

# CITY OF PIEDMONT

## Standard Details



January 2006  
Revised January 2017  
Revised December 2018

**PUBLIC WORKS DEPARTMENT**  
120 Vista Avenue  
Piedmont, CA 94611



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

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Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds sun 2017\Piedmont Std 1-4.dwg  
 Layout Name: 1 Plot Date: Dec 11, 2018 at 04:02 pm

Dwn: CLG	No.	Date	Revision	Appr.	Approved By: 	STD DETAIL <b>1</b>
Chk: JLW	1	12-2018	DETAIL 4-3 & 4-4	JLW		
<b>DEC 2018</b>					Chester Nakahara Director of Public Works	Date 12/06/18



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## LIST OF STANDARD DETAILS TABLE OF CONTENTS 2 OF 2

### STORM DRAIN (CONTINUED)

306	24" RISER	JAN 2017
307	THROUGH CURB DRAIN	JAN 2017
308	DRAINAGE INLET FRAME & GRATE	JAN 2017


### MISCELLANEOUS

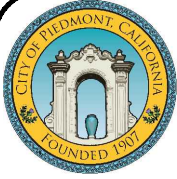
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Images: CN darker.jpg\Piedmont 2015.jpg Xrefs:  
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Chk: JLW	1	12-2018	STORM DRAIN	JLW		
DEC 2018					Chester Nakahara Director of Public Works	Date 12/06/18




# CITY OF PIEDMONT

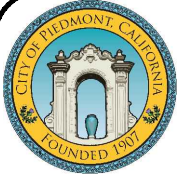
PUBLIC WORKS DEPARTMENT

## STANDARD ABBREVIATIONS

AIR RELEASE VALVE	ARV	FINISH GRADE	FG
AGGREGATE BASE	AB	FIRE HYDRANT	FH
AMERICAN SOCIETY FOR TESTING AND MATERIALS	ASTM	FLOWLINE	FL
AMERICAN WATER WORKS ASSOCIATION	AWWA	FOOT	FT
APPROXIMATELY	APPROX	GALVANIZED	GALV
ARC LENGTH	L	GALLONS PER MINUTE	GPM
AREA DRAIN	AD	GAS LINE	G
ASBESTOS CEMENT PIPE	ACP	GAS VALVE	GV
ASPHALT CONCRETE	AC	GLOBAL POSITIONING SYSTEM	GPS
ATMOSPHERIC VACUUM BREAKER	AVB	GRADE BREAK	GB
		GUY POLE	GP
BACK FLOW PREVENTER	BFP	HIGH PRESSURE GAS	HPG
BACK OF CURB	BC	HORIZONTAL	HOR
BACK OF WALK	B/W	HIGH-DENSITY POLYETHYLENE PIPE	HDPE
BEGIN CURB RETURN	BCR	HOT MIX ASPHALTIC CONCRETE	HMA
BEGIN CURVE	BC		
BEGIN VERTICAL CURVE	BVC	INCH	IN
BENCH MARK	BM	INSIDE DIAMETER	ID
BIKE LANE	BL	INVERT	INV
BLOW OFF	BO	IRRIGATION LINE	IRR
CABLE TV	CTV	JOINT POLE	JP
CURED-IN-PLACE PIPE (LINED SEWER PIPE)	CIPP	JOINT TRENCH	JT
CAST IRON PIPE	CIP	KILOMETER	KM
CATCH BASIN	CB	LINEAR FEET	LF
CENTERLINE	☉	LIP OF GUTTER	L/G
CENTER TO CENTER	C-C	LOW PRESSURE GAS	LPG
CENTIMETER	CM	LUMP SUM	LS
CENTRAL ANGLE	Δ		
CLASS	CL	MANHOLE	MH
CLEANOUT	CO	MAXIMUM	MAX
CONCRETE	CONC	METER	M
CONCRETE PIPE	CP	MILLIMETER	MM
CONSTRUCT	CONST	MINIMUM	MIN
CONSTRUCTION JOINT	CONST JT	MISCELLANEOUS	MISC
CORRUGATED METAL PIPE	CMP		
CUBIC FEET PER SECOND	CFS	NORTH, SOUTH, EAST, WEST	N, S, E, W
CUBIC YARDS	CY	NORTHERLY, ETC	N'LY
CURB, GUTTER & SIDEWALK	C,G & SW	ON CENTER	OC
DIAMETER	DIA	OPEN AGGREGATE HOT ASPHALT CONCRETE	OHAC
DISTANCE	DIST	ORIGINAL GROUND	OG
DRIVEWAY	DWY	OUTSIDE DIAMETER	OD
DROP INLET	DI	OVER HEAD LINE	OH
DUCTILE IRON PIPE	DIP		
		PARKING METER	PM
EACH	EA	PAVEMENT	PVMT
EDGE OF PAVEMENT	EP	POINT OF COMPOUND CURVE	PCC
ELECTRIC	E	POINT OF INTERSECTION	PI
ELEVATION	ELEV, EL	POINT OF REVERSE CURVE	PRC
END CURB RETURN	ECR	POINT OF CURVATURE	POC
END CURVE	EC	POINT OF TANGENCY	POT
END VERTICAL CURVE	EVC	POLYVINYL CHLORIDE PIPE	PVC
EXISTING	EXIST, EX	PORTLAND CEMENT CONCRETE	PCC
EXPANSION JOINT	EXP JT	POWER POLE	PP
		PRESSURE VACUUM BREAKER	PVB
FACE OF CURB	FC	PROPERTY LINE	PL
COMPRESSIVE STRENGTH OF CONC.	F <sub>c</sub>	PUBLIC UTILITY EASEMENT	PUE
FEET PER SECOND	FPS	PULL BOX	PB
FIBER OPTIC	FO	PUBLIC SERVICE EASEMENT	PSE

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds Jan 2017\Piedmont Std 1-4.dwg  
 Layout Name: 3-1 Plot Date: Feb 09, 2017 at 09:26 am

Dwn: CLG	No.	Date	Revision	Appr.	Approved By:	 Chester Nakahara Director of Public Works Date 1/17/17	STD DETAIL
Chk: MNO							3-1
JAN 2017							



# CITY OF PIEDMONT


PUBLIC WORKS DEPARTMENT

## STANDARD ABBREVIATIONS

RADIUS	R
REINFORCE,(ED), (ING)	REINF
REINFORCED CONCRETE PIPE	RCP
RELATIVE COMPACTION	RC
REMOTE CONTROL VALVE	RCV
RIGHT OF WAY	R/W, ROW
ROOF DRAIN	RD
RUBBERIZED HOT ASPHALT CONCRETE	RHAC
SANITARY SEWER	SS
SCHEDULE	SCH
SHEET	SHT
SIDE WALK	S/W, SW
SPECIFICATION	SPEC
SPRINKLER HEAD	SP
SQUARE FEET	SF
STANDARD	STD
STATION	STA
STORM DRAIN	SD
STREET NAME SIGN	SNS
STREET LIGHT / ELECTROLIER	SL
SUBDIVISION	SUBD
SURVEY MONUMENT	MON
TANGENT	TAN
TELEPHONE (UNDERGROUND)	TEL
TELEPHONE CABLE MARKER	TCM
TELEPHONE POLE	TP
TELEVISION (UNDERGROUND)	TV
TOP OF CURB	TC
TOP OF WALL	T/W
TRAFFIC SIGNAL	TS
TREE WELL	TW
TYPICAL	TYP
UNDERGROUND SERVICE ALERT	USA
UNDERGROUND UTILITY VAULT	UUV
VALLEY GUTTER	VG
VERTICAL CURVE	VC
VITRIFIED CLAY PIPE	VCP
WASTEWATER	WW
WATER LINE	W
WATER METER	WM
WATER VALVE	WV
WEAKENED PLANE JOINT	WP JT
WITH	W/
WITHOUT	W/O
YARD	YD

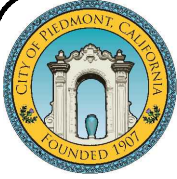
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Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 3-2



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## DRAFTING SYMBOLS

### DESCRIPTION OF SYMBOL

### PROPOSED

### EXISTING

CONCRETE		
ASPHALT CONCRETE		
WATER MAIN GATE VALVE		
WATER MAIN CHECK VALVE		
WATER METER		
FIRE HYDRANT		
BACKFLOW PREVENTER	N/A	
SANITARY SEWER MANHOLE		
SANITARY SEWER CLEANOUT		
STORM DRAIN MANHOLE		
STORM DRAIN CURB INLET/CATCH BASIN		
STORM DRAIN DROP INLET (TOP OPENING)		
STORM DRAIN DROP INLET (SIDE OPENING)		
MAILBOX		
ROADSIDE SIGN		
STREET LIGHT		
STREET NAME SIGN		
GUY ANCHOR	N/A	
ELECTROLIER (MAST. ARM TYPE)		
TREE AND DRIP LINE		
SURVEY CONTROL POINT	N/A	
SURVEY MONUMENT		
BENCH MARK	N/A	
JOINT UTILITY POLE	N/A	
SLOPE OF STREET (% AS NOTED)	1.50%	3.2%

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Stds\Stds Jan 2017\Piedmont Std 1-4.dwg Layout Name: 4-1 Plot Date: Feb 09, 2017 at 09:26 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:

Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 4-1



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## DRAFTING SYMBOLS LINETYPES

DESCRIPTION OF LINETYPE

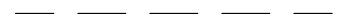
PROPOSED

EXISTING

PROPERTY LINE



EASEMENT



FLOWLINE



CENTERLINE/CONTROL LINE



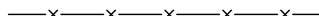
CHAIN LINK FENCE



WOOD FENCE

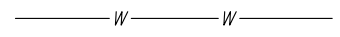


WIRE FENCE



WATER MAIN PIPE

N/A



SANITARY SEWER PIPE

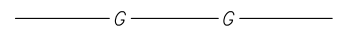


STORM DRAIN PIPE



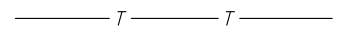
GAS LINE

N/A



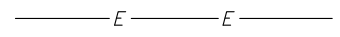
TELEPHONE LINE/CONDUIT

N/A



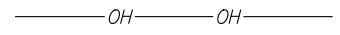
ELECTRICAL LINE/CONDUIT

N/A

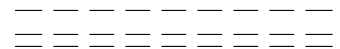
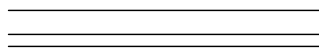


OVERHEAD UTILITY

N/A



CURB, GUTTER & SIDEWALK



Images: CN darker.jpg\Piedmont 2015.jpg Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Stds van 2017\Piedmont Std 1-4.dwg Layout Name: 4-2 Plot Date: Feb 09, 2017 at 09:26 am

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JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 4-2



# CITY OF PIEDMONT


PUBLIC WORKS DEPARTMENT

## GENERAL REQUIREMENTS IN THE PUBLIC RIGHT-OF-WAY

IT IS THE INTENT OF THE CITY TO UNDERGROUND ALL PUBLIC UTILITIES WITHIN THE CITY OF PIEDMONT IN THE FUTURE AS UNDERGROUND DISTRICTS ARE FORMED PURSUANT TO CHAPTER 22 OF THE PIEDMONT MUNICIPAL CODE TO PROTECT PUBLIC SAFETY; DIMINISH THE RISK OF DAMAGE IN AN EARTHQUAKE OR FIRE; PRESERVE THE PROPORTION, BALANCE, AND SCALE OF THE DESIGN OF RESIDENTIAL NEIGHBORHOODS; AND PROVIDE OPEN AND UNOBSTRUCTED SCENIC VIEWS FROM ROADS, PARKS, PUBLIC BUILDINGS, AND HOMES. THESE STANDARDS APPLY TO ALL PUBLIC UTILITY COMPANIES AND PRIVATE IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY.

1. ALL WORK IN THE PUBLIC RIGHT-OF-WAY IS SUBJECT TO AN EXCAVATION PERMIT, ENCROACHMENT PERMIT, BUILDING PERMIT, TREE REMOVAL PERMIT, AND/OR EITHER A DESIGN REVIEW PERMIT OR WIRELESS COMMUNICATION FACILITIES PERMIT ISSUED BY THE CITY OF PIEDMONT. PERMITS MAY REQUIRE SECURITY DEPOSITS TO GUARANTEE THE COMPLETION OF CONSTRUCTION IN A SAFE MANNER AND ACCEPTABLE LEVEL OF QUALITY, AS WELL AS TO REPAIR OR REPLANT AREAS DAMAGED BY CONSTRUCTION. SCHEDULING OF THE START OF CONSTRUCTION SHALL BE REVIEWED AND APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND/OR THE CITY ENGINEER.
2. UTILITY POLES AND OTHER EQUIPMENT MAY BE A MAXIMUM HEIGHT OF 53 FEET, UNLESS THE ZONING DISTRICT REQUIRES A LOWER HEIGHT.
3. PUBLIC UTILITY COMPANIES MAY NOT PRUNE STREET TREES FOR CONSTRUCTION CLEARANCES OR OTHER CLEARANCES WITHOUT A TREE PERMIT. REQUESTS FOR REMOVAL OR PRUNING OF STREET TREES MAY BE MADE IN WRITING TO THE PUBLIC WORKS DIRECTOR. IF APPROVED, THE REMOVAL OF THE TREE MAY INCLUDE COMPENSATION TO THE CITY OF PIEDMONT EQUAL TO THE VALUE OF THE TREE AS DETERMINED BY A CERTIFIED ARBORIST OF THE CITY'S CHOICE. NEW UTILITIES OR MODIFIED UTILITIES MAY BE LOCATED 10 FEET OR MORE FROM THE TRUNKS OR CANOPIES OF CITY-OWNED STREET TREES.
4. ALL PUBLIC UTILITIES LOCATED WITHIN AN ESTABLISHED UNDERGROUND DISTRICT MUST BE LOCATED WITHIN ONE OR MORE UNDERGROUND VAULTS, EXCEPT FOR UTILITIES WITHIN STREETLIGHTS WITH DECORATIVE INTEGRAL UTILITY CABINETS. UNDERGROUND VAULTS MUST BE COVERED WITH A CEMENT, NO-SKID COVER MATCHING THE COLOR AND TEXTURE OF THE ADJACENT SIDEWALK PAVING. VAULTS MUST BE PLACED SUCH THAT THE LID OF THE VAULT IS LEVEL WITH SURROUNDING LEVEL TOPOGRAPHY. VAULTS MAY NOT BE LOCATED WITHIN PEDESTRIAN RAMPS. WHEN A NEW UNDERGROUND DISTRICT IS FORMED, ALL UTILITIES MUST BE MOVED TO UNDERGROUND VAULTS MEETING THESE REQUIREMENTS.
5. ALL NEW OR EXPANDED PUBLIC UTILITY EQUIPMENT MUST BE A MINIMUM OF 18 INCHES FROM THE EDGE OF CURB AND, WHERE THERE IS NO CURB, MUST BE A MINIMUM OF 5 FEET FROM THE EDGE OF THE ROADWAY.
6. ALL ELECTRICAL CABINETS ABOVE GROUND LOCATED WITHIN 10 FEET OF THE ROADWAY MUST BE PROTECTED BY BOLLARDS OR EQUIVALENT STRUCTURE SUBJECT TO REVIEW AND APPROVAL OF THE PUBLIC WORKS DIRECTOR AND THE CITY ENGINEER.
7. MECHANICALLY GENERATED NOISE FROM PUBLIC UTILITY EQUIPMENT MUST COMPLY WITH PIEDMONT MUNICIPAL CODE SECTION 12.8, NOISE DECLARED NUISANCE, AND SECTION 5.4.11, MECHANICALLY GENERATED NOISE SOURCES. NO PUBLIC UTILITY EQUIPMENT MAY EXCEED 50 DBA AT THE NEAREST PROPERTY LINE, NOR 5 DBA ABOVE AMBIENT NOISE LEVELS AT THE NEAREST PROPERTY LINE, AT NIGHT.
8. NO UTILITY EQUIPMENT MAY RESTRICT SIDEWALK WIDTH TO LESS THAN 5 FEET NOR HEAD HEIGHT CLEARANCES OF LESS THAN 7 FEET TO MAINTAIN ACCESS FOR PEDESTRIANS, INCLUDING GROUPS OF SCHOOL-AGE CHILDREN, BICYCLISTS, AND PARENTS WITH STROLLERS. ALL UTILITY EQUIPMENT MUST COMPLY WITH LOCATION REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT. STANDARD SIDEWALK WIDTHS ARE 5 FEET OR MORE.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds\Stds Jun 2017\Piedmont Std 1-4.dwg  
 Layout Name: 4-3 Plot Date: Dec 11, 2018 at 03:40 pm

Dwn: CLG	No.	Date	Revision	Appr.	Approved By: 	STD DETAIL <b>4-3</b>
Chk: JLW	1	12-2018	NEW DETAIL 4-3	JLW		
<b>DEC 2018</b>					Chester Nakahara Director of Public Works	Date 12/06/18





# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT


## GENERAL REQUIREMENTS IN THE PUBLIC RIGHT-OF-WAY

9. NEW AND EXPANDED UTILITY POLES MAY NOT BE LOCATED IN CUL-DE-SACS, STREETS WITH MARGINALLY ADEQUATE OR INADEQUATE ROADWAY WIDTH (AS DEFINED BY THE GENERAL PLAN TRANSPORTATION ELEMENT), OR ROADS THAT END WITHOUT TURNAROUND SPACE FOR CARS, TRUCKS AND OTHER VEHICLES.
10. NEW AND EXPANDED UTILITY POLES MAY NOT BE LOCATED WITHIN 100 FEET OF A SCHOOL NOR A (ASSEMBLY) OCCUPANCY BUILDING(S) TO AVOID SIGHT-LINE OBSTRUCTIONS AND TO MAINTAIN SAFE FLOW OF PEDESTRIAN TRAVEL ON CITY SIDEWALKS.
11. NEW UTILITY EQUIPMENT LOCATED ON NEW OR EXISTING UTILITY POLES MAY BE NO GREATER THAN 49 INCHES TALL AND 18 INCHES IN DIAMETER (TOTAL, CUMULATIVE VOLUME). ALL UTILITY EQUIPMENT SHALL BE EQUIPPED WITH ENCLOSURES THAT CONCEAL OR CAMOUFLAGE THE UTILITY EQUIPMENT. ADDITIONAL EQUIPMENT MAY BE LOCATED IN APPROPRIATELY LOCATED UNDERGROUND VAULTS. EQUIPMENT MUST BE MOUNTED FLUSH TO A UTILITY POLE.
12. CABLING SHALL BE ENCLOSED SO THAT A MAXIMUM OF 6 INCHES OF CABLES ARE EXPOSED PER EACH UTILITY FACILITY, EXCEPTING INDIVIDUAL STRANDS OF POWER AND COMMUNICATION LINES, EXTENDING FROM POLE TO POLE. SPOOLS OF CABLING ARE NOT ALLOWED.
13. UTILITY EQUIPMENT SHALL BE LANDSCAPED TO THE GREATEST EXTENT FEASIBLE, WITH IRRIGATION, AND SHALL BE MAINTAINED TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR AND THE CITY ENGINEER.
14. EQUIPMENT SHALL BE COLLOCATED TO THE GREATEST EXTENT FEASIBLE.
15. NEW OR EXPANDED UTILITY POLES MAY HAVE A SINGLE MAXIMUM 4-INCH DIAMETER RISER OR TWO 2-INCH DIAMETER RISERS.
16. NEW OR EXPANDED UTILITY POLES MAY BE LOCATED NO CLOSER THAN 30 FEET FROM FIRE HYDRANTS, BUS STOPS, AND SCHOOL DRIVEWAYS, AND NO CLOSER THAN 10 FEET FROM PUBLIC MAILBOXES.
17. THE DESIGN OF PUBLIC UTILITIES SHALL INCLUDE ALL FEASIBLE MEASURES TO LIMIT OR PREVENT ACTS OF VANDALISM.
18. WORK COMPLETED WITHOUT BENEFIT OF PERMIT IS SUBJECT TO PENALTIES PURSUANT TO THE PIEDMONT MUNICIPAL CODE, INCLUDING FORFEITURE OF SECURITY DEPOSITS, ADDITIONAL PERMIT FEES, AND REVOCATION OF PREVIOUSLY APPROVED CITY PERMITS.
19. THE IMPROVEMENTS AND EQUIPMENT WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH CITY OF PIEDMONT MUNICIPAL CODE, PIEDMONT GENERAL PLAN, AND THE PIEDMONT DESIGN GUIDELINES.

THE PUBLIC WORKS DIRECTOR AND/OR THE CITY ENGINEER MAY PERMIT MINOR CHANGES TO THESE STANDARDS ON A CASE-BY-CASE BASIS UPON A FINDING THAT (A) EXISTING PHYSICAL CONDITIONS AT THE SITE OF THE WORK REQUIRE ADAPTATION OF THE STANDARDS TO ACHIEVE THE INTENT OF THE STANDARDS; (B) EXISTING PHYSICAL CONDITIONS AT THE SITE OF THE WORK REQUIRE ADAPTATION OF THE STANDARDS TO MAINTAIN PUBLIC SAFETY; OR (C) THE OUTCOME OF THE CHANGE IS EQUIVALENT IN FUNCTION AND APPEARANCE AS THE STANDARD.

IF ANY OF THESE REQUIREMENTS CONFLICT WITH FRANCHISE AGREEMENTS OR OTHER AGREEMENTS APPROVED BY THE CITY COUNCIL, THE FRANCHISE AGREEMENT OR AGREEMENT SHALL TAKE PRECEDENCE.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stand\Stds Jun 2017\Piedmont Std 1-4.dwg  
 Layout Name: 4-4 Plot Date: Dec 11, 2018 at 04:58 pm

Dwn: CLG	No.	Date	Revision	Appr.	Approved By: 	STD DETAIL <b>4-4</b>
Chk: JLW	1	12-2018	NEW DETAIL 4-4	JLW		
<b>DEC 2018</b>					Chester Nakahara Director of Public Works	Date 12/06/18

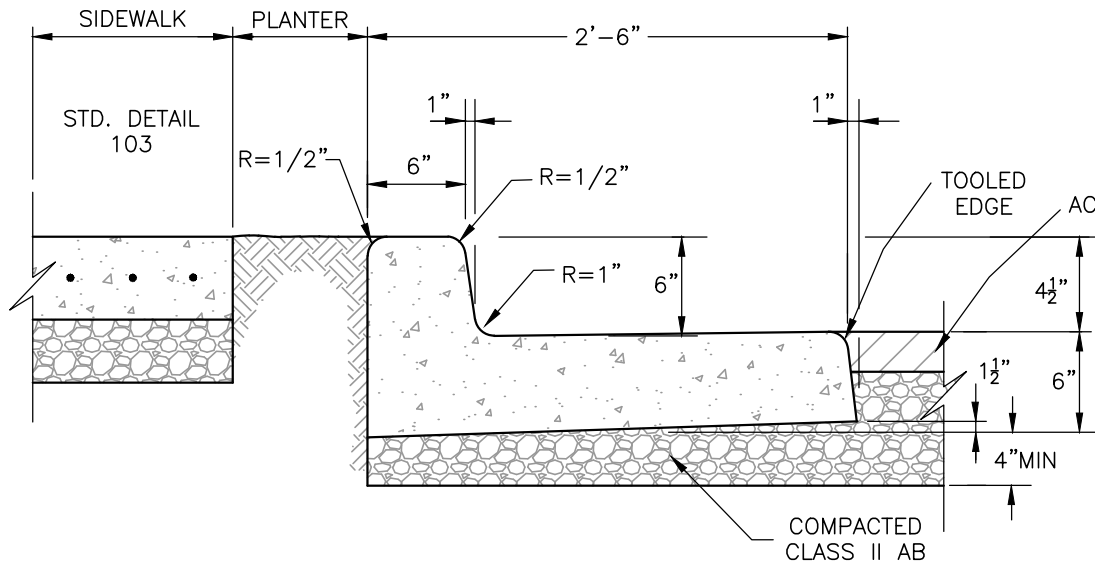


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

# RESIDENTIAL CURB AND GUTTER

CURB & GUTTER:  
0.0571 CY/LF  
1.5417 SQ. FT./LF.




**NOTES:**

1. TREATMENT OF PLANTER STRIP SUBJECT TO CITY APPROVAL.
2. ROOT BARRIERS ARE REQUIRED WHEN TREES ARE PLANTED WITHIN PLANTER STRIP.
3. WHEN REPLACING EX. CURB AND GUTTER, THE EX. ASPHALT SHALL BE SAW CUT 12" FROM GUTTER LIP AND REPLACED WITH FULL DEPTH ASPHALT AFTER NEW CURB AND GUTTER IS PLACED.
4. VAPOR BARRIER SHALL BE INSTALLED AT THE BACK OF CURB/SIDEWALK WHERE THERE IS EXPANSIVE SOIL, AS DETERMINED BY CITY ENGINEER.
5. WHEN TYING INTO EX. CONCRETE CURB, GUTTER OR SIDEWALK, THE EX. CONCRETE SHALL BE DOWELED WITH #4 BARS AT 18" O.C. IN SIDEWALK AND THREE EACH IN CURB.
6. COMPACT BASE MATERIAL TO 90% RELATIVE DENSITY.
7. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SECTION 90, CONCRETE - MINOR CONCRETE, AND HAVE MINIMUM 505 POUNDS OF CEMENTITIOUS MATERIAL PER CUBIC YARD. MINIMUM COMPRESSIVE STRENGTH SHALL BE 3,000 PSI AT TWENTY-EIGHT (28) DAYS.
8. 1/4" EXPANSION OR WEAKENED PLANE JOINTS EVERY 20'. FINISH WITH STEEL TROWEL AND LIGHT BROOM.
9. CONCRETE TO MATCH EXISTING ADJACENT COLOR AND SHALL BE PER STANDARD SPECIFICATIONS, CITY OF PIEDMONT, AS FOLLOWS:  
 STANDARD CONCRETE: 1 LB. LAMPBLACK PER YARD  
 PINK CONCRETE: 3 LBS. DAVIS #160 PER YARD  
 YELLOW BUFF: 15 LBS. DAVIS #5447 PER YARD  
 COLORANT SHALL BE INTEGRAL WITH THE MIX AND HAVE A HOMOGENEOUS APPEARANCE WHEN DRY.

Images: CN darker.ppt\Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 101-109.dwg  
 Layout Name: 101 Plot Date: Mar 16, 2017 at 03:49 pm

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
101

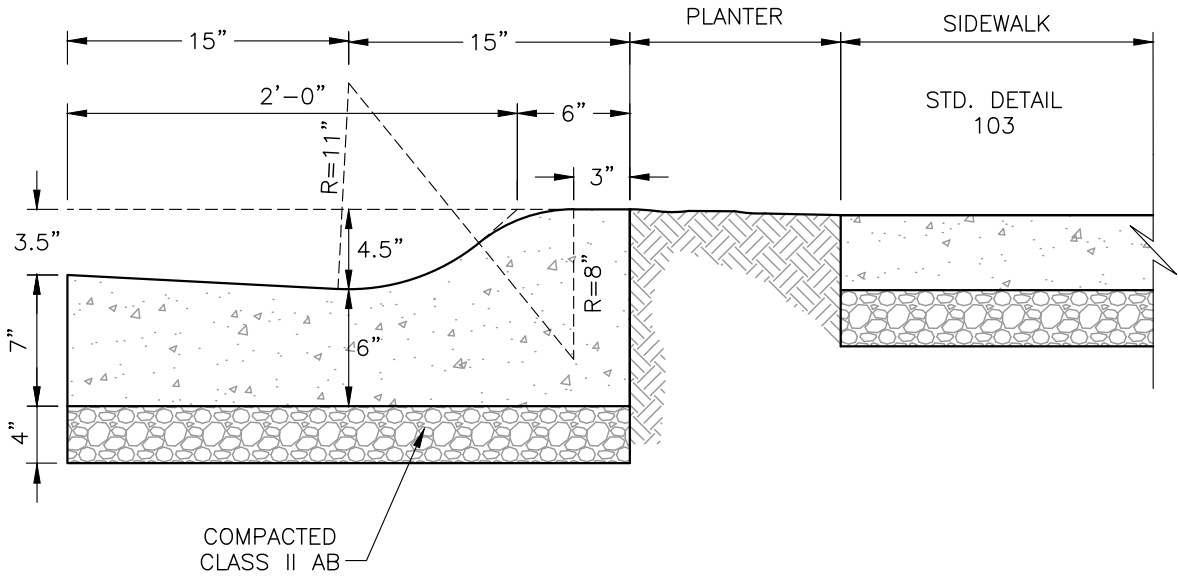


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## ROLLED CURB & GUTTER

CURB & GUTTER:  
 0.0574 CY/LF  
 2.5 SQ. FT./LF




**NOTES:**

1. CONSTRUCT WEAKENED PLANE JOINTS AT 20'.
2. USE OF ROLLED CURB SUBJECT TO APPROVAL BY THE DIRECTOR OF PUBLIC WORKS.
3. WHERE SIDEWALK IS ADJACENT TO CURB, THE CURB AND SIDEWALK SHALL BE POURED MONOLITHIC AND SCORED.
4. SEE STD. DETAIL 101 FOR GENERAL CURB NOTES.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Stds\Stds Jan 2017\Piedmont Std 101-109.dwg Layout Name: 102 Plot Date: Feb 09, 2017 at 09:30 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 102

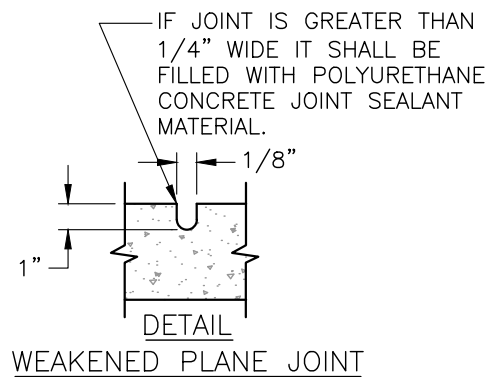
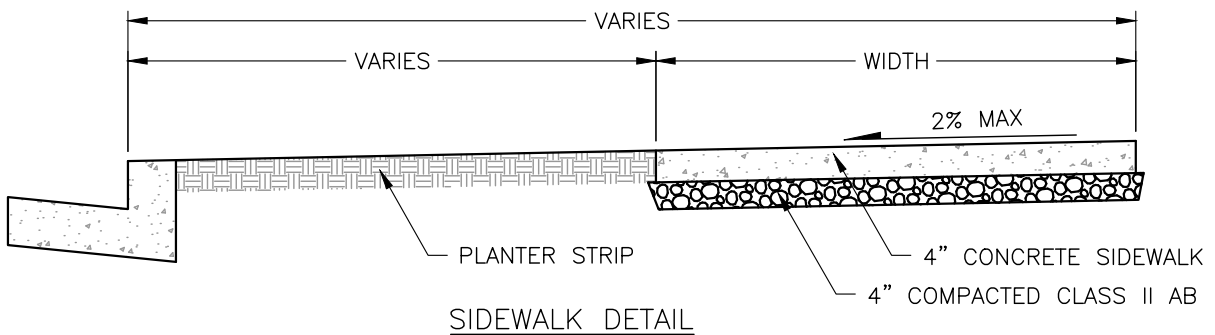
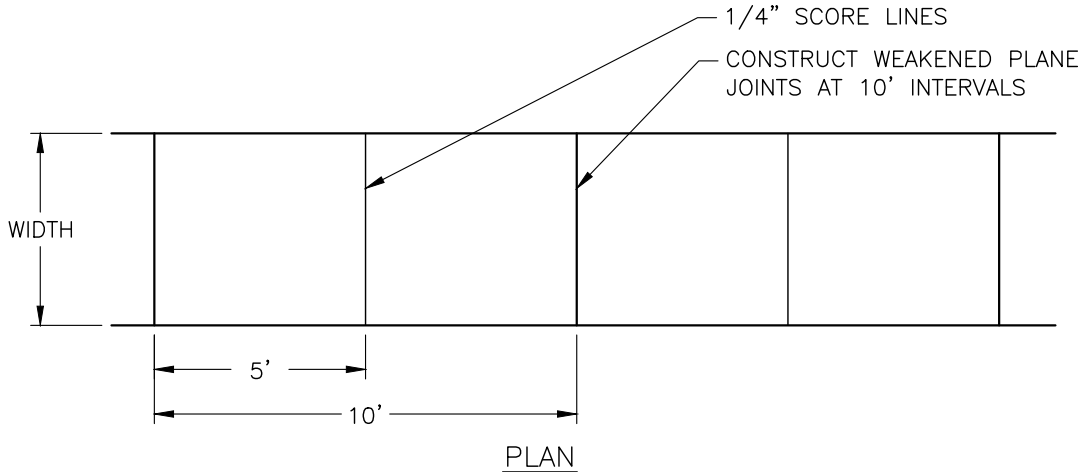


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SIDEWALK

1 OF 2




**NOTES:**

1. MATCH WIDTH WITH ADJACENT EXISTING SIDEWALK. FOR REPLACEMENT LESS THAN 10', MATCH SCORING PATTERN.
2. NEW SIDEWALK WIDTH SHALL BE 5'-0" MINIMUM.
3. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. LIGHT BROOM FINISH WITH IMPERVIOUS MEMBRANE CURE.
4. CONSTRUCT SIDEWALK ON FIRM STABLE SUBGRADE AND 4" OF CLASS II AB COMPACTED TO 90% RELATIVE DENSITY.
5. #4 REBAR AT 12" O.C. EACH WAY ADJACENT TO STREET TREES WHERE REQUIRED BY CITY ENGINEER.

