



Think Inside the Triangle™
City of Tracy

Engineering Design & Construction Standards



STANDARD PLANS

(STREETS & UTILITIES)

Development and Engineering Services Department
Resolution No. 2020-031 ♦ FEBRUARY 18, 2020

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ENGINEERING DESIGN STANDARDS
Resolution 2020-031

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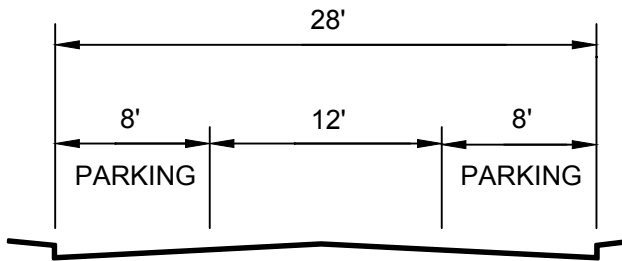
STANDARD PLAN - RECLAIMED WATER

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END

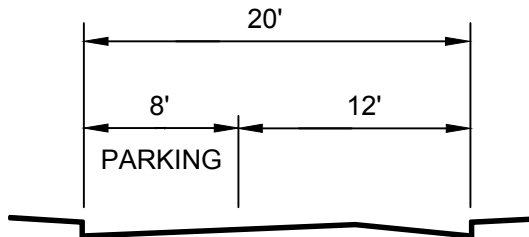
ONE WAY LOOP

(1 TO 15 UNITS)



PARKING BOTH SIDES

N.T.S.

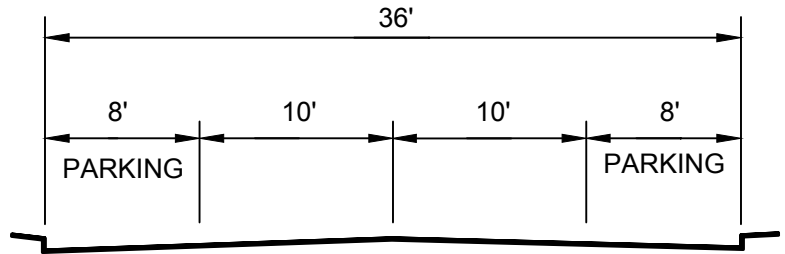


PARKING ONE SIDE

N.T.S.

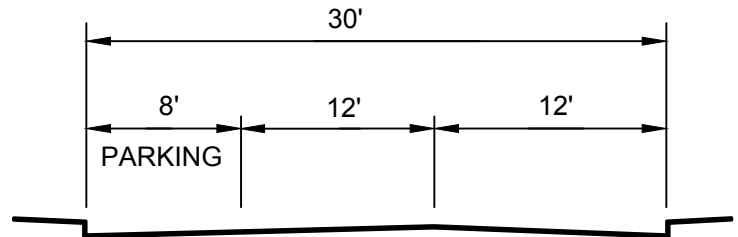
CUL-DE-SAC, LANE, PLACE, MINOR STREETS

(1 TO 80 UNITS)



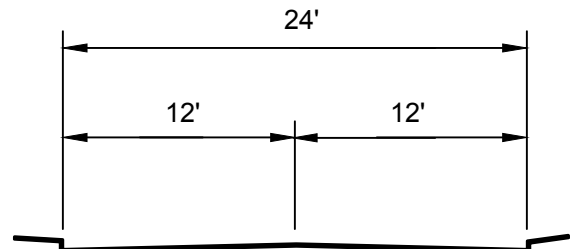
PARKING BOTH SIDES

N.T.S.



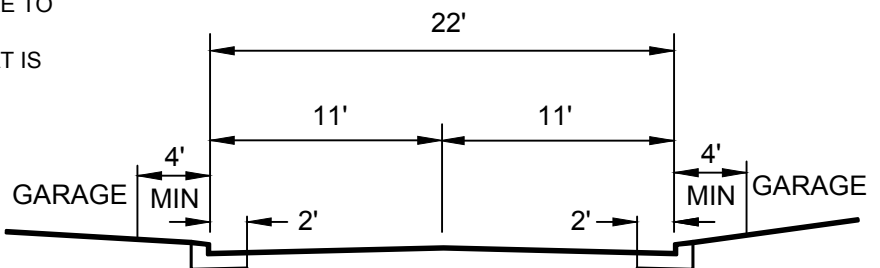
PARKING ONE SIDE

N.T.S.



NO PARKING

N.T.S.



ALLEY

N.T.S.

NOTES:

1. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH CITY STANDARDS.
2. DEPENDING UPON THE LENGTH OF STREET, PERIMETER ACCESS AND TYPE OF STRUCTURE TO BE PROTECTED, THE FIRE DEPARTMENT MAY REQUIRE A GREATER ROAD WIDTH THAN WHAT IS SPECIFIED HEREIN.
3. WIDTHS MAY VARY PER INDIVIDUAL SPECIFIC PLANS.
4. THIS STANDARD SHALL BE USED TO MATCH EXISTING CONDITIONS AT THE DIRECTION OF THE CITY ENGINEER.

CITY OF TRACY



Think Inside the Triangle™

REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020

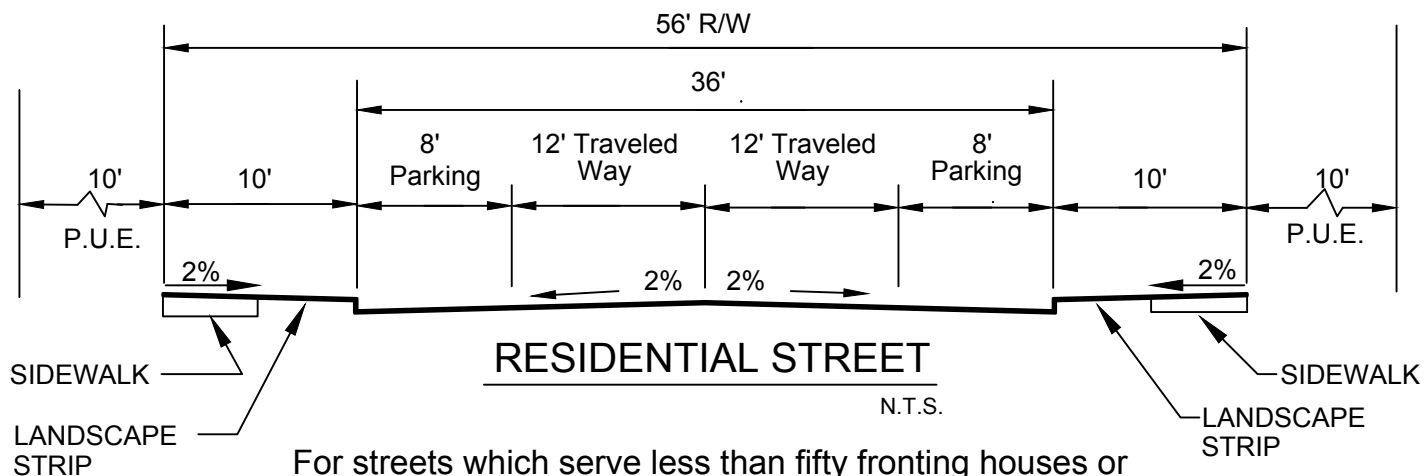
Prepared: Leisser M. Checked By: Thomas W.

Rev: Rev:

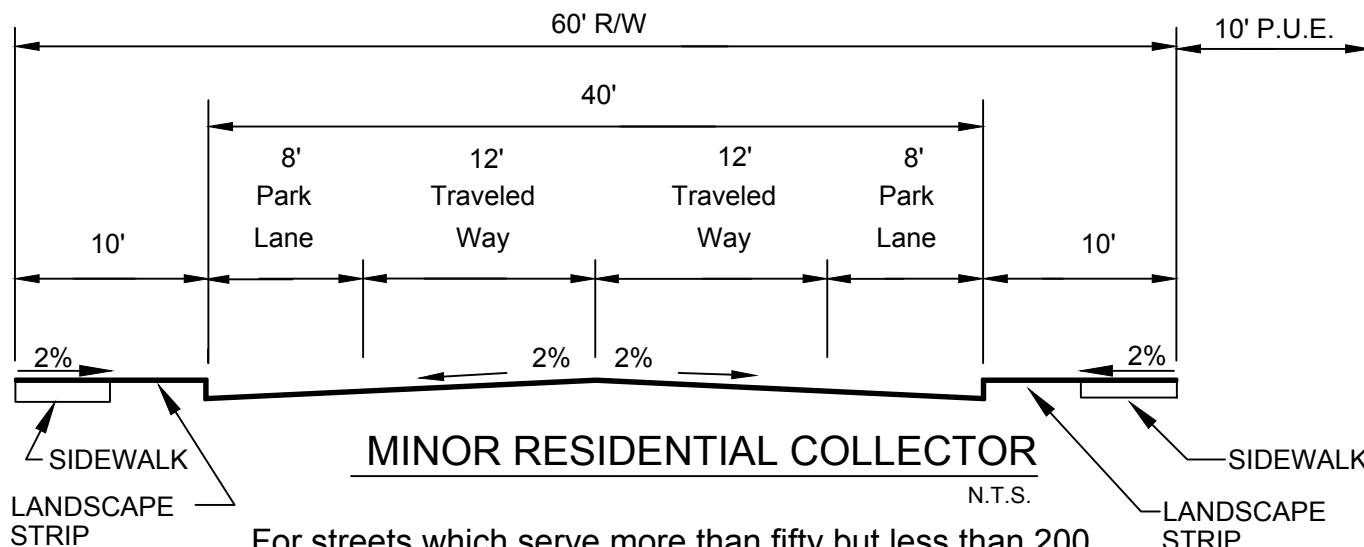
STANDARD
PLAN
No.

100

INFILL PRIVATE
STREET



For streets which serve less than fifty fronting houses or carrying less than an average of 500 vehicles per day.



For streets which serve more than fifty but less than 200 fronting houses or carrying an average of between 500 and 2,000 cars per day.

NOTES:

1. RIGHT-OF-WAY WIDTH MAY BE REDUCED UNDER SPECIAL CONDITIONS UPON APPROVAL OF CITY ENGINEER.
2. STREET SLOPES MAY BE INCREASED TO A MAXIMUM OF 4% IF REQUIRED DUE TO SPECIAL CIRCUMSTANCES.
3. PEDESTRIAN WALK CROSS SLOPE NOT TO EXCEED 2%. THE CLEAR WIDTH FOR SIDEWALKS SHALL BE 48" MINIMUM. WHEN BECAUSE OF RIGHT-OF-WAY RESTRICTIONS, NATURAL BARRIERS OF OTHER EXISTING CONDITIONS, THE ENFORCING AGENCY DETERMINES THAT COMPLIANCE WITH THE 48" CLEAR SIDEWALK WIDTH WOULD CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 36".
4. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS THAN 60" WIDE, PASSING SPACES WILL BE PROVIDED TO MEET REQUIREMENTS OF APPLICABLE CURRENT CALIFORNIA BUILDING CODE.

CITY OF TRACY



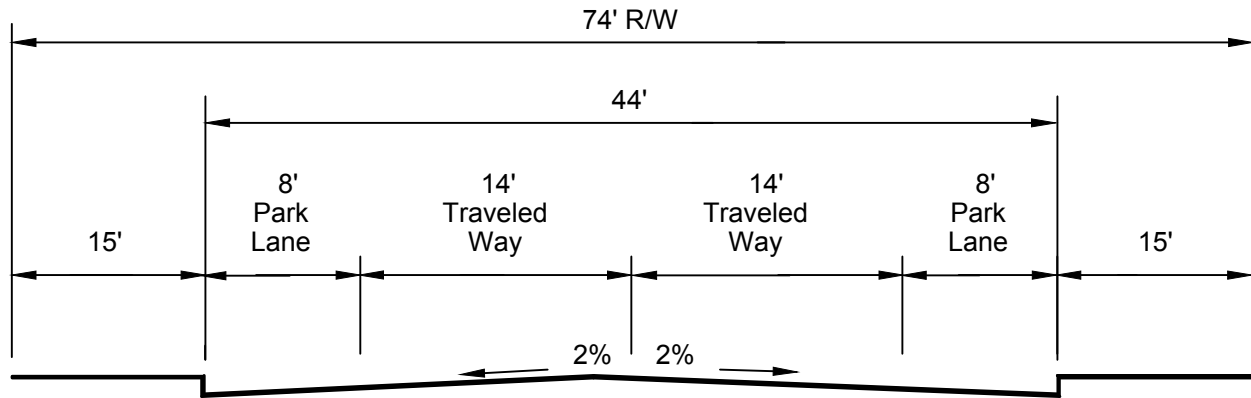
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REVIEWED BY: <i>Robert Armijo</i>	CITY ENGINEER
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

101

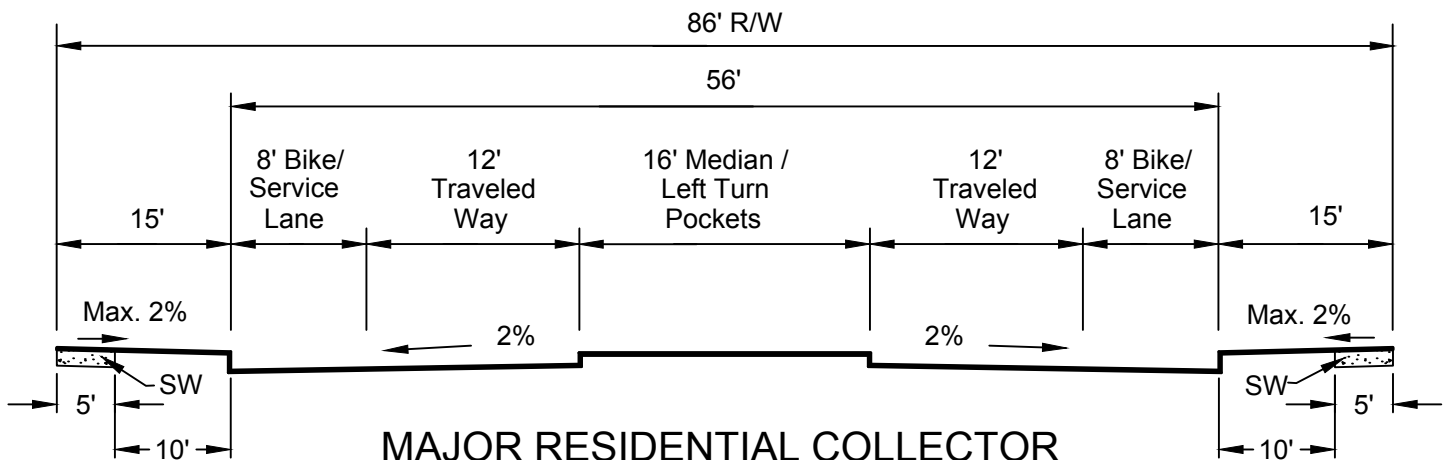
**INFILL RESIDENTIAL
STREETS**



SPECIFIC PLAN COLLECTOR

N.T.S.

For streets which serve more than fifty but less than 200 fronting houses or carrying an average of between 500 and 2,000 cars per day.



MAJOR RESIDENTIAL COLLECTOR

N.T.S.

For streets with no fronting houses serving 200 to 500 houses or carrying an average of between 2,000 and 5,000 vehicles per day.

NOTES:

1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.
2. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS 60" WIDE, PASSING SPACES OF 60" X 60" WILL BE PROVIDED EVERY 400 FEET TO MEET REQUIREMENTS OF APPLICABLE CURRENT CA BUILDING CODE.

CITY OF TRACY

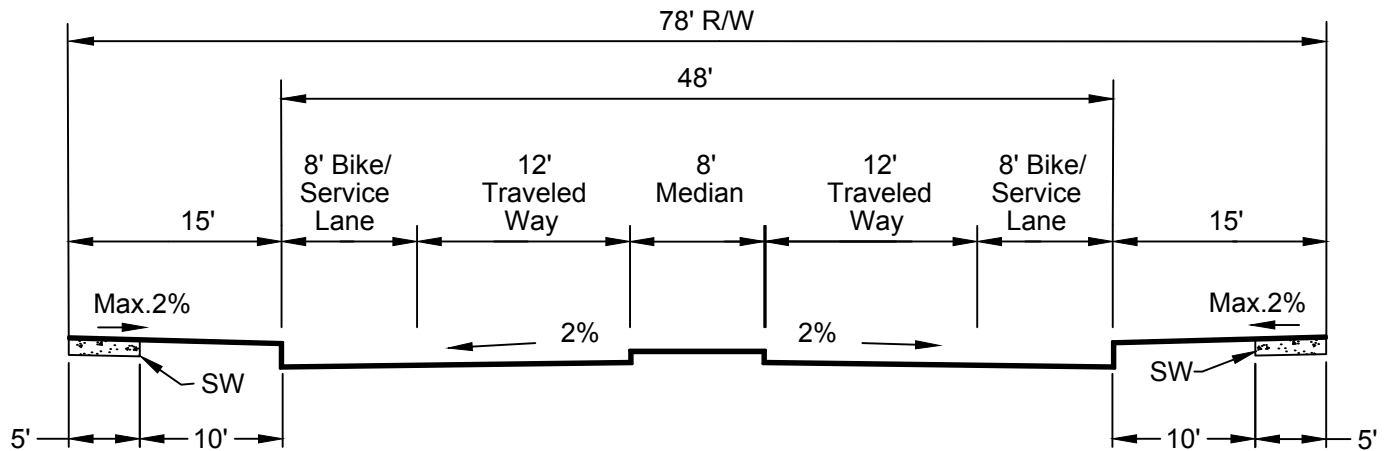


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CITY ENGINEER	RCE 63173
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Rev:	Rev:

STANDARD
PLAN
No.

102

**INFILL COLLECTOR
STREETS**



NEIGHBORHOOD ENTRY

N.T.S.

NOTES:

1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.
2. THE CLEAR WIDTH OF SIDEWALKS SHALL BE ALLOWED TO BE 48" MINIMUM GIVEN THAT IF THE ACCESSIBLE ROUTE IS LESS THAN 60" WIDE, PASSING SPACES OF 60" X 60" WILL BE PROVIDED EVERY 400' FEET TO MEET REQUIREMENTS OF APPLICABLE CURRENT CALIFORNIA BUILDING CODE.

CITY OF TRACY

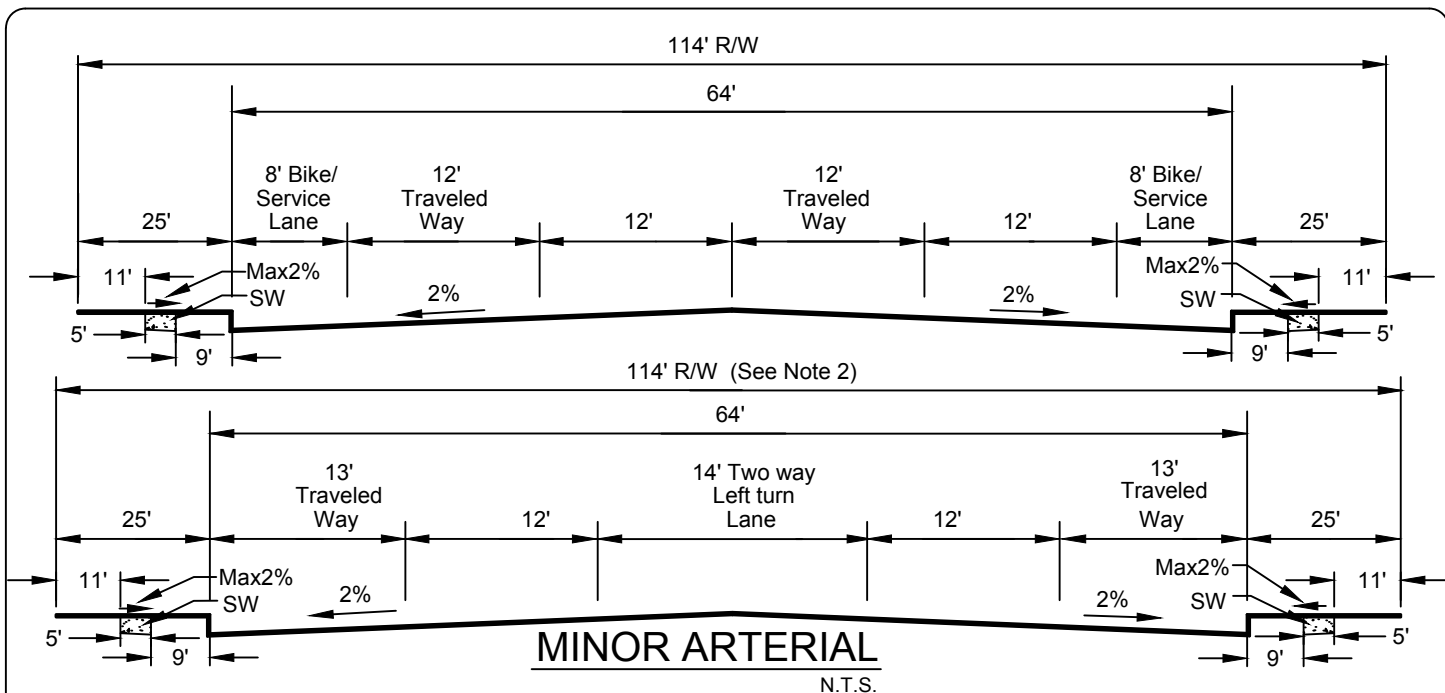


REVIEWED BY:	<i>Robert Armijo</i>
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

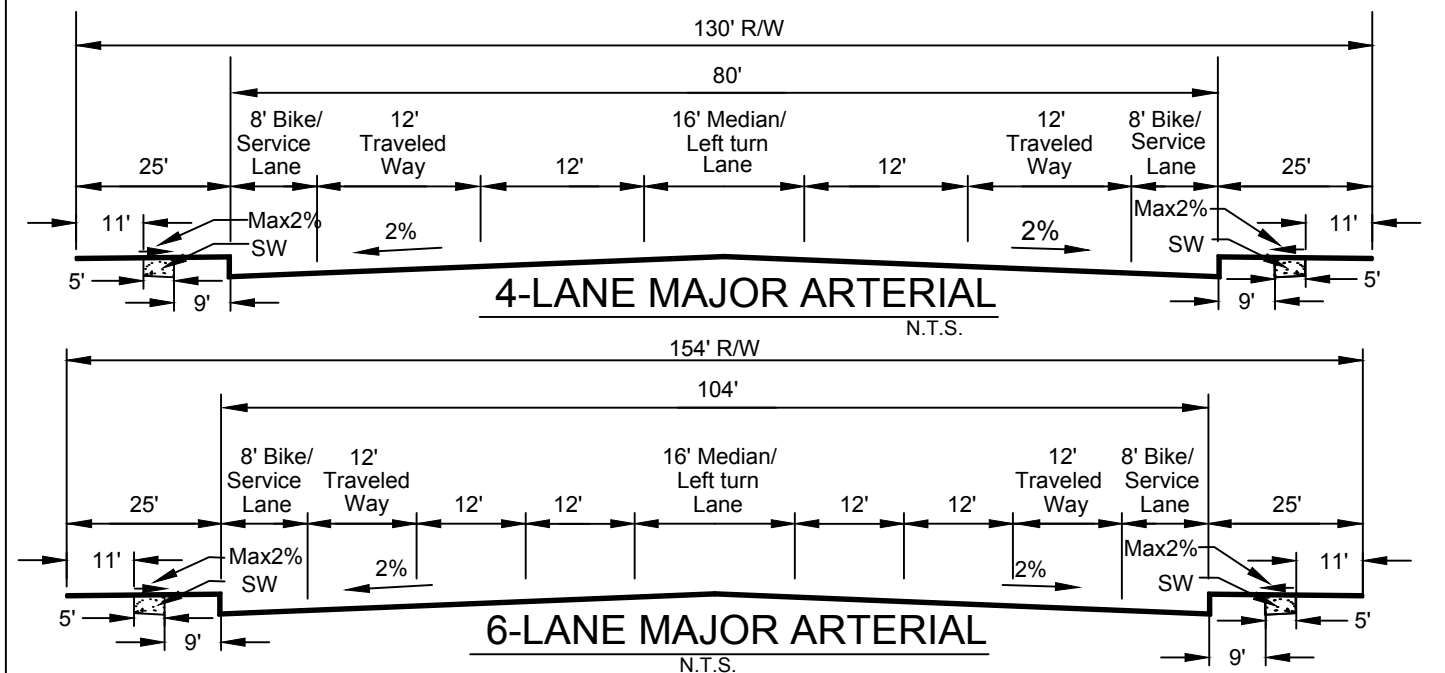
STANDARD
PLAN
No.

103

**INFILL NEIGHBORHOOD
ENTRY**



Sound walls shall be used when passing through residential areas for streets which serve 500 to 1,000 homes or carry an average of between 5,000 and 12,000 vehicles per day.



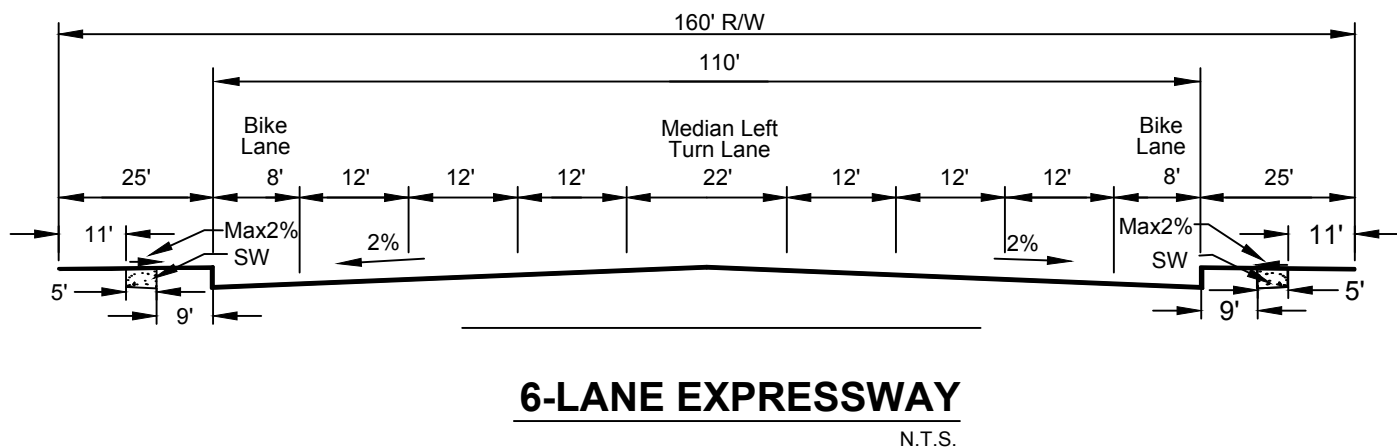
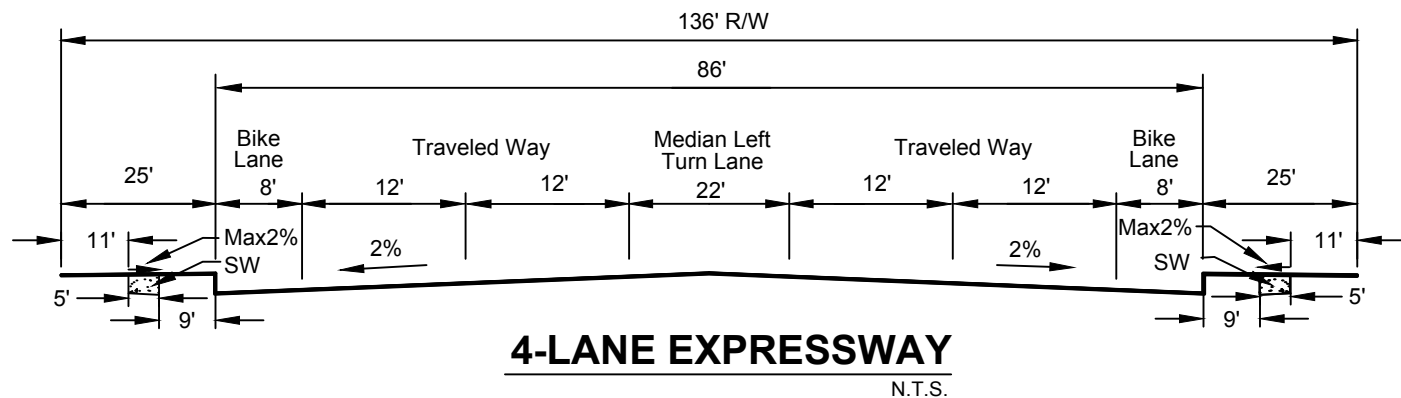
Sound walls shall be used when passing through residential areas for streets which carry in excess of 10,000 cars per day.

NOTES:

1. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.
2. SPECIFIC PLAN MAY REQUIRE ADDITIONAL RIGHT OF WAY.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <u>Robert Armijo</u>		STANDARD PLAN No. 104
	CITY ENGINEER RCE 63173		
	Res No. 2020-031	DATE: February 18, 2020	INFILL ARTERIAL STREETS
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	

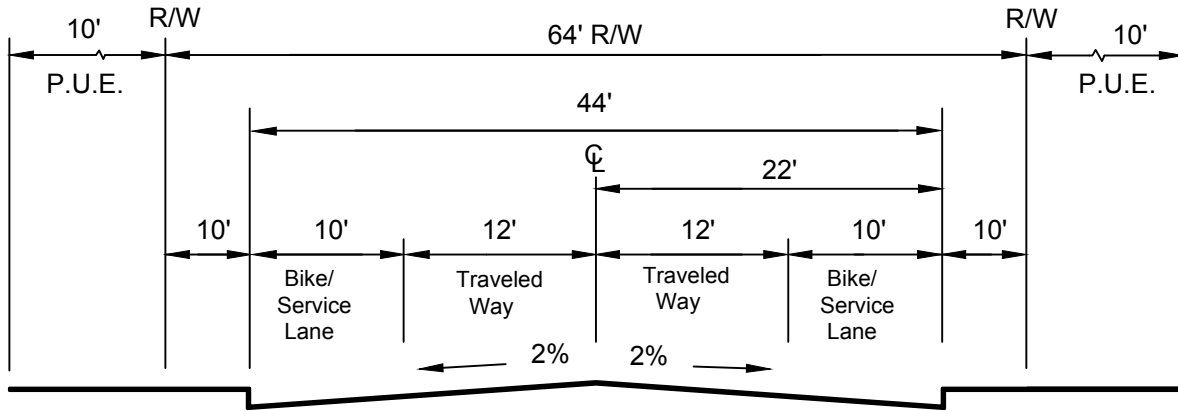


NOTES:

1. SOUND WALLS SHALL BE USED ADJACENT TO RESIDENTIAL AREAS WHEN THE EXPRESSWAY CARRIES MORE THAN 10,000 CARS PER DAY.
2. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% LONGITUDINAL SLOPE.
3. SPECIFIC PLAN MAY REQUIRE ADDITIONAL RIGHT OF WAY.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <i>Robert Armijo</i>		STANDARD PLAN No. 105
	CITY ENGINEER RCE 63173		
	Res No. 2020-031	DATE: February 18,2020	INFILL EXPRESSWAY/PARKWAY
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	

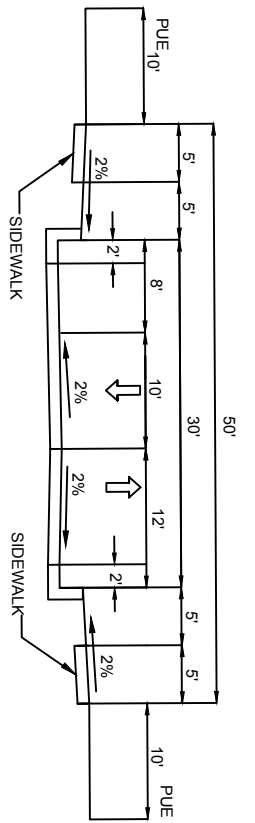


INDUSTRIAL STREETS

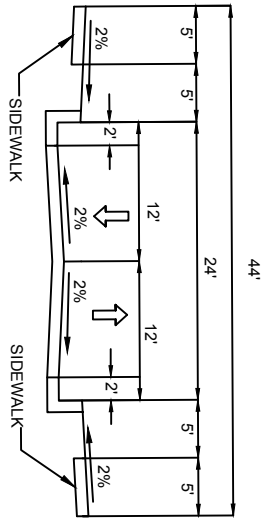
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CITY OF TRACY

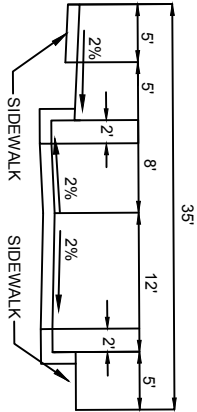
 Think Inside the Triangle™	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER RCE 63173		STANDARD PLAN No. 106
	Res No. 2020-031	DATE: 2020-	INFILL INDUSTRIAL STREETS
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	



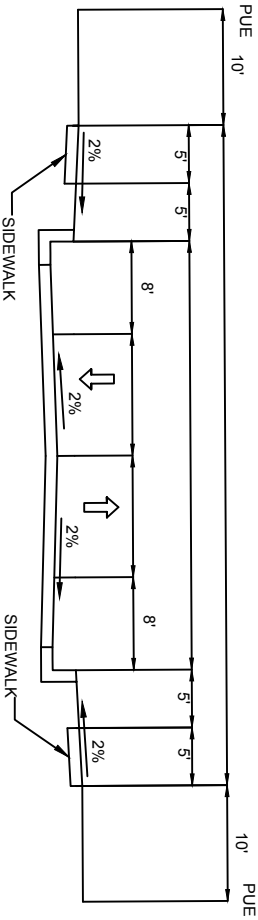
PARKING ONE SIDE
LOW VOLUME-UP TO 500 VEHICLES PER DAY
MAXIMUM BLOCK LENGTH 500 FEET



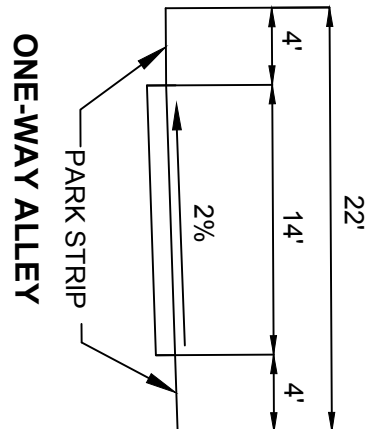
NO PARKING
 (10' PUE MAY BE REQUIRED ON EITHER SIDE OF STREET)



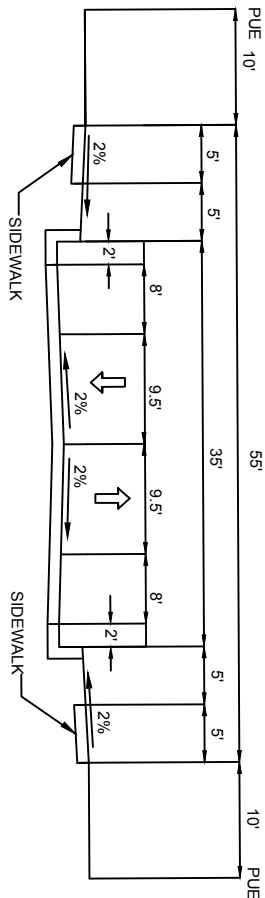
ONE-WAY STREET
PARKING ONE SIDE
 (10' PUE MAY BE REQUIRED ON EITHER SIDE OF STREET)



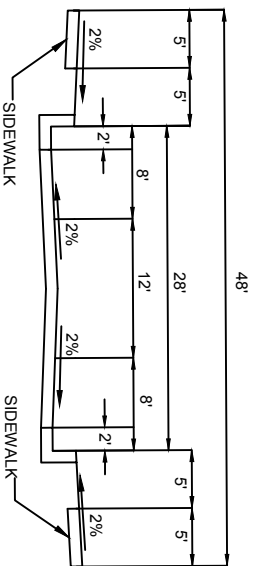
TWO LANE PARKING BOTH SIDES
HIGH VOLUME-1500 TO 2500 VEHICLES PER DAY



ONE-WAY ALLEY



TWO LANE PARKING BOTH SIDES
MEDIUM VOLUME-500 TO 1000 VEHICLES PER DAY
MAXIMUM BLOCK LENGTH OF 500 FEET



ONE-WAY STREET PARKING BOTH SIDES
 (10' PUE MAY BE REQUIRED ON EITHER SIDE OF STREET)

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Think Inside the Triangle

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 CITY ENGINEER RCE 63173

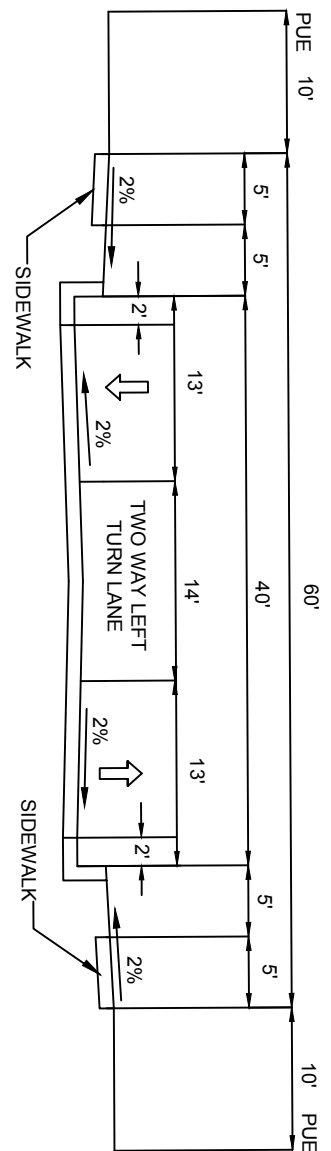
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2012 MASTER PLAN

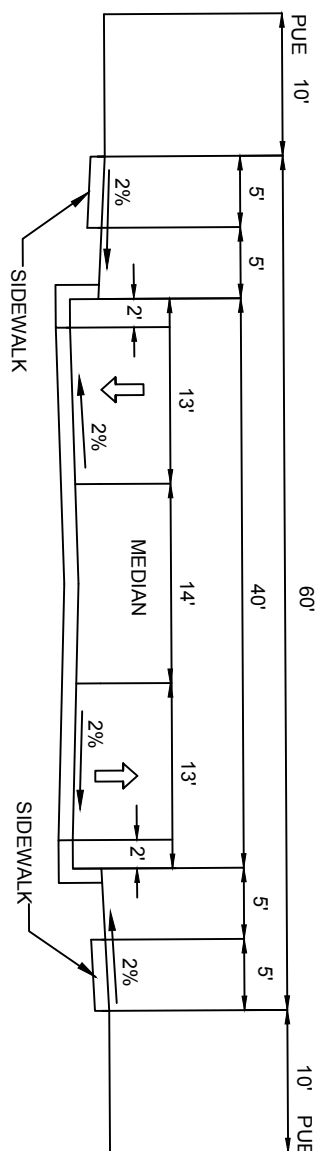
STANDARD
 PLAN
 No.

107

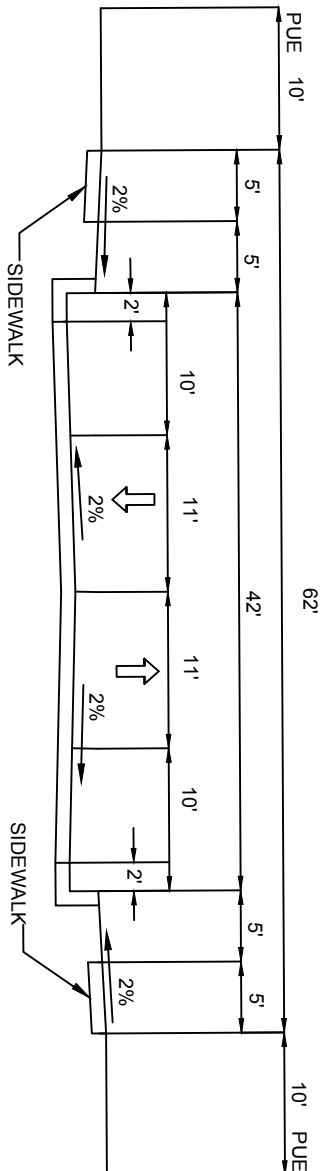
**MASTER PLAN
 RESIDENTIAL STREET
 ROADWAYS CROSS SECTION**



INDUSTRIAL STREET WITH TWLTL



INDUSTRIAL STREET WITH MEDIAN



INDUSTRIAL STREET

CITY OF TRACY

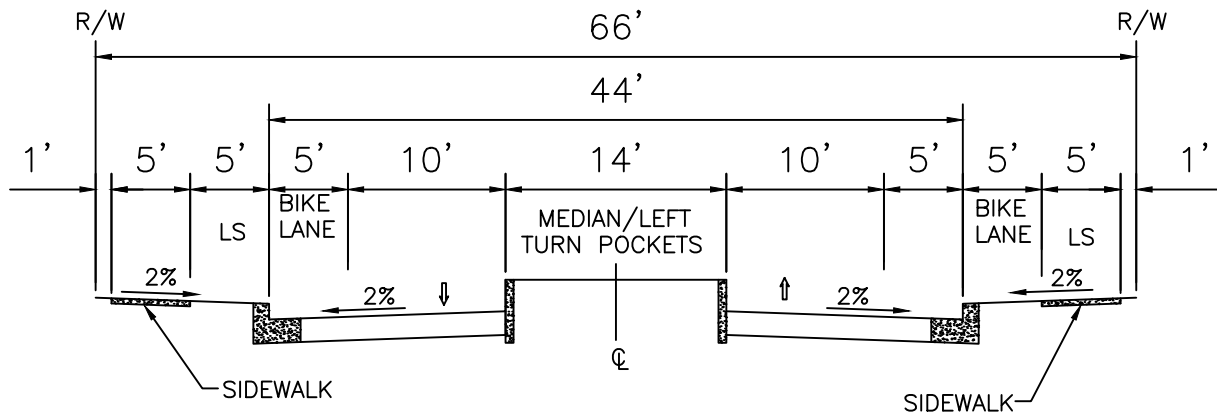


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2012 MASTER PLAN	

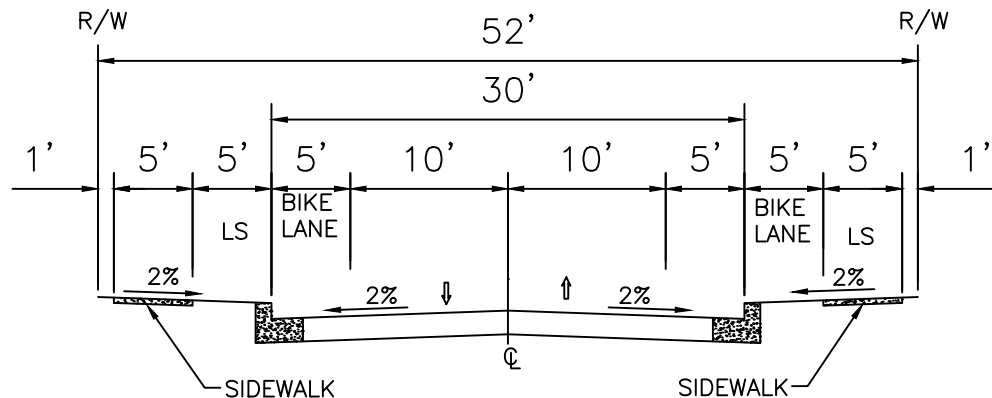
STANDARD
PLAN
No.

108

**MASTER PLAN
INDUSTRIAL STREET**



TWO LANE MAJOR COLLECTOR 2000 TO 5000 VEHICLES PER DAY



TWO LANE COLLECTOR <2000 VEHICLES PER DAY

CITY OF TRACY

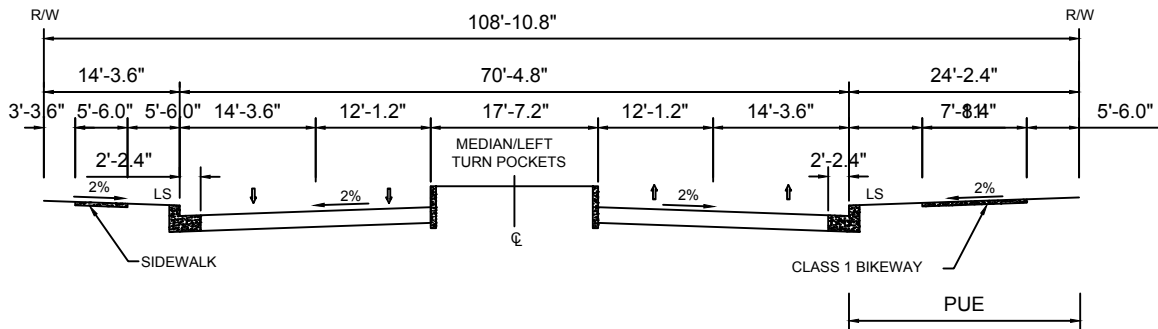


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2012 MASTER PLAN	

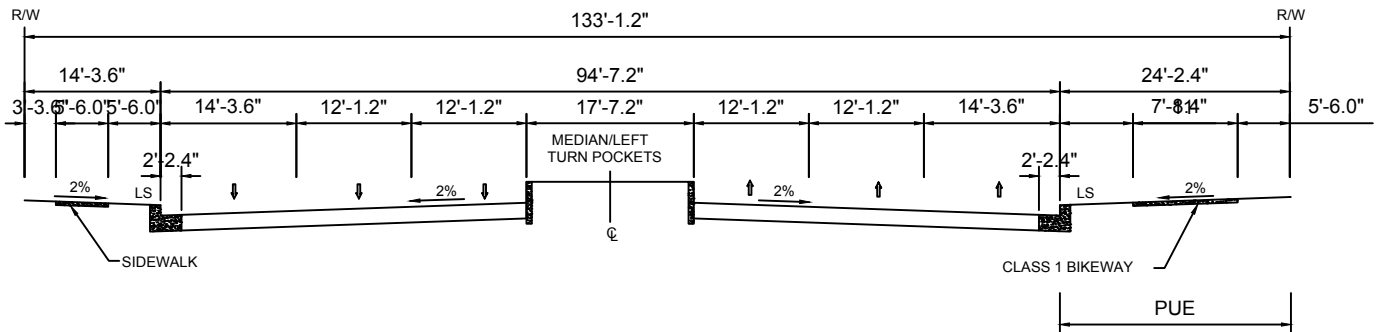
STANDARD
PLAN
No.

109

**MASTER PLAN
2-LANE MAJOR COLLECTOR
2-LANE COLLECTOR**



FOUR LANE MAJOR ARTERIAL WITH MEDIAN



SIX LANE MAJOR ARTERIAL WITH INTERMITTENT 8 FOOT PULLOUTS

CITY OF TRACY



Think Inside the Triangle™

REVIEWED BY: *Robert Armijo*

CITY ENGINEER RCE 63173

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Prepared By: Leisser M.

Checked By: Thomas W.

2012 Master Plan

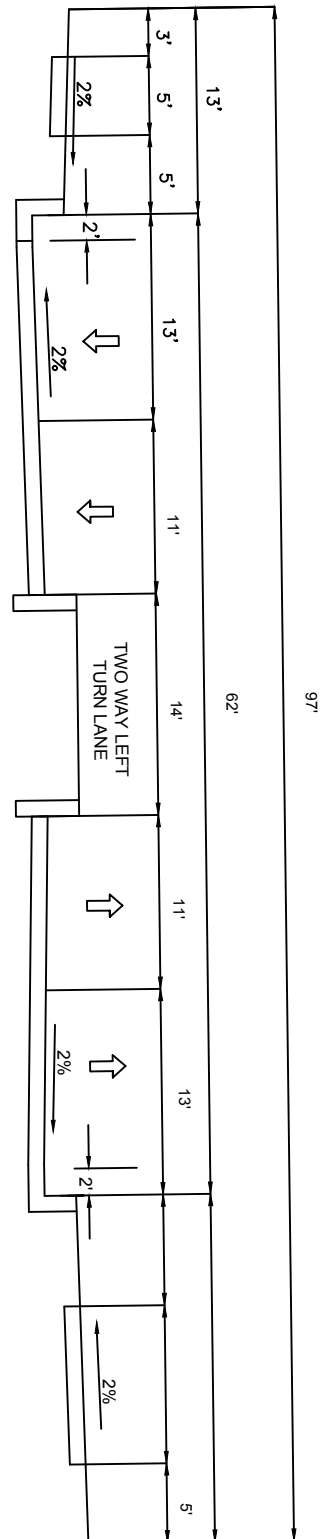
STANDARD
PLAN
No.

