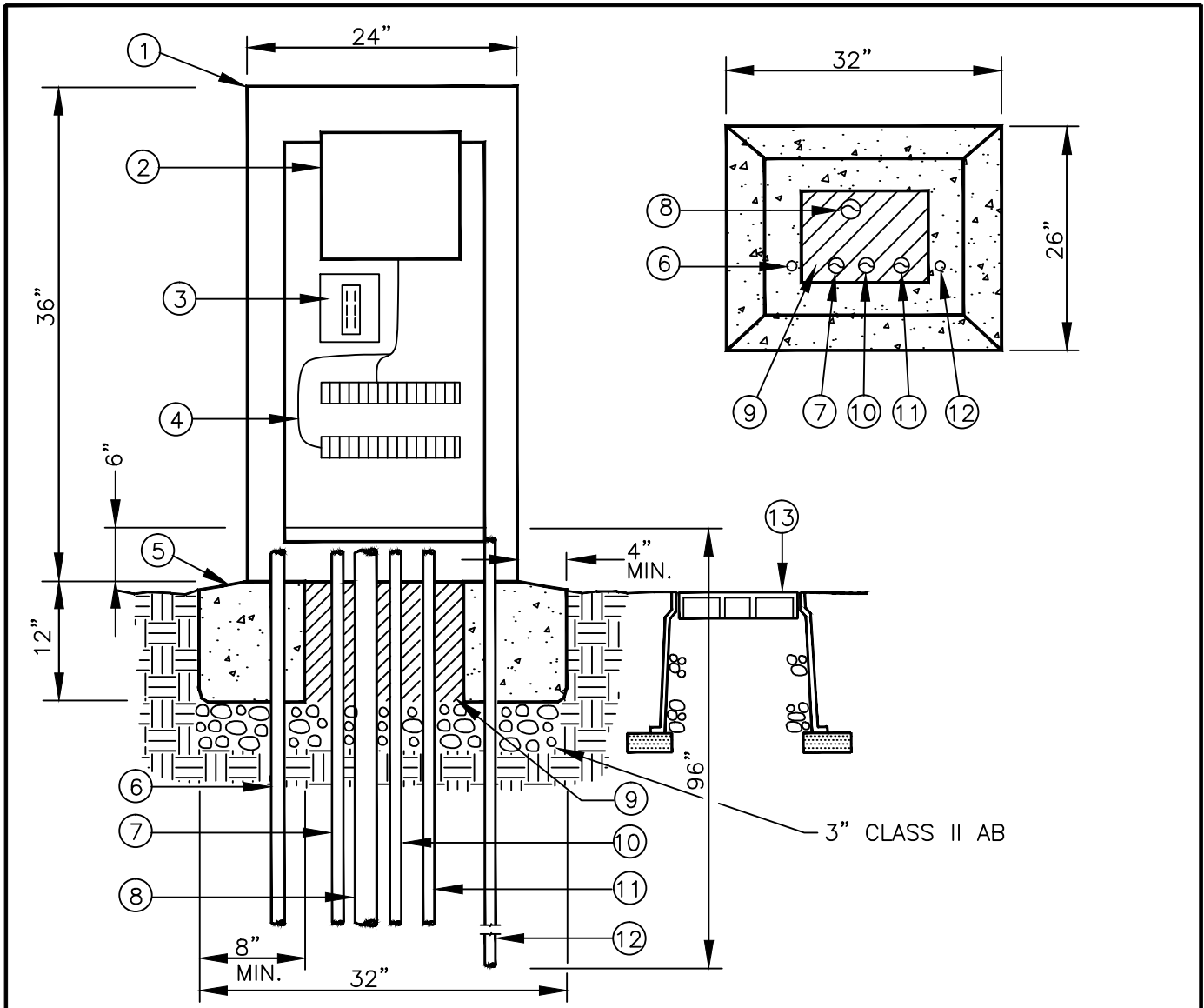
1. SET TOP OF BOX EVEN WITH FINISH GRADE IN TURF AREAS.
2. ALLOW 10 PIPE DIAMETERS UPSTREAM AND 5 PIPE DIAMETERS DOWNSTREAM FROM SENSOR OF STRAIGHT UNOBSTRUCTED PIPE TO ENSURE PROPER FLOW READING.
3. PROVIDE RECYCLED WATER I.D. TAG IF NON-POTABLE WATER.
4. IF IRRIGATION USES RECYCLED WATER, DETAIL SHALL CONFORM WITH RECYCLED WATER USE GUIDELINES.

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
FLOW SENSOR INSTALLATION



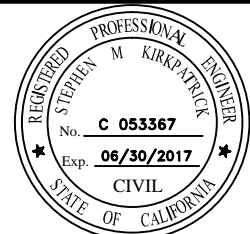
DATE : 4/16 DWG NO. 819



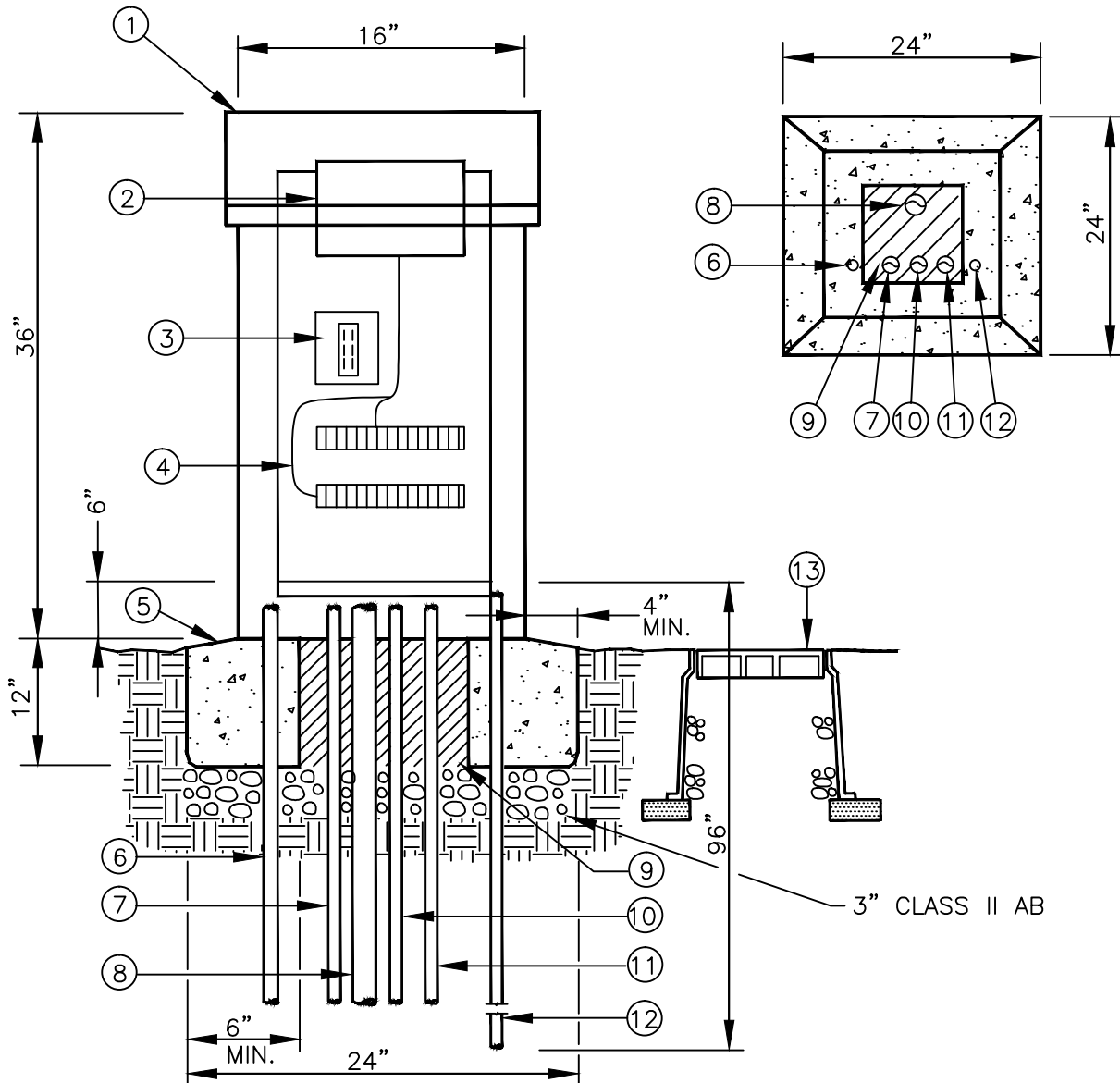
- |   |   |
|---|---|
| <p>① ENHANCED TECHNICAL SERVICES<br/>24" SATELLITE ASSEMBLY NEMA 3R<br/>RAIN PROOF, STAINLESS STEEL ENCLOSURE (UL LISTED)</p> <p>② SATELLITE</p> <p>③ POWER SWITCH/GFI RECEPTACLE</p> <p>④ TERMINAL STRIP FOR VALVES</p> <p>⑤ POURED CONCRETE BASE 6"<br/>FINISH SURFACE SLAB 1/2" ABOVE<br/>FINISH GRADE</p> <p>⑥ 3/4" PVC CONDUIT FOR 120 VAC<br/>FROM METERED POWER SUPPLY</p> | <p>⑦ 1" PVC CONDUIT FOR EV-CAB-COM</p> <p>⑧ PVC CONDUIT FOR CONTROL WIRES,<br/>SIZES AS REQUIRED</p> <p>⑨ FILL VOIDS WITH CONCRETE</p> <p>⑩ 1" PVC CONDUIT FOR FLOW &amp; MOISTURE<br/>SENSING CABLE(S)</p> <p>⑪ 1" PHONE OR RADIO CONDUIT</p> <p>⑫ 5/8" DIA. X 8' GROUND ROD W/#8<br/>BONDING WIRE AND CLAMP</p> <p>⑬ ROUND PLASTIC LOCKING SPLICE BOX</p> |
|---|---|

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
  
WALL MOUNT 24" SATELLITE  
ASSEMBLY



DATE : 4/16 DWG NO. 820



- |   |  |
|---|--|
| ① ENHANCED TECHNICAL SERVICES<br>16" SATELLITE ASSEMBLY NEMA 3R<br>RAIN PROOF ENCLOSURE (UL LISTED) | ⑦ 1" PVC CONDUIT FOR EV-CAB-COM                            |
| ② SATELLITE   | ⑧ PVC CONDUIT FOR CONTROL WIRES,<br>SIZES AS REQUIRED      |
| ③ POWER SWITCH/GFI RECEPTACLE   | ⑨ FILL VOIDS WITH CONCRETE                                 |
| ④ TERMINAL STRIP FOR VALVES   | ⑩ 1" PVC CONDUIT FOR FLOW & MOISTURE<br>SENSING CABLE(S)   |
| ⑤ POURED CONCRETE BASE 6"<br>FINISH SURFACE SLAB 1/2" ABOVE<br>FINISH GRADE                         | ⑪ 1" PHONE OR RADIO CONDUIT                                |
| ⑥ 3/4" PVC CONDUIT FOR 120 VAC<br>FROM METERED POWER SUPPLY   | ⑫ 5/8" DIA. X 8' GROUND ROD W/#8<br>BONDING WIRE AND CLAMP |
|   | ⑬ ROUND PLASTIC LOCKING SPLICE BOX                         |

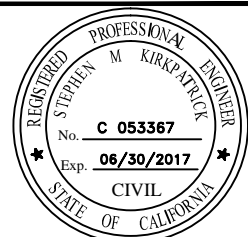
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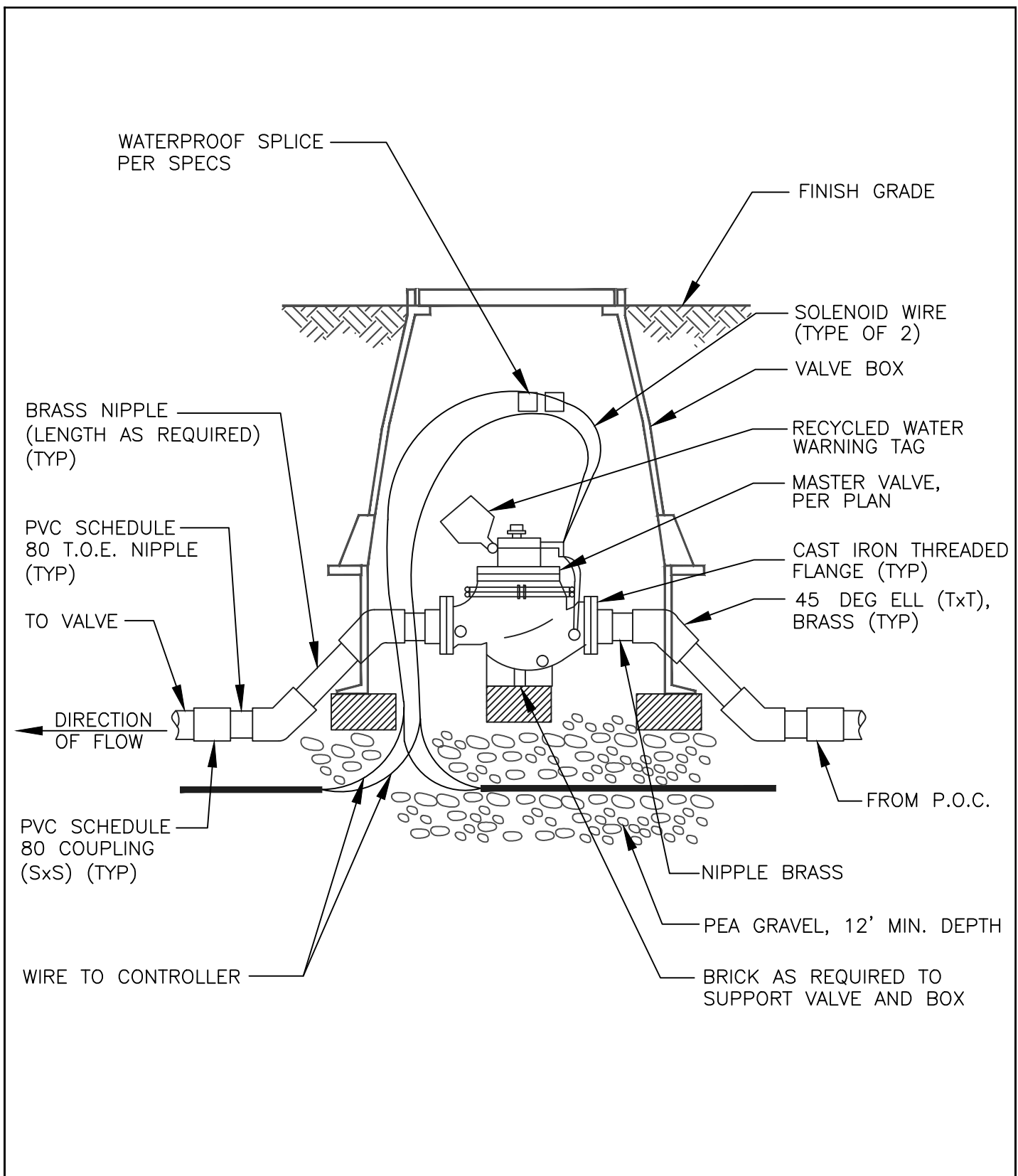
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CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE

16" TOP ENTRY SATELLITE  
ASSEMBLY

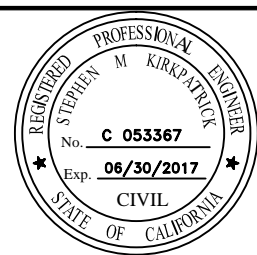


DATE : 4/16 DWG NO. 821

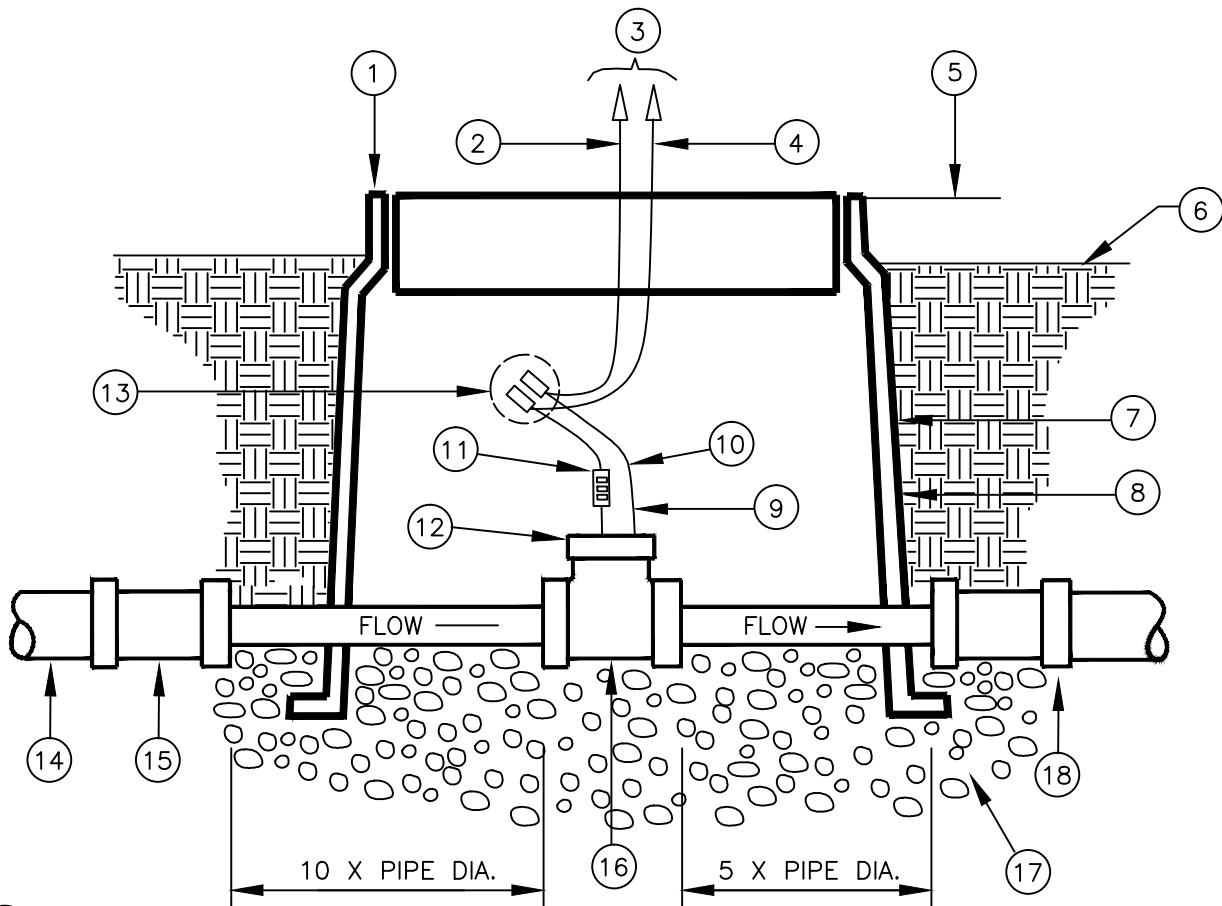


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CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
MASTER VALVE DETAIL