Images: CN clarker.ppt\Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 101-109.dwg  
 Layout Name: 103-1 Plot Date: Feb 09, 2017 at 09:30 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works

Date 1/17/17

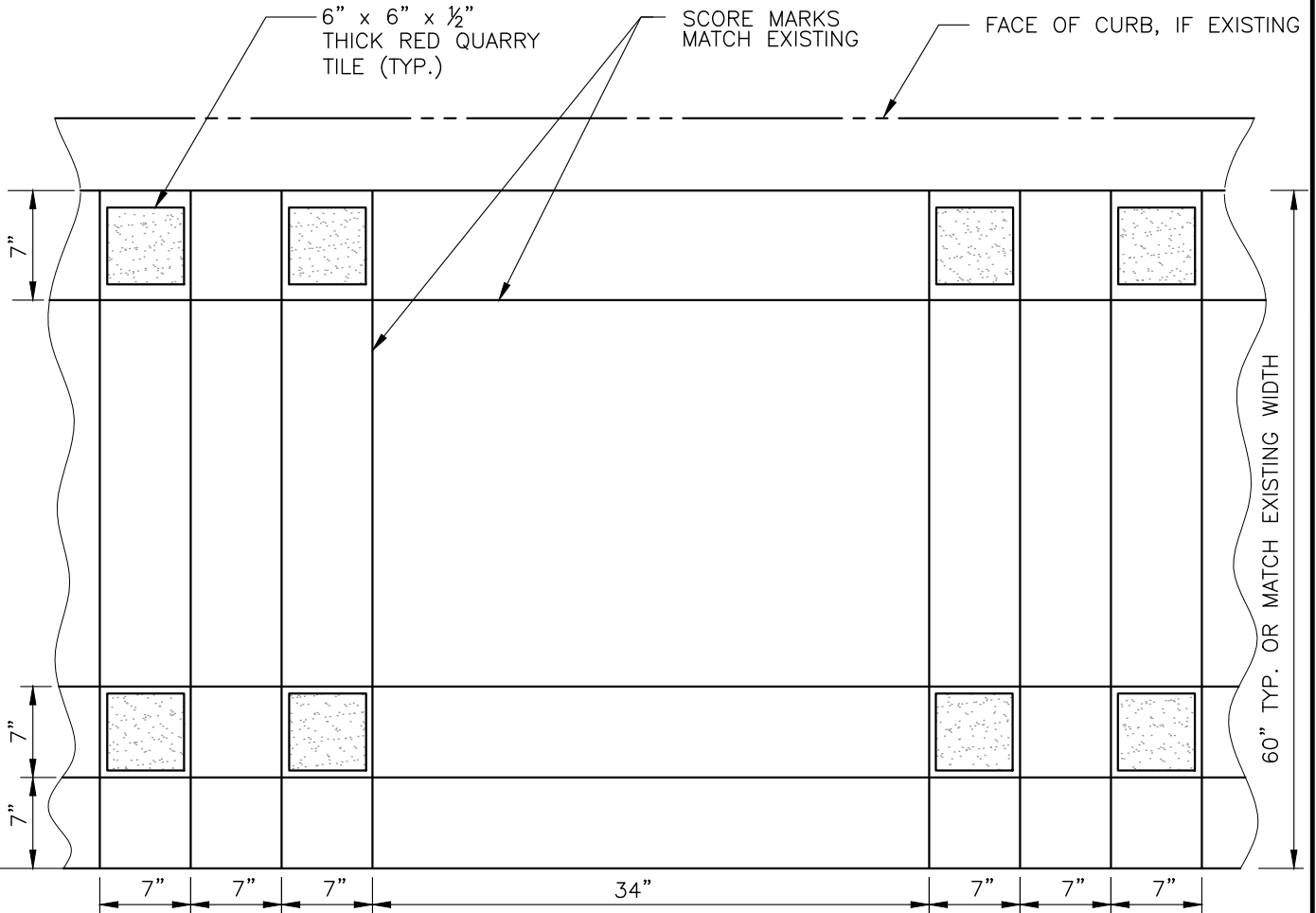
STD DETAIL  
103-1



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SIDEWALK YELLOW BUFF WITH TILE 2 OF 2




SIDEWALK PLAN

NOTES:

1. FOR SIDEWALK DETAILS NOT SHOWN HERE. SEE STD. DETAIL 103-1.
2. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds\Stds Jan 2017\Piedmont Std 101-109.dwg  
 Layout Name: 103-2 Plot Date: Feb 09, 2017 at 09:30 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**103-2**



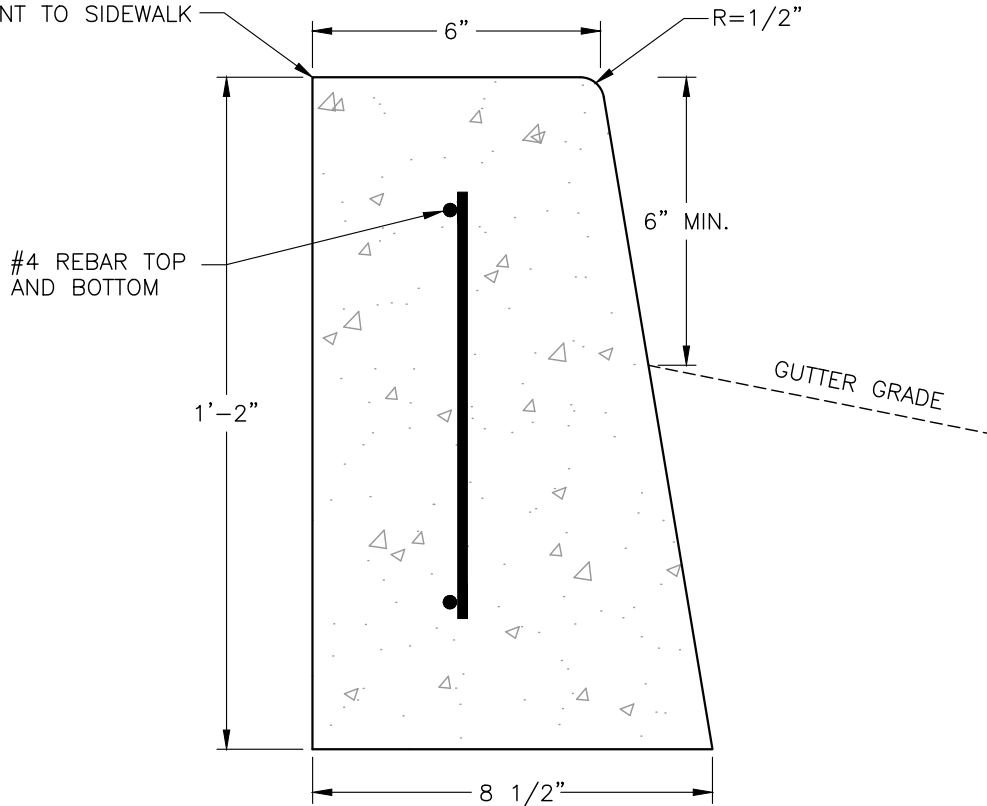
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## VERTICAL CURB

CURB & GUTTER:  
 0.0261 CY/LF  
 0.7049 SQ. FT./LF

R=1/2" OR EDGING TOOL  
 IF ADJACENT TO SIDEWALK



**NOTES:**

1. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. FINISH WITH STEEL TROWEL AND LIGHT BROOM.
2. CONSTRUCT ONE QUARTER (1/4) INCH EXPANSION OR WEAKENED PLANE JOINTS EVERY TWENTY FEET.

Images: C:\darkier\pg\Piedmont 2015.pgs Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 101-109.dwg Layout Name: 105 Plot Date: Feb 09, 2017 at 09:30 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: *Shuu*  
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

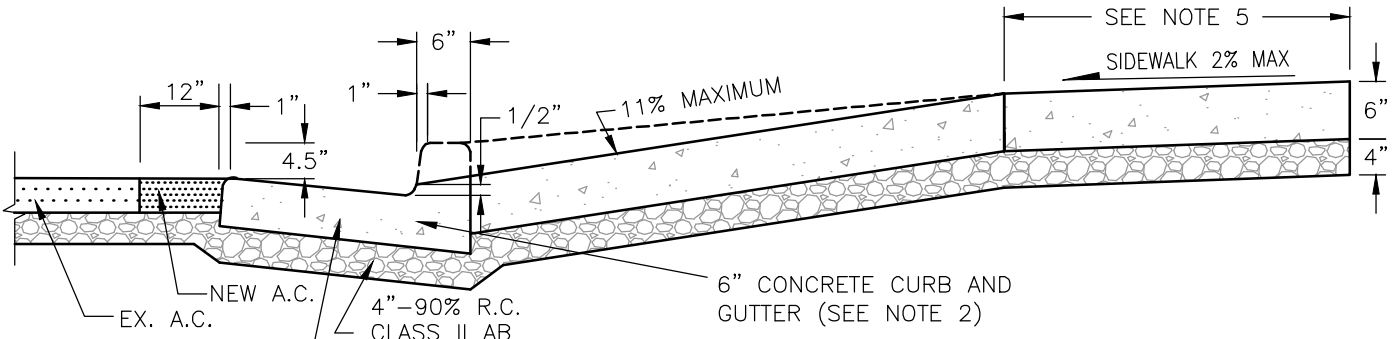
STD DETAIL  
**105**



# CITY OF PIEDMONT

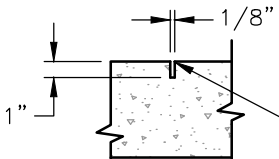
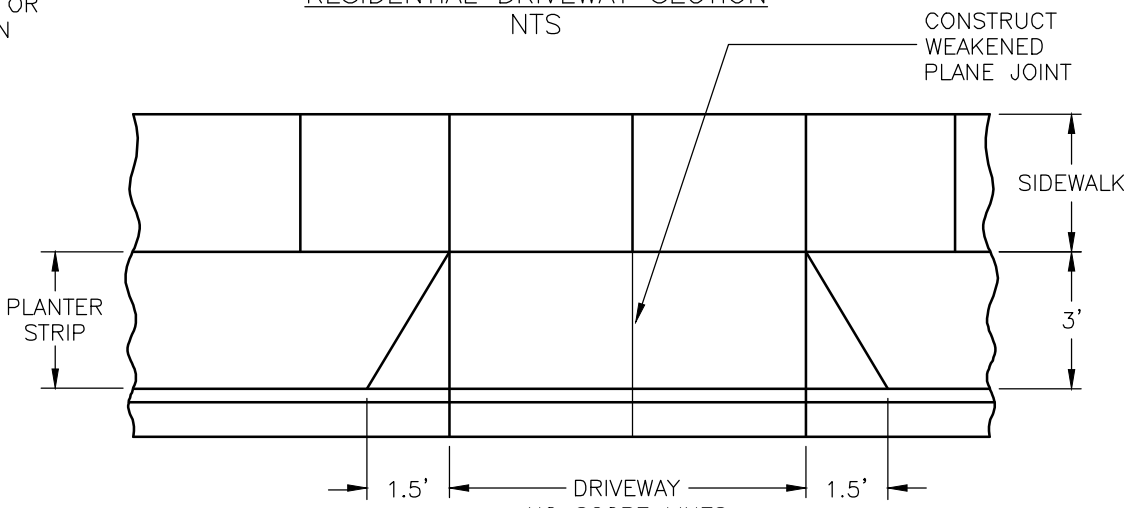
PUBLIC WORKS DEPARTMENT

## RESIDENTIAL DRIVEWAY WITH PLANTING STRIP



CURB AND GUTTER TO MATCH EXISTING OR AS SPECIFIED ON THE PLANS.

RESIDENTIAL DRIVEWAY SECTION  
NTS



IF JOINT IS GREATER THAN 1/4" WIDE, IT SHALL BE FILLED WITH POLYURETHANE CONCRETE JOINT SEALANT.


DRIVEWAY PLAN  
NTS

**NOTES:**

1. CONSTRUCT WEAKENED PLANE JOINTS AT 20' INTERVAL TO MATCH SCORE LINES.
2. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. LIGHT BROOM FINISH WITH IMPERVIOUS MEMBRANE CURE.
3. CONSTRUCT EXPANSION JOINTS AT 100' MAX.
4. TOTAL WIDTH OF DRIVEWAY OPENINGS NOT TO EXCEED 40% OF LOT FRONTAGE.
5. MINIMUM WIDTH OF CLEAR PASSAGE SHALL BE 4 FT. WHERE RIGHT OF WAY RESTRICTIONS, NATURAL BARRIERS OR OTHER RESTRICTIONS CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 3FT., WITH APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
6. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.
7. NEW OR MODIFIED UTILITY POLES OR UTILITY EQUIPMENT MAY BE LOCATED NO CLOSER THAN 10 FEET OF A DRIVEWAY TO AVOID SIGHT-LINE OBSTRUCTIONS.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 101-109.dwg  
 Layout Name: 106 Plot Date: Dec 11, 2018 at 03:57 pm

Dwn: CLG	No. 1	Date 12-2018	Revision NOTE 7	Appr. JLW
Chk: JLW				
<b>DEC 2018</b>				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 12/06/18

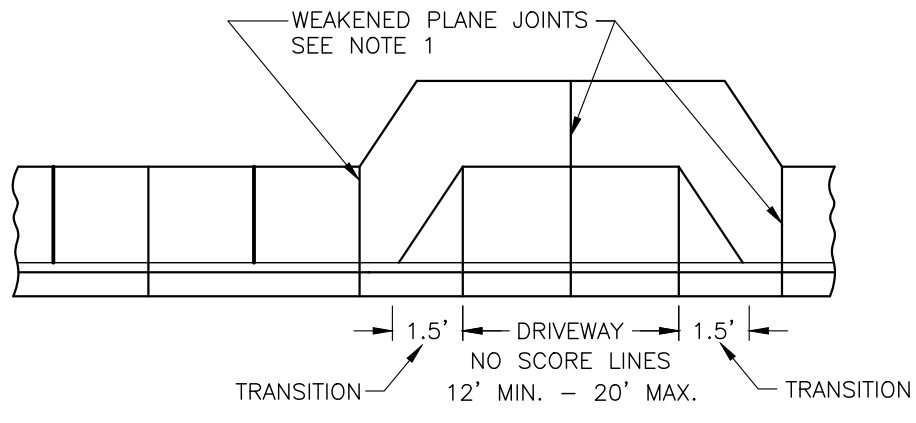
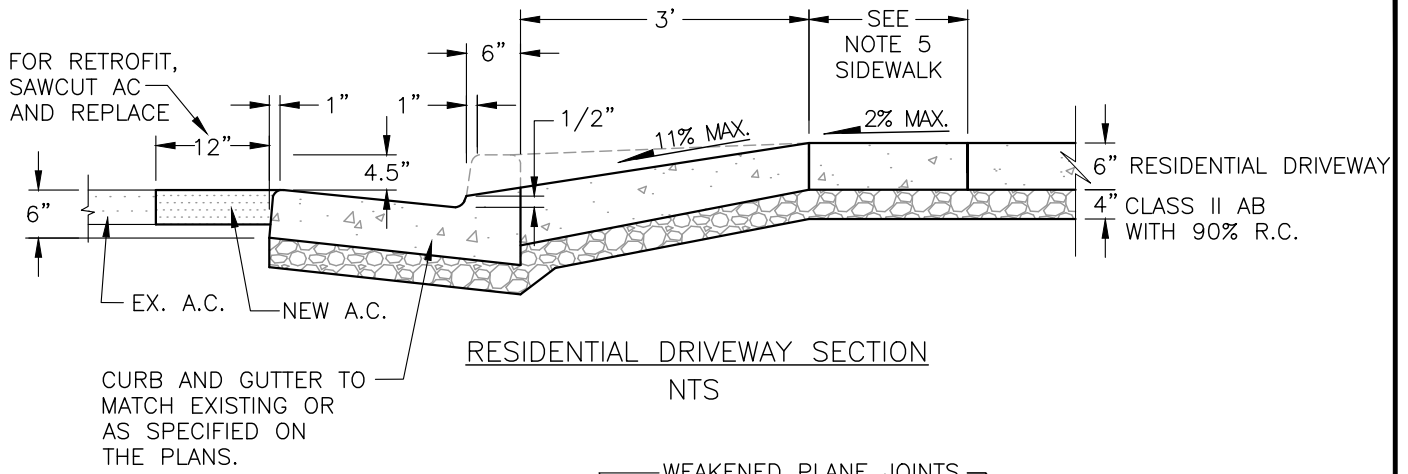
STD DETAIL  
**106**



# CITY OF PIEDMONT

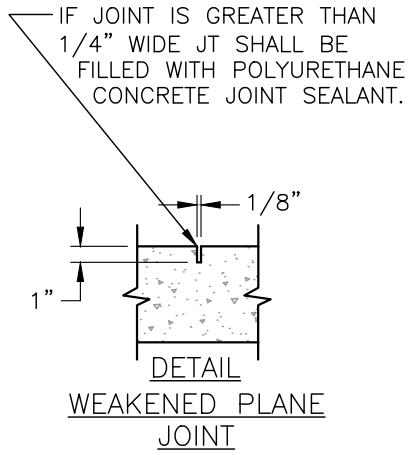
PUBLIC WORKS DEPARTMENT

## RESIDENTIAL DRIVEWAY WITH MONOLITHIC SIDEWALK



**NOTES:**

1. CONSTRUCT WEAKENED PLANE JOINTS AT 20' INTERVAL TO MATCH SCORE LINES.
2. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. LIGHT BROOM FINISH WITH IMPERVIOUS MEMBRANE CURE.
3. CONSTRUCT EXPANSION JOINTS AT 100' MAX.
4. TOTAL WIDTH OF DRIVEWAY OPENINGS NOT TO EXCEED 40% OF LOT FRONTAGE.
5. MINIMUM WIDTH OF CLEAR PASSAGE SHALL 4 FT. WHERE RIGHT OF WAY RESTRICTIONS, NATURAL BARRIERS OR OTHER RESTRICTIONS CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 3FT., WITH APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
6. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.



Images: C:\darken\pww\Piedmont 2015.pwg; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 101-109.dwg  
 Layout Name: 107 Plot Date: Feb 09, 2017 at 09:30 am

Dwn: CLG	No.	Date	Revision	Appr.	Approved By:  Chester Nakahara Director of Public Works	STD DETAIL <b>107</b> Date 1/17/17
Chk: MNO						
JAN 2017						

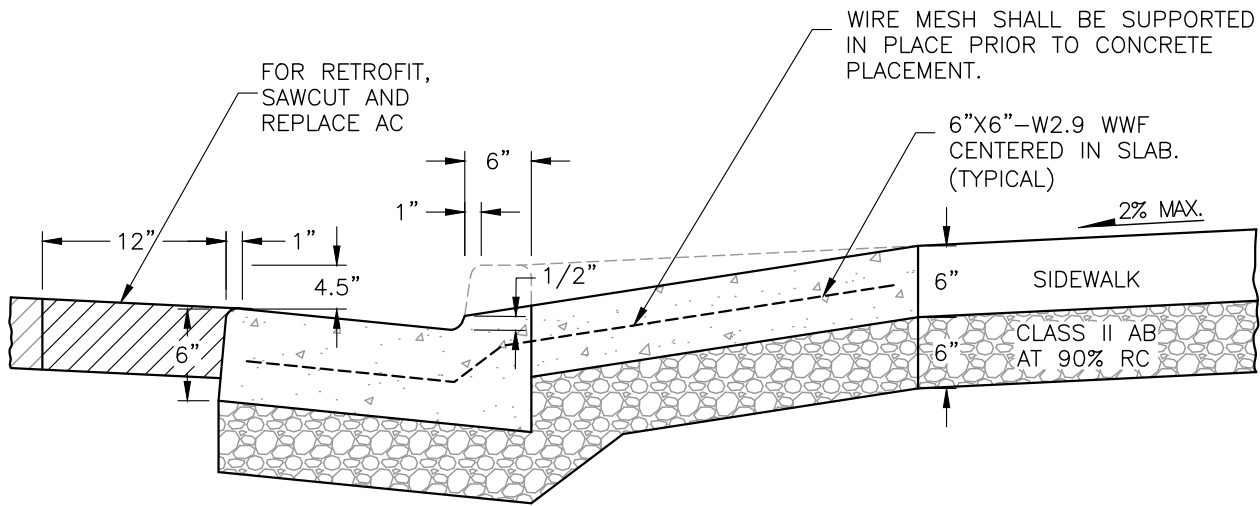




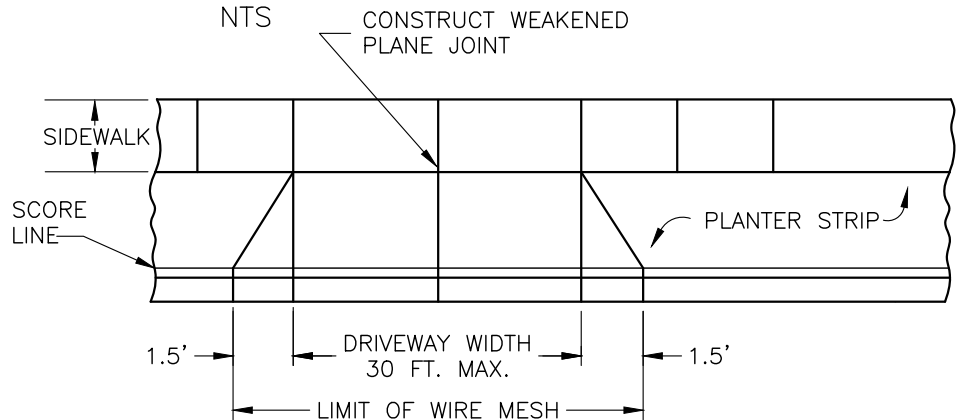
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

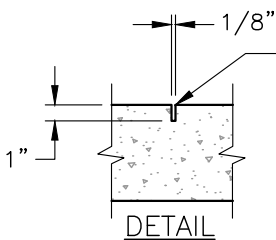
## COMMERCIAL TYPE GUTTER & DRIVEWAY



SECTION  
NTS



DRIVEWAY PLAN  
NTS



DETAIL  
WEAKENED PLANE JOINT

**NOTES:**

1. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. LIGHT BROOM FINISH WITH IMPERVIOUS MEMBRANE CURE.
2. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.
3. #4 BARS SPACED AT 6" O.C. MAY BE SUBSTITUTED FOR THE WIRE MESH WHEN APPROVED BY THE CITY ENGINEER.

Images: C:\darken\pdp\Piedmont 2015.ppt; Xrefs: F:\BMAP-STD\Piedmont\Std 101-109.dwg  
 Layout Name: 108 Plot Date: Feb 09, 2017 at 09:30 am  
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Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works

Date 1/17/17

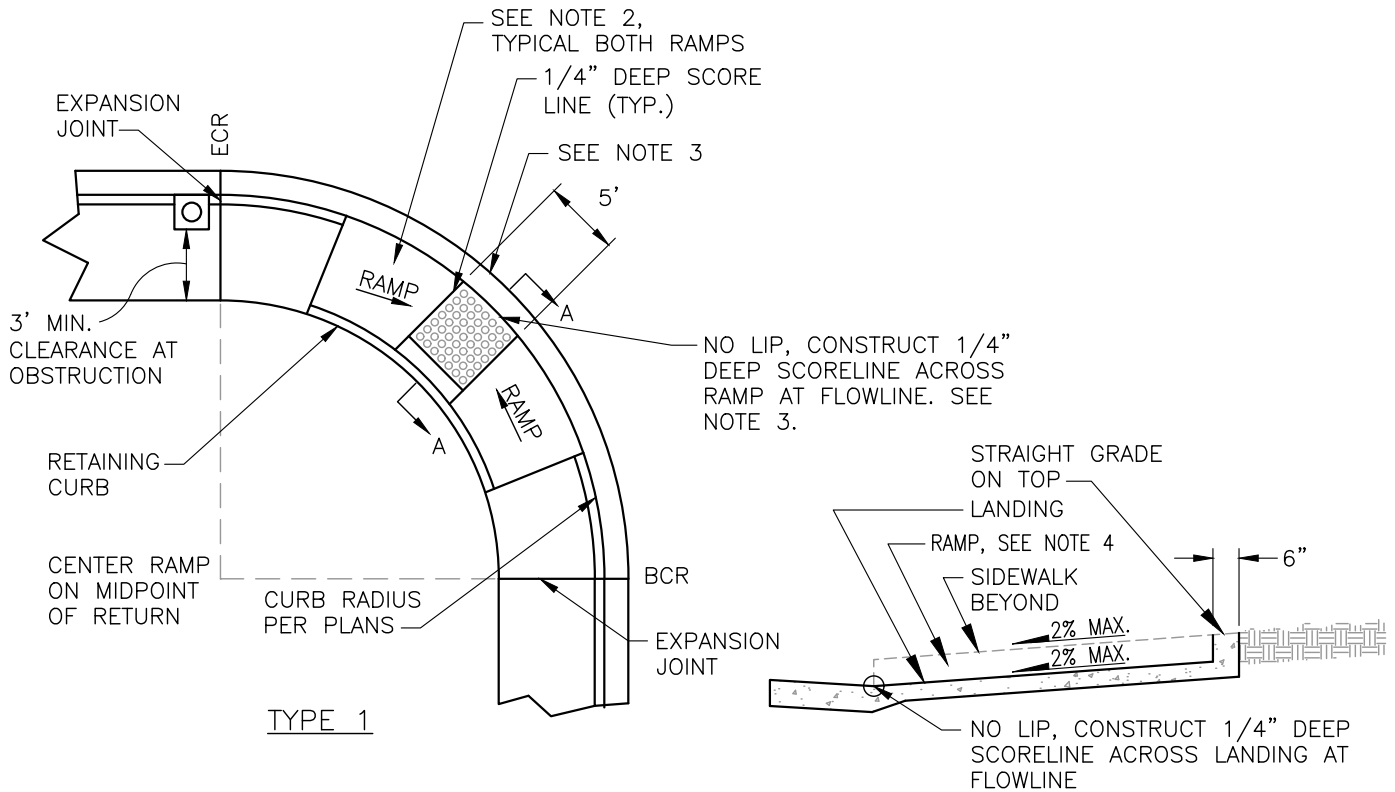
STD DETAIL  
**108**



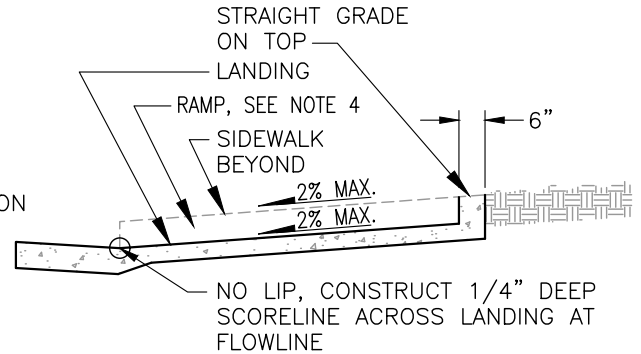
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

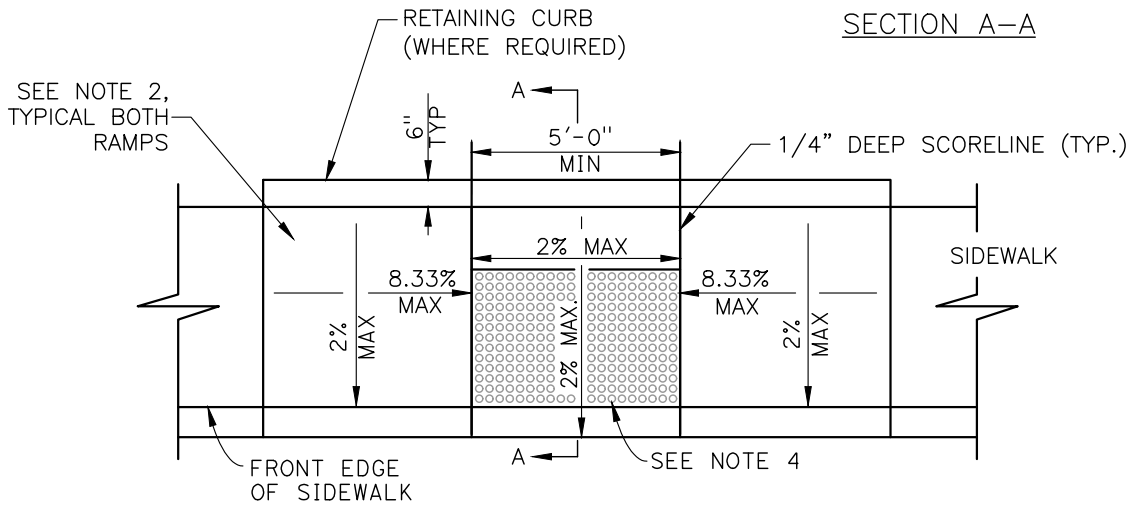
## CURB RAMP TYPE 1



TYPE 1



SECTION A-A




MIDBLOCK-TYPE 1

**NOTES:**

1. RAMP SLOPE 1:12 MAXIMUM 1:50 MINIMUM. 2% MAX. SIDEWALK CROSS SLOPE.
2. THE CONCRETE FINISH OF THE RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK. THE LANDING SHALL HAVE A COARSE BROOM FINISH.
3. TRANSITION SLOPE 1:10 MAXIMUM.
4. INSTALL DETECTABLE WARNING SURFACE IN RAMP AREA PER LATEST CALTRANS STD. PLAN A88A.
5. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS.