110

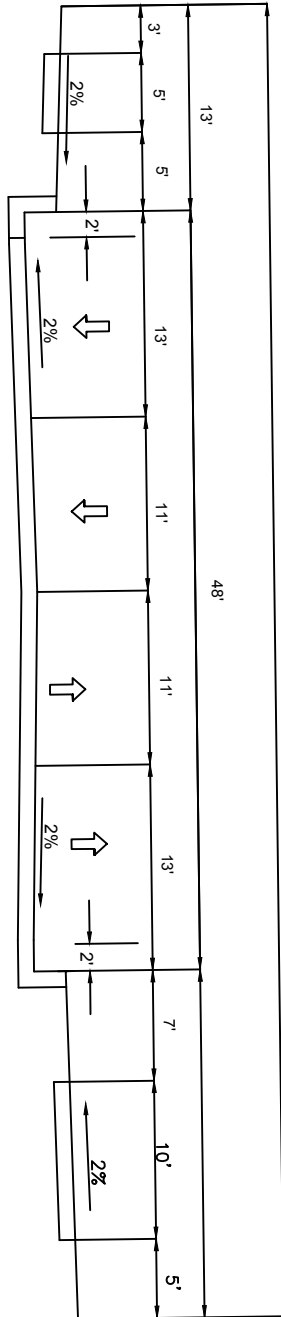
MASTER PLAN

4-LANE MAJOR ARTERIAL

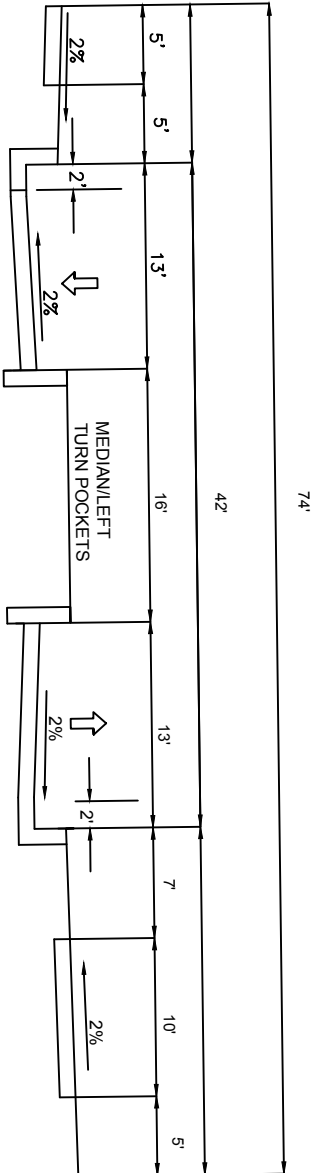
6-LANE MAJOR ARTERIAL



FOUR LANE DIVIDED ARTERIAL



FOUR LANE UNDIVIDED MAJOR ARTERIAL



TWO LANE DIVIDED ARTERIAL

CITY OF TRACY

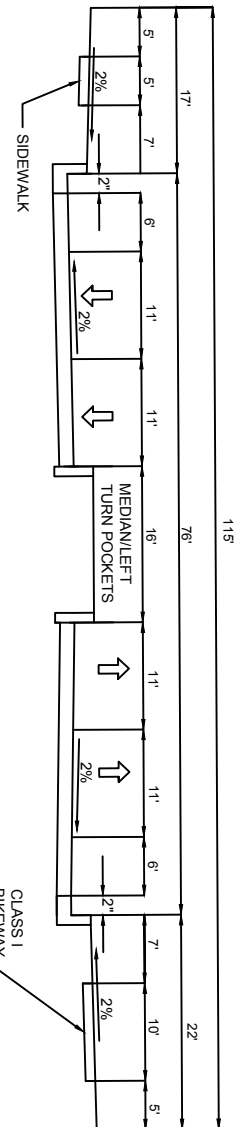


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
2012 MASTER PLAN	

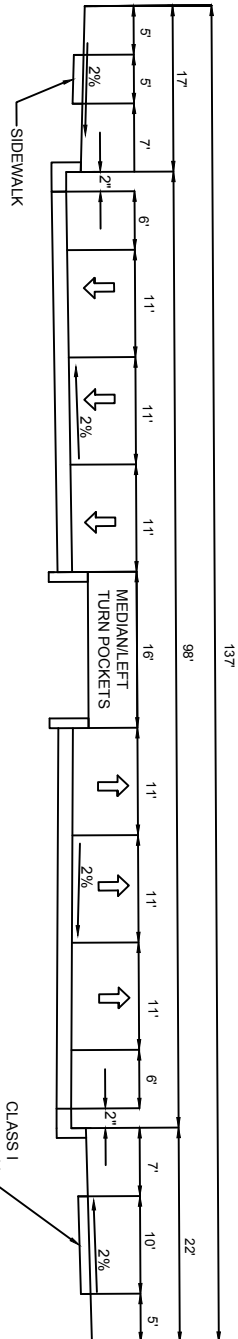
STANDARD
PLAN
No.

111

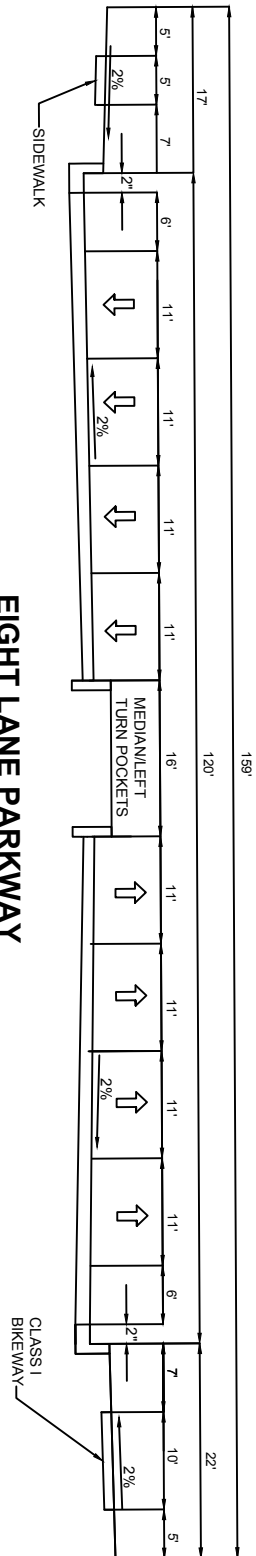
**MASTER PLAN
2 LANE ARTERIAL DIVIDED
4 LANE ARTERIAL WITH
AND WITHOUT TWLTL**



FOUR LANE PARKWAY



SIX LANE PARKWAY



EIGHT LANE PARKWAY

CITY OF TRACY

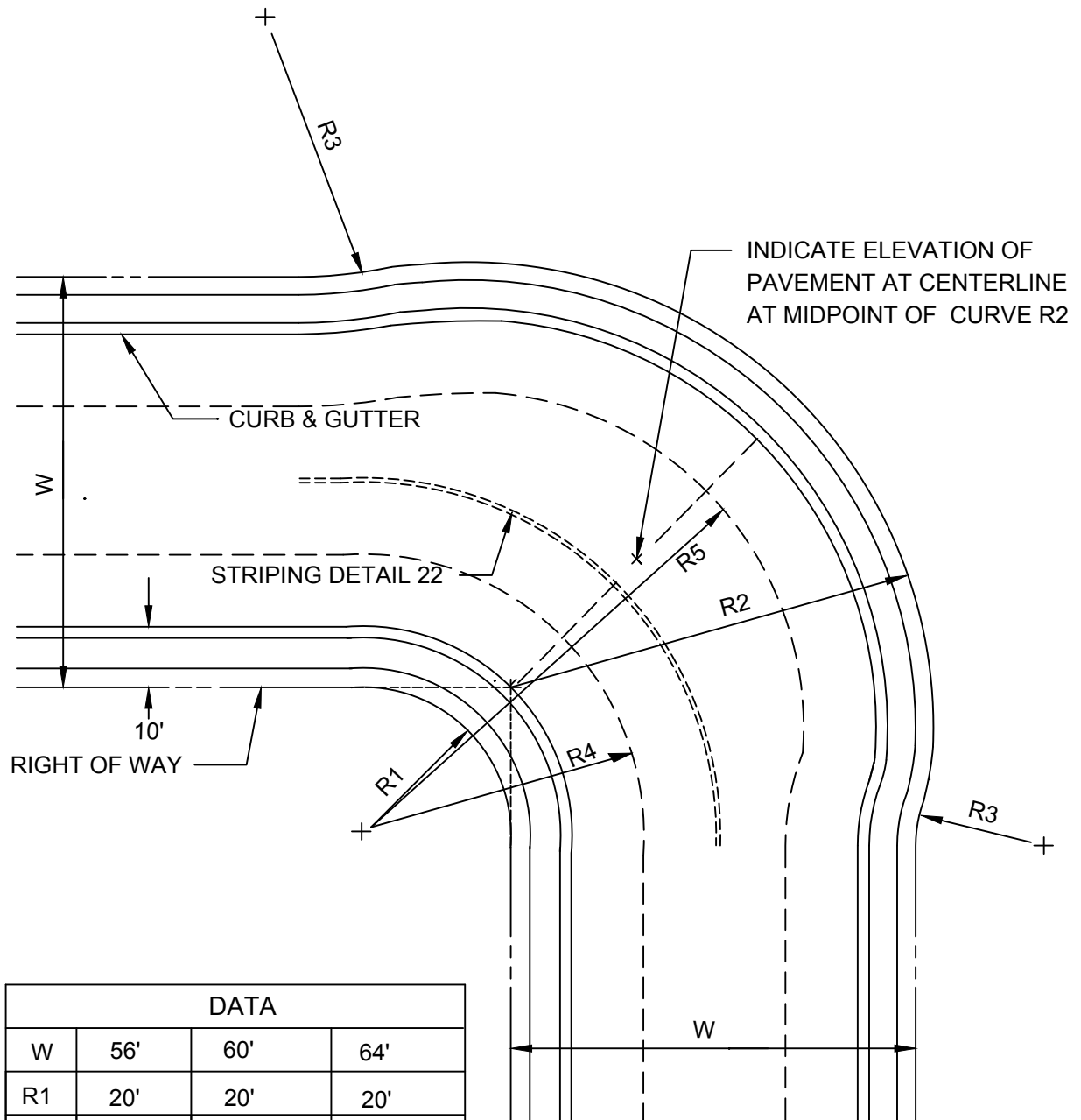


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2012 MASTER PLAN	

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**MASTER PLAN
FOUR LANE, SIX LANE &
EIGHT LANE PARKWAY**



DATA			
W	56'	60'	64'
R1	20'	20'	20'
R2	70'	70'	70'
R3	50'	50'	50'
R4	38 - 0" MIN. W/ STREET PARKING		
R5	47' - 7" MIN. W/ STREET PARKING		

CITY OF TRACY



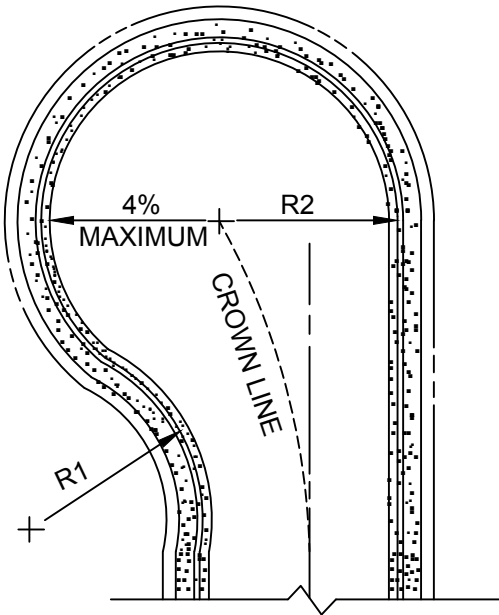
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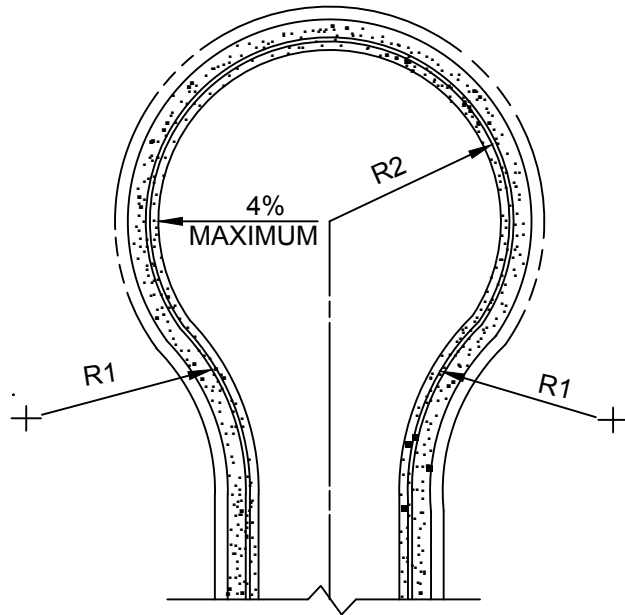
STANDARD
PLAN
No.

113

STREET KNUCKLE



N.T.S.



N.T.S.

FACE OF CURB		
RADIUS	RESIDEN.	INDUST.
R1	50'	60'
R2	48' W/NO PARKING	50' W/NO PARKING
	56' WITH PARKING	58' WITH PARKING

NOTES:

1. MAXIMUM LENGTH OF A CUL-DE-SAC STREET FROM CENTER OF INTERSECTING STREET TO CENTER OF TURN-AROUND SHALL BE 500 FEET.
2. BULB OFF-SET MAY BE ON EITHER SIDE.

CITY OF TRACY

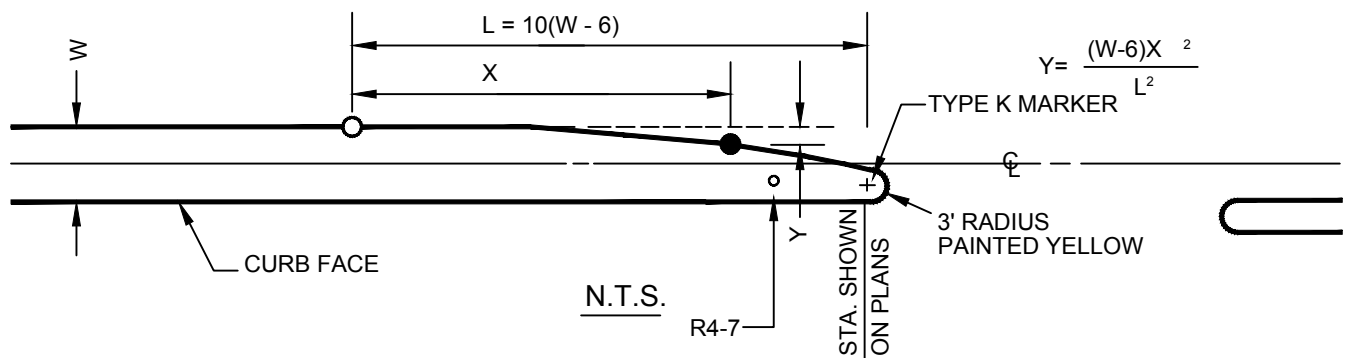


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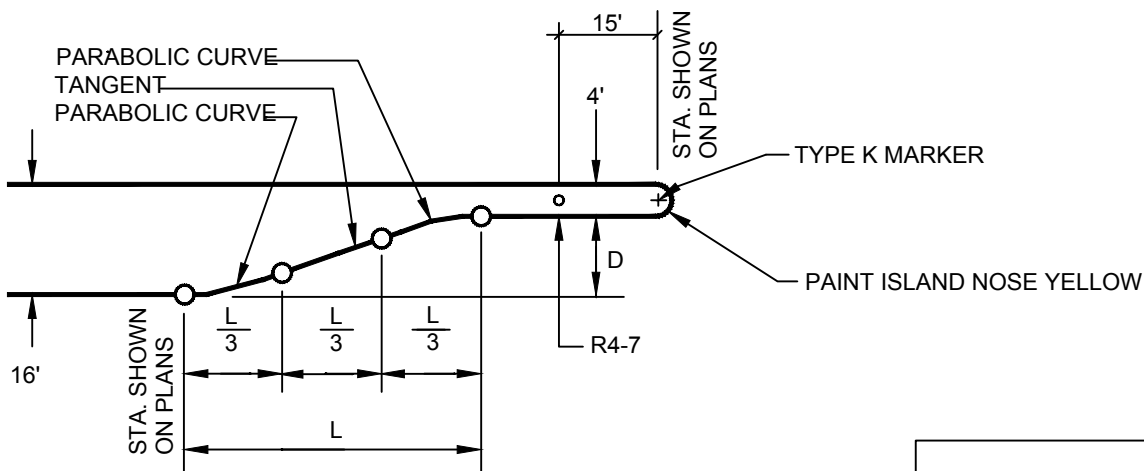
114

CUL-DE-SAC BULBS



1:10 FLARE OFFSETS

16' MEDIAN	X	0	10	20	30	40	50	60	70	80	90	100
L = 100	Y	0.00	0.10	0.40	0.90	1.60	2.50	3.60	4.90	6.40	8.10	10.00



N.T.S.

L=Length of taper			D=Offset distance for lane width of		
60	90	120	10'	11'	12'
Distance from beginning of taper					
5	7.5	10	.16	.17	.19
10	15.0	20	.62	.69	.75
15	22.5	30	1.41	1.55	1.69
20	30.0	40	2.50	2.75	3.00
30	45.0	60	5.00	5.50	6.00
40	60.0	80	7.50	8.25	9.00
45	67.5	90	8.59	9.45	10.31
50	75.0	100	9.38	10.31	11.25
55	82.5	110	9.84	10.83	11.81
60	90.0	120	10.00	11.00	12.00

NOTES:

1. OFFSETS ARE MEASURED FROM A BASE LINE, ESTABLISHED BY EXTENDING THE CURB LINE.
2. DISTANCE ALONG THE BASE LINE IS MEASURED FROM THE POINT OF TANGENCY OF THE BEGINNING OF TAPER.
3. TAPER LENGTH SHALL BE 120' AND LANE WIDTH OFFSET SHALL BE 12' UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THE PLANS.
4. MEDIAN NOSE SHOULD BE PAINTED YELLOW WITH REFLECTIVE GLASS BEADS.

CITY OF TRACY

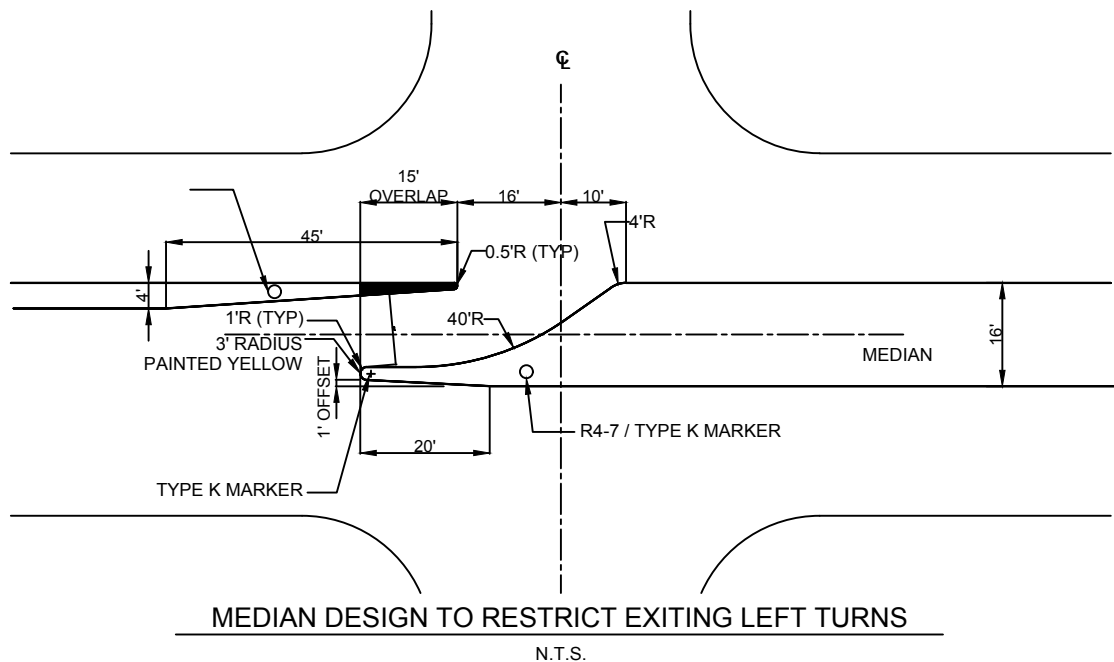


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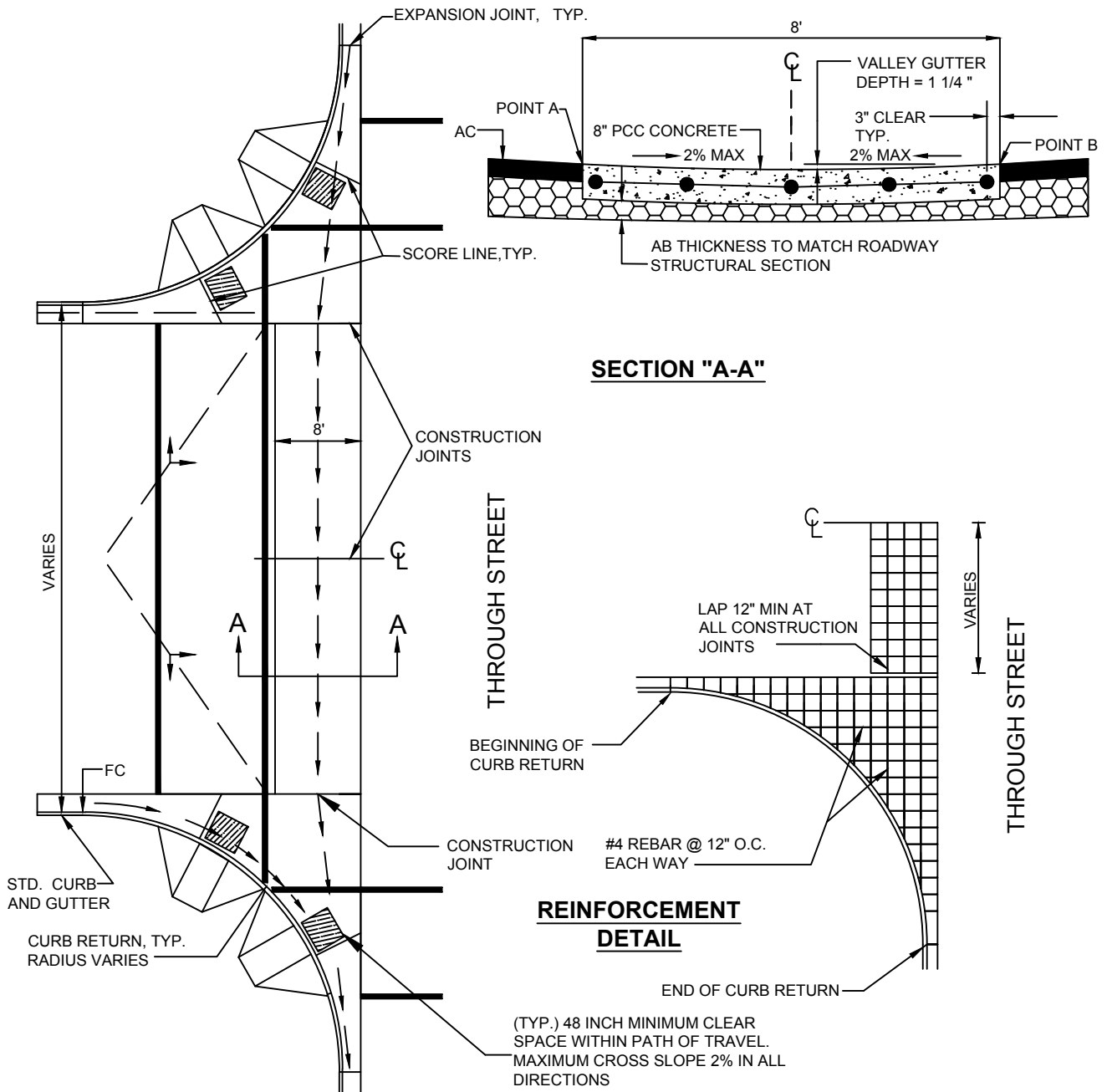
STANDARD
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115

**MEDIAN FLARE &
MEDIAN TAPER**



 Think Inside the Triangle™	REVIEWED BY: <u>Robert Armijo</u>		STANDARD PLAN No. 116
	CITY ENGINEER <u>RCE 63173</u>		
	Res No. 2020-031	DATE: February 18, 2020	LEFT-IN ONLY MEDIAN
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	



CITY OF TRACY



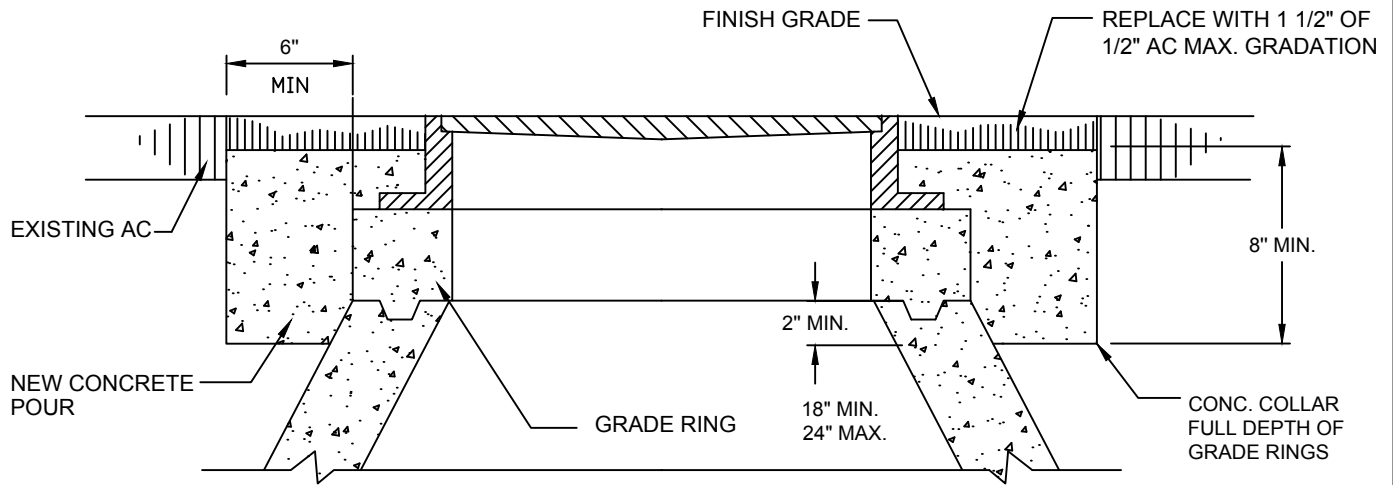
Think Inside the Triangle™

REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

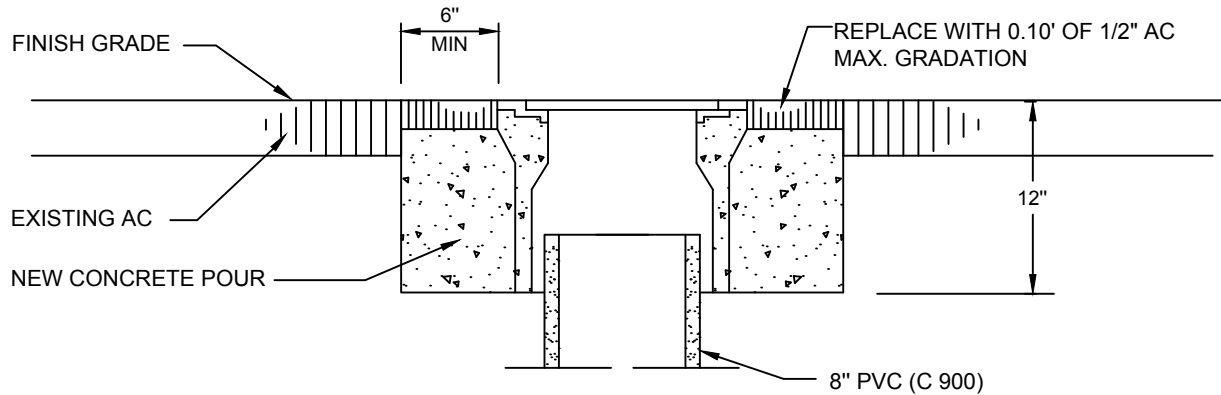
STANDARD
PLAN
No.

117

VALLEY GUTTER



MANHOLE
N.T.S.



WATER VALVE
N.T.S.

NOTES:

1. THIS DETAIL SHALL BE USED WHERE FRAMES AND COVERS ARE BEING ADJUSTED TO GRADE.
2. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 4" MAX. SLUMP; 3/4" MAXIMUM AGGREGATE SIZE.
3. ALL CONCRETE SHALL BE POURED AGAINST NEAT EXCAVATION. DISTURBED SOIL OR A.B. SHALL BE COMPACTED TO 95%, COMPACT AT 3"- 4" LIFTS
4. ASPHALT SHALL MATCH FINISH GRADE OF ADJACENT PAVEMENT
5. ALL IRON MUST BE LOWERED PRIOR TO GRIND
6. ALL IRON MUST BE RAISED AFTER FINAL LIFT OF ASPHALT HAS BEEN PLACED

POTABLE WATER

TRAFFIC BOX G04BOX
CAST IRON LID G4C
STAMPED WATER

RECLAIMED WATER (PURPLE PIPE)

TRAFFIC BOX G04BOX
CAST IRON LID G4C (PURPLE)
STAMPED RECLAIMED WATER

CITY OF TRACY

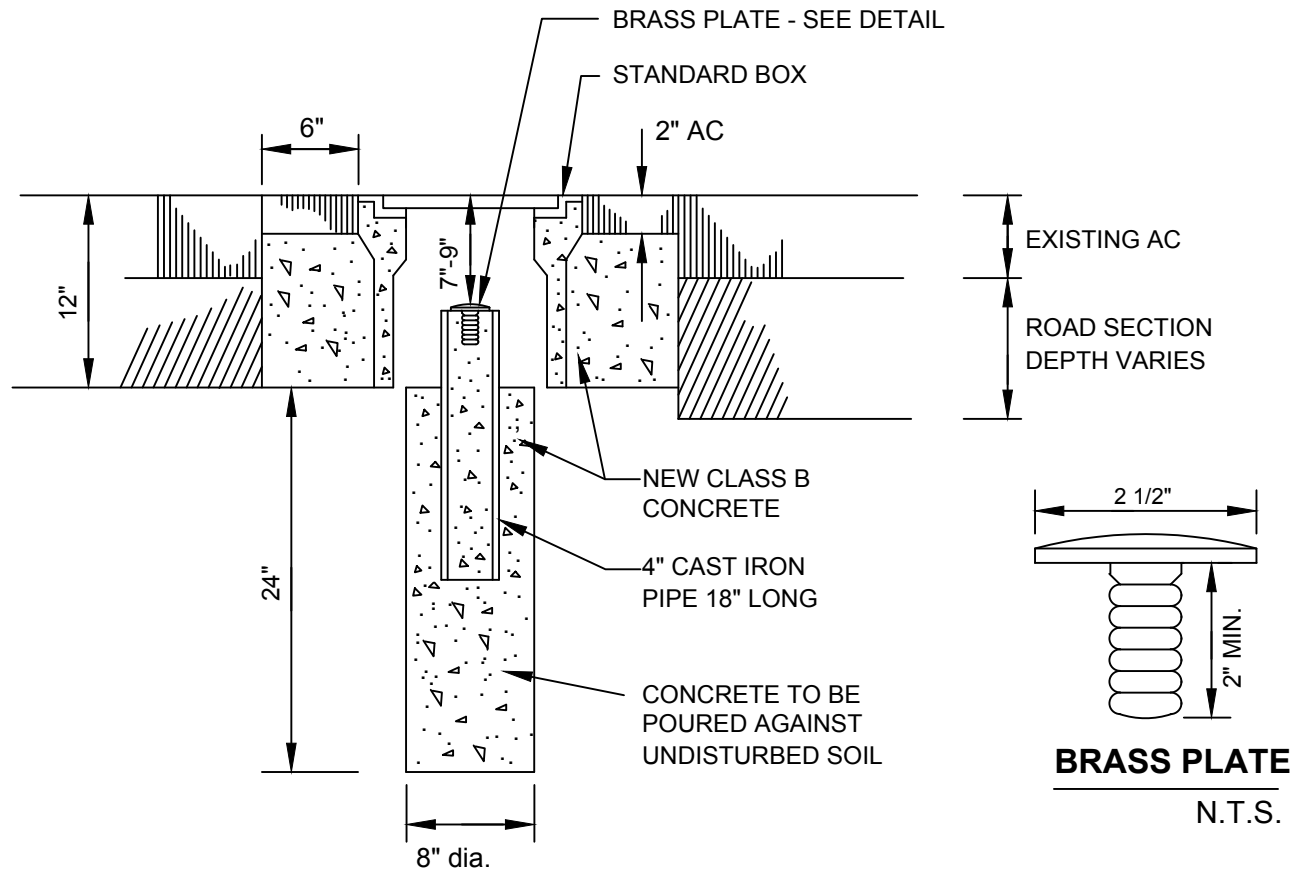


REVIEWED BY: <i>Robert Armijo</i>	CITY ENGINEER RCE 63173
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PLAN
No.

118

**FRAME & COVER
ADJUSTMENTS**



NOTES:

1. CONCRETE SHALL BE FIVE SACK CLASS "B" 2500 PSI AT 28 DAYS; 4" MAXIMUM SLUMP; 3/4" MAXIMUM AGGREGATE SIZE.
2. THE BRASS PLATE SHALL HAVE THE EXACT SPOT INDICATED BY A CHISELED CROSS OR A PUNCHED HOLE AND BEAR THE LICENSE NUMBER OF THE ENGINEER OR SURVEYOR MAKING THE SURVEY AND THE DATE OF MARKING. THE BOTTOM OF THE BRASS PLATE SHALL BE FLUSH WITH THE TOP OF THE CAST IRON PIPE.
3. MONUMENT BOX SHALL BE CHRISTY G-5 OR APPROVED EQUAL WITH MARKING "MONUMENT" IN RAISED LETTERS ON COVER. BRASS PLATE SHALL BE LEITZ 8134-16 DOMED SURVEY MARKERS.
4. THE ENGINEER OR SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING THAT FINAL MONUMENTS HAVE BEEN PLACED AS REQUIRED BY THE SUBDIVISION MAP ACT AND PAYMENTS HAVE BEEN RECEIVED FROM THE DEVELOPER IN CONFORMANCE WITH SECTION 66497 OF THE SUBDIVISION MAP ACT.

CITY OF TRACY



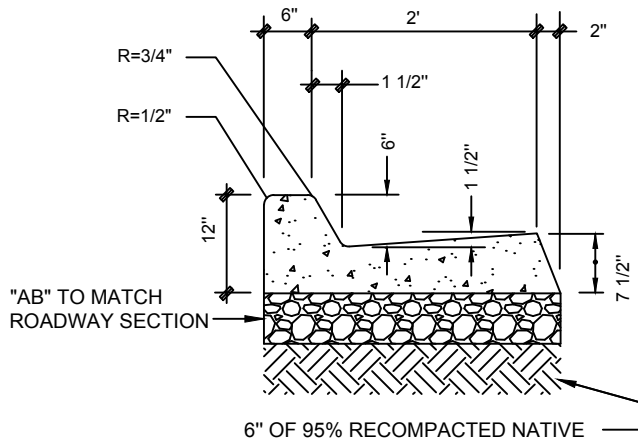
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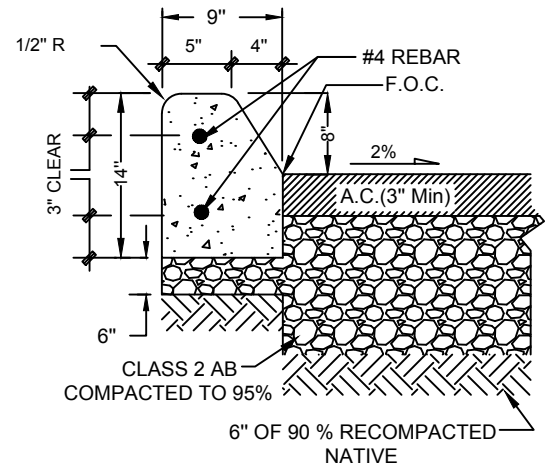
119

SURVEY MONUMENT



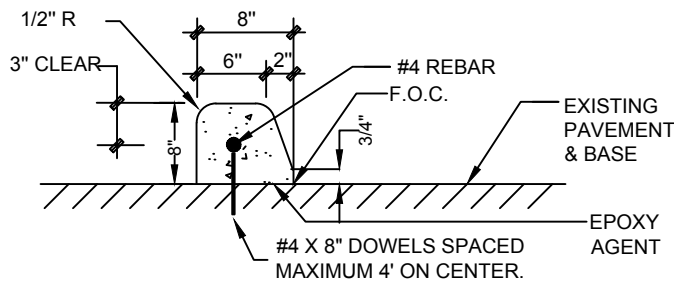
VERTICAL CURB AND GUTTER

N.T.S.



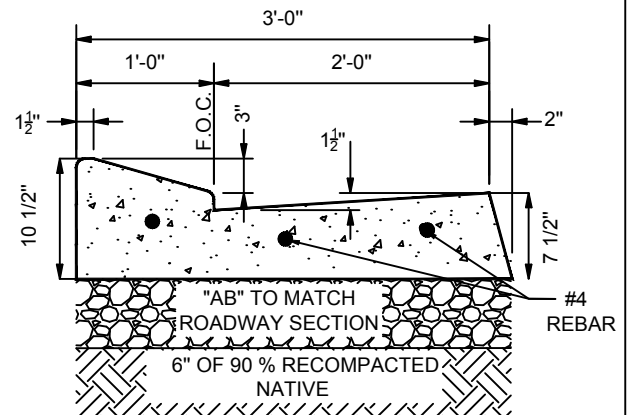
MEDIAN ISLAND CURB

N.T.S.



EXTRUDED CONC. CURB

N.T.S.



ROLL TYPE CURB & GUTTER

N.T.S.

NOTES:

- WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 8 FOOT INTERVALS. JOINTS TO BE MINIMUM 1 1/2 INCH DEPTH.
- EXPANSION JOINTS TO BE INSTALLED AT MAX. 200 FOOT INTERVALS, AT EACH SIDE OF STRUCTURES AND AT ENDS OF CURB RETURNS. EXPANSION JOINTS SHALL NOT BE CONSTRUCTED WITHIN 20 FEET OF AN ISLAND NOSE. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.1 2C (ASTM 1751)
- CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ. FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
- IMPRESS 2" HIGH LETTERS "S" (SEWER), "W" (WATER) OR I (IRR. SLEEVE), 1/4" DEEP INTO THE FACE OF CURB TO IDENTIFY SERVICE LOCATIONS.

- CONCRETE SHALL BE 5 SACK CLASS "B", 2500 PSI @ 28 DAYS; 3/4" MAX. AGGREGATE SIZE, 4" MAX. SLUMP AT TIME OF PLACEMENT, 1/2 LB LAMP BLACK PER CUBIC YARD.
- ASPHALT PAVING SHALL BE PLACED 1/4" ABOVE LIP OF GUTTER.
- WHEN ATTACHING SIDEWALK TO CURBS, INSTALL 12" LONG #4 DOWELS 18" O.C.
- FOR ROLLED TYPE CURB & GUTTER, CITY ENGINEER'S APPROVAL IS REQUIRED.

CITY OF TRACY



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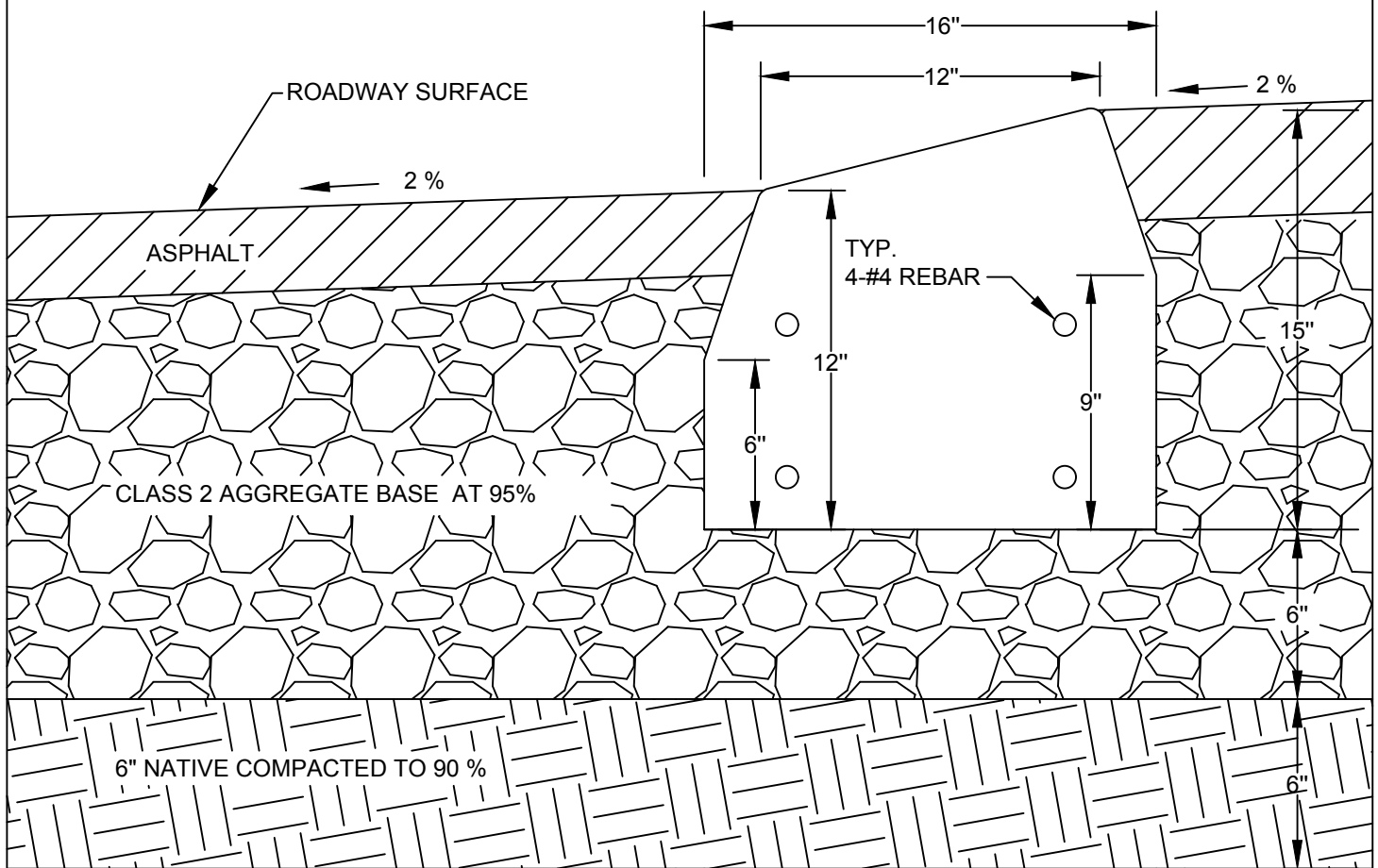
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120

CURBS

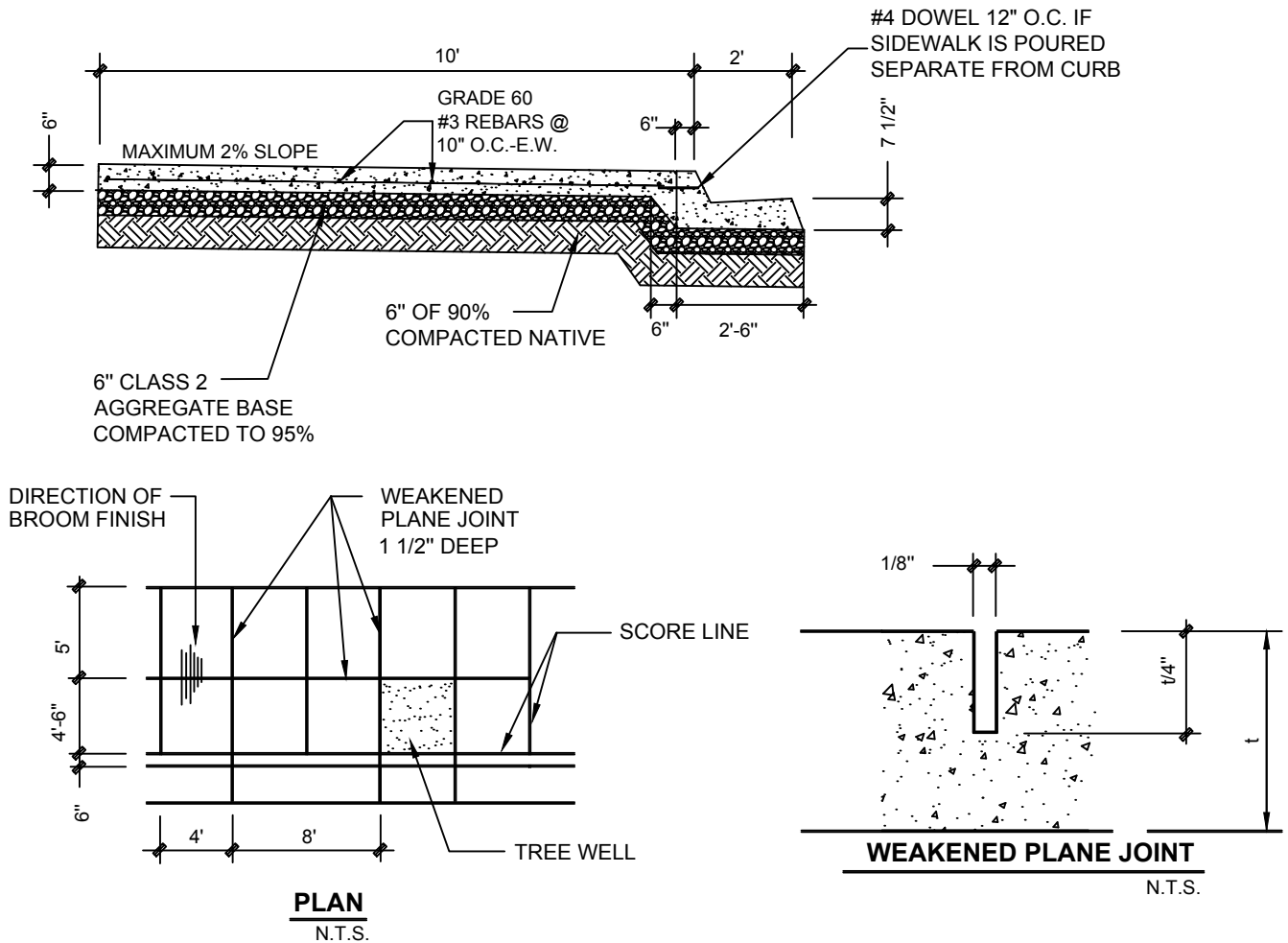
NOTES

1. TOP 6" OF NATIVE MATERIAL SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED.
2. ALL EXPOSED CORNERS SHALL HAVE A 3/4" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4 MAXIMUM AGGREGATE SIZE 4" MAXIMUM SLUMP AT TIME OF PLACEMENT. 1/2 LB. LAMPBLACK PER YARD.
4. TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
5. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL/ 150 SQ. FT, CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.



CITY OF TRACY

 Think Inside the Triangle	REVIEWED BY: <i>Robert Armijo</i>	STANDARD PLAN No. 122
	CITY ENGINEER RCE 63173	
	Res No. 2020-031	DATE: February 18, 2020
	Prepared By: Leisser M.	Checked By: Thomas W.
	Rev:	Rev:
MOUNTABLE CURB		



NOTES:

1. TOP 6" OF NATIVE MATERIAL SHALL BE SCAIFED, MOISTURE CONDITIONED, AND COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS; 3/4" MAXIMUM AGGREGATE SIZE 4" MAXIMUM SLUMP AT TIME OF PLACEMENT. 1/2 IB. LAMPBLACK PER YARD.
4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS; AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS; AND MAX. 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-2.
5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
7. ELEVATION DIFFERENTIAL BETWEEN SIDEWALK & TREE WELL FINISHED GRADE SHALL NOT EXCEED 4 INCHES.
8. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.

CITY OF TRACY



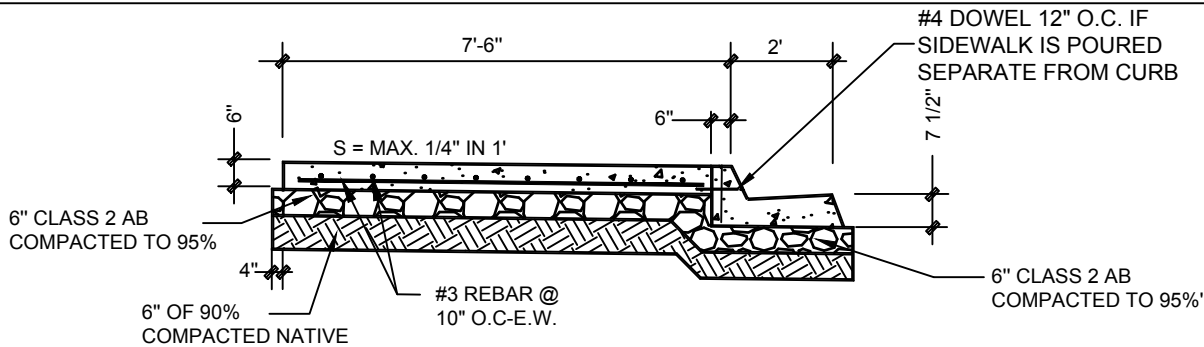
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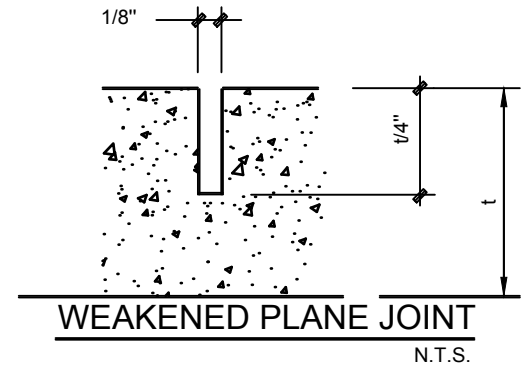
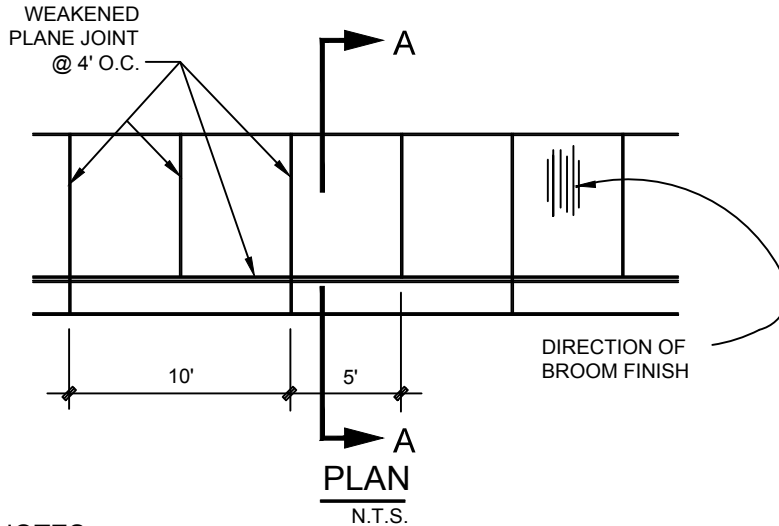
STANDARD
PLAN
No.