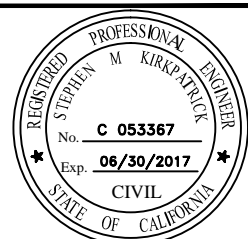
DATE : 4/16 DWG NO. 822



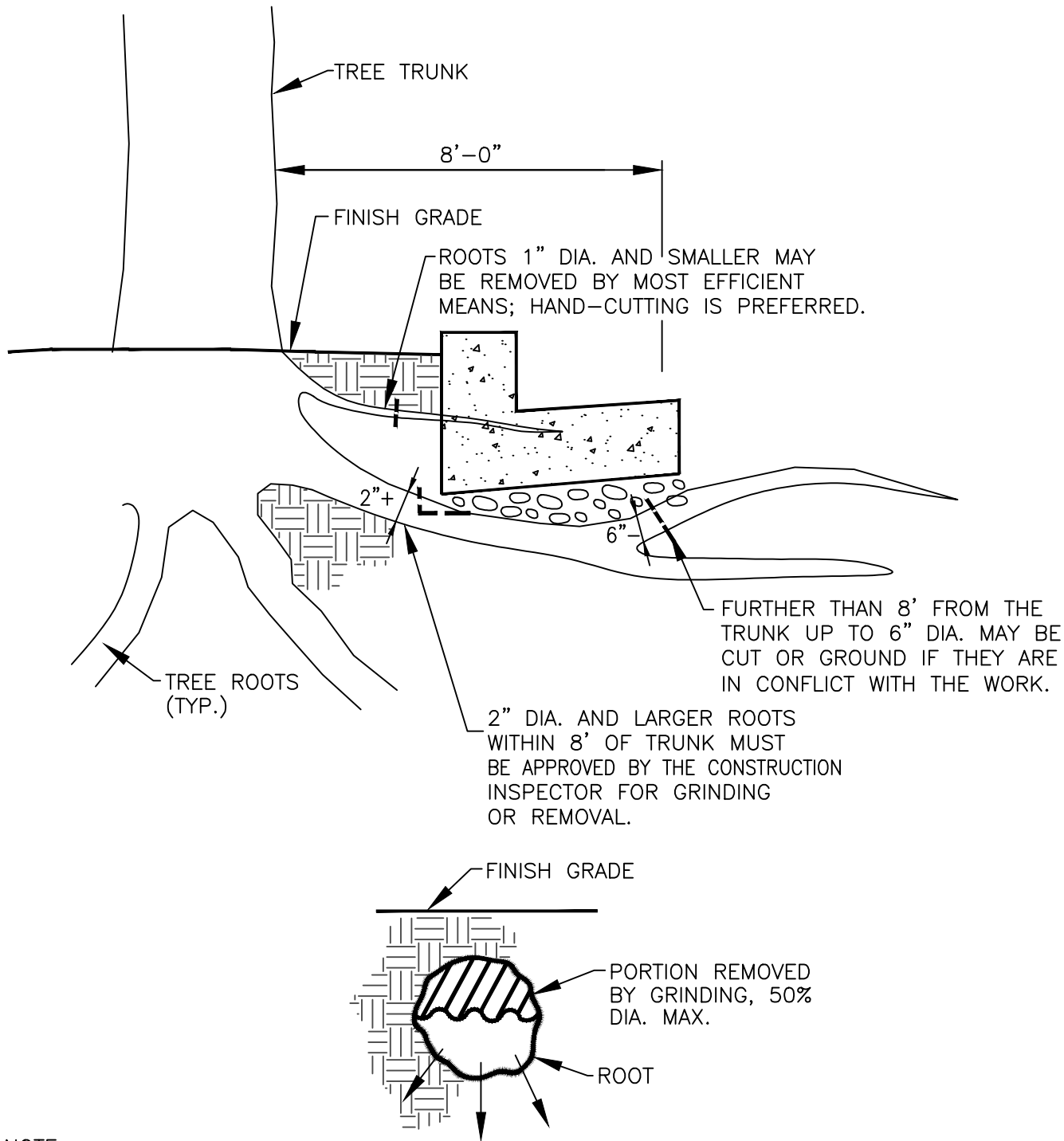
- ① PLASTIC VALVE BOX WITH 2'-6" EXTENSIONS AND LOCKING COVER IN SHRUB OR GROUND COVER AREAS. PROVIDE CONCRETE BOX WITH METAL LOCKING LID IN TURF AREAS.
- ② (+) WHITE
- ③ TWO #20 FOIL SHIELD W/DRAIN, BLACK JACKET, DIRECT BURIAL BLACK, WHITE. ALLOW 2' OF EXTRA CABLE. (EV-CAB-SEN)
- ④ (-) BLACK
- ⑤ 1" IN TURF AREAS, 2" IN SHRUB AREAS
- ⑥ FINISH GRADE
- ⑦ EXTENSION (IF NECESSARY)
- ⑧ JUMBO BOX (14" X 19") OR LARGER
- ⑨ ETS WATERPROOF FUSE HOUSING
- ⑩ (-) BLACK
- ⑪ (+) RED
- ⑫ FLOW SENSOR INSERT
- ⑬ WATERPROOF CONNECTIONS. NOTE POLARITY ON SENSOR TO SENSOR CABLE HOOKUP
- ⑭ MAIN LINE FROM BACKFLOW-UPSTREAM
- ⑮ REDUCING COUPLING AT DIST. EQUAL TO 10X PIPE DIA. FROM FLOW SENSOR
- ⑯ FLOW SENSOR BODY
- ⑰ 6" DEEP 3/4" PEA GRAVEL SUMP
- ⑱ REDUCING COUPLING AT DIST. EQUAL TO 5X PIPE DIA. FROM FLOW SENSOR

DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
FLOW SENSOR



DATE : 4/16 DWG NO. 823

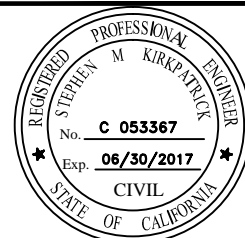


NOTE:

1. SEE CITY STANDARD SPECIFICATIONS.

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SCALE: N.T.S.		

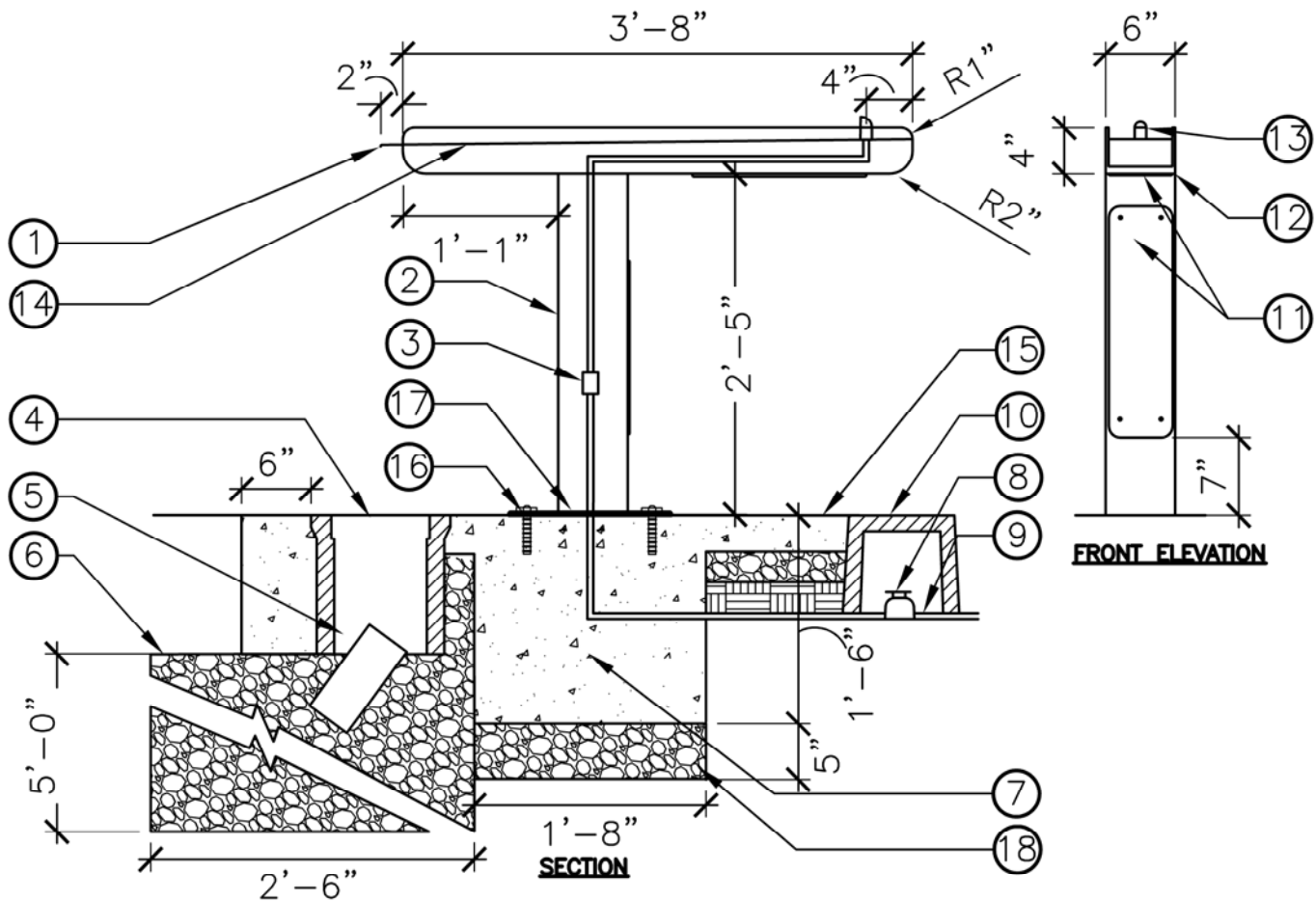
CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
ROOT CUTTING DETAIL



DATE : 4/16 DWG NO. 824

**NOTES:**

1. BUBBLER SHALL BE MODEL 5010 BY HAWS DRINKING FAUCET CO., BERKELEY, CA 510-525-5801.
2. METAL SHALL BE 304 STAINLESS STEEL, BRUSHED FINISH.
3. DRINKING FOUNTAIN AVAILABLE THROUGH VALLEY MACHINE SHOP, LIVERMORE, CA 925-455-1266.



- |   |   |
|---|---|
| ① DRIP EDGE, 1/8" THICK SS W/ 1/4"Ø BEND                                    | ⑩ VALVE BOX, 10"Ø (BROOKS OR EQ.) CAST IRON LID, CHRISTY F8C OR EQ.                                 |
| ② RISER, 6" X 6"  | ⑪ ACCESS PANEL, 1/8" STAINLESS STEEL, 5.5" X 20", VANDAL RESISTANT SCREWS AT CORNERS, TYP., 2 TOTAL |
| ③ MALE ADAPTER TO BRAIDED SS TUBING   | ⑫ CONTINUOUS BEAD WELD, GRIND SMOOTH  |
| ④ DRAIN INLET CHRISTY V-9 SET PERPEN. TO TROUGH, CENTER ON DRIP EDGE        | ⑬ BUBBLER   |
| ⑤ PIPE, SCHEDULE 40 PVC, 4"   | ⑭ TROUGH, SLOPE TO DRAIN  |
| ⑥ DRY WELL, WRAPPED IN FILTER FABRIC, BACKFILL WITH 3/4" CRUSHED DRAIN ROCK | ⑮ ADJACENT CONCRETE PAVEMENT  |
| ⑦ CONCRETE FOOTING, CENTERED ON FOUNTAIN                                    | ⑯ NUT & BOLT ASSEMBLY, VANDAL RESISTANT, 4" LENGTH X 5/8"Ø, 4 TOTAL                                 |
| ⑧ BALL VALVE, KBI PVC, LINE SIZE  | ⑰ PLATE, 14" SQ. 4 BOLT HOLES 1" FROM CORNERS   |
| ⑨ SUPPLY LINE, TYPE K COPPER, 1/2"  | ⑱ DRAIN ROCK, 3/4", TYP.  |

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE

STANDARD DRINKING FOUNTAIN

DRAWN BY: SH

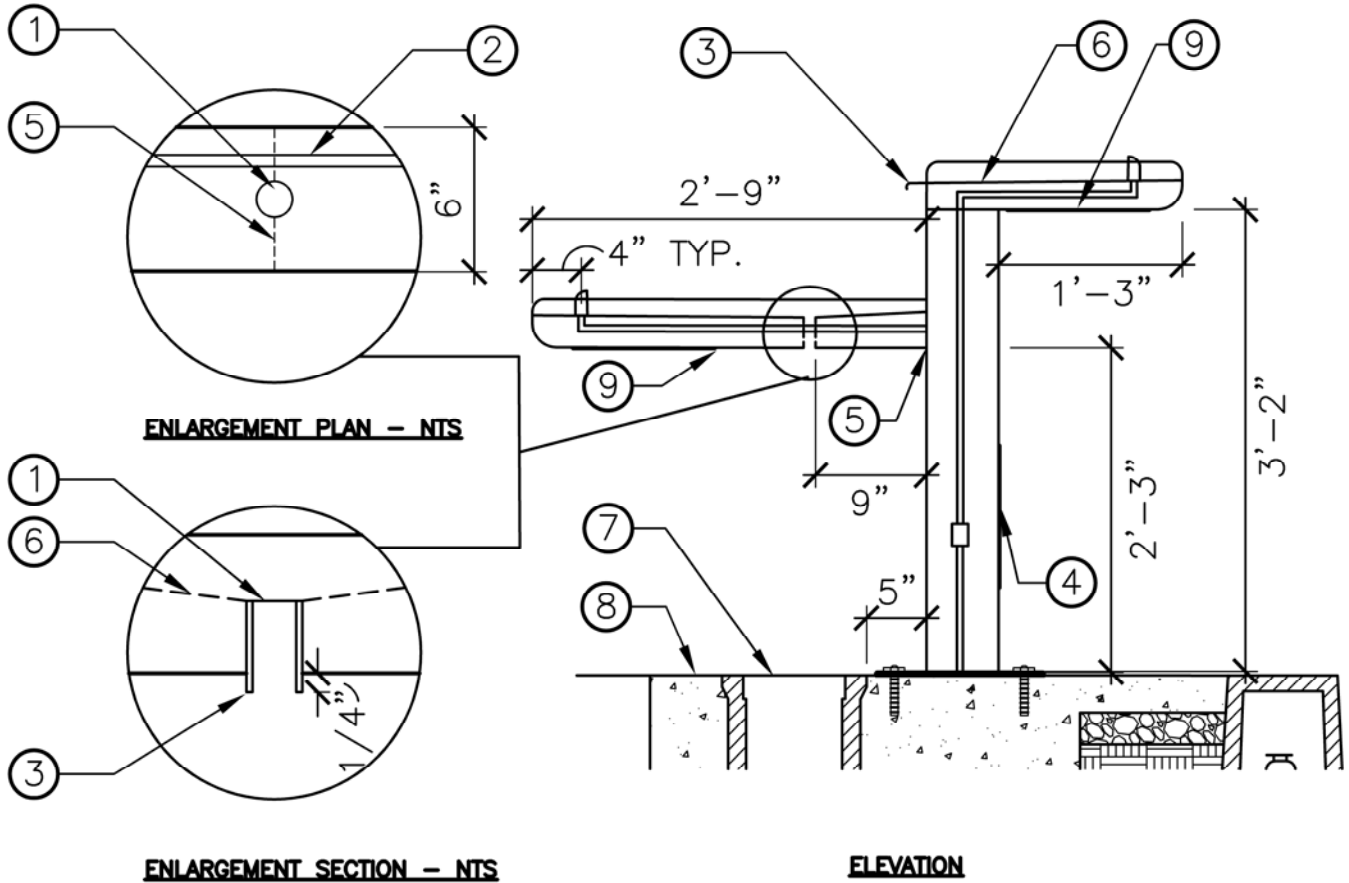
CHECKED BY: MG

SCALE: NTS



DATE : 5/23 DWG NO. 825





- ① 1-1/2" ROUND DRAIN HOLE, CENTERED IN TROUGH
- ② SUPPLY LINE, TYPE K COPPER, 1/2"Ø
- ③ DRIP EDGE, GRIND SMOOTH
- ④ ACCESS PANEL, 1/8" STAINLESS STEEL, 5.5" X 20", VANDAL RESISTANT SCREWS AT CORNERS
- ⑤ CONTINUOUS BEAD WELD, GRIND SMOOTH
- ⑥ TROUGH, SLOPE TO DRAIN HOLE
- ⑦ DRAIN INLET, CENTER ON TROUGH
- ⑧ FOR BELOW GRADE IMPROVEMENTS REFER TO DETAIL 830A
- ⑨ ACCESS PANEL, 1/8" SS, 5.5" X 12", VANDAL RESISTANT SCREWS AT CORNERS

**NOTE:**

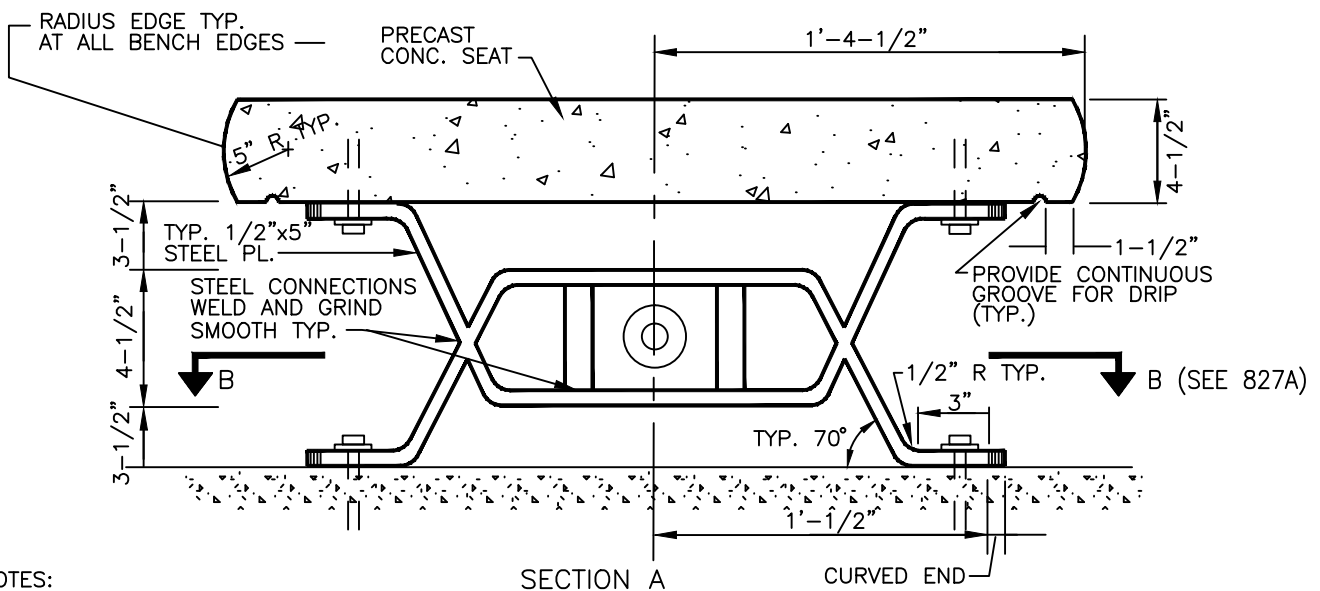
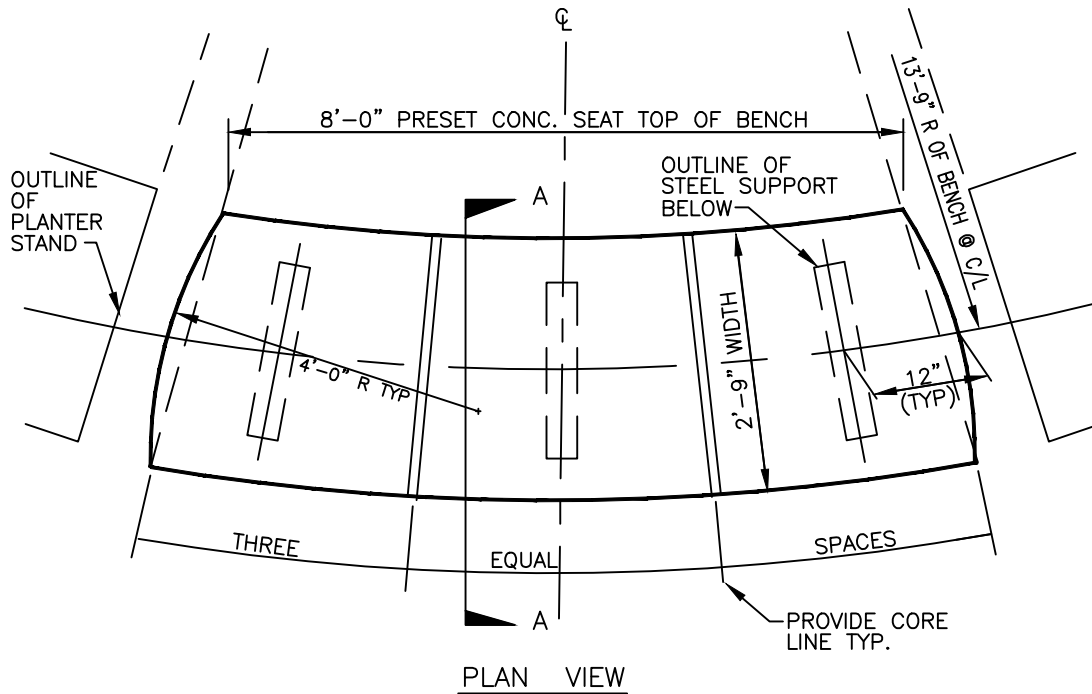
ALL DIMENSIONS, MATERIALS AND NOTES NOT SHOWN ON THIS DETAIL SHALL BE CONSISTENT WITH THE STANDARD DRINKING FOUNTAIN. REFER TO DETAIL 825.

DRAWN BY: SH		
CHECKED BY: MG		
SCALE: NTS		

CITY OF PLEASANTON  
STANDARD DETAILS  
LANDSCAPE  
HI-LO DRINKING FOUNTAIN



DATE : 5/23 DWG NO. 826



NOTES:

1. PROVIDE ENGINEERED SHOP DRAWING TO SET REINFORCING STEEL FOR PRECAST CONCRETE, WELD CONNECTIONS, BOLT SIZES AND ANCHORAGES, ETC.
2. ALL EXPOSED STEEL TO BE GALVANIZED AND PAINTED WITH ACRYLIC POLY URETHANE ENAMEL SUCH AS TIVEMEC SERIES 74 OR EQUAL, (PROVIDE APPROPRIATE PRIMER).
3. PRECAST CONCRETE MATERIAL AND COLOR TO MATCH ADJACENT PLANTER STAND, FINISH TO BE LIGHT SANDBLAST. PROVIDE ANTI-GRAFFITI COATING SUCH AS "GRAFFITI-GARD", OR EQUAL.
4. SEE 827A.