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

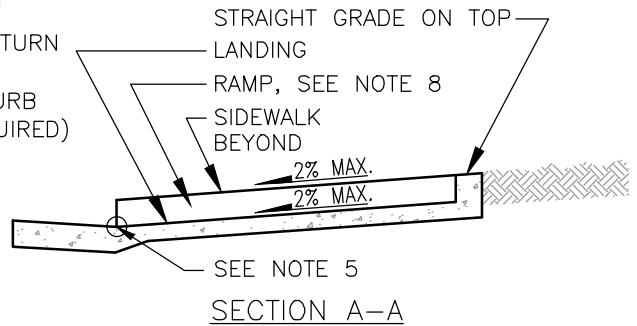
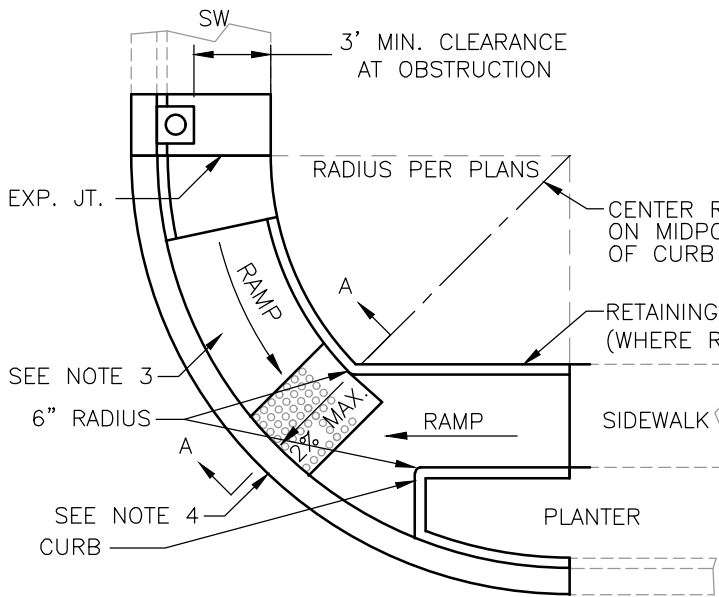
STD DETAIL  
 109



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## CURB RAMP TYPE 2 & 3

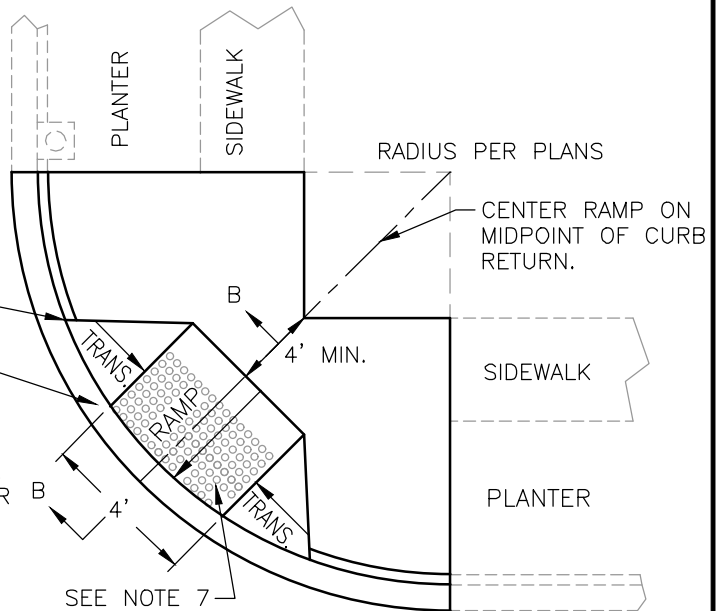


### TYPE 2

CONDITIONS: PLANTER ON ONE STREET  
NO PLANTER ON THE OTHER

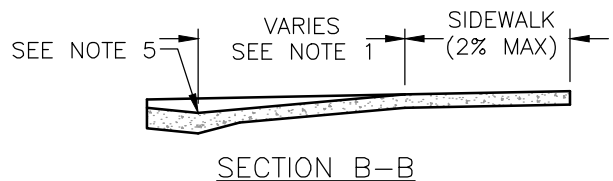
FOR 6" CURB HEIGHT, TRANSITION CURB HEIGHT TO 4-1/2" FROM EXPANSION TO JOINT TO BEGINNING OF TRANSITION.

SEE NOTE 4



### TYPE 3

CONDITIONS: PLANTER ON BOTH STREETS




### NOTES:

1. RAMP SLOPE 1:12 MAXIMUM, 1:50 MINIMUM.
2. TRANSITION SLOPE 1:10 MAXIMUM.
3. THE CONCRETE FINISH OF THE RAMP SHALL HAVE A TRANSVERSE, BROOMED, SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
4. FOR 6" CURB HEIGHT, TRANSITION CURB HEIGHT TO 4-1/2" FROM EXPANSION JOINT TO BEGINNING OF "TRANSITION".
5. TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. CONSTRUCT 1/4" DEEP SCORE-LINE ACROSS RAMP AT FLOWLINE.
6. RETAINING CURB AT BACK OF RAMP SHALL BE CONSTRUCTED WITH A 6" RADIUS AT THE CORNER.
7. INSTALL DETECTABLE WARNING SURFACE IN RAMP AREA PER LATEST CALTRANS STD. PLAN A88A.
8. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS.
9. NO NEW OR EXPANDED UTILITY POLES MAY BE LOCATED WITHIN 20 FEET OF CROSSWALKS, STRIPED OR NOT, TO AVOID SIGHT-LINE OBSTRUCTIONS.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg  
 Layout Name: 110 Plot Date: Dec 06, 2018 at 02:07 pm

Dwn:	No.	Date	Revision	Appr.
CLG	1	12-2018	NOTE 9	JLW
Chk:				
JLW				
<b>DEC 2018</b>				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 12/06/18

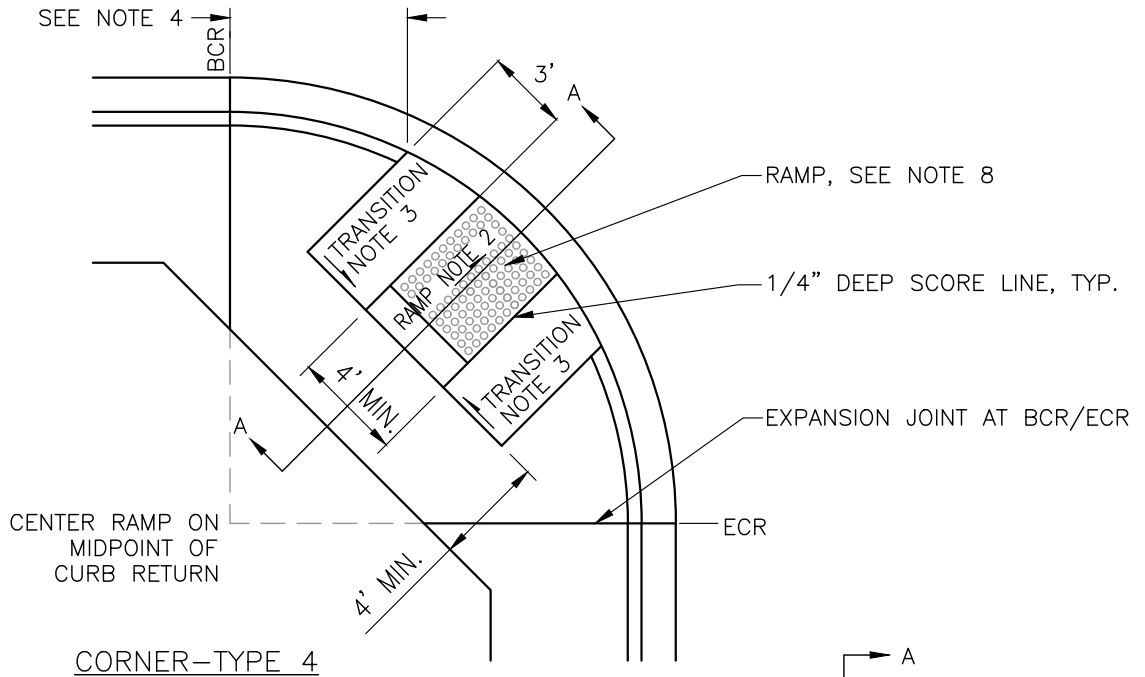
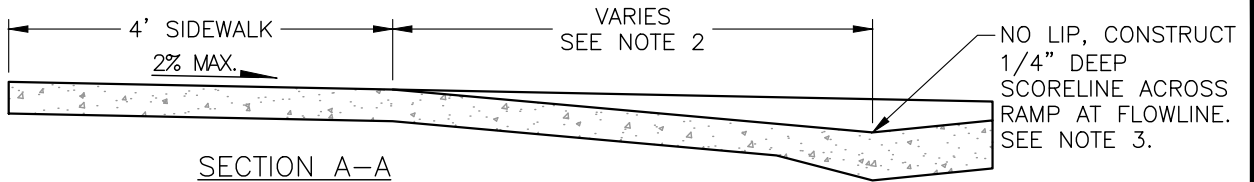
STD DETAIL  
**110**



# CITY OF PIEDMONT

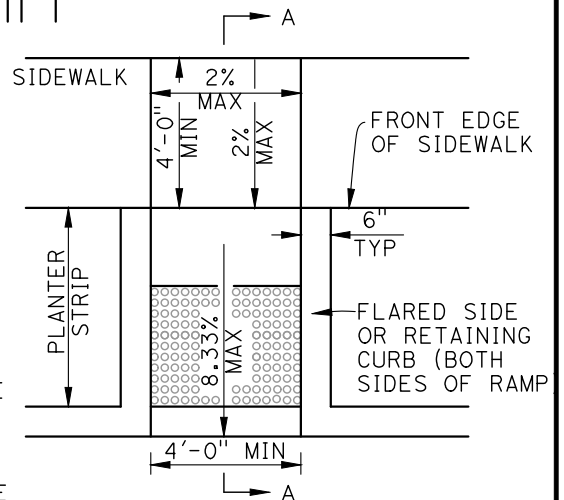
PUBLIC WORKS DEPARTMENT

## CURB RAMP TYPE 4



**NOTES:**

1. CURB RETURN RADIUS AS SPECIFIED.
2. RAMP SLOPE 1:12 MAXIMUM, 1:50 MINIMUM.
3. TRANSITION SLOPE 1:10 MAXIMUM.
4. FOR 6" CURB HEIGHT, TRANSITION CURB HEIGHT TO 4-1/2" FROM EXPANSION JOINT TO BEGINNING OF "TRANSITION".
5. THE CONCRETE FINISH OF THE RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
6. THE ROUTE OF TRAVEL FROM THE BOTTOM OF THE RAMP TO THE STREET SHALL HAVE A MAXIMUM SLOPE OF 5% FOR THE FIRST 2 FT.
7. INSTALL DETECTABLE WARNING SURFACE IN RAMP AREA PER LATEST CALTRANS STD. PLAN A88A.
8. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS.



Images: CN darker.ppt\Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg  
 Layout Name: 111 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

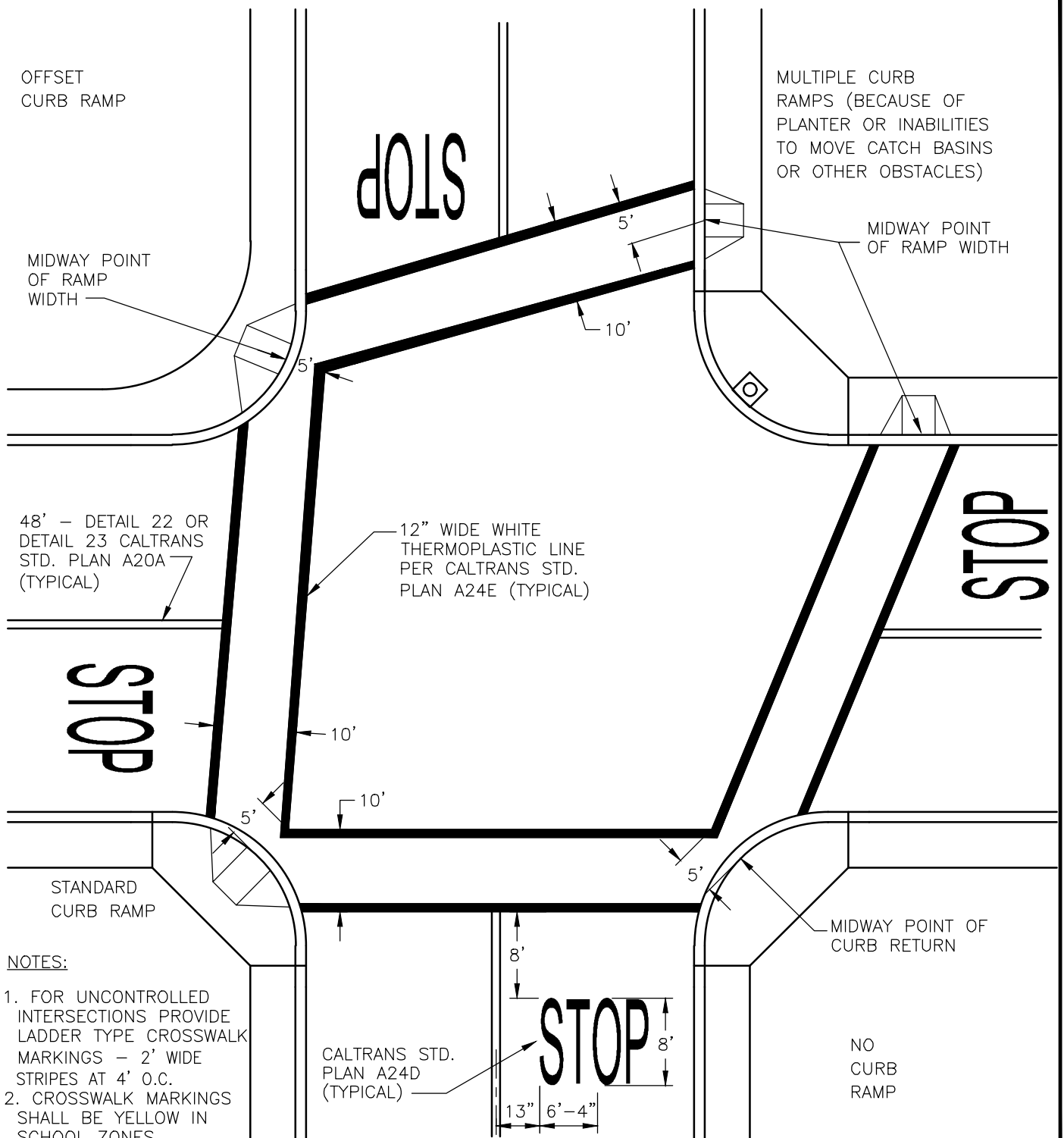
Approved By: *[Signature]*  
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**111**



**CITY OF PIEDMONT**  
PUBLIC WORKS DEPARTMENT

**CROSSWALK LAYOUTS**



**NOTES:**

1. FOR UNCONTROLLED INTERSECTIONS PROVIDE LADDER TYPE CROSSWALK MARKINGS - 2' WIDE STRIPES AT 4' O.C.
2. CROSSWALK MARKINGS SHALL BE YELLOW IN SCHOOL ZONES.
3. NO NEW OR EXPANDED UTILITY POLES MAY BE LOCATED WITHIN 20 FEET OF CROSSWALKS, STRIPED OR NOT, TO AVOID SIGHT-LINE OBSTRUCTIONS.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds\Stds Jun 2017\Piedmont Std 110-117.dwg Layout Name: 112 Plot Date: Dec 06, 2018 at 02:09 pm

Dwn: CLG	No. 1	Date 12-2018	Revision NOTE 3	Appr. JLW	Approved By: <i>Shuu</i>	STD DETAIL <b>112</b>
Chk: JLW						
<b>DEC 2018</b>						

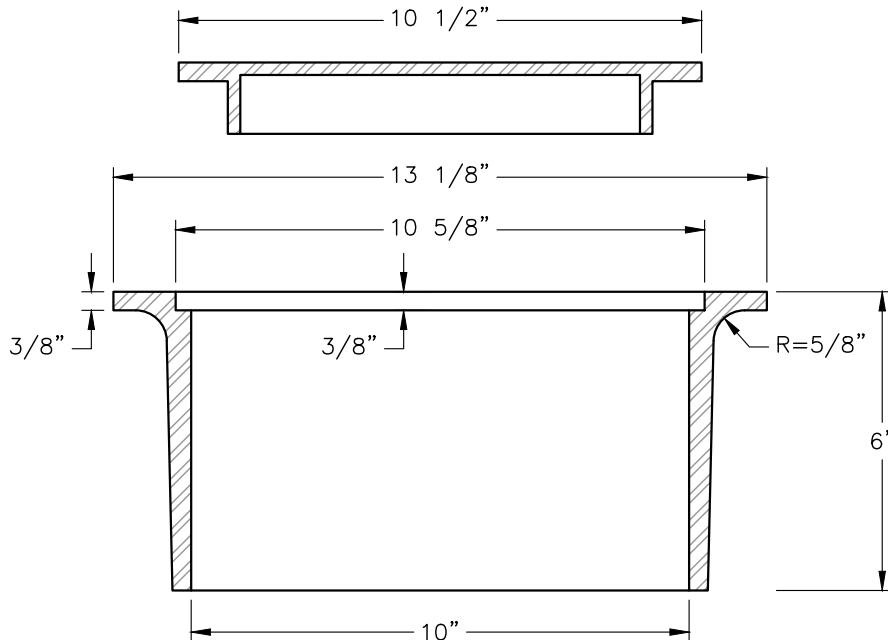
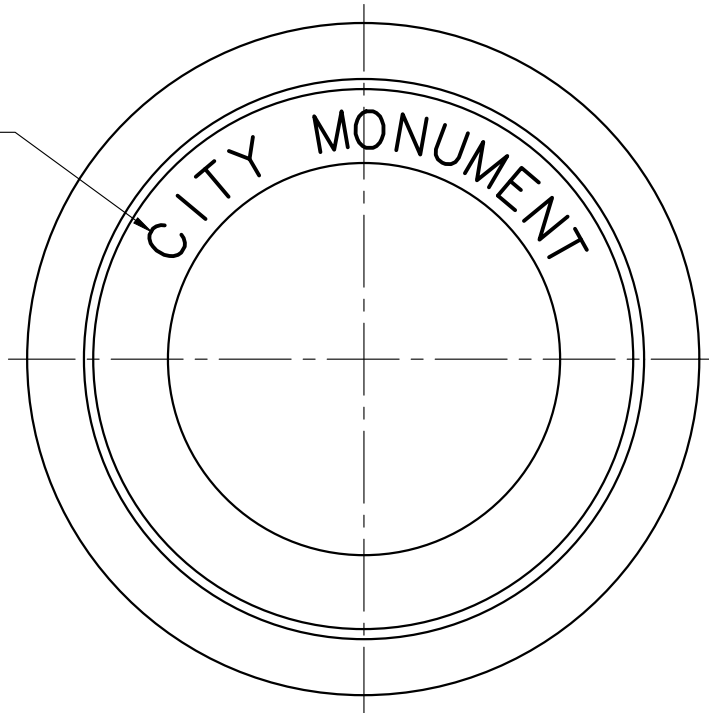
Chester Nakahara  
Director of Public Works  
Date 12/06/18



**CITY OF PIEDMONT**  
PUBLIC WORKS DEPARTMENT

**SURVEY MONUMENT**  
**1 OF 2**


1/2" PATTERN LETTERS



**NOTES:**

1. USE D&L FOUNDRY & SUPPLY DUCTILE IRON MONUMENT RING AND COVER K-6016
2. SEE ALSO STD. DETAIL 114 FOR MONUMENT INSTALLATION

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg  
 Layout Name: 113-1 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.	Approved By:
CLG					 Chester Nakahara Director of Public Works
Chk:					
JAN 2017					

STD DETAIL  
**113-1**

Date 1/17/17

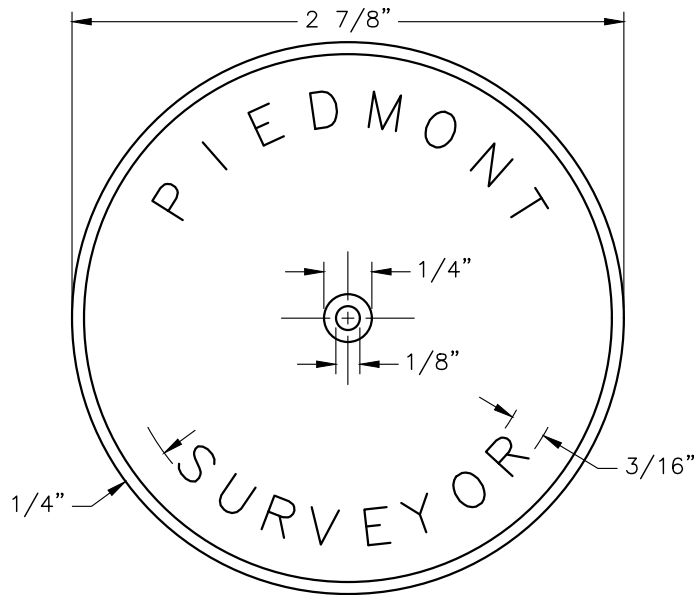


# CITY OF PIEDMONT

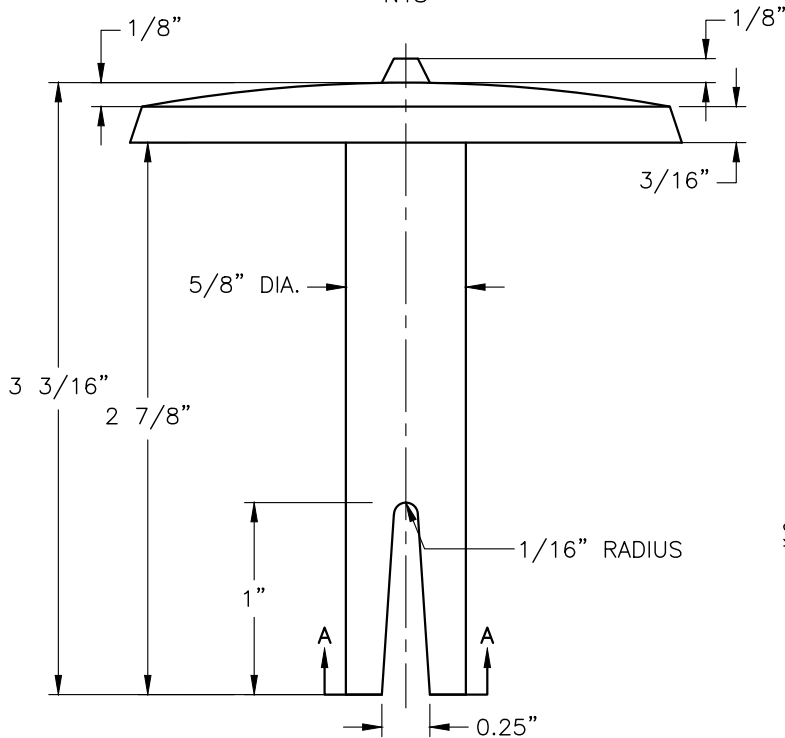
PUBLIC WORKS DEPARTMENT

## SURVEY MONUMENT

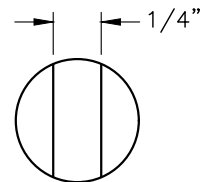
2 OF 2



SECTION  
NTS



PLAN  
NTS




SECTION A-A  
NTS

**NOTES:**

- BRONZE TO BE COMPOSED APPROXIMATELY AS FOLLOWS:  
 COPPER 85%  
 TIN 5%  
 LEAD 5%  
 ZINC 5%

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Stds\Stds Jan 2017\Piedmont Std 110-117.dwg Layout Name: 113-2 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

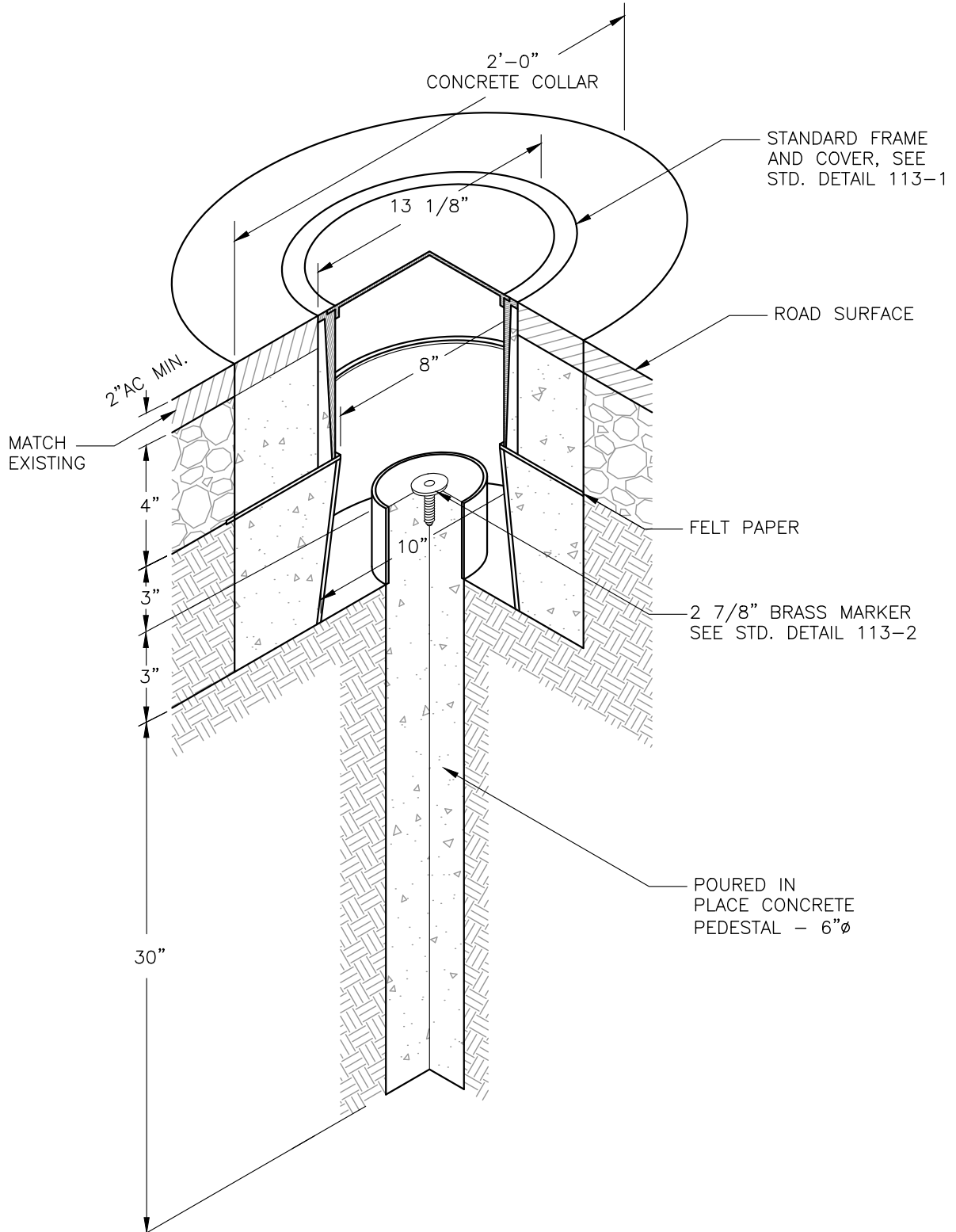
STD DETAIL  
 113-2



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

# SURVEY MONUMENT INSTALLATION



Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg Layout Name: 114 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: *Shuu*

Chester Nakahara  
 Director of Public Works

Date 1/17/17

STD DETAIL  
 114

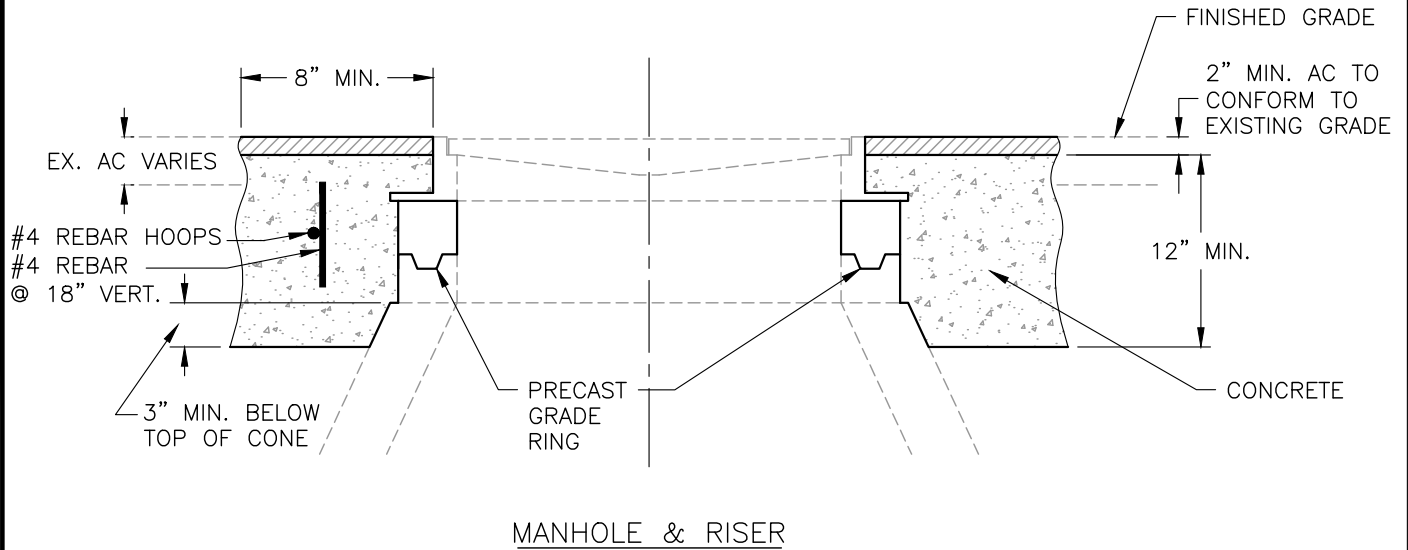




# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## FRAME AND COVER ADJUSTMENT




MANHOLE & RISER

**NOTES:**

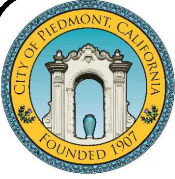
1. THIS DETAIL SHALL BE USED WHERE FRAME AND COVERS ARE BEING ADJUSTED TO GRADE.
2. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. FINISH TO BE ROUGH.
3. CONCRETE SHALL BE PLACED AGAINST NEATLY EDGED EXCAVATION.
4. FRAMES SHALL MATCH EXISTING FINISHED GRADE TO WITHIN 1/8".
5. TACK THE AREA TO BE PAVED PRIOR TO PLACEMENT OF AC.
6. A MAXIMUM OF 12" OF GRADE RINGS IS ALLOWED FOR NEW CONSTRUCTION AND 18" MAXIMUM FOR ADJUSTMENT OF EXISTING MANHOLES. FOR ADJUSTMENTS WHICH EXCEED 18" TOTAL OF GRADE RINGS, THE MANHOLE SHALL HAVE A NEW RISER (BARREL) SECTION(S) INSTALLED.
7. GRADE RING JOINTS SHALL BE SEALED WITH BUTYL ROPE SEALANT (RAM-NEK OR EQUAL).