123

10' SIDEWALK



SECTION A-A
N.T.S.



NOTES:

1. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL EXPOSED CORNERS SHALL HAVE A 1/8" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 POUND LAMPBLACK PER YARD.
4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS; AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS; AND MAX. 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.12C (ASTM 1751). REFER TO STD. 128 FOR EXPANSION JOINTS DETAIL.
5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
7. ANY RESIDENTIAL SIDEWALK WIDER THAN 5' REQUIRES A SCORE PATTERN DESIGN THAT MUST BE ACCEPTABLE TO THE CITY ENGINEER.
8. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.

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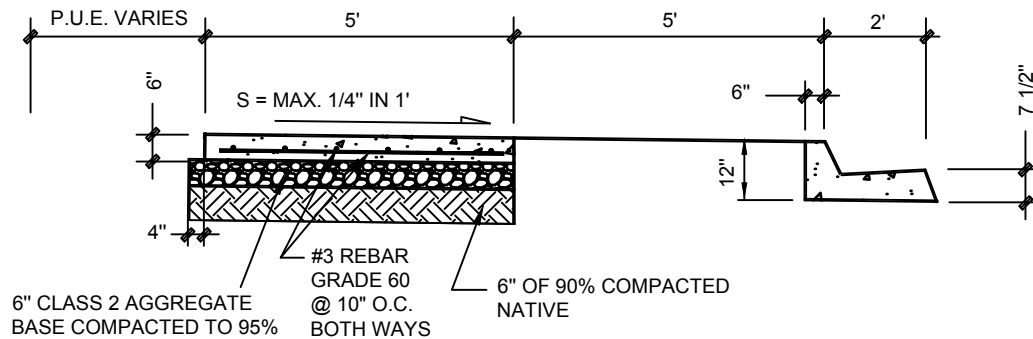
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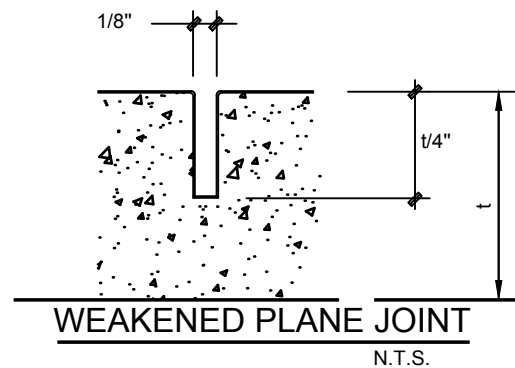
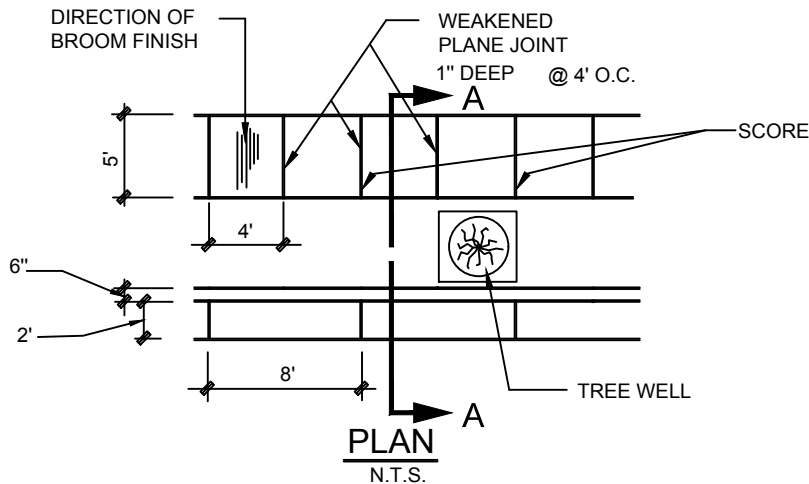
STANDARD
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124

**RESIDENTIAL
SIDEWALK**



SECTION A-A
N.T.S.



NOTES:

1. TOP 6" OF NATIVE MATERIAL SHALL BE (SEE SP-122) SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER
2. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB. LAMPBLACK PER YARD.
4. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS, AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES, AND DROP INLETS, AT MAXIMUM 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.12C (ASTM 1751). REFER TO STANDARD #128 FOR EXPANSION JOINTS DETAIL.
5. THE TOP SURFACE AND FACE OF CONCRETE IMPROVEMENTS SHALL BE TRUE, STRAIGHT AND FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE MUST NOT VARY MORE THAN 1/4" FROM A 10' STRAIGHT EDGE PLACED ON ITS SURFACE. THE WIDTH MUST BE UNIFORM.
7. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
8. ELEVATION DIFFERENTIAL BETWEEN SIDEWALK AND TREE WELL FINISHED GRADE SHALL NOT EXCEED 4 INCHES.
9. SIDEWALK SHALL HAVE 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE.
10. BACKFILL FLUSH BEHIND SIDEWALKS
11. #3 REBAR @ 10" O.C.E.W

CITY OF TRACY

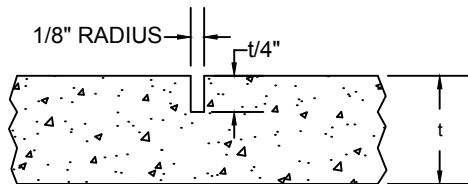


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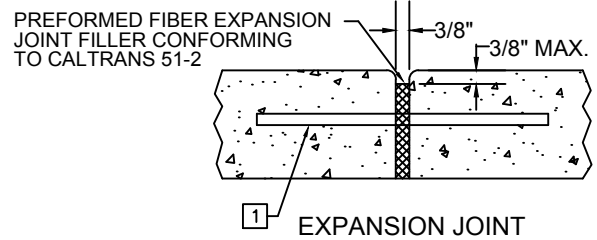
STANDARD
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125

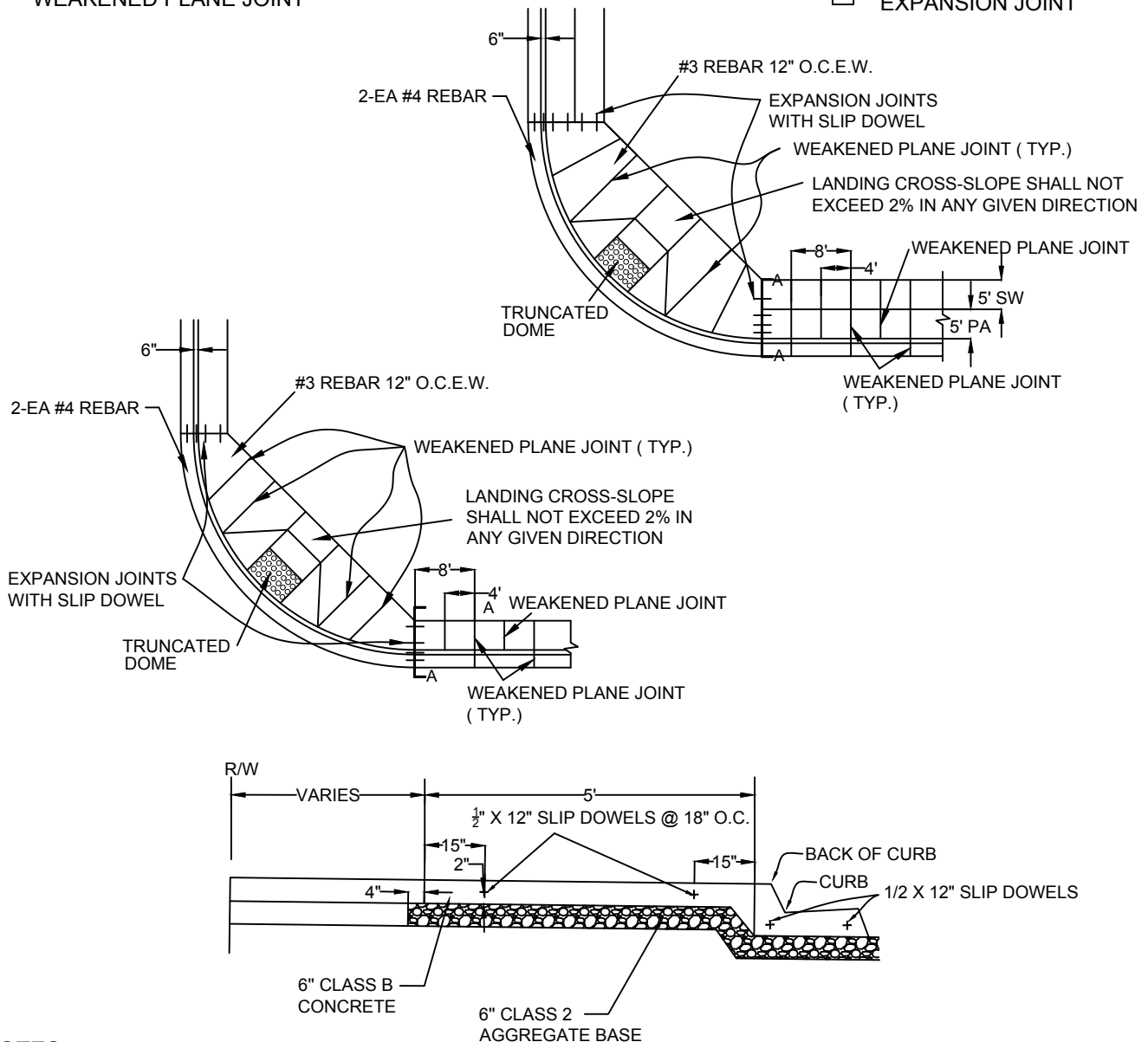
**RESIDENTIAL SIDEWALK
WITH PLANTING STRIP**



WEAKENED PLANE JOINT



EXPANSION JOINT



NOTES:

1. SIDEWALKS GREATER THAN 5 FEET SHALL REQUIRE PRIOR APPROVAL OF A SCORE PATTERN DESIGN.
2. EXPANSION JOINTS SHALL BE SHAPED TO FIT CONCRETE AND PLACED AT ALL RETURNS, AROUND FIXED OBJECTS SUCH AS HYDRANTS, POLES AND DROP INLETS, AND AT MAXIMUM 200' INTERVALS. THE JOINTS SHALL BE FILLED WITH 1/4" PRE MOLDED FILLER CONFORMING TO CALTRANS SPECIFICATIONS 51-1.2C (ASTM D-1751).

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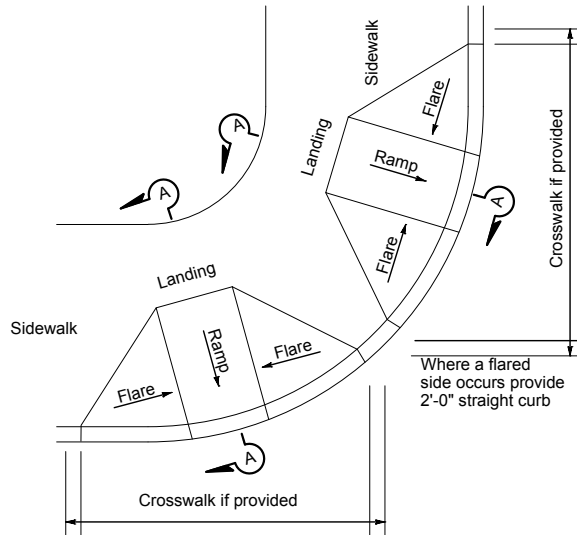


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No.

126

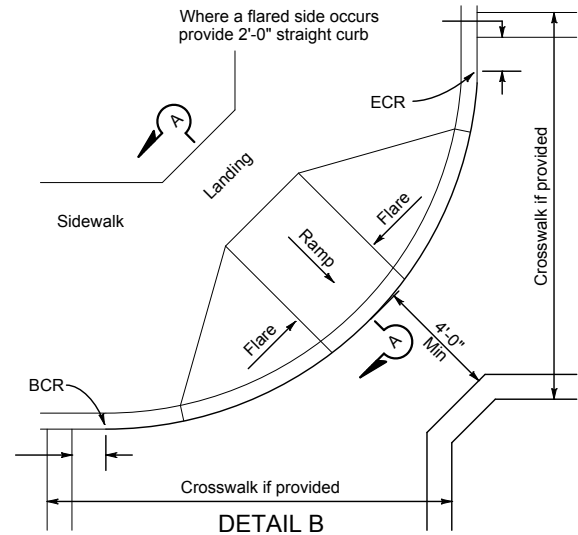
**EXPANSION JOINTS,
WEAKENED PLANE JOINTS
AND SCORE LINES**



DETAIL A

TYPICAL TWO-RAMP CORNER INSTALLATION

See Note 1

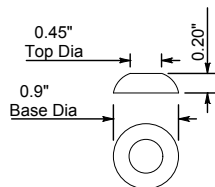


DETAIL B
TYPICAL ONE-RAMP
CORNER INSTALLATION

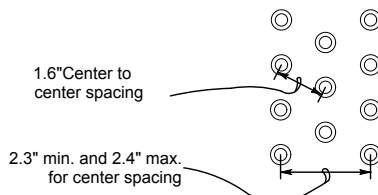
See Notes 1 and 3

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-0" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B, or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-0".
6. Side slope of ramp flares vary uniformly from a maximum of 10% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
8. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4'-0" of the bottom of the curb ramp.
9. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
10. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
11. Sidewalk and ramp thickness, "T", shall be 6" minimum.
12. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
13. For retrofit conditions, removal and replacement of curb apron will be at the Contractor's option, unless otherwise shown on project plans.
14. Finished Planter area surface shall be not extend any lower than 4" from the top of the retaining curb.
15. All ramps require #3 rebar @ 10" o.c. each way.
16. Landing area shall not exceed 2% in any given direction.

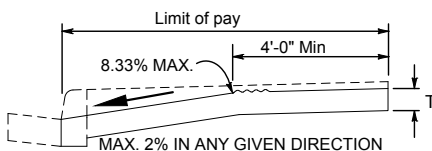


RAISED TRUNCATED DOME



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE

See Note 10



RETROFIT DETAIL

Existing curb and sidewalk

CITY OF TRACY



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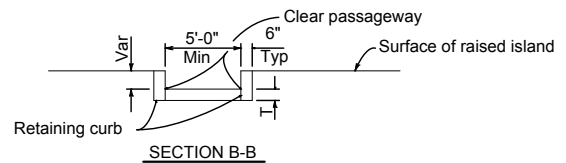
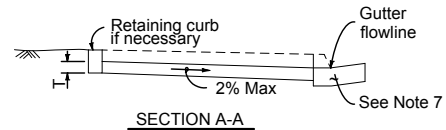
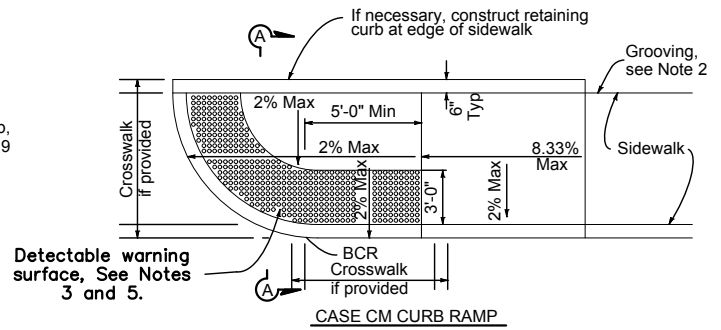
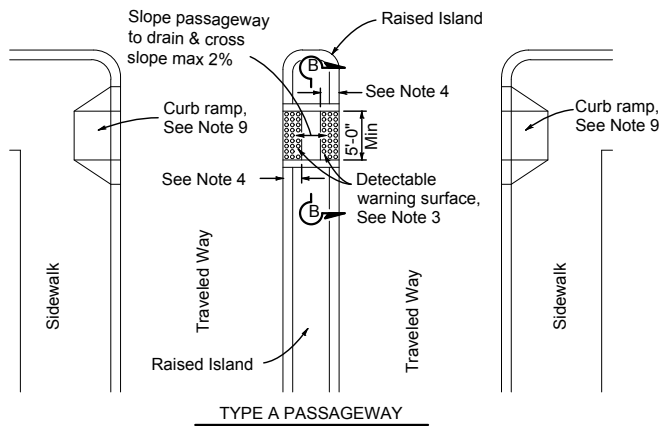
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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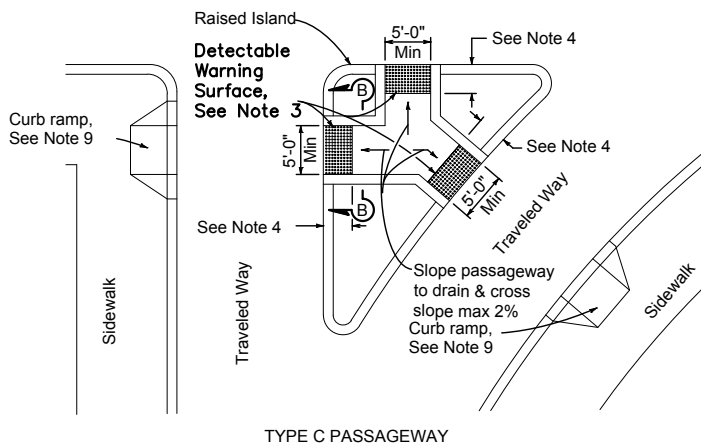
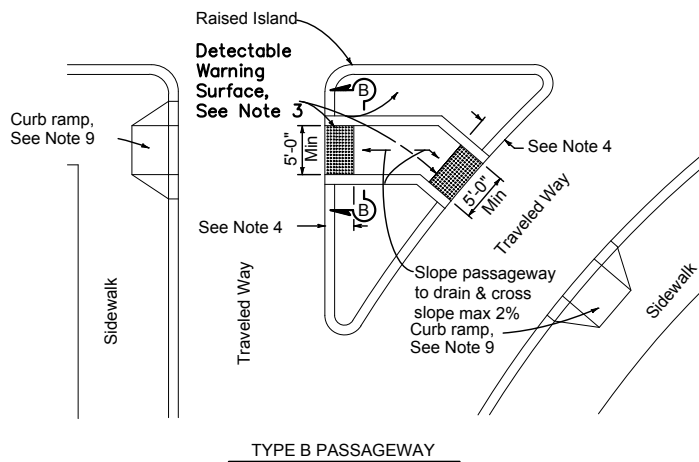
SHEET 2 OF 3

CURB RAMP NOTES & DETAILS



NOTES:

1. Sidewalk, ramp and passageway thickness, "T", shall be $3\frac{1}{2}$ " minimum.
2. For details of grooving used with Case CM curb ramp, see Standard Plan 130-2 of 3.
3. For details of detectable warning surfaces, see Standard Plan 130-2 of 3.
4. Detectable warnings at pedestrian islands or cut-through medians shall be 36" minimum in depth extending the full width of the pedestrian path or cut-through less 2 inches maximum on each side, placed at the edges of the pedestrian island or cut-through median, and shall be separated by 24" minimum of walking surface without detectable warnings. Exception: Detectable warnings shall be 24" inches minimum in depth at pedestrian islands or cut-through medians that are less than 96" inches in length in the direction of travel.
5. For Case CM curb ramp, the edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
6. Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes.
7. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 5 percent within 4'-0" of the top and bottom of the curb ramp.
8. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
9. For additional curb ramp details, see City Standard Plan 130, Sheets 1 and 2.
10. #3 Rebars at 10" OCEW



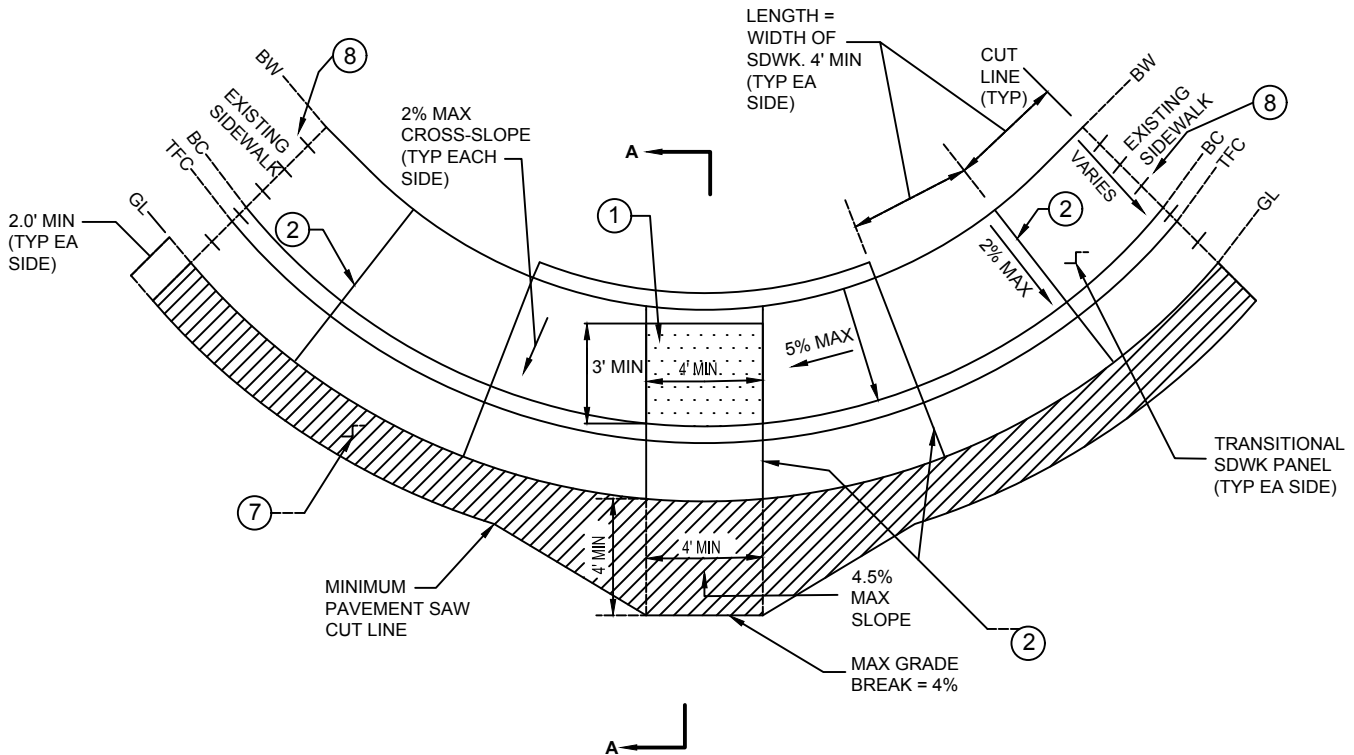
CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
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Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

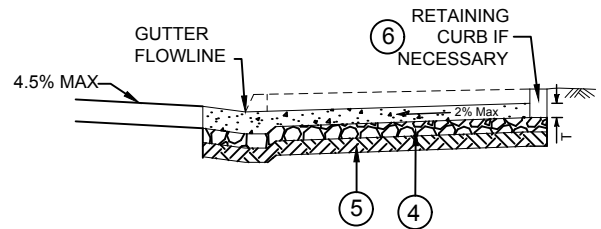
STANDARD PLAN No.	127
SHEET 3 OF 3	

CURB RAMP & ISLAND PASSAGEWAY



NOTES

1. RAMPS SHALL HAVE A MEDIUM BROOM FINISH TRANSVERSE TO THEIR SLOPE.
2. NO PULL BOX, UTILITY VAULT, UTILITY POLE, MANHOLE OR SIMILAR APPURTENANCE SHALL BE LOCATED WITHIN THE RAMP AREA WITHOUT PRIOR OR WRITTEN APPROVAL BY THE CITY ENGINEER.
3. THE LANDING AREA SLOPE, SHALL NOT EXCEED 2% IN ANY DIRECTION.
4. TRANSITIONS TO SIDEWALK, GUTTER AND STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGE.
5. RAMP SHALL BE DESIGNED AND CONSTRUCTED SUCH THAT WATER DOES NOT ACCUMULATE ON RAMP.
6. DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP
7. THE LEADING EDGE OF THE DETECTABLE WARNING SURFACE SHALL BE LOCATED 6" TO 8" FROM THE GUTTER FLOW-LINE, DETECTABLE WARNING SURFACES SHALL BE INSTALLED PARALLEL TO THE PATH OF TRAVEL, AND SHALL EXTEND THE FULL WIDTH OF THE LANDING AREA, AND A MINIMUM DEPTH OF 3' FROM THE LEADING EDGE TOWARDS THE BACK OF THE LANDING AREA.



SECTION "A-A"

①	DETECTABLE WARNING SURFACE
②	DEEP TOOL JOINT - 1½" MIN DEPTH
③	6" 2500 PSI CONCRETE
④	6" CLASS 2 AB (¾" MAX.) PROCESSED TO 95% RELATIVE COMPACTION

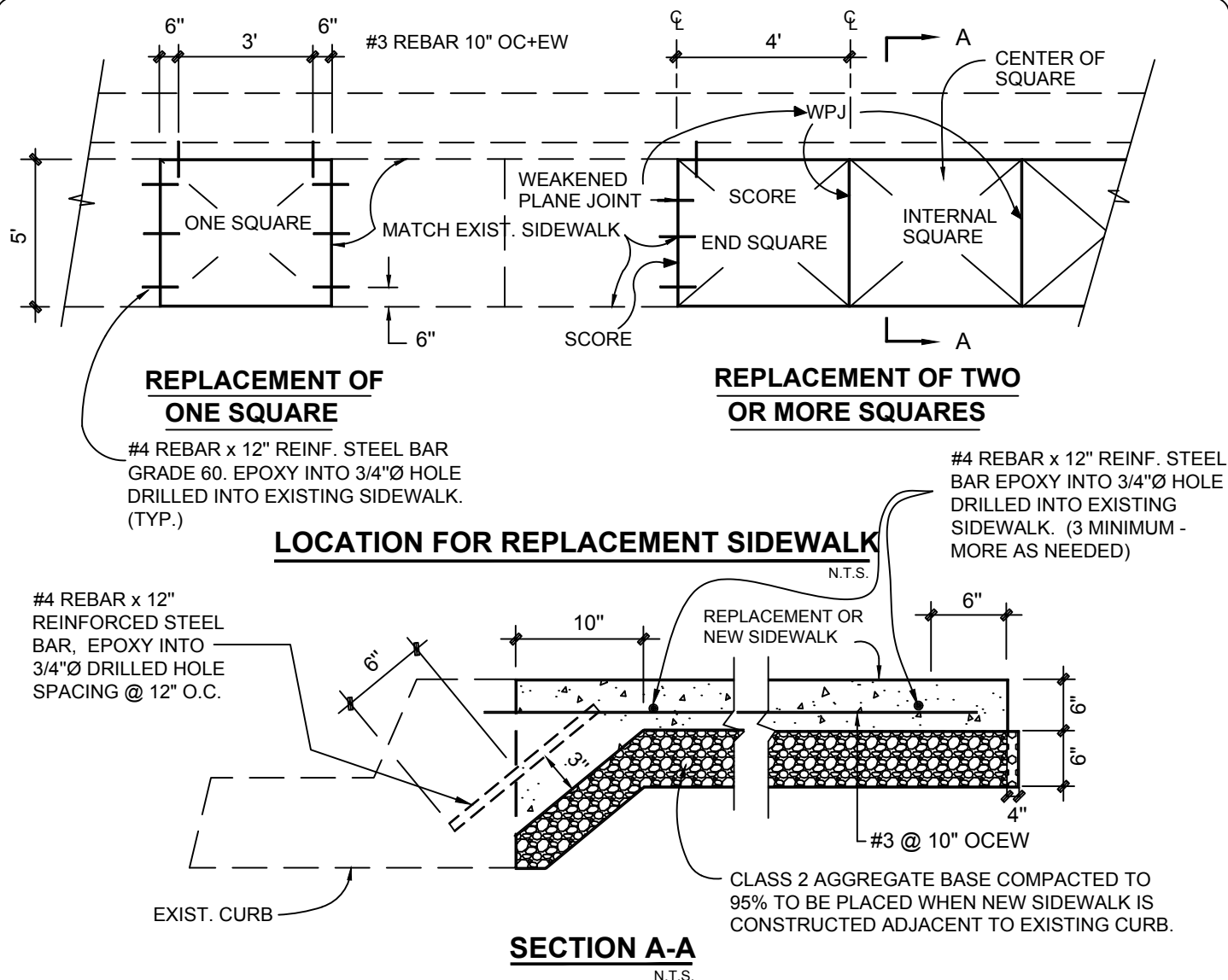
⑤	6" SUBGRADE OR CLASS 2 ASB PROCESSED TO 95% RELATIVE COMPACTION
⑥	6" WIDE RETAINING CURB WITH VARIABLE HEIGHT ALONG RUNNING SLOPE
⑦	SAW CUT, REMOVE AND REPLACE AC / MATCH EXISTING A.C. PLUS 1"
⑧	INSTALL 12" LENGTHS OF #4 REBAR SPACED AT 12" ON CENTER WITH 4" MIN. DOWELED AND EPOXY INTO EXISTING SIDEWALK, CURB AND GUTTER (TYP.)

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	STANDARD PLAN No. 128
CITY ENGINEER RCE 63173	
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

PARALLEL CURB RAMP RETROFIT



CITY OF TRACY

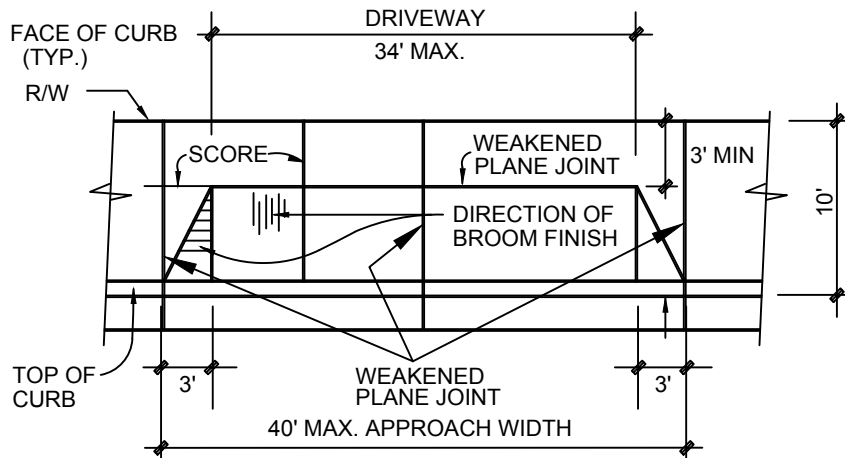


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CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

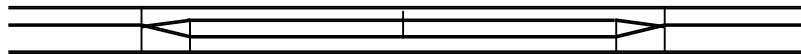
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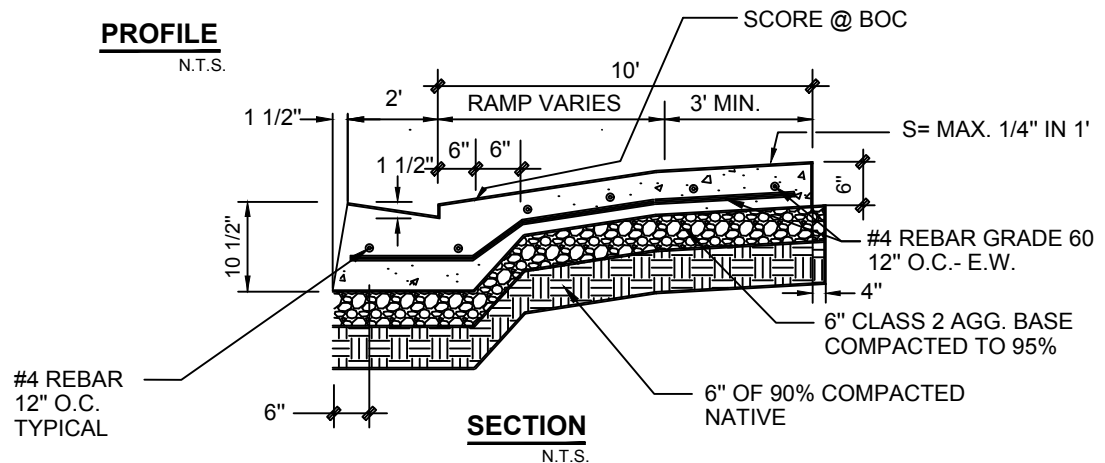
SIDEWALK REPAIR



PLAN
N.T.S.



PROFILE
N.T.S.



NOTES:

1. COMMERCIAL DRIVEWAY APPROACH SHALL NOT EXCEED 34'
2. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB LAMPBLACK PER YARD.
4. SIDEWALK, GUTTERS, ISLANDS AND DRIVEWAY SHALL HAVE SURFACE FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE SHALL NOT VARY MORE THAN 1/4" (S.P.126) FROM A 10' STRAIGHT EDGE EXCEPT AT GRADE CHANGES.
5. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.
6. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ.FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
7. WEAKENED PLANE JOINT SPACING NOT TO EXCEED 8'.
8. IN EXISTING STREETS, ASPHALT SHALL BE SAW CUT ALONG LIMITS **APPROVED BY THE INSPECTOR**, 12" MINIMUM FROM LIP OF GUTTER. MATCH AC WITH EXISTING PLUS 1" AC OVER 12" AB.

CITY OF TRACY

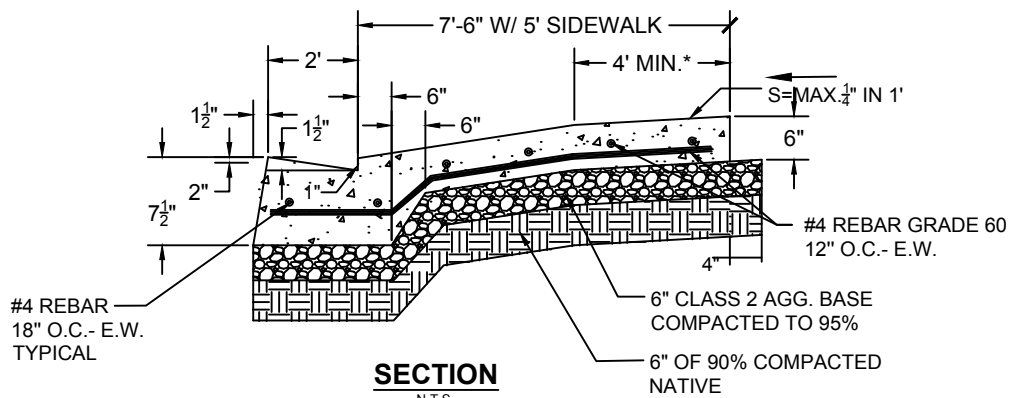
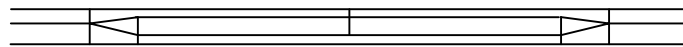
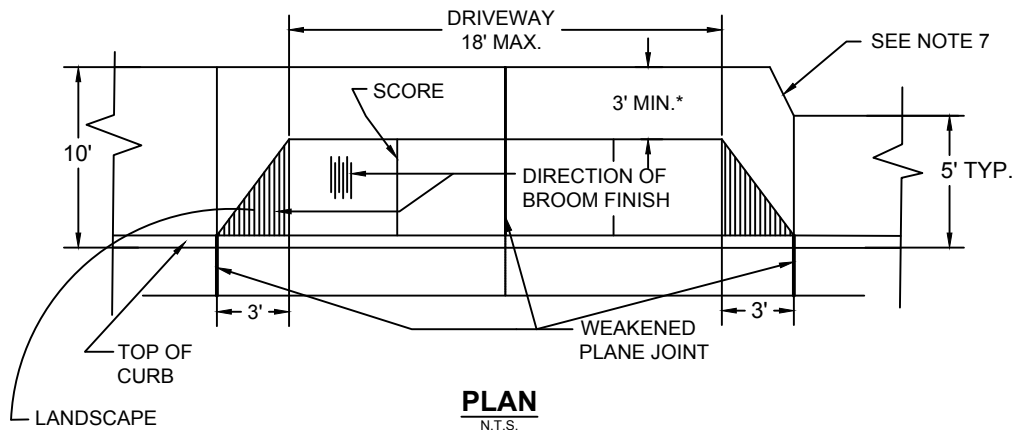


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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**COMMERCIAL
DRIVEWAY APPROACH**



NOTES:

1. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
2. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB LAMPBLACK PER YARD.
3. SIDEWALK, GUTTERS, ISLANDS AND DRIVEWAYS SHALL HAVE SURFACE FREE OF BLEMISHES OR IRREGULARITIES. THE SURFACE SHALL NOT VARY MORE THAN 1/4" (S.P. 126) FROM A 10' STRAIGHT EDGE EXCEPT AT GRADE CHANGE.
4. ALL EXPOSED CORNERS SHALL HAVE A 1/2" RADIUS.
5. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ. FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
6. IN EXISTING STREETS, ASPHALT SHALL BE SAW CUT ALONG LIMITS **APPROVED BY THE INSPECTOR**, 12" MINIMUM FROM LIP OF GUTTER. REPLACE A.C. WITH 3" AC OVER 12" AB.
7. A MINIMUM 3' WIDE SIDEWALK AREA WITH A MAXIMUM CROSS SLOPE OF 1/4" IN ONE FOOT SHALL BE INSTALLED AS A TRANSITION ADJACENT TO AND BEHIND RESIDENTIAL DRIVEWAY TO COMPLY WITH TITLE 24 ACCESSIBILITY STANDARDS OF THE CALIFORNIA CODE OF REGULATIONS.

CITY OF TRACY

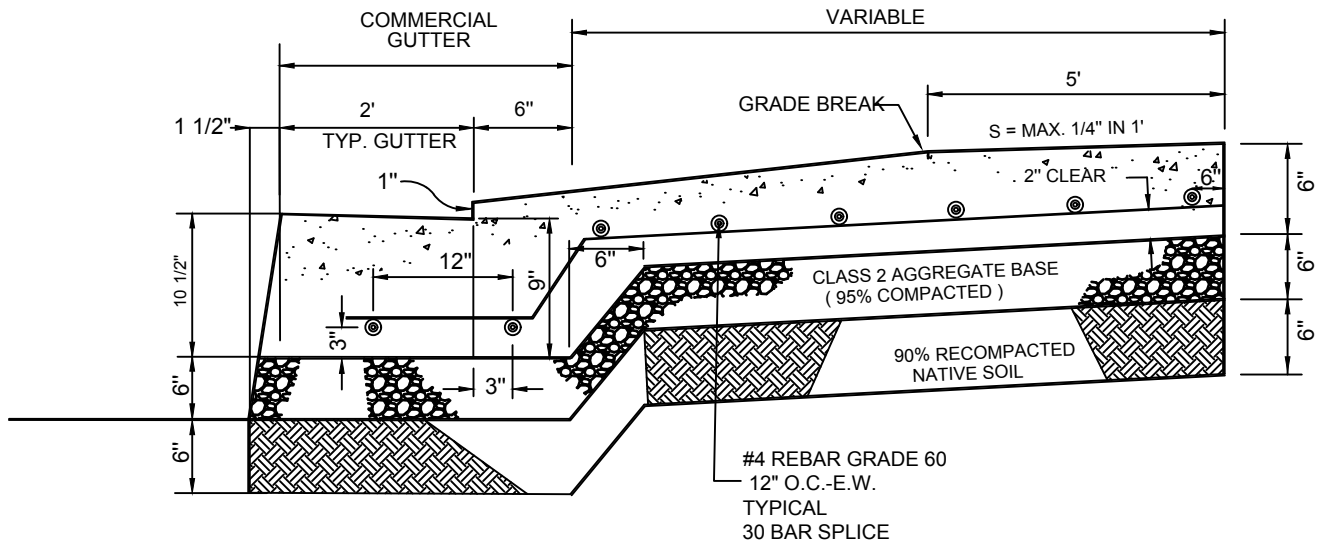
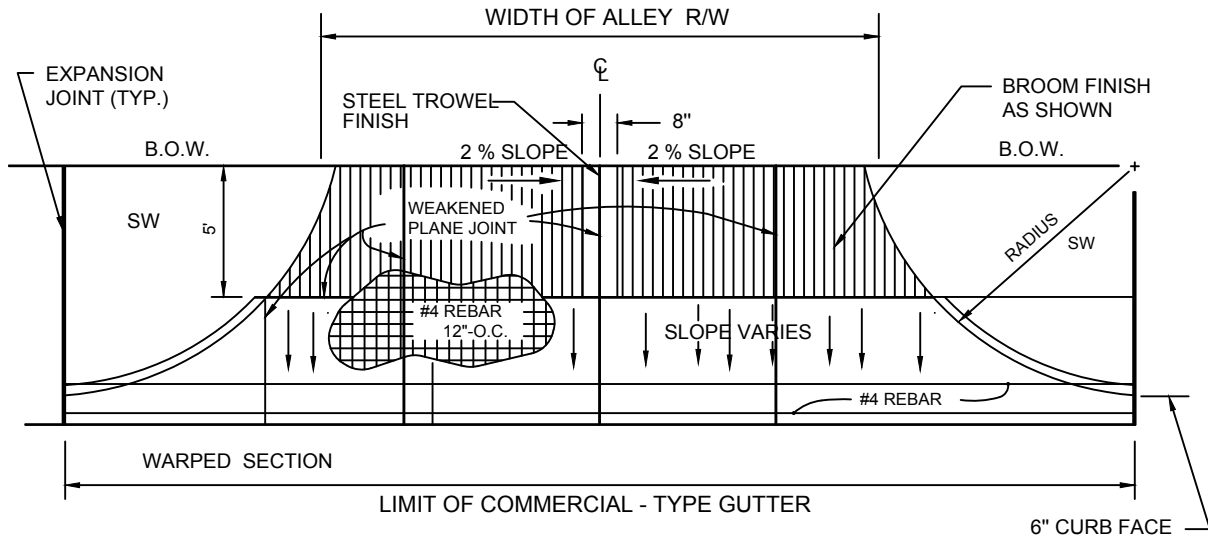


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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RESIDENTIAL DRIVEWAY APPROACH



NOTES:

1. CONCRETE SHALL BE FIVE SACK CLASS "B", 2500 PSI AT 28 DAYS: 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AT TIME OF PLACEMENT WITH 1/2 LB. LAMPBLACK PER YARD.
2. TOP 6" OF NATIVE SUBGRADE SHALL BE COMPACTED TO 90% OR MOISTENED IF UNDISTURBED. SUBGRADE COMPACTION SHALL BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE SHALL HAVE A LIGHT BROOM FINISH AND AN IMPERVIOUS MEMBRANE OR SPRAY CURING COMPOUND APPLIED AT 1 GAL./150 SQ. FT. CURING COMPOUND SHALL BE CLEAR PIGMENTED, TYPE 2, CONFORMING TO ASTM C309, CLASS B. APPLY IMMEDIATELY AFTER MOISTURE SHEEN DISAPPEARS.
4. ALL SCORE LINES AND GRADE SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER.
5. RADIUS EQUALS DISTANCE FROM FACE OF CURB TO BACK OF SIDEWALK OR FROM FACE OF CURB TO PROPERTY LINE IF NO SIDEWALK EXISTS.

CITY OF TRACY



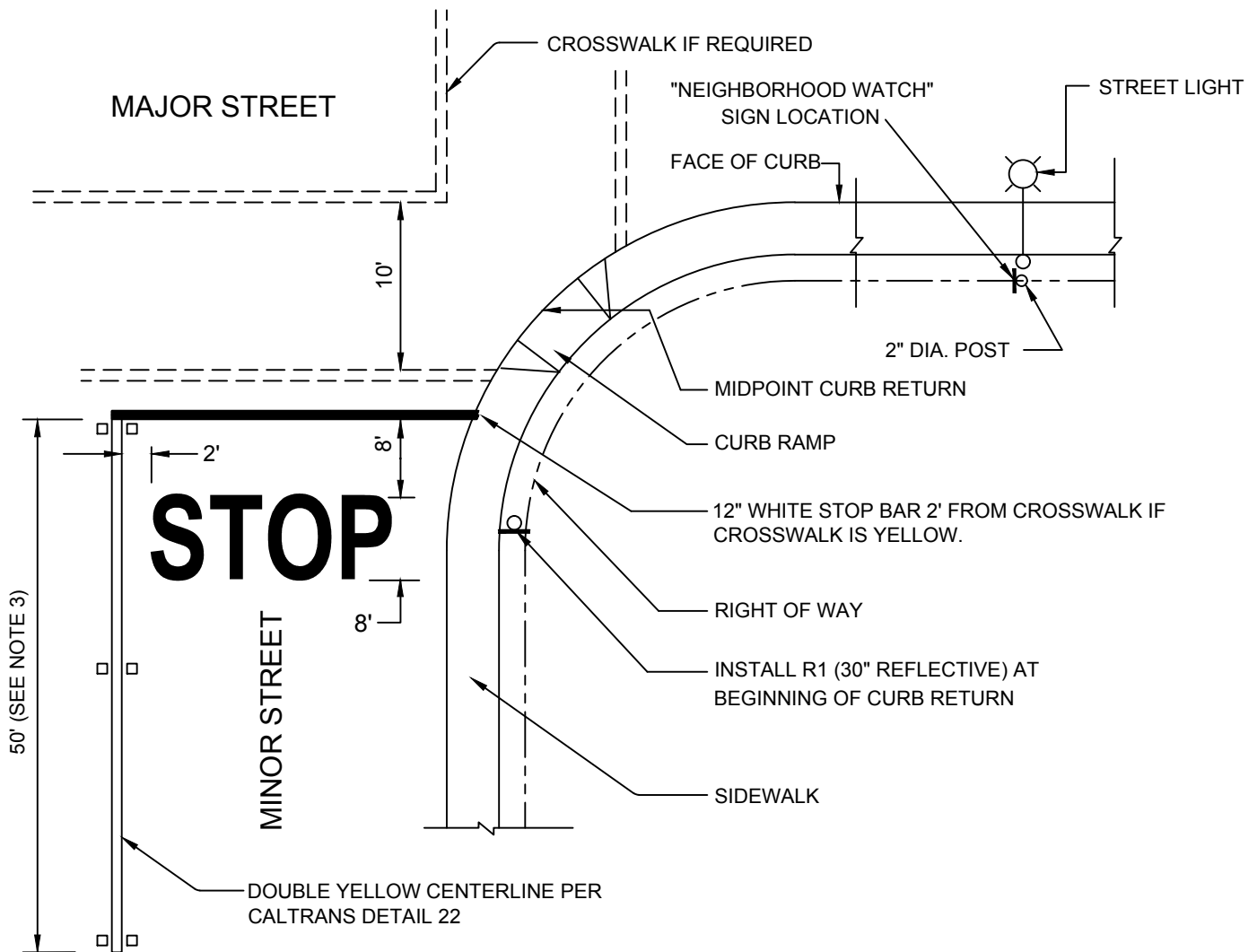
Think Inside the Triangle™

REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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ALLEY APPROACH



NOTES:

1. PAVEMENT MARKING SHALL CONFORM TO THE CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SPECIFICATION.
2. STOP LEGEND, LIMIT LINE, CROSSWALK, AND CENTERLINE SHALL BE PLACED WITH THERMOPLASTIC.
3. AT INTERSECTIONS OF TWO MAJOR STREETS, DOUBLE YELLOW CENTERLINE SHALL EXTEND 100 FEET.
4. " NEIGHBORHOOD WATCH " SIGN SHALL BE INSTALLED ON THE RIGHT SIDE OF ROADWAY NEAR ENTRANCE TO NEIGHBORHOOD WATCH AREA ON STREETLIGHT OR ON 2" DIAMETER STEEL POST IF STREETLIGHT IS NOT AVAILABLE.
5. WHEN CONCRETE IS USED AS A DECORATIVE CROSSWALK, THERMOPLASTIC STRIPING SHALL BE PLACED ON THE ASPHALT CONCRETE IMMEDIATELY ADJACENT TO THE CONCRETE CROSSWALK, NOT ON THE CONCRETE SURFACE.