CITY OF PLEASANTON  
STANDARD DETAILS

MAIN STREET BENCH 1

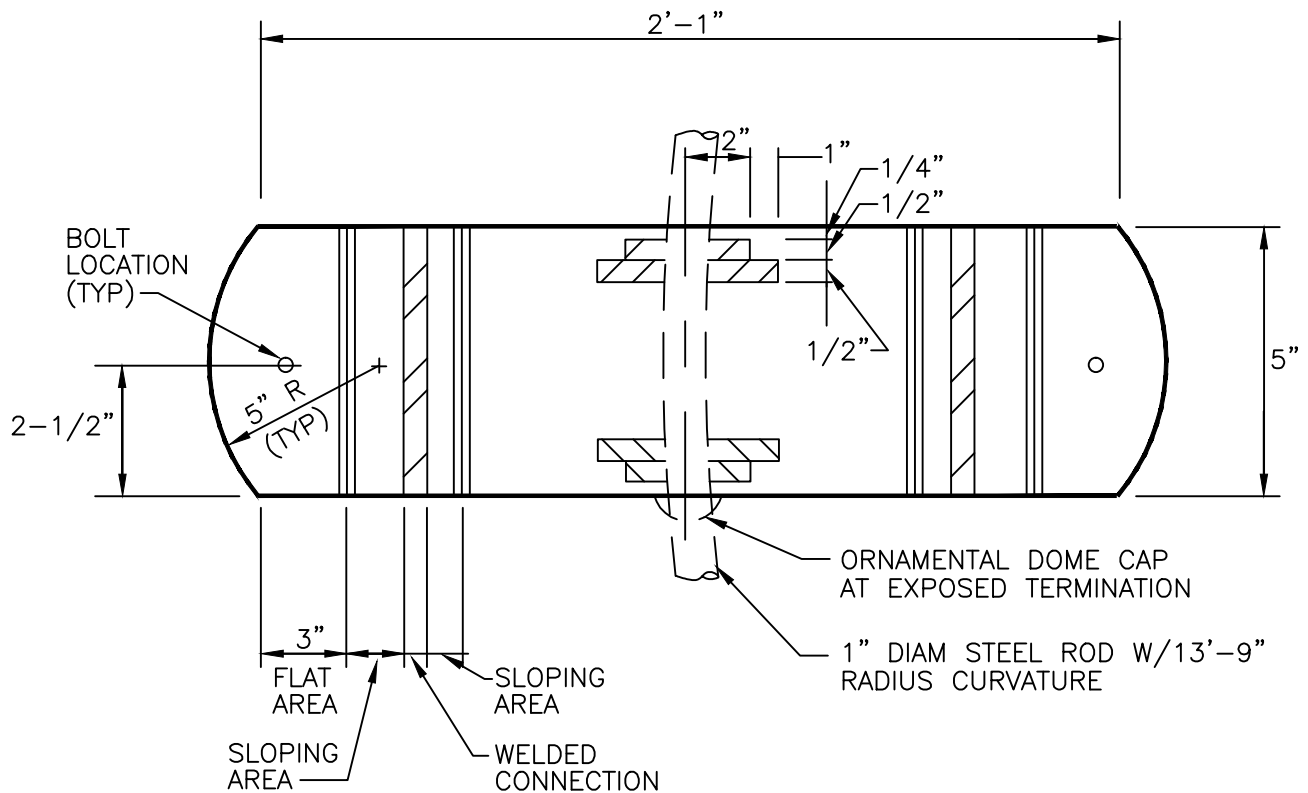
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CHECKED BY: AN

SCALE: N.T.S.



DATE : 4/16 DWG NO. 827



#### NOTES:

1. PROVIDE ENGINEERED SHOP DRAWING TO SET REINFORCING STEEL FOR PRECAST CONCRETE, WELD CONNECTIONS, BOLT SIZES AND ANCHORAGES, ETC.
2. ALL EXPOSED STEEL TO BE GALVANIZED AND PAINTED WITH ACRYLIC POLY URETHANE ENAMEL SUCH AS TIVEMEC SERIES 74 OR EQUAL, (PROVIDE APPROPRIATE PRIMER).
3. PRECAST CONCRETE MATERIAL AND COLOR TO MATCH ADJACENT PLANTER STAND, FINISH TO BE LIGHT SANDBLAST. PROVIDE ANTI-GRAFFITI COATING SUCH AS "GRAFFITI-GARD", OR EQUAL.
4. SEE 827 FOR PLAN VIEW.

CITY OF PLEASANTON

STANDARD DETAILS

MAIN STREET BENCH 2

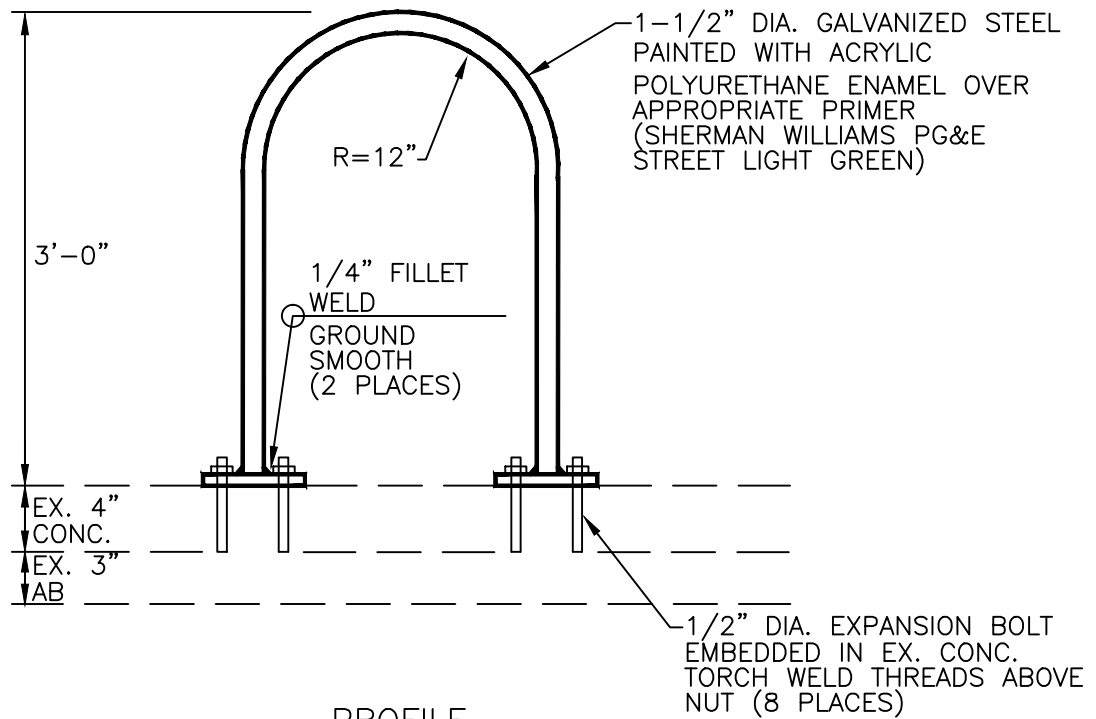
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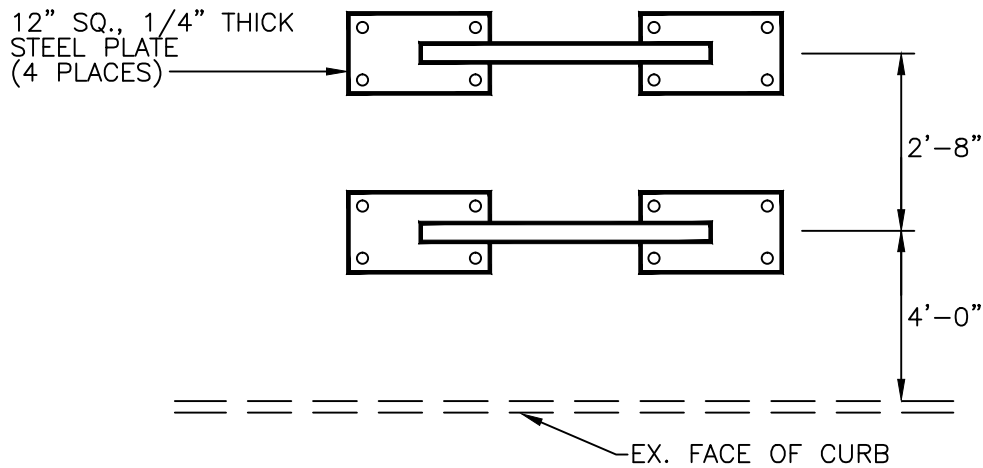
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DATE : 4/16 DWG NO. 827A



PROFILE



PLAN

CITY OF PLEASANTON

STANDARD DETAILS

BICYCLE RACK



DATE : 4/16 DWG NO. 828

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

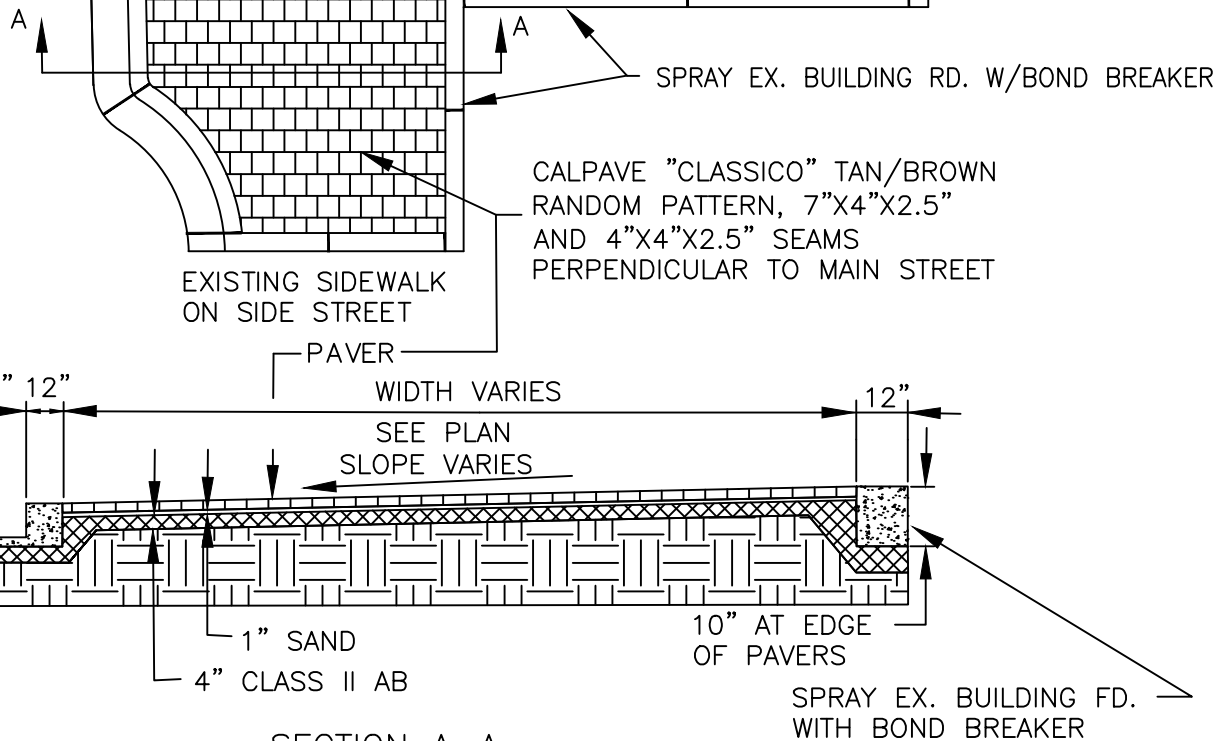
CONCRETE COLOR SHALL BE  
"WEATHERED PLEASANTON BUFF"  
RAMPS TO MEET ADA STANDARDS

4' SQ. TREE WELL / 12" PCC  
BAND, / SEE IMPROVEMENT  
PLAN FOR LOCATION

R1'  
R10'

5' UNLESS  
OTHERWISE NOTED

1 1/2" DEEP  
SCORE @ 10'  
O.C. (TYP.)



### SECTION A-A

#### NOTES:

1. INSTALL TRENCH DRAIN WHEN INDICATED ON PLANS OR AS DIRECTED BY THE ENGINEER.
2. SEE PLAN AND PROFILE FOR LOCATION. SEE DRAWINGS 911 & 115C FOR TREE WELL AND CURB RAMP DETAILS.
3. TRENCH GRATE SHALL BE URBAN ACCESSORIES MODEL T 24 OR EQUAL.
4. VOIDS BETWEEN PAVERS TO BE SANDED & VIBRATED WITH KILN DRIED, MONTEREY SAND, 30 MESH.

CITY OF PLEASANTON  
STANDARD DETAILS

CURB RETURN AND  
DECORATIVE WALK SECTION



DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.

DATE : 4/16 DWG NO. 910

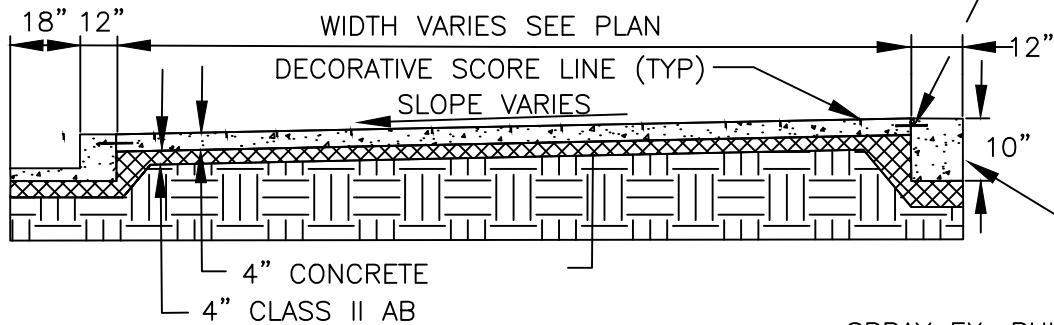


ALIGN WITH  
WEAKENED  
PLANE JOINT IN  
SIDEWALK

1-1/2" DEEP SCORE @ 10'±  
EACH WAY FOR WEAKENED PLANE  
JOINT, TYPICAL

COLD JOINT, 1-1/2" DEEP  
SCORE, SEE SECTIONS

CONC. BAND CONNECTED TO CONCRETE  
SIDEWALK W/#4X18" DOWELS ON 18"  
CENTERS, BOTH SIDES



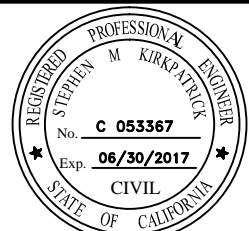
SPRAY EX. BUILDING FD.  
WITH BOND BREAKER

### SECTION A-A

#### NOTES:

1. MAINTAIN SAME SCORE SPACING FOR ADJACENT BUILDINGS AND ENTIRE BLOCK IF PRACTICAL.
2. ADJUST SCORE MARKS AT BUILDING COLUMNS TO BE NO CLOSER THAN 2' TO EDGE OF COLUMN BASE.
3. POURED IN-PLACE SIDEWALK, COLOR "WEATHERED PLEASANTON BUFF", 1/2" DEEP SCORE @ 30" EACH WAY. 1-1/2" DEEP SCORE @ 10' EACH WAY.

CITY OF PLEASANTON  
STANDARD DETAILS  
TYPICAL CURB, GUTTER  
AND SIDEWALK PLAN



DRAWN BY: STAFF

CHECKED BY: AN

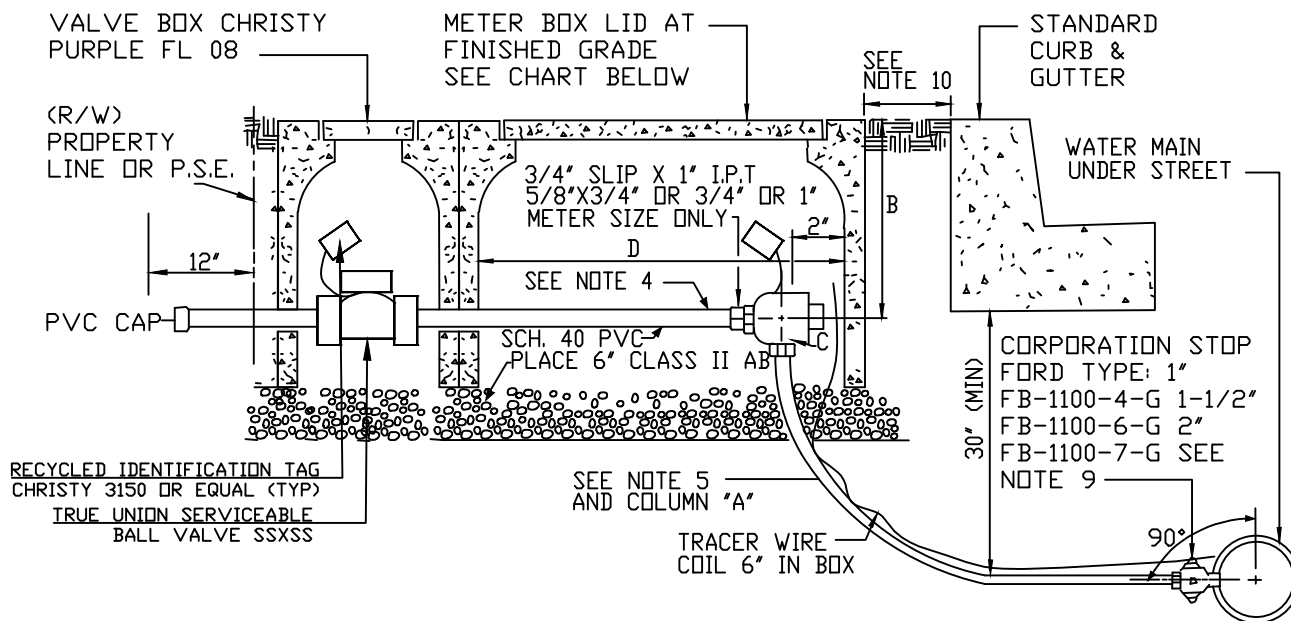
SCALE: N.T.S.

DATE : 4/16 DWG NO. 910B



DATE : 4/16	DWG NO. 911
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# NOTES:

1. WATER METERS SHALL BE PURCHASED FROM AND SET BY THE CITY OF PLEASANTON UTILITY DEPT.
2. 5/8" BRASS BOLTS SHALL BE INSTALLED AT METER OR ADAPTER.
3. SERVICE LINE SHALL BE INSTALLED IN A STRAIGHT LINE PERPENDICULAR FROM MAIN TO PROPERTY LINE
4. 3/4" SCH. 40 PVC FOR 5/8" & 3/4" MTRS. 1" PVC FOR 1" MTRS. 1-1/2" PVC FOR 1-1/2" MRS. 2" PVC FOR 2" MTRS. PIPE SHALL BE PURPLE.
5. FOR 1 1/2" & 2" SERVICE LINES USE SERVICE GUARD FROM UNDERGROUND SOLUTIONS. CLASS 200 POLYETHYLENE TUBING SHALL CONFORM TO A.S.T.M. D-2737 & AWWA C-901 WITH A PRESSURE RATING OF 200 PSI & SHALL BE "INTERSTATE POLY TUBING" OR APPROVED EQUAL.
6. WARNING TAPE MARKED "CAUTION" RECYCLED WATER LINE BURIED BELOW "SHALL BE INSTALLED 2" ABOVE THE WATER SERVICE. SEE SPEC. 22-01B.7.
7. IF METER & SERVICE SIZE ARE OTHER THAN THOSE LISTED BELOW, PROVIDE A DETAIL DRAWING.
8. TAPS ABOVE 1"REQUIRES A SADDLE (1-1/2" & 2")
  1. ACP - FORD MODEL S912
  2. C.I.P./D.I.P. - FORD MODEL FSD202
  3. P.V.C.- FORD MODEL S912.
9. STUB PVC LINE:
  1. 12" OUTSIDE OF METER BOX OR 12" BEHIND PROPERTY LINE.
  2. 4" BEHIND CURB, WHERE PLANTER AREA EXIST BETWEEN CURB & SIDEWALK.
  3. 4" BEHIND SIDEWALK, WHERE SIDEWALK IS MONOLITHIC TO CURB.
10. JOINT TRENCH DEPTH SHALL BE DETERMINED BEFORE WATER SERVICE IS INSTALLED.

METER SIZE	A	B	C*	D*	LID	INSIDE DIMENSIONS
3/4"X5/8"	1"	8"	FORD BA-43-342W-G	CHRISTY PURPLE FL09	B9XD	10-1/2"X17-1/4"
3/4"	1"	8"	FORD BA-43-342W-G	CHRISTY PURPLE FL12	B12 S	12"X20"
1"	1"	8"	FORD BA-43-444W-G	CHRISTY PURPLE FL12	B12 S	12"X20"
1"	1-1/2"	8"	FORD BFA-43-666W-G	CHRISTY PURPLE FL30	B30 E	13-1/4"X24"
1-1/2"	1-1/2"	9"	FORD BFA-43-666W-G	CHRISTY PURPLE FL30	B30 E	13-1/4"X24"
2"	2"	9"	FORD BFA-43-777W-G	CHRISTY PURPLE FL36	B36 E	17-1/4"X30"

CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER SERVICE



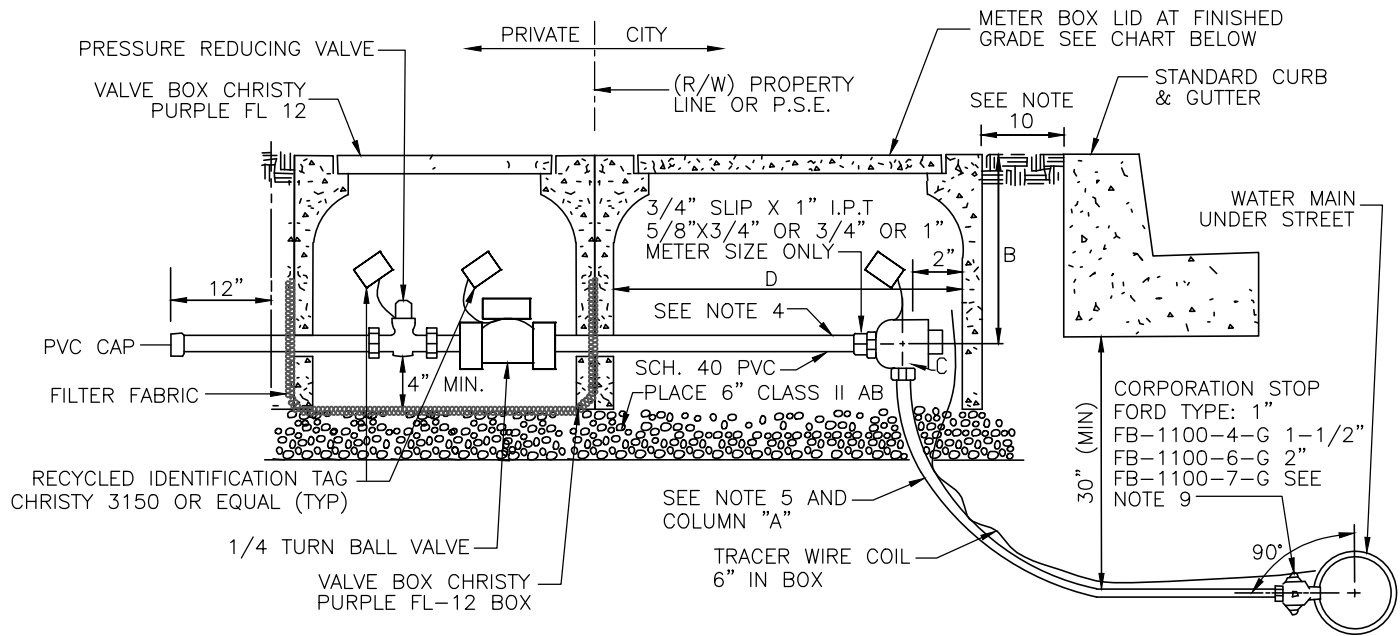
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CHECKED BY: AN

SCALE: N.T.S.