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds Jan 2017\Piedmont Std 110-117.dwg  
 Layout Name: 115 Plot Date: Feb 09, 2017 at 09:36 am

Dwn: CLG	No.	Date	Revision	Appr.	Approved By:  Chester Nakahara Director of Public Works
Chk: MNO					
JAN 2017					

STD DETAIL  
115

Date 1/17/17

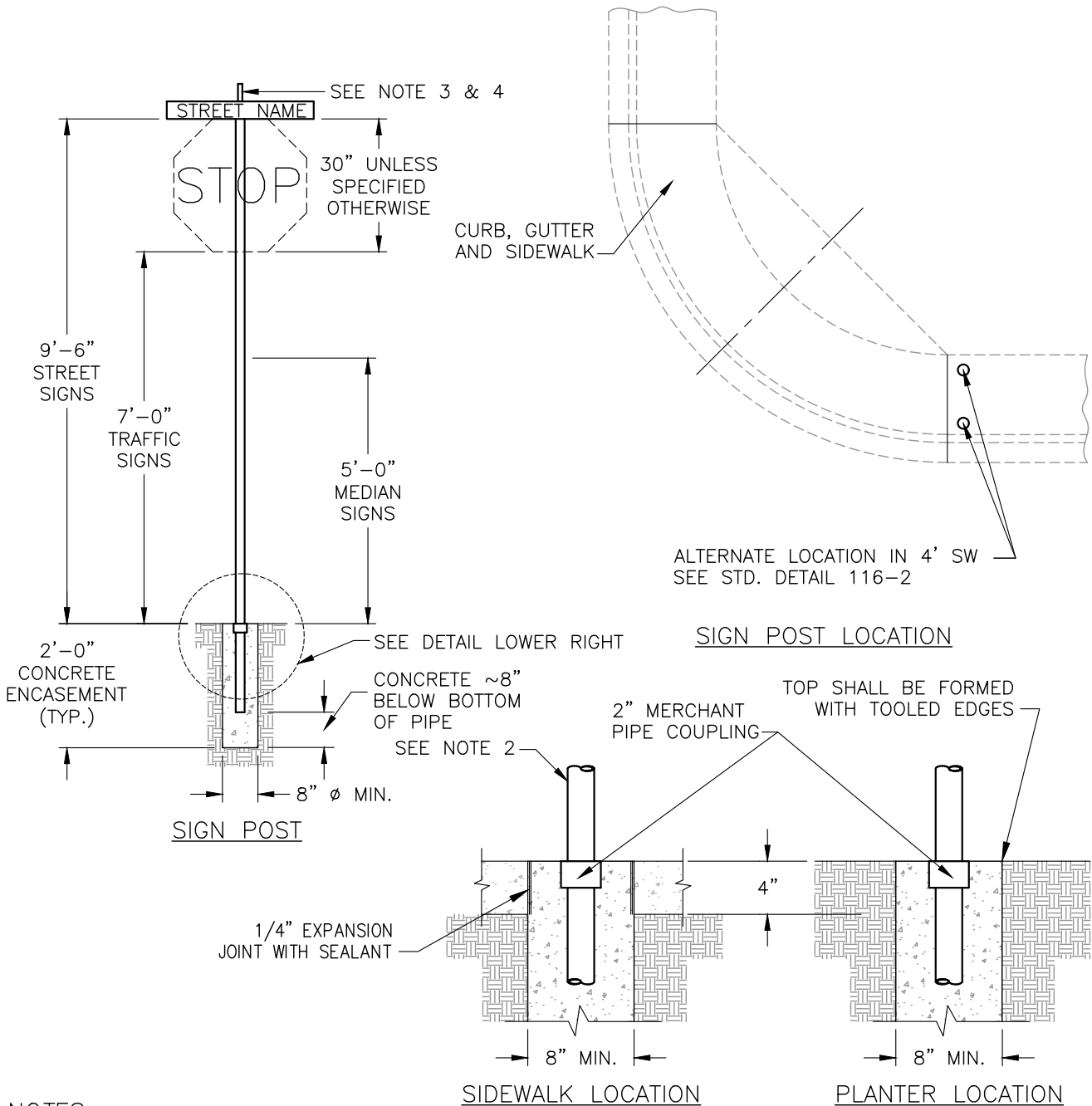


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

# SIGN POST INSTALLATION

## 1 OF 2



**NOTES:**

1. CONCRETE FOR POST INSTALLATION SHALL BE MINOR CONCRETE PER CALTRANS STD. SPEC. SECTION 90.
2. POSTS SHALL BE NEW 2"  $\phi$  GALV. SCH. 40 STEEL PIPE AND SHALL BE SET PLUMB.
3. FOR POSTS WITH STREET NAME SIGNS, USE TAPCO #V14F-HDSL SERIES BRACKETS OR APPROVED EQUAL.
4. WHERE NO STREET NAME SIGN IS INSTALLED, POST TOP SHALL MATCH TOP OF SIGN AND SHALL BE CAPPED BY USING A ROUNDED POST CAP.

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg  
 Layout Name: 116-1 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: *Shuu*  
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**116-1**

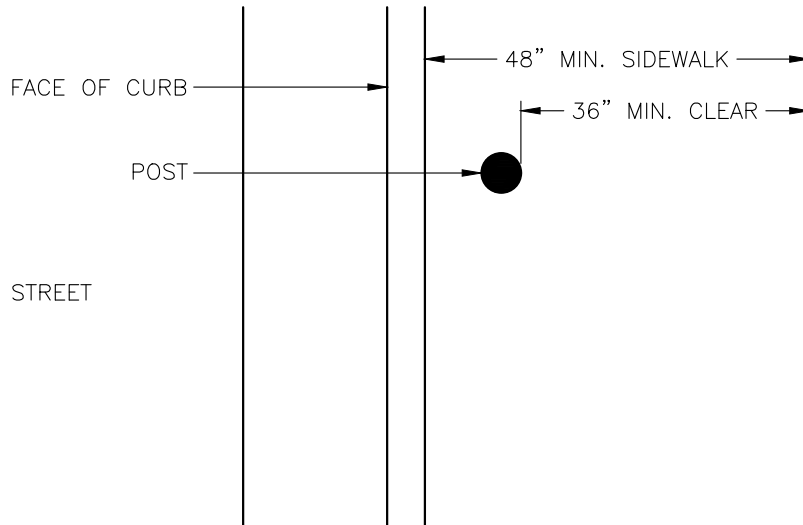
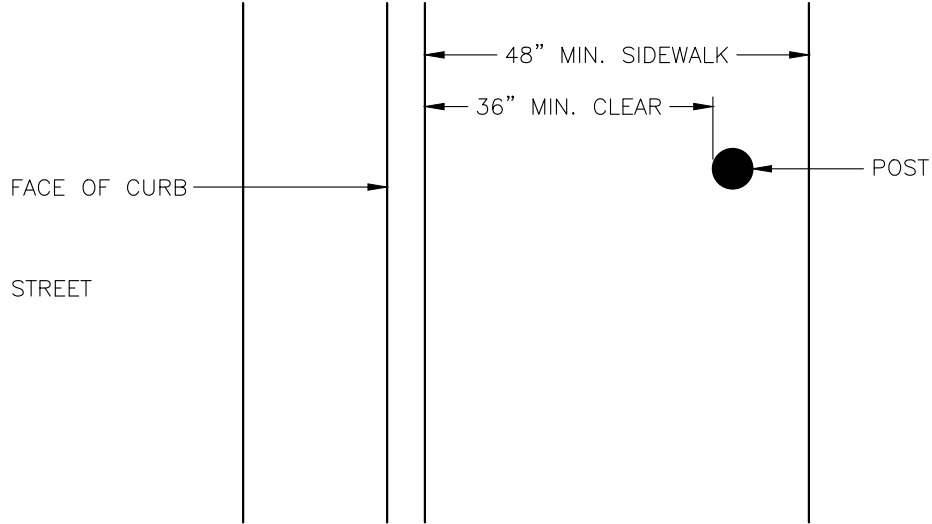


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SIGN POST INSTALLATION

2 OF 2



Images: C:\darken\pg\Piedmont 2015.ppt Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg Layout Name: 116-2 Plot Date: Feb 09, 2017 at 09:36 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

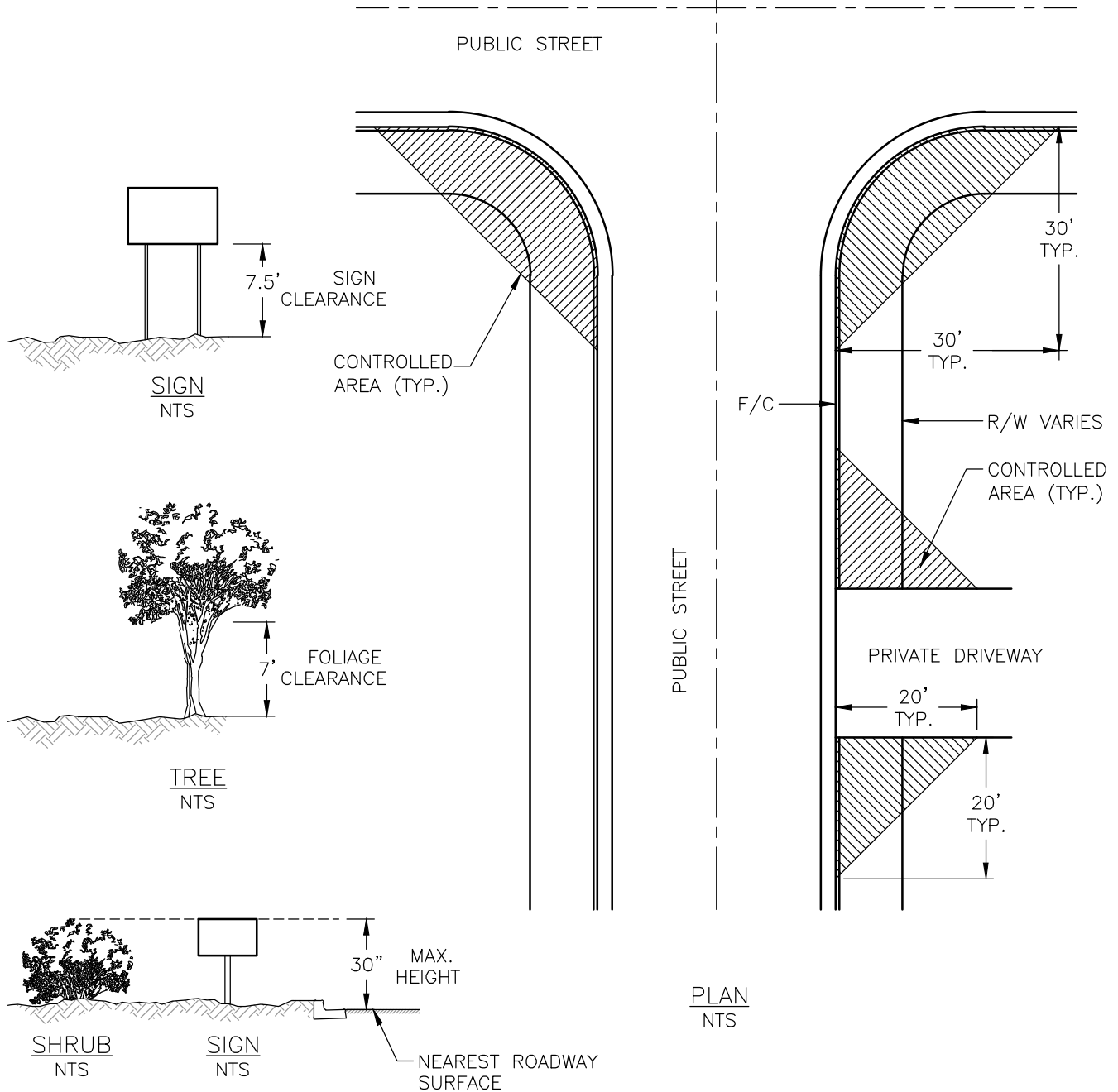
STD DETAIL  
 116-2



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## LINE OF SIGHT AND VISIBILITY REQUIREMENTS



PLAN  
NTS

**NOTES:**

1. NO NEW OR MODIFIED UTILITY POLES MAY BE LOCATED WITHIN 10 FEET OF A DRIVEWAY TO AVOID SIGHT-LINE OBSTRUCTIONS.
2. NO NEW OR EXPANDED UTILITY POLES MAY BE LOCATED WITHIN 30 FEET OF INTERSECTIONS TO AVOID SIGHT-LINE OBSTRUCTIONS.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 110-117.dwg  
 Layout Name: 117 Plot Date: Dec 06, 2018 at 02:10 pm

Dwn:	No.	Date	Revision	Appr.
CLG	1	12-2018	NOTES 1 & 2	JLW
Chk:	JLW			
<b>DEC 2018</b>				

Approved By: *Shuu*  
 Chester Nakahara  
 Director of Public Works  
 Date 12/06/18

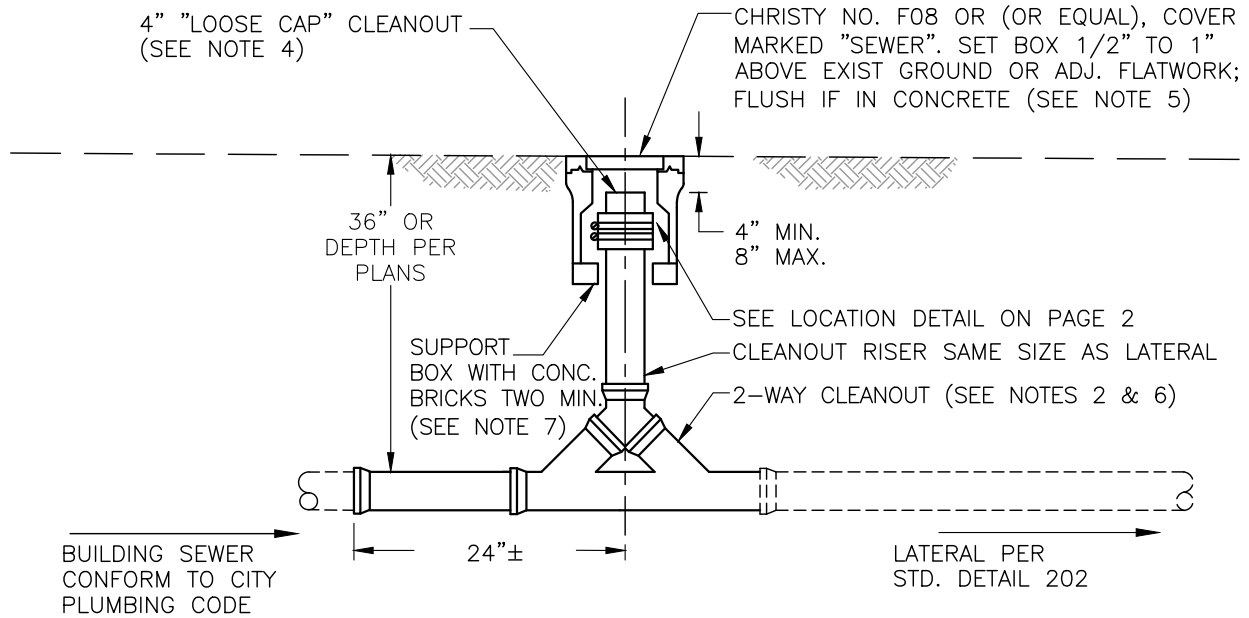
STD DETAIL  
**117**



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT


## WASTEWATER SERVICE CLEANOUT 1 OF 2



### NOTES:

1. INSTALL CLEANOUTS ON ALL 4" AND 6" WASTEWATER SERVICES UNLESS OTHERWISE SPECIFIED.
2. CLEANOUT SHALL BE POLYVINYL CHLORIDE (PVC) PER ASTM D-3034 SDR 35, OR CAST IRON SOIL PIPE (ASTM A74, SERVICE WEIGHT), OR DUCTILE IRON (ASTM A746). SEE APPROVED MATERIAL LIST.
3. BACKFILL SHALL CONFORM TO STD. PLAN 501.
4. INSTALL "LOOSE CAP" USING RUBBER, STAINLESS STEEL BANDED END CAP, LOOSELY TIGHTENED TO ALLOW FLUID BACK PRESSURE TO REMOVE THE CAP.
5. IN COMMERCIAL DRIVEWAYS: USE CHRISTY G-5 BOX WITH CAST-IRON LID OR EQUAL; IN RESIDENTIAL DRIVEWAYS: USE CHRISTY F08 (CAST-IRON LID); IN LAWN AND LANDSCAPE AREAS: USE CHRISTY F08D FIBRELYTE LID.
6. INSTALL 2-WAY CLEANOUT IF REQUIRED PER PLANS AND AT PROPERTY/RIGHT-OF-WAY LINE.
7. SUPPORT NOT NEEDED IF SET IN CONCRETE.
8. PROVIDE OVERFLOW PROTECTION OR BACKWATER DEVICE IF THE DIFFERENCE IN ELEVATION BETWEEN THE LOWEST FLOOR WITH PLUMBING WASTE FIXTURES OR FLOOR DRAINS AND THE RIM OF THE NEAREST UPSTREAM MANHOLE OR CLEANOUT IS 12" OR LESS. SEE APPROVED MATERIALS LIST.
9. PROVIDE ADDITIONAL CLEANOUTS IF GREATER THAN 100 FT SPACING OR ACCUMULATED ANGLE CHANGE BETWEEN CLEANOUTS EXCEEDS 45 DEGREES.

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg  
 Layout Name: 201-1  
 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.	Approved By:	STD DETAIL
CLG					 Chester Nakahara Director of Public Works	201-1
Chk:						
JAN 2017					Date 1/17/17	

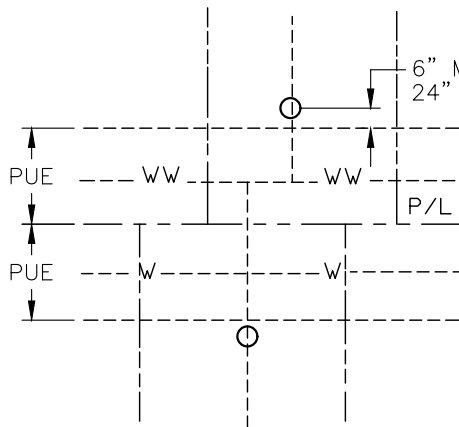


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

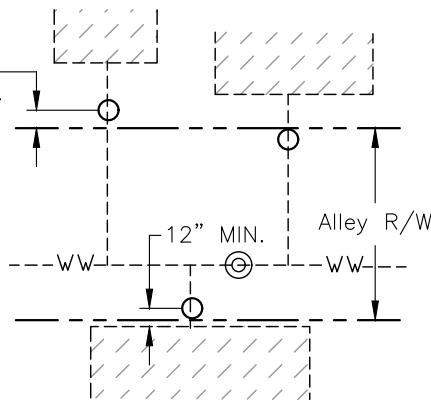
## WASTEWATER SERVICE CLEANOUT 2 OF 2

### LOCATION DETAILS



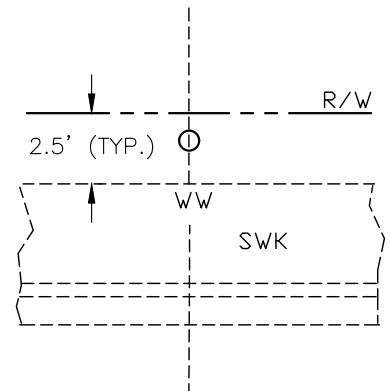
CLEANOUTS ON SERVICES AT EASEMENTS INSTALLED 6" TO 24" OUTSIDE THE EASEMENT.

EASEMENT SERVICE



CLEANOUTS ON SERVICES AT ALLEYS TO BE INSTALLED 6" TO 24" OUTSIDE THE ALLEY R/W OR 12" WITHIN THE ALLEY WHERE STRUCTURES INTERFERE WITH ON-SITE LOCATIONS.

ALLEY SERVICE



CLEANOUTS ON SERVICES AT STREETS TO BE INSTALLED BETWEEN THE R/W & B.O.W. OR IN THE PLANTER STRIP BETWEEN THE CURB AND SIDEWALK.

STREET SERVICE

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds\Stds Jan 2017\Piedmont Std 201-208.dwg  
 Layout Name: 201-2 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

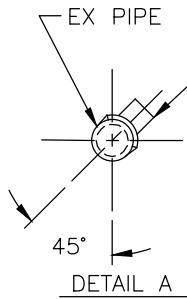
STD DETAIL  
 201-2



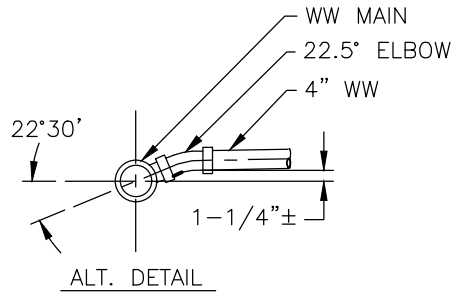
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

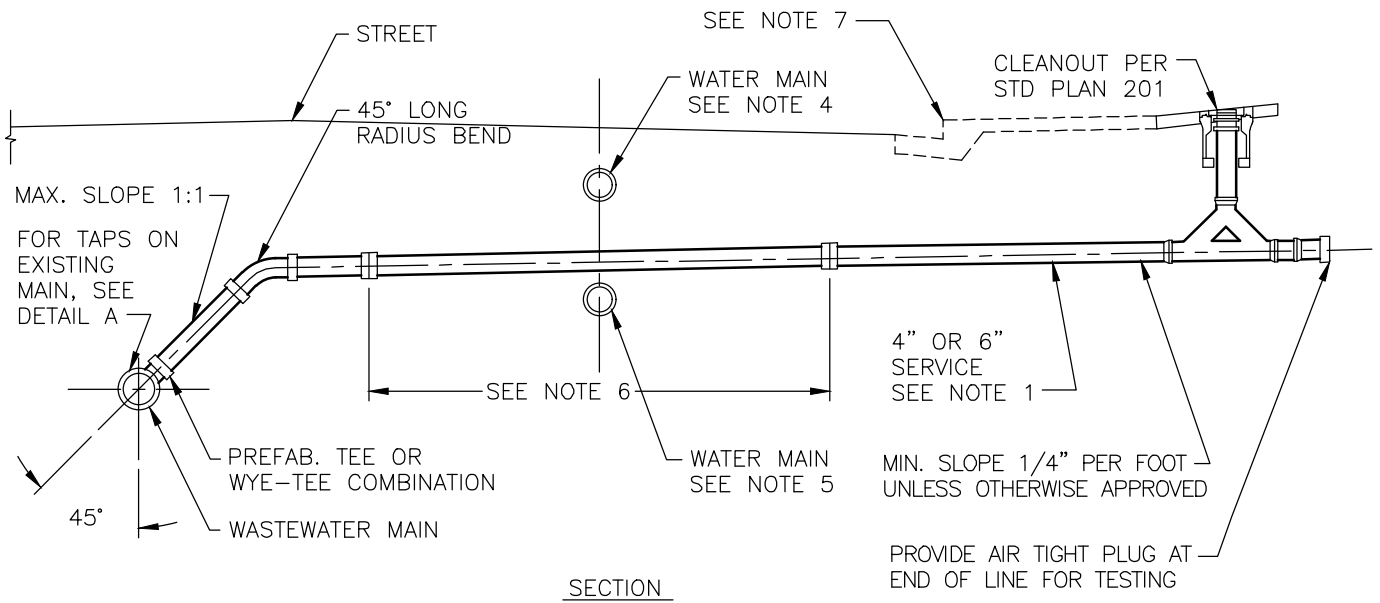
## WASTEWATER SERVICE



FOR CONNECTIONS TO VCP/CLAY TILE MAINS, USE GASKETED TEE SADDLE W/STAINLESS STEEL STRAPS. REMOVE COUPON FROM PIPE. SEE APPROVED MATERIAL LIST. FOR CONNECTIONS TO MAINS THAT ARE HDPE OR PVC PIPE OR HAVE A CURED-IN-PLACE LINER, USE "INSERTA-TEE" OR CITY ENGINEER APPROVED EQUAL SPECIFICALLY MANUFACTURED FOR THE TYPE OF PIPE AND CONNECTION.



(TO BE USED ONLY WITH APPROVAL OF CITY ENGINEER ON SHALLOW MAINS)




**NOTES:**

1. PIPE SHALL BE POLYVINYL CHLORIDE PIPE PER ASTM D3034 SDR 26, HDPE DR17 PER ASTM F714, DUCTILE IRON CLASS 50 WITH COMPRESSION JOINT AND RUBBER RING PER AWWA C111, OR CAST IRON PIPE PER ASTM A888, WITH RUBBER GASKETED JOINTS PER ASTM C564. 6" AND LARGER SERVICES FOR NON-SINGLE FAMILY RESIDENTIAL PER PLANS AND LATERAL STANDARDS.
2. BACKFILL SHALL CONFORM TO STD. PLAN 501.
3. TAPS ON EXISTING MAINS SHALL BE MADE BY THE CONTRACTOR PER DETAIL A WHERE SHOWN ON THE PLANS OR APPROVED BY THE CITY ENGINEER.
4. WHERE SERVICE CROSSES OVER WATER MAIN, 4" MIN. CLEARANCE AND SPECIAL CONSTRUCTION ARE REQUIRED (SEE NOTE 6)
5. WHERE SERVICE CROSSES UNDER WATER MAIN WITH LESS THAN 12" CLEARANCE, 4" CLEARANCE AND SPECIAL CONSTRUCTION ARE REQUIRED. (SEE NOTE 6)
6. SPECIAL CONSTRUCTION: CENTER LENGTH OF PIPE ON WATER MAIN. SEE REQUIREMENTS IN STD DETAIL 206.
7. MARK LOCATION OF SEWER WITH 3" HIGH "S" IN CURB FACE (IMPRINTED IN NEW CURB; NEATLY CHISELED IN EXISTING CURB).