CITY OF TRACY

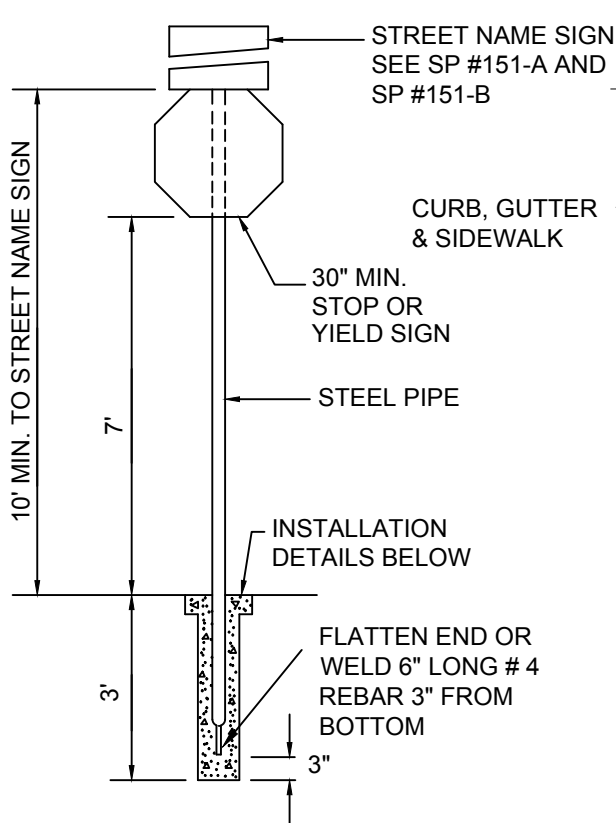


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

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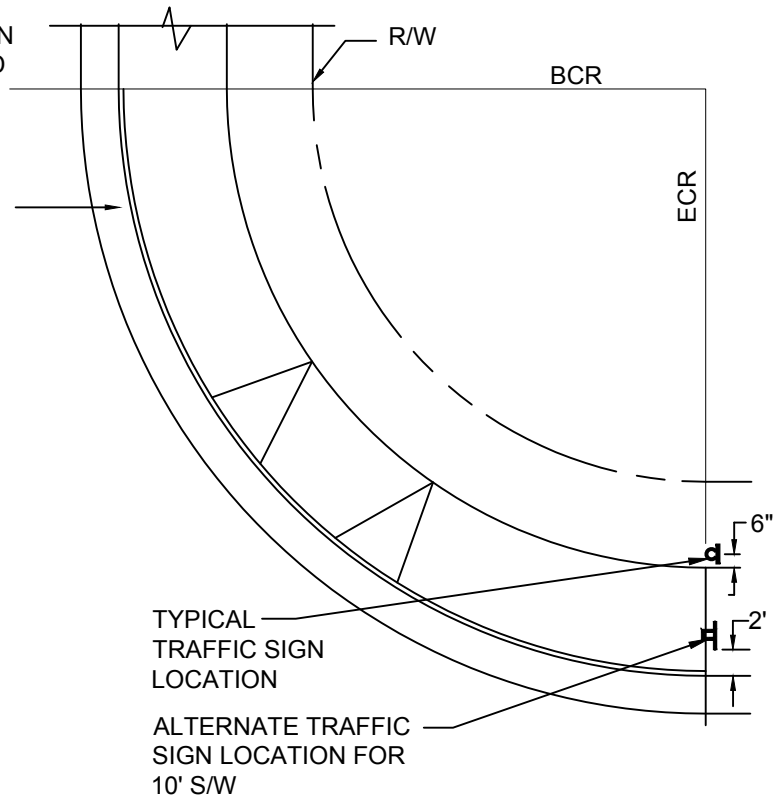
133

STOP INTERSECTION



POLE DETAIL

N.T.S.

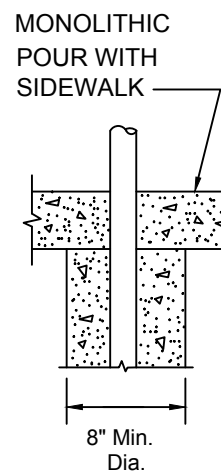


SIGN POST LOCATION

N.T.S.

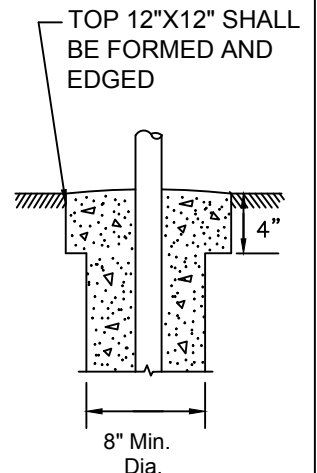
NOTES:

1. CONCRETE SHALL BE CLASS B (2500 PSI), 3/4" MAX. AGGREGATE SIZE WITH 1/2 LB. LAMPBLACK PER YARD.
2. POST SHALL BE 2" STD. GALVANIZED STEEL PIPE AND SHALL BE SET PLUMB.
3. REGULATORY SIGNS SHALL BE ATTACHED TO POST WITH SINGLE BRACKET. CLAMP ON "U" BRACKET WITH HAWKINS M2G-VPB VANDAL PROOF SCREW.
4. SIGNS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.
5. DRILL 3" DIA. HOLE IN CONCRETE IF SIGN INSTALLED AFTER SIDEWALK HAS BEEN CONSTRUCTED.
6. AT T- INTERSECTIONS, SIGNS SHALL BE PLACED AT THE CENTER POINT.
7. ON ALL SIGNS PROVIDE PROTECTIVE OVERLAY FILM 3M SERIES 1160.



SIDEWALK INSTALLATION

N.T.S.



BACK OF WALK INSTALLATION

N.T.S.

CITY OF TRACY

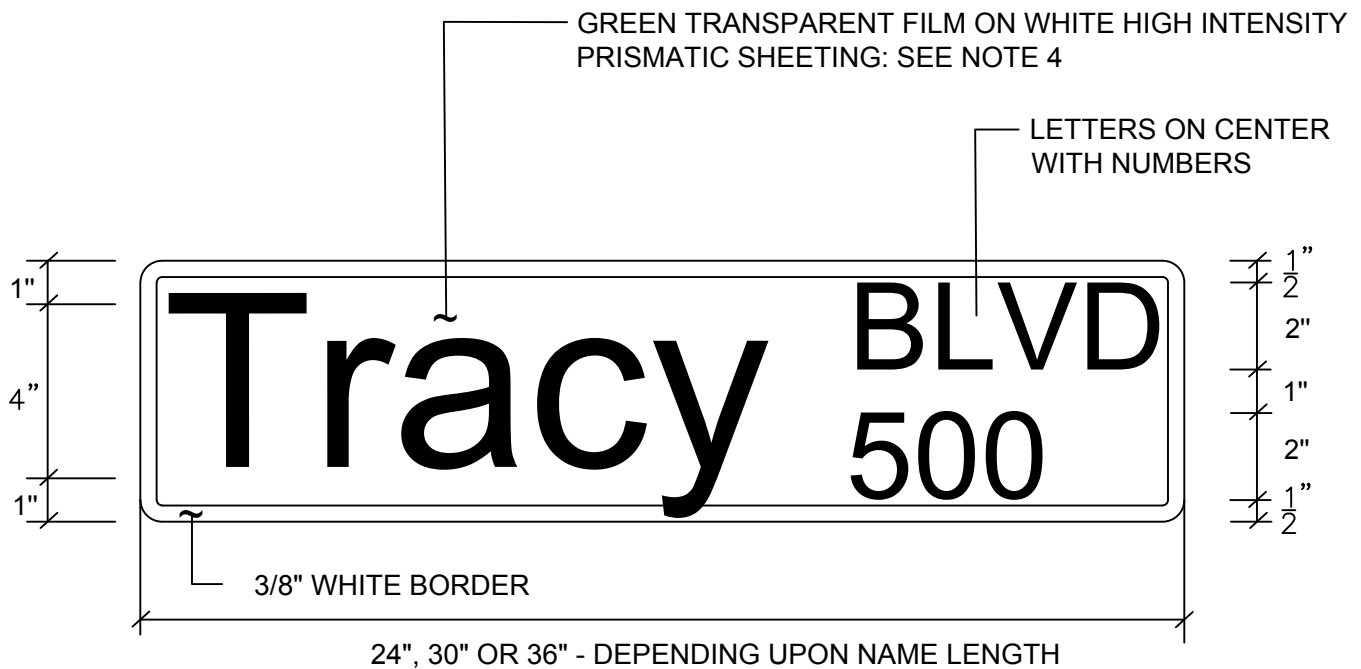


REVIEWED BY: <i>Robert Armijo</i>	CITY ENGINEER RCE 63173
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Rev:	Rev:

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SIGN POST INSTALLATION

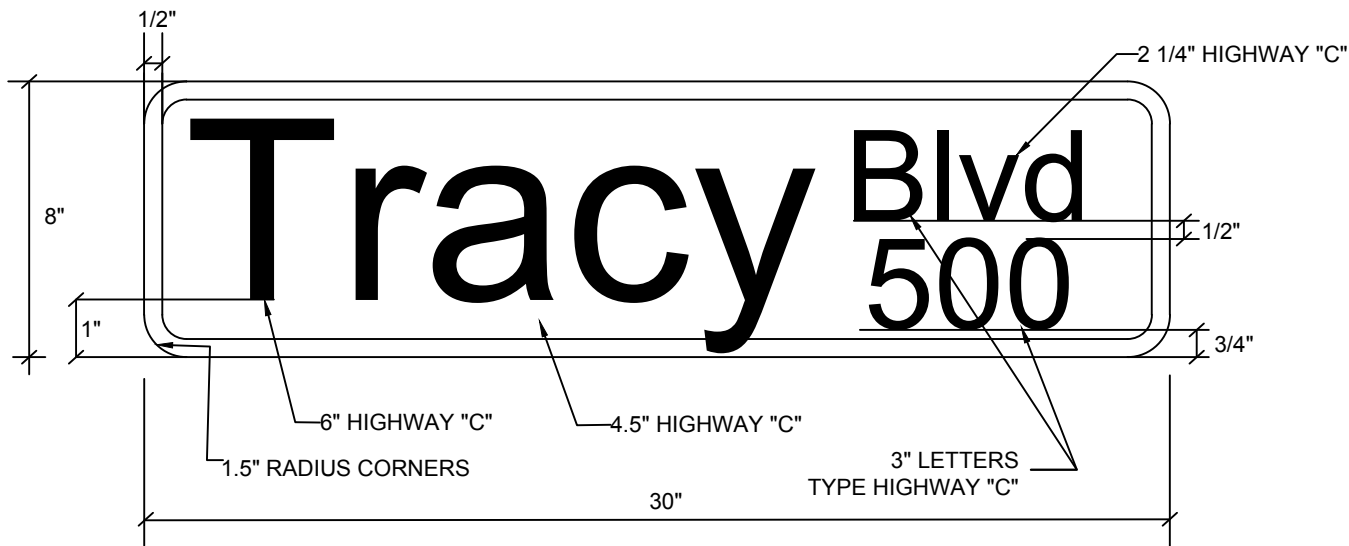


NOTES:

1. STREET NAME SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS, AND AS SHOWN ON THE PLANS. INSTALL ON ELECTROLIER WHERE AVAILABLE.
2. SIGN LOCATION SHALL BE AS FOLLOWS:
ON RESIDENTIAL STREETS: N.E. OR S.E. CORNER.
ON ARTERIALS: ON BOTH SIDES OF THE STREET.
3. SIGN SHALL HAVE REFLECTIVE GREEN BACKGROUND
4. FOR ROADS WITH SPEED LIMITS WITH 25 MPH OR LESS, STREET NAME SIGNS SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 4" AND LOWER CASE LETTERS 3".
5. BLOCK LETTERS OR NUMBERS SHALL BE 2", IN HIGHWAY "C" FONT. SPACE BETWEEN LETTERS SHALL NOT EXCEED 1/2 IN.
6. 3-M GREEN EC FILM SERIES 1177 OR EQUAL LAID OVER 3-M HIGH INTENSITY PRISMATIC WHITE SHEETING SERIES 3930 OR EQUAL, ON 0.125" THICKNESS ALUMINUM SIGN BLANK, FLAT BLADE (NOT EXTRUDED).
7. STREET NAME SHALL BE ON BOTH SIDES OF THE SIGN. REVERSE ARROW AS NEEDED.
8. POST MOUNTING HARDWARE: CROSSPIECE AND CAP SHALL BE HAWKINS 809F BOLT THRU.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <u>Robert Armijo</u> CITY ENGINEER RCE 63173		STANDARD PLAN No. 135
	Res No. 2020-031	DATE: February 18, 2020	STREET NAME SIGNS 25 MPH OR LESS
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	

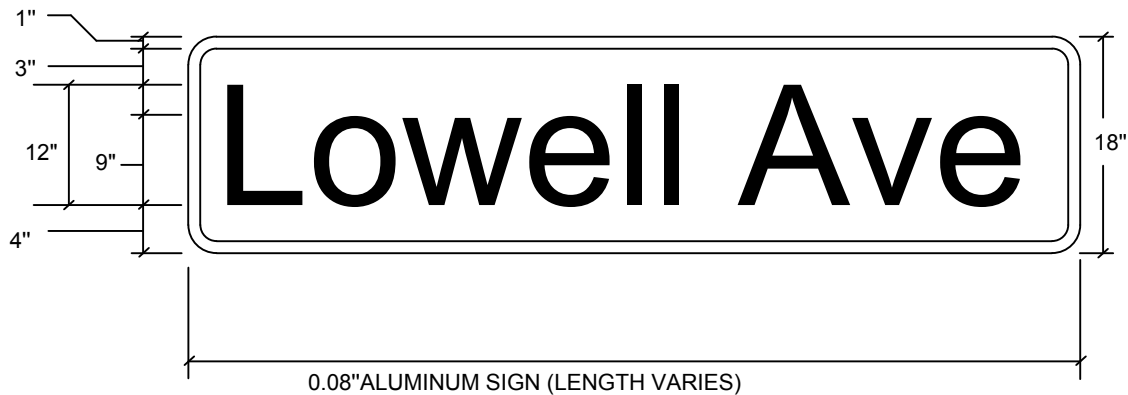
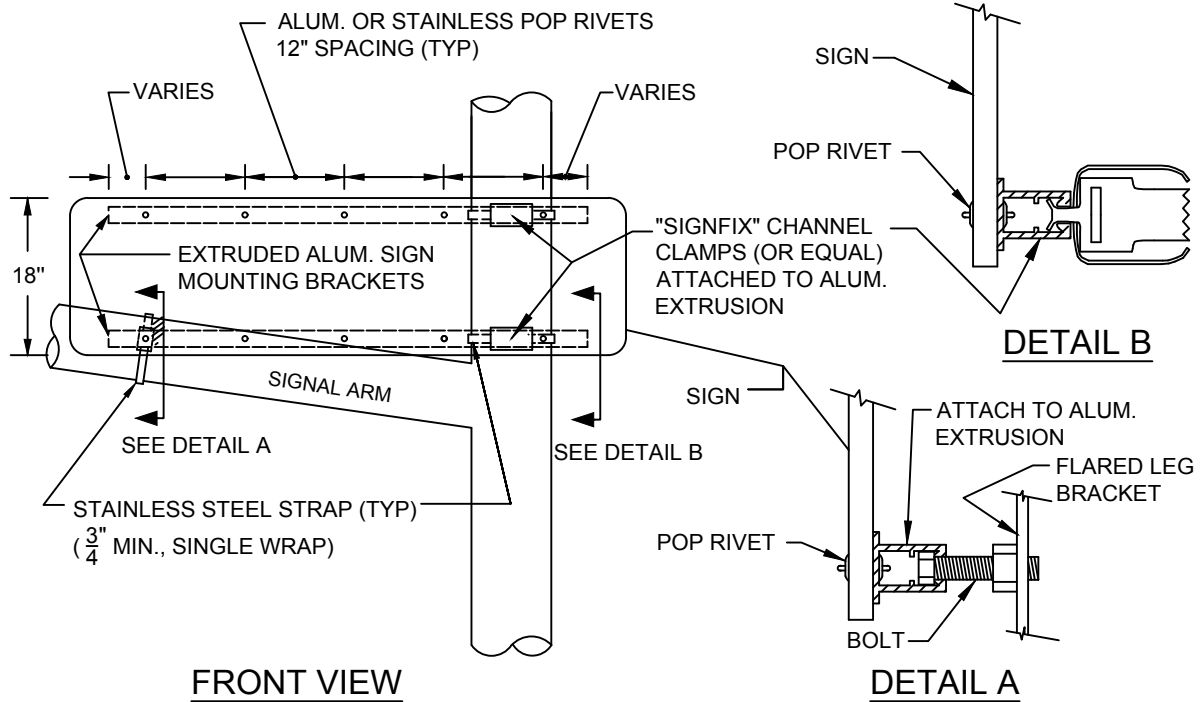


NOTES:

1. STREET NAME SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS, AND AS SHOWN ON THE PLANS. INSTALL ON ELECTROLIER WHERE AVAILABLE.
2. SIGN LOCATION SHALL BE AS FOLLOWS:
ON RESIDENTIAL STREETS: N.E. OR S.E. CORNER.
ON ARTERIALS: ON BOTH SIDES OF THE STREET.
3. SIGN SHALL HAVE REFLECTIVE GREEN BACKGROUND
4. FOR ROADS WITH SPEED LIMITS WITH 25 MPH OR GREATER, STREET NAME SIGNS SHALL BE COMPOSED OF INITIAL UPPER CASE LETTERS 6" AND LOWER CASE LETTERS 4 1/2".
5. BLOCK LETTERS OR NUMBERS SHALL BE 2 1/4", IN HIGHWAY "C" FONT. SPACE BETWEEN LETTERS SHALL NOT EXCEED 1/2 IN.
6. 3-M GREEN EC FILM SERIES 1177 OR EQUAL LAID OVER 3-M HIGH INTENSITY PRISMATIC WHITE SHEETING SERIES 3930 OR EQUAL, ON 0.125" THICKNESS ALUMINUM SIGN BLANK, FLAT BLADE (NOT EXTRUDED).
7. STREET NAME SHALL BE ON BOTH SIDES OF THE SIGN. REVERSE ARROW AS NEEDED.
8. POST MOUNTING HARDWARE: CROSSPIECE AND CAP SHALL BE HAWKINS 809F BOLT THRU.

CITY OF TRACY

	REVIEWED BY: <i>Robert Armijo</i>		STANDARD PLAN No.	136	
	CITY ENGINEER RCE 63173				
	Res No. 2020-031	DATE: February 18, 2020	STREET NAME SIGN GREATER THAN 25 MPH		
	Prepared By: Leisser M.	Checked By: Thomas W.			
Rev:	Rev:				



NOTES:

1. SEE NOTES, SHEET 137 SHEET 2 OF 2

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
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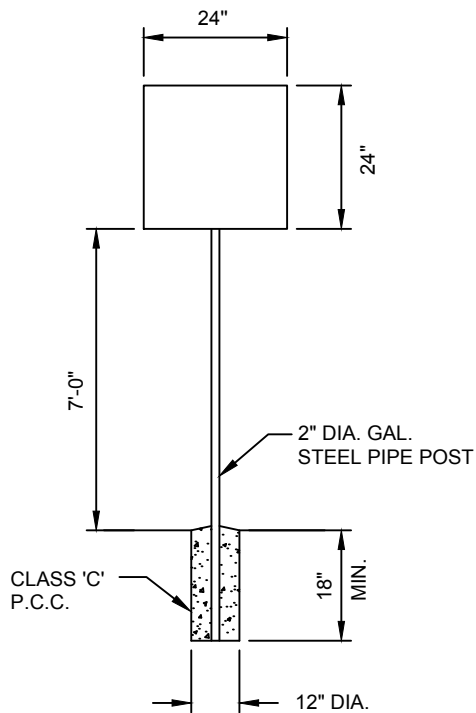
STANDARD PLAN No.	137	SHEET 1 OF 2
OVERHEAD STREET NAME SIGNS		

NOTES FOR TRAFFIC-SIGNAL-ARM SIGN MOUNTING:

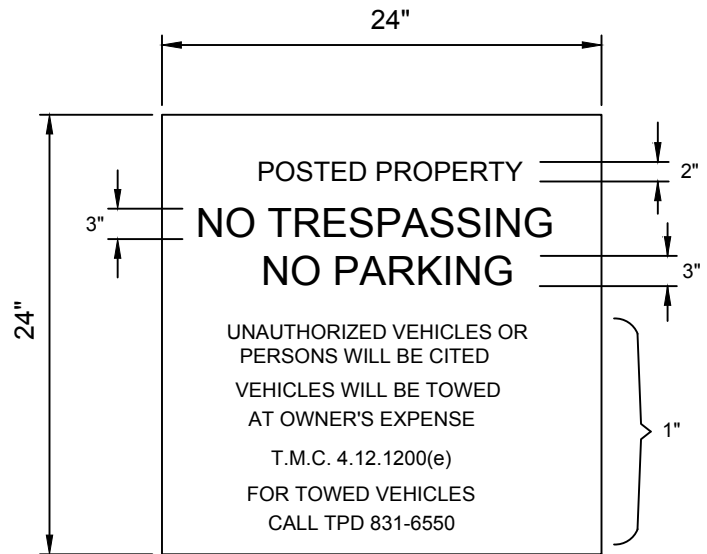
1. ALL MATERIAL FURNISHED SHALL BE RUST RESISTANT. ALL SIGN HARDWARE SHALL BE ALUMINUM AND ANY MOVING PARTS MUST BE MADE OF STAINLESS STEEL TO PREVENT RUSTING.
2. THE SIGN MOUNTING EXTRUDED ALUMINUM MOUNTING BRACKETS SHALL BE EITHER MEDIUM ALUMINUM EXTRUSIONS (SIGNFIX PART NO. HPN-053) OR LARGER ALUMINUM EXTRUSIONS (SIGNFIX PART NO. HPN-055). EXTRUDED ALUMINUM MOUNTING BRACKETS MUST BE BY SIGNFIX OR MUST BE DIRECTLY ADAPTABLE TO UNIVERSAL SIGNFIX CHANNEL CLAMPS E.P. (PART NO. HPN-034EP) OR EQUAL. FLARED LEG MOUNTING BRACKET FOR MOUNTING TO POLE OR MAST ARM SHALL BE HAWKINS PART NO. M2G-FUB OR APPROVED EQUAL. THREADED PORTION OF BRACKET SHALL ACCEPT COURSE THREAD 5/16 INCH ALL-THREAD BOLT.
3. SINGLE STREET NAME SIGN SHALL HAVE NAME AND SUFFIX CENTERED IN SIGN. SIGNS SHALL BE SINGLE FACE AND FABRICATED ON ALUMINUM BLANKS 0.063-INCH THICKNESS. BLANK SHALL BE 18-INCHES IN WIDTH AND VARY IN LENGTH DEPENDING ON THE NUMBER OF LETTERS OF THE STREET (MIN. OF 6-FEET IN LENGTH). SIGN BLANK SHALL HAVE BLUE BACKGROUND USING 3M DIAMOND (CUBE) GRADE REFLECTIVE VINYL SHEETING. UPPER CASE LETTERS SHALL BE 12" AND LOWER CASE LETTERS SHALL BE 9". ALL LETTERS SHALL BE HIGHWAY FONT "D". SIGN SHALL HAVE 1" WHITE BORDER COVERING THE ENTIRE EDGE OF SIGN BLANK. CORNERS SHALL BE NEATLY ROUNDED TO A 2.25" RADIUS. WORDS SHALL BE SPACED MINIMUM OF 6" AND NOT TO EXCEED 10" APART AND THERE SHALL BE 3" OF SPACING BETWEEN BORDER AND SIDES OF STREET NAME. LETTERS SHALL BE SPACED TO MAXIMUM OF 1.5".
4. ALL SIGNS SHALL BE APPROVED FOR CONFORMANCE BY THE CITY TRAFFIC ENGINEERING STAFF PRIOR TO INSTALLATION.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <i>Robert Armijo</i>	STANDARD PLAN No.	137	SHEET 2 OF 2	
	CITY ENGINEER RCE 63173				
	Res No. 2020-031	DATE: February 18, 2020	NOTES FOR TRAFFIC SIGNAL-ARM SIGN MOUNTING		
	Prepared By: Leisser M.	Checked By: Thomas W.			
Rev:	Rev:				



POLE DETAIL
N.T.S.



SIGN LETTERING DETAIL
N.T.S.

NOTES:

1. SIGNS SHALL BE MADE ON FLAT ALUMINUM PLATE WITH A MINIMUM THICKNESS OF 0.080", WITH BLACK LETTERS ON A WHITE BACKGROUND.
2. 3" HIGH LETTERS MESSAGE SHALL INDICATE LIMITS OF ENFORCEMENT SUCH AS " NO PARKING " " NO TRESPASSING OR LOITERING ", " TENANT PARKING ONLY ", ETC.
3. SIGNS SHALL BE INSTALLED BY PROPERTY OWNER, AT EACH PARKING LOT ENTRANCE.
4. PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SIGN.
5. SIGN SHALL BE LOCATED AND ORIENTED SO AS NOT TO CONFLICT WITH PEDESTRIAN TRAFFIC.

CITY OF TRACY

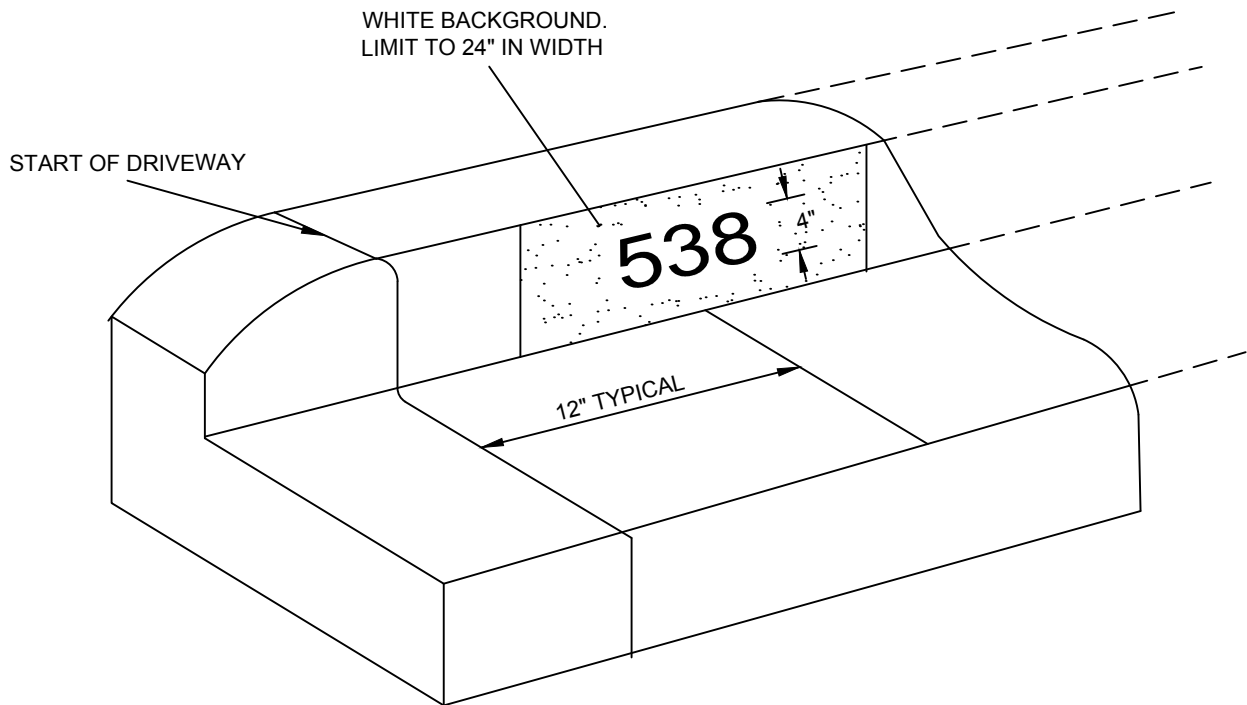


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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**POSTED PROPERTY
NO PARKING OR LOITERING**



CURB PAINTING STANDARD

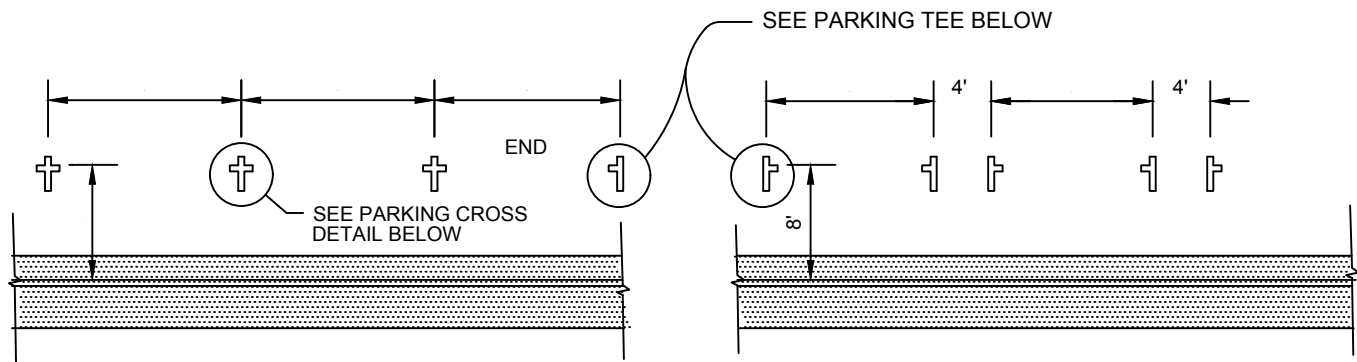
N.T.S.

NOTES:

1. BUILDING NUMBERS MAY BE PAINTED ON CURB SURFACES IN ACCORDANCE WITH CITY COUNCIL POLICY AND THIS STANDARD DRAWING.
2. NUMBERS SHALL BE PAINTED WITH BLACK 4" BLOCK LETTERS HAVING 1/2" STROKE ON A WHITE REFLECTORIZED BACKGROUND.
3. NUMBERS SHALL BE PAINTED WITHIN 2 FT. OF THE DRIVEWAY TO THE PROPERTY.
4. AN APPROVED ENCROACHMENT PERMIT FROM THE OFFICE OF THE CITY ENGINEER SHALL BE OBTAINED BEFORE CURBS MAY BE PAINTED.
5. PAINT MUST BE APPROVED BY THE CITY ENGINEER.
6. PAINTING CONTRACTOR MUST HAVE A VALID BUSINESS LICENSE IN THE CITY OF TRACY.
7. A SPECIFIED FEE SHALL BE CHARGED FOR WORK PERFORMED (NO DONATIONS).
8. APPROVAL IN WRITING OF THE PROPERTY OWNER PRIOR TO PAINTING SHALL BE SUBMITTED TO THE CITY ENGINEER.
9. NUMBER SHALL BE CENTERED WITHIN WHITE BACKGROUND.

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	CITY ENGINEER RCE 63173		
	Res No. 2020-031	DATE: February 18, 2020	CURB NUMBERS
	Prepared By: Leisser M.	Checked By: Thomas W.	
Rev:	Rev:		

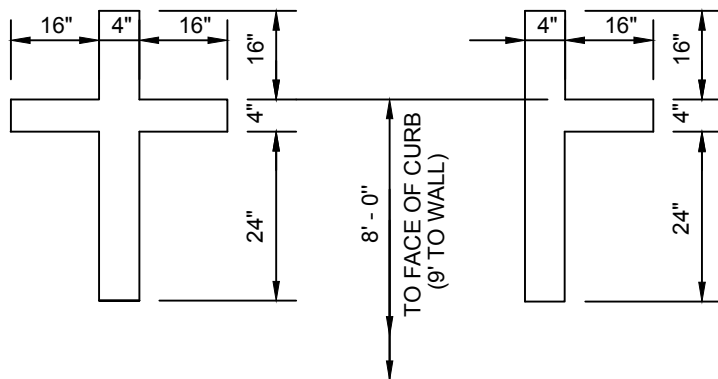


INTERIOR & END

N.T.S.

PAIRED PARKING

N.T.S.

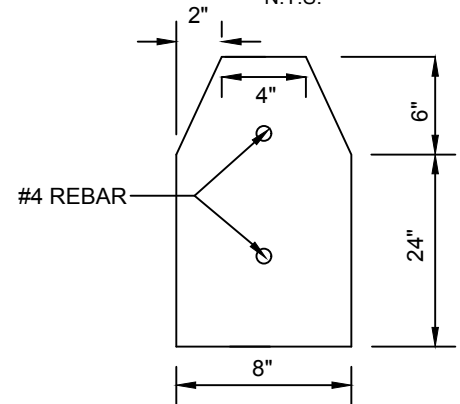


PARKING CROSS

N.T.S.

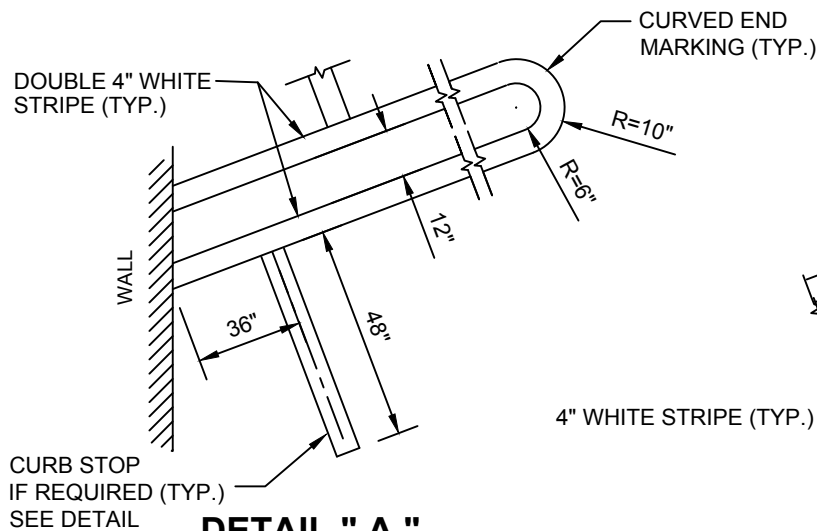
PARKING TEE

N.T.S.



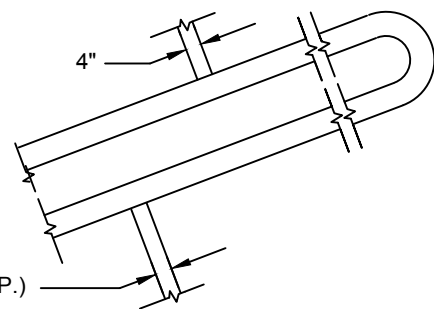
CURB STOP

N.T.S.



DETAIL " A "

N.T.S.



DETAIL " B "

N.T.S.

CITY OF TRACY



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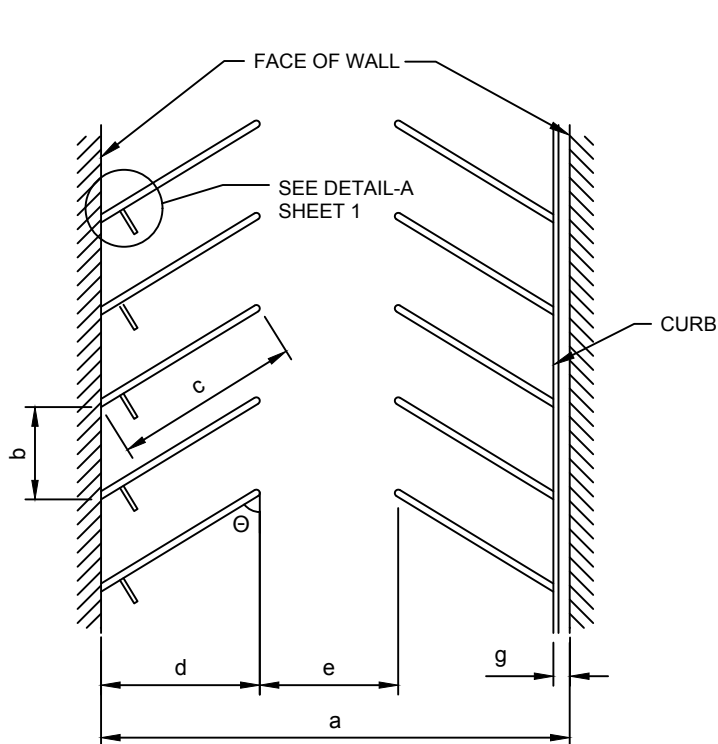
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63178
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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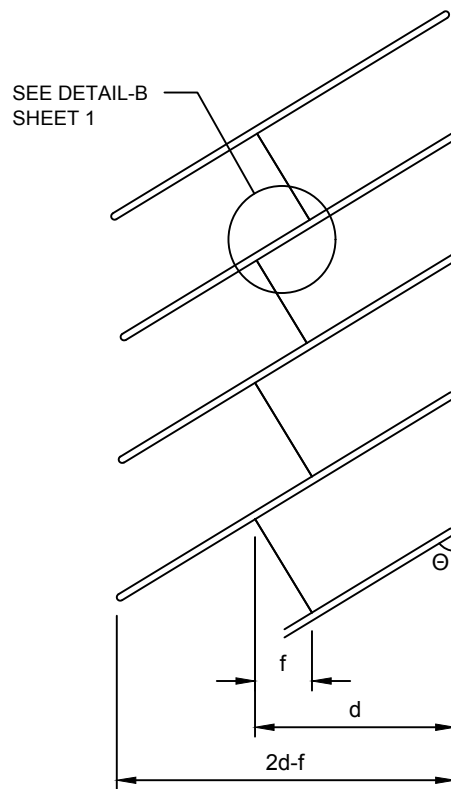
SHEET 1 OF 4

PARKING SPACES



WALL TO WALL MODULE

N.T.S.



INTERLOCKING MODULE

ONLY TO BE USED WITH N.T.S.
BUMPER TO BUMPER DESIGN

DESIGN STANDARD

Parking Angle Θ	Stall Type	a	b	c	d	e	f	g
90°	Standard	63'	9'	18.5'	18.5'	26'	0	2.5'
	Compact	56'	8'	16'	16'	24'	0	2.5'
75°	Standard	62'	9.3'	20'	19.5'	23'	1'	2.5'
	Compact	55'	8.2'	17.4'	17'	21'	1'	2.5'
60°	Standard	57'	10.4'	22'	19'	19'	3'	2.3'
	Compact	50.4'	9.1'	19.3'	16.7'	17'	3'	2.3'
45°	Standard	49'	12.7'	25'	17.5'	14'	4'	2'
	Compact	46'	11.3'	22.2'	16'	14'	4'	2'

NOTES:

1. PARKING ANGLE Θ IS THE ACUTE ANGLE FORMED AT THE INTERSECTION OF THE PARKING SPACE AND THE DRIVE AISLE.
2. SEE ADDITIONAL NOTES ON SHEET 3.

CITY OF TRACY



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REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

Res No. 2020-031

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Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

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SHEET 2 OF 4

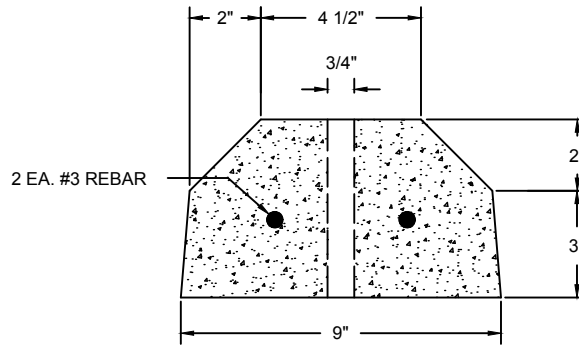
PARKING SPACES

NOTES:

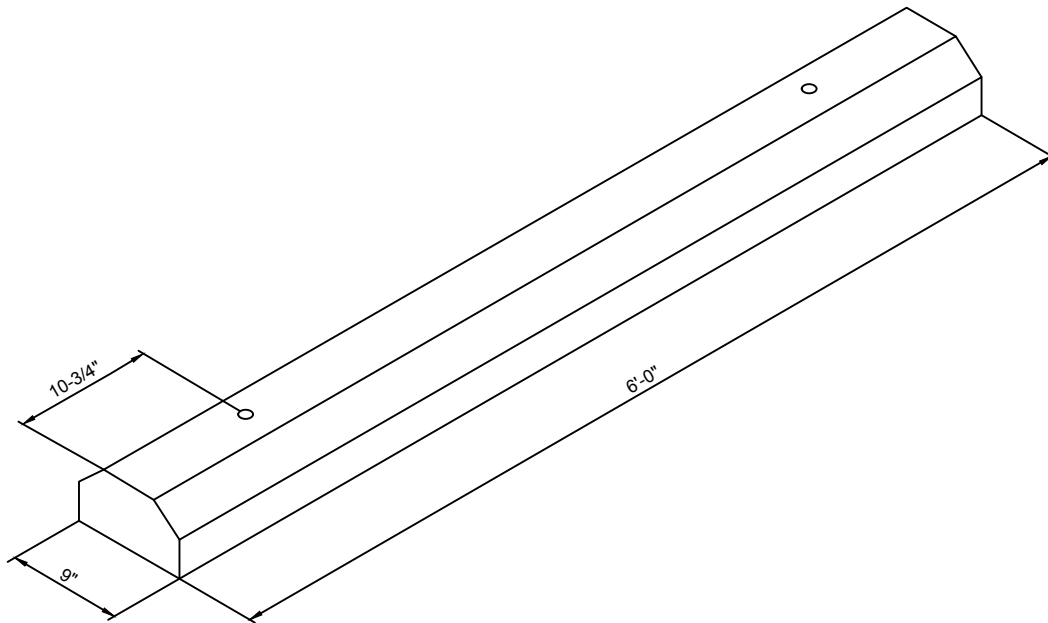
1. ACCESSIBLE PARKING SPACES SHALL COMPLY WITH TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND CITY STANDARDS PLANS.
2. IMPROVEMENTS REQUIRED:
 - A) THE SURFACE SHALL BE PAVED WITH ASPHALTIC CONCRETE OR PORTLAND CEMENT CONCRETE DESIGN WITH A MINIMUM T.I. OF 4 AND AN R-VALUE OF 5. THE STRUCTURAL SECTION SHALL BE DESIGNED BASED ON ACTUAL T.I. AND R-VALUE.
 - B) STRIPING OF PARKING SPACES, AISLES OR DRIVEWAYS AND THE DESIGN AND PLACEMENT OF DIRECTIONAL SIGNS SHALL BE PROVIDED AS NECESSARY TO ENSURE SAFE AND EFFICIENT OPERATION AND SHALL COMPLY WITH APPLICABLE CITY STANDARDS.
 - C) PARKING FACILITIES INCLUDING DRIVE ISLES, PARKING STALLS, AND WALKWAYS THAT ARE REQUIRED FOR USE DURING THE HOURS OF DARKNESS, SHALL BE ILLUMINATED TO PROVIDE A MINIMUM OF 1 FT. CANDLE.
 - D) PERMEABLE PAVEMENT MAY BE REQUIRED BY STORM WATER QUALITY REGULATIONS.
3. A PARKING SPACE LOCATED IN A GARAGE OR CARPORT SHALL NOT BE LESS THAN 10' WIDE BY 20' LONG; HOWEVER, WHERE GARAGES OR CARPORTS CONTAIN 3 OR MORE SPACES IN A ROW (NON-TANDEM), THE WIDTH REQUIREMENT FOR EACH SPACE MAY BE REDUCED TO 9'.
4. STALL WIDTHS SHALL BE MEASURED FROM C/L OF DOUBLE STRIPE.
5. SINGLE STALL STRIPING SHALL ONLY BE USED TO MATCH EXISTING CONDITIONS. NEW CONSTRUCTION SHALL REQUIRE DOUBLE 4" STRIPE.
6. PRE-CAST CURB STOPS MAY BE CONSIDERED FOR USE WITH THE APPROVAL OF THE CITY ENGINEER.
7. FOR LANDSCAPE AND OTHER AMENITIES REFER TO THE MOST CURRENT EDITION OF THE CITY OF TRACY MUNICIPAL CODE.

CITY OF TRACY

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	Prepared By: Leisser M.	Checked By: Thomas W.			
	Rev:	Rev:	PARKING SPACES		



① SECTION
SCALE: NTS



② ISOMETRIC VIEW
SCALE: NTS

NOTES:

1. REBAR AMERICAN GRADE 60 SIZE #4
MINIMUM LENGTH 18" LONG.
2. 4000 PSI CONCRETE 28 DAYS.
3. WEIGHT 200 POUNDS.

CITY OF TRACY



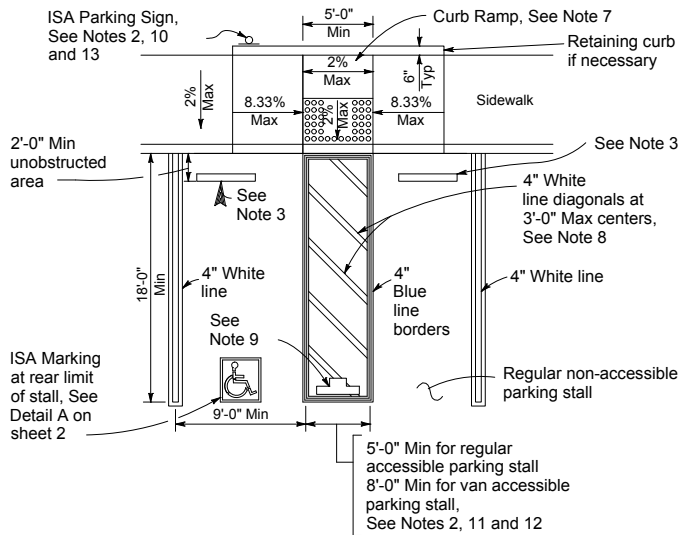
REVIEWED BY: <i>Robert Armijo</i>	
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Rev:	Rev:

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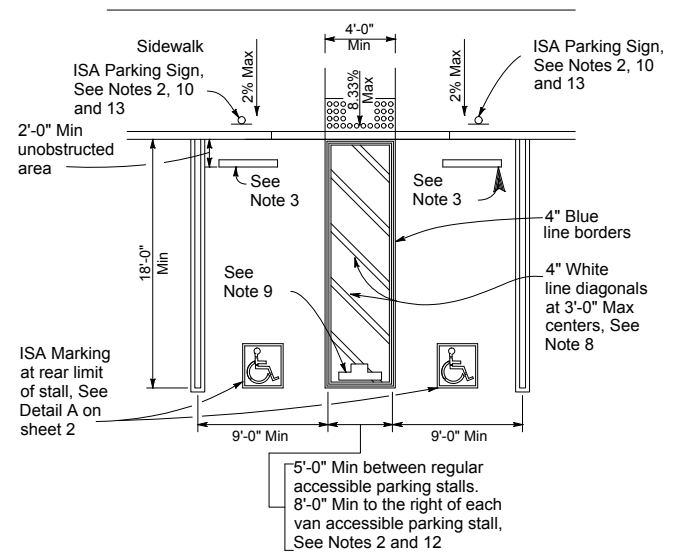
141

SHEET 4 OF 4

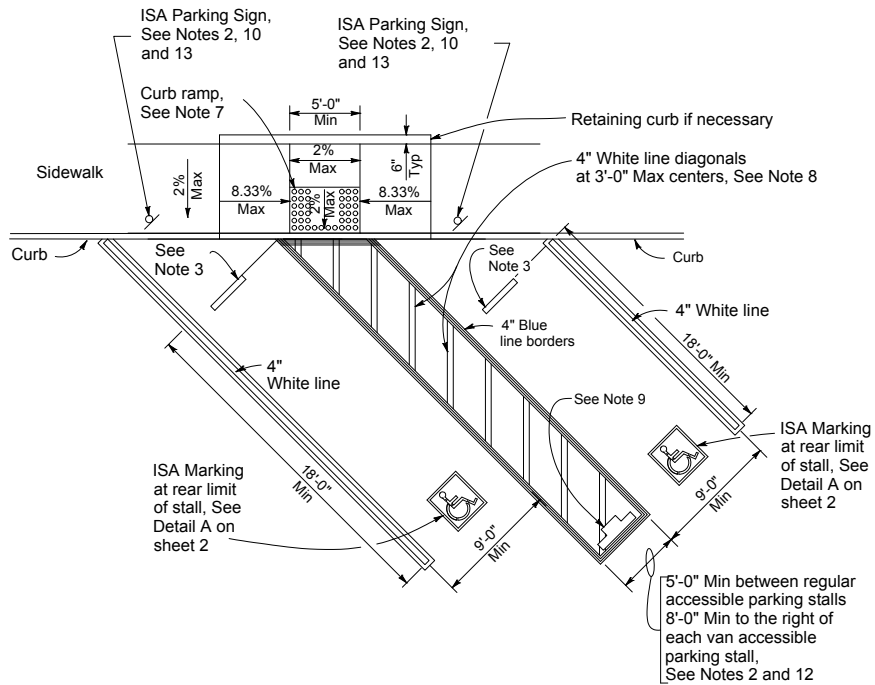
PARKING STALL CURB



SINGLE PARKING STALL



DOUBLE PARKING STALL



DIAGONAL DOUBLE PARKING STALLS

CITY OF TRACY



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STANDARD PLAN No.	142	SHEET 1 OF 3
ACCESSIBLE PARKING OFF-STREET STALLS		

PARKING STALL LEGENDS



SIGN R99 (CA)



PLAQUE R99B (CA)

SIGN R99 (CA) with PLAQUE R99B (CA)
See Note 6



SIGN R99C (CA)
See Note 6

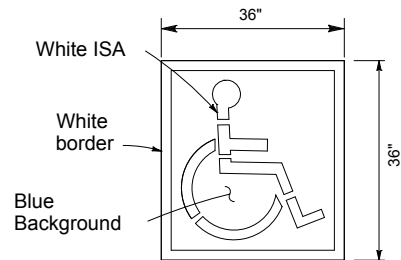


SIGN R100B (CA)
See Note 10



SIGN R7-8b
See Notes 2 and 6

PARKING SIGNS



ISA MARKING
See Revised Std Plan RSP A24C

DETAIL A

PARKING LEGENDS

CITY OF TRACY



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SHEET 2 OF 3

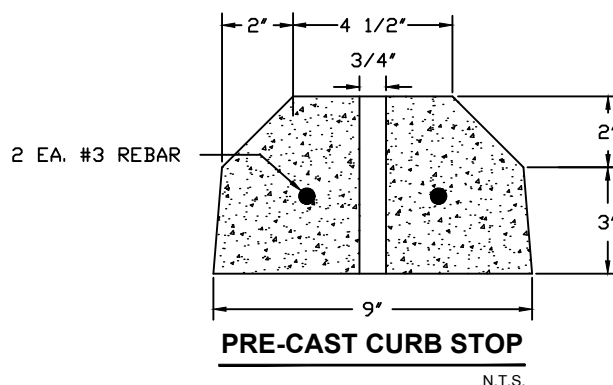
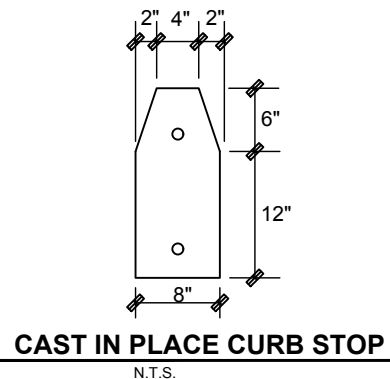
ACCESSIBLE PARKING SIGNS & LEGENDS

NOTES:

1. Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. In parking facilities that do not serve a particular building, accessible parking shall be dispersed on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. Parking spaces shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.
2. One in every eight accessible off-street parking stalls, but not less than one, shall be served by an accessible aisle of 8'-0" minimum width and shall be signed van accessible. The R7-8b sign shall be mounted below the R99B (CA) plaque or the R99C (CA) sign. See sheet 2
3. In each parking stall, a curb or bumper shall be provided and located to prevent encroachment of vehicles over the required width of walkways. Parking stalls shall be so located that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.
4. Surface slopes of accessible off-street parking stalls and accessibility aisles shall be the minimum possible and shall not exceed 2 percent in any direction.
5. Table A shall be used to determine the required number of accessible parking stalls in each parking lot or garage.
6. Where Plaque R99B (CA), Sign R99C (CA) or Sign R7-8b are installed, the bottom of the sign or plaque panel shall be a minimum of 7'-0" above the surrounding surface.
7. Curb ramps shall conform to the details shown on City Standard Plan 130.
8. Blue paint, instead of white shall be used for marking accessibility aisle diagonals in areas such as concrete where white markings are not as visible.
9. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high and located so that it is visible to traffic enforcement officials at rear of aisle.
- 10 A R100B (CA) sign with 1" lettering shall be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall. The sign shall include the telephone number of the local traffic law enforcement agency.
11. Where a single (non-van) accessible parking space is provided, the loading and unloading access aisle shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
12. Where a van accessible parking space is provided, the loading and unloading access aisle shall be 8'-0" wide minimum, and shall be on the passenger side of the vehicle as the vehicle is going forward into the parking space.
13. Accessible Parking Only Sign shall be Sign R99C (CA) or Sign R99 (CA) with Plaque R99B (CA).
14. Accessible on-street parking spaces shall not be smaller in length or width than that specified for other parking spaces, but not less than 20'-0" in length and not less than 8'-0" in width.
15. There shall be no obstructions on the sidewalk adjacent to and for the full length of the parking space, except for the ISA parking sign shown.