DATE: 4/16

DWG NO.1001



**NOTES:**

1. SEE CITY STD DETAIL 1001 FOR DETAILS.
2. PRESSURE REDUCING VALVE SHALL BE WILKINS MODEL 500x6 WITH HLR & SC, WITH 2" RED BRASS NIPPLE AND OUTLET UNION.

## CITY OF PLEASANTON STANDARD DETAILS

### RECYCLED WATER SERVICE WITH PRESSURE REDUCING VALVE

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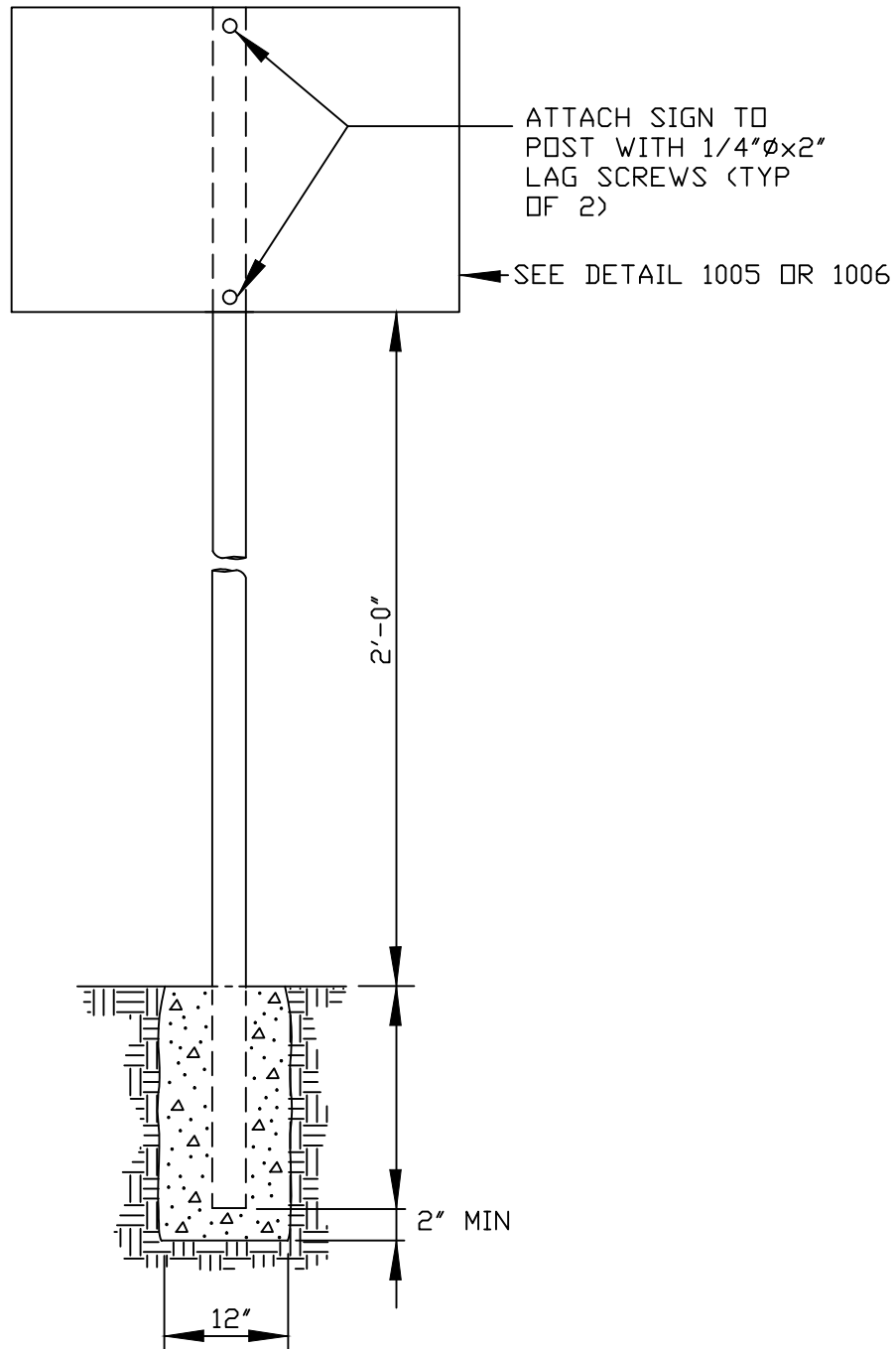
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SCALE: N.T.S.



DATE : 4/16 DWG NO. 1002





NOTES:

- 1) RECYCLED WATER NOTIFICATION SIGN POST TO BE PROVIDE.
- 2) 4"X4" POST AND STIFFENERS SHALL BE REDWOOD OR TREATED DOUGLAS FIR (STATE OF CALIFORNIA NO. 56-2.02B).
- 3) FOOTING SHALL BE 24" IN DEPTH, IN CONCRETE.
- 4) SIGNS SHALL BE PURCHASED FROM CITY OF PLEASANTON.

CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER SIGN POST



DRAWN BY: STAFF

CHECKED BY: AN

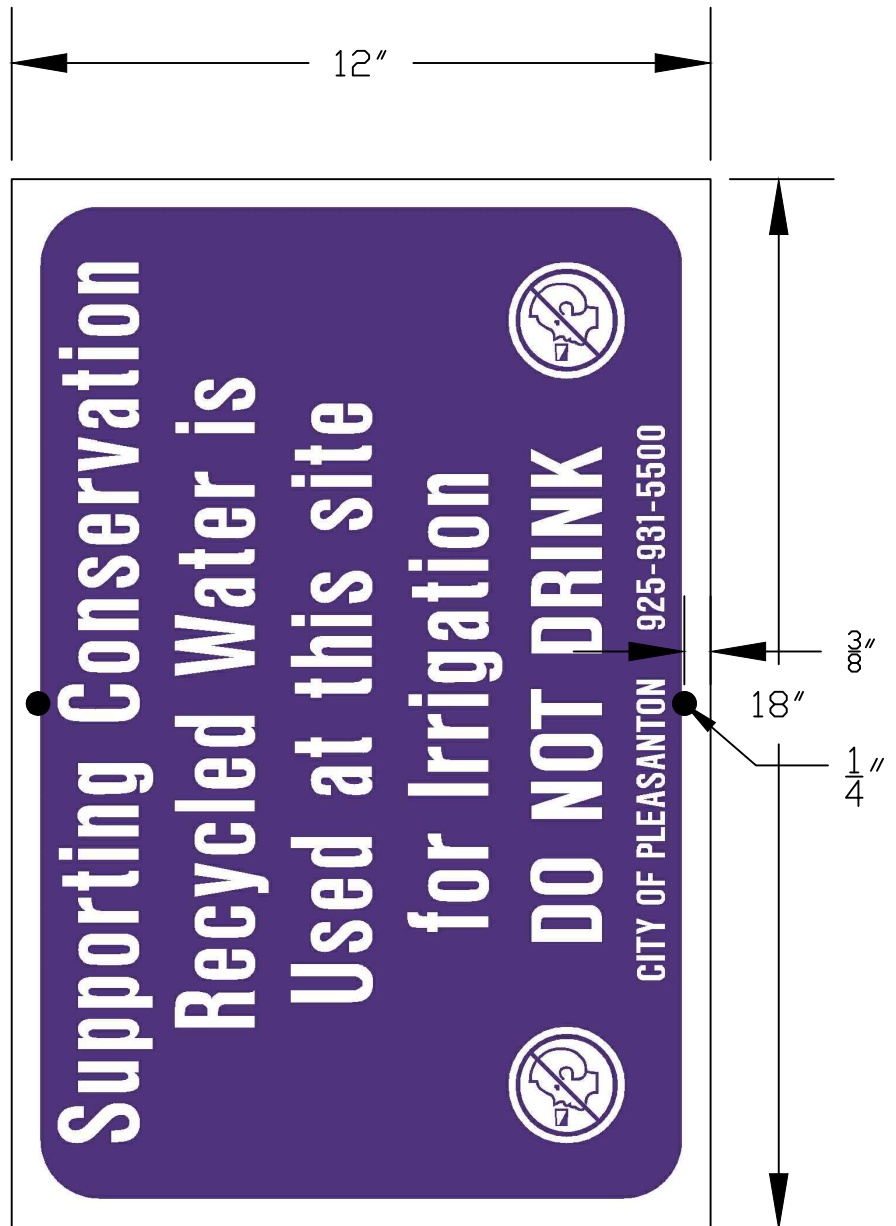
SCALE: N.T.S.

DATE: 4/16

DWG NO. 1004

# NOTES

1. RECYCLED WATER NOTIFICATION DECAL TO BE OBTAINED BY DEVELOPER. DECAL AVAILABLE FOR SALE AT CITY OFFICE, 3333 BUSCH ROAD.
2. WARNING SIGN SHALL BE 0.63 GAUGE ALUMINUM PURPLE (PMS#2587) IN COLOR WITH WHITE TEXT AND SHALL BE AFFIXED TO THE GROUND BY A WOODEN POST.
3. SEE DETAIL 1004 SIGN POST DETAILS.
4. SIGN SHALL STATE "RECYCLED WATER DO NOT DRINK" ACCORDING TO TITLE 22, ARTICLE 4, SECTION 60310(G) OF THE STATEWIDE REGULATION.
5.  $\frac{1}{4}$ " MOUNTING HOLES SHALL BE DRILLED ON CENTER LINE AS SHOWN.
6. EDGES SHALL BE ROUNDED WITH  $\frac{1}{2}$ " RADIUS



CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER  
ALUMINUM SIGN



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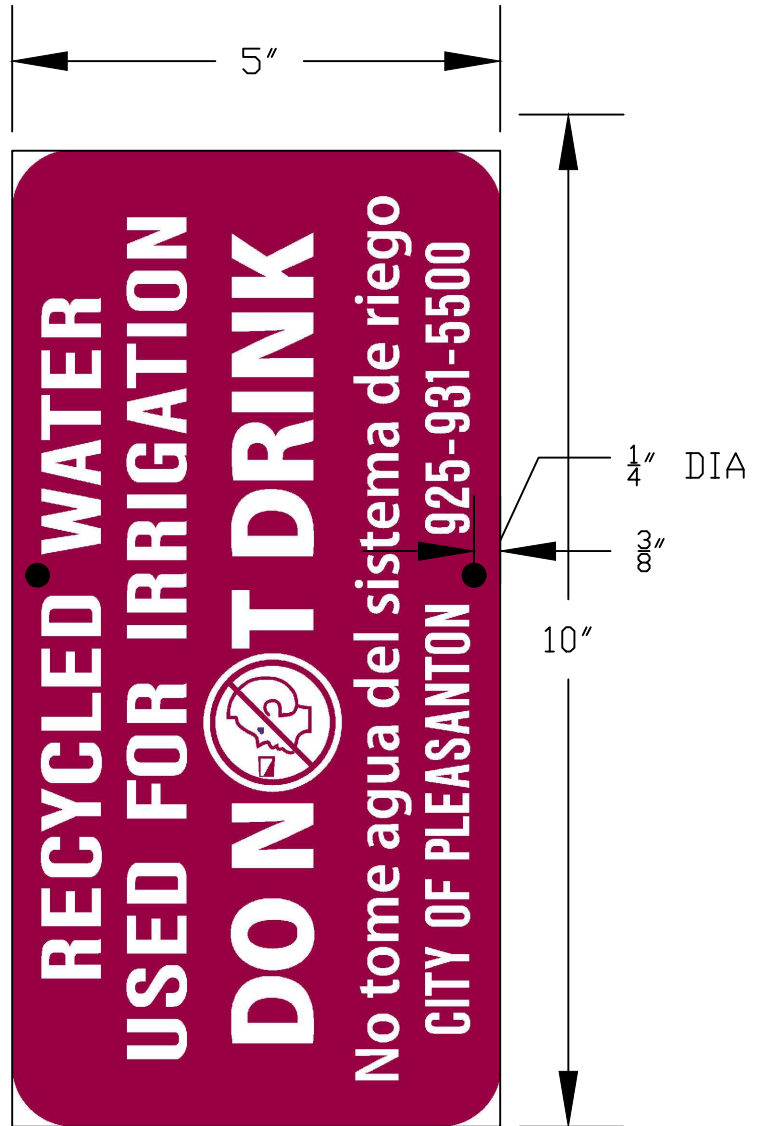
SCALE: N.T.S.

DATE: 4/16

DWG NO. 1005

# NOTES

1. RECYCLED WATER NOTIFICATION DECAL TO BE OBTAINED BY DEVELOPER. DECAL AVAILABLE FOR SALE AT CITY OFFICE, 3333 BUSCH ROAD.
2. WARNING SIGN SHALL BE 0.63 GAUGE ALUMINUM PURPLE (PMS#2587) IN COLOR WITH WHITE TEXT AND SHALL BE AFFIXED TO THE GROUND BY A WOODEN POST.
3. SEE DETAIL 1004 SIGN POST DETAILS.
4. SIGN SHALL STATE "RECYCLED WATER DO NOT DRINK" ACCORDING TO TITLE 22, ARTICLE 4, SECTION 60310(G) OF THE STATEWIDE REGULATION.
5. 1/4" MOUNTING HOLES SHALL BE DRILLED ON CENTER LINE AS SHOWN.
6. EDGES SHALL BE ROUNDED WITH 1/2" RADIUS



CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER  
ALUMINUM SMALL SIGN



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SCALE: N.T.S.

DATE: 4/16

DWG NO. 1006

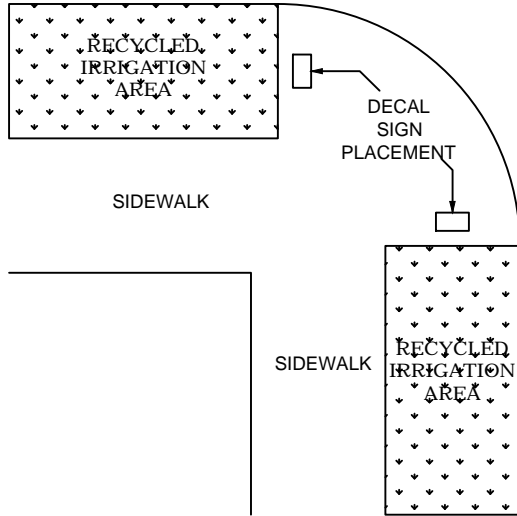


Fig. 1 Corner Pedestrian Crossing

Fig. 2 MID-STREET PEDESTRIAN CROSSING

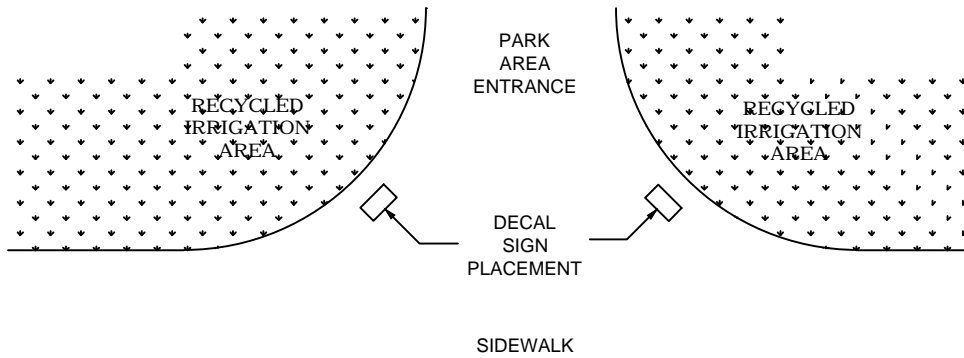
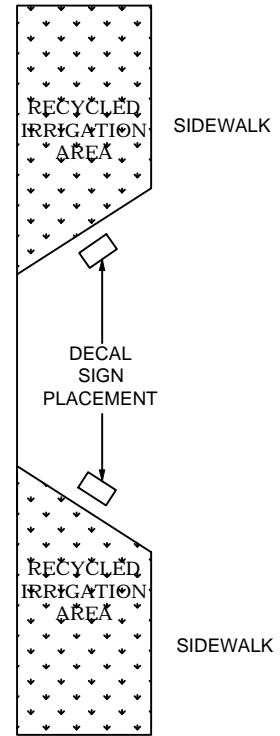


Fig. 3 PARK AREA ENTRANCE PLACEMENT

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CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER IRRIGATION DECAL SIGNS



DATE: 4/16 DWG NO. 1007

# NOTES

1. RECYCLED WATER NOTIFICATION DECAL TO BE OBTAINED BY DEVELOPER. DECAL AVAILABLE FOR SALE AT CITY OFFICE, 3333 BUSCH ROAD.

2. WARNING SIGN DECALS SHALL BE UV FADE RESISTANT *das* CURB MARKER ([www.dasmanufacturing.com](http://www.dasmanufacturing.com)) OR APPROVED EQUAL DURACAST STYLE MARKERS PURPLE (PMS #2587) IN COLOR WITH WHITE TEXT. SIGN DECALS SHALL BE ALL-WEATHER, SLIP RESISTANT, AND PERMANENTLY AFFIXED TO THE GROUND AND SHALL HAVE ROUNDED CORNERS (1/2 " RADIUS).

3. SEE DETAIL 1007 FOR PLACEMENT.

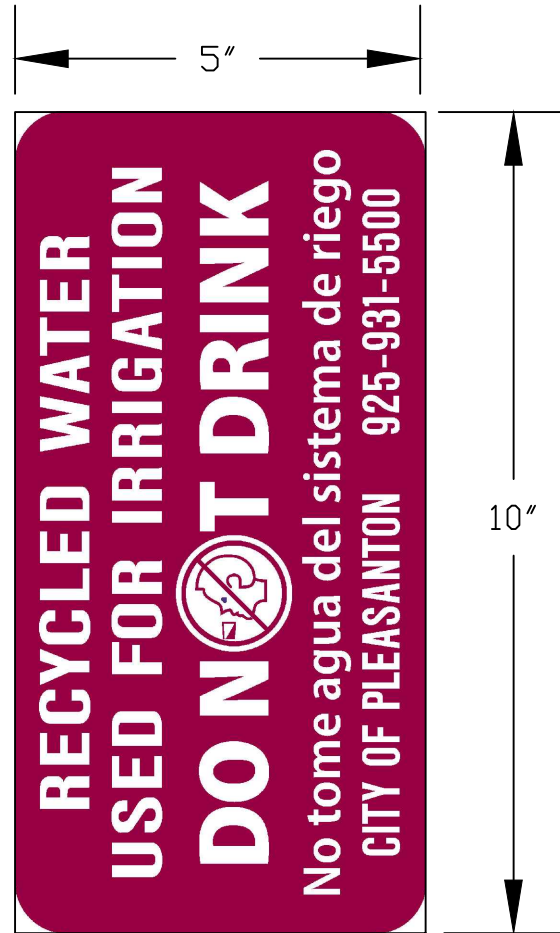
4. SIGN SHALL STATE "RECYCLED WATER DO NOT DRINK" ACCORDING TO TITLE 22, ARTICLE 4, SECTION 60310(G) OF THE STATEWIDE REGULATION.

## INSTALLATION:

5. SURFACE MUST BE DRY AND FREE OF ANY LOOSE DEBRIS. FOLLOW THE ADHESIVE GUIDE. A BEAD OF ADHESIVE SHOULD BE SHOWN AROUND THE ENTIRE EDGE.

ADHESIVE SHALL BE *das* CURB

6. MARKER ADHESIVE OR APPROVED EQUAL.



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CHECKED BY: AN		
SCALE: N.T.S.		

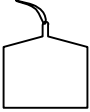
CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER  
DECAL SIGN



DATE: 4/16 DWG NO. 1008



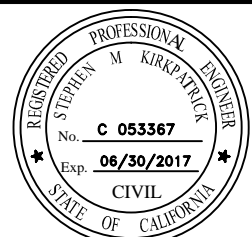
	CHRISTY "ND", 3150 MAXI-I.D. TAG IN BOTH ENGLISH AND SPANISH. USE IN ALL VALVE BOXES. USE PURPLE TAGS FOR RECYCLED WATER.
WARNING TAPE	CHRISTY "ND", 3 ND PRW NON-DETECTABLE PURPLE TAPE LABELED "CAUTION" RECYCLED WATER BELOW" LOCATE ABOVE ALL MAINLINE.
WARNING LABEL	CHRISTY "ND", 4100 CONTROLLER UNIT LABEL - 3.5 MIL VINYL BASE (PURPLE) - ATTACH TO FACE OF CONTROLLER ENCL.
RISER LABEL	CHRISTY "ND", 5100 CONTROLLER UNIT LABEL - 3.5 MIL VINYL BASE (PURPLE) - ATTACH TO IRRIGATION RISERS.