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: F:\BMAP-STD\Piedmont\Stds\Stds Jun 2017\Piedmont Std 201-208.dwg  
 Layout Name: 202 Plot Date: Dec 11, 2018 at 03:52 pm

Dwn:	No.	Date	Revision	Appr.
CLG	1	7-2018	DETAIL A	MNO
Chk:	MNO			
<b>JAN 2017</b>				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 7/10/18

STD DETAIL  
**202**

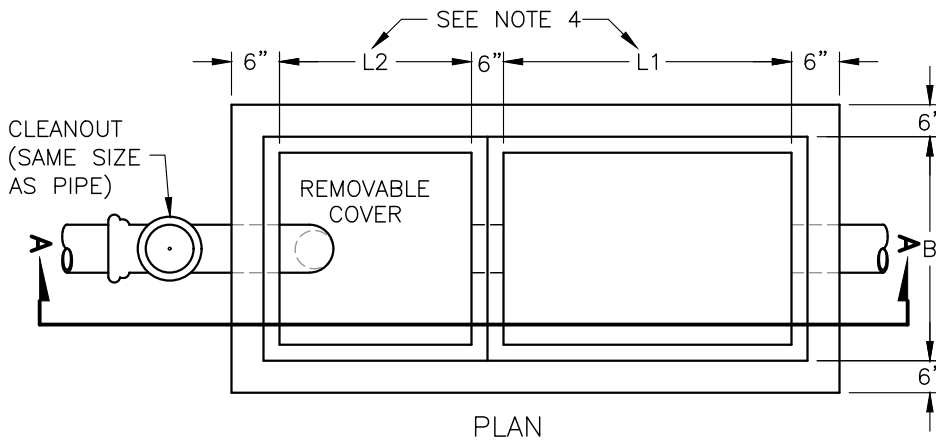


# CITY OF PIEDMONT

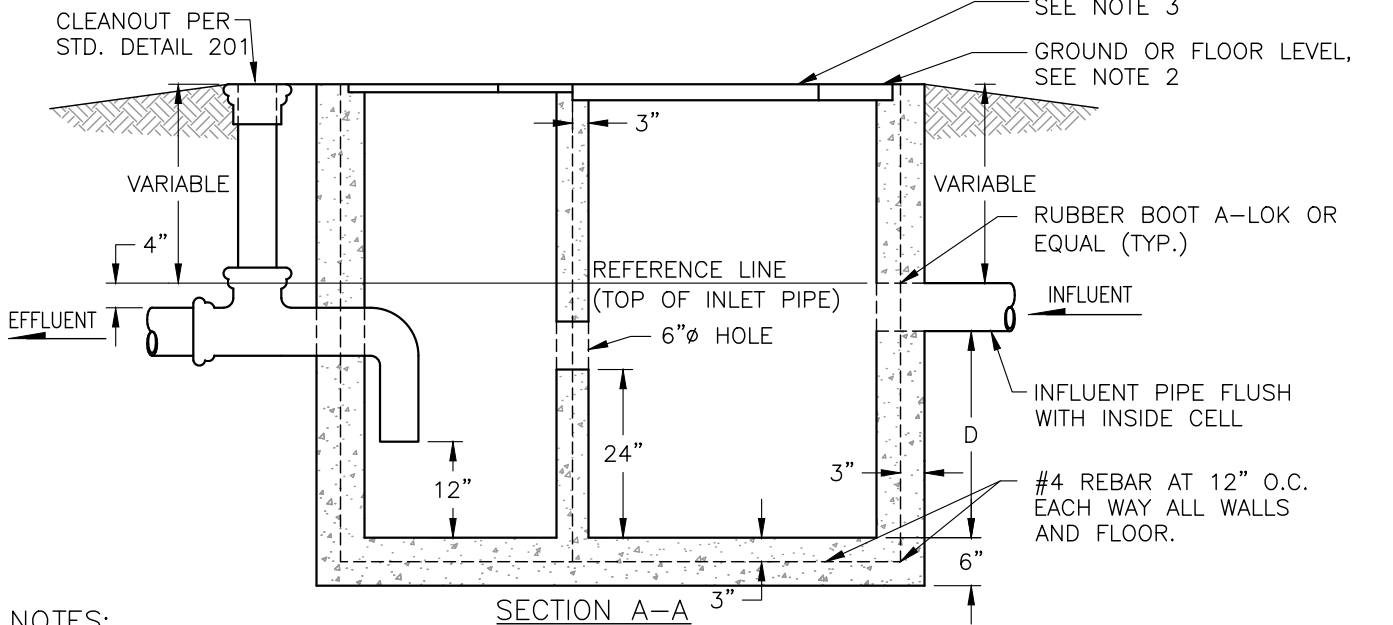
PUBLIC WORKS DEPARTMENT

# WASTE INTERCEPTOR

## 1 OF 2



PLAN




SECTION A-A

**NOTES:**

1. PRECAST REINFORCED CONCRETE COMMERCIAL UNITS MEETING THIS DETAIL ARE ACCEPTABLE.
2. WASTE INTERCEPTOR SHALL NOT BE LOCATED IN HEAVY TRAFFIC AREAS. INTERCEPTOR GROUND SURFACE ELEVATION SHALL BE HIGHER THAN ADJACENT STORM DRAIN INLET ELEVATIONS AND SURROUNDING FINISH GRADE.
3. REMOVABLE COVER DESIGN SHALL BE DICTATED BY STRENGTH AND LOCATION REQUIREMENTS AS DETERMINED BY THE INSTALLER, BUT SHALL BE OF SUCH A DESIGN TO PROVIDE CONVENIENT ACCESS TO EACH ENTIRE COMPARTMENT FOR CLEANING. THE COVER MAY BE SECTIONAL, BUT SHALL BE OF SOLID DESIGN, ESSENTIALLY WATERPROOF, INSTALLED AT OR NEAR GROUND OR FLOOR LEVEL AND KEPT CLEAR OF ALL OBSTRUCTIONS SO AS TO BE READILY ACCESSIBLE FOR CLEANING AND INSPECTION. 24" DIAMETER SOLID MANHOLE LIDS AND FRAMES LOCATED OVER INLET AND OUTLET PIPES ARE ALSO ACCEPTABLE.
4. FOR FLOWS OVER 165 GPM, THE CAPACITY OF INTERCEPTOR REQUIRED FOR WASTE SHALL BE INDIVIDUALLY DETERMINED.
5. WASTE INTERCEPTOR TO BE OUTSIDE ANY FENCING AND SUBJECT TO INSPECTION AT ALL TIMES.

Images: CN darker.ppt\Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg  
 Layout Name: 203-1 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works  
Date 1/17/17

STD DETAIL  
**203-1**





**CITY OF PIEDMONT**  
PUBLIC WORKS DEPARTMENT

**WASTE INTERCEPTOR**  
**2 OF 2**


PEAK FLOW INTO INTERCEPTOR (GPM)	INCHES			
	B	D	L1	L2
0-67	24	30	36	24
67-112	30	30	48	30
112-165	36	36	60	36

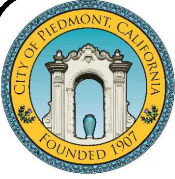
OVER 165 GPM, SEE NOTE 4

**NOTE:**

TOTAL RATED DISCHARGE CAPACITY OF ALL FIXTURES, EQUIPMENT OR APPLIANCES DISCHARGING INTO INTERCEPTOR IN ACCORDANCE WITH CALIFORNIA PLUMBING CODE OR ACTUAL FLOW RATE.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg Layout Name: 203-2 Plot Date: Feb 09, 2017 at 09:33 am

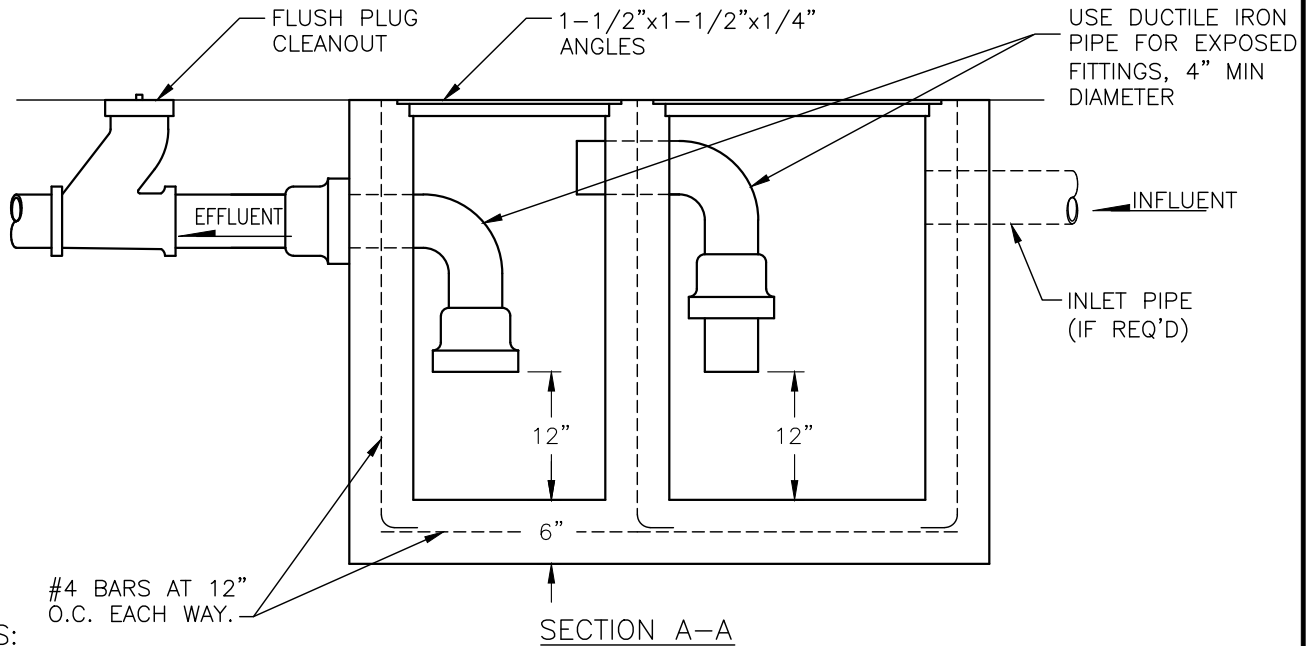
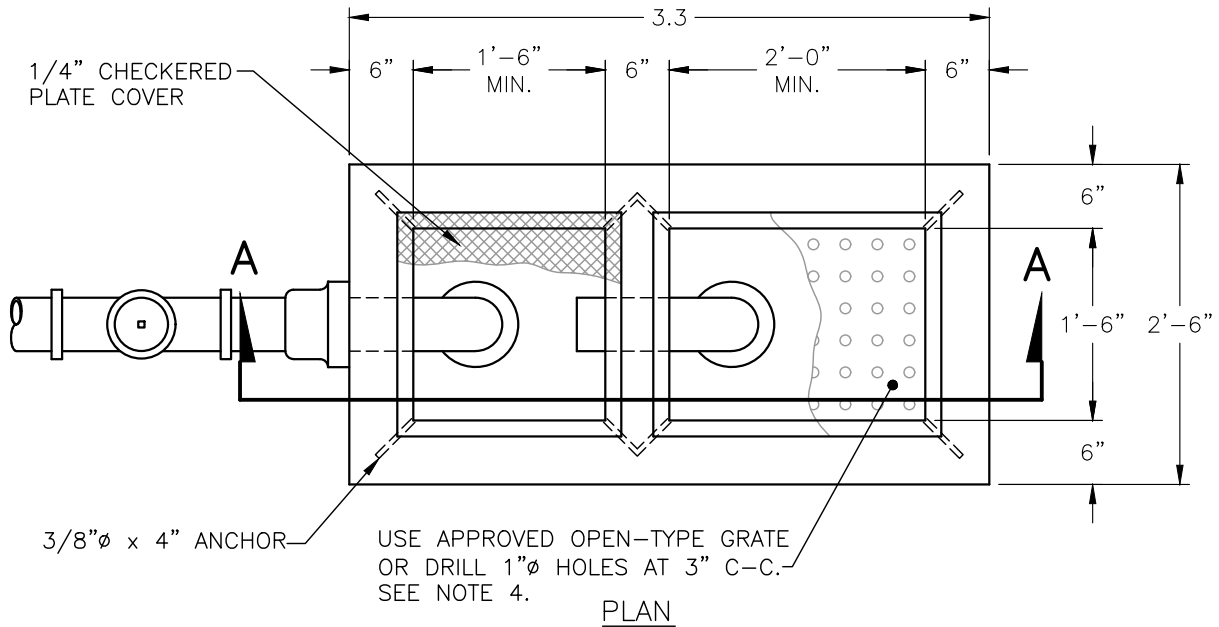
Dwn: CLG	No.	Date	Revision	Appr.	Approved By:  Chester Nakahara Director of Public Works	STD DETAIL <b>203-2</b> Date 1/17/17
Chk: MNO						
JAN 2017						



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SAND/OIL TRAP



**NOTES:**

1. ALL EXPOSED STEEL TO BE GALVANIZED AFTER FABRICATION.
2. PRECAST REINFORCED CONCRETE COMMERCIAL UNITS ARE ACCEPTABLE.
3. REMOVABLE COVER DESIGN SHALL BE DICTATED BY STRENGTH AND LOCATION REQUIREMENTS AS DETERMINED BY THE INSTALLER, BUT SHALL BE OF SUCH A DESIGN TO PROVIDE CONVENIENT ACCESS TO EACH ENTIRE COMPARTMENT FOR CLEANING. THE COVER MAY BE SECTIONAL, BUT SHALL BE OF SOLID DESIGN, ESSENTIALLY WATERPROOF, INSTALLED AT OR NEAR GROUND OR FLOOR LEVEL AND KEPT CLEAR OF ALL OBSTRUCTIONS SO AS TO BE READILY ACCESSIBLE FOR CLEANING AND INSPECTION.
4. FLOOR TO DRAIN TO OPEN GRATE OR DRILLED PLATE COVER.

Images: C:\dark\pdp\Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg Layout Name: 204 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: *Shuu*

Chester Nakahara  
Director of Public Works

Date 1/17/17

STD DETAIL  
**204**

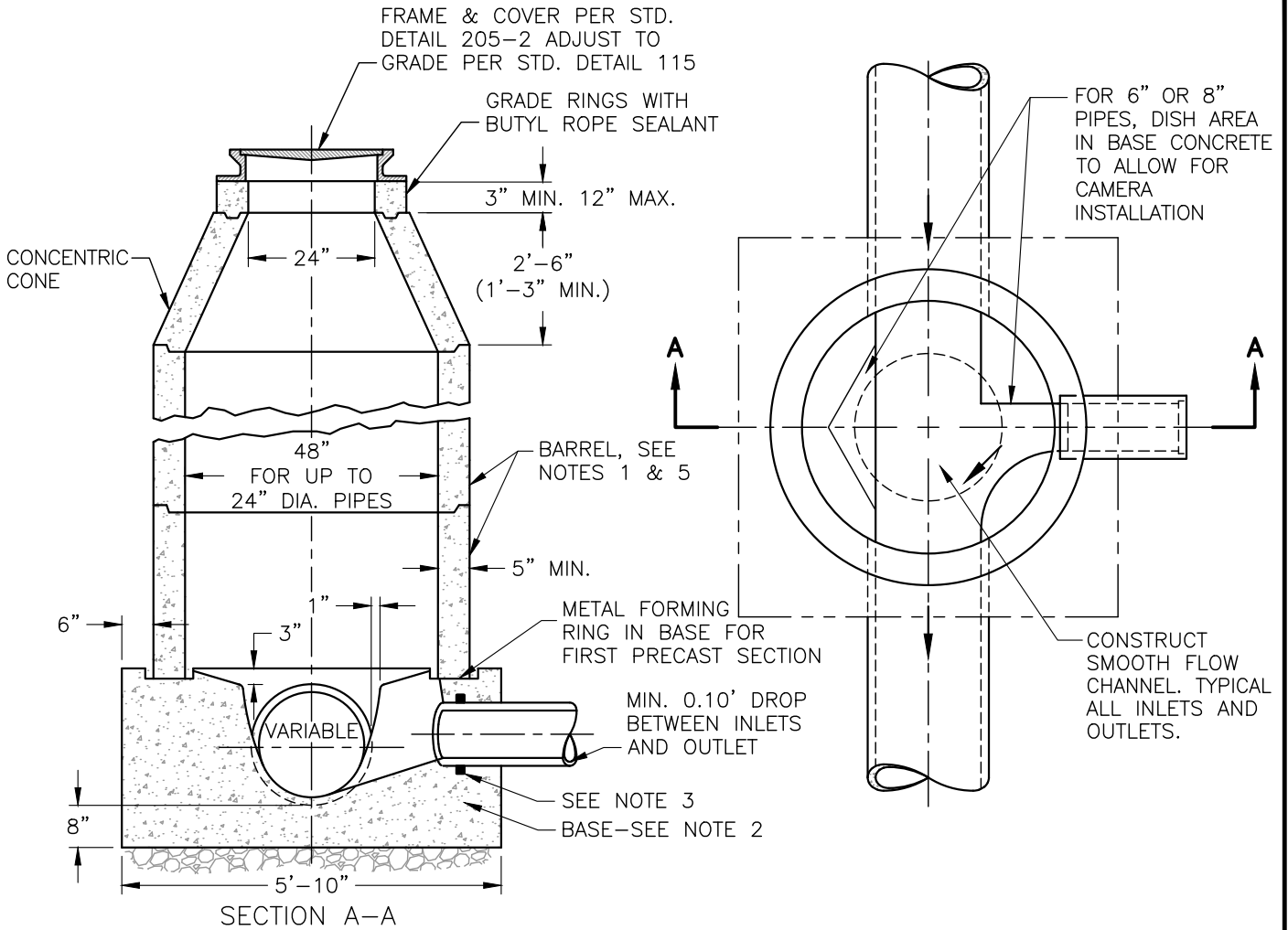


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

# SEWER MANHOLE


## 1 OF 2



### NOTES:

1. BARREL, CONE AND GRADE RING SECTIONS SHALL CONFORM TO ASTM C478, LATEST REVISION.
2. BASE SHALL CONSIST OF CAST-IN-PLACE MINOR CONCRETE PER SEC. 90 CALTRANS STD. SPECIFICATION. PREFABRICATED BASES SHALL ONLY BE USED WITH CITY ENGINEER APPROVAL AND SHALL CONFORM TO NOTE 1 AND BE PLACED ON 4" OF CONCRETE OR CLASS II AB BEDDING.
3. RUBBER RING WATERSTOP OR MANHOLE ADAPTER REQUIRED FOR ALL PIPE INSTALLATIONS (A-LOK, KOR-N-SEAL OR APPROVED EQUAL PER ASTM C923).
4. BACKFILL AROUND MH SHALL BE COMPACTED TO 95% R.C. MIN.
5. ALL BARREL JOINTS AND BARREL TO BASE SECTION SHALL BE SEALED WITH TWO ROWS OF RAM-NEK, KENT-SEAL, OR APPROVED EQUIVALENT PER ASTM C443.
6. LARGER DIAMETER MANHOLE MAY BE REQUIRED FOR LARGER DIAMETER PIPES OR SPECIAL CIRCUMSTANCES.

Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works

Date 1/17/17

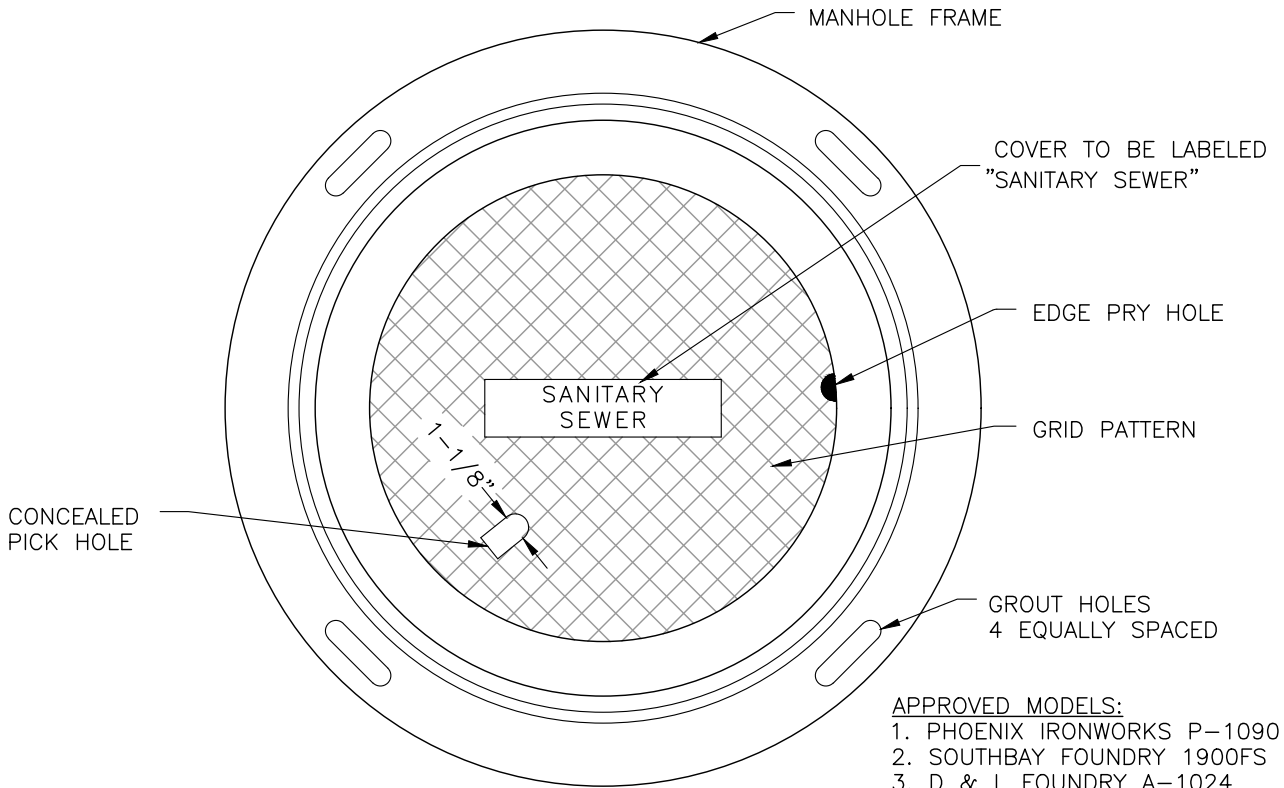
STD DETAIL  
205-1



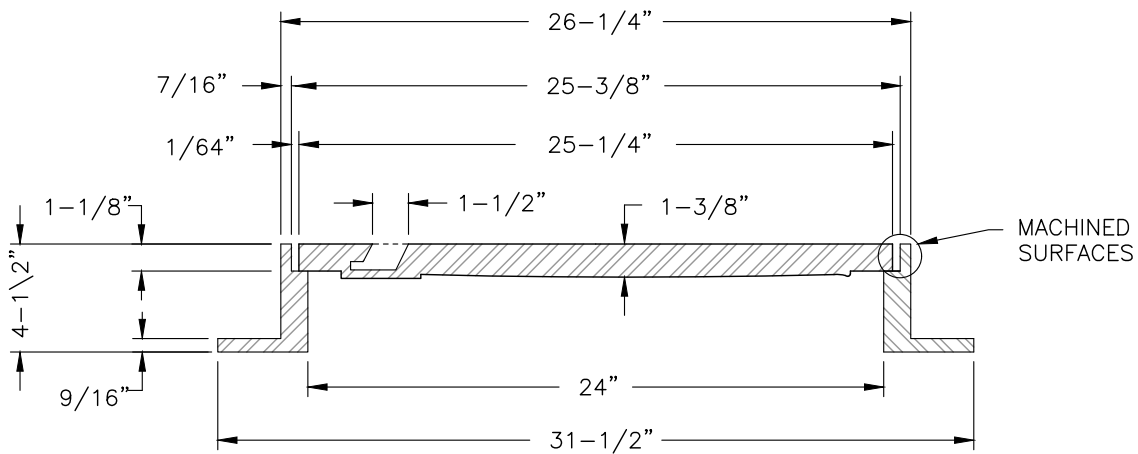
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SEWER MANHOLE 2 OF 2



- APPROVED MODELS:**
1. PHOENIX IRONWORKS P-1090
  2. SOUTHBAY FOUNDRY 1900FS
  3. D & L FOUNDRY A-1024



**NOTES:**

1. FRAMES AND COVERS TO BE GRAY CAST IRON CONFORMING TO ASTM A48 GRADE 35B, H-20 TRAFFIC RATED.
2. ALL CONTACT AND BEARING SURFACES OF BOTH FRAME AND COVER SHALL BE MACHINED TO FIT ACCURATELY SO THAT COVERS SHALL NOT ROCK.
3. COVERS SHALL BE IDENTIFIED AS "SANITARY SEWER" WITH RAISED OR INDENTED LETTERING 1" HIGH, MIN.
4. COVERS SHALL HAVE CONCEALED PICK HOLE.
5. IN NON-TRAFFIC AREAS, PHOENIX P-1067 OR SBF 1934 FRAME AND COVER MAY BE USED.

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: *Shuu*  
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 205-2

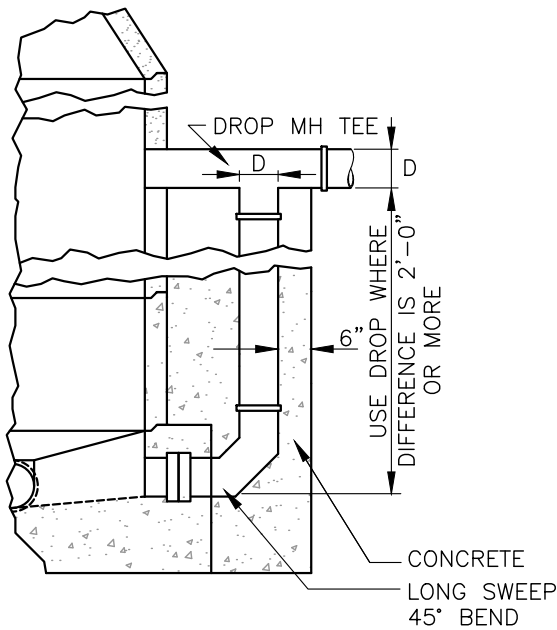
Images: C:\darken\p\piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg  
 Layout Name: 205-2 Plot Date: Feb 09, 2017 at 09:33 am



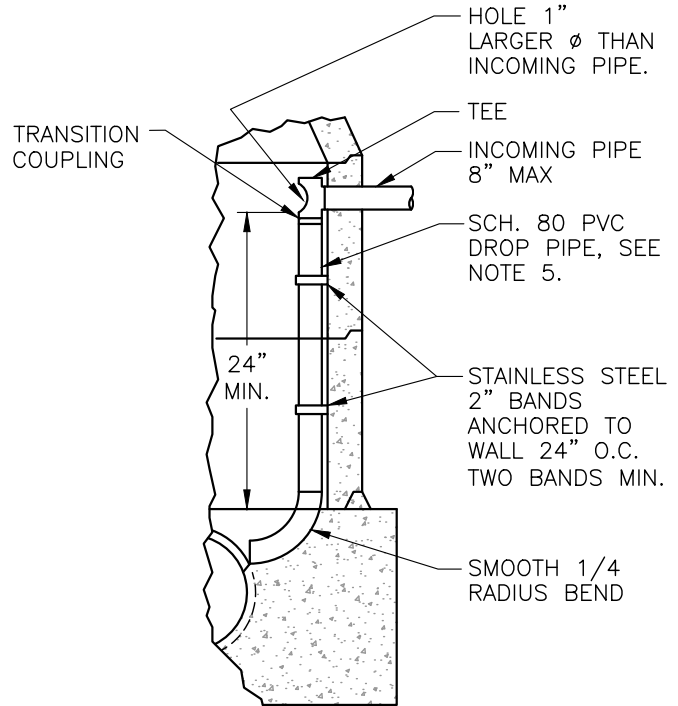
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SEWER DROP MANHOLE



EXTERIOR DROP CONNECTION DETAIL




INTERIOR DROP CONNECTION DETAIL

NOTES:

1. DROP CONNECTION TO BE USED ONLY WHEN SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER. DROP PIPE TO BE ONE SIZE LARGER THAN THE INCOMING PIPE. FOR NEW MANHOLE CONSTRUCTION, EXTERIOR DROP SHALL BE USED.
2. SEE STD. DETAIL 205-1 FOR MANHOLE.

Images: CN darker.pgg\Piedmont 2015.pgg Xrefs:  
 Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg Layout Name: 206 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.
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Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

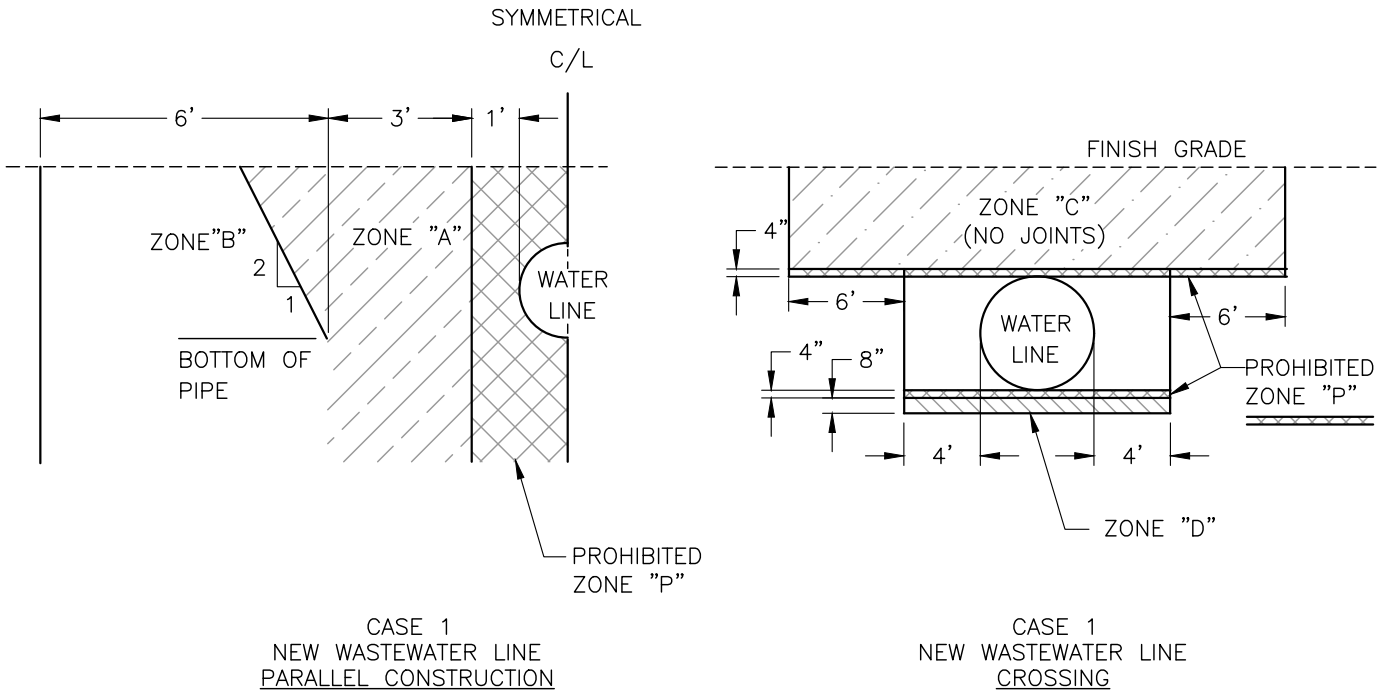
STD DETAIL  
 206



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## NEW SANITARY SEWER SEPARATION FROM EXISTING WATER MAIN




### WASTEWATER LINE CONSTRUCTION REQUIREMENTS

ZONE A	ZONE B	ZONE C	ZONE D	ZONE P
REQUIRES SPECIFIC APPROVAL OF THE HEALTH DEPT. AND WATER UTILITY	PIPE: RUBBER GASKETED PVC (ASTM D3034); DUCTILE IRON PIPE WITH COMPRESSION JOINTS; HDPE WITH FUSION WELDED JOINTS (AWWA C906)	PIPE: DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECH. GASKETED JOINTS; PVC CLASS 200 (DR 14) (AWWA C900); HDPE PIPE WITH FUSION WELDED JOINTS (AWWA C906); ANY ALLOWED SEWER PIPE WITHIN A CONTINUOUS SLEEVE	PIPE: SAME AS ZONE "C", NO JOINTS ALLOWED	PROHIBITED NO NEW WASTEWATER LINE IN THIS AREA

**NOTES:**

1. THIS STANDARD DETAIL SHOWS NORMAL CONSTRUCTION REQUIREMENTS/OPTIONS FOR REDUCED SEPARATION OF EXISTING WATER MAINS FROM NEW SANITARY SEWERS AND STORM DRAINS (INCLUDING MAINS & LATERALS). IT DOES NOT APPLY TO PIPES OVER 24 INCH DIAMETER OR TO FORCE MAINS. SEE STATE WATER RESOURCES CONTROL BOARD STANDARDS FOR OTHER SITUATIONS AND ADDITIONAL ALTERNATIVES.
2. PLANS SHALL REFERENCE THIS STANDARD FOR SPECIFIC LOCATIONS AND SHALL NOTE THE ZONE AND CONSTRUCTION REQUIREMENT, OR PROVIDE DETAILS ON THE PLANS.
3. SANITARY SEWER SERVICES CROSSING UNDER WATER MAINS SHALL MAINTAIN 4" MINIMUM CLEARANCE.