TABLE A

Total Number of Parking Spaces or Stalls	Minimum Number of Disabled Accessible Parking Spaces or Stalls
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1000	2 percent of total
Greater than 1000	20 plus 1 for each 100 or fraction thereof over 1001



ISA = International Symbol of Accessibility

CITY OF TRACY



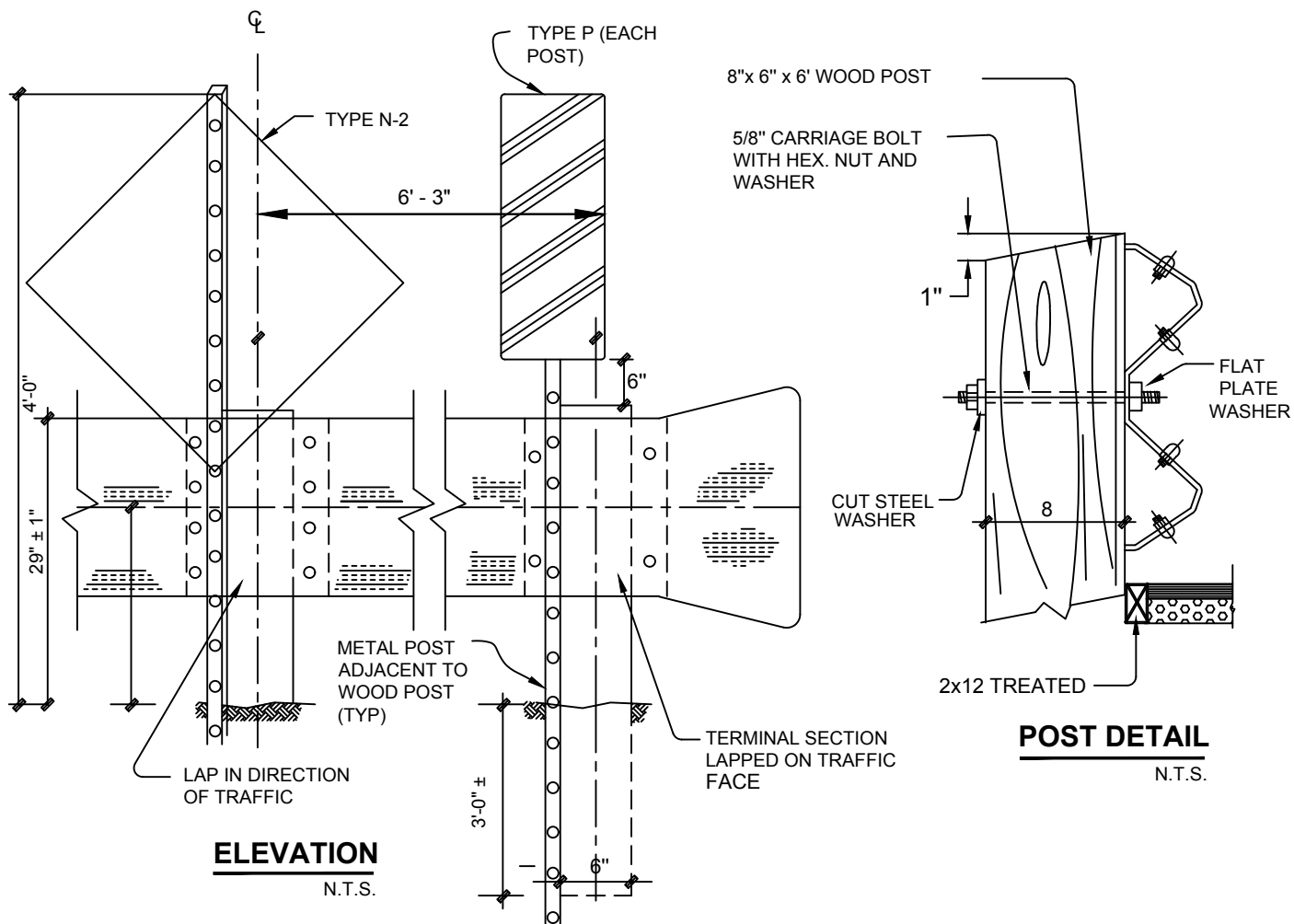
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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SHEET 3 OF 3

ACCESSIBLE PARKING NOTES



NOTES:

1. METAL BEAM GUARD RAILING SHALL BE STANDARD CALTRANS W-BEAM RAIL ELEMENT A-77A1.
2. POSTS SHALL BE 8" x 6" x 6" DOUGLAS FIR PRESSURE TREATED IN CONFORMANCE WITH THE ABOVE SPECIFICATION.
3. THE SPACE AROUND POSTS SHALL BE BACKFILLED WITH NATIVE MATERIAL PLACED IN 4" LAYERS AND THOROUGHLY COMPACTED.
4. FOR DEAD-END BARRICADE INSTALL ONE TYPE "N-2" (CALTRANS, CURRENT EDITION) MARKERS IN CENTER OF RIGHT OF WAY.
5. FOR GUARD RAIL INSTALL ONE TYPE "N-1" (CALTRANS, CURRENT EDITION) SIGN ON FIRST POST NEAREST TRAVELED WAY
6. INSTALL ONE TYPE "P" (CALTRANS, CURRENT EDITION) OBJECT MARKERS FACING ON COMING TRAFFIC AT EACH POST PER CALTRANS STANDARD PLAN A-73B.

CITY OF TRACY



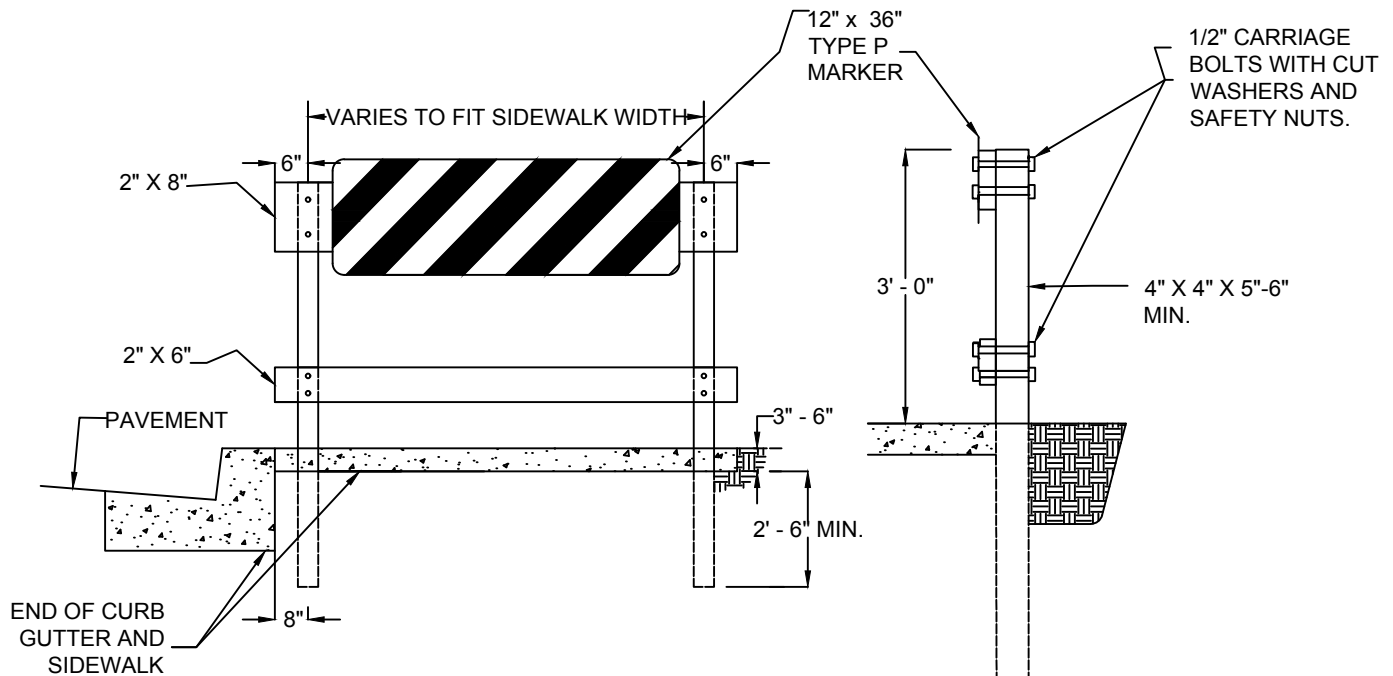
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GUARD RAIL & BARRICADE



NOTES:

1. SIDEWALK BARRICADE TO BE ERECTED AT EACH LOCATION WHERE SATISFACTORY PROVISION CANNOT BE MADE FOR PEDESTRIANS TO CONTINUE BEYOND THE TERMINUS OF THE SIDEWALK.
2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO (2) COATS OF WHITE PAINT. ALL PAINT TO CONFORM TO SEC. 91-3.02 OF CALTRANS STANDARD SPECIFICATIONS.
3. ALL MATERIAL USED IN THE CONSTRUCTION OF BARRICADE SHALL BE TREATED DOUGLAS FIR IN CONFORMANCE WITH SEC.56-2.02 OF CALTRANS STANDARD SPECIFICATIONS.

CITY OF TRACY

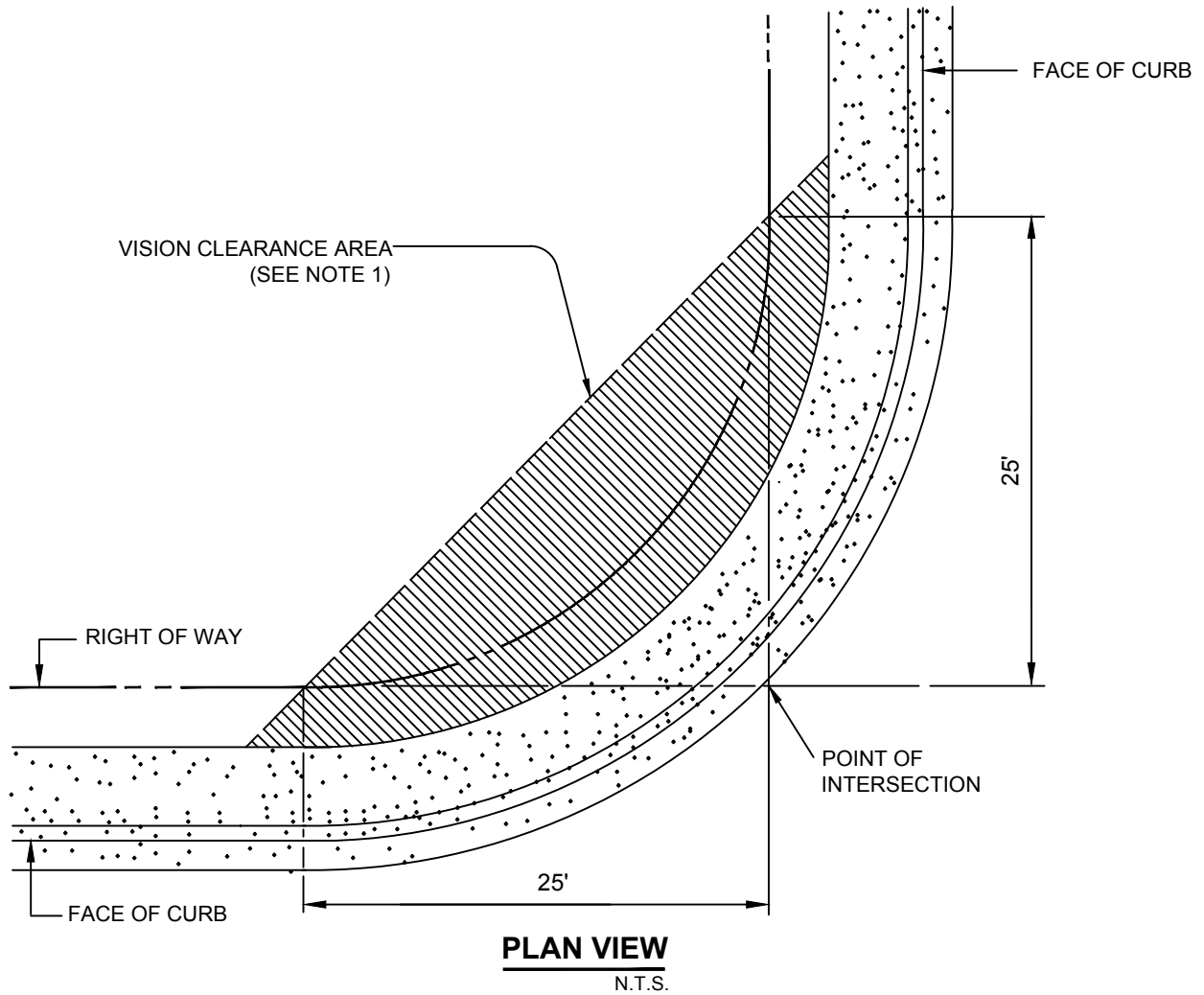


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CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

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SIDEWALK BARRICADE



NOTES:

1. VISION CLEARANCE AREA IS THE AREA IN WHICH NO STRUCTURE OR VEGETATION IS TO BE HIGHER THAN 18" ABOVE TOP OF CURB EXCEPT TREES HAVING NO LIMB OR VEGETATION LESS THAN 8' ABOVE THE TOP OF CURB AS REQUIRED BY ORDINANCE CODE, SECTIONS 10.08.3230 AND 10.08.3250(4)(C).
2. NO FENCE SHALL BE CONSTRUCTED WITHIN THE PUBLIC RIGHT-OF-WAY.

CITY OF TRACY

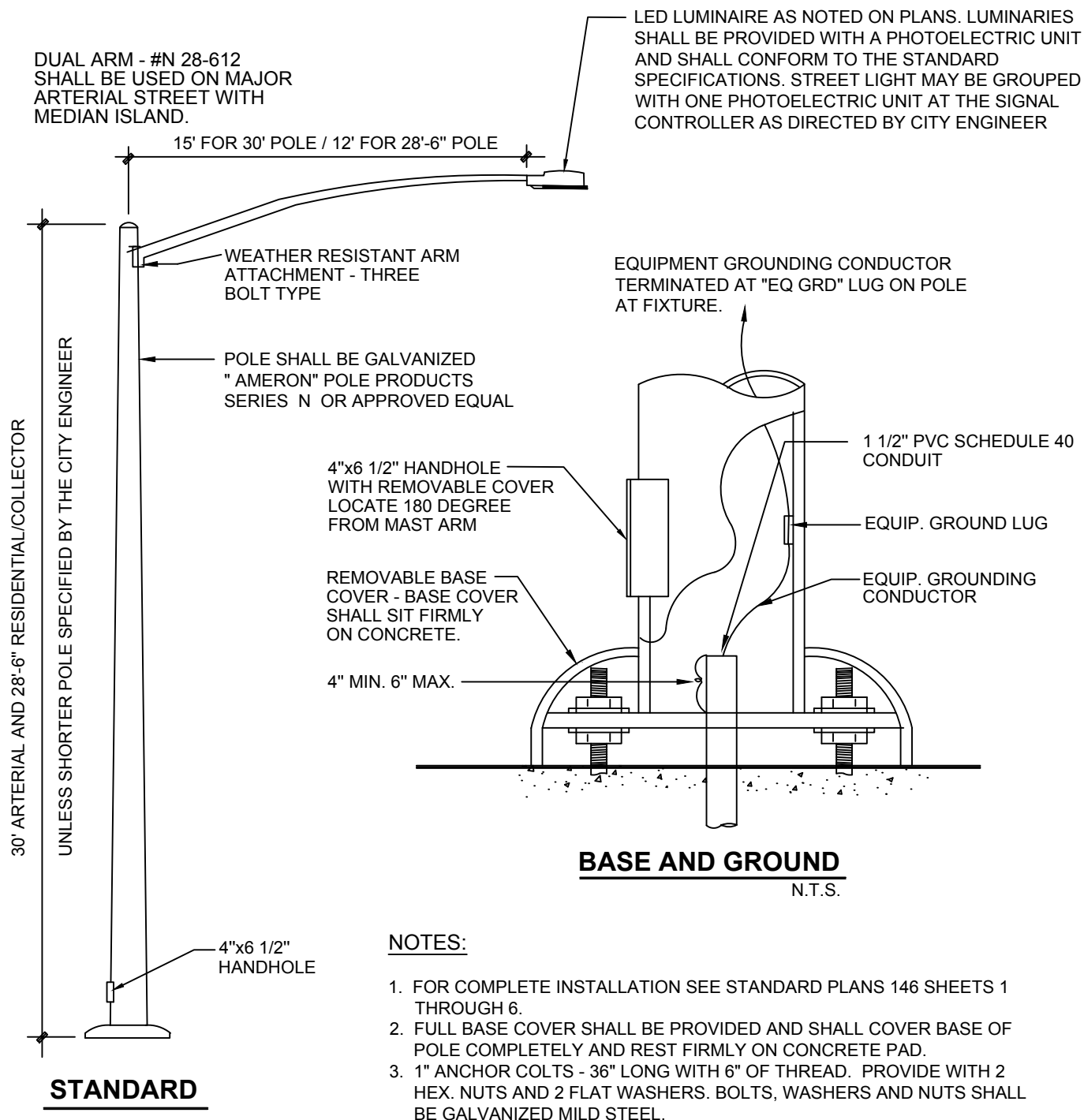


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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**CORNER VISION
CLEARANCE AREA**



CITY OF TRACY



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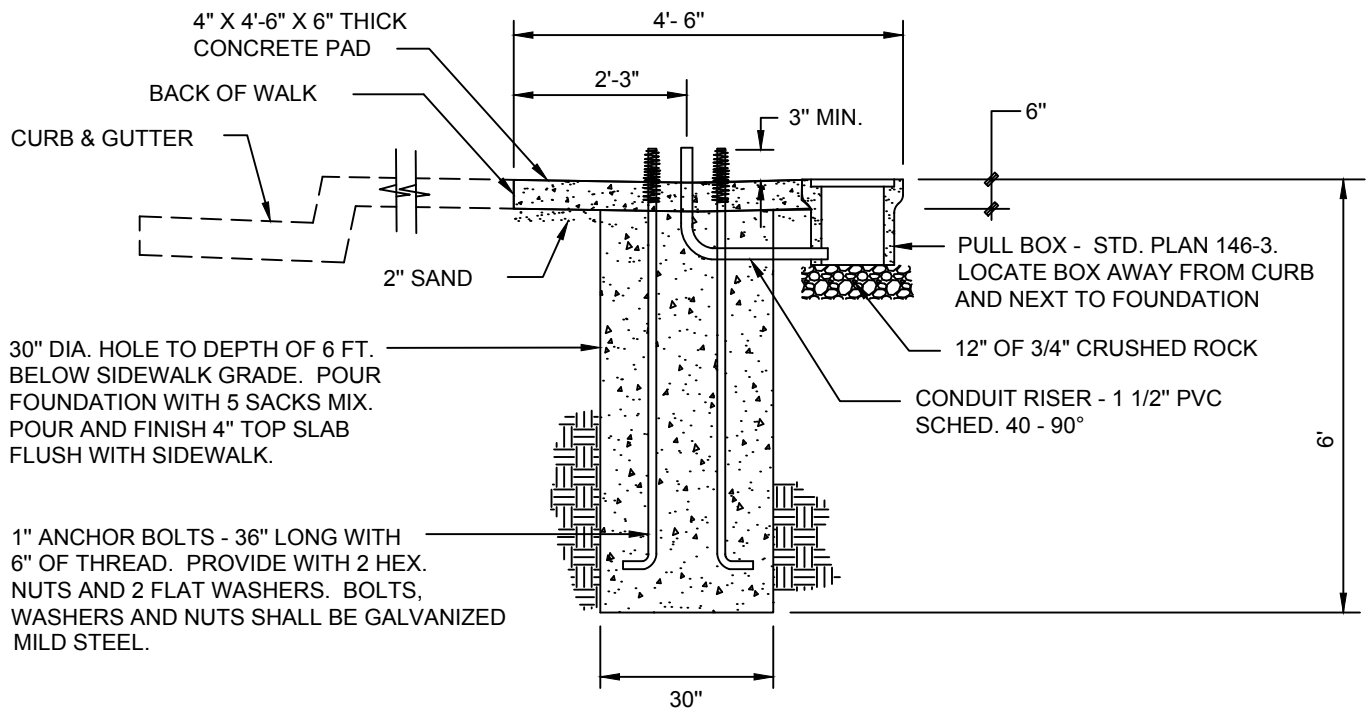
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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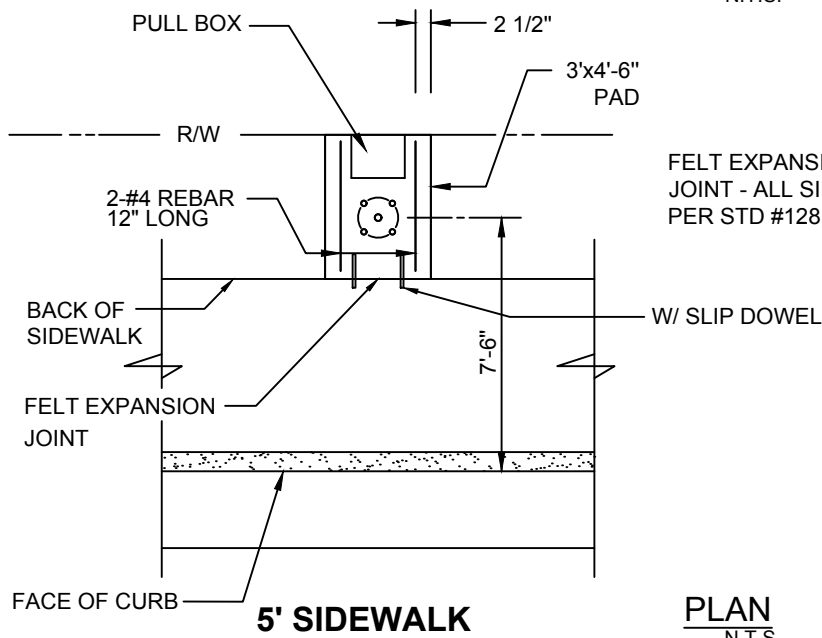
SHEET 1 OF 10

STREET LIGHT



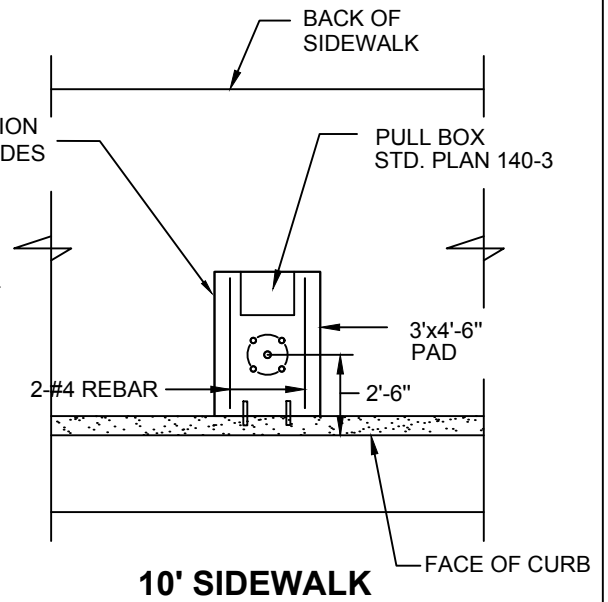
PROFILE

N.T.S.



PLAN

N.T.S.



NOTES:

1. SOMETIMES PAD IS TURNED
2. PLANTER AREA CONFLICT WITH STORM DRAINS

CITY OF TRACY



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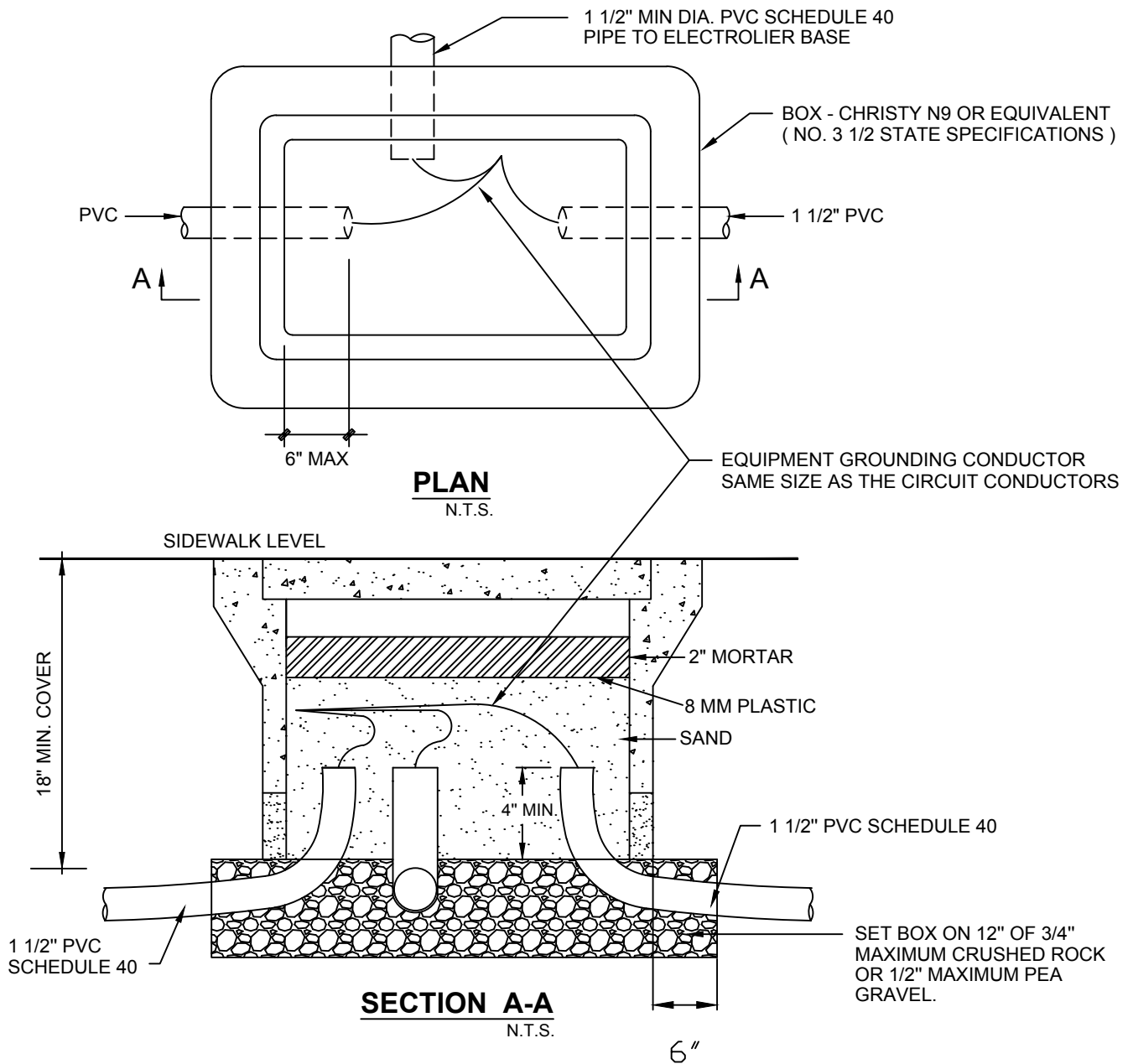
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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SHEET 2 OF 10

STREET LIGHT POLE FOUNDATION



NOTES:

1. PULL BOX SHALL HAVE A LOCKING LID MARKED " STREET LIGHT ".

CITY OF TRACY



REVIEWED BY:	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

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SHEET 3 OF 10

**STREET LIGHT
PULL BOX**

NOTES:

1. THE MAXIMUM DISTANCE BETWEEN STREET LIGHT STANDARDS SHALL BE: 200 FEET ON RESIDENTIAL STREETS, 150 FEET ON COLLECTORS AND INDUSTRIAL STREETS, 120 FEET ON MINOR ARTERIAL STREETS, 70 FEET ON MAJOR ARTERIAL STREETS WITHOUT A MEDIAN, AND 120 FEET ON MAJOR ARTERIAL STREETS WITH A MEDIAN. STREET LIGHT STANDARDS SHALL BE INSTALLED ON ALTERNATING SIDES EXCEPT WHEN MEDIANS ARE TO BE CONSTRUCTED. STREETLIGHTS IN MEDIANS ARE TO BE INSTALLED USING DOUBLE, 15' MAST ARMS ON 30-FOOT HIGH POLES MAXIMUM 120 FEET APART AND AT LEAST 20' FROM THE MEDIAN ISLAND NOSE. LIGHTS SHALL BE EVENLY SPACED AS MUCH AS POSSIBLE.
2. WIRING SHALL BE UNDERGROUND IN 1 1/2" MIN. UL APPROVED SCHEDULE 40, HEAVY WALL RIGID PVC CONDUIT. (SPECIAL CONDITIONS MAY REQUIRE INCREASE OF CONDUIT SIZE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.) ALL CONDUCTORS SHALL BE COPPER.
3. CONDUIT SYSTEM SHALL BE COMPLETE FROM THE STREET LIGHT TO THE PG&E SOURCE.
4. INSTALL A CONCRETE PULL BOX AT EACH ELECTROLIER PER CITY OF TRACY STANDARDS. MINIMUM SIZE NO. 3-1/2, LID MARKING - "STREET LIGHT" (LOCKING LID).
5. SEE CITY OF TRACY STANDARD DRAWINGS 146 SHEETS 1-5 FOR ADDITIONAL DETAILS.
6. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH SECTIONS 86 AND 87 OF THE LATEST STATE OF CALIFORNIA STANDARD SPECIFICATIONS
7. WATERPROOF FUSED SPLICE CONNECTORS WITH PROPER 10 AMP FUSE SHALL BE INSTALLED IN EACH PULL BOX ADJACENT TO A LIGHT STANDARD.
8. WIRE SIZE IN POLE FROM LUMINARIE TO PULL BOX @ BASE OF POLE AND IN UNDERGROUND CONDUITS SHALL BE SIZED ACCORDING TO CONDUCTOR CHARTS 1-3 PROVIDED ON STANDARD PLAN 146 SHEETS 6-8.
9. THE OWNER OR CONTRACTOR OF ANY LIGHTING PROJECT IS REQUIRED TO PAY PG&E COMPANY THE CONNECTION FEE BEFORE ACCEPTANCE BY THE CITY.
10. ALL ELECTROLIERS SHALL HAVE EQUIPMENT GROUNDING CONDUCTORS INSTALLED PER CITY STANDARD PLANS.
11. ALL CONDUIT ENDS IN PULL BOXES OR STANDARDS SHALL BE SECURELY PACKED WITH AN APPROVED SEALANT AFTER WIRE IS PULLED.
12. ALL SPLICES IN CONDUCTORS SHALL BE MADE WITH APPROVED WIRE CONNECTOR AND MADE WATER PROOF BY APPROVED METHOD. SEE CALTRANS STANDARD PLAN ES-13A.
13. ALL CONDUIT SHALL BE A MINIMUM OF 3' BELOW THE FLOWLINE OF GUTTER EXCEPT WHEN UNDER THE SIDEWALK. CONDUIT SHALL BE A MINIMUM OF 18" DEEP.
14. THE DEVELOPER OF SUBDIVISIONS SHALL BE REQUIRED TO PROVIDE THE CITY WITH ONE ELECTROLIER FOR EACH TWENTY (20) ELECTROLIERS (OR FRACTION THEREOF) OF EACH SIZE INVOLVED IN THE TRACT LIGHTING. THE ELECTROLIERS SHALL BE IDENTICAL TO THOSE INSTALLED IN THE SUBDIVISION. THIS REQUIREMENT WILL BE WAIVED IF THE TOTAL NUMBER OF ELECTROLIERS INSTALLED IN THE TRACT IS LESS THAN FIVE (5). THE ELECTROLIERS FURNISHED TO THE CITY SHALL BE COMPLETE, INCLUDING POLE, MAST ARM, LUMINAIRE AND ADEQUATE WIRE TO COMPLETE THE SPLICE IN THE PULL BOX ADJACENT TO THE POLE BASE AND SHALL BE DELIVERED TO THE CITY AT BOYD SERVICE CENTER.
15. THE SERVICE POINT AND ALL CONDUIT SHALL BE INSTALLED WITHIN CITY RIGHT-OF-WAY.
16. ANY DEVIATIONS OR SPECIAL PROVISIONS OF THESE STANDARDS WILL REQUIRE PRIOR APPROVAL BY CITY ENGINEER.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <u>Robert Armijo</u>	STANDARD PLAN No. 146	STREET LIGHT NOTES
	CITY ENGINEER <u>RCE 63173</u>	SHEET 4 OF 10	
	Res No. 2020-031	DATE: February 18, 2020	
	Prepared By: Leisser M	Checked By: Thomas W.	
	Rev:	Rev:	

NOTES: (CON'T.)

18. ALL LUMINAIRES SHALL BE LED AND SHALL CONFORM TO THE STANDARD SPECIFICATIONS

19. GENERAL NOTE OF LUMINAIRES:

STREET TYPE	VOLTAGE	MASTER ARM LENGTH	POLE HEIGHT	ARM RISE
ARTERIAL	120/240	15'	30'	+4' 9"
COLLECTOR AND INDUSTRIAL	120/240	12'	28'-6"	+4' 3"
RESIDENTIAL	120	12'	28'-6"	+4' 3"

20. LAMP BULBS SHALL HAVE OPERATING LIFE OF 3 YEARS OR A MINIMUM OF 13,140 HOURS.

22. ALL WORK SHALL COMPLY WITH LATEST REVISION OF NATIONAL ELECTRIC CODE STANDARDS.

23. INTERSECTION AND ROADWAY LIGHTING PHOTOMETRIC DESIGN SHALL MEET THE FOLLOWING:

INTERSECTION LIGHTING DESIGN REQUIREMENTS		
FUNCTIONAL CLASSIFICATION	MINIMUM AVG. ILLUMINATION AT PAVEMENT E_{avg} (Fc)	MINIMUM AVG. UNIFORMITY RATIO (avg/min)
ARTERIAL/ARTERIAL	2.6	3.0
ARTERIAL/COLLECTOR	2.2	3.0
COLLECTOR/RESIDENTIAL	1.6	4.0
RESIDENTIAL/RESIDENTIAL	1.4	6.0

ROADWAY LIGHTING DESIGN REQUIREMENTS		
STREET CLASSIFICATION	MINIMUM AVG. LUMINANCE L_{avg} (cd/m ²)	MINIMUM AVG. UNIFORMITY RATIO (avg/min)
ARTERIAL	0.9	3.0
COLLECTOR	0.6	3.5
RESIDENTIAL	0.5	6.0

CITY OF TRACY

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	Rev:	Rev:			
STREET LIGHT NOTES					

CONDUCTOR SIZE CHART 1

120 VOLT VOLTAGE DROP CALC. @ 2 PERCENT..

DISTANCE FROM ELECTRICAL SERVICE	NO. POLES ON CIRCUIT	1	2	3	4
0 to 100 ft.	# 12 CU	# 10	# 8	# 6	#
101 to 200 ft.	# 10 CU	# 6	# 6	# 4	#
201 to 400 ft.	# 6 CU	# 4	# 3	# 3	#
401 to 600 ft.	# 6 CU	# 3	# 1	# 1	#
601 to 800 ft.	# 4 CU	# 2	# 1/0	# 1/0	#
1000 ft.	# 3 CU	# 1	# 2/0	# 2/0	#

THIS TABLE BASED ON THE FOLLOWING:

EACH FIXTURE LOAD IS 4 AMPS AT 120 VOLT, TWO FIXTURES PER POLE (DOUBLE ARM)

ALL CONDUCTORS ARE THE SAME SIZE; THE UNDER-GROUNDED (BLACK AND RED), THE GROUNDED (WHITE) AND THE EQUIPMENT GROUNDING (GREEN).

ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.

VOLTAGE DROP IS CALCULATED AT 2%.

CITY OF TRACY

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CONDUCTOR SIZE CHART 2

120 VOLT VOLTAGE DROP CALC.

DISTANCE FROM ELECTRICAL SERVICE	NO. POLES ON CIRCUIT	1	2	3	4
0 to 100 ft.	# 12 CU	# 12	# 12	# 12	#
101 to 200 ft.	# 12 CU	# 12	# 10	# 8	#
201 to 400 ft.	# 12 CU	# 8	# 6	# 6	#
401 to 600 ft.	# 10 CU	# 6	# 4	# 4	#
601 to 800 ft.	# 8 CU	# 6	# 4	# 3	#
1000 ft.	# 8 CU	# 4	# 3	# 2	#

THIS TABLE BASED ON THE FOLLOWING:

1. EACH FIXTURE LOAD IS 120 VOLT @ 4 AMP (DOUBLE ARM FIXTURE)
2. ALL CONDUCTORS ARE THE SAME SIZE; UNGROUNDED (BLACK AND RED), GROUNDED NEUTRAL (WHITE) EQUIPMENT GROUND (GREEN OR BARE).
3. ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.
4. VOLTAGE DROP IS CALCULATED AT 5%.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <u>Robert Armijo</u> CITY ENGINEER RCE 63173		STANDARD PLAN No. 146	SHEET 7 OF 10
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	Prepared By: Leisser M.	Checked By: Thomas W.		
	Rev:	Rev:		

CONDUCTOR SIZE CHART 3

230 VOLT VOLTAGE DROP CALC.

DISTANCE FROM ELECTRICAL SERVICE	NO. POLES ON CIRCUIT	1	2	3	4
0 to 100 ft.	# 12 CU	# 12	# 12	# 12	#
101 to 200 ft.	# 12 CU	# 12	# 12	# 12	#
201 to 400 ft.	# 12 CU	# 12	# 10	# 8	#
401 to 600 ft.	# 12 CU	# 12	# 8	# 6	#
601 to 800 ft.	# 12 CU	# 8	# 8	# 6	#
1000 ft.	# 10 CU	# 8	# 6	# 4	#

THIS TABLE BASED ON THE FOLLOWING:

EACH FIXTURE LOAD IS RATED AT 4 AMPS @ 240 VOLT (A DOUBLE ARM FIXTURE)

ALL CONDUCTORS ARE THE SAME SIZE; UNGROUNDED (BLACK AND RED), GROUNDED (WHITE) AND THE EQUIPMENT GROUNDING (GREEN).

ALL CONDUCTORS ARE COPPER, TYPE THW, THWN, THWN-2 OR XHHW.

VOLTAGE DROP IS CALCULATED AT 5%.

CITY OF TRACY

	REVIEWED BY: <u>Robert Armijo</u>		STANDARD PLAN No.	146	SHEET 8 OF 10
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	Prepared By: Leisser M.	Checked By: Thomas W.			
Rev:	Rev:				

DOWNTOWN STREETSCAPE LIGHTS

TYPE F1

150W LED 16 FT ANTIQUE STREETLIGHT (ACORN STYLE) UNION METAL CORPORATION
13'-2" POLE WITHOUT RECEPTACLE DESIGN #P874-730-B151-Y3F OR EQ WITH LUMINAIRE
HADCO #R53-B-B-N-N-2J-T-N-G-150S-F, WITH MULTI-TAP BALLAST, WITH ACRYLIC LENS.

TYPE F2

150W 30 FT ANTIQUE STREETLIGHT (TEARDROP STYLE) UNION METAL CORPORATION
28'-0" POLE WITHOUT RECEPTACLE DESIGN #B99-B258-Y2 OR EQ WITH LUMINAIRE
LUMEC #RN20-150HPS-THA3-ACDR-QTA/-SMA-BKTX FIXTURE, WITH MULTI-TAP BALLAST,
WITH ACRYLIC LENS.

TYPE F3

70W 3.5 FT ANTIQUE LIGHTED BOLLARD WITH BALL TOP 3'-6" HIGH LIGHTED BALLTOP
CAST ALUMINUM BOLLARD, ANTIQUE STREET LAMPS "WASHINGTON SERIES" BLCA BW
14BTL 70S AWS - ANDG.

TYPE F4

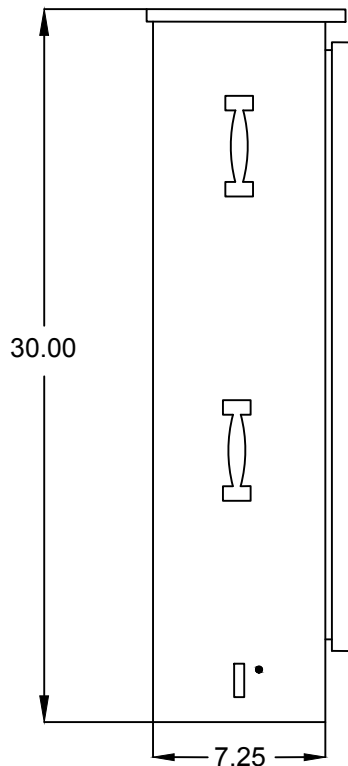
100W MH (METAL HALIDE) TREE UPLIGHT RECESSED, GRADE MOUNTED TREE UPLIGHT
WITH 100 W METAL HALIDE LAMP, REMOTE BALLAST BOX, CONCRETE BASE, BRANCH
CIRCUIT CONDUITS AND CONDUCTORS; HYDREL 9350 ED B 100M 208 SP DL 34B DEL
CFD673 LP.

TYPE F5

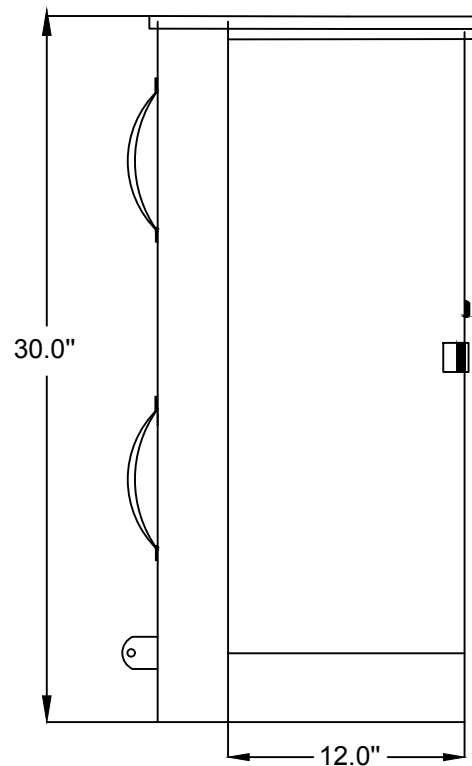
175W 240V 17.5 FT ANTIQUE STREETLIGHT FOR PARKING LOTS (ACORN STYLE
NARROW) UNION METAL CORPORATION 14'-6" POLE DESIGN #P874-730-B137-Y-1F OR
EQ. WITH HADCO #R51-B-B-N-N-1J-NBG-175H-G FIXTURE WITH MULTI-TAP BALLAST,
WITH ACRYLIC LENS.

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	CITY ENGINEER RCE 63173			
	Res No. 2020-031	DATE: February 18, 2020	STREET LIGHT NOTES	
	Prepared By: Leisser M.	Checked By: Thomas W.		
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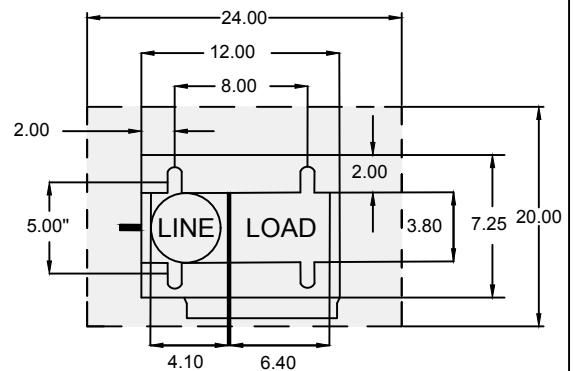
LEFT SIDE



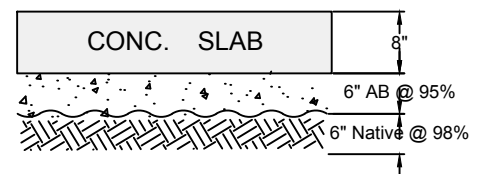
FRONT VIEW

NOTES:

1. Main breakers shall be 1, 2 or 3 pole
2. May be rated 120 volt up to 480 volt
3. Single or three phase
4. Continuous welded seams
5. Fully framed side hinged outer door for flush fit with top drip lip & closed cell neoprene flange compressed gaskets
6. Separate pull section
7. Service enclosure stainless steel pedestal
8. Full length deadfront with stainless steel hinge from 1/4 turn latch & knurled knobs
9. Deadfront hinged same side as the front door and opens up to 120 degrees
10. Completely prewired in the factory
11. Wiring will be to NEWA IIB standards showing external connections & external equipment
12. 24"X20"X8" thick conc. base slab



BASE PLAN



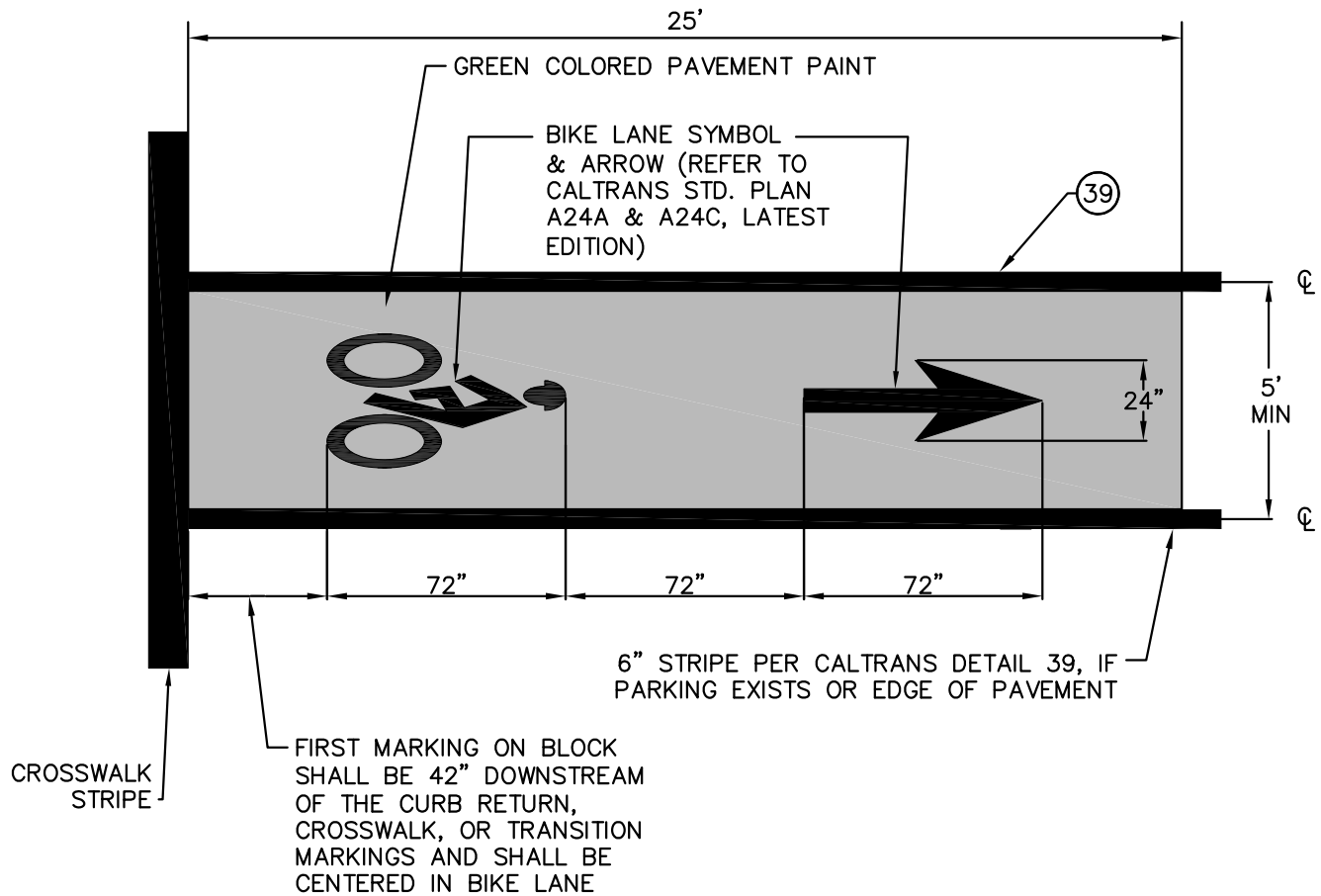
CITY OF TRACY



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STANDARD PLAN No.	146	SHEET 10 OF 10
STREET LIGHT UN-METERED PEDESTAL		



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. LONGITUDINAL SPACING MEASURED FROM THE BASE OF EACH MARKING.
3. LOCATE MARKINGS AT 250' MAXIMUM SPACINGS IN EACH BLOCK.
4. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.