NOTES:  
 THE CONTRACTOR MAY OFFER ANY MATERIAL CONSIDERED TO BE EQUIVALENT TO THAT INDICATED. THE SUBSTITUTION OF MATERIAL SHALL BE SUBMITTED IN WRITING AND APPROVED IN WRITING BY THE CITY ENGINEER.

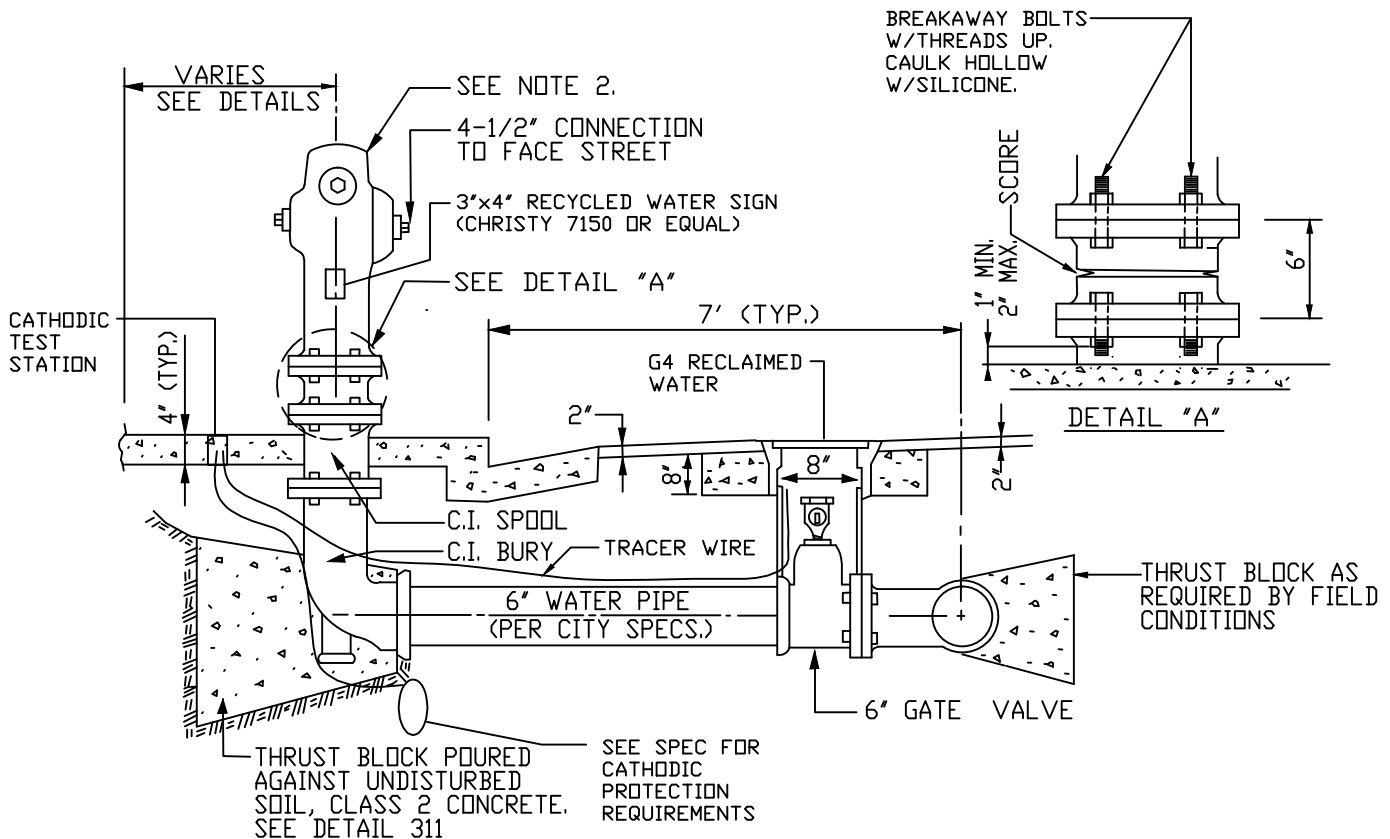
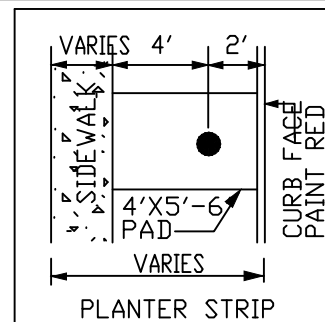
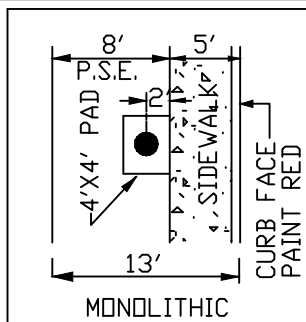
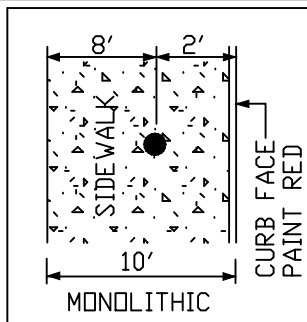
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON

STANDARD DETAILS  
 RECYCLED WATER TAG



DATE: 4/16 DWG NO. 1009



#### NOTES:

1. WHEN THE HYDRANT IS ON THE SAME SIDE OF THE STREET AS THE JOINT TRENCH, SEE DETAIL 1011.
2. CLOW F900 SERIES WET BARREL HYDRANT WITH HYDRA-SHIELD HYDRANT SECURITY CAP.
3. ALL FITTINGS SHALL BE FACTORY CEMENT LINED OR FUSION EPOXY COATED.
4. THE FACE AND TOP OF CURB SHALL BE PAINTED RED FOR 4.5' ON BOTH SIDES OF THE HYDRANT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. HYDRANT EXTERIOR PAINT TO BE "PURPLE" KELLEY-MORE DURA-POXY COLOR # 70251-0608

CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER FLUSHING  
HYDRANT CONNECTION



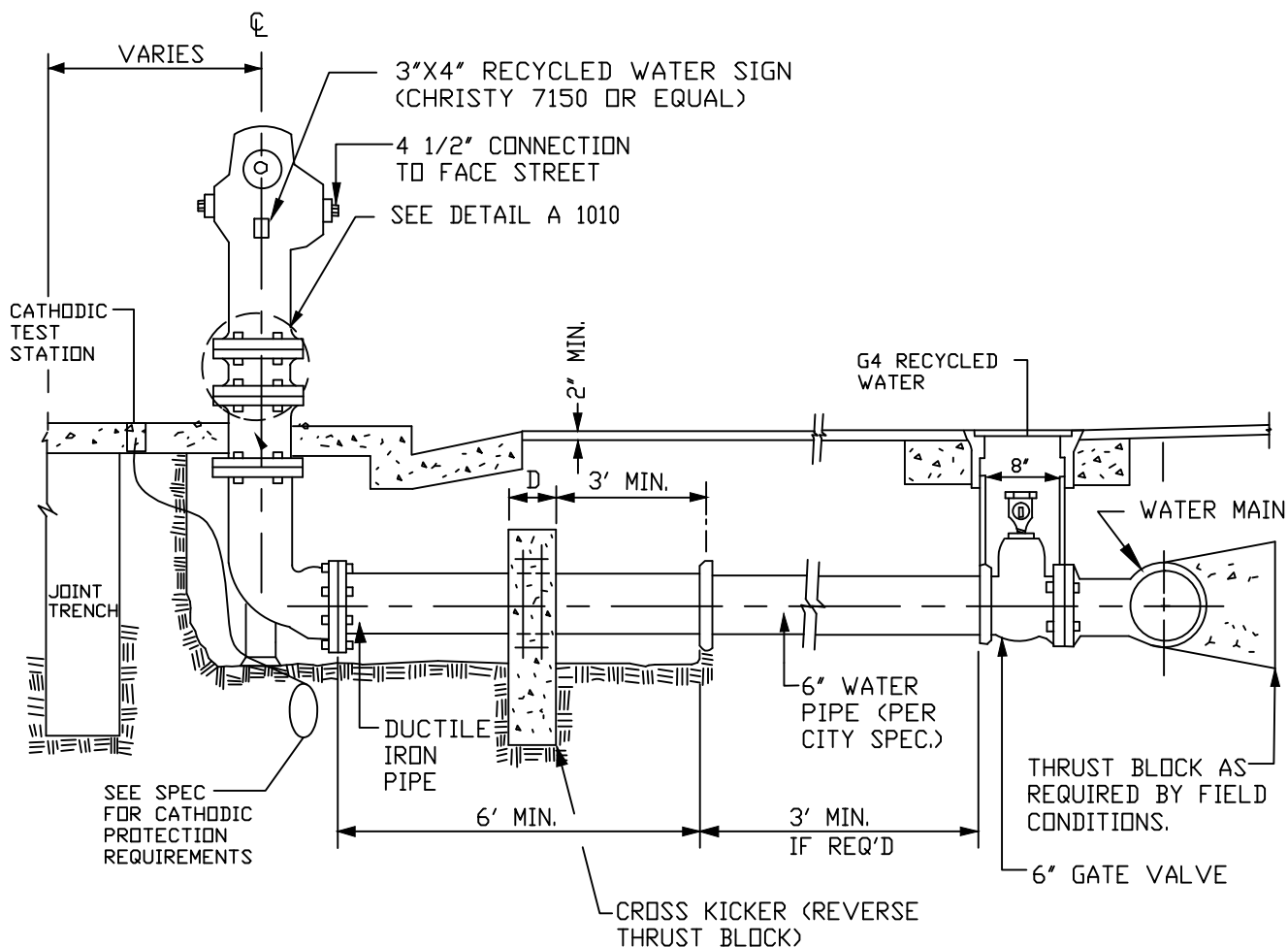
DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

DATE: 4/16

DWG NO. 1010



**NOTES:**

1. SEE DETAIL 1010 FOR GENERAL FIRE HYDRANT NOTES AND DETAILS.
2. AT THE CONTRACTORS OPTION THE CROSS KICKER MAY BE ELIMINATED IF THE PIPE IS FLANGED FROM THE MAIN TO THE HYDRANT.
3. DUCTILE IRON PIPE SHALL ALSO BE USED IF THE JOINT TRENCH IS IN FRONT OF THE HYDRANT.
4. TRACER WIRE SHALL BE INSTALLED IF PVC PIPE IS USED

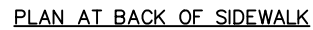
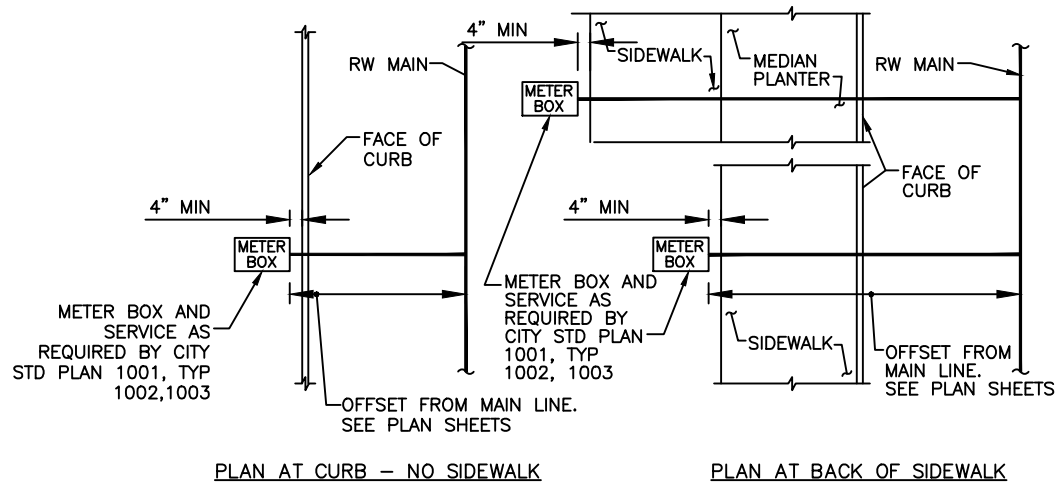
DRAWN BY: STAFF		
CHECKED BY: AN		
SCALE: N.T.S.		

CITY OF PLEASANTON

STANDARD DETAILS  
RECYCLED WATER FLUSHING CONNECTION  
(WITH HYDRANT ON SAME SIDE OF  
STREET AS JOINT TRENCH)



DATE: 4/16 | DWG NO. 1011



NOTE:

## STANDARD LOCATIONS FOR RECYCLED WATER IRRIGATION METER BOX/CAV PLACEMENT

# RECYCLED WATER METER BOX REPLACEMENT

DRAWN BY: STAFF

SCALE: N.T.S.

# MINIMUM RESTRAINED JOINT LENGTHS FOR RECYCLED WATER SYSTEM

		Minimum Restrained Length (ft) (Note 3)	
Fitting	Size (in)	DI	PVC
<b>Horizontal Bend</b>			
11.25° bend	6"	3 ft	3 ft
	8"	4 ft	3 ft
	10"	4 ft	4 ft
	12"	5 ft	5 ft
	16"	6 ft	6 ft
	20"	7 ft	7 ft
22.5° bend	6"	6 ft	5 ft
	8"	7 ft	6 ft
	10"	8 ft	7 ft
	12"	10 ft	9 ft
	16"	12 ft	11 ft
	20"	14 ft	13 ft
45° bend	6"	11 ft	10 ft
	8"	14 ft	13 ft
	10"	17 ft	15 ft
	12"	19 ft	18 ft
	16"	25 ft	22 ft
	20"	29 ft	26 ft
90° bend	6"	26 ft	23 ft
	8"	33 ft	30 ft
	10"	40 ft	36 ft
	12"	46 ft	42 ft
	16"	59 ft	53 ft
	20"	70 ft	63 ft
<b>Vertical Down Bend</b>			
11.25° bend	6"	9 ft	6 ft
	8"	11 ft	8 ft
	10"	13 ft	10 ft
	12"	15 ft	11 ft
	16"	19 ft	14 ft
	20"	23 ft	17 ft
22.5° bend	6"	17 ft	12 ft
	8"	21 ft	16 ft
	10"	26 ft	19 ft
	12"	30 ft	22 ft
	16"	38 ft	28 ft
	20"	46 ft	34 ft

		Minimum Restrained Length (ft) (Note 3)	
Fitting	Size (in)	DI	PVC
<b>Vertical Down Bend</b>			
45° bend	6"	34 ft	25 ft
	8"	44 ft	32 ft
	10"	53 ft	39 ft
	12"	62 ft	45 ft
	16"	79 ft	58 ft
	20"	96 ft	70 ft
90° bend	6"	82 ft	59 ft
	8"	105 ft	77 ft
	10"	128 ft	93 ft
	12"	149 ft	108 ft
	16"	191 ft	139 ft
	20"	231 ft	168 ft
<b>Vertical Up Bend</b>			
11.25° bend	6"	3 ft	3 ft
	8"	4 ft	3 ft
	10"	4 ft	4 ft
	12"	5 ft	5 ft
	16"	6 ft	6 ft
	20"	7 ft	7 ft
22.5° bend	6"	6 ft	5 ft
	8"	7 ft	6 ft
	10"	8 ft	7 ft
	12"	10 ft	9 ft
	16"	12 ft	11 ft
	20"	14 ft	13 ft
45° bend	6"	11 ft	10 ft
	8"	14 ft	13 ft
	10"	17 ft	15 ft
	12"	19 ft	18 ft
	16"	25 ft	22 ft
	20"	29 ft	26 ft
90° bend	6"	26 ft	23 ft
	8"	33 ft	30 ft
	10"	40 ft	36 ft
	12"	46 ft	42 ft
	16"	59 ft	53 ft
	20"	70 ft	63 ft

		Minimum Restrained Length (ft) (Note 3)	
Fitting	Size (in)	DI	PVC
<b>DI Tee (Branch Restrained Length assuming 8' of Restrained Pipe each side of Tee main run)</b>			
	6"x6"	0 ft	24 ft
	8"x8"	11 ft	49 ft
	12"x6"	0 ft	9 ft
	12"x8"	0 ft	39 ft
	12"x12"	55 ft	80 ft
	16"x6"	0 ft	0 ft
	16"x12"	25 ft	72 ft
	16"x16"	89 ft	111 ft
	20"x6"	0 ft	0 ft
	20"x8"	0 ft	17 ft
	20"x12"	0 ft	64 ft
	20"x16"	64 ft	105 ft
<b>DI Dead End &amp; Valves</b>			
	6"	82 ft	59 ft
	8"	105 ft	77 ft
	10"	128 ft	93 ft
	12"	149 ft	108 ft
	16"	191 ft	139 ft
	20"	231 ft	168 ft
<b>DI Reducer</b>			
	8" to 6"	L8"=42 ft	L8"=32 ft
		L6"=56 ft	L6"=43 ft
	10" to 6"	L10"=79 ft	L10"=57 ft
		L6"=129 ft	L6"=94 ft
	10" to 8"	L10"=45 ft	L10"=31 ft
		L8"=57 ft	L8"=39 ft
	12" to 6"	L12"=108 ft	L12"=76 ft
		L6"=213 ft	L6"=145 ft
	12" to 8"	L12"=80 ft	L12"=56 ft
		L8"=121 ft	L8"=82 ft
	12" to 10"	L12"=43 ft	L12"=31 ft
		L10"=52 ft	L10"=37 ft
	16" to 12"	L16"= 81 ft	L16"= 58 ft
		L12"=110 ft	L12"=78 ft
	20" to 12"	L20"= 145 ft	L20"=105 ft
		L12"=250 ft	L12"=176 ft
	20" to 16"	L20"= 81 ft	L20"=59 ft
		L16"=104 ft	L16"=74 ft

## NOTE:

1. THE RESTRAINED LENGTHS SHOWN SHALL APPLY TO BOTH SIDES OF A FITTING. FOR EXAMPLE, IF A 6" VALVE (DEAD END) IS ADDED TO A PVC PIPELINE, THE TOTAL RESTRAINED LENGTH IS 59 FT UP STATION AND 59 FT DOWN STATION FOR A TOTAL OF 118 FT.
2. ONLY USED WHEN APPROVED BY ENGINEER.
3. BASED ON 100 PSI WORKING PRESSURE.

## CITY OF PLEASANTON STANDARD DETAILS

## RECYCLED WATER MINIMUM RESTRAINED JOINT LENGTHS

DRAWN BY: STAFF  
CHECKED BY: AN  
SCALE: N.T.S.



DATE: 4/16 DWG NO. 1013

### CORROSION CONTROL GENERAL NOTES:

1. FOR RECYCLED WATER SYSTEM ONLY WITH PVC MAINS. ALL OTHERS SHALL BE DESIGNED BY ENGINEER.
2. SOIL SHALL BE TESTED FOR CORROSION EVERY 500 FEET AND TURNED INTO CITY TO DETERMINE IF CATHODIC PROTECTION IS REQUIRED.
3. ALL METALLIC PIPE AND FITTINGS SHALL BE ELECTRICALLY ISOLATED FROM REBAR, GROUNDING WIRES, TRACER WIRES, FOREIGN PIPELINES, EXISTING PIPELINES, AND OTHER ABOVE GRADE METALLIC STRUCTURES. INSTALL INSULATING FLANGES OR INSULATING UNIONS ON RISERS TO ISOLATE BELOW GRADE PIPE FROM ABOVE GRADE STRUCTURES.
4. CORROSION MONITORING AND CORROSION CONTROL SYSTEMS FOR THE VARIOUS PIPE OPTIONS SHALL CONSIST OF THE FOLLOWING:

### PVC PIPE WITH DUCTILE IRON FITTINGS

5. ALL CONTINUOUS SECTIONS OF BURIED DUCTILE IRON PIPE, VALVES, AND FITTINGS, INCLUDING BLOWOFFS, AND COMBINATION AIR VALVES SHALL HAVE BOND CABLES INSTALLED ACROSS ALL METALLIC JOINTS PER DETAIL CP5 ON DRAWING 1105. THE DUCTILE IRON FITTINGS AND/OR VALVES SHALL BE POLYETHYLENE ENCASED AND CATHODICALLY PROTECTED WITH ANODES. ALL ANODES, SHALL BE DIRECTLY CONNECTED TO THE PIPE/FITTINGS/VALVES. ALL BURIED DUCTILE IRON FITTINGS SHALL BE WRAPPED IN 8-MIL POLYETHYLENE PER AWWA C-105. ALL BURIED BOLTS & NUTS SHALL BE STAINLESS STEEL AND SHALL BE COATED WITH BITUMASTIC AFTER INSTALLATION. THE FITTINGS SHALL BE CATHODICALLY PROTECTED UTILIZING H-1 ALLOY MAGNESIUM ANODES IN ACCORDANCE WITH THE ANODE TABLE 'A' ON DRAWING 1102, AND DETAIL CP3 ON DRAWING 1104. AT WITHIN 10 FEET OF CROSSINGS OF METALLIC NATURAL GAS PIPE, ENCASE THE THRUST RESTRAINT HARNESSES OR DUCTILE IRON FITTINGS AT THE CROSSINGS IN A DOUBLE LAYER OF POLYETHYLENE PER NOTE 3. OF DETAIL CP4.
6. THE DUCTILE IRON PIPE & FITTINGS OF THE UTILITY CROSSINGS PER DETAIL CP2.
7. FOR ALL THRUST RESTRAINT HARNESSES, CONTRACTOR SHALL INCLUDE FULL CATHODIC PROTECTION AS INDICATED IN THE ANODE SCHEDULE IN TABLE 'A' IN CONJUNCTION WITH DETAIL CP4.
8. ALL BURIED INSULATING JOINTS SHALL NOT BE BACKFILLED UNTIL FIELD TESTING BY CITY OF INSULATING FLANGE VERIFIES ELECTRICAL ISOLATION.
9. THE ANODE SIZES LISTED IN TABLE 'A' ARE THE MINIMUM SIZES THAT ARE REQUIRED. THE CONTRACTOR MAY AT THEIR CONVENIENCE INSTALL LARGER SIZED ANODES THAN THOSE LISTED IN THE TABLES.