Dwn: CLG	No.	Date	Revision	Appr.	Approved By: 	STD DETAIL <b>207</b>
Chk: MNO						
JAN 2017						

Chester Nakahara  
Director of Public Works

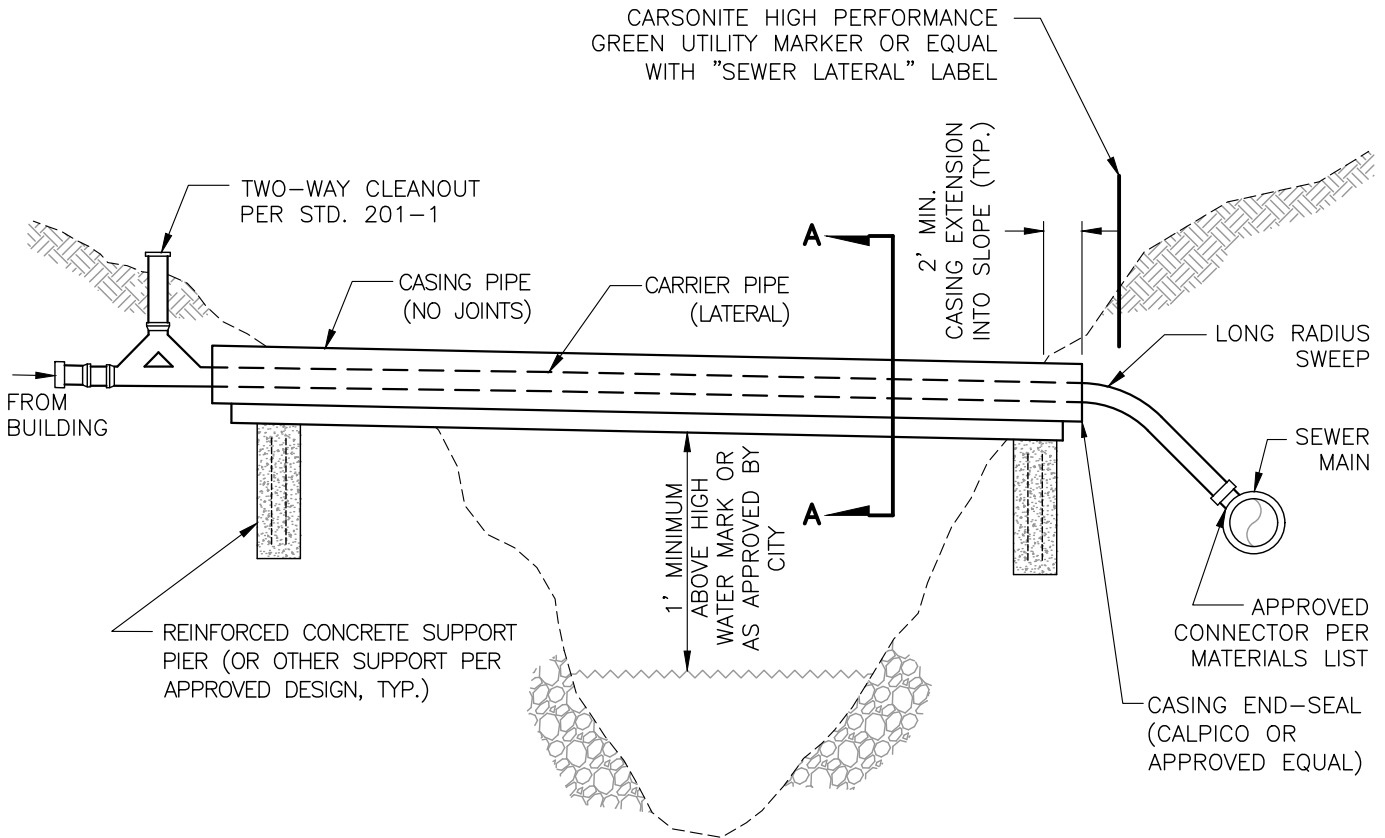
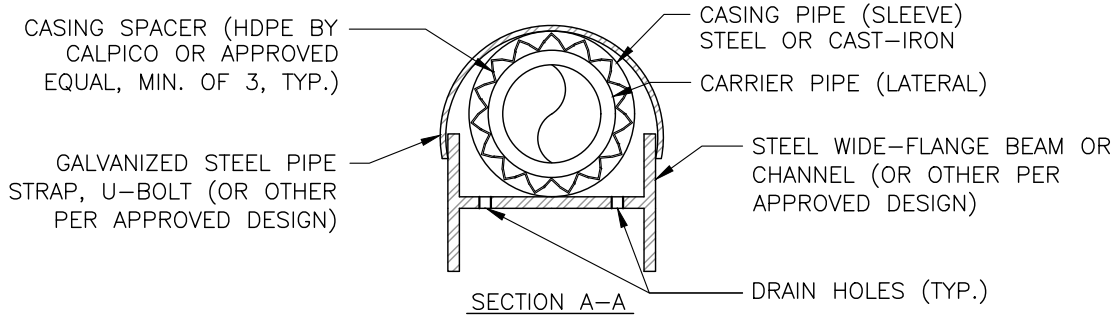
Date 1/17/17



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## SEWER LATERAL CREEK CROSSING




**NOTES:**

- DESIGN OF THE SUPPORT BEAM AND PIERS SHALL BE PREPARED BY A LICENSED CIVIL ENGINEER. DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT AS A PART OF THE PERMIT APPLICATION.

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: F:\BMAP-STD\Piedmont\Std 201-208.dwg  
 Layout Name: 208 Plot Date: Feb 09, 2017 at 09:33 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**208**

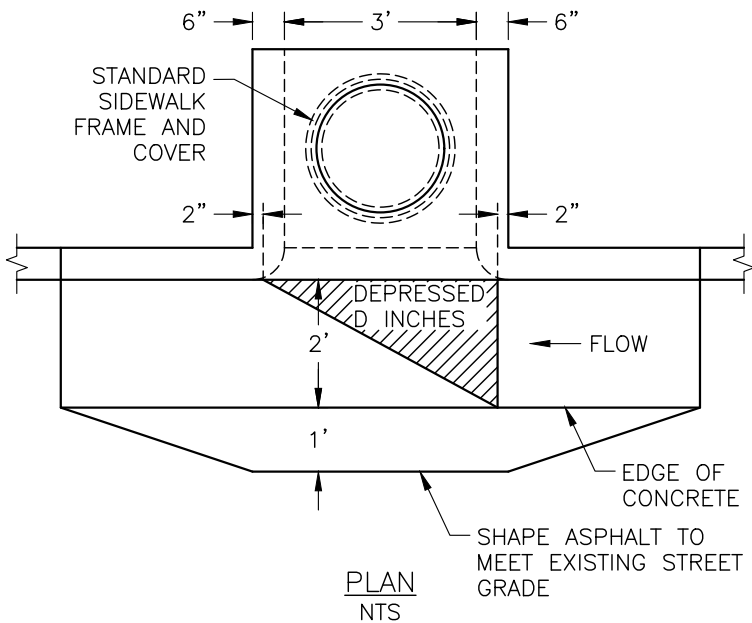


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

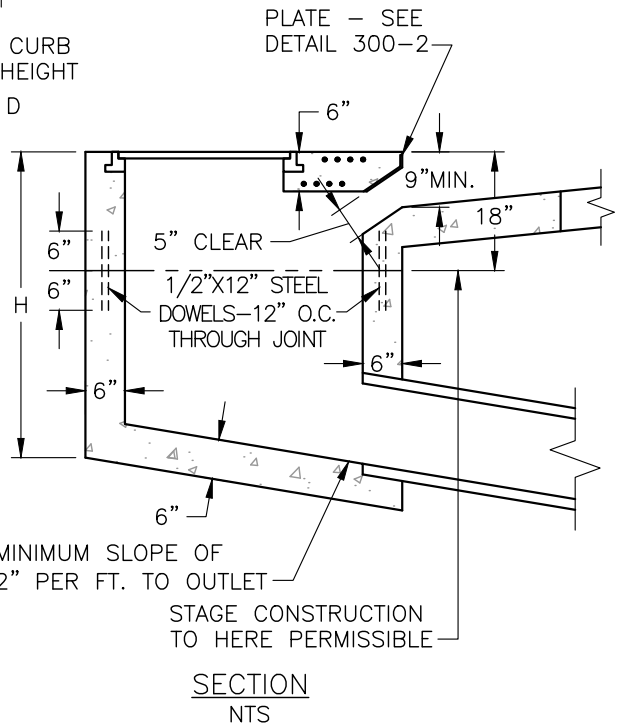
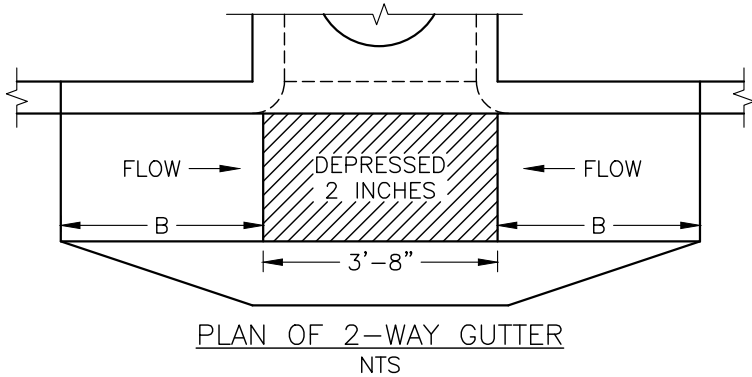
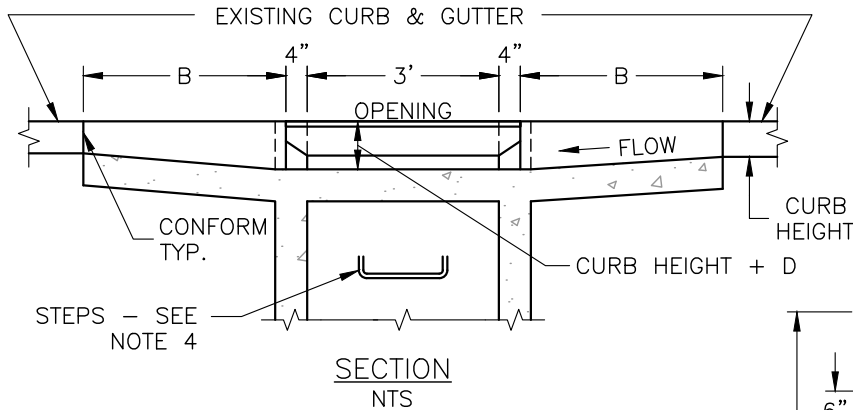
## CURB INLET "A"

1 OF 2




CURB SLOPE %		D	B
GREATER THAN	TO AND INCLUDING	INCHES	FEET
0.0	2.0	3	2.0
2.0	4.0	4	2.0
4.0	5.5	4	1.5
5.5	11.0	5	1.5

PRE-CAST, REINFORCED CONCRETE INLET BOXES MEETING ASTM C478 MAY BE USED IF APPROVED BY THE CITY ENGINEER.



Images: C:\Users\garker\p\piedmont\2015\p\p\Xrefs: Path: C:\Users\garker\p\piedmont\2015\p\p\Xrefs: Plot Date: Feb 09, 2017 at 09:39 am Layout Name: 300-1 Plot Name: 300-1

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
Chester Nakahara  
Director of Public Works  
Date 1/17/17

STD DETAIL  
**300-1**



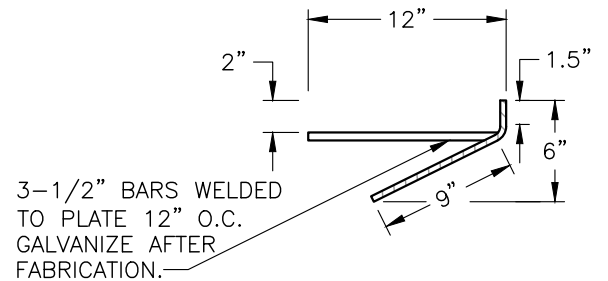
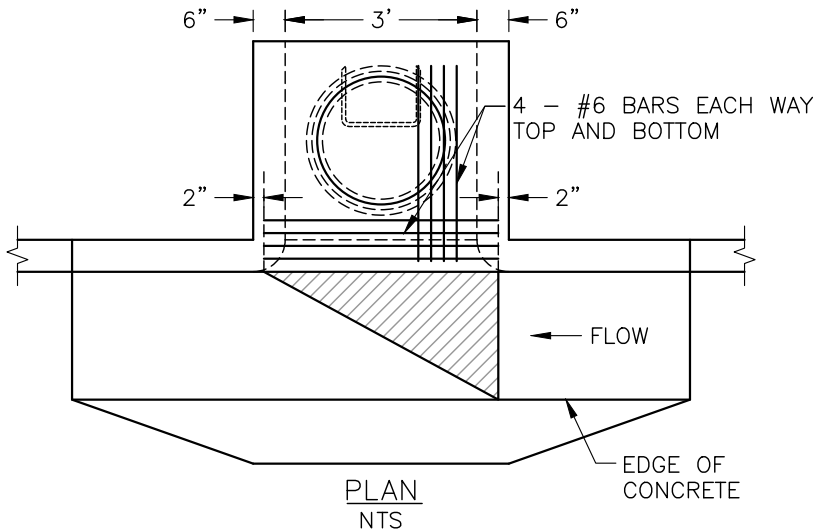


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## CURB INLET "A"

2 OF 2




3/8" PLATE SECTION (NTS)  
PHOENIX P-6501 OR SIMILAR INLET  
MANUFACTURER NOSING ANGLE

### NOTES:

1. ALL CONCRETE TO BE PER CALTRANS SECTION 90,  $F_c = 4000$  PSI AT 28 DAYS.
2. CURB & GUTTER BETWEEN POINTS MARKED CONFORM IS PART OF CURB INLET FOR BIDDING PURPOSES.
3. WHERE "H" EXCEEDS 8', #4 BARS 12" O.C. BOTH WAYS ARE REQUIRED IN PORTION IN EXCESS OF 6' DEPTH.
4. ALL CURB INLETS EXCEEDING 3'-6" IN DEPTH TO HAVE 1/2" DIA. POLYPROPYLENE PLASTIC COATED STEEL STEPS PLACED AT 12" O.C.
5. REINFORCING STEEL TO CONFORM TO ASTM A615.
6. PLACE 3/4"  $\phi$  GALVANIZED ROD ACROSS GALLERY OPENING IF CURB HEIGHT + D EXCEEDS 10". PLACE SO THAT CLEAR OPENING IS NO LESS THAN 5" NO MORE THAN 7".
7. GALVANIZING TO CONFORM TO ASTM A123.
8. PROVIDE "NO DUMPING - DRAINS TO BAY" LABEL ON COVER.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout: Name: 300-2 Plot Date: Feb 09, 2017 at 09:39 am

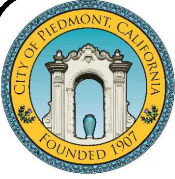
Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works

Date 1/17/17

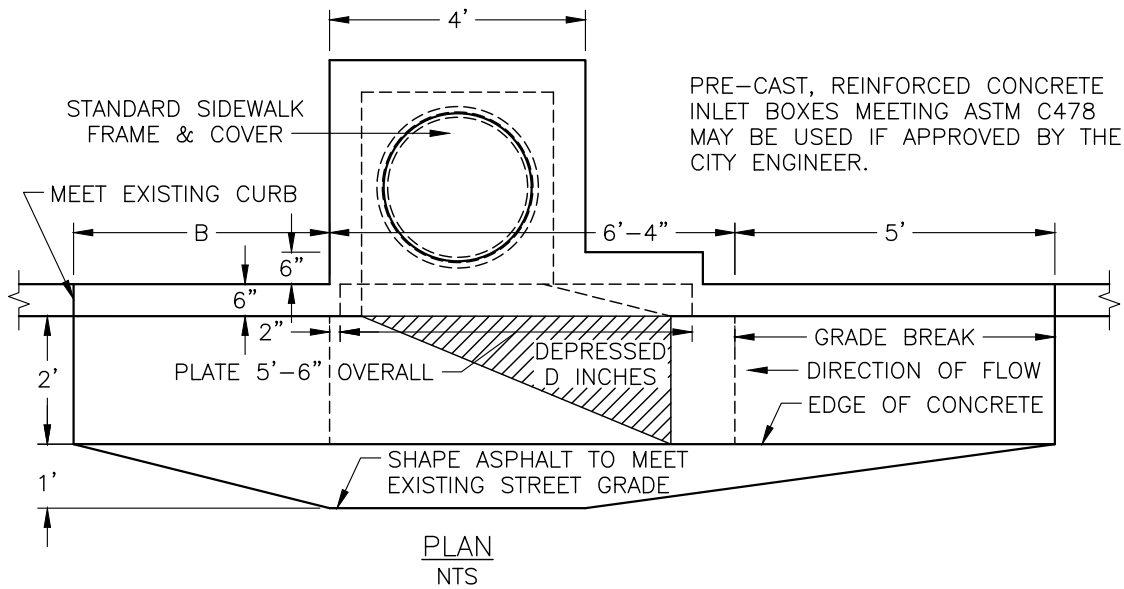
STD DETAIL  
**300-2**



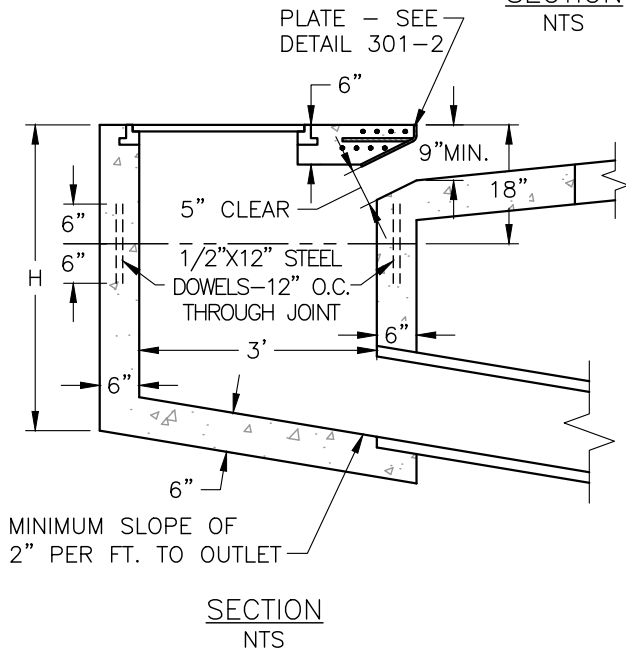
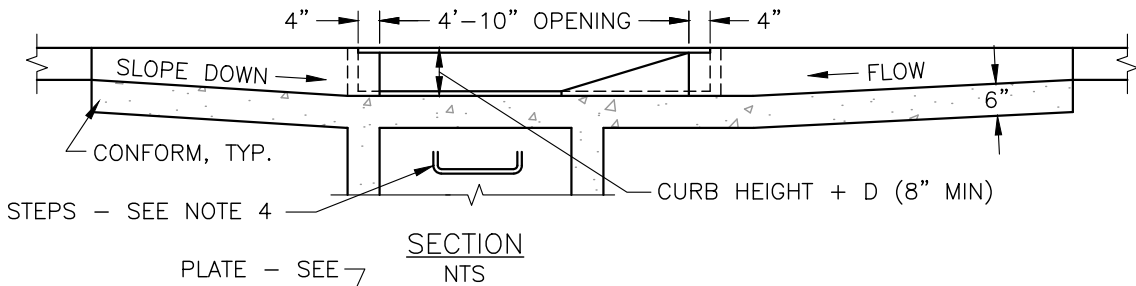
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## MODIFIED CURB INLET "A" 1 OF 2




PRE-CAST, REINFORCED CONCRETE INLET BOXES MEETING ASTM C478 MAY BE USED IF APPROVED BY THE CITY ENGINEER.



CURB SLOPE %		D INCHES	B FEET
GREATER THAN	TO AND INCLUDING		
0.0	2.5	2	4.0
2.5	4.0	3	4.0
4.0	5.5	3	4.0
5.5	7.5	3	3.0
7.5	9.0	3	2.5
9.0	12.0	3	2.0
12.0	16.0	4	2.0
16.0	20.5	5	2.0

Images: C:\Users\gcooper\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 301-1 Plot Date: Feb 09, 2017 at 09:39 am

Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works

Date 1/17/17

STD DETAIL  
301-1

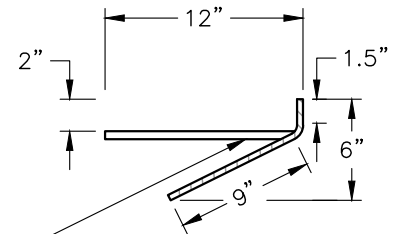
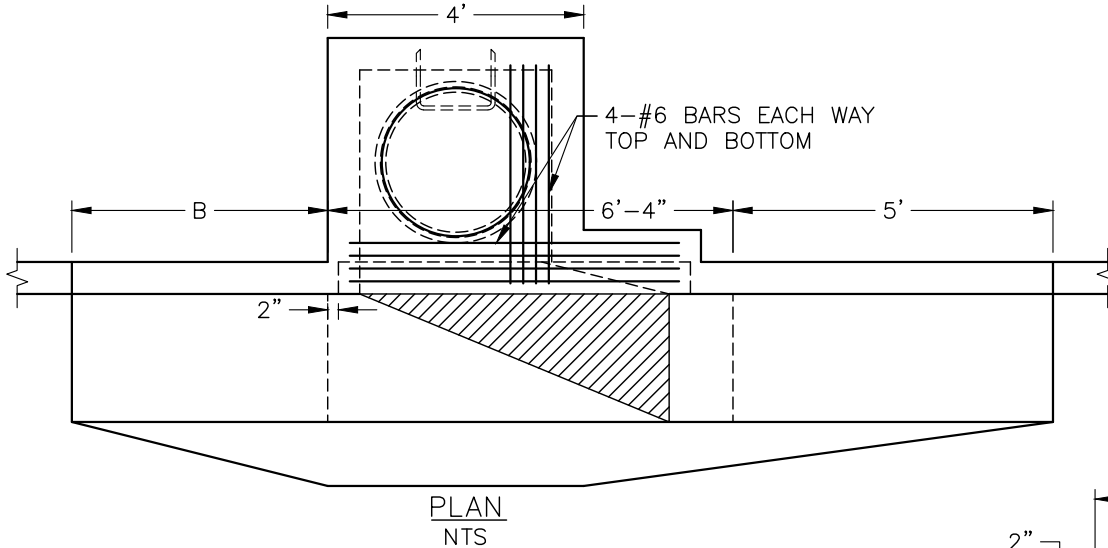


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## MODIFIED CURB INLET "A"

2 OF 2



3-1/2" BARS WELDED TO PLATE 12" O.C. GALVANIZE AFTER FABRICATION.

3/8" PLATE SECTION (NTS)  
PHOENIX P-6501 OR SIMILAR INLET  
MANUFACTURER NOSING ANGLE

### NOTES:

1. ALL CONCRETE TO BE PER CALTRANS SECTION 90,  $F_c = 4000$  PSI AT 28 DAYS.
2. CURB & GUTTER BETWEEN POINTS MARKED CONFORM IS PART OF CURB INLET FOR BIDDING PURPOSES.
3. WHERE "H" EXCEEDS 8', #4 BARS 12" O.C. BOTH WAYS ARE REQUIRED IN PORTION IN EXCESS OF 6' DEPTH.
4. ALL CURB INLETS EXCEEDING 3'-6" IN DEPTH TO HAVE 1/2" DIA. POLYPROPYLENE PLASTIC COATED STEEL STEPS PLACED AT 12" O.C.
5. REINFORCING STEEL TO CONFORM TO ASTM A615.
6. PLACE 3/4"  $\phi$  GALVANIZED ROD ACROSS GALLERY OPENING IF CURB HEIGHT + D EXCEEDS 10". PLACE SO THAT CLEAR OPENING IS NO LESS THAN 5" NO MORE THAN 7".
7. GALVANIZING TO CONFORM TO ASTM A123.
8. PROVIDE "NO DUMPING - DRAINS TO BAY" LABEL ON COVER.

Images: C:\Users\gooler\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 301-2 Plot Date: Feb 09, 2017 at 09:39 am  
Path: C:\Users\gooler\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
Chester Nakahara  
Director of Public Works  
Date 1/17/17

STD DETAIL  
301-2

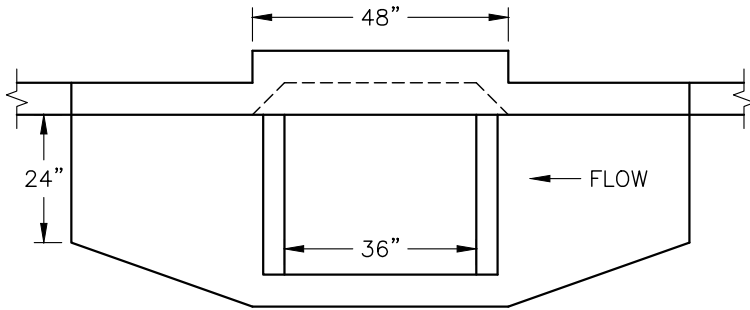


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## CURB INLET "B"

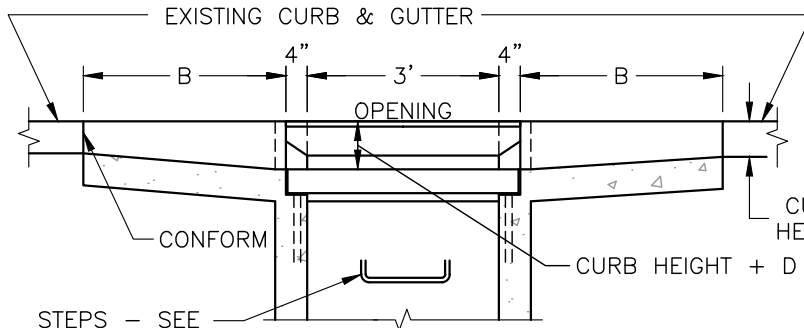
1 OF 2



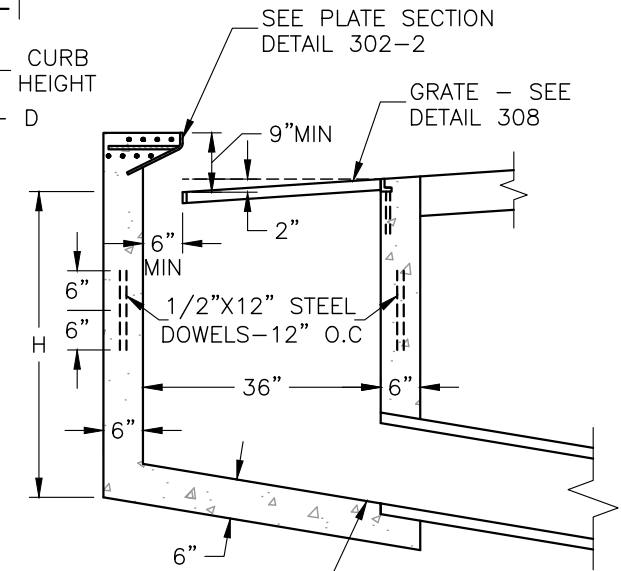
PLAN  
NTS

CURB SLOPE %		D	B
GREATER THAN	TO AND INCLUDING	INCHES	FEET
0.0	2.0	3	2.0
2.0	4.0	4	2.0
4.0	5.5	4	1.5
5.5	11.0	5	1.5

PRE-CAST, REINFORCED CONCRETE INLET BOXES MEETING ASTM C478 MAY BE USED IF APPROVED BY THE CITY ENGINEER.