CITY OF TRACY



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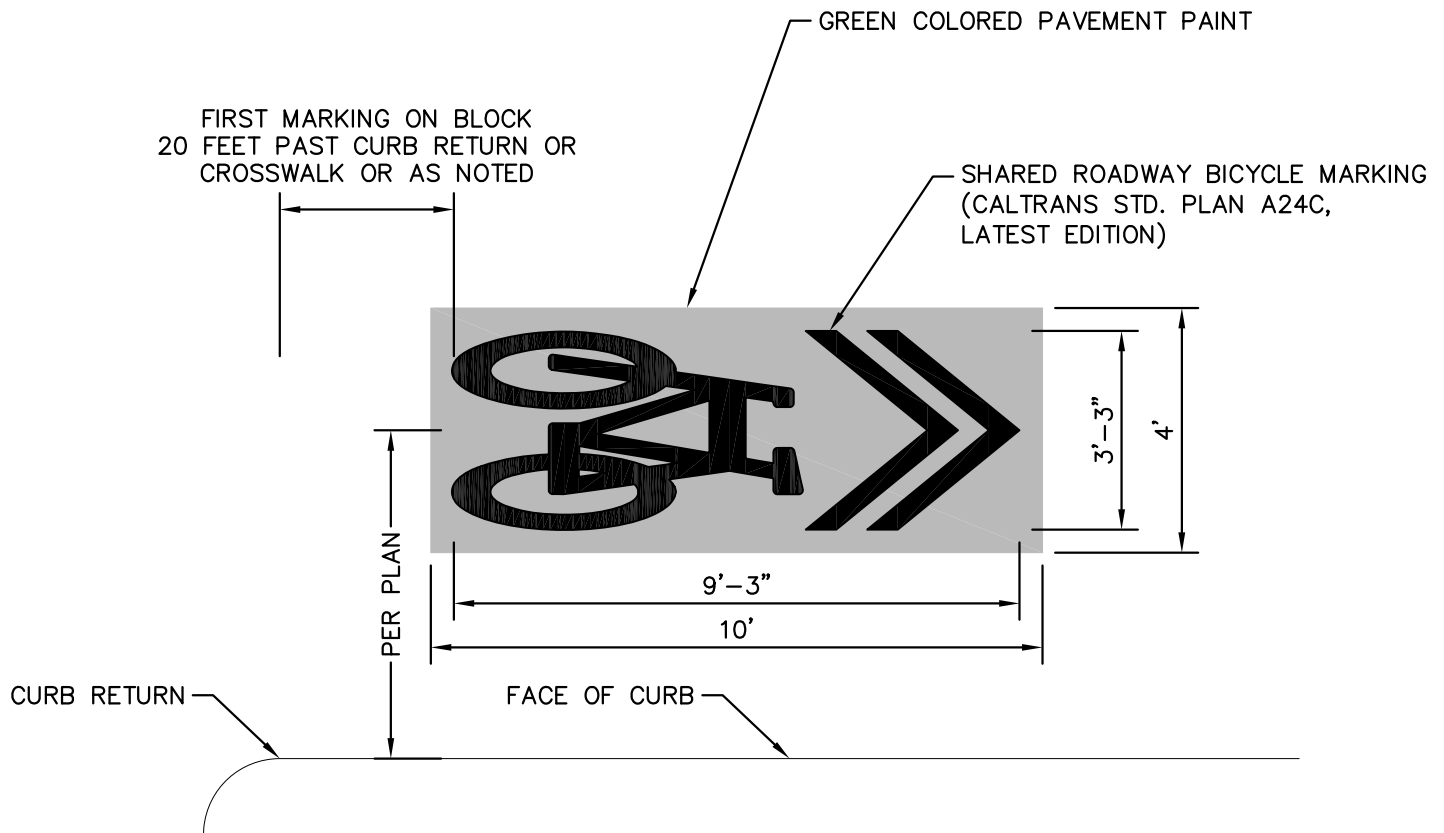
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Prepared By: Leisser M.	Checked By: Thomas W.
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CLASS II BICYCLE LANE MARKING DETAIL



NOTES

1. LEAVE AT LEAST 10' SPACING FROM WORD LEGENDS, LANE ASSIGNMENT ARROWS, OTHER MARKINGS, AND SPEED HUMPS IN THE SAME LANE OF TRAVEL.
2. DISTANCE BETWEEN SHARROWS IS MEASURED FROM BASE OF MARKING TO BASE OF MARKING.
3. PLACE A MINIMUM OF TWO SHARROW MARKINGS ON EACH BLOCK.
4. SHARED LANE MARKINGS USED TO BRIDGE DISCONTINUOUS BICYCLE FACILITIES OR ALONG BUSIER STREETS SHOULD BE PLACED MORE FREQUENTLY (50' TO 100' SPACINGS) THAN ALONG LOW TRAFFIC BICYCLE ROUTES (UP TO 250' SPACINGS).
5. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX GREEN MMA OR APPROVED EQUAL.

CITY OF TRACY



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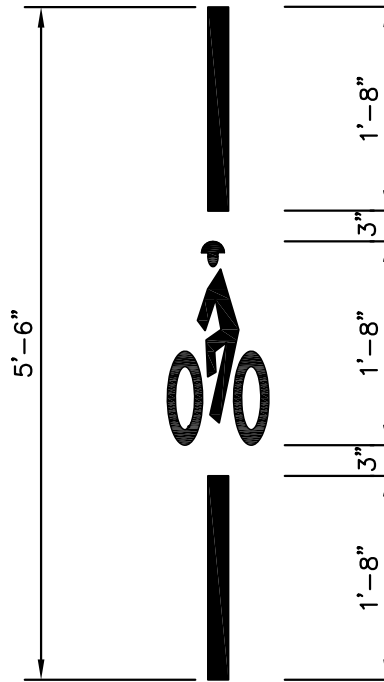
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**SHARED ROADWAY
BICYCLE MARKING**



BICYCLE LOOP DETECTOR SYMBOL
(REFER TO CALTRANS STD. PLAN
A24C, LATEST EDITION)

NOTES

1. THE BICYCLE DETECTOR PAVEMENT MARKING (SYMBOL) SHALL BE USED AT ALL ACTUATED TRAFFIC SIGNAL APPROACHES THAT ARE CAPABLE OF DETECTING BICYCLES.
2. A SYMBOL SHALL BE INSTALLED IN THE RIGHT-MOST LANE SERVING THE BICYCLIST'S DESTINATION, INCLUDING LEFT TURN LANES, THROUGH LANES, AND BIKE LANES.
3. THE LEADING EDGE OF THE SYMBOL SHALL BE INSTALLED ONE FOOT BEHIND THE LIMIT LINE (OR CROSSWALK).
4. CENTER THE SYMBOL IN LANE (ALIGNED WITH THE LANE ASSIGNMENT ARROW).

CITY OF TRACY



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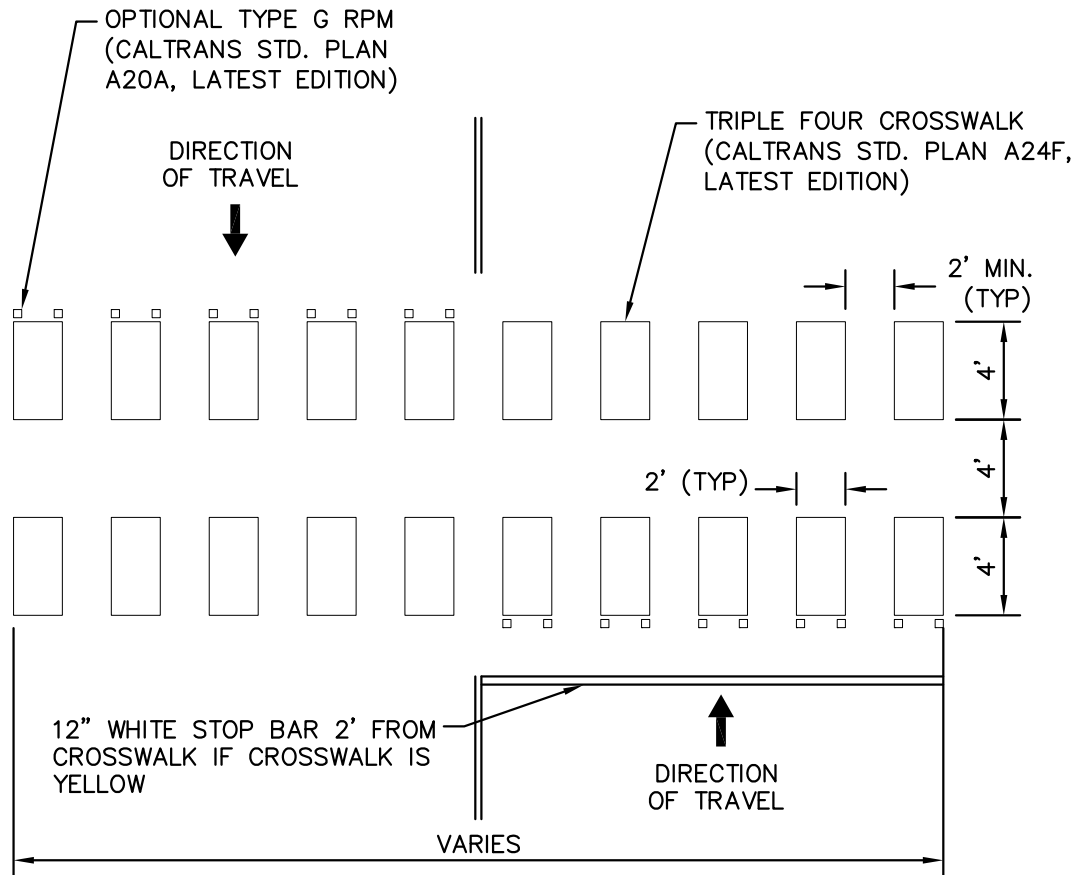
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**BICYCLE DETECTOR
PAVEMENT MARKING**



NOTES

1. SPACES BETWEEN MARKINGS SHALL BE PLACED IN WHEEL TRACKS OF EACH LANE.
2. ALL CROSSWALK MARKINGS SHALL BE WHITE EXCEPT THOSE NEAR SCHOOLS MAY BE YELLOW, REFER TO THE CA MUTCD.
3. TWO RAISED PAVEMENT MARKERS (RPM) SHOULD BE PLACED NEXT TO EACH STRIPE ON THE APPROACH SIDE OF THE CROSSWALK.
4. TRIPLE FOUR CROSSWALK TO BE INSTALLED AS SPECIFIED BY THE ENGINEER.

CITY OF TRACY



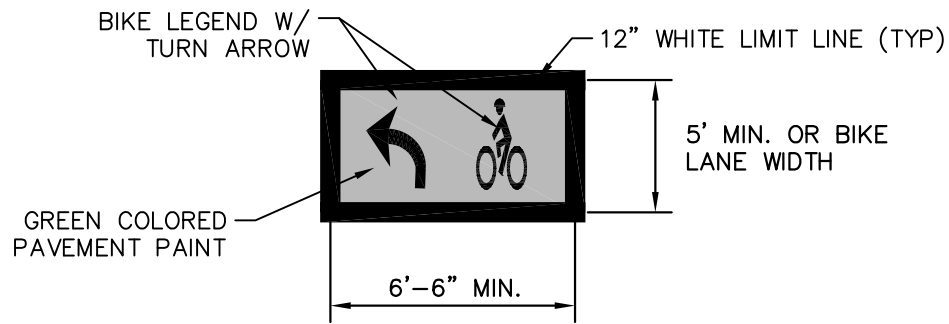
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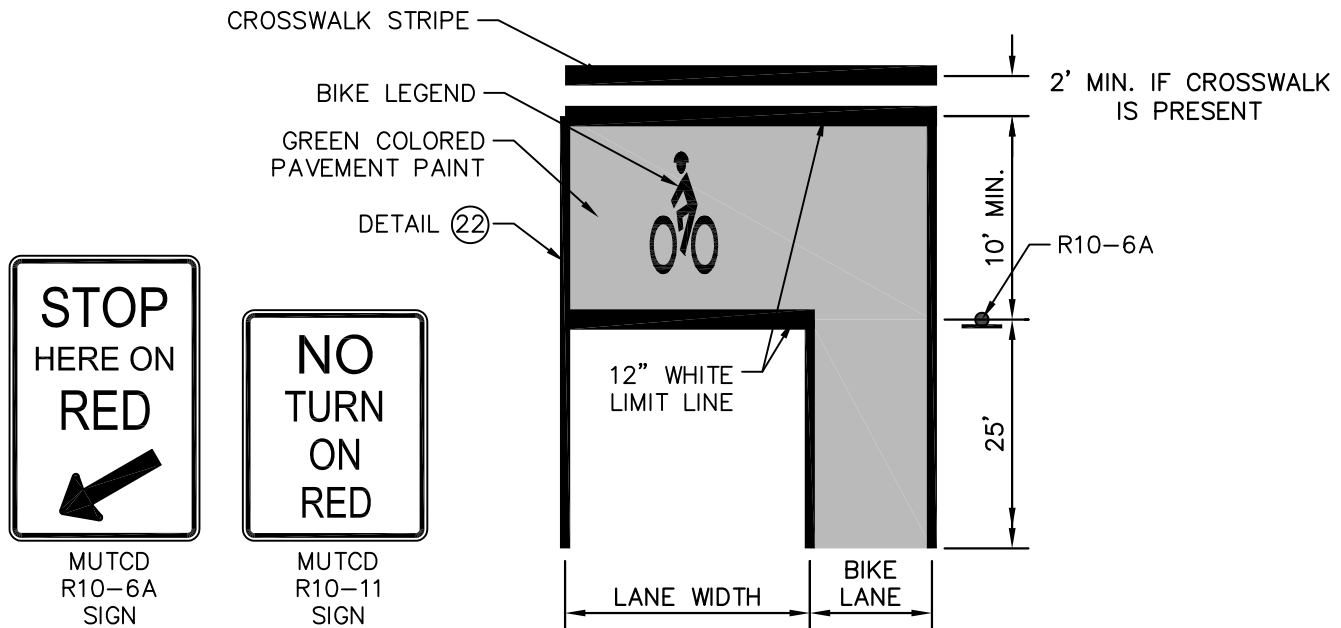
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SHEET 4 OF 14

TRIPLE FOUR CROSSWALK



TWO-STAGE LEFT-TURN QUEUE BOX



THROUGH MOVEMENT QUEUE BOX

NOTES

1. "NO RIGHT-TURN ON RED" RESTRICTION SHALL BE IMPLEMENTED WITH THE APPLICATION OF THROUGH MOVEMENT QUEUE BOX WHEN THERE IS NO DEDICATED RIGHT-TURN LANE ADJACENT TO THE CURRENT LANE.
2. FOR BIKE LEGEND AND TURN ARROW, REFER TO CALTRANS STD. PLANS A24B AND A24C, LATEST EDITION.
3. TWO-STAGE LEFT-TURN QUEUE BOX PAVEMENT MARKINGS SHALL BE PLACED CENTERED VERTICALLY AND EVENLY SPACED HORIZONTALLY WITHIN THE BOX.
4. THROUGH MOVEMENT QUEUE BOX PAVEMENT MARKINGS SHALL BE CENTERED VERTICALLY BETWEEN THE TWO LIMIT LINES AND CENTERED HORIZONTALLY ON THE LANE CENTERLINE.
5. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20A AND A20D, LATEST EDITION.
6. MUTCD R10-6A AND R10-11 SIGNS SHALL BE POSITIONED PER CA MUTCD GUIDELINES.
7. ALL GREEN PAVEMENT PAINT TO BE CYCLE GRIP MMAX OR APPROVED EQUAL.
8. BIKE BOX DETAIL SHALL NOT BE IMPLEMENTED WITHOUT PRIOR APPROVAL FROM THE CITY ENGINEER.

CITY OF TRACY



REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

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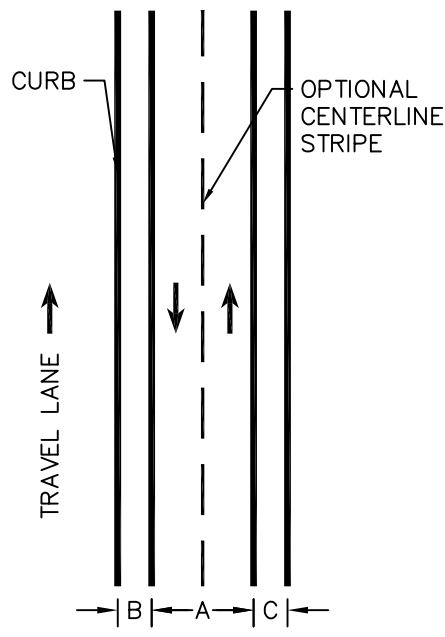
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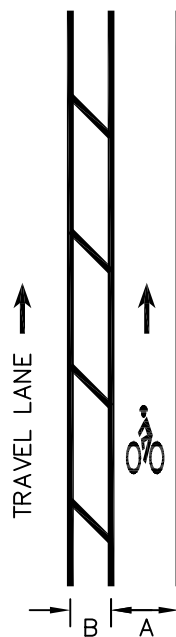
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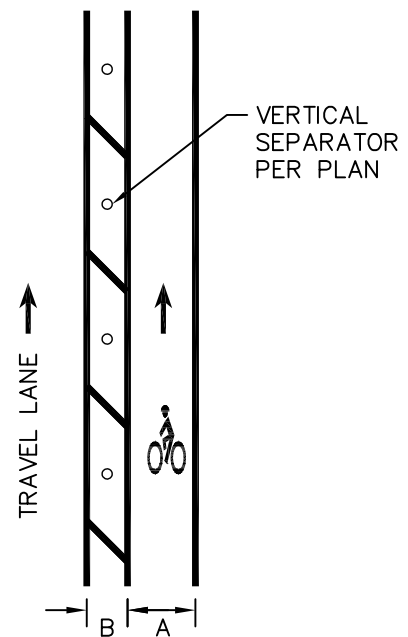
BIKE BOX DETAILS



CLASS I
DETAILS



CLASS II
DETAILS



CLASS IV
DETAILS

TABLE 1

CLASS	WIDTH (A)		TRAVEL LANE BUFFER (B)		NON TRAVEL LANE BUFFER (C)	
	MINIMUM WIDTH	RECOMMENDED WIDTH	MINIMUM BUFFER WIDTH	RECOMMENDED BUFFER WIDTH	MINIMUM BUFFER WIDTH	RECOMMENDED BUFFER WIDTH
I	8'	10'	2'	5'	2'	5'
II	5'	7'	NONE	3'	N/A	N/A
III	N/A	N/A	N/A	N/A	N/A	N/A
IV	5'	7'	2'	3'	N/A	N/A

NOTES

1. SEE TABLE 1 FOR DIMENSIONS.
2. DIAGONAL CROSSHATCH MARKINGS SHALL BE USED IN BUFFERS 2-4 FEET WIDE.
3. NO MARKINGS SHALL BE USED IN BUFFERS LESS THAN 2 FEET.
4. CHEVRONS SHALL BE USED IN BUFFERS GREATER THAN 4 FEET.
5. FOR BIKE LANE SYMBOL AND ARROW SPACING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
6. CLASS II MINIMUM WIDTH MAY BE REDUCED TO 4 FEET IF NOT ADJACENT TO CURB OR OTHER VERTICAL APPURTENANCES.
7. FOR CLASS IV BIKE LANES ADJACENT TO PARKING A MINIMUM BUFFER WIDTH OF 3 FEET SHALL BE USED.

CITY OF TRACY



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CITY ENGINEER RCE 63173

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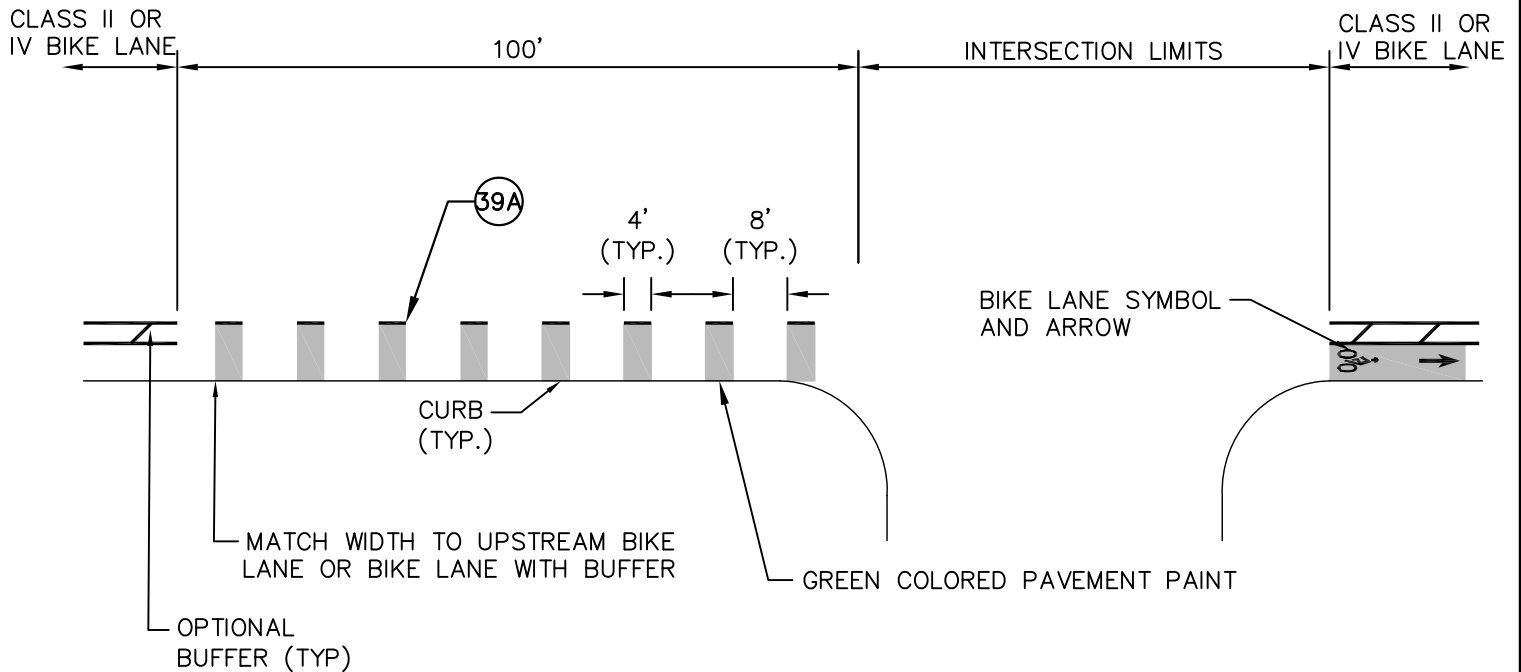
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CLASS I, II, III, IV WIDTHS



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
3. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



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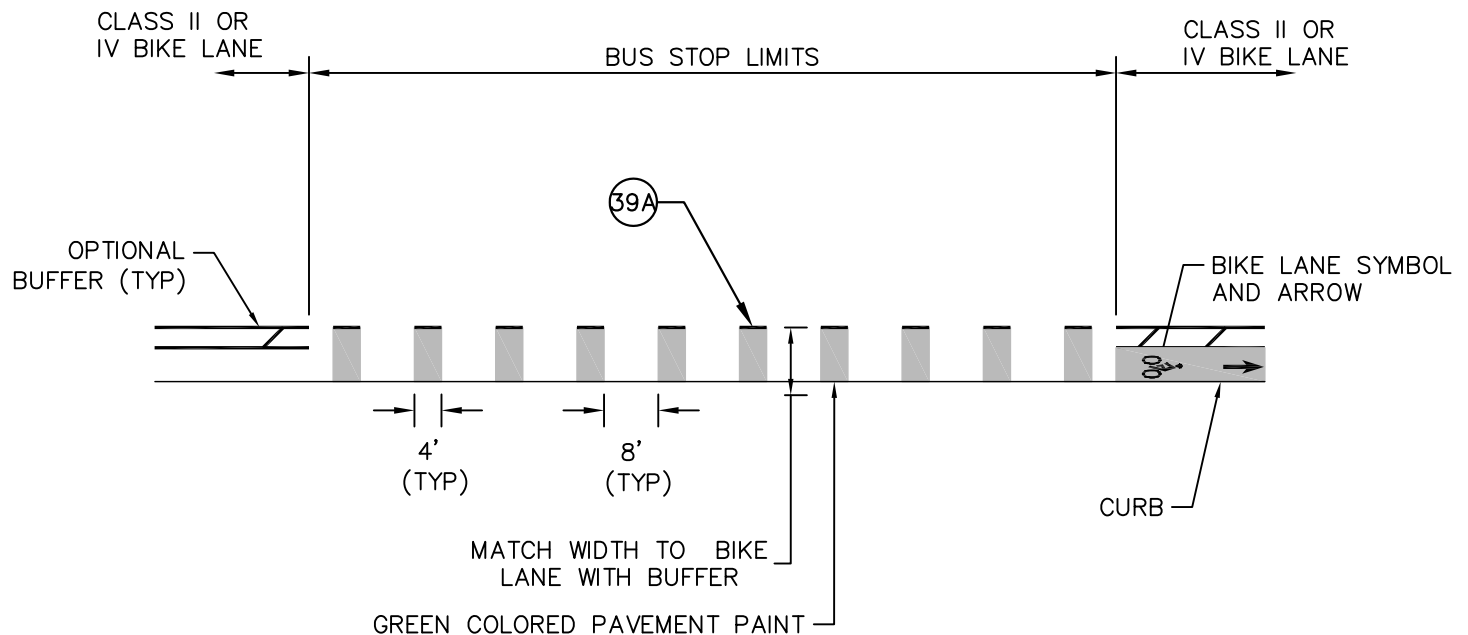
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SHEET 7 OF 14

**BIKE LANE
AT INTERSECTION**



NOTES

1. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
2. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
3. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



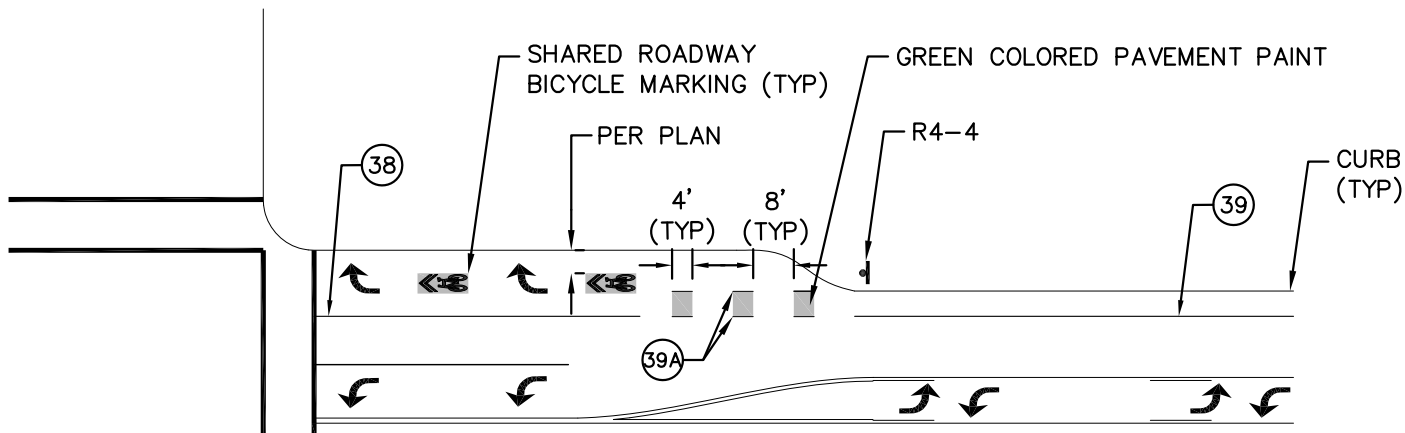
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Rev: Edgar T.	Rev:

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SHEET 8 OF 14

**BIKE LANE
AT BUS STOP**



NOTES

1. THIS TREATMENT USES GREEN BACKED SHARROWS AND RIGHT-TURN ARROWS TO MARK THE MIXING ZONE. THE MARKINGS SHALL BE CENTERED IN THE CHANNELIZED LANE. THE SHARROWS ARE TO BE SPACED EVENLY BETWEEN EACH RIGHT-TURN ARROW. SHARROW SHALL BE PLACED AT BEGINNING OF RIGHT TURN LANE.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
3. FOR SHARED ROADWAY BICYCLE MARKING DETAIL, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.
4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY



REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

Res No. 2020-031 DATE: February 18, 2020

Prepared By: Leisser M. Checked By: Thomas W.

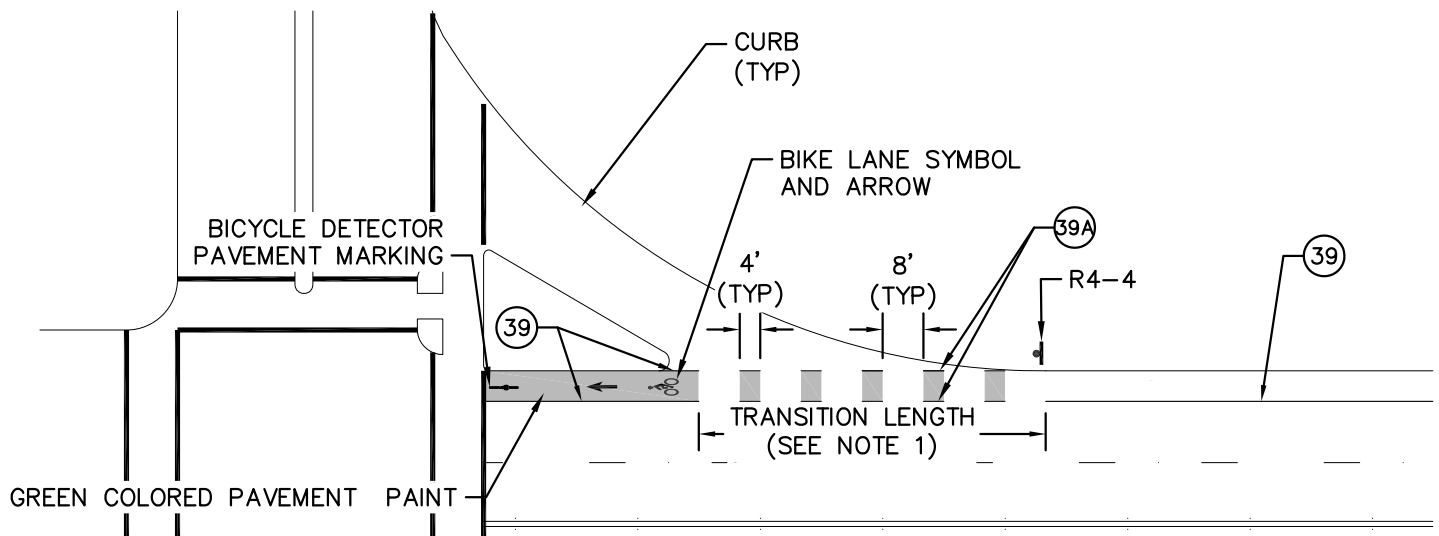
Rev: Edgar T. Rev:

STANDARD
PLAN
NO.

147

SHEET 9 OF 14

**SHARED BIKE/
RIGHT-TURN LANE**



NOTES

1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
6. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY



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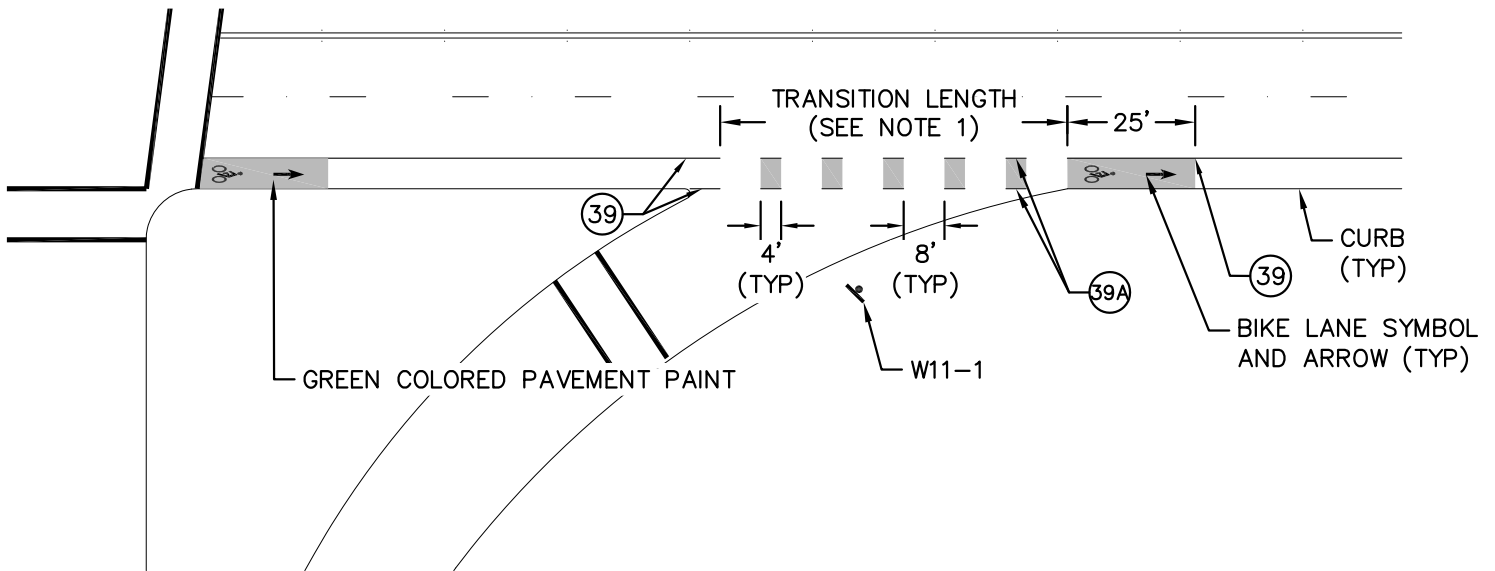
Rev: Edgar T. Rev:

STANDARD
PLAN
NO.

147

SHEET 10 OF 14

**SLIP TURN
UPSTREAM**



MUTCD W11-1 SIGN

NOTES

1. TRANSITION LENGTH IS DETERMINED BY ROADWAY GEOMETRY.
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
3. FOR BIKE SYMBOL AND ARROW DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
4. FOR CLASS II OR IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



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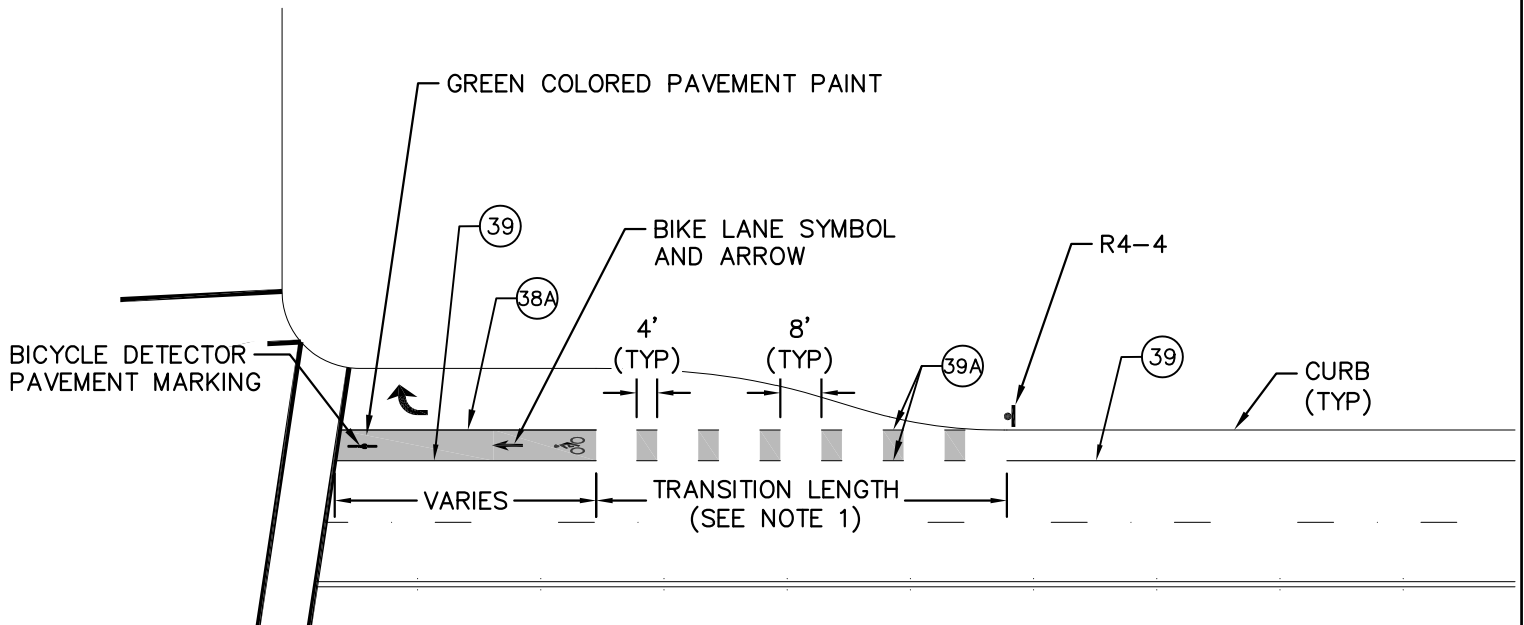
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 11 OF 14

**SLIP TURN
DOWNSTREAM**



NOTES

1. TRANSITION LENGTH TO MATCH BAY TAPER LENGTH (60 FEET MINIMUM).
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
6. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.



MUTCD R4-4 SIGN

CITY OF TRACY



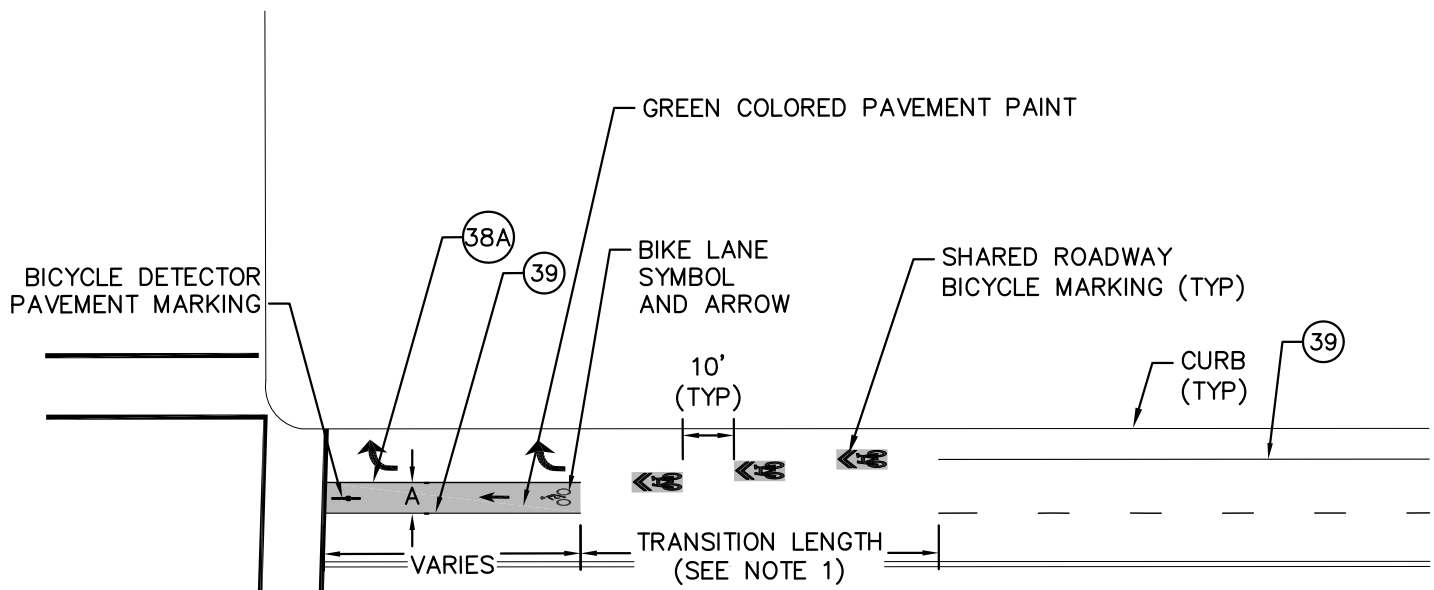
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev: Edgar T.	Rev:

STANDARD
PLAN
NO.

147

SHEET 12 OF 14

TURN POCKET



NOTES

1. THIS TREATMENT USES GREEN BACKED SHARROWS TO MARK THE MIXING ZONE. THE FIRST SHARROW SHOULD BE CENTERED ON THE RIGHT EDGE OF THE UPSTREAM TRAVEL LANE. THE LAST SHOULD BE CENTERED ON THE LEFT EDGE OF THE RIGHT TURN LANE. THE SHARROWS IN BETWEEN SHOULD SHIFT EVENLY TO THE LEFT. THE TYPICAL TRANSITION LENGTH IS $12 \times A$ (70' AS SHOWN).
2. KEYNOTES REFERENCE DETAILS ON CALTRANS STD. PLAN A20D, LATEST EDITION.
4. FOR BIKE LANE SYMBOL AND ARROW, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 1 OF 14.
5. FOR SHARED ROADWAY BICYCLE MARKING SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 2 OF 14.
6. FOR BICYCLE DETECTOR PAVEMENT MARKING, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 3 OF 14.
7. FOR CLASS II AND IV BIKE LANE DETAILS, SEE CITY OF TRACY STD. PLAN NO. 147 SHEET 6 OF 14.

CITY OF TRACY



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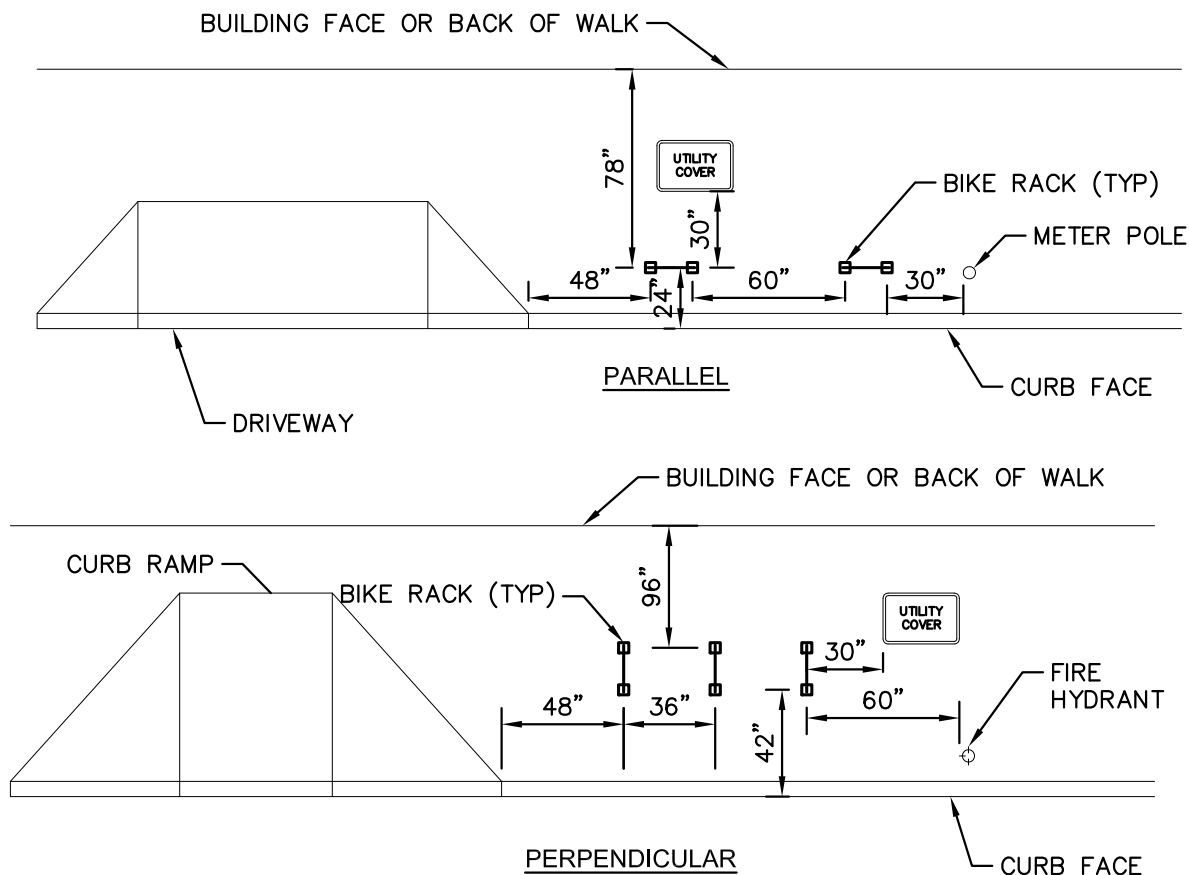
Rev: Edgar T. Rev:

STANDARD
PLAN
NO.

147

SHEET 13 OF 14

**RIGHT TURN ONLY
TRAP LANE**



MINIMUM SETBACK DISTANCE	OBSTRUCTION TYPE
24" (PARALLEL), 42" (PERPENDICULAR)	CURB FACE, BUILDING FACE (IF RACK IS SITED ADJACENT)
30"	LIGHT POLE, NEWSPAPER RACK, SIGN POLE, USPS MAILBOX, TREE WELL, STREET FURNITURE, TRASH CAN, SURFACE HARDWARE (PG&E, CABLE GRATES, ETC.)
48"	CURB RAMP, CROSSWALK, WHITE/YELLOW LOADING ZONE, STORM DRAIN INLET, BLUE ZONE (DISABLED PARKING), DRIVEWAY
60"	FIRE HYDRANT

NOTES

1. ALL DIMENSIONS ARE MINIMUMS AND SHOULD BE EXCEEDED WHERE POSSIBLE, DEPENDING ON SITE-SPECIFIC CONDITIONS.
2. ALL SETBACK DISTANCES ARE MEASURED FROM THE CENTER OF THE RACK FLANGE, TO THE LEADING EDGE OF OBSTRUCTION.
3. FOR CLASS II RACKS, SEE CITY OF TRACY PARKS AND STREETScape STD. D4.5.1.

CITY OF TRACY



REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

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STANDARD
PLAN
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147

SHEET 14 OF 14

CLASS II BIKE RACK LAYOUT

CAST IRON RING AND COVER (SEE SP 309)
(ADJUST TO GRADE AFTER PAVING PER
STANDARD PLAN #114)

PRECAST REINFORCED CONCRETE
MANHOLE CONE CONFORMING
TO PIPE SECTION SPECIFICATION

SEE NOTE 5 (TYP.)

POURED CONCRETE BASE

18" MIN.
24" MAX.

24"

6" MIN

1" A.C.

8" MIN. CONCRETE COLLAR
POURED IN PLACE

2"

T-LOCK

SANITARY SEWER
MANHOLES SHALL BE
T-LOCK LINED OR
EPOXY COATED

A

48" INSIDE DIAMETER
OR SEE NOTE 6

A

SLOPE
8" PER FOOT

MANHOLE PIPE SECTION
CONFORMING TO ASTM
C 478 (LATEST REVISION)
WITH 4" MIN. WALL

GROUT (TYP.)