### GATE VALVES & BUTTERFLY VALVES

10. CONNECTED TO DUCTILE IRON PIPE OR FITTINGS:  
ALL BURIED STEEL OR DUCTILE IRON PIPE, VALVES AND FITTINGS ASSOCIATED WITH THE COMBINATION AIR VALVES AND/OR GATE VALVES THAT ARE CONNECTED TO DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE. ALL BURIED, NON-WELDED, NON-INSULATING DUCTILE IRON PIPE JOINTS OF THE COMBINATION AIR VALVE PIPING, AND GATE VALVES CONNECTED TO DUCTILE IRON PIPE SHALL BE BONDED PER DETAIL CP5 ON DRAWING 1105.
11. DUCTILE IRON PIPE MAINLINE INSTALLATION SHALL BE PROJECT SPECIFIC DESIGN. CATHODIC DETAILS ONLY FOR PVC PIPE MAINLINE INSTALLATION WITH DUCTILE IRON FITTINGS.
12. CATHODIC PROTECTION REQUIRED ON ALL EXISTING RECYCLED WATER LINE INSTALLATIONS.

### ABBREVIATIONS

AG	ABOVE GRADE	FH	FIRE HYDRANT	PVC	POLYVINYL CHLORIDE
AMP	AMPERE	FT	FEET	RED	REDUCER
AN	ANODE	GV	GATE VALVE	RT	RIGHT
AWG	AMERICAN WIRE GAUGE	HMWPE	HIGH MOLECULAR WEIGHT POLYETHYLENE	RW	RECYCLED WATER
AWWA	AMERICAN WATER WORKS ASSOCIATION	ID	IDENTIFICATION	S	SOUTH
BO	BLOW OFF	IJ	INSULATING JOINT	SCH	SCHEDULE
BV	BUTTERFLY VALVE	L	LENGTH	SD	STORM DRAIN PIPE
CC	CORROSION CONTROL	LB	POUND	SS	SANITARY SEWER PIPE
CDF	CONTROLLED DENSITY FILL	LF	LINEAR FEET	STA	STATION
CL	CENTERLINE	LFT	LEFT	THHN	THERMOPLASTIC HIGH HEAT RESISTANT NYLON COATED
CP	CATHODIC PROTECTION	MAX	MAXIMUM	TT	TEST CABLE
DC	DRAIN CABLE	MIN	MINIMUM	TYP	TYPICAL
DIA	DIAMETER	MLCSP	MORTAR LINED & COATED STEEL PIPE	V	VALVE
DW	DOMESTIC WATER	MRJ	MECHANICALLY RESTRAINED JOINT	W	WATER
DIP	DUCTILE IRON PIPE	N	NORTH	W/ Ø	WITH DIAMETER
EX.	EXISTING	NW	NORTHWEST	"	INCH(ES)
FCS	FLOW CONTROL STATION	O.D.	OUTER DIAMETER		
FG	FINISHED GRADE	PSI	POUNDS PER SQUARE INCH		

CITY OF PLEASANTON

STANDARD DETAILS

CATHODIC PROTECTION SYSTEM  
DETAILS - 1

DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.



DATE : 4/16 DWG NO.1101

TABLE 'A': CATHODIC PROTECTION ANODE SCHEDULE  
PIPE OPTION: PVC PIPE WITH DUCTILE IRON FITTINGS

PIPE FITTING	NO. OF FITTINGS	ANODE SIZE
2"-8" CROSS, TEE, ELBOW OR MRJ	1	5-LBS
10"-12" CROSS, TEE, ELBOW OR MRJ	1	9-LBS
16"-24" CROSS, TEE, ELBOW OR MRJ	1	17-LBS
2"-8" CROSS, TEE, ELBOW OR MRJ	2-3	9-LBS
10"-12" CROSS, TEE, ELBOW OR MRJ	2-3	17-LBS
16"-24" CROSS, TEE, ELBOW OR MRJ	2-3	32-LBS
2"-8" CROSS, TEE, ELBOW OR MRJ	4-6	17-LBS
10"-12" CROSS, TEE, ELBOW OR MRJ	4-6	32-LBS
16"-24" CROSS, TEE, ELBOW OR MRJ	4-6	(TWO) 32-LBS
PIPE FITTING	NO. OF FITTINGS	ANODE SIZE
2"-8" VALVE	1	9-LBS
10"-12" VALVE	1	17-LBS
16"-24" VALVE	1	9-LBS
2"-8" VALVE	2-3	17-LBS
10"-12" VALVE	2-3	32-LBS
16"-24" VALVE	2-3	(TWO) 32-LBS
2"-8" VALVE	4-6	32-LBS
10"-12" VALVE	4-6	(TWO) 32-LBS
16"-24" VALVE	4-6	(3) 32-LBS

\* MRJ = MECHANICALLY RESTRAINED JOINT

CITY OF PLEASANTON  
STANDARD DETAILS

CATHODIC PROTECTION SYSTEM  
DETAILS - 2

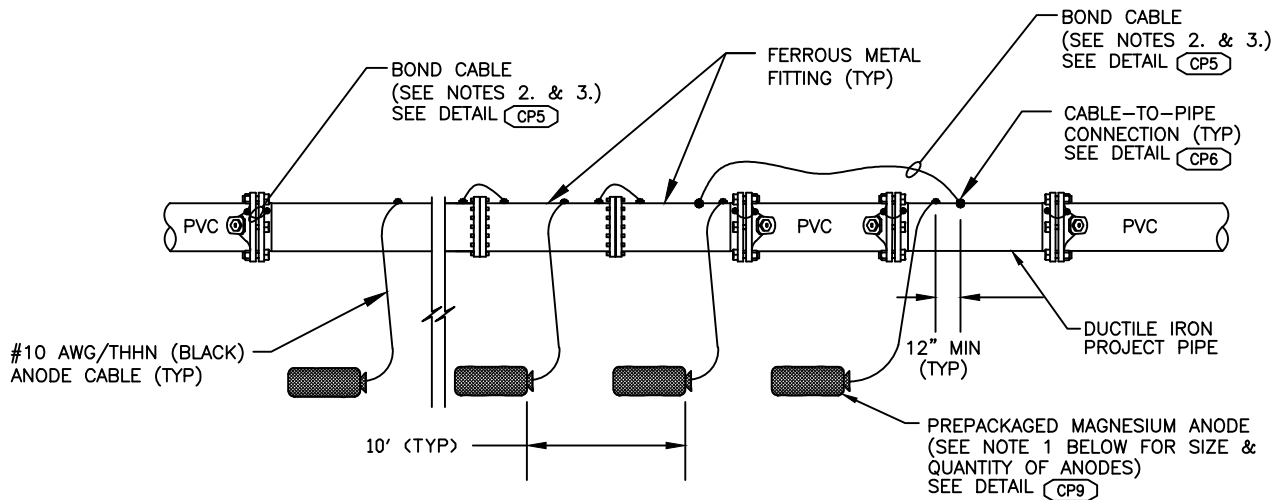


DRAWN BY: STAFF

CHECKED BY: AN

SCALE: N.T.S.

DATE : 4/16 DWG NO.1102



#### NOTES:

1. INSTALL THE SIZE AND NUMBER OF MAGNESIUM ANODES AS SHOWN IN TABLE 'A' ON DWG 1102.
2. FOR ALL BURIED NON-WELDED, (NON-INSULATING), JOINTS OF THE DUCTILE IRON PIPE & FITTINGS, INSTALL BOND CABLE(S) ON EACH JOINT PER DETAIL CP5 ON DWG 1105. ENCASE ALL DUCTILE IRON PIPE & FITTINGS, INCLUDING THRUST RESTRAINTS, IN 8 MIL THICK POLYETHYLENE PER AWWA C-105.
3. FOR ALL BURIED MORTAR COATED STEEL PIPE NON-WELDED, (NON-INSULATING), JOINTS INSTALL BOND CABLE(S) ON EACH JOINT PER DETAIL CP5 ON DWG 1105. BACKFILL ALL EPOXY COATED VALVES WITH CDF.

#### FITTINGS -- MULTIPLE ANODE INSTALLATION

CP1

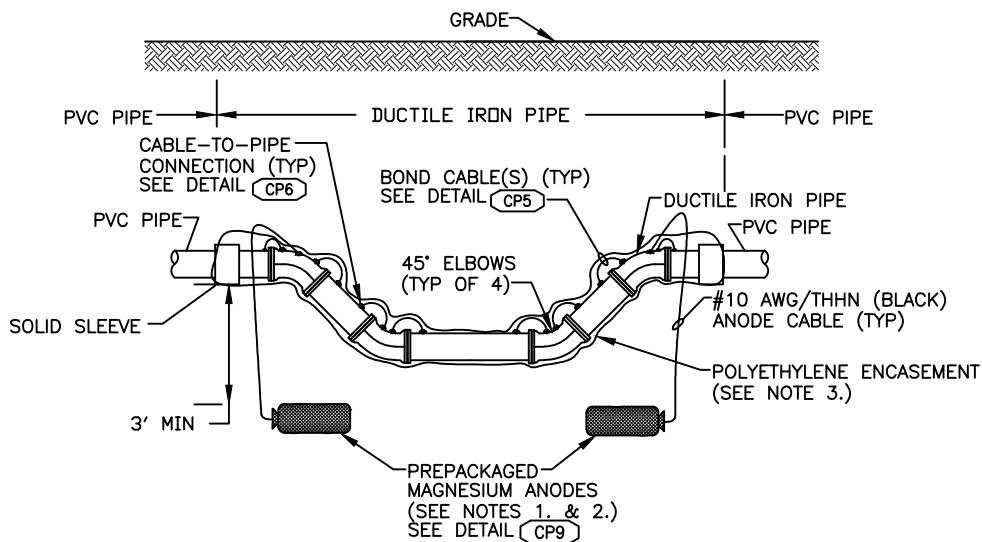


TABLE 'B'  
UTILITY CROSSING  
CATHODIC PROTECTION ANODE SCHEDULE

PIPE SIZE	ANODE SIZE
8" TO 10" UTILITY CROSSING	(TWO) 17-LBS
12" TO 20" UTILITY CROSSING	(TWO) 32-LBS

#### NOTES:

1. INSTALL TWO 17 POUND ANODES SHALL BE INSTALLED FOR EVERY 50 FEET OF 8-INCH TO 10-INCH PIPE.
2. INSTALL TWO 32 POUND ANODES SHALL BE INSTALLED FOR EVERY 50 FEET OF 12-INCH TO 20-INCH PIPE.
3. ENCASE ALL DUCTILE IRON PIPE & FITTINGS IN 8 MIL THICK POLYETHYLENE PER AWWA C-105. AT WITHIN 10' OF CROSSINGS OF THE PROJECT PIPELINE BY NATURAL GAS PIPE, ENCASE THRUST RESTRAINT HARNESSES IN TWO LAYERS OF 8 MIL THICK POLYETHYLENE PER AWWA C-105.

#### UTILITY CROSSING -- DUCTILE IRON PIPE & FITTINGS -- ANODE INSTALLATION

CP2

## CITY OF PLEASANTON STANDARD DETAILS

### PVC PIPE WITH DUCTILE IRON FITINGS CATHODIC PROTECTION SYSTEM DETAILS -- 3

DRAWN BY: STAFF

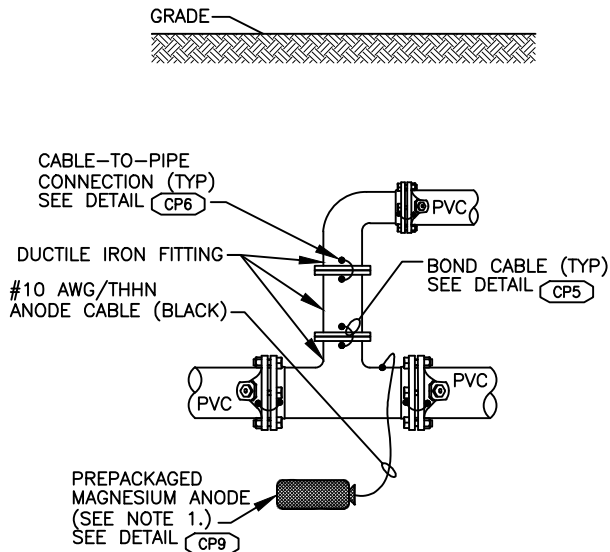
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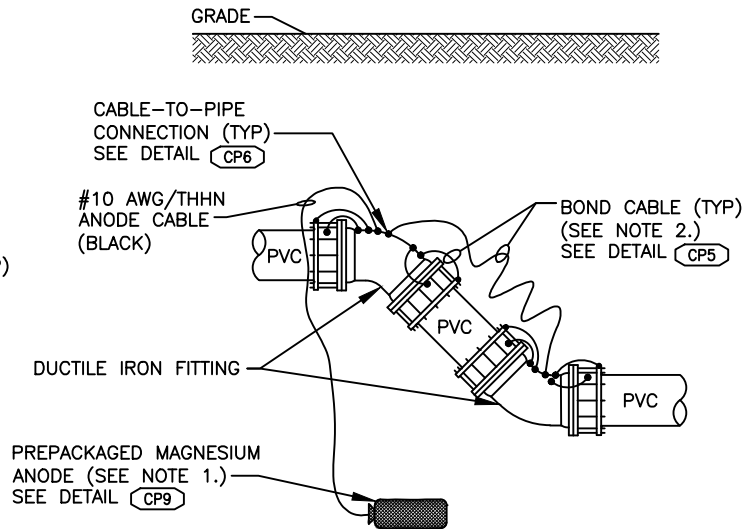


DATE : 4/16 DWG NO.1103





MULTIPLE CONTIGUOUS DI FITTINGS



MULTIPLE NON-CONTIGUOUS DI FITTINGS

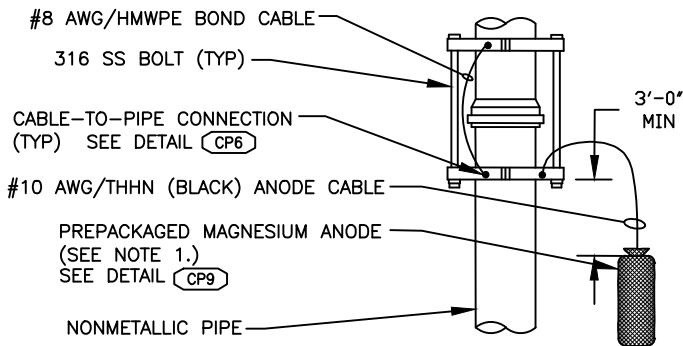
**NOTES:**

1. INSTALL THE SIZE AND NUMBER OF MAGNESIUM ANODES AT EACH FITTING OR OTHER APPURTENANCES AS SHOWN IN ANODE TABLE 'A' ON DRAWING 1102.
2. INSTALL BOND CABLE(S) ON ALL BURIED PIPE JOINTS PER DETAIL CP5. THE LENGTH OF THE BOND CABLES BETWEEN FITTINGS SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR ANY SOIL CONTRACTION OR PIPE MOVEMENT.
3. ENCASE ALL DUCTILE IRON PIPE & FITTINGS IN 8 MIL THICK POLYETHYLENE PER AWWA C-105. AT WITHIN 10' OF CROSSINGS OF THE PROJECT PIPELINE BY NATURAL GAS PIPE, ENCASE THRUST RESTRAINT HARNESSES IN TWO LAYERS OF 8 MIL THICK POLYETHYLENE PER AWWA C-105.

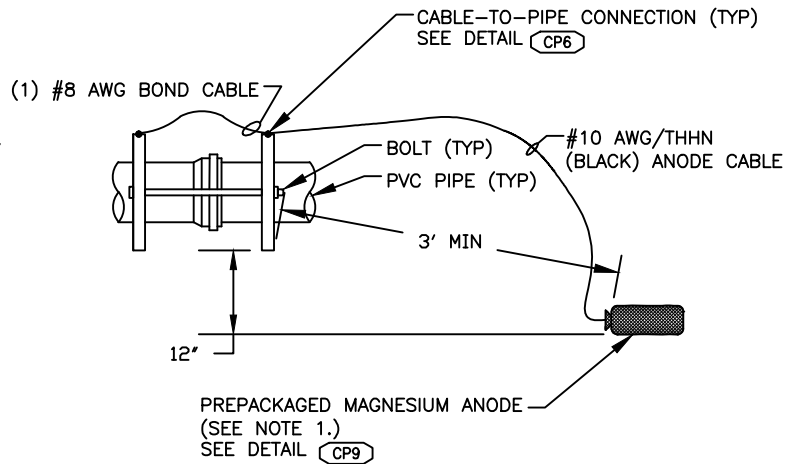
**FITTING - ANODE INSTALLATION**

NTS

CP3



PLAN VIEW



ELEVATION VIEW

**NOTES:**

1. INSTALL THE SIZE AND NUMBER OF MAGNESIUM ANODES AT EACH FITTING OR OTHER APPURTENANCES AS SHOWN IN THE ANODE TABLE 'A' ON DRAWING 1102. INSTALL THE MAGNESIUM ANODE 1'-0" BELOW BOTTOM OF TRENCH IN 1 FOOT OF NATIVE BACKFILL. ATTACH ANODE CABLE DIRECTLY TO THRUST RESTRAINT FITTING.
2. INSTALL ONE #8 AWG HMWPE BOND CABLE PER DETAIL CP5. ENCASE ALL THRUST RESTRAINTS, IN 8 MIL THICK POLYETHYLENE PER AWWA C-105.
3. AT WITHIN 10' OF CROSSINGS OF THE PROJECT PIPELINE BY NATURAL GAS PIPE, ENCASE THRUST RESTRAINT HARNESSES IN TWO LAYERS OF 8 MIL THICK POLYETHYLENE PER AWWA C-105.

**THRUST RESTRAINT HARNESS - ANODE INSTALLATION - PVC PIPE**

NTS

CP4

**CITY OF PLEASANTON  
STANDARD DETAILS**

**PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 4**

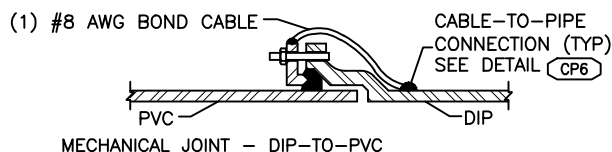
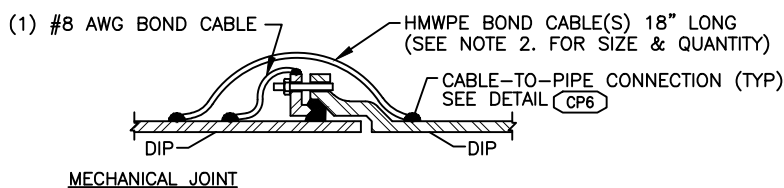
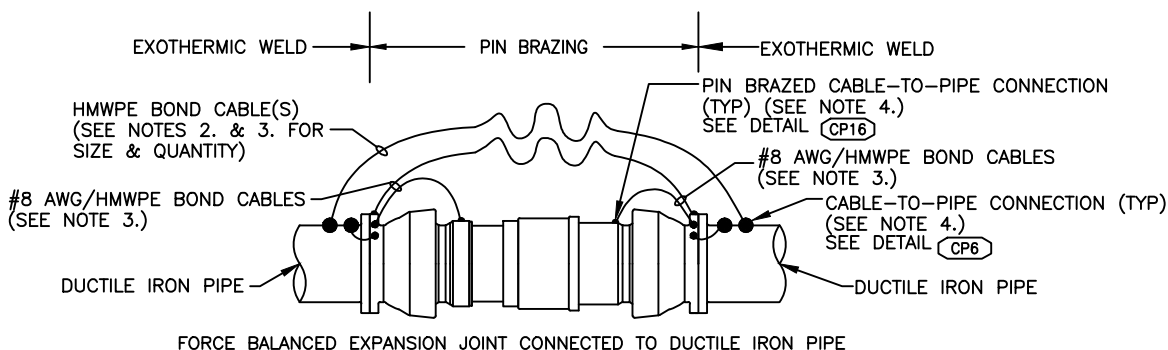
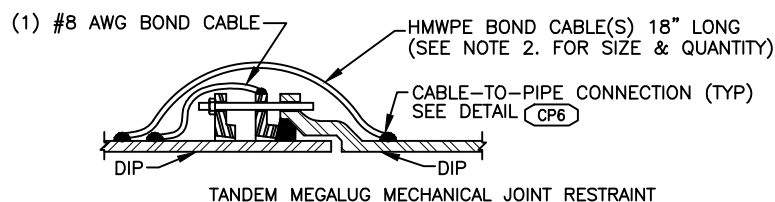
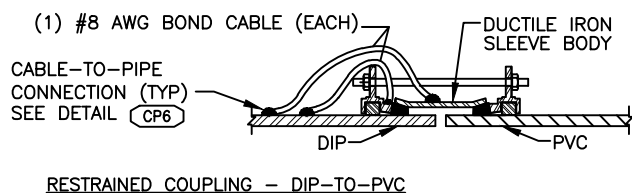
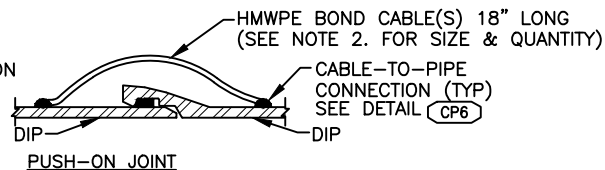
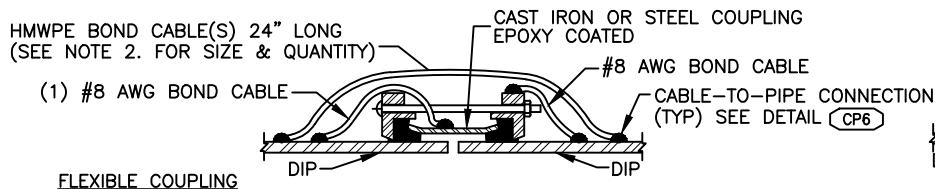
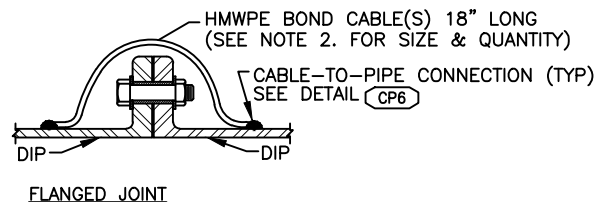
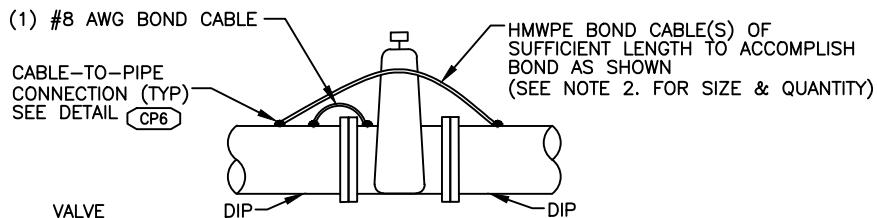


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DATE : 4/16 DWG NO.1104



- NOTES:
1. INSTALL BOND CABLES ACROSS ALL BURIED, NON-WELDED (NON-INSULATING) METALLIC PIPE FERROUS METAL PIPE JOINTS.
  2. PVC PIPE W/DI FITTINGS OPTION: INSTALL ONE #4 AWG BOND CABLES ACROSS 14-INCH THROUGH 24-INCH  $\phi$  PIPE JOINTS.  
INSTALL ONE #8 AWG BOND CABLES ACROSS 4-INCH THROUGH 12-INCH  $\phi$  PIPE JOINTS.
  3. PROVIDE ENOUGH SLACK IN THE BOND CABLES SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR SIGNIFICANT SOIL SUBSIDENCE AND PIPE JOINT MOVEMENT.