SECTION  
NTS



MINIMUM SLOPE OF 2" PER FT. TO OUTLET

SECTION  
NTS

Images: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont\_Std 300-308.dwg Layout: Name: 302-1 Plot Date: Feb 09, 2017 at 09:39 am  
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Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

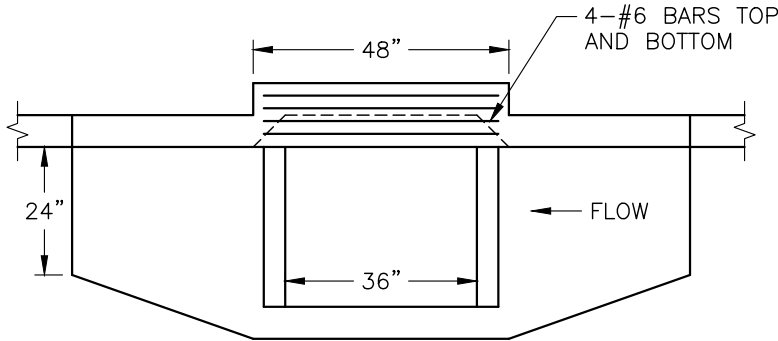
Approved By: *Shuu*  
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**302-1**

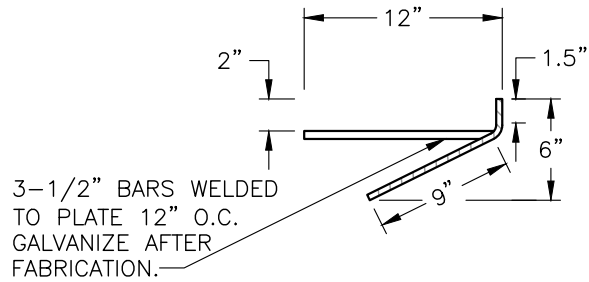


CITY OF PIEDMONT  
PUBLIC WORKS DEPARTMENT

CURB INLET "B"  
2 OF 2



PLAN  
NTS



3/8" PLATE SECTION (NTS)  
PHOENIX P-6501 OR SIMILAR INLET  
MANUFACTURER NOSING ANGLE

NOTES:

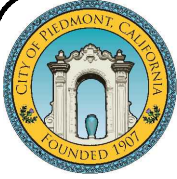
1. ALL CONCRETE TO BE PER CALTRANS SECTION 90, F = 4000 PSI AT 28 DAYS.
2. CURB & GUTTER BETWEEN POINTS MARKED CONFORM IS PART OF CURB INLET FOR BIDDING PURPOSES.
3. WHERE "H" EXCEEDS 8', #4 BARS 12" O.C. BOTH WAYS ARE REQUIRED IN PORTION IN EXCESS OF 6' DEPTH.
4. ALL CURB INLETS EXCEEDING 3'-6" IN DEPTH TO HAVE 1/2" DIA. POLYPROPYLENE PLASTIC COATED STEEL STEPS PLACED AT 12" O.C.
5. REINFORCING STEEL TO CONFORM TO ASTM A615.
6. PLACE 3/4" Ø GALVANIZED ROD ACROSS GALLERY OPENING IF CURB HEIGHT + D EXCEEDS 10". PLACE SO THAT CLEAR OPENING IS NO LESS THAN 5" NO MORE THAN 7".
7. GALVANIZING TO CONFORM TO ASTM A123.
8. PROVIDE "NO DUMPING - DRAINS TO BAY" LABEL.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 302-2 Plot Date: Feb 09, 2017 at 09:39 am

Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

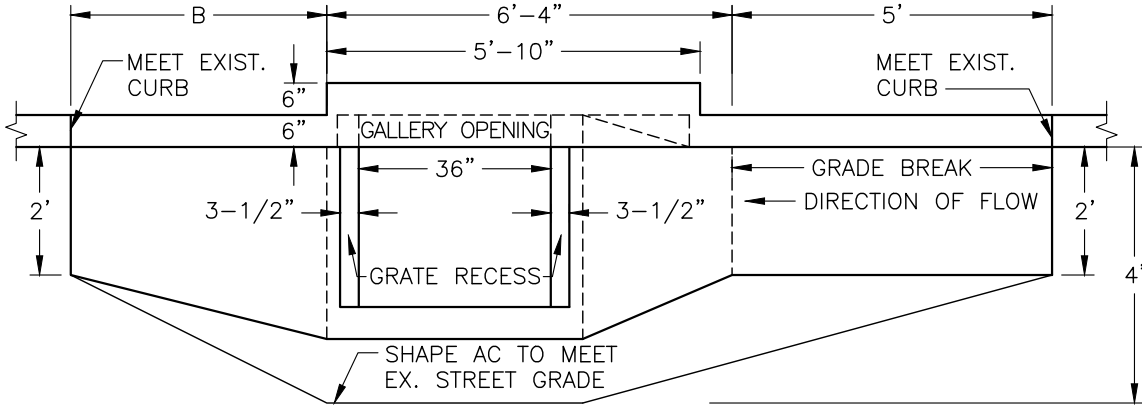
STD DETAIL  
 302-2



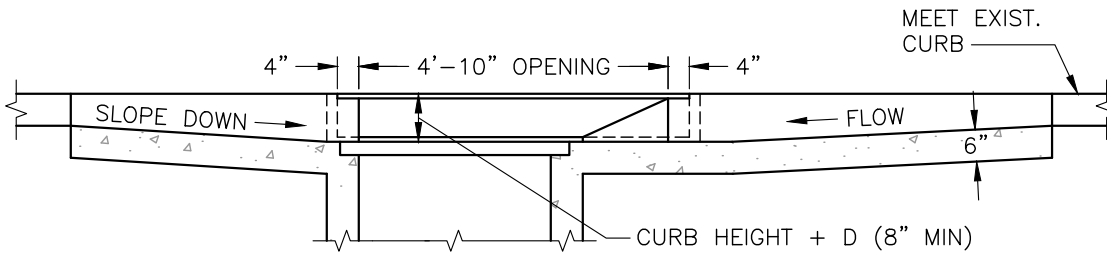
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## MODIFIED CURB INLET "B" 1 OF 2



PLAN  
NTS




SECTION  
NTS

CURB SLOPE %		D INCHES	B FEET
GREATER THAN	TO AND INCLUDING		
0.0	2.5	2	4.0
2.5	4.0	3	4.0
4.0	5.5	3	4.0
5.5	7.5	3	3.0
7.5	9.0	3	2.5
9.0	12.0	3	2.0
12.0	16.0	4	2.0
16.0	20.5	5	2.0

NOT APPLICABLE TO 2-WAY CATCH BASINS

Images: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont\_Std 300-308.dwg Layout: Name: 303-1 Plot Date: Feb 09, 2017 at 09:39 am  
 Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont\_Std 300-308.dwg

Dwn: CLG	No.	Date	Revision	Appr.
Chk: MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 303-1

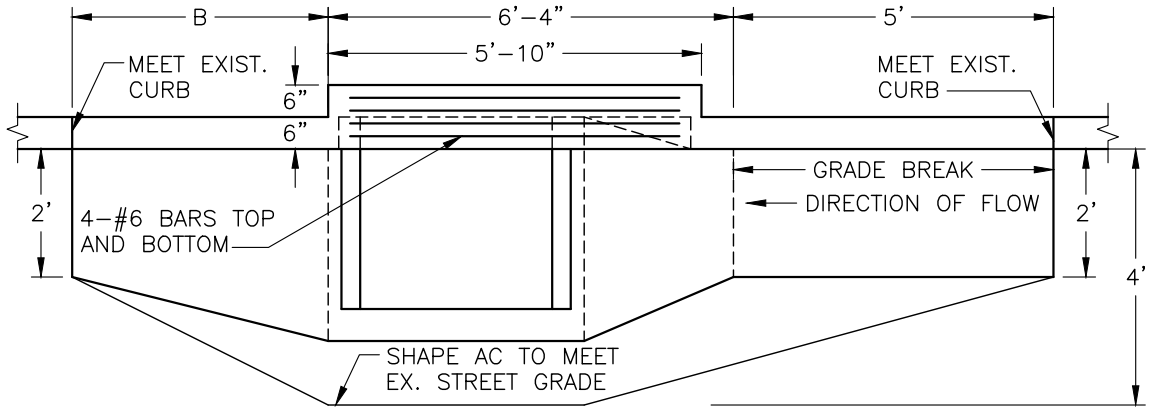


# CITY OF PIEDMONT

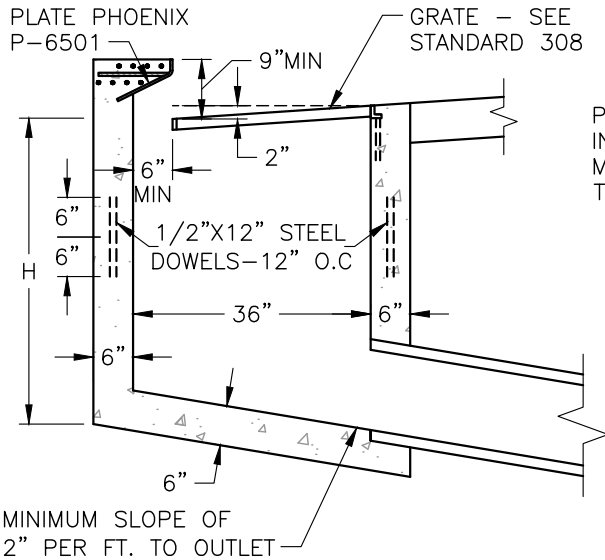
PUBLIC WORKS DEPARTMENT

## MODIFIED CURB INLET "B"

2 OF 2



PLAN  
NTS



PRE-CAST, REINFORCED CONCRETE INLET BOXES MEETING ASTM C478 MAY BE USED IF APPROVED BY THE CITY ENGINEER.


SECTION  
NTS

**NOTES:**

1. ALL CONCRETE TO BE PER CALTRANS SECTION 90,  $F_c = 4000$  PSI AT 28 DAYS.
2. CURB & GUTTER 5' UPSTREAM AND 2' TO 4' DOWNSTREAM TITLED "GRADE BREAK" ARE A PART OF THE CATCH BASIN FOR BIDDING PURPOSES.
3. FOR 2 WAY CATCH BASINS AT LOW POINTS CONSTRUCT GALLERY OPENING BEYOND END OF GRATE IN BOTH DIRECTIONS.
4. PROVIDE "NO DUMPING - DRAINS TO BAY" LABEL.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: C:\Users\goater\AppData\Local\Temp\AePublish\_6300\Piedmont Std 300-308.dwg Layout Name: 303-2 Plot Date: Feb 09, 2017 at 09:39 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By: 

Chester Nakahara  
Director of Public Works  
Date 1/17/17

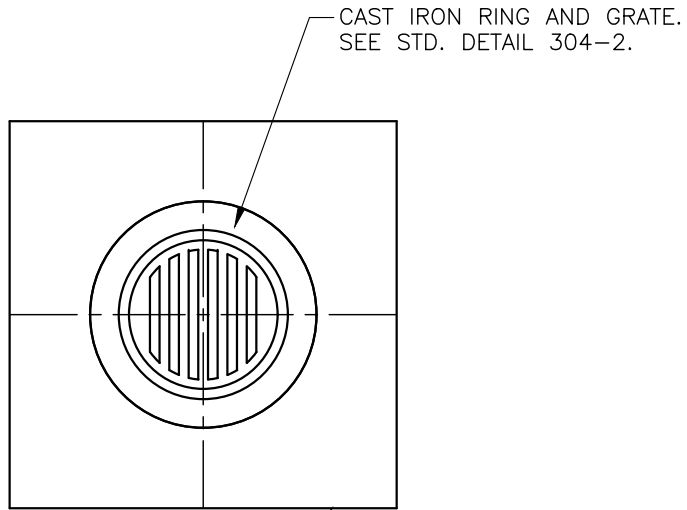
STD DETAIL  
**303-2**



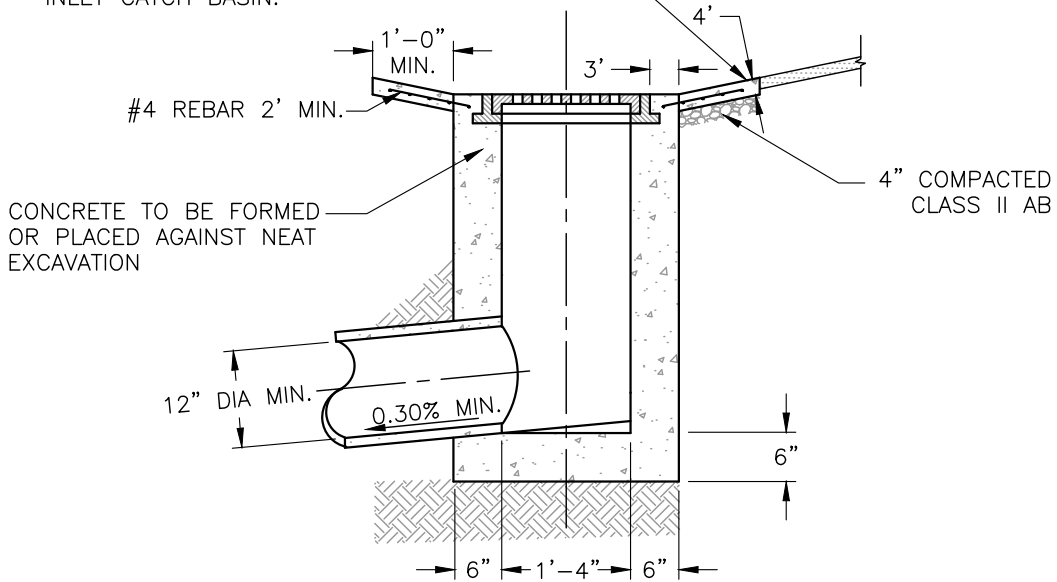
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## DROP INLET AT PARKING LOTS 1 OF 2



IF SHOWN ON THE PLAN, A 4" THICK CONCRETE APRON SHALL BE PLACED AROUND DROP INLET CATCH BASIN.




**NOTES:**

1. CONC. 3000 PSI AT 28 DAYS, 1 1/2" MAX. AGGREGATE, 4" SLUMP AT PLACING. LIGHT BROOM FINISH. IMPERVIOUS MEMBRANE CURE.
2. PRECAST REINFORCED CONCRETE INLETS MEETING ASTM C478 ARE PERMITTED.

Images: C:\Users\gorker\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 304-1 Plot Date: Feb 09, 2017 at 09:39 am  
 Path: C:\Users\gorker\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**304-1**

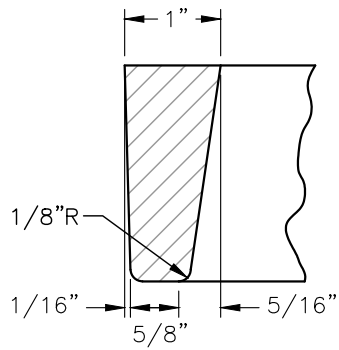
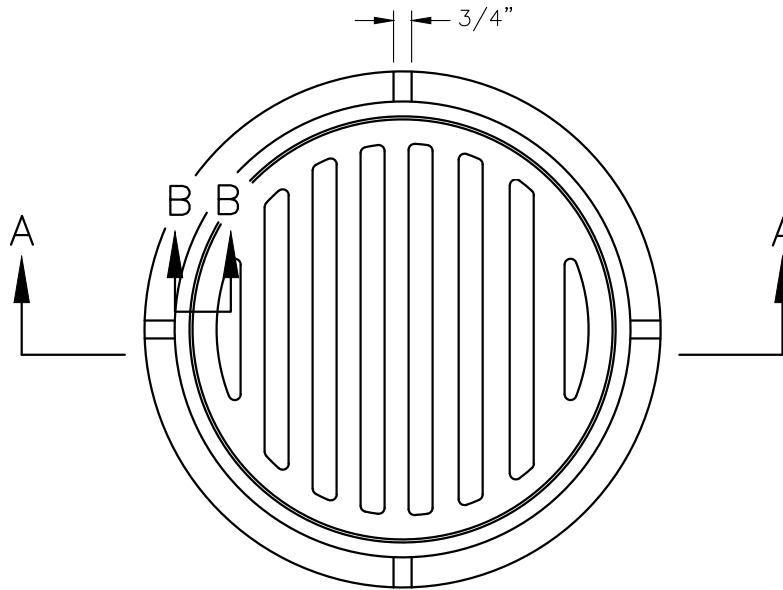




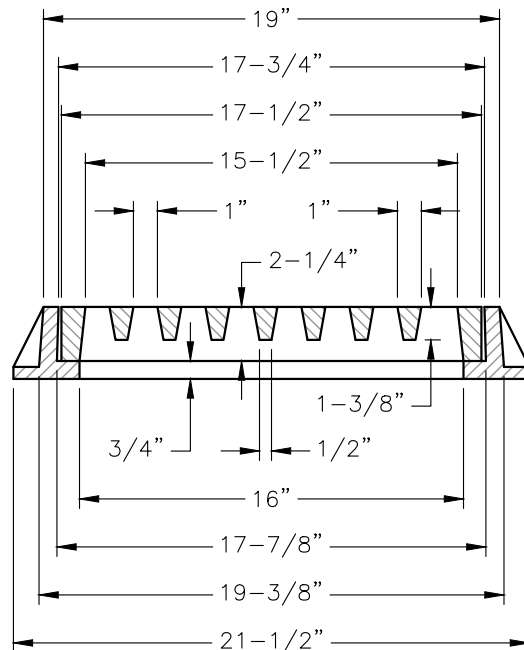
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## DROP INLET CATCH BASIN ASSEMBLY 2 OF 2



SECTION B-B



SECTION A-A

**NOTES:**

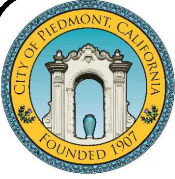
1. SBF C-27, PHOENIX P-1071 OR PJ 1114/1115 ARE ACCEPTABLE ALTERNATES.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 304-2 Plot Date: Feb 09, 2017 at 09:39 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
**304-2**



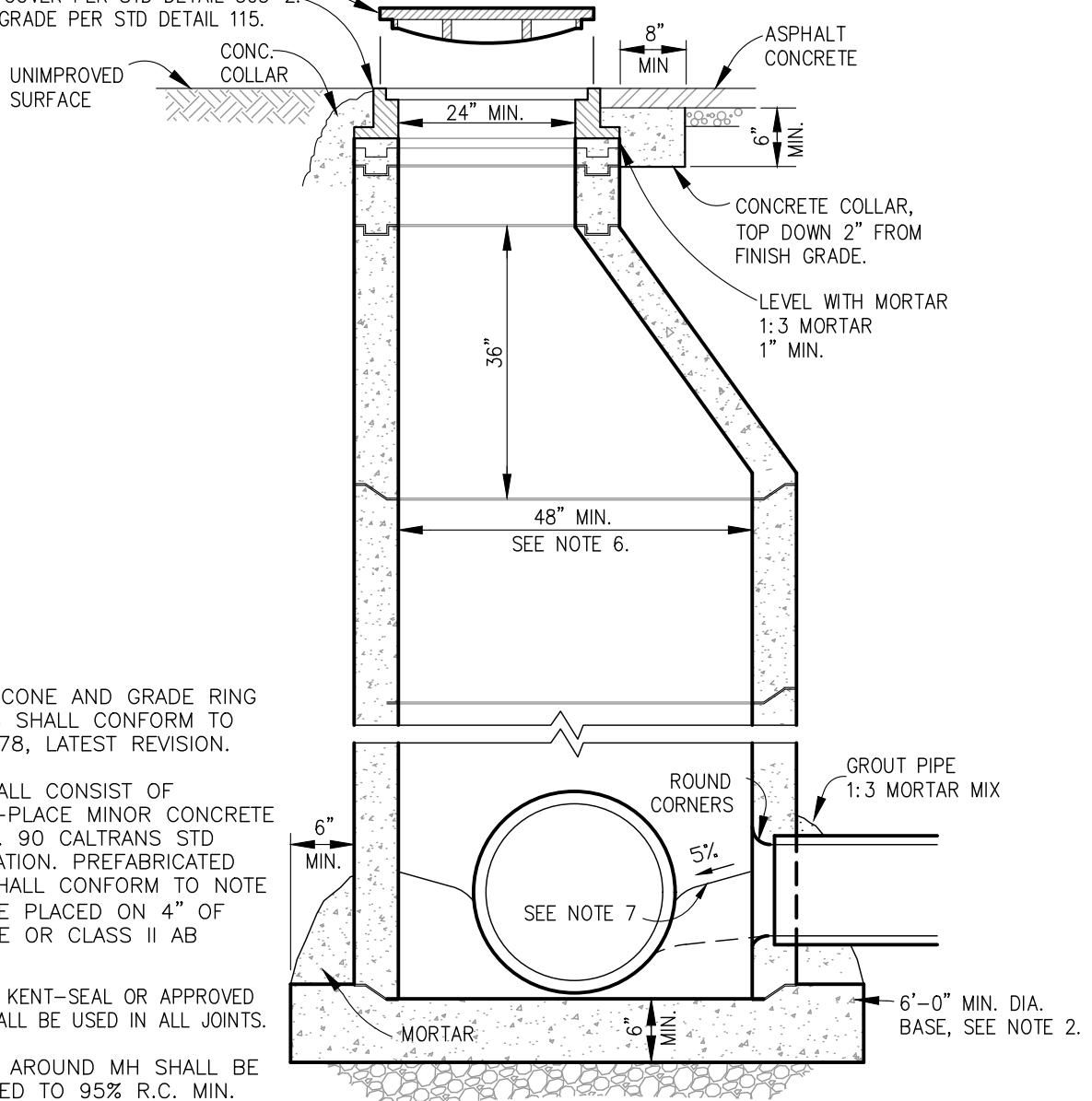
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## STORM MANHOLE

1 OF 2

FRAME AND COVER PER STD DETAIL 305-2.  
ADJUST TO GRADE PER STD DETAIL 115.



### NOTES:

1. BARREL, CONE AND GRADE RING SECTIONS SHALL CONFORM TO ASTM C478, LATEST REVISION.
2. BASE SHALL CONSIST OF CAST-IN-PLACE MINOR CONCRETE PER SEC. 90 CALTRANS STD SPECIFICATION. PREFABRICATED BASES SHALL CONFORM TO NOTE 1 AND BE PLACED ON 4" OF CONCRETE OR CLASS II AB BEDDING.
3. RAM-NEK, KENT-SEAL OR APPROVED EQUAL SHALL BE USED IN ALL JOINTS.
4. BACKFILL AROUND MH SHALL BE COMPACTED TO 95% R.C. MIN.
5. CONE SECTION SHALL BE ECCENTRIC UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER. REINFORCED FLAT TOP SLAB WHERE REQUIRED FOR LIMITED COVER INSTALLATIONS.
6. MANHOLES OVER 7' IN DEPTH, OR WITH A PIPE OVER 30" DIAMETER, SHALL BE MINIMUM 5' IN DIAMETER UNLESS OTHERWISE PERMITTED BY THE CITY ENGINEER.
7. CONSTRUCT ALL FLOW CHANNELS OF PIPE WHEREVER POSSIBLE. AFTER BASE IS POURED, BREAK OUT TOP HALF OF PIPE FLUSH WITH INSIDE FACE OF MANHOLE WALL AND CONSTRUCT U-SHAPED CHANNEL. MAKE ELEVATION CHANGES GRADUALLY AND DIRECTIONAL CHANGES WITH SMOOTH CURVES. SET RING BASE IN MORTAR.

Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs:  
 Path: C:\Users\gooter\AppData\Local\Temp\AePublish\_6300\Piedmont Std 300-308.dwg Layout Name: 305-1 Plot Date: Feb 09, 2017 at 09:39 am

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

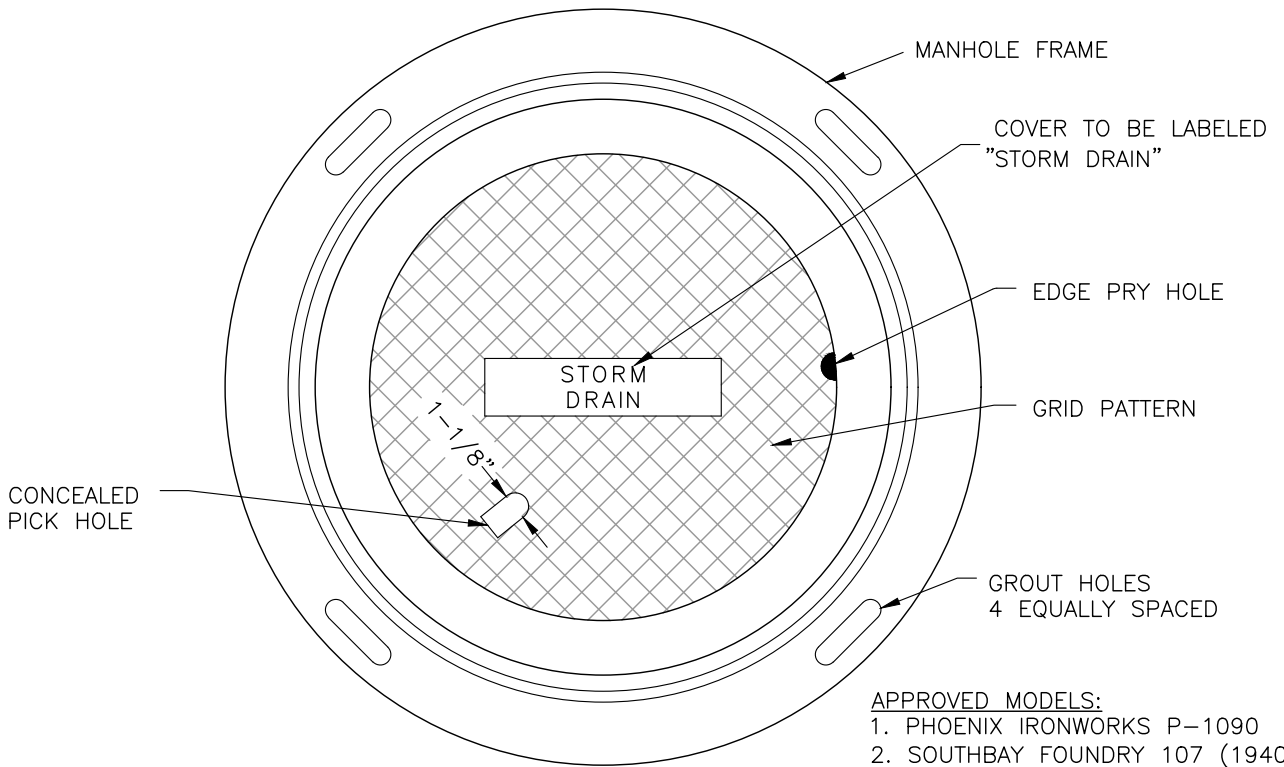
STD DETAIL  
 305-1



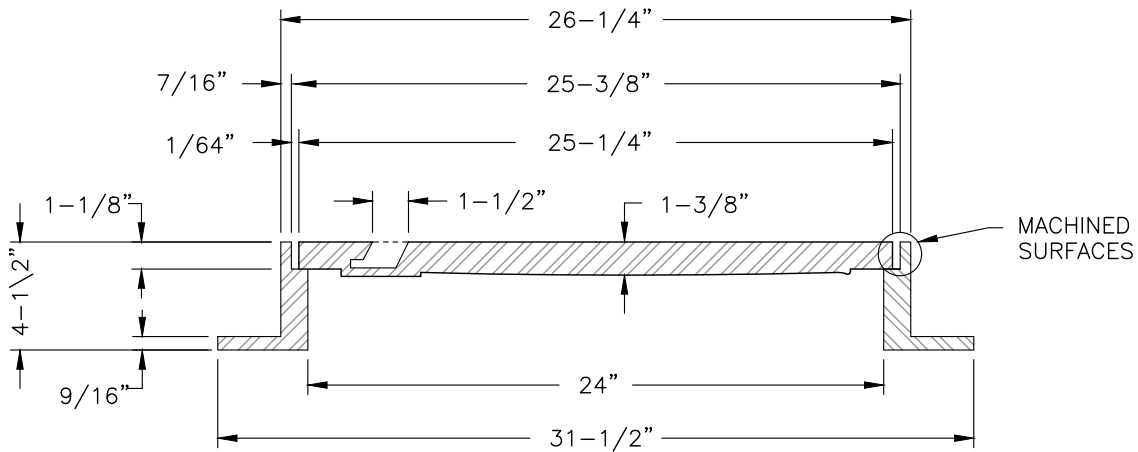
# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## STORM MANHOLE 2 OF 2




- APPROVED MODELS:
1. PHOENIX IRONWORKS P-1090
  2. SOUTHBAY FOUNDRY 107 (1940)
  3. D & L FOUNDRY A-1032



**NOTES:**

1. FRAMES AND COVERS TO BE GRAY CAST IRON CONFORMING TO ASTM A48 GRADE 35B, H-20 TRAFFIC RATED.
2. ALL CONTACT AND BEARING SURFACES OF BOTH FRAME AND COVER SHALL BE MACHINED TO FIT ACCURATELY SO THAT COVERS SHALL NOT ROCK.
3. COVERS SHALL BE IDENTIFIED AS "STORM DRAIN" OR "STORM" WITH RAISED OR INDENTED LETTERING 1" HIGH, MIN.
4. IN NON-TRAFFIC AREAS, PHOENIX P-1067 OR SBF 1934 FRAME AND COVER MAY BE USED.

Dwn:	No.	Date	Revision	Appr.
CLG				
Chk:				
MNO				
JAN 2017				

Approved By:   
 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

STD DETAIL  
 305-2



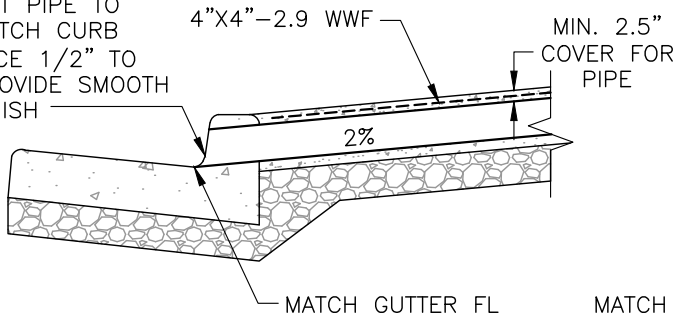


# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

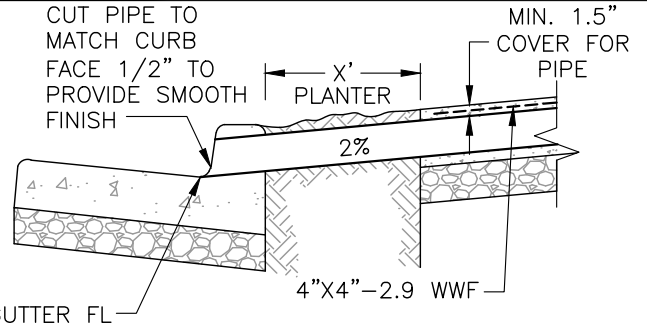
## THROUGH CURB DRAIN

CUT PIPE TO MATCH CURB FACE 1/2" TO PROVIDE SMOOTH FINISH



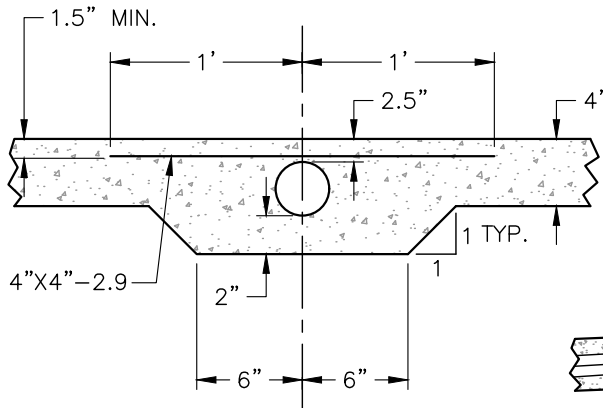
SECTION

CUT PIPE TO MATCH CURB FACE 1/2" TO PROVIDE SMOOTH FINISH



SECTION

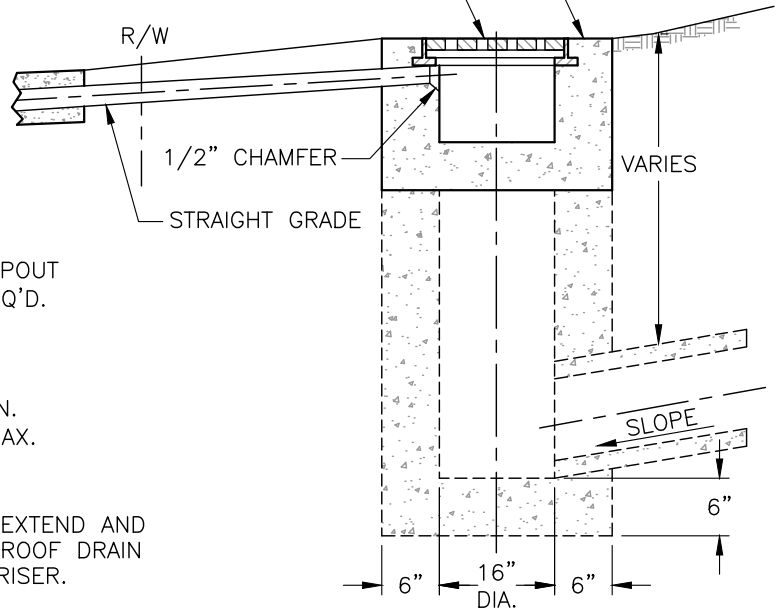
SEE NOTE 3



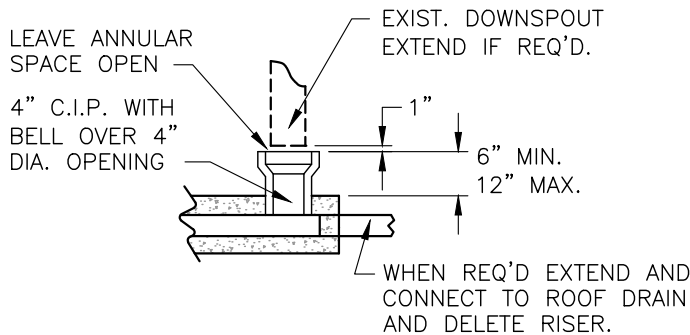
DRAIN SECTION

MINIMUM TOP ELEVATION IS SAME AS TOP OF CURB

DROP INLET, AREA DRAIN OR CLEANOUT WITH SOLID COVER.