8"

5'-10"

REMOVE TOP OF
PIPE; 3 FT MIN
OPENING

USE GROUT TO
CHANNELIZE FLOW

A

A

TROWEL SMOOTH
CURVE TO FIT

SECTION A-A

NOTES:

1. ALL JOINTS SHALL BE SEALED RAM-NEK OR KENT-SEAL #2.
2. BACKFILL MINIMUM 5' AROUND MANHOLE SHALL HAVE 95% COMPACTION REQUIRED.
3. CONCRETE SHALL BE FIVE SACK CLASS "B" 2500 PSI AT 28 DAYS; 4" MAX. SLUMP; 3/4" MAX. AGGREGATE.
4. NO JOINTS IN THE PIPE WILL BE PERMITTED WITHIN THE MANHOLE.
5. PIPES SHALL HAVE AT LEAST ONE JOINT WITHIN 3 FEET FROM MANHOLE.
6. FOR PIPE SIZE GREATER THAN 36" OR DEPTH GREATER THAN 10 FT., INSIDE DIAMETER SHALL BE 60"
7. ECCENTRIC IS OPTIONAL WHEN NEEDED WITH APPROVAL FROM CITY ENGINEER.
8. RAISED CONC. COLLAR & BOLLARDS IF INSTALLED OUTSIDE PAVED/ CONCRETE AREA.
9. BOLT DOWN LID REQUIRED OUTSIDE PAVED AREA.

CITY OF TRACY

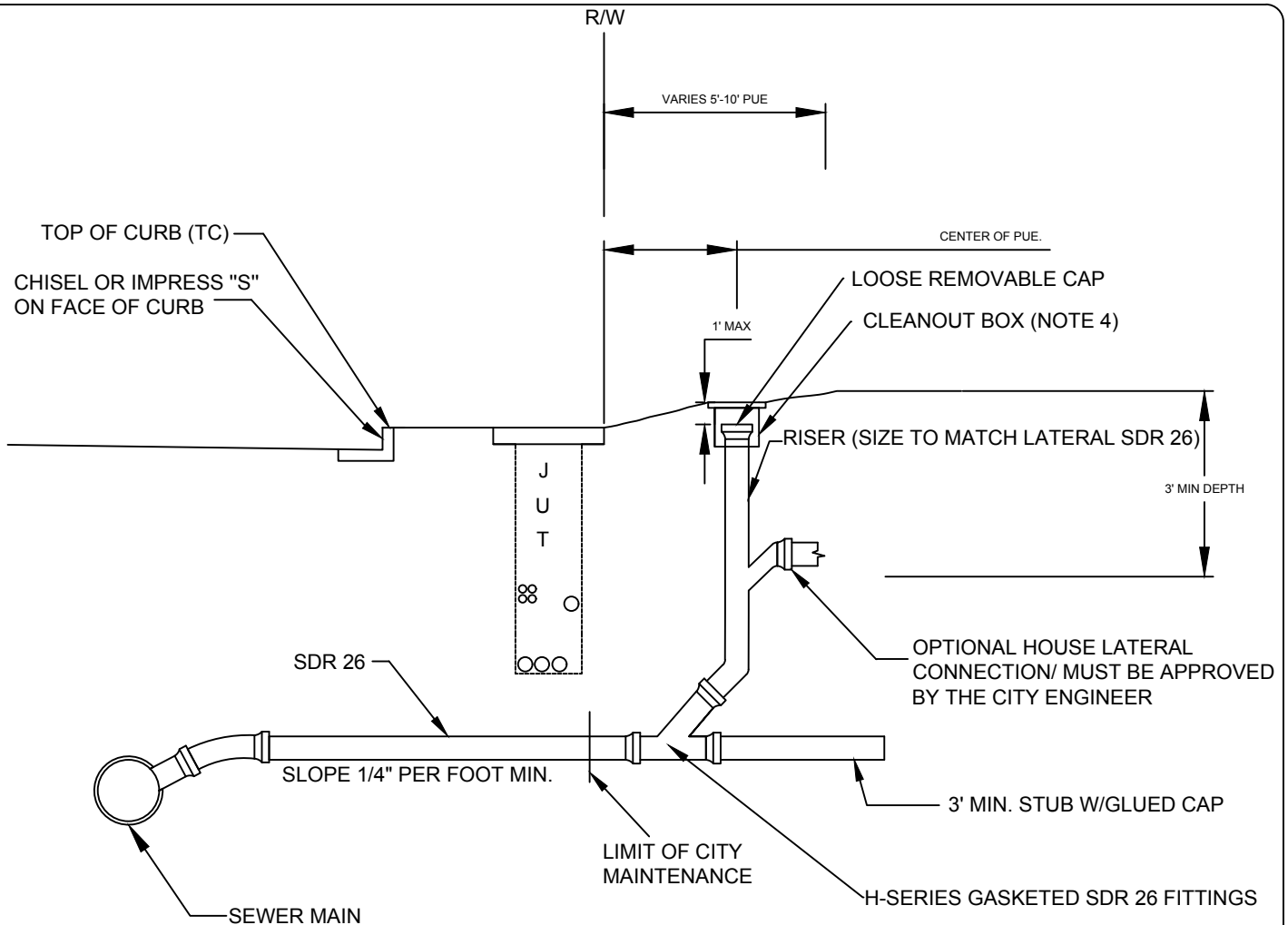


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CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

200

SANITARY SEWER MANHOLE



PROFILE

N.T.S.

NOTES: THE USE OF THIS STD MUST HAVE APPROVAL FROM THE CITY ENGINEER, AND WILL BE ONLY CONSIDERED ON A CASE BY CASE BASIS.

1. NO CLEANOUTS SHALL BE LOCATED IN DRIVEWAYS, UNLESS APPROVED BY THE CITY ENGINEER.
2. HOUSE CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE BUILDING INSPECTOR.
3. SEWER LATERAL SHALL BE CONSTRUCTED WITH A PERPENDICULAR ALIGNMENT FROM THE MAIN TO THE PROPERTY LINE, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
4. CLEANOUT BOX SHALL BE CHRISTY F8, OR APPROVED EQUAL, WITH CAST IRON COVER MARKED "C.O."
5. PIPE SLOPE MAY BE INCREASED TO ACCOMMODATE DEEP SEWERS AND PROVIDE MAXIMUM 60" COVER AT RIGHT OF WAY.
6. SEWER LATERAL PIPE AND FITTINGS SHALL BE SDR26 AND SHALL BE 4" MINIMUM.
7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF THE LATERAL CLEANOUT IN GOOD CONDITION TO ALLOW ACCESS BY CITY PUBLIC WORKS MAINTENANCE.
8. MINIMUM DISTANCE (8 FT) FROM TREE TO SEWER LATERAL.
9. LATERAL SHALL HAVE TRACER WIRE AND MARKER TAPE FROM MAIN TO CLEANOUT.

CITY OF TRACY



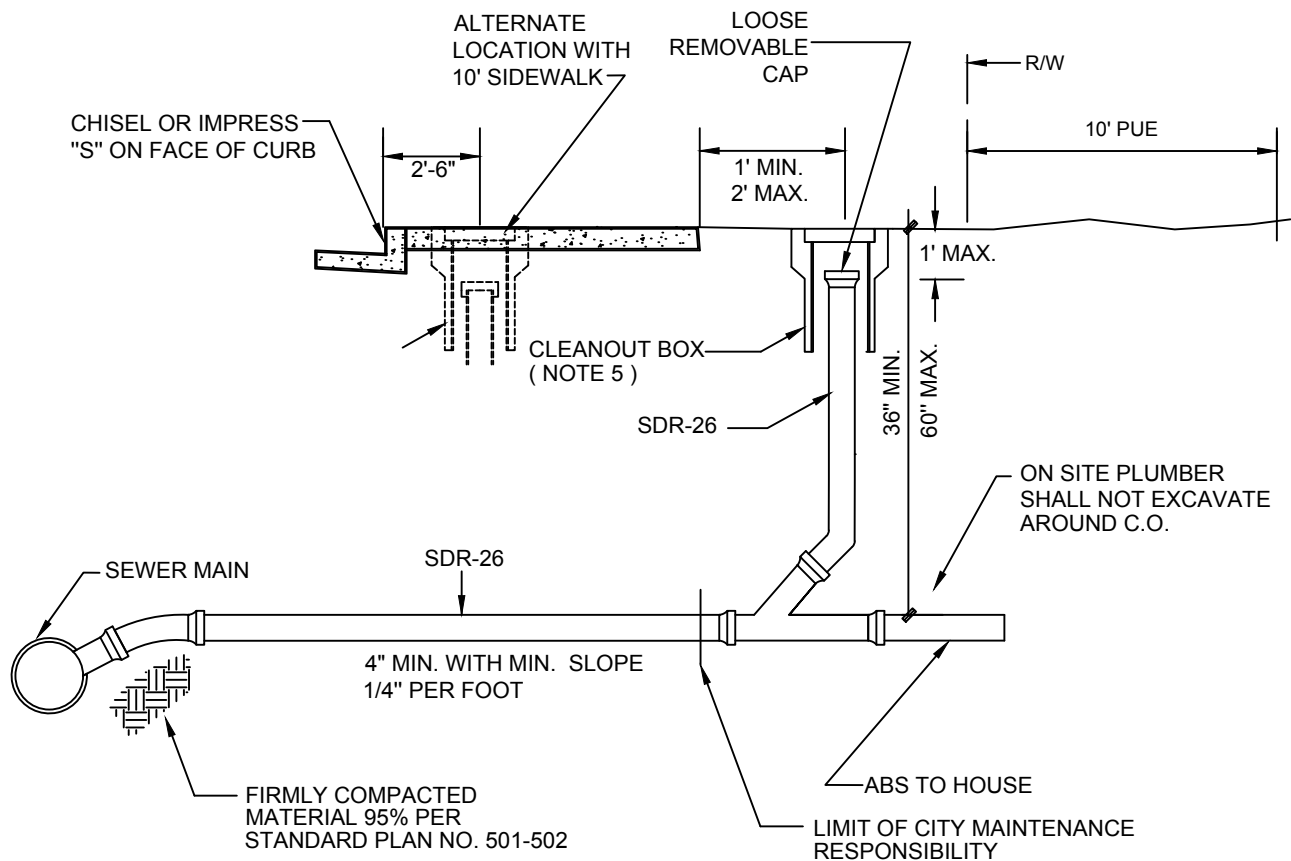
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CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

201

**SEWER LATERAL
NEW DEVELOPMENT**



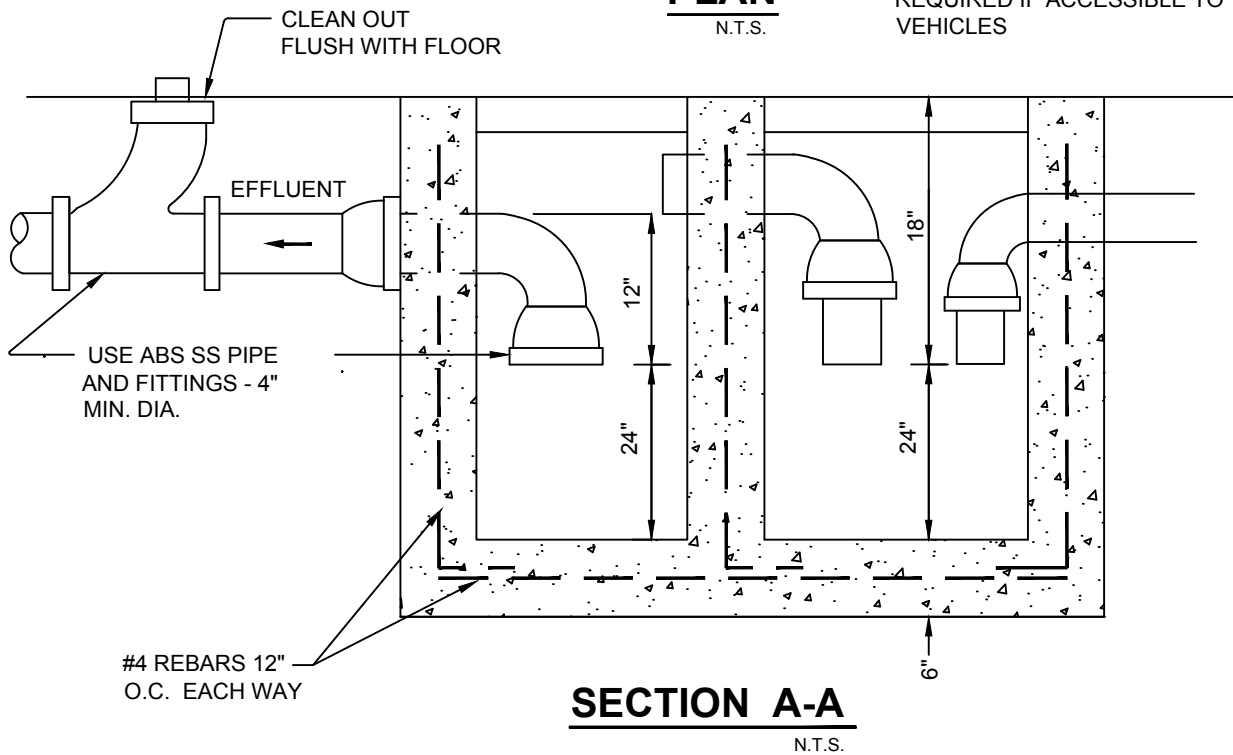
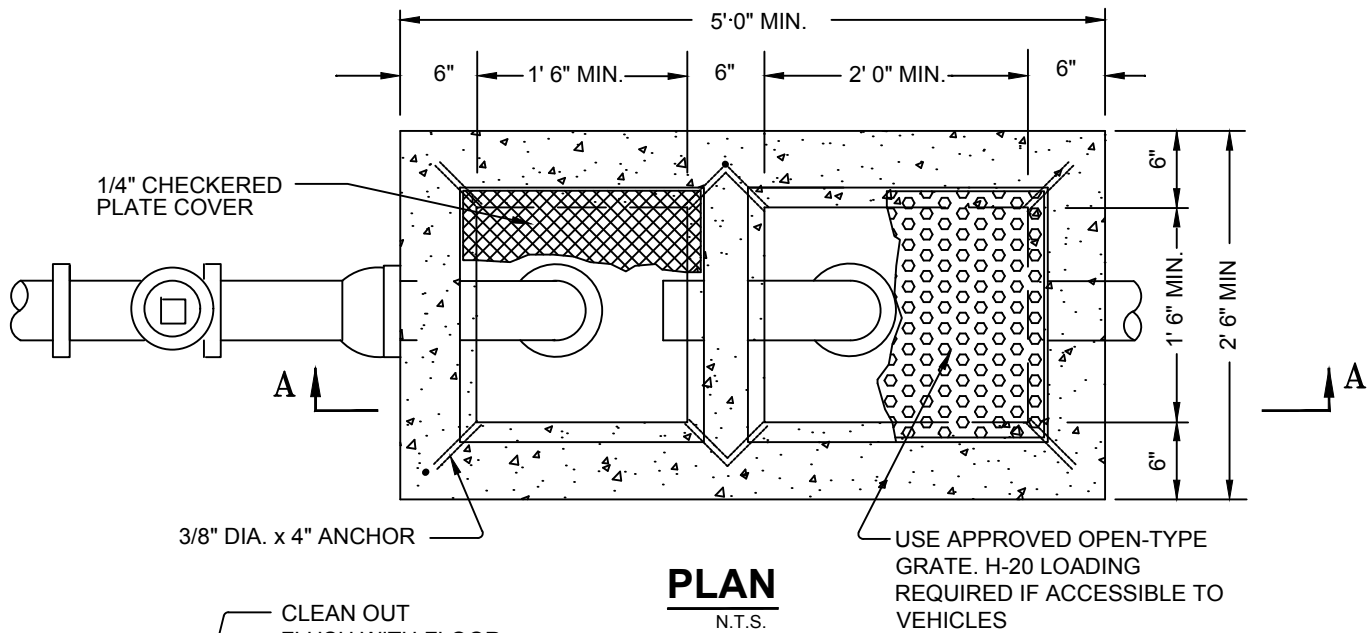
PROFILE
N.T.S.

NOTES:

1. NO CLEANOUTS SHALL BE LOCATED IN DRIVEWAYS, UNLESS APPROVED BY THE CITY ENGINEER.
2. IF THE SIDEWALK IS SEPARATE FROM THE CURB, CLEANOUT RISER SHALL BE INSTALLED IN THE APPROXIMATE CENTER OF THE PLANTING STRIP.
3. HOUSE CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE BUILDING INSPECTOR.
4. SEWER LATERAL SHALL BE CONSTRUCTED WITH A PERPENDICULAR ALIGNMENT FROM THE MAIN TO THE PROPERTY LINE UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. CLEANOUT BOX SHALL BE CHRISTY F8, OR APPROVED EQUAL, WITH CAST IRON COVER MARKED "C.O."
6. PIPE SLOPE MAY BE INCREASED TO ACCOMMODATE DEEP SEWERS AND PROVIDE MAXIMUM 60" COVER AT RIGHT OF WAY.
7. SEWER LATERAL PIPE AND FITTINGS SHALL BE SDR 26 AND SHALL BE 4 INCH MINIMUM.
8. PROPERTY OWNER SHALL BE RESPONSIBLE FOR REPAIR AND MAINTENANCE OF THE LATERAL CLEANOUT IN GOOD CONDITION TO ALLOW ACCESS BY CITY PUBLIC WORKS MAINTENANCE.
9. NO REPAIR COUPLINGS SHALL BE USED WITHIN R/W DURING NEW CONSTRUCTION, UNLESS APPROVED BY THE CITY ENGINEER.
10. ON SITE PLUMBER SHALL NOT EXCAVATE AROUND THE CLEANOUT.
11. USED EXISTING SERVICES SHALL BE ABANDONED AT THE RIGHT OF WAY BY POTHOLING AND INSTALLING A WATERTIGHT PLUG OR CAP AT THE END OF THE LATERAL AND SURROUNDING THE SEAL WITH A 50 # BAG OF CONCRETE MIX.
12. LATERAL SHALL BE INSTALLED ABOVE JOINT TRENCH.
13. TRACER WIRE AND MARKER TAPE FROM MAIN TO CLEANOUT BOX.
14. MIN. DISTANCE (8FT) FROM TREE TO SEWER LATERAL.

CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <i>Robert Armijo</i> CITY ENGINEER RCE 63173		STANDARD PLAN No. 202
	Res No. 2020-031	DATE: February 18, 2020	SEWER LATERAL
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	



NOTES:

1. ALTERNATE TRAPS MAY BE SUBMITTED FOR APPROVAL BY THE CITY ENGINEER.

CITY OF TRACY

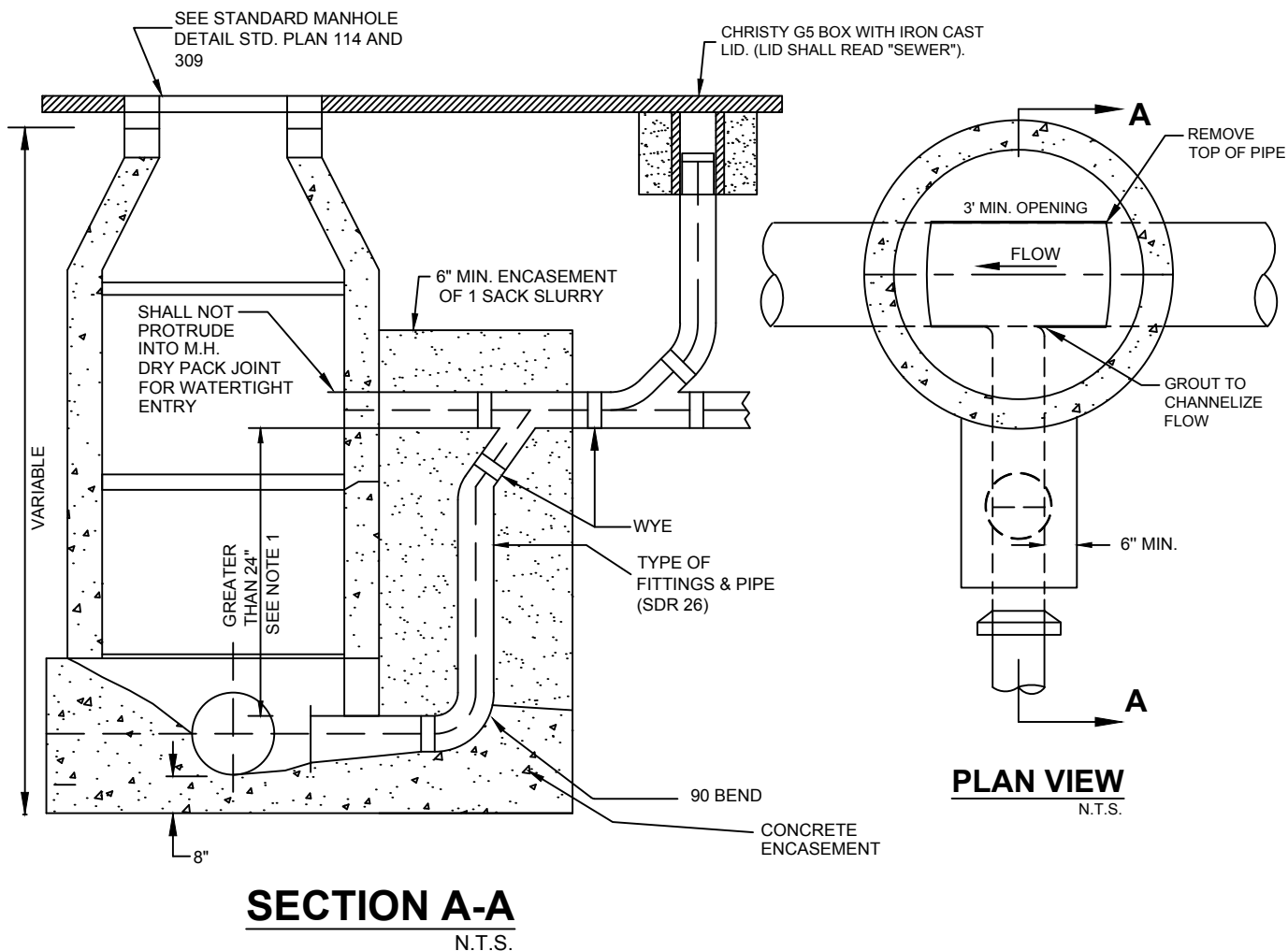


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CITY ENGINEER RCE 63173	
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

203

SAND/OIL INTERCEPTOR



NOTES:

1. THIS TYPE OF MANHOLE SHALL BE USED WHEN THE INCOMING PIPE IS 10" OR GREATER AND THE DIFFERENCES IN INVERT ELEVATIONS EXCEEDS 24". FOR FEEDER PIPES 8" OR LESS, SEE SD 206A.
2. PIPE SHALL HAVE AT LEAST ONE JOINT WITHIN 3 FEET FROM MANHOLE.
3. DROP PIPE TO BE ONE SIZE LARGER THAN THE INCOMING PIPE.
4. ENCASING CONCRETE SHALL BE CLASS "B", 2500 PSI AT 28 DAYS; $\frac{3}{4}$ " MAXIMUM AGGREGATE SIZE.
5. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH SD 301.

CITY OF TRACY

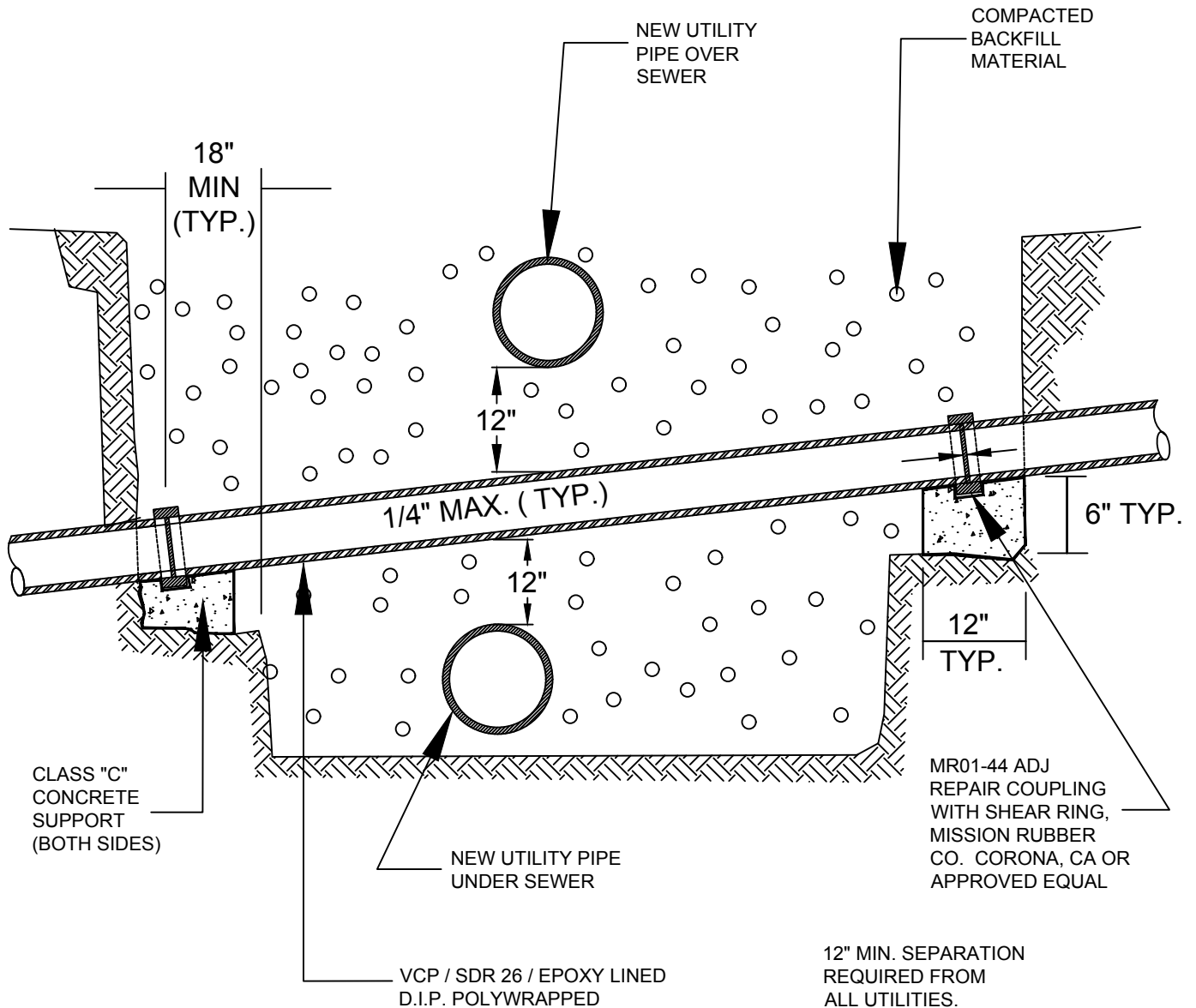


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Res No. 2020-031	DATE: February 18, 2020	
Prepared By: Leisser M.	Checked By: Thomas W.	
Rev:	Rev:	

STANDARD
PLAN
No.

204

DROP MANHOLE



SEWER REPAIR - NO CONFLICT IN GRADE

N.T.S.

CITY OF TRACY



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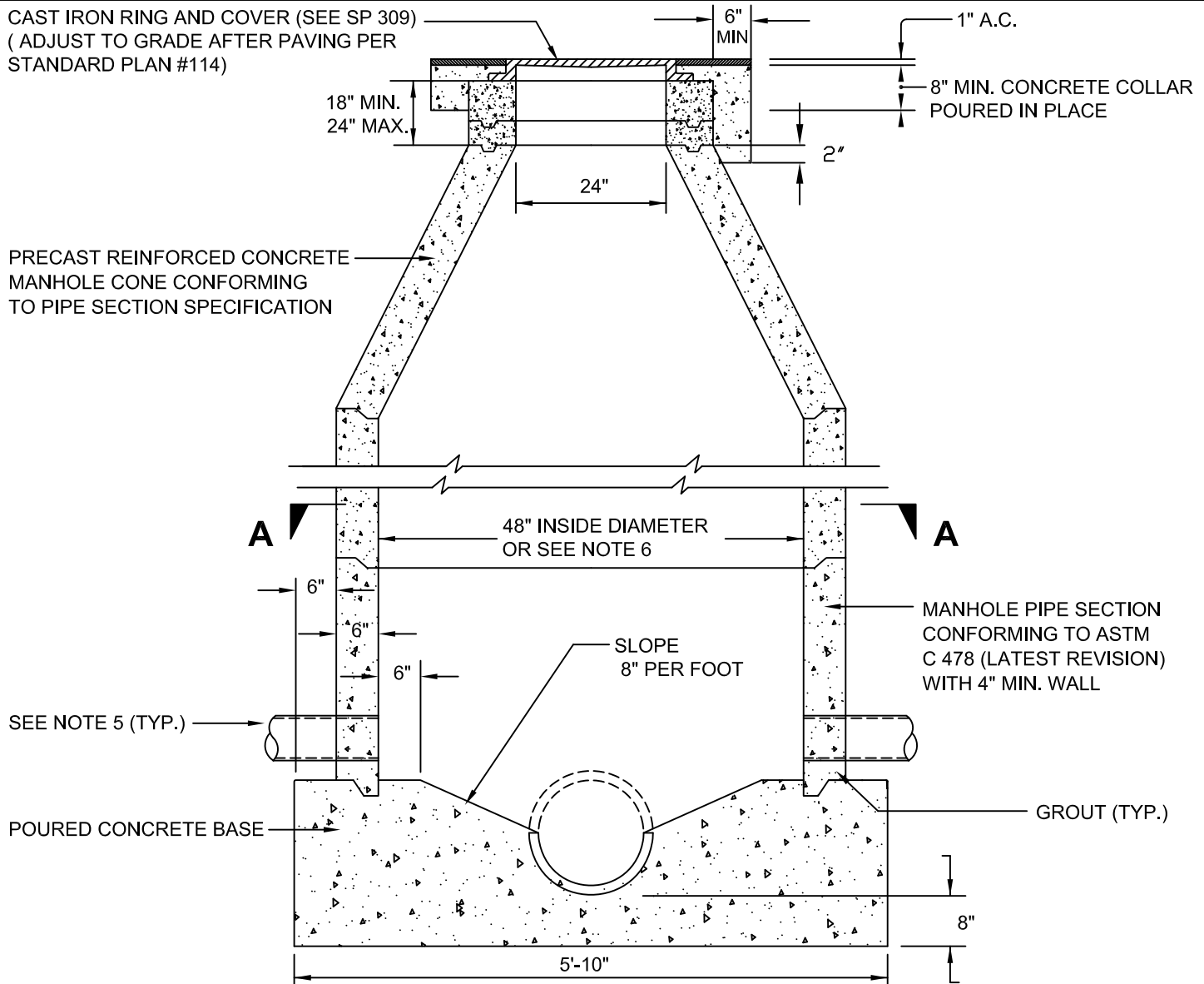
STANDARD
PLAN
No.

205

**SEWER
LATERAL REPAIR**

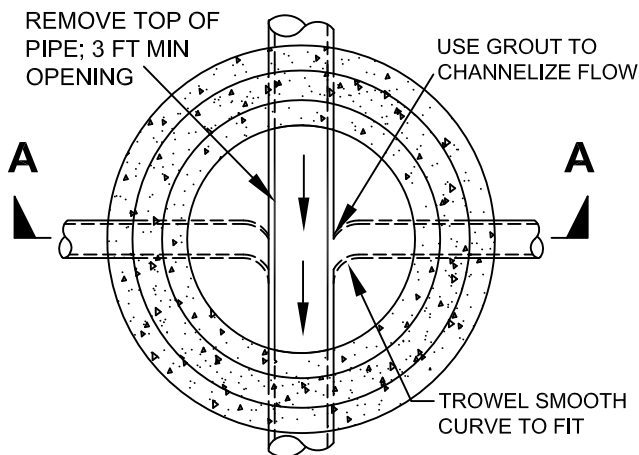
CAST IRON RING AND COVER (SEE SP 309)
(ADJUST TO GRADE AFTER PAVING PER
STANDARD PLAN #114)

PRECAST REINFORCED CONCRETE
MANHOLE CONE CONFORMING
TO PIPE SECTION SPECIFICATION



NOTES:

1. ALL JOINTS SHALL BE SEALED RAM-NEK OR KENT-SEAL #2.
2. BACKFILL AROUND MANHOLE SHALL HAVE 95% COMPACTION.
3. CONCRETE SHALL BE FIVE SACK CLASS "B" 2500 PSI AT 28 DAYS; 4" MAX. SLUMP; 3/4" MAX. AGGREGATE. VIBRATE, CONCRETE TO CONSOLIDATE
4. NO JOINTS IN THE PIPE WILL BE PERMITTED WITHIN THE MANHOLE.
5. PIPES SHALL HAVE AT LEAST ONE JOINT WITHIN 3 FEET FROM MANHOLE.
6. FOR PIPE SIZE GREATER THAN 36" OR DEPTH GREATER THAN 10 FT., INSIDE DIAMETER SHALL BE 60"
7. ECCENTRIC IS OPTIONAL WHEN NEEDED WITH APPROVAL FROM CITY ENGINEER.
8. 95% COMPACTION REQUIRED.
9. RAISED CONC. COLLAR & BOLLARDS IF INSTALLED OUTSIDE PAVED CONCRETE AREA.
10. BOLT DOWN LID REQUIRED OUTSIDE PAVED AREA.



CITY OF TRACY



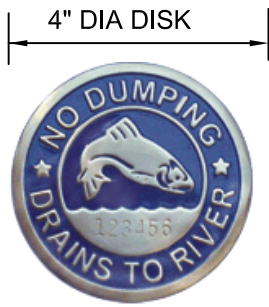
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Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

STANDARD
PLAN
No.

300

STORM DRAIN MANHOLE



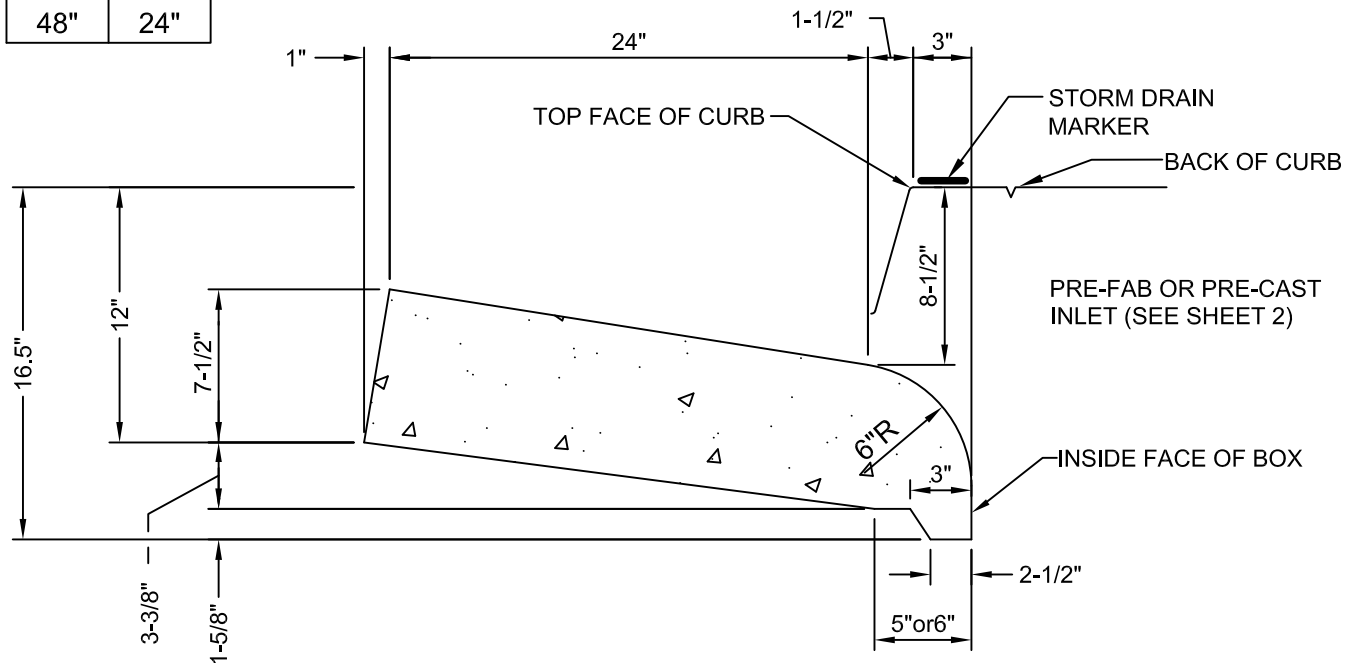
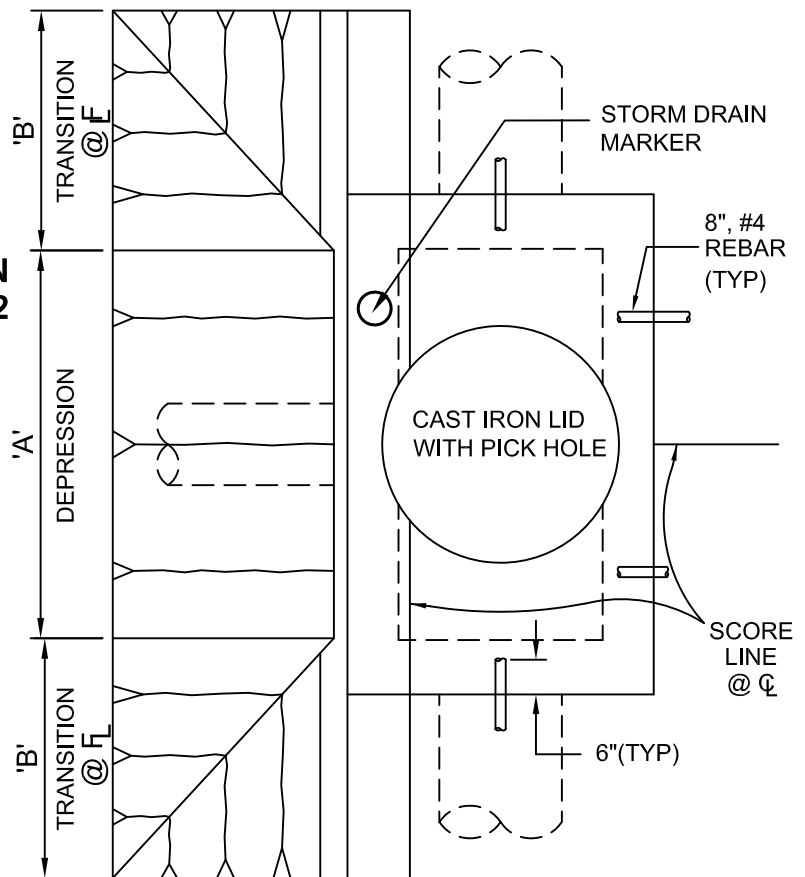
SEE SECTION
SHEET 2

STORM DRAIN MARKER

MARKER TO BE ALMETEK
STAINLESS STEEL PAINTED DISK,
BLUE WITH FISH LOGO AND
LETTERING STATING "NO
DUMPING, DRAINS TO RIVER."
APPLY PER MANUFACTURERS
RECOMMENDATION.

DIMENSIONS

'A'	'B'
30"	33"
48"	24"



DEPPRESSED GUTTER DETAIL

N.T.S.

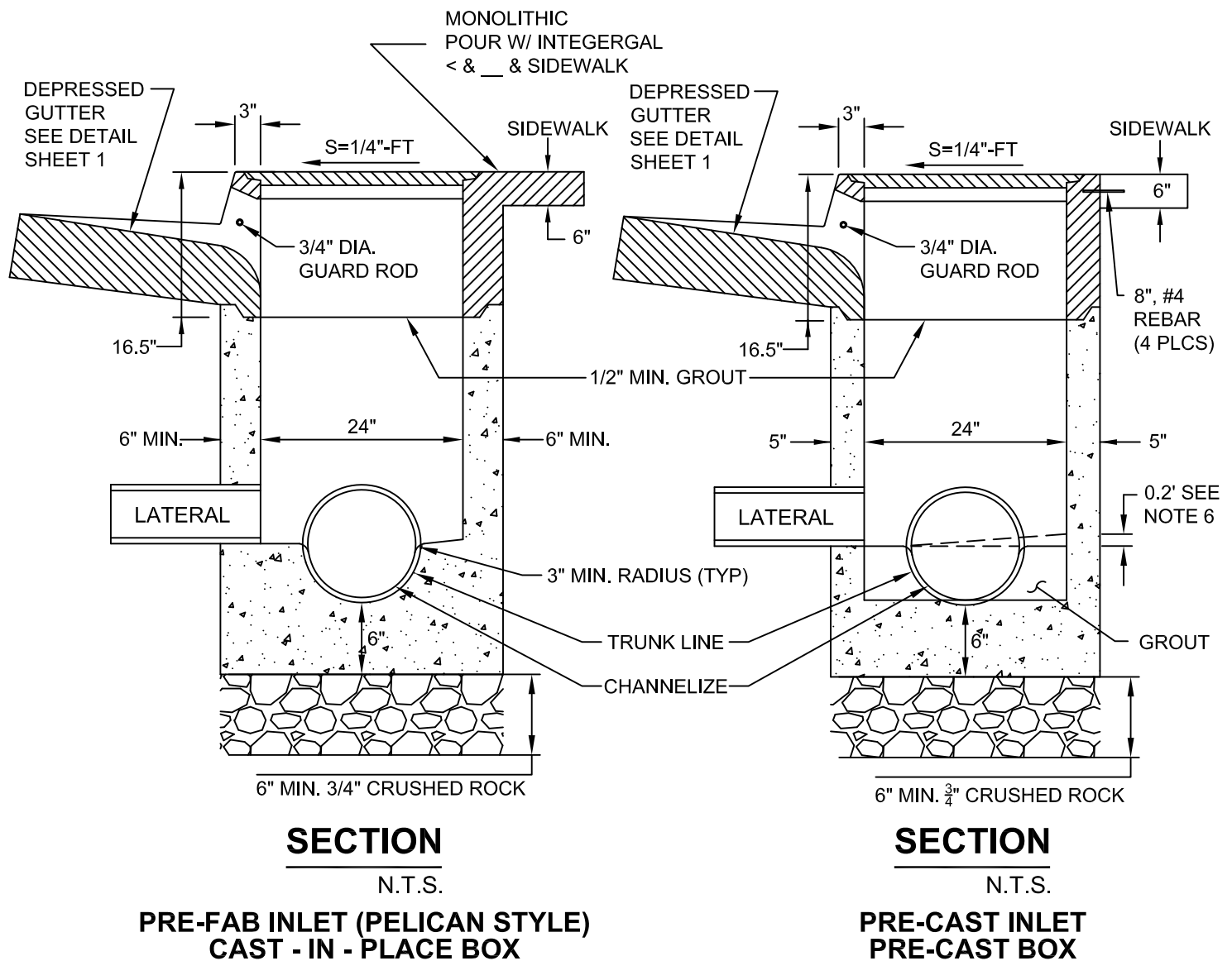
CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	STANDARD PLAN No.
CITY ENGINEER RCE 63173	301
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

SHEET 1 OF 2

DROP INLET



NOTES:

1. LATERAL CROWN TO MATCH TRUNK CROWN, OR LATERAL FLOWLINE TO BE A MINIMUM OF 0.2' HIGHER THAN TRUNK FLOWLINE, WHICHEVER GOVERNS.
2. WHERE TRUNK LINE IS LARGER THAN 18" DIA., USE MANHOLE BASE OR SPECIAL DESIGN BOX. DESIGN TO BE REVIEWED BY CITY ENGINEER.
3. PRECAST INLETS TO BE SANTA ROSA 4A, OR EQUAL. PREFAB INLETS TO BE SANTA ROSA PELICAN 4A OR EQUAL.
4. PRECAST BOX TO BE CHRISTY U36, SANTA ROSA 1K, 3K OR EQUAL.
5. HOLD BOTTOM OF KEY TO THE BOX 16.5" BELOW TOP OF CURB.
6. SLOPE TO DRAIN WITH GROUT IF BOX HAS NO INLET PIPE.

CITY OF TRACY



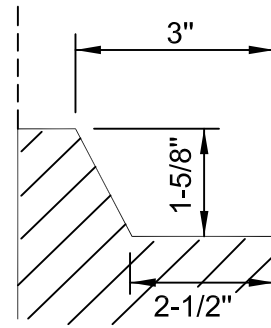
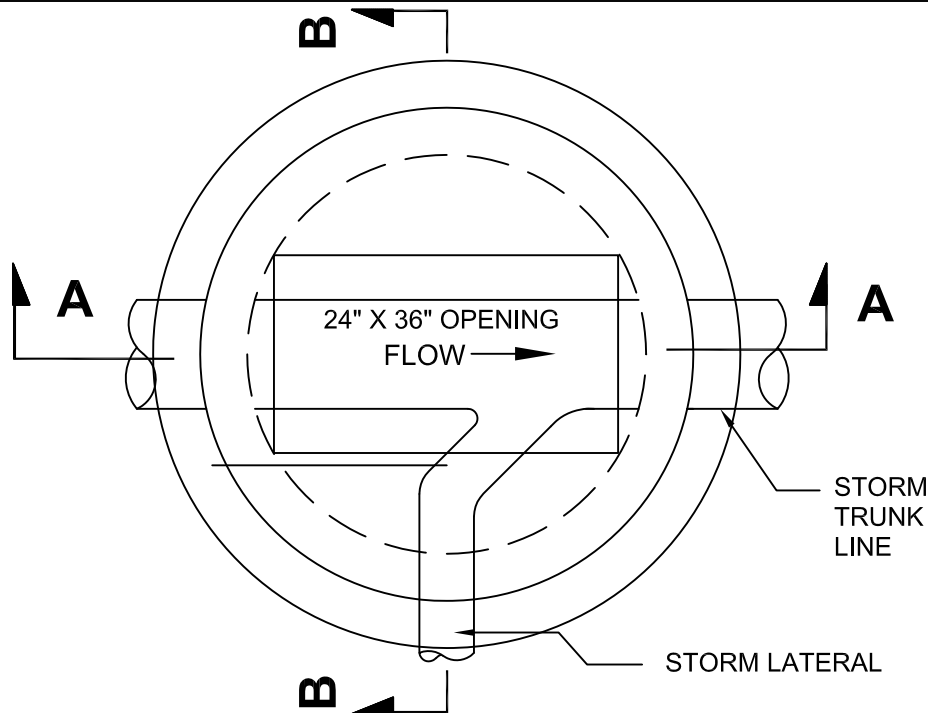
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CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

301

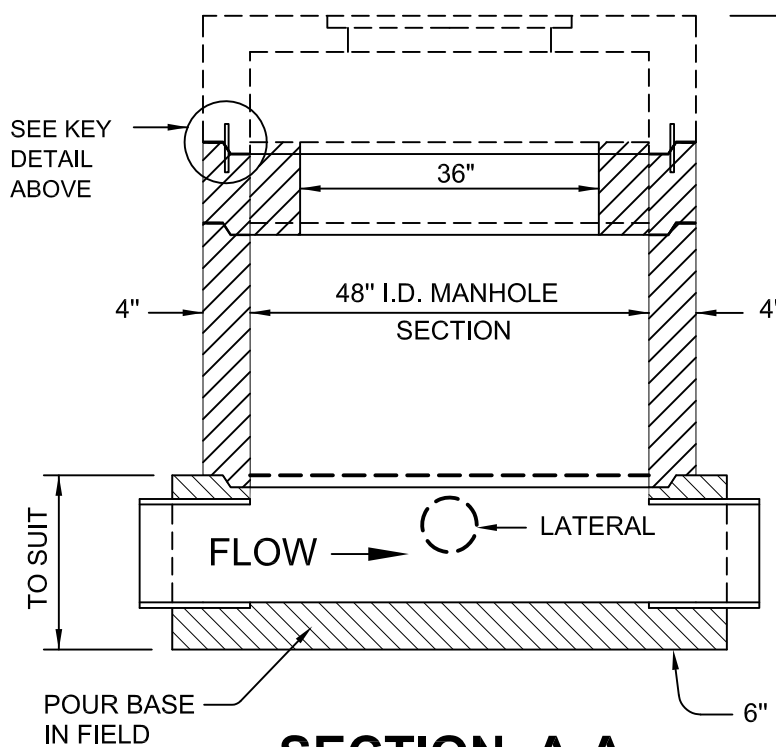
SHEET 2 OF 2

DROP INLET



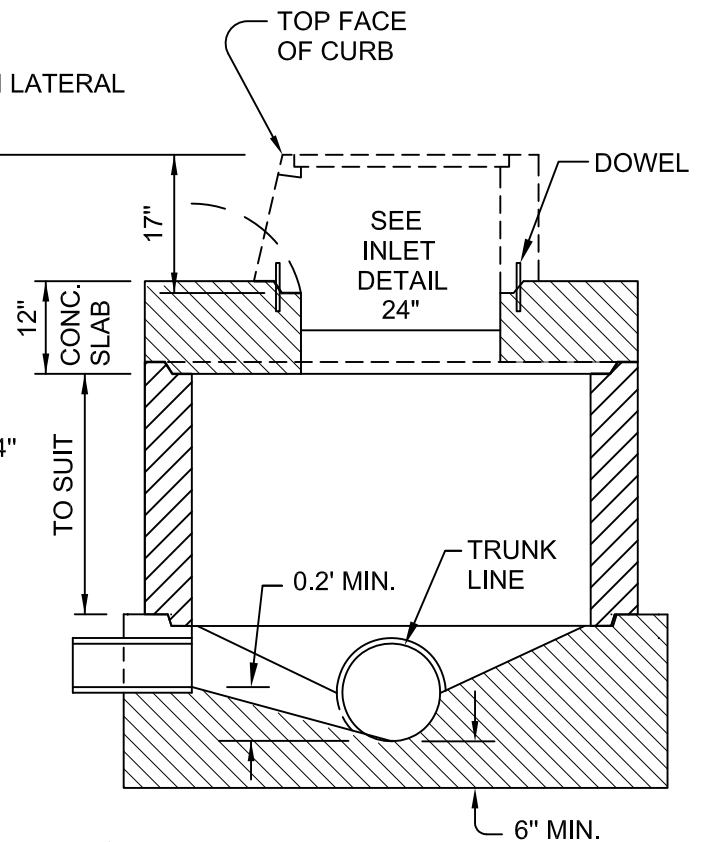
KEY DETAIL

N.T.S.