BOND CABLES – METALLIC PIPE JOINTS

CP5

NTS

## CITY OF PLEASANTON STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS – 5

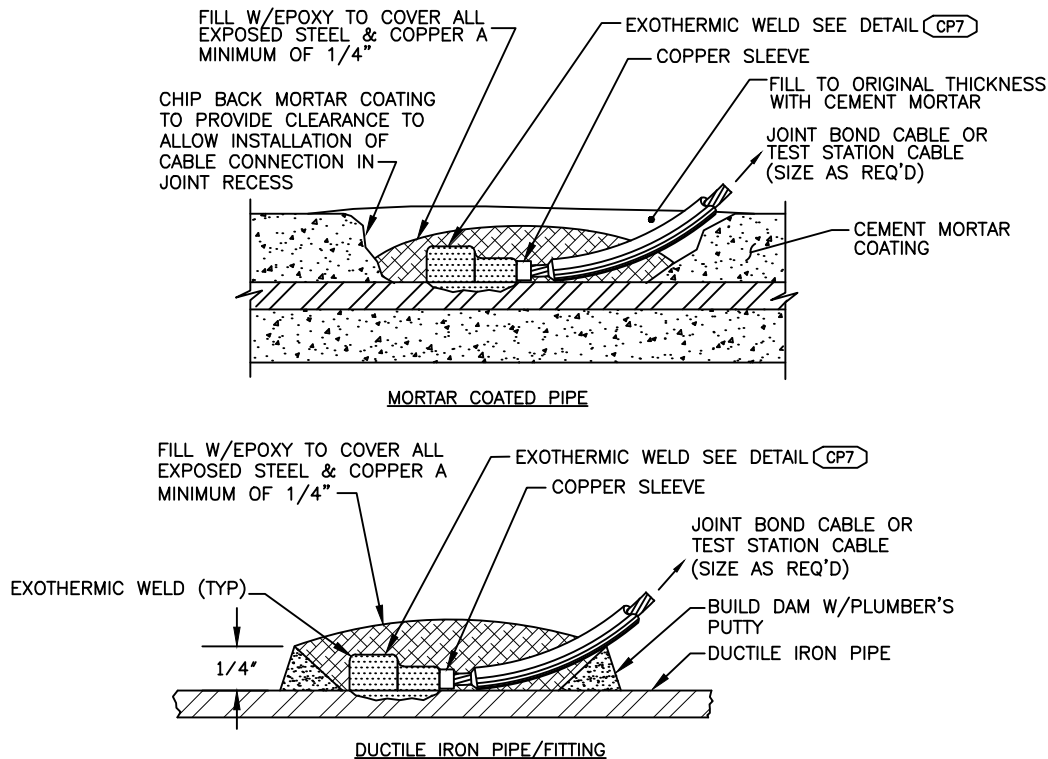
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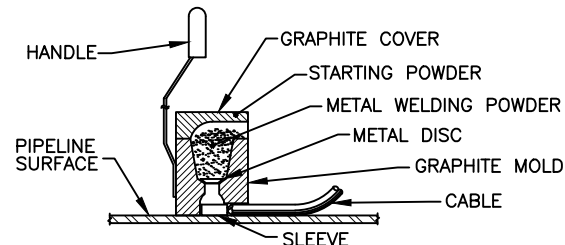







DATE : 4/16 DWG NO.1105



CABLE-TO-PIPE CONNECTION  
NTS

CP6



- STEP 1. FILE STRUCTURE CONNECTION AREA TO BARE SHINY METAL AND CLEAN. 
- STEP 2. STRIP INSULATION FROM WIRE. ATTACH SLEEVE REQUIRED ON #6 AWG WIRE OR SMALLER 
- STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH FLINT GUN. 
- STEP 4. REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS. 
- STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH EPOXY COATING COMPOUND OR MORTAR PER DETAIL CP6. 

NOTE:  
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.

EXOTHERMIC WELD PROCEDURE

NTS

CP7

## CITY OF PLEASANTON STANDARD DETAILS

### PVC PIPE WITH DUCTILE IRON FITINGS CATHODIC PROTECTION SYSTEM DETAILS - 6

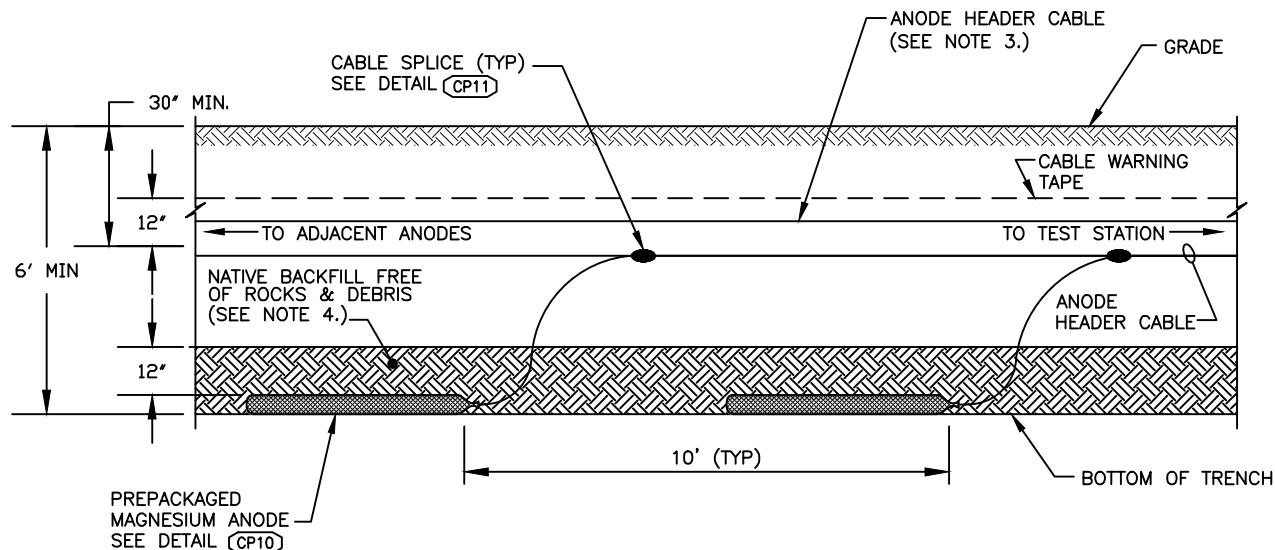


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SCALE: N.T.S.

DATE : 4/16 DWG NO.1106



NOTES:

1. INSTALL ANODES 5 FEET HORIZONTALLY OFF THE PIPELINE IN NATIVE SOIL. EACH ANODE ITSELF MAY BE POSITIONED PERPENDICULAR TO THE PIPELINE, AS THE STRING OF ANODES PARALLELS THE PIPELINE.
2. MAINTAIN A MINIMUM DISTANCE OF 10 FT FROM FRONT TO FRONT OF ANODES.
3. LOOP BACK ANODE HEADER CABLE FROM LAST ANODE TO TEST STATION.
4. AFTER BACKFILL REACHES ONE FOOT ABOVE THE ANODE, FLOOD THE ANODE HOLE WITH 5 GALLONS OF FRESH WATER.
5. IF ANODES ARE INSTALLED NEAR A METALLIC NATURAL GAS PIPELINE, MAINTAIN A MINIMUM 5 FOOT DISTANCE FROM THE NATURAL GAS PIPELINE.

PROFILE – MULTIPLE ANODE INSTALLATION

CP8

NTS

CITY OF PLEASANTON  
STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS – 7

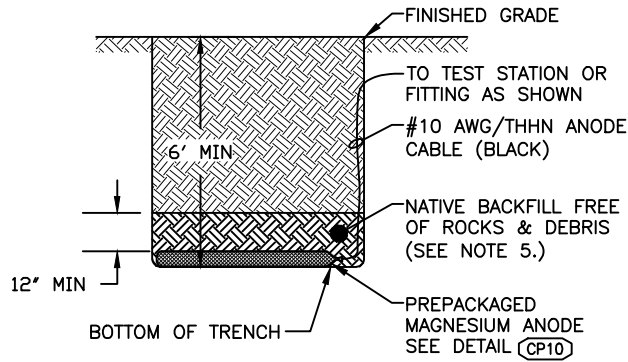


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SCALE: N.T.S.

DATE : 4/16 DWG NO.1107



NOTES:

1. INSTALL ANODES 3 FEET OFF THE PIPE/FITTING IN NATIVE SOIL.
2. FOR SACRIFICIAL ANODES PROTECTING DUCTILE IRON VALVES, FITTINGS & RISERS OF C900 PVC PIPELINES, ANODES MAY BE INSTALLED SUCH THAT THE TOP OF THE ANODE IS PLACED BELOW THE BOTTOM OF THE VALVE OR FITTING. FOR DUCTILE IRON PIPELINE INSTALLATIONS, ANODE SHALL BE INSTALLED TO A MINIMUM DEPTH OF 6 FEET AS INDICATED IN THIS DETAIL. A MINIMUM OF A 3 FEET DISTANCE SHALL BE MAINTAINED BETWEEN EACH ANODE AND THE DUCTILE IRON STRUCTURE IT PROTECTS IN ALL CASES.
3. MAINTAIN A MIN. DISTANCE OF 10 FEET BETWEEN ANODES IF MULTIPLE ANODES ARE INSTALLED.
4. CONNECT ANODE CABLE TO TEST STATION OR DIRECTLY TO PIPE OR FITTING AS SHOWN IN THE DRAWINGS.
5. AFTER BACKFILL REACHES ONE FOOT ABOVE THE ANODE, FLOOD THE ANODE HOLE WITH 5 GALLONS OF FRESH WATER.
6. IF ANODE IS INSTALLED IN THE VICINITY OF A METALLIC NATURAL GAS PIPELINE, MAINTAIN A MINIMUM 5 FOOT DISTANCE FROM THE NATURAL GAS PIPELINE.

ANODE INSTALLATION

CP9

NTS

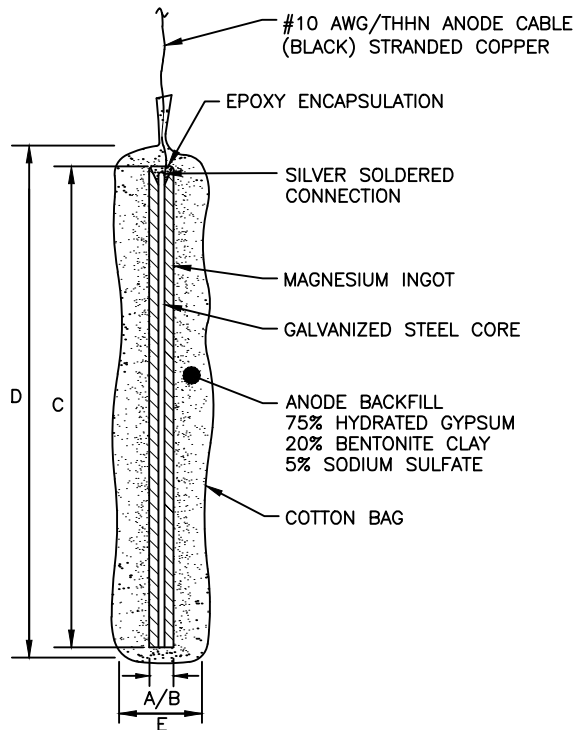


TABLE 1

H-1 ALLOY MAGNESIUM ANODES				
SIZE (LB)	A/B (INCH)	C (INCH)	D (INCH)	E (INCH)
5	3	7.5	13.5	6
9	3	13.5	17	6
17	4	17	19	6.5
32	5	21	30	8
50	8Ø	15	18	10

PREPACKAGED MAGNESIUM ANODE

CP10

NTS

CITY OF PLEASANTON  
STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 8

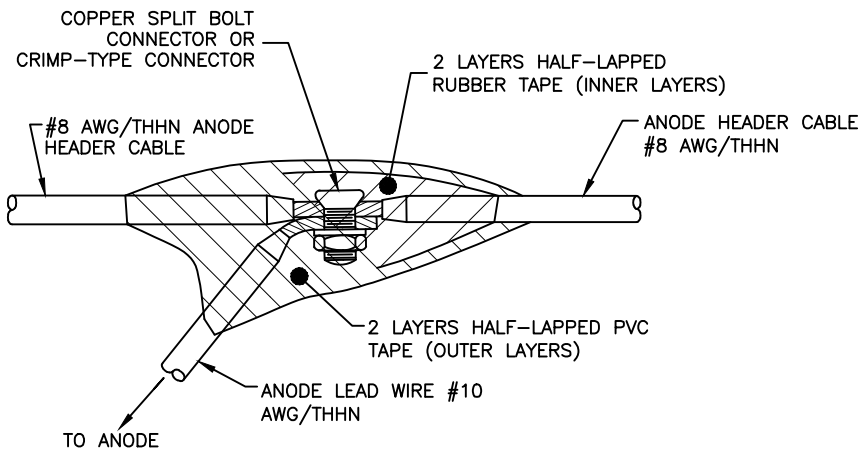


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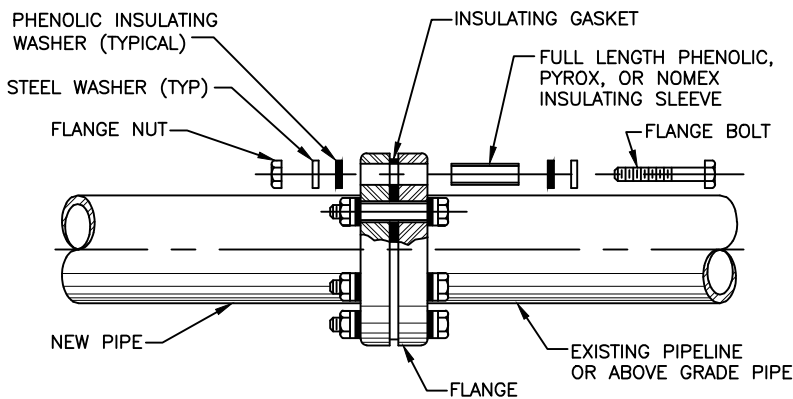
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DATE : 4/16 DWG NO.1108

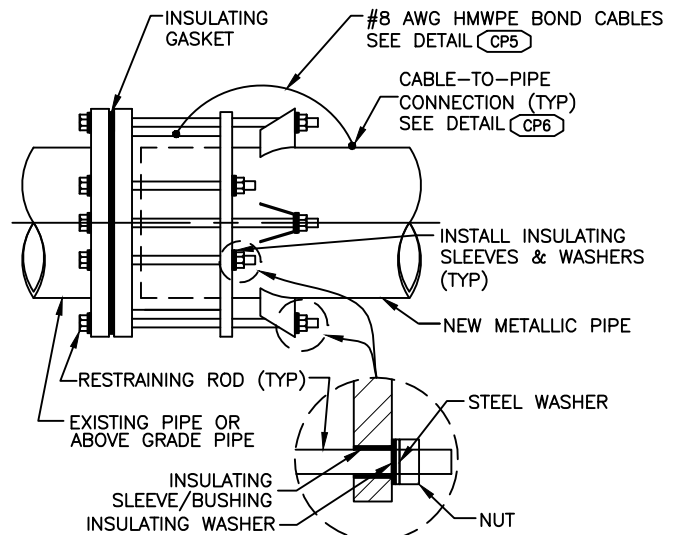


**CABLE SPLICE**  
NTS

CP11



**INSULATING FLANGE**



**INSULATING FLANGED COUPLING ADAPTER**

**NOTES:**

1. THE INSULATING FLANGE KIT SHALL BE FOR WATER SERVICE, SUITABLE FOR WET & DRY LOCATIONS, AND BE OF SAME PRESSURE RATING AS THE FLANGE.
2. THIS DETAIL IS TYPICAL FOR STEEL AND DUCTILE IRON PIPE FLANGES, AND ALSO FOR STEEL PIPE INSULATING FLEXIBLE COUPLINGS AND INSULATED RESTRAINED FLEXIBLE COUPLINGS.
3. THE ALLOY OF THE STEEL WASHERS SHALL BE THE SAME AS IS SPECIFIED FOR THE FLANGE BOLTS.
4. ALL INSULATING JOINTS SHALL BE TESTED AND APPROVED PRIOR TO BACKFILL.

**INSULATING JOINT**

NTS

CP12

**CITY OF PLEASANTON  
STANDARD DETAILS**

**PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 9**

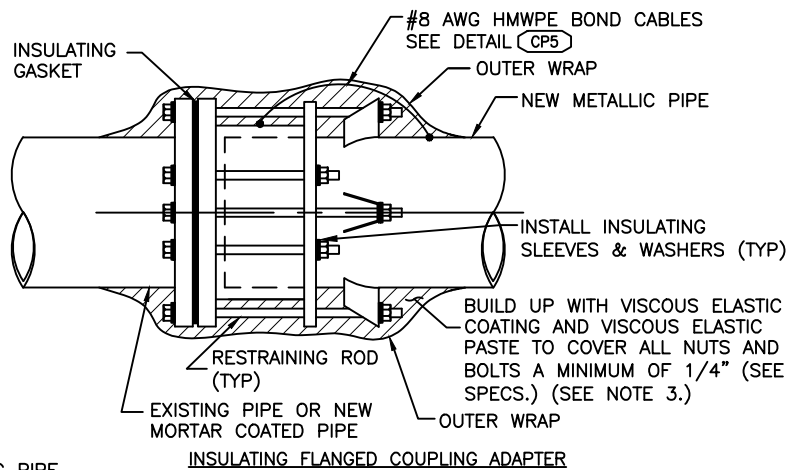
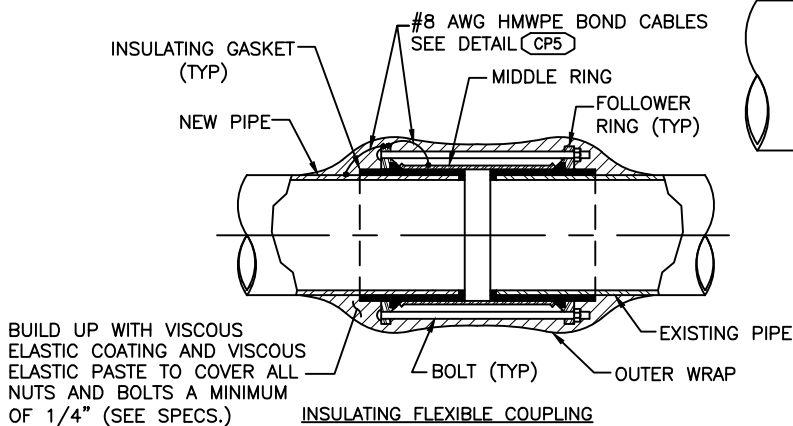
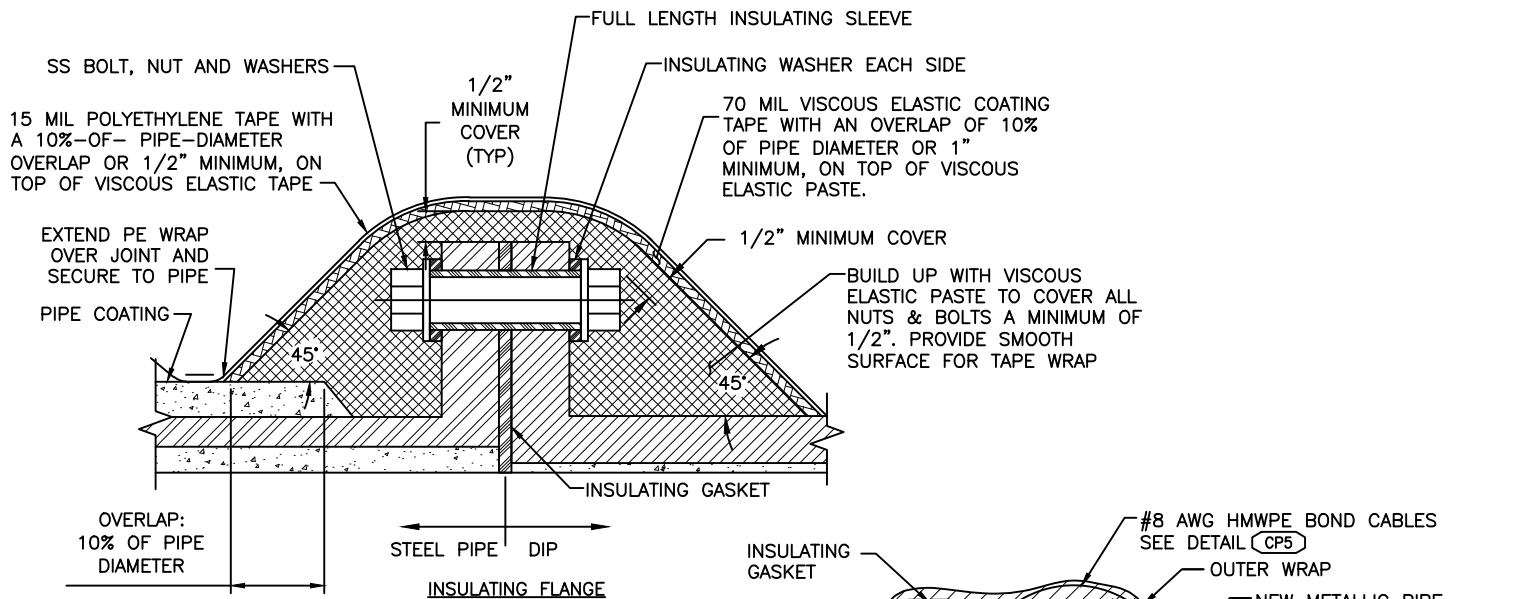
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SCALE: N.T.S.