YARD DRAIN DETAIL  
SEE STD. 304-1 (SIMILAR)




ROOF DRAIN DETAIL

**NOTES:**

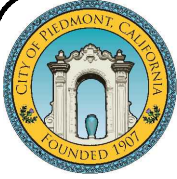
- PIPE ALTERNATES: 3" X 4" 1.22mm GALV. METAL DUCT  
3" ROUND PIPE-SCH 80 PVC, DUCTILE IRON OR SCH 40 STEEL PIPE
- CURB, GUTTER & SIDEWALK DIMENSIONS TO MATCH ADJACENT CONSTRUCTION.
- FOR INSTALLATIONS IN EXISTING SIDEWALK, SAW CUT AT THE WEAKENED PLANE JOINT WIDTH OF SIDEWALK AND CURB. GUTTER MAY BE LEFT IN PLACE.

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: C:\Users\gcooper\AppData\Local\Temp\AcPublish\_6300\Piedmont Std 300-308.dwg Layout Name: 307 Plot Date: Feb 09, 2017 at 09:39 am

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JAN 2017				

Approved By:   
Chester Nakahara  
Director of Public Works  
Date 1/17/17

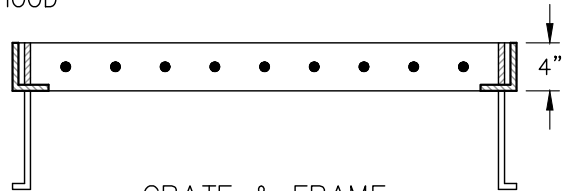
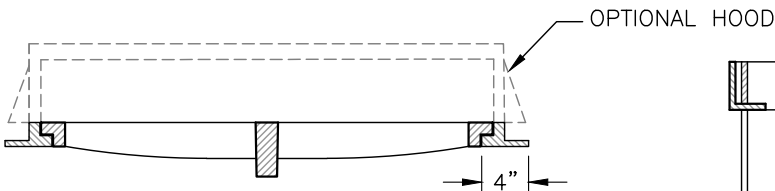
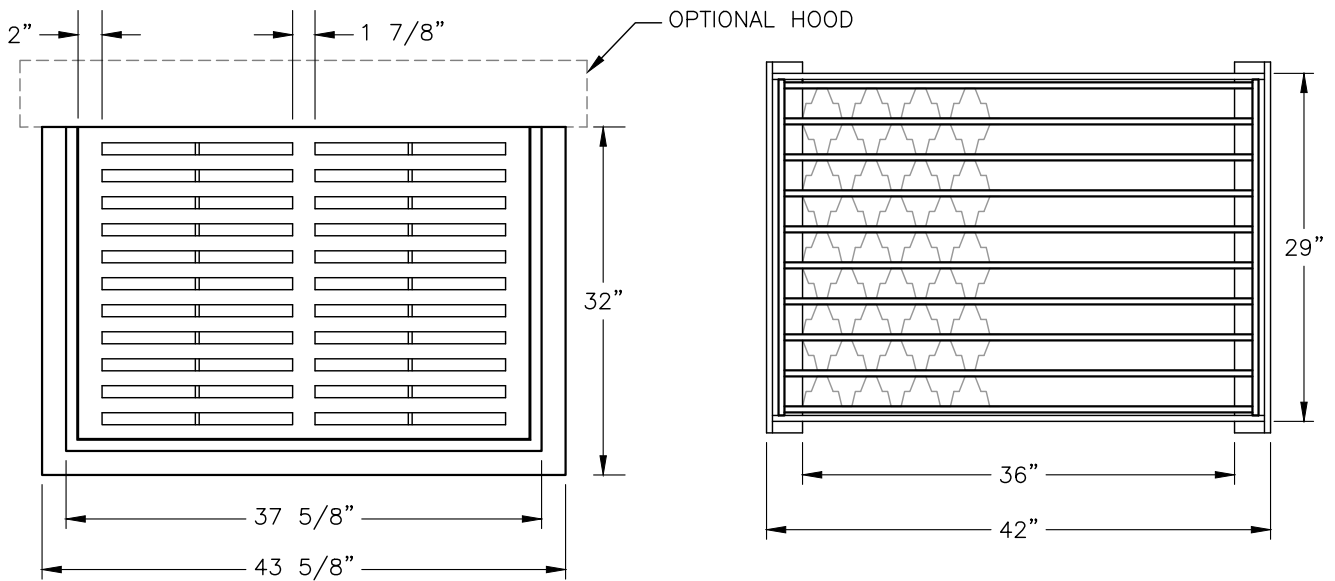
STD DETAIL  
**307**



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## DRAINAGE INLET FRAME & GRATE



**GRATE & FRAME**  
PHOENIX P-6002  
SBF C26  
CAST IRON  
NTS

**GRATE & FRAME**  
PHOENIX P-6203  
WELDED  
MODIFIED 29" DIM. ONLY  
NTS

FRAME				
CONST.	INLET	HEIGHT	WEIGHT	FINISH
WELDED	29"X30"	4"	100# W/O HOOD	GALVANIZED
CAST IRON	28.5"X36"	4"	130#	ASPHALT PAINT DIP

NOTES:

1. ALL GRATES SHALL BE BIKEPROOF.
2. INLETS SHALL HAVE "NO-DUMPING - DRAINS TO BAY" LETTERING.

GRATE					
CONST.	HEIGHT	NUMBER OF BARS	OPEN FLOW	WEIGHT	FINISH
WELDED/ RIVETED	4"	12	79%	250# W/O HOOD	GALVANIZED
CAST IRON	3.5"-4.5"	12	40%	290#	ASPHALT PAINT DIP

Images: CN darker.pg\Piedmont 2015.pg; Xrefs: Path: C:\Users\gooteer\AppData\Local\Temp\AePublish\_6300\Piedmont Std 300-308.dwg Layout: Name: 308 Plot Date: Feb 09, 2017 at 09:39 am

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Chester Nakahara  
Director of Public Works  
Date 1/17/17

STD DETAIL  
**308**



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## TYPICAL TREE PLANTING

2 STRAND TWISTED 12 GAUGE GALV. WIRE ENCASED IN 1" DIA. RUBBER HOSE OR 2" WIDE ELASTIC WEBBING ATTACHED TO ANCHOR STAKES WITH GALV. SCREWS

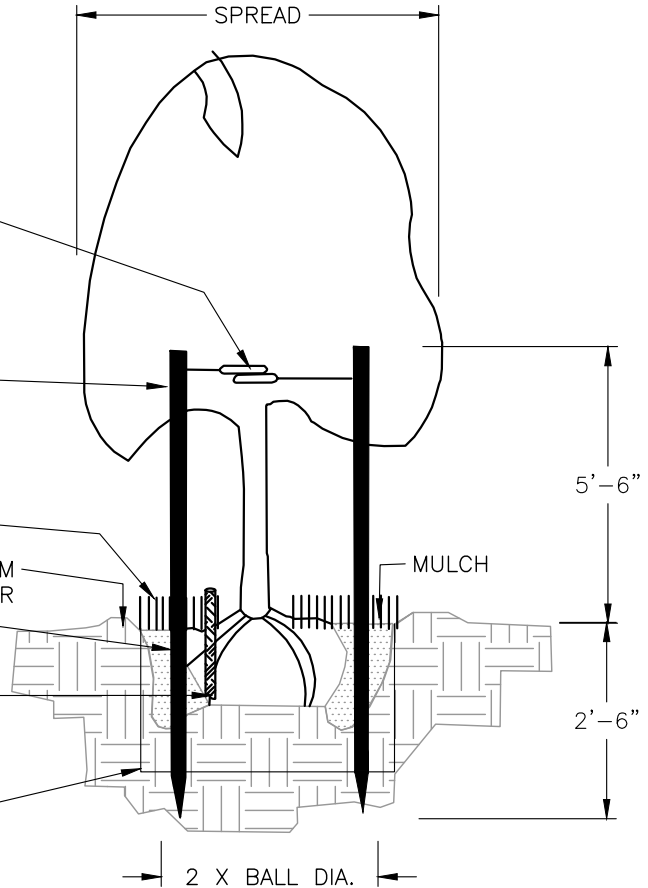
TREATED LODGEPOLE 1-3 STAKES 2" x 2" DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING

1" DEPTH "VITA BARK" OR "TILO" MULCH - 1" MAX. SIEVE SIZE

DO NOT TOUCH ROOTBALL WITH STAKE

3"-4" DRAIN PIPE FILLED WITH DRAIN ROCK FOR DEEP WATERING

DEEP ROOT BARRIER IN KNOCK-OUT OR NEXT TO SIDEWALK-MINIMUM 24" DEPTH




### NOTES:

1. TOP SUPPORT OF TREES SHOULD BE AS LOW ON THE TRUNK AS POSSIBLE BUT HIGH ENOUGH THAT THE TREE WILL RETURN TO UPRIGHT AFTER DEFLECTION. TO FIND THE PROPER HEIGHT, HOLD THE TRUNK IN ONE HAND, PULL THE TOP TO ONE SIDE AND RELEASE. THE HEIGHT AT WHICH THE TRUNK WILL JUST RETURN TO UPRIGHT WHEN THE TOP IS RELEASED IS THE HEIGHT AT WHICH TO ATTACH THE TIES.
2. A LINE DRAWN BETWEEN THE ANCHOR STAKES SHOULD BE AT RIGHT ANGLES TO THE WIND DIRECTION.
3. TOP-MOST LOOP IS TIED FIRST TO HOLD THE TRUNK IN THE DESIRED POSITION. THE LOWER TIE IS THEN SECURED TO MAINTAIN THE TRUNK FIRMLY IN THE UPPER LOOP.
4. RE-USE OF NATIVE SOIL IS PREFERRED. REMOVE STONES 1" AND LARGER. PLANT SO THAT TOP OF ROOT BALL IS 1"-2" ABOVE THE FINISHED GRADE.

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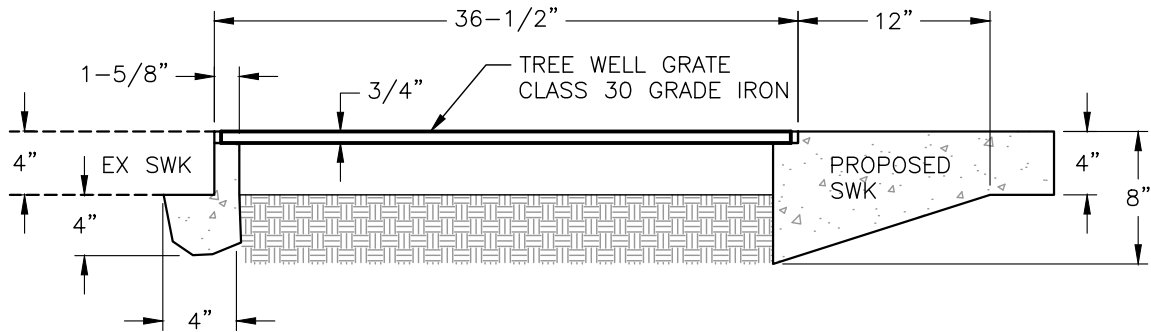
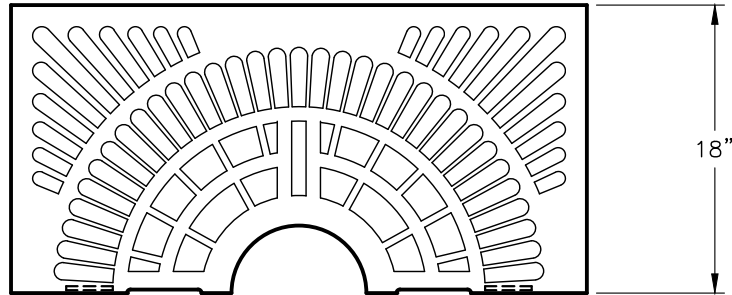
STD DETAIL  
 400



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## GRATED TREE WELL




### NOTES:

1. IF THE TREE IS NOT PLANTED, THE OPENING SHALL BE BARRICADED.
2. WHEN TREE WELLS ARE INSTALLED IN THE EXISTING SIDEWALK, THE SIDEWALK SHALL BE SAWED A MINIMUM OF 1-1/2" IN DEPTH.
3. PLACE ONE #4X2' REBAR DIAGONALLY AT EACH CORNER.
4. REINFORCING STEEL SHALL NOT BE PLACED THROUGH SIDEWALK WEAKENED PLANE JOINTS.

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STD DETAIL  
 401

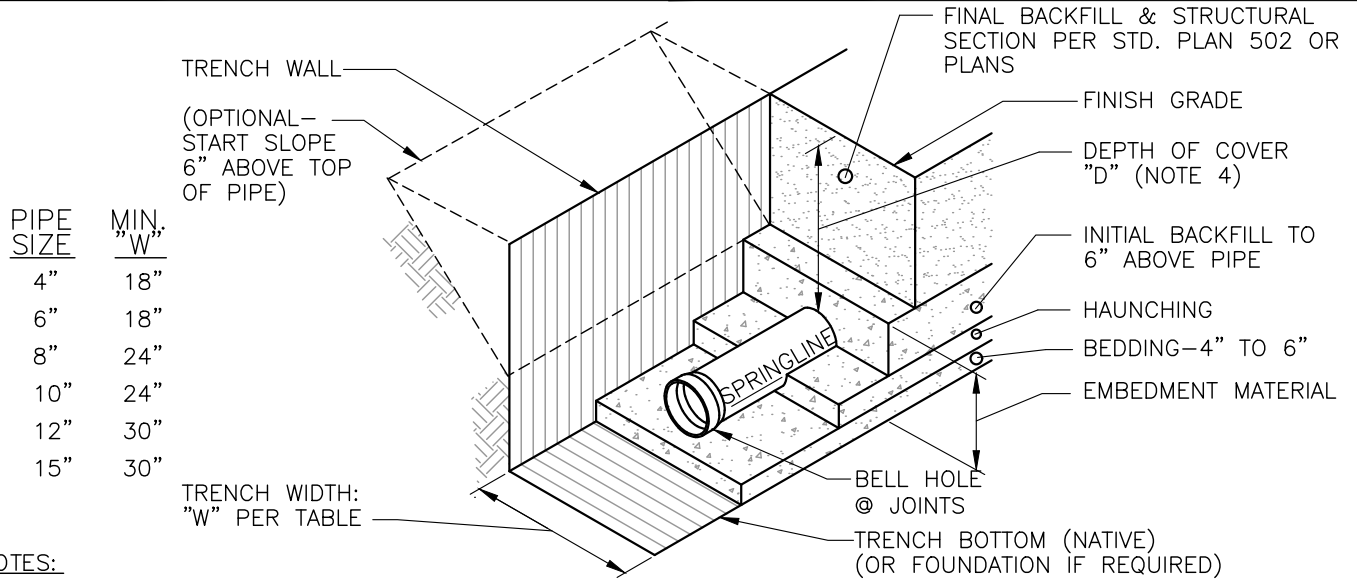




# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## PIPE BEDDING & BACKFILL FLEXIBLE PIPE TRENCH



PIPE SIZE	MIN. "W"
4"	18"
6"	18"
8"	24"
10"	24"
12"	30"
15"	30"

TRENCH WIDTH:  
"W" PER TABLE

**NOTES:**

1. THIS STANDARD IS FOR PVC (4" THRU 15" I.D.) AND HDPE (UP THRU 14" O.D.) CONFORMING TO CITY DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
2. CLASS 1 EMBEDMENT MATERIAL SHALL BE USED UNLESS SPECIFIED OTHERWISE ON THE PLANS.
3. THIS STANDARD IS APPLICABLE ONLY FOR STABLE TRENCH WALLS WHERE NO STANDING WATER OR GROUNDWATER IS ANTICIPATED. SPECIAL DETAILS ARE REQUIRED FOR UNSTABLE SOIL IDENTIFIED IN SOILS REPORT. FOR MINOR OCCURRENCES OF INSTABILITY (SAND POCKETS, ETC), VOIDS IN THE EMBEDMENT ZONE SHALL BE FILLED WITH THE SPECIFIED EMBEDMENT MATERIAL TO AT LEAST TWO PIPE DIAMETERS ALL AROUND THE PIPE.
4. MINIMUM DEPTH OF COVER FOR MAINS IS 3 FT TO FINISH GRADE; SERVICE LATERALS PER PLANS.
5. WITH CRUSHED ROCK OR SAND EMBEDMENT AND SLOPES EXCEEDING 8%, INSTALL A CUT-OFF DAM OF 1 FT. OF CONTROLLED LOW STRENGTH MATERIAL EVERY 100 FT.

**EMBEDMENT MATERIAL**

	CLASS I	CLASS II	CLASS III	CLASS IV	CLASS V
DESCRIPTION	CRUSHED ROCK	COARSE SAND & GRAVEL	FINE SAND MIXTURES	SILT, SILTY CLAYS	ORGANIC SOILS
UNIFIED SOIL CLASSIFICATION	3/4" - 1/4"	GW, GP, SW, SP	GM, GC, SM, SC	MH, ML, CH, CL	OL, OH, PT
SOIL TYPE	WELL GRADED (SEE NOTE 5)				
FOUNDATION	IF REQUIRED, PER SPECIAL DESIGN TO BE SHOWN ON PLANS				
BEDDING	CONSOLIDATE WITH VIBRATOR OR FLAT SHOVEL	COMPACT TO 85% MIN. R.C.	COMPACT TO 90% MIN. R.C.	SPECIAL DESIGN	NOT PERMITTED
HAUNCHING	"SLICING" (SEE NOTE 5)	CUT-OFF DAM (SEE NOTE 5)	COMPACT TO 90% MIN. R.C. IN <u>TWO LIFTS</u> (SEE NOTE 5)		
INITIAL BACKFILL	PER CLASS II OR III, OR USE CRUSHED ROCK PER ABOVE.	COMPACT TO 85% MIN. R.C. IN <u>TWO LIFTS</u>	COMPACT TO 90% MIN. R.C. IN <u>TWO LIFTS</u>		
MAXIMUM DEPTH OF COVER "D" (WITHOUT SPECIAL DESIGN)	20 FT	20 FT	20 FT		

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Chk: MNO							501-1
JAN 2017							

Images: C:\darkier\pg\Piedmont 2015.ppt; Xrefs: Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont\_Sld 501-503.dwg Layout Name: 501-1 Plot Date: Feb 09, 2017 at 09:49 am






**CITY OF PIEDMONT**  
PUBLIC WORKS DEPARTMENT

**PIPE BEDDING & BACKFILL  
RIGID PIPE TRENCH  
2 OF 2**

PIPE MATERIAL	CLASS	SIZE (IN.)	MINIMUM TRENCH CLASS PER STD PLAN 501-2 DEPTH OF COVER (FT.)								
			3	4	5	6	7	8	9	10	
DUCTILE IRON, AWWA C151 CAST IRON, ASTM A888	50	4 THRU 14	D								
REINFORCED CONCRETE, ASTM C76	III	12	C		B			CS			
		15	C		B			CS			
		18	C		B			CS			
		21	D	C		B			CS		
		24	D	C		B			CS		
		27	D	C		B			CS		
	30	D	C		B			CS			
	IV	12	D				C				
		15	D				C				
		18	D				C				
		21	D				C				
		24	D				C				
	V	12	D								
		15	D								
		18	D								
21		D									
24		D									

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 Chester Nakahara  
 Director of Public Works  
 Date 1/17/17

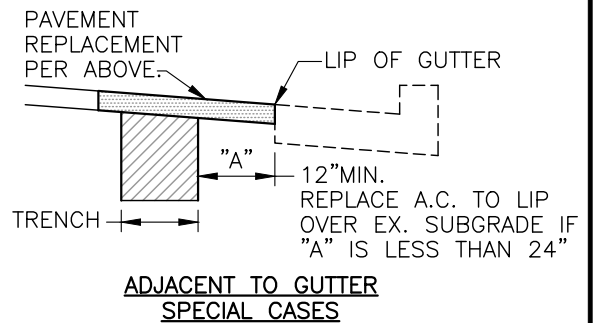
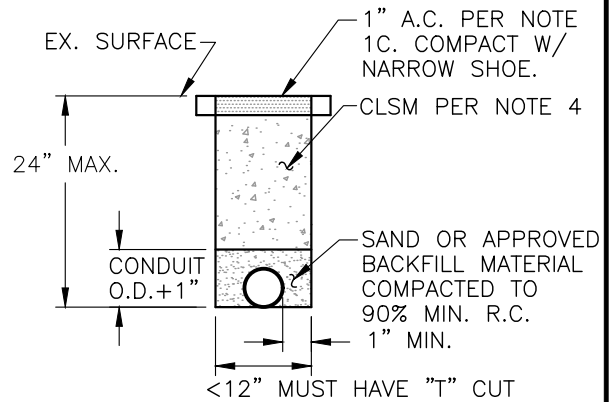
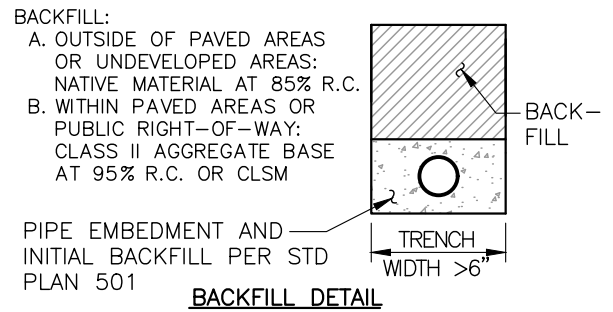
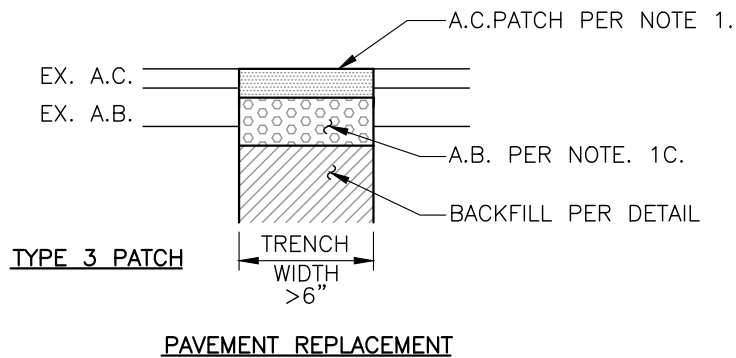
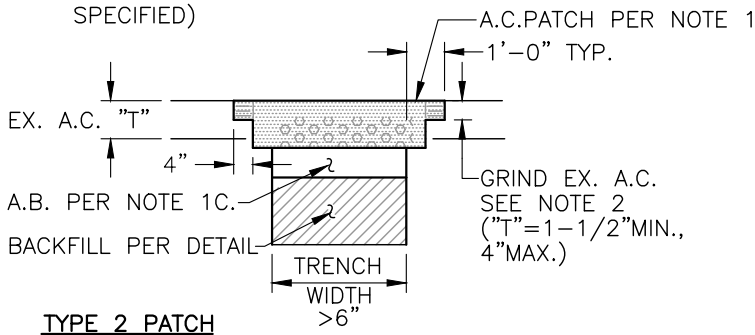
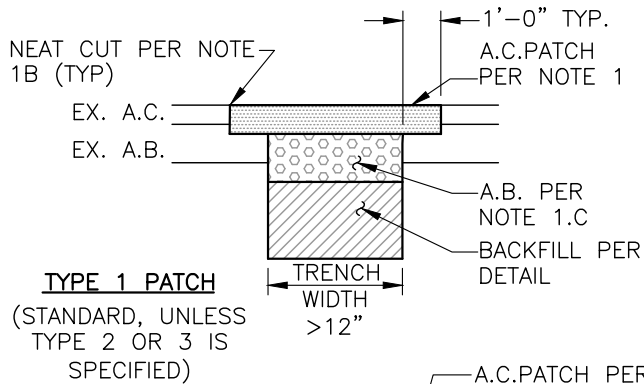
STD DETAIL  
**501-3**



# CITY OF PIEDMONT

PUBLIC WORKS DEPARTMENT

## FINAL BACKFILL & TRENCH STRUCTURAL SECTION REQUIREMENTS



**NOTES:**

- TYPE 1 PATCH:
  - TOTAL AC THICKNESS TO MATCH EXISTING PLUS 1", 3" MINIMUM APPLIED IN TWO LIFTS.
  - DROP HAMMER OR OTHER ROUGH CUT ALLOWED FOR INITIAL CUT ALONG TRENCH WALL. FINAL AC EDGE SHALL BE SAWCUT AND TACK COATED PRIOR TO NEW AC PLACEMENT.
  - AB THICKNESS PER PLANS. AB MAY BE REPLACED BY ADDITIONAL AC (50% OF REQ'D AB THICKNESS).
- TYPE 2 PATCH OPTIONAL, EXCEPT WHEN REQUIRED BY THE CITY. GRIND DEPTH "T" SHALL BE ADJUSTED TO MATCH EXISTING OVERLAY THICKNESS.
- TYPE 3 PATCH TO BE USED WHEN SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER, GENERALLY ON STREETS TO BE OVERLAYED.
- CONTROLLED LOW STRENGTH MATERIAL (CLSM) MAY BE USED FOR BACKFILL WITH THE PRIOR APPROVAL OF THE ENGINEER. CLSM SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS SECTION 19-3.02F.

Images: CN darker.ppt; Piedmont 2015.ppt; Xrefs: Path: C:\Users\gooter\AppData\Local\Temp\AcPublish\_6300\Piedmont\_Sld 501-503.dwg Layout Name: 502 Plot Date: Feb 09, 2017 at 09:49 am

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Chester Nakahara  
Director of Public Works

Date 1/17/17

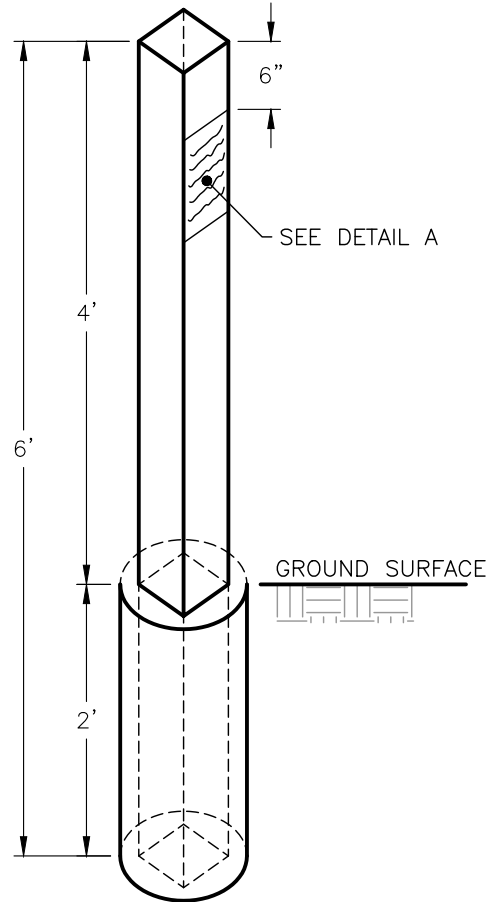
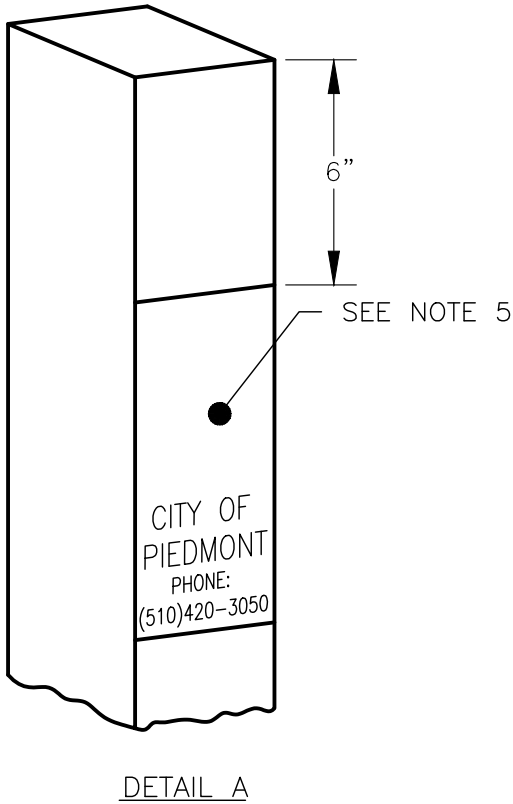
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**502**



# CITY OF PIEDMONT

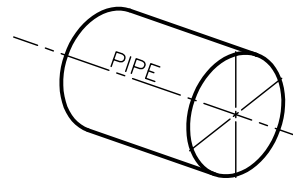
PUBLIC WORKS DEPARTMENT

## PIPE MARKER




### NOTES:

1. POSTS TO BE 4"X4" FOUNDATION GRADE REDWOOD OR PRESSURE TREATED DOUGLAS FIR.
2. POSTS TO BE ENCASED IN CONCRETE - 8" DIAMETER X 2' DEEP.
3. POSTS SHALL BE PAINTED WHITE USING 2 COATS.
4. USE 1/2" BLOCK BLACK LETTERING ON BOTH SIDES OF THE POST IN LINE WITH THE PIPE.
5. POSTS SHALL STATE DIAMETER AND TYPE OF PIPE AS FOLLOWS:  
 EXAMPLES: 1) 24-INCH SANITARY SEWER      2) 12-INCH STORM DRAIN
6. UPON CITY APPROVAL, CARSONITE HIGH PERFORMANCE UTILITY MARKERS OR APPROVED EQUAL WITH WARNING LABELS MAY BE USED.



Images: CN darker.jpg; Piedmont 2015.jpg; Xrefs: Path: C:\Users\gooler\appdata\local\Temp\AcPublish\_6300\Piedmont\_Sid 501-503.dwg Layout Name: 503 Plot Date: Feb 09, 2017 at 09:49 am

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503