SECTION A-A

N.T.S.



SECTION B-B

N.T.S.

NOTES:

1. FOR USE WITH 24" & LARGER TRUNK LINES.
2. LATERAL CROWN TO MATCH TRUNK CROWN ELEVATION OR FLOW LINE TO BE A MINIMUM OF 0.2' HIGHER THAN TRUNK FLOW LINE, WHICHEVER GOVERNS.
3. FOR DEPRESSED GUTTER, SEE DROP INLET DETAIL 302.

CITY OF TRACY

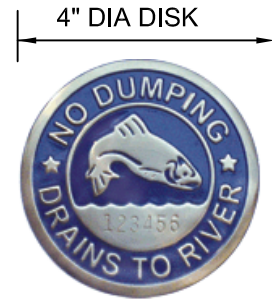
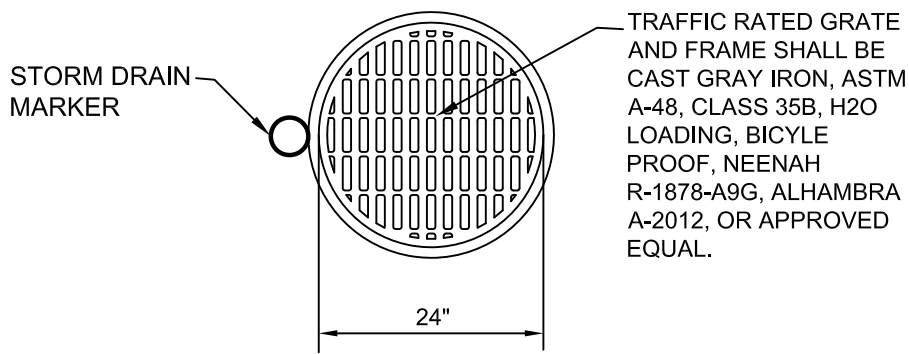


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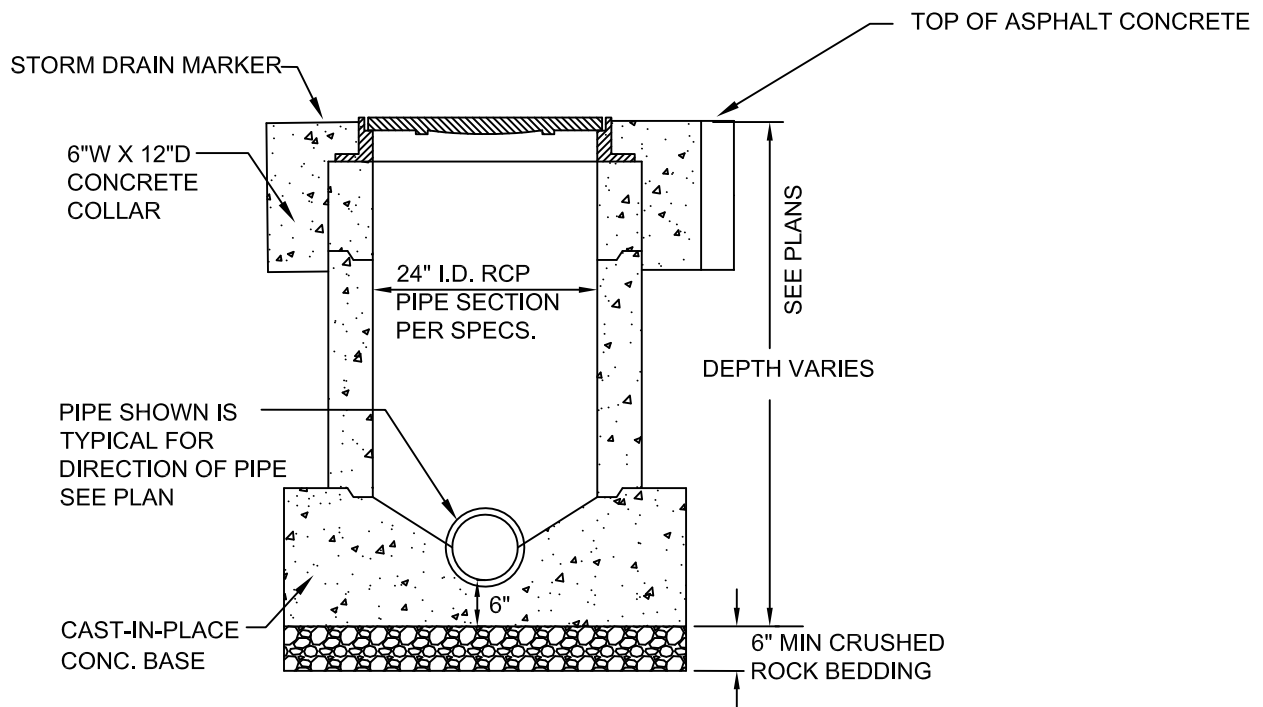
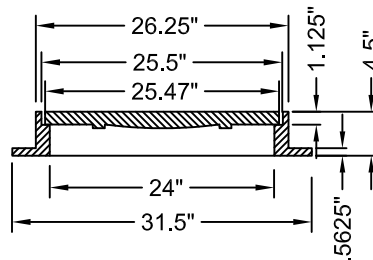
302

**INLET
MANHOLE BASE**



STORM DRAIN MARKER

MARKER TO BE ALMETEK STAINLESS STEEL PAINTED DISK, BLUE WITH FISH LOGO AND LETTERING STATING "NO DUMPING, DRAINS TO RIVER." APPLY PER MANUFACTURERS RECOMMENDATION.



NOTES:

SEE PARKS AND STREETScape DETAIL D1.12, "AREA DRAIN" FOR NON-STRUCTURAL INLET APPLICATIONS.

CITY OF TRACY

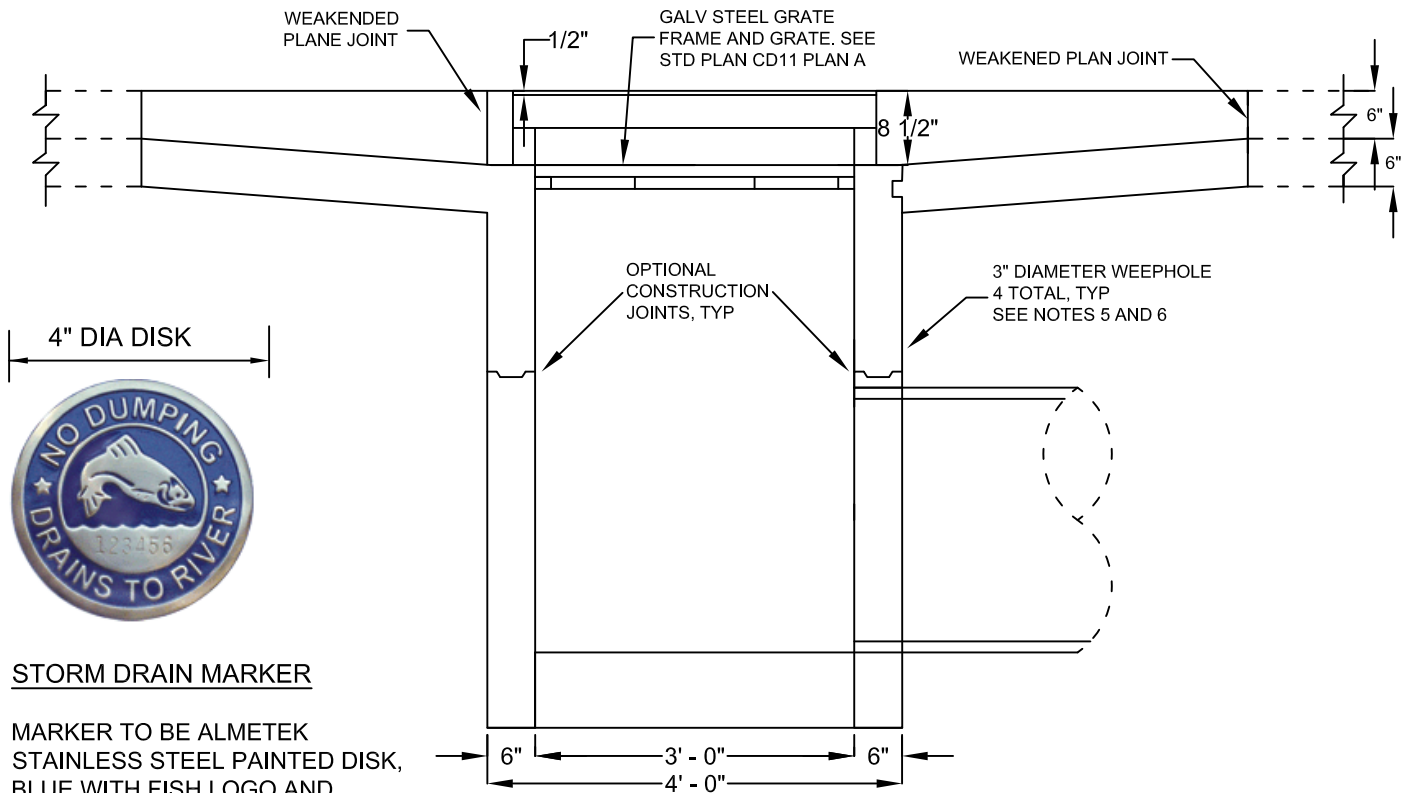


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STANDARD
PLAN
No.

303

**SHALLOW
DROP/CURB INLET**

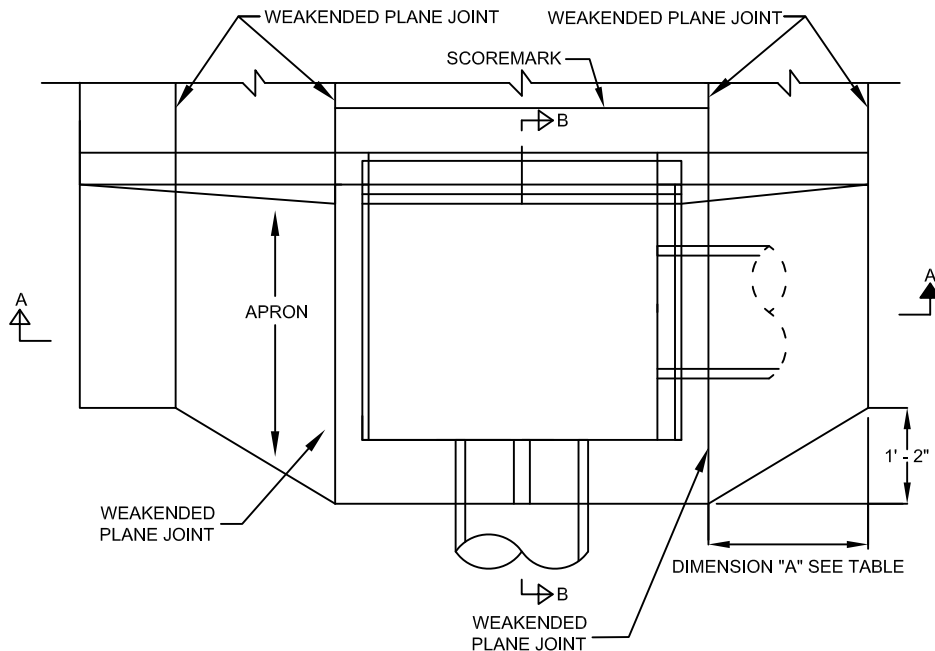


STORM DRAIN MARKER

MARKER TO BE ALMETEK
STAINLESS STEEL PAINTED DISK,
BLUE WITH FISH LOGO AND
LETTERING STATING "NO
DUMPING, DRAINS TO RIVER."
APPLY PER MANUFACTURERS
RECOMMENDATION.



SECTION A-A N.T.S.



CITY OF TRACY



Think Inside the Triangle™

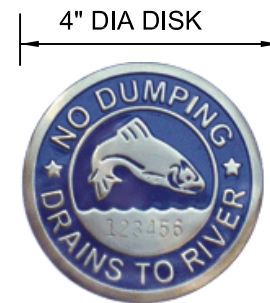
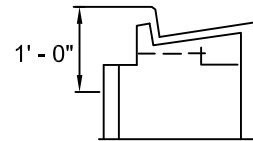
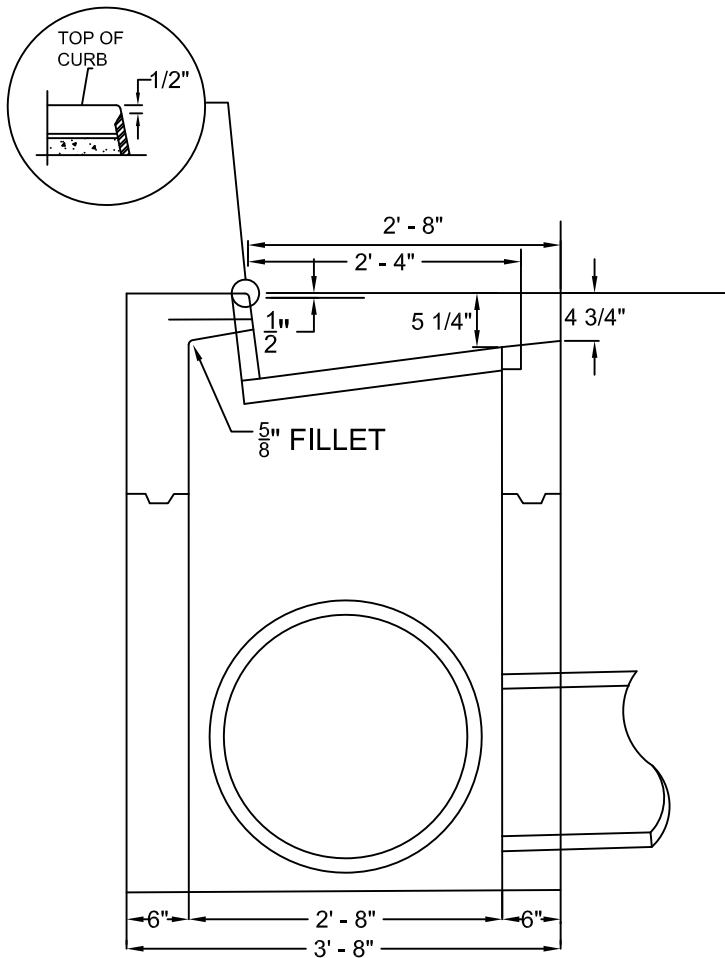
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Drawn By: Edgar T.	Rev:

STANDARD
PLAN
No.

304

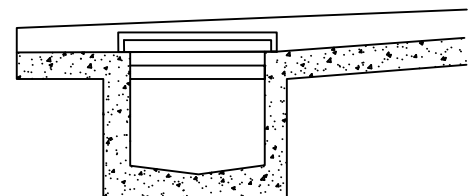
SHEET 1 OF 2

TYPE "A" INLET



STORM DRAIN MARKER

MARKER TO BE ALMETEK
STAINLESS STEEL PAINTED DISK,
BLUE WITH FISH LOGO AND
LETTERING STATING "NO
DUMPING, DRAINS TO RIVER."
APPLY PER MANUFACTURERS
RECOMMENDATION.



DIMENSION "A" (in)		
UPSTREAM CURB GRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% AND LESS	24	24
3%	36	24
4%	48	24
5%	60	24
6%	72	24
7%	84	12
8%	96	12
9%	108	12
10% AND GREATER	120	12

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
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Res No. 2020-031	DATE: February 18, 2020
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STANDARD
PLAN
No.

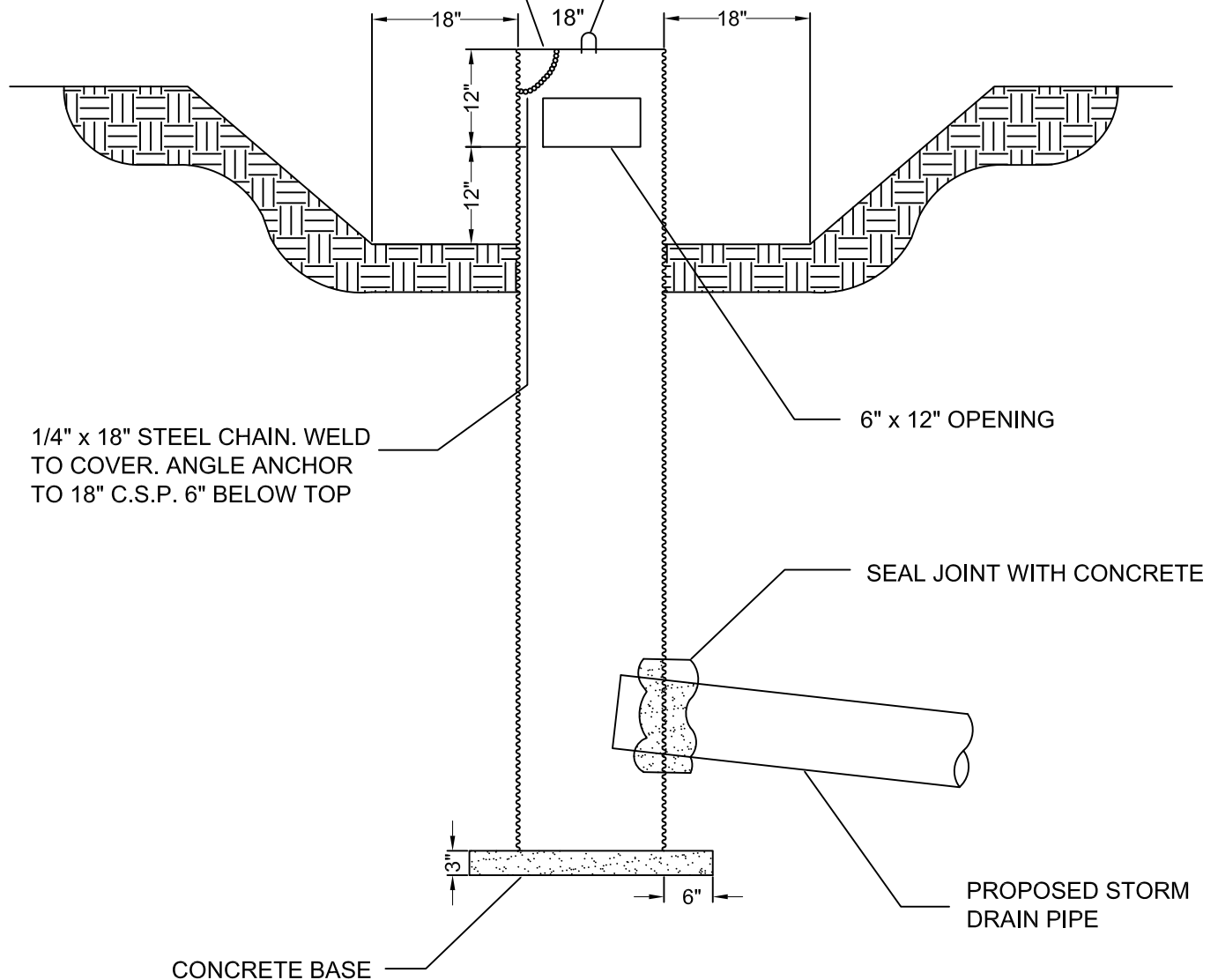
304

SHEET 2 OF 2

TYPE "A" INLET

COVER 21" DIA. 3/16" STEEL
CHECKER PLATE WELD 4 - 2"
SECTIONS OF 1-1/4" x 1-1/4"
x 3/16" ANGLED ON BOTTOM OF
COVER 2-1/2" FROM EDGE

WELD "U" BRACKET TO 18"
C.S.P. WALL AND SLOT LID
SO BRACKET WILL POKE
THROUGH FOR LID LOCK DOWN



NOTE:

ALL SHARP CORNERS AND EDGES THAT ARE MARRED, CUT OR ROUGHENED SHALL
BE ROUNDED BY GRINDING AND PAINTED WITH 2 APPLICATIONS OF UNTHINNED
COMMERCIAL QUALITY ZINC-RICH PRIMER CONFORMING TO THE REQUIREMENTS OF
SECTION 91-2.01 OF THE STATE STANDARD SPECIFICATIONS.

CITY OF TRACY



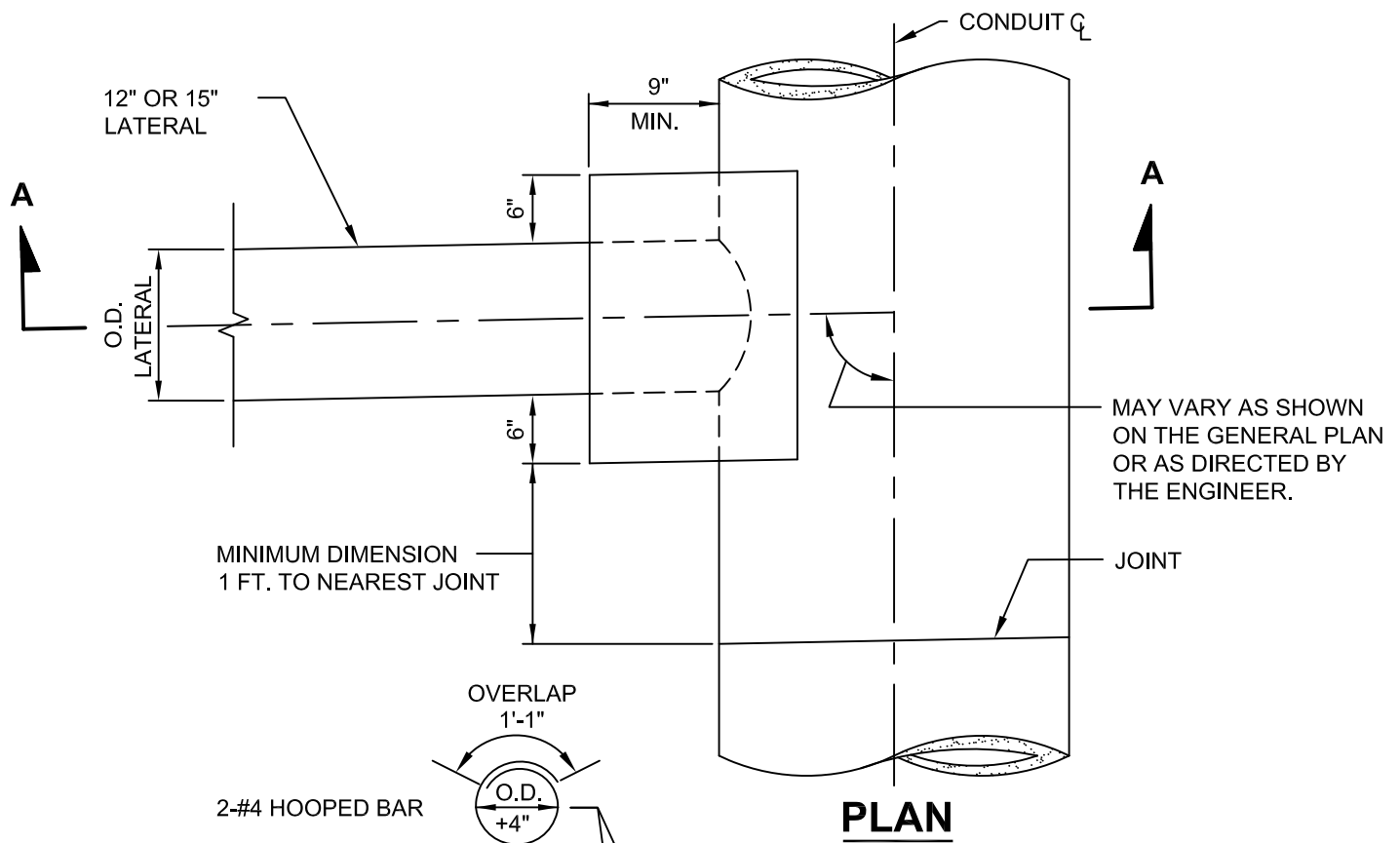
Think Inside the Triangle™

REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
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STANDARD
PLAN
No.

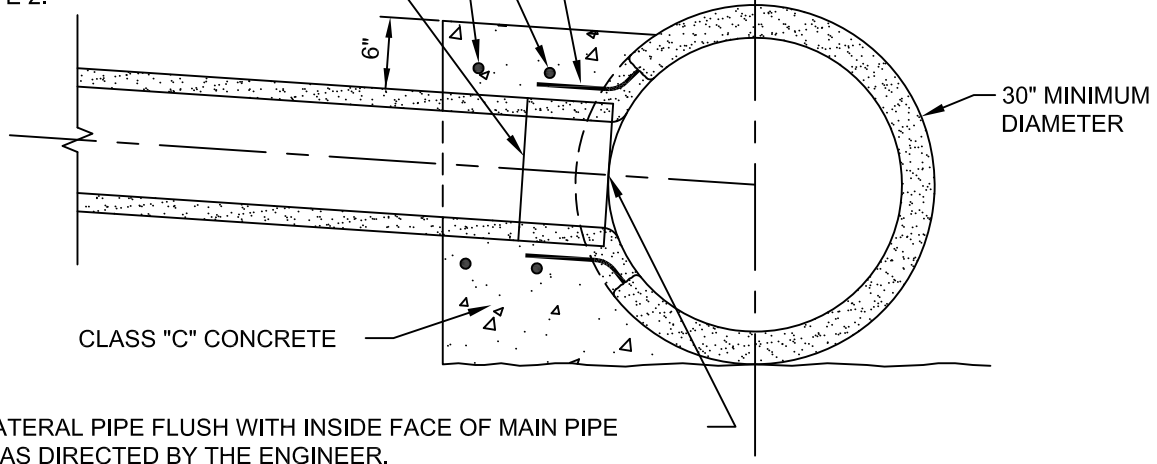
305

**TEMPORARY
DRAINAGE INLET**



WHEN USING SHORT STUB EXTEND COLLAR 9" BEYOND JOINT SEE NOTE 2.

CUT MAIN PIPE AND REINFORCING BARS. CLEAN AND BEND INTO NEW CONCRETE.



NOTES:

1. INSIDE DIAMETER OF LATERAL SHALL NOT BE LARGER THAN 1/2 OF INSIDE DIAMETER FOR MAIN PIPE.
2. USE SHORT STUB WHEN PIPE IS TOO SMALL TO FINISH FROM INSIDE.
3. LATERAL MUST INTERSECT MAIN LINE RADIALLY. HOLE SHALL BE CUT TO MINIMUM DIAMETER.
4. INSTALLATION SUBJECT TO CITY ENGINEER'S APPROVAL.

CITY OF TRACY



REVIEWED BY: *Robert Armijo*

CITY ENGINEER RCE 63173

STANDARD
PLAN
No.

306

Res No. 2020-031

DATE: February 18, 2020

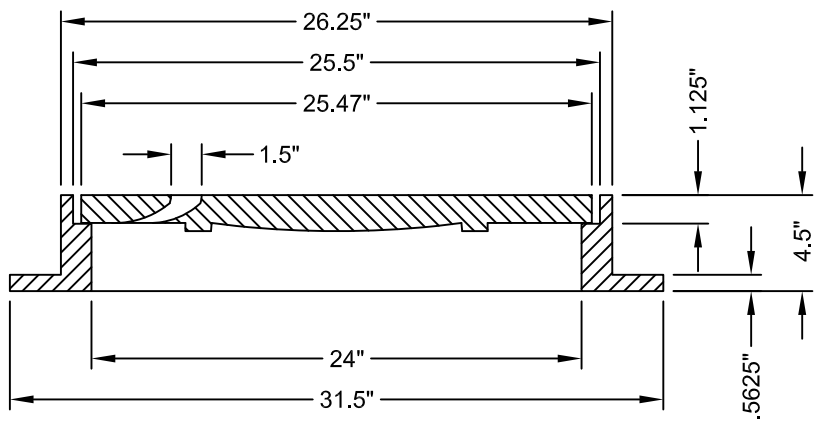
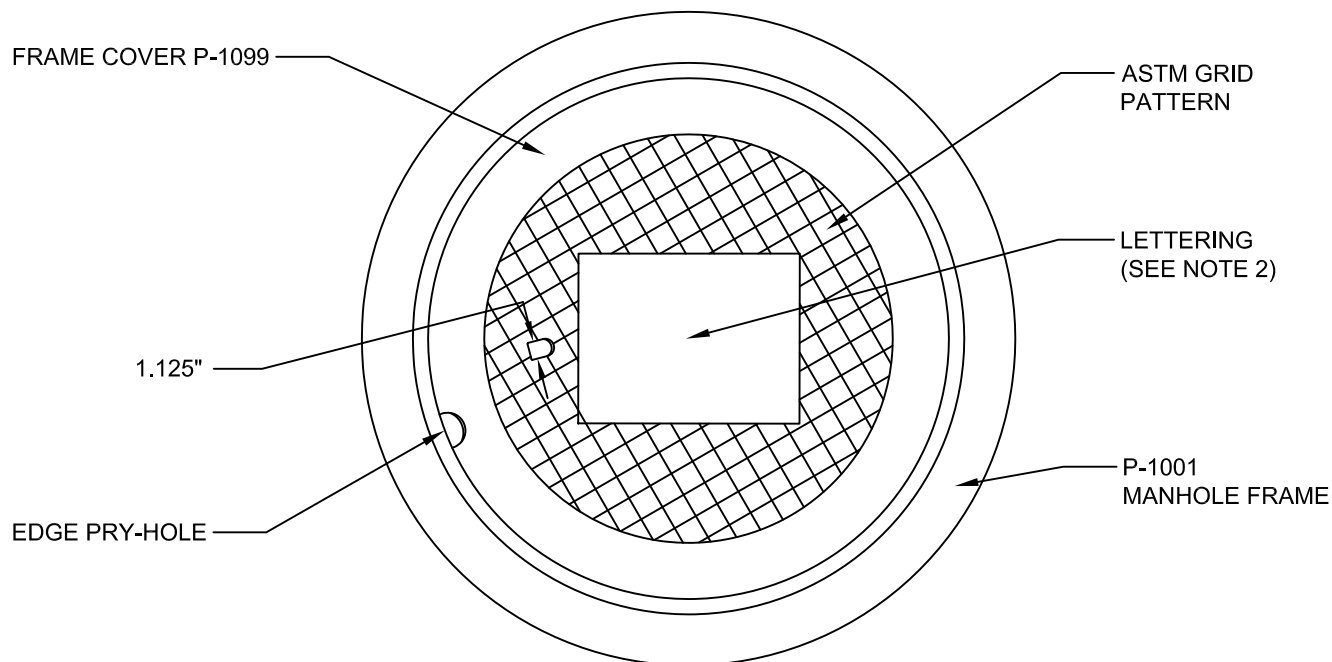
Prepared By: Leisser M.

Checked By: Thomas W.

Rev:

Rev:

**LATERAL
SIDE CONNECTION**



NOTES:

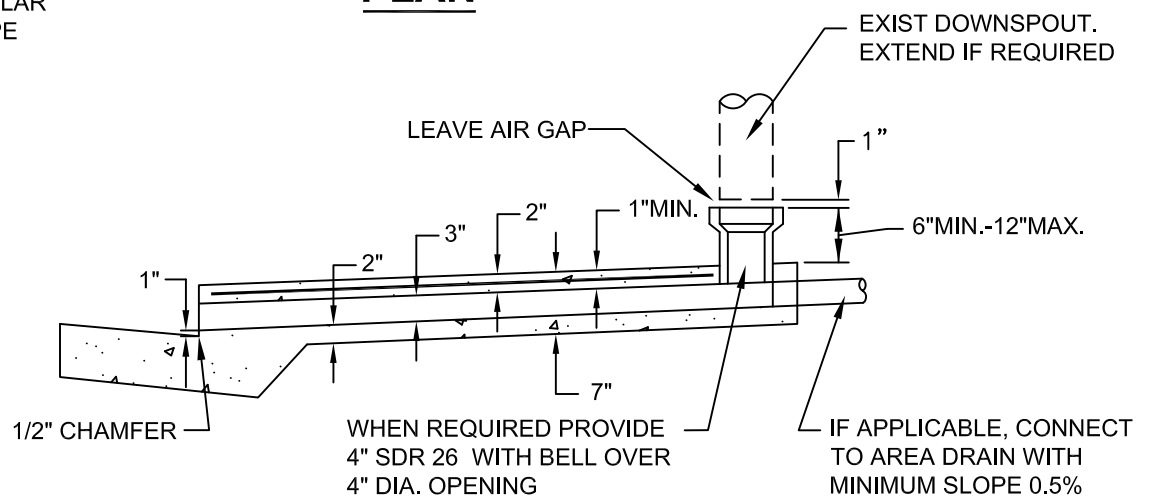
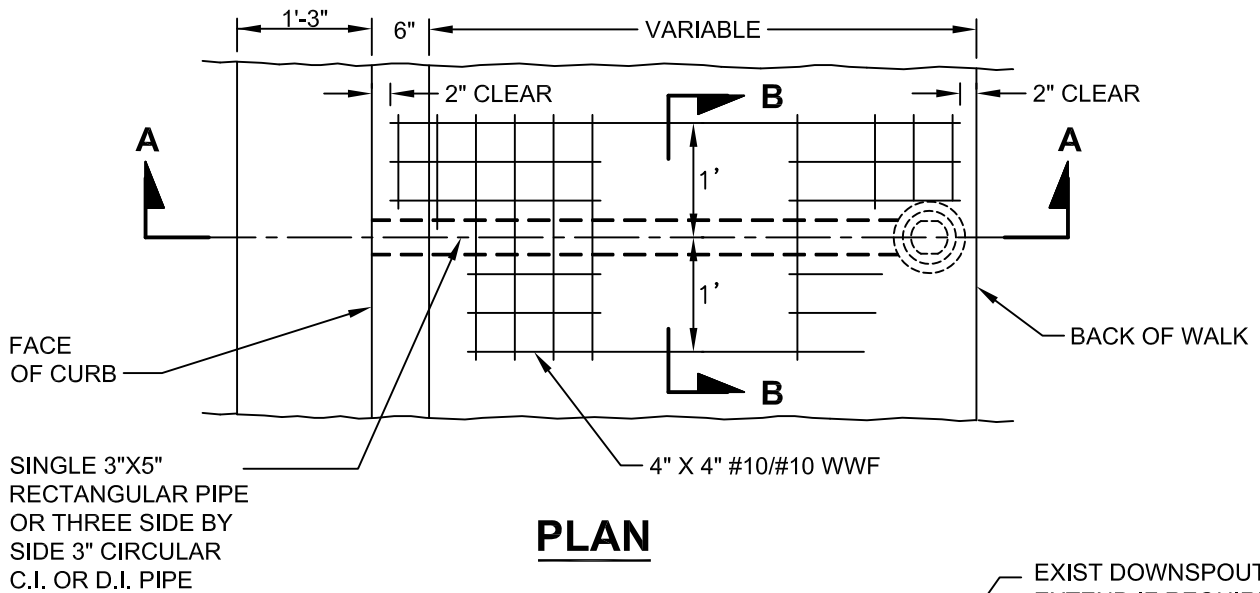
1. FRAME AND COVER SHALL BE PHOENIX IRON WORK P-1090, TEICHERT NO. 6622, PINKERTON A - 193, OR SOUTH BAY FOUNDRY SBF 1900 OR APPROVED EQUAL.
2. MANHOLE COVER SHALL INCLUDE LETTERING FOR DESIGNATION OF "SANITARY SEWER" OR "STORM DRAIN - AS APPLICABLE.

CITY OF TRACY



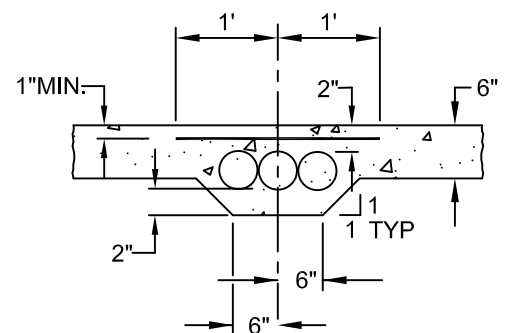
REVIEWED BY:	
CITY ENGINEER RCE 63173	
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD PLAN No.	307
FRAME AND MANHOLE COVER ASSEMBLY	



NOTES:

1. CURB DRAIN SHALL GRATUITY FLOW FROM PRIVATE CATCH BASIN OR ROOF DRAIN. ROOF DRAINS SHALL HAVE 1" OF SEPARATION BETWEEN DOWN SPOUT AND UNDERGROUND SYSTEM.
2. EXISTING CONCRETE SHALL BE REMOVED TO NEAREST SCORELINE. INSTALL 8" X #4 REBAR DOWELS IN THE EXISTING CONCRETE 1' O.C.
3. MODIFICATION TO THE NUMBER OF OUTLET PIPE IS SUBJECT TO REVIEW BY THE CITY ENGINEER.



CITY OF TRACY



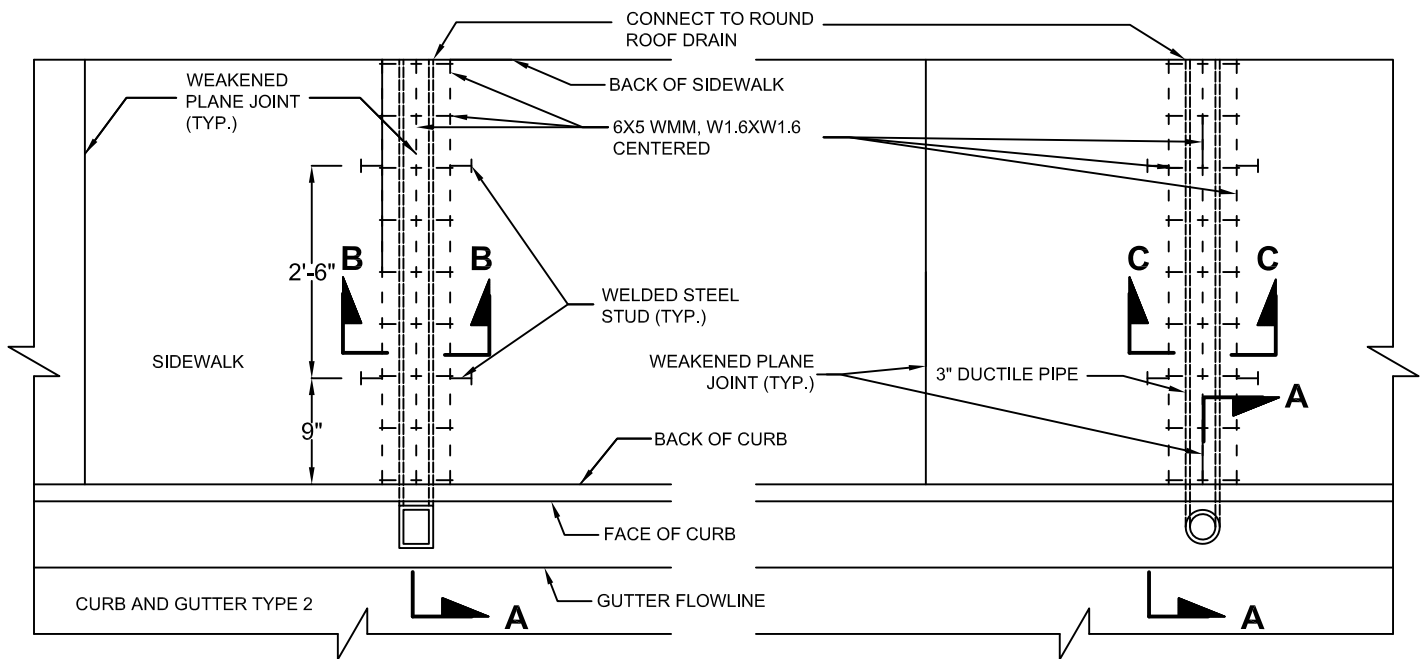
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

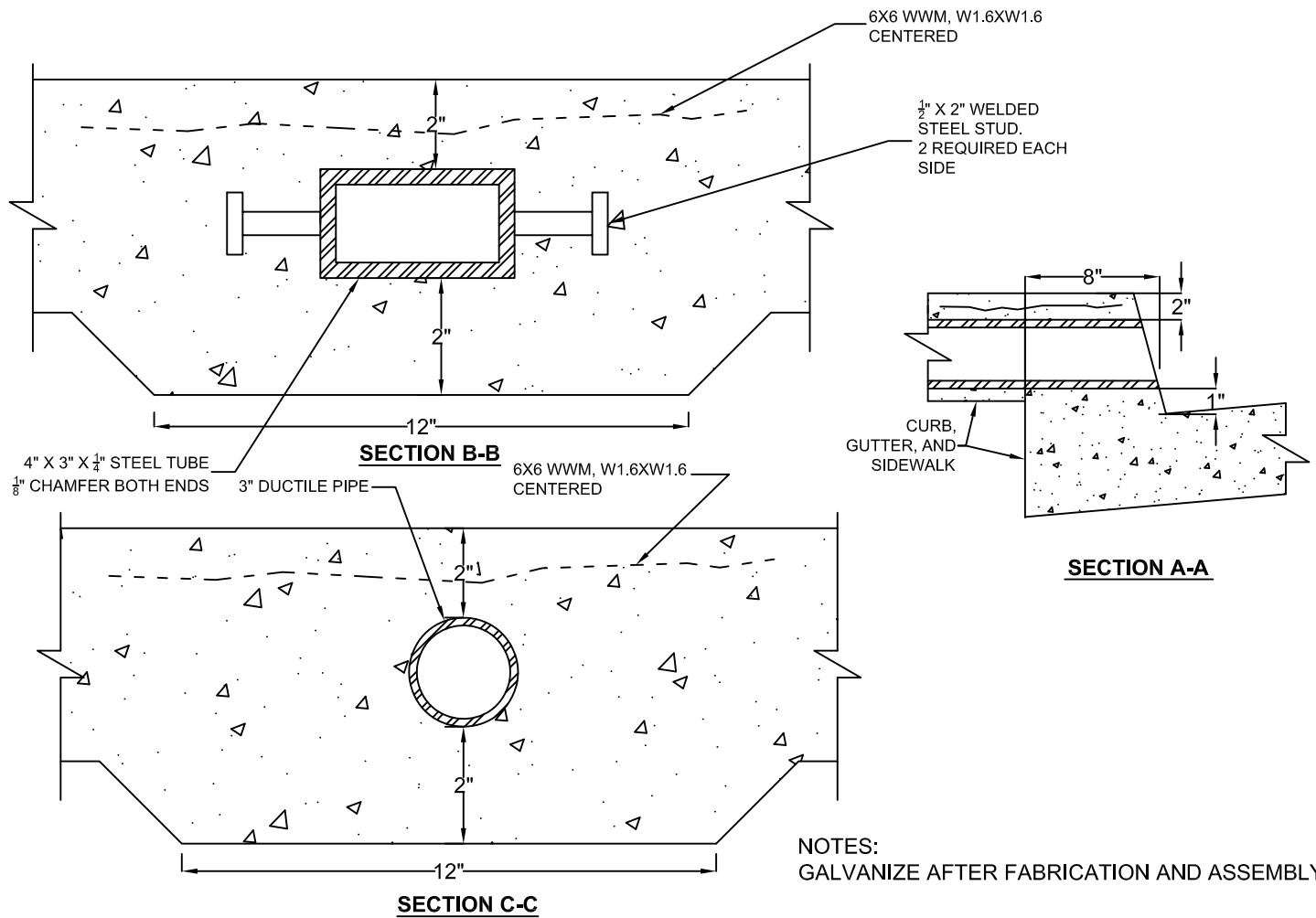
308

SHEET 1 OF 3

CURB DRAIN INSTALLATION



PLAN



CITY OF TRACY



Think Inside the Triangle™

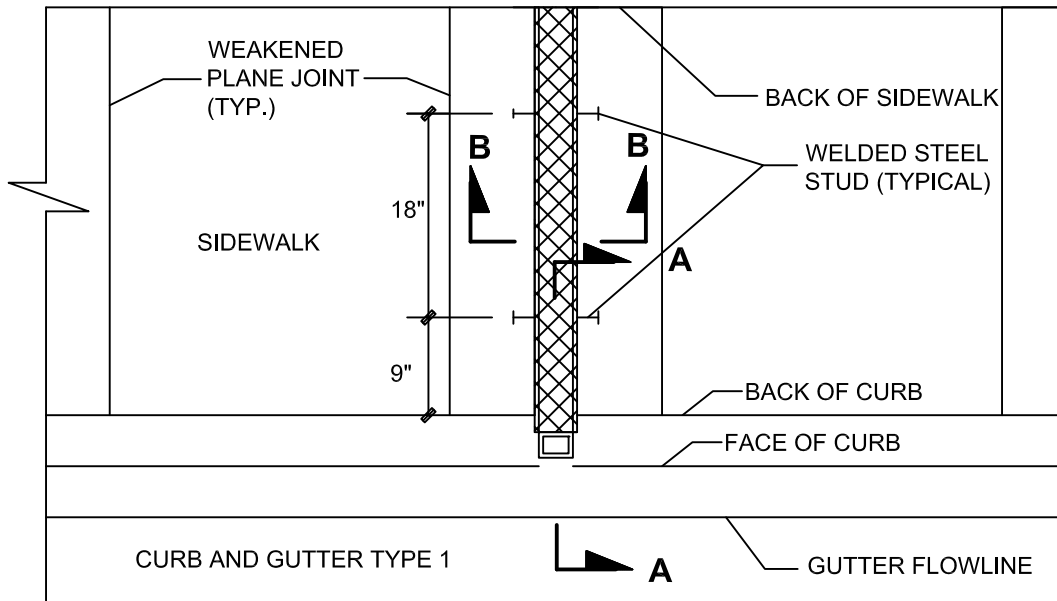
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
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STANDARD
PLAN
No.

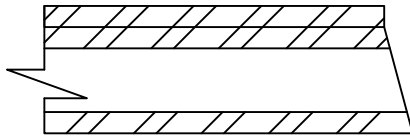
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SHEET 2 OF 3

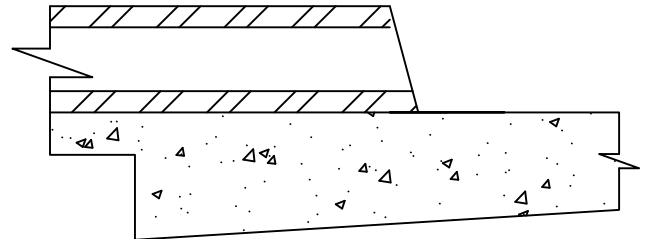
CURB DRAIN INSTALLATION



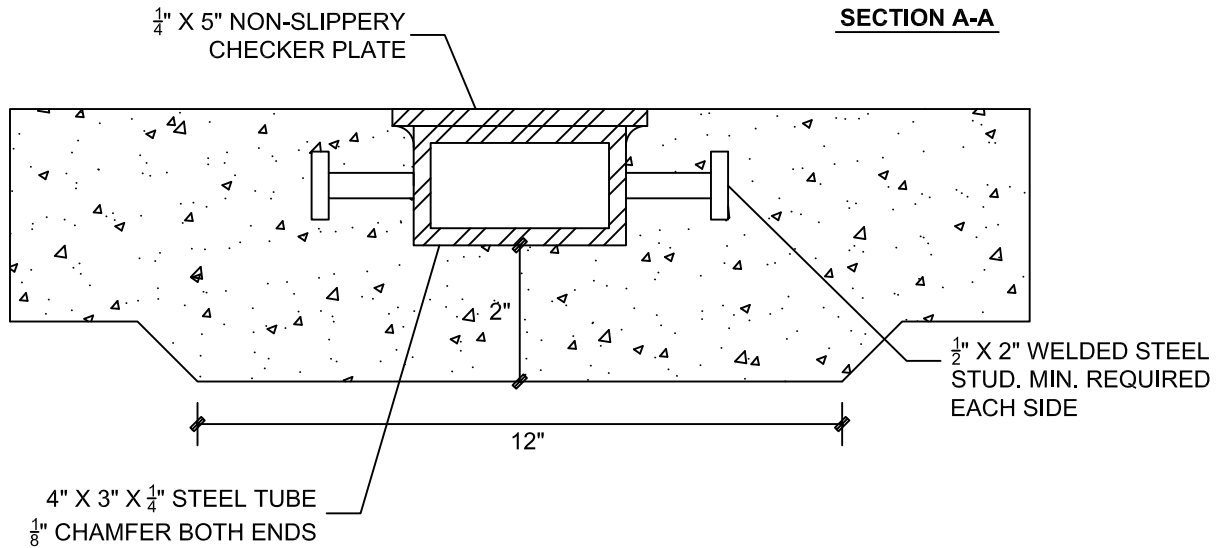
PLAN



CURB END OF DRAIN



SECTION A-A



SECTION B-B

NOTE:
GALVANIZE AFTER FABRICATION AND ASSEMBLY

CITY OF TRACY