DATE : 4/16 DWG NO.1109

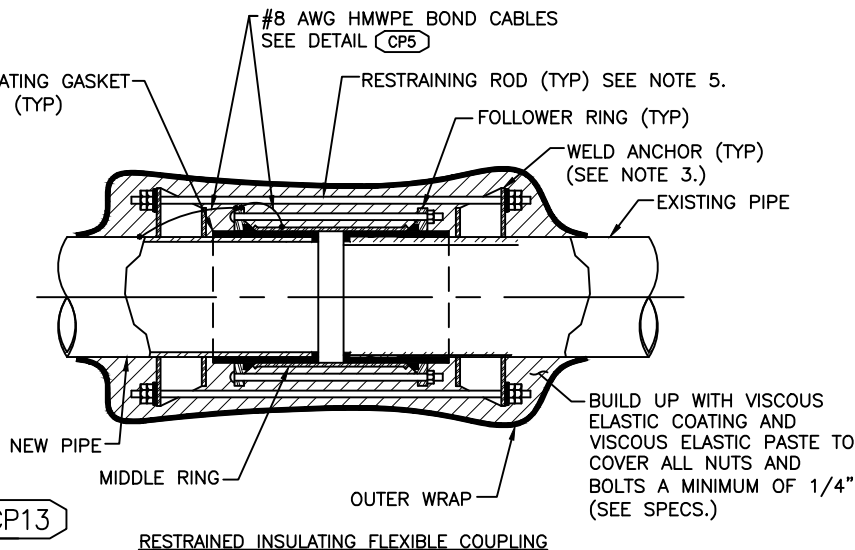


#### NOTES:

1. OMIT COATING IF INSULATING JOINT IS LOCATED ABOVE GRADE OR IN VAULTS.
2. THIS DETAIL IS TYPICAL FOR STEEL AND DUCTILE IRON PIPE FLANGES, AND ALSO FOR STEEL PIPE INSULATING FLEXIBLE COUPLINGS AND INSULATED RESTRAINED FLEXIBLE COUPLINGS. THE INSULATING FLANGE IS SHOWN FOR STEEL/DIP JOINT; DIP/DIP JOINT IS SIMILAR.
3. ENSURE APPLICATION OF VISCOUS ELASTIC COATING AND VISCOUS ELASTIC PASTE TO COVER ALL RESTRAINING ROD ASSEMBLIES.
4. ALL INSULATING JOINTS SHALL BE TESTED AND APPROVED PRIOR TO BACKFILL.
5. INSTALL STAINLESS STEEL RODS, BOLTS, NUTS, AND WASHERS.

BELOW GRADE,  
DIELECTRIC INSULATING JOINT COATING CP13

NTS



## CITY OF PLEASANTON STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 10

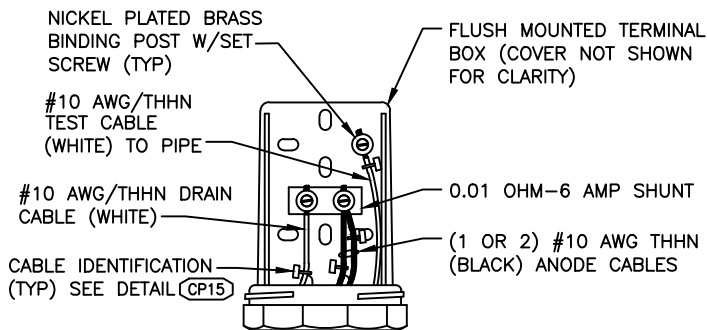
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DATE : 4/16 DWG NO.1110



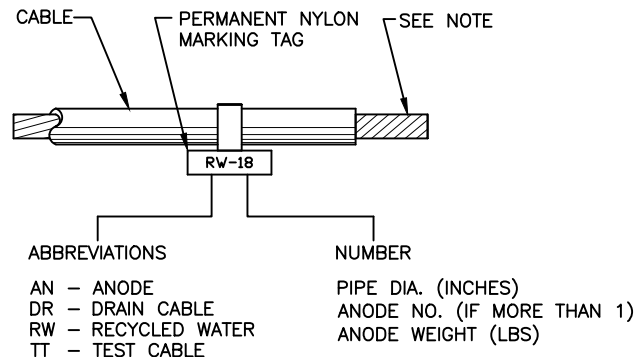
VATS TERMINAL BOX

NOTE:  
FOR IJTS & IJTA TERMINAL BOX, SEE DETAIL CP20.  
FOR ATS TERMINAL BOX, SEE DETAIL CP1.  
FOR FPTs TERMINAL BOX, SEE DETAIL CP21.

TERMINAL BOX

CP14

NTS

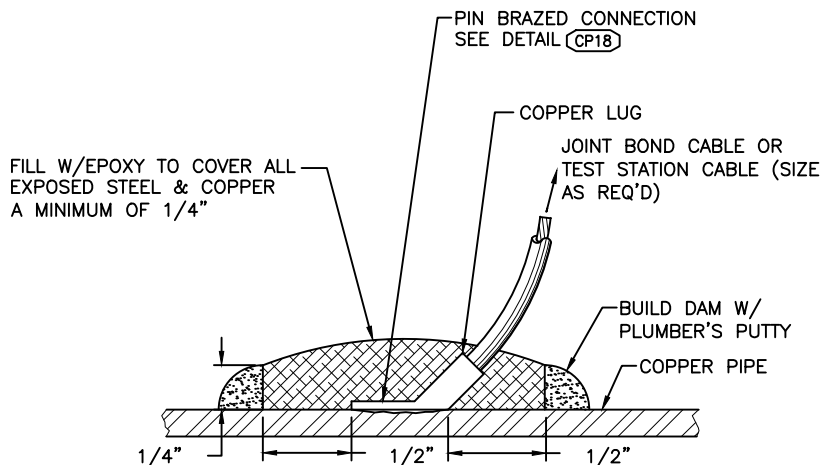


NOTE:  
REMOVE INSULATION PRIOR TO FASTENING CABLE WITH SET SCREW.

CABLE IDENTIFICATION

CP15

NTS

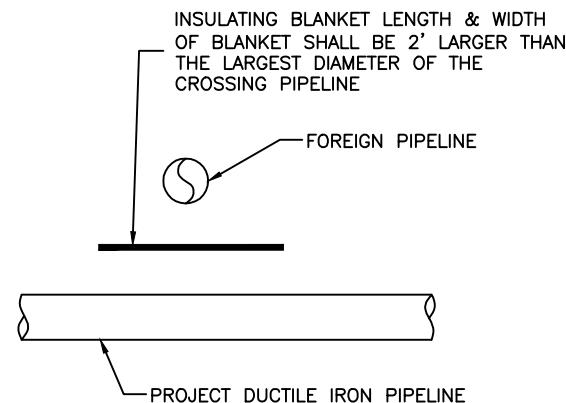


DUCTILE IRON FORCE BALANCED EXPANSION JOINT

PIN-BRAZED CABLE-TO-PIPE CONNECTION

CP16

NTS



NOTES:

1. INSTALL INSULATING BLANKETS ON ALL PIPE CROSSING EXCEPT WHEN EITHER THE PROJECT PIPELINE OR THE FOREIGN PIPELINE IS NONMETALLIC.
2. DIELECTRIC BLANKET SHALL BE 1/8" THICK SHEET OF BUTYL RUBBER, PVC, HDPE, MICARTA OR NEOPRENE.
3. DIELECTRIC BLANKET SHALL BE INSTALLED AS CLOSE TO THE MIDPOINT BETWEEN THE TWO LINES AS POSSIBLE.
4. AT LOCATIONS WHERE A REFERENCE ELECTRODE IS INSTALLED BETWEEN THE TWO PIPES, POSITION THE REFERENCE ELECTRODE MIDWAY BETWEEN THE INSULATING BLANKET AND THE PROJECT PIPE.

INSULATING BLANKET

CP17

NTS

CITY OF PLEASANTON  
STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 11








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SCALE: N.T.S.

DATE : 4/16 DWG NO.1111



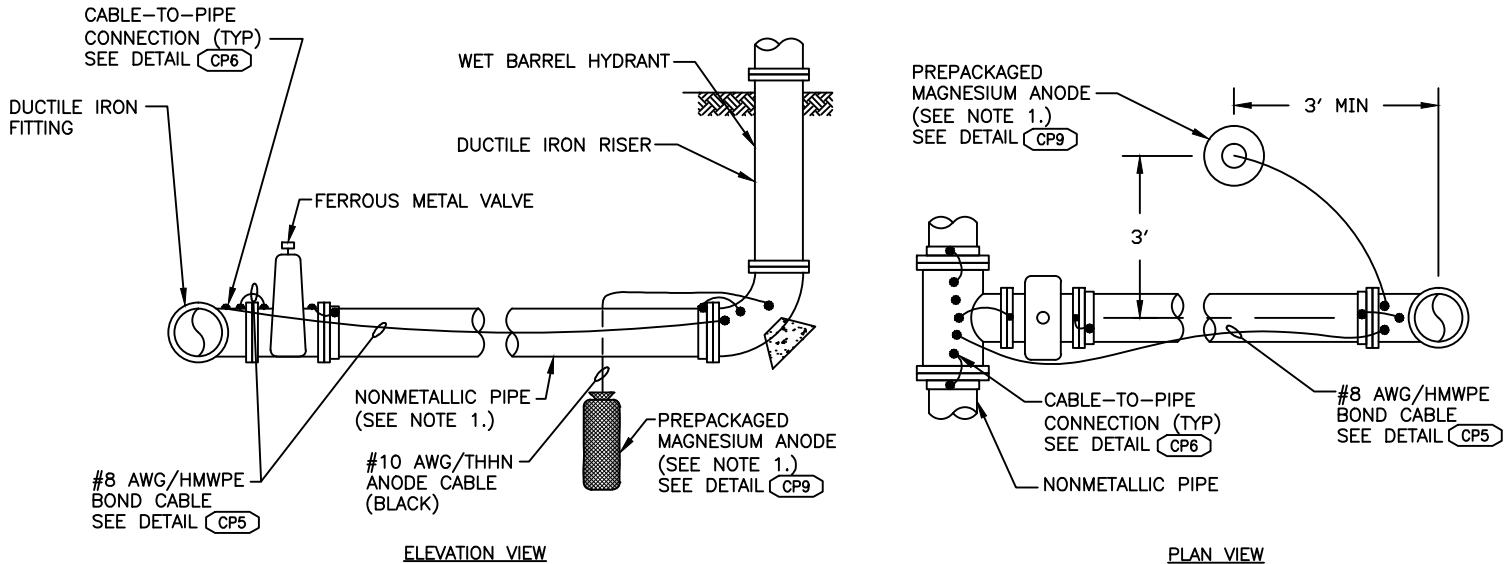
- STEP 1. FILE STRUCTURE CONNECTION AREA TO BARE SHINY METAL AND CLEAN. → 
- STEP 2. STRIP INSULATION FROM WIRE. →  ATTACH LUG TO CABLE BY CRIMPING.
- STEP 3. LOAD GUN WITH THE LUG AND FERRULE. →  ADJUST AS NECESSARY. BRAZE.
- STEP 4. PEEN CONNECTION WITH A HAMMER TO TEST CONNECTION FOR SOUNDNESS. → 
- STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH EPOXY COATING COMPOUND PER DETAIL CP16. → 

NOTE:  
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY.  
CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.

### PIN-BRAZED CONNECTION

CP18

NTS



- NOTE:
1. INSTALL THE SIZE AND NUMBER OF MAGNESIUM ANODES AT EACH FITTING OR OTHER APPURTENANCES AS SHOWN IN THE (FUTURE) ANODE TABLE.
  2. INSTALL ADDITIONAL BOND CABLES FOR ANY ADDITIONAL METALLIC PIPING, FITTINGS, OR MECHANICAL RESTRAINT JOINTS ASSOCIATED WITH FIRE HYDRANT INSTALLATION.
  3. COAT ALL BURIED BOLTS & NUTS WITH BITUMASTIC AND ENCASE ALL DUCTILE IRON PIPE AND FITTINGS IN POLYETHYLENE PER CORROSION CONTROL GENERAL NOTES.

### FIRE HYDRANT - ANODE INSTALLATION

CP19

NTS

## CITY OF PLEASANTON STANDARD DETAILS

PVC PIPE WITH DUCTILE IRON FITINGS  
CATHODIC PROTECTION SYSTEM  
DETAILS - 12

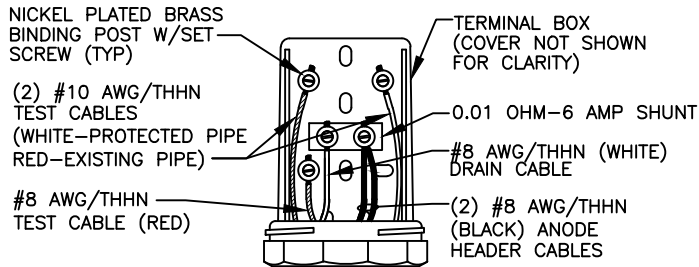


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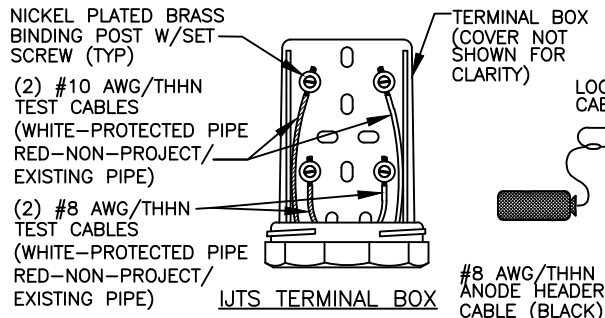
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DATE : 4/16 DWG NO.1112



IJTS TERMINAL BOX

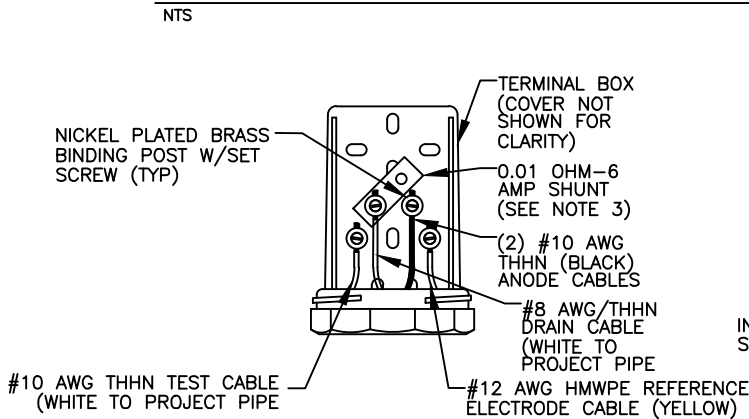


NOTES:

1. INSTALL THE SIZE AND NUMBER OF MAGNESIUM ANODES AT EACH ATS AS SHOWN IN TABLE 'A' ON DRAWING 1102.
2. IF NO ANODES ARE CALLED FOR, AS FOR AN IJTS IN TABLE 'A', UTILIZE THE IJTS TERMINAL BOX.
3. ENCASE ALL DUCTILE IRON PIPE & FITTINGS, INCLUDING THRUST RESTRAINTS, IN 8 MIL THICK POLYETHYLENE PER AWWA C-105.
4. IDENTIFY CABLES PER DETAIL (CP15) ON DRAWING 1111.

OPTION: DUCTILE IRON PIPE (TO BE APPROVED BY ENGINEER)  
IJTSA - INSULATING JOINT TEST STATION W/ANODES

CP20



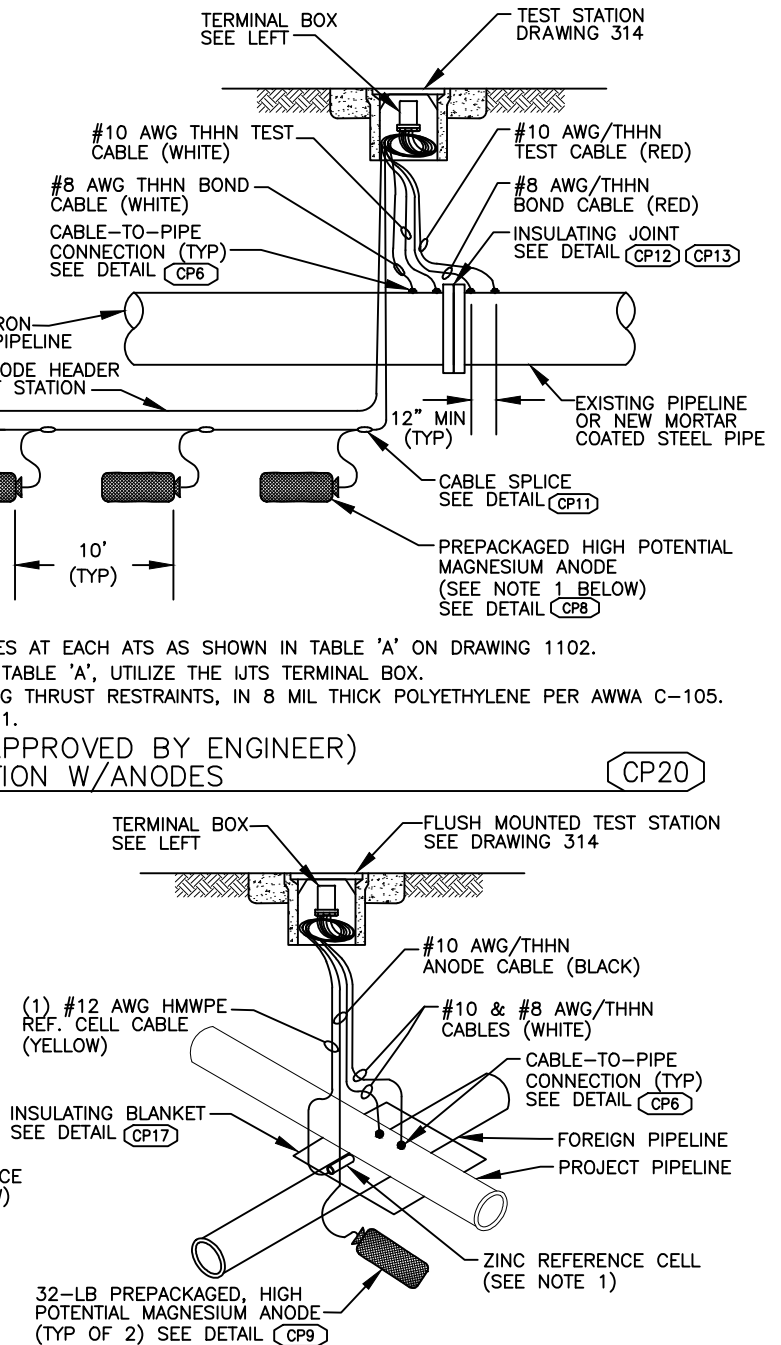
FPTS TERMINAL BOX

NOTE:

1. INSTALL THE REFERENCE CELL BETWEEN THE PIPELINES AND MIDWAY BETWEEN THE PROJECT PIPELINE AND THE INSULATING BLANKET.
2. IDENTIFY ALL CABLES IN THE TERMINAL BOX PER DETAIL CP15.
3. INSTALL SHUNT IN POSITION SHOWN.
4. THE CONTRACTOR SHALL CONFIRM WITH PG&E WHETHER OR NOT THE NATURAL GAS PIPELINES THAT CROSS THE PROJECT PIPELINE ARE METALLIC OR NON-METALLIC PIPELINES. OMIT THE FPTS IF FOREIGN (NATURAL GAS) PIPELINE IS NONMETALLIC.

OPTION: DUCTILE IRON PIPE (TO BE APPROVED BY ENGINEER)  
FPTS - FOREIGN PIPELINE TEST STATION

NTS



CP21

CITY OF PLEASANTON  
STANDARD DETAILS

CATHODIC PROTECTION SYSTEM  
DETAILS - 13

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DATE : 4/16 DWG NO.1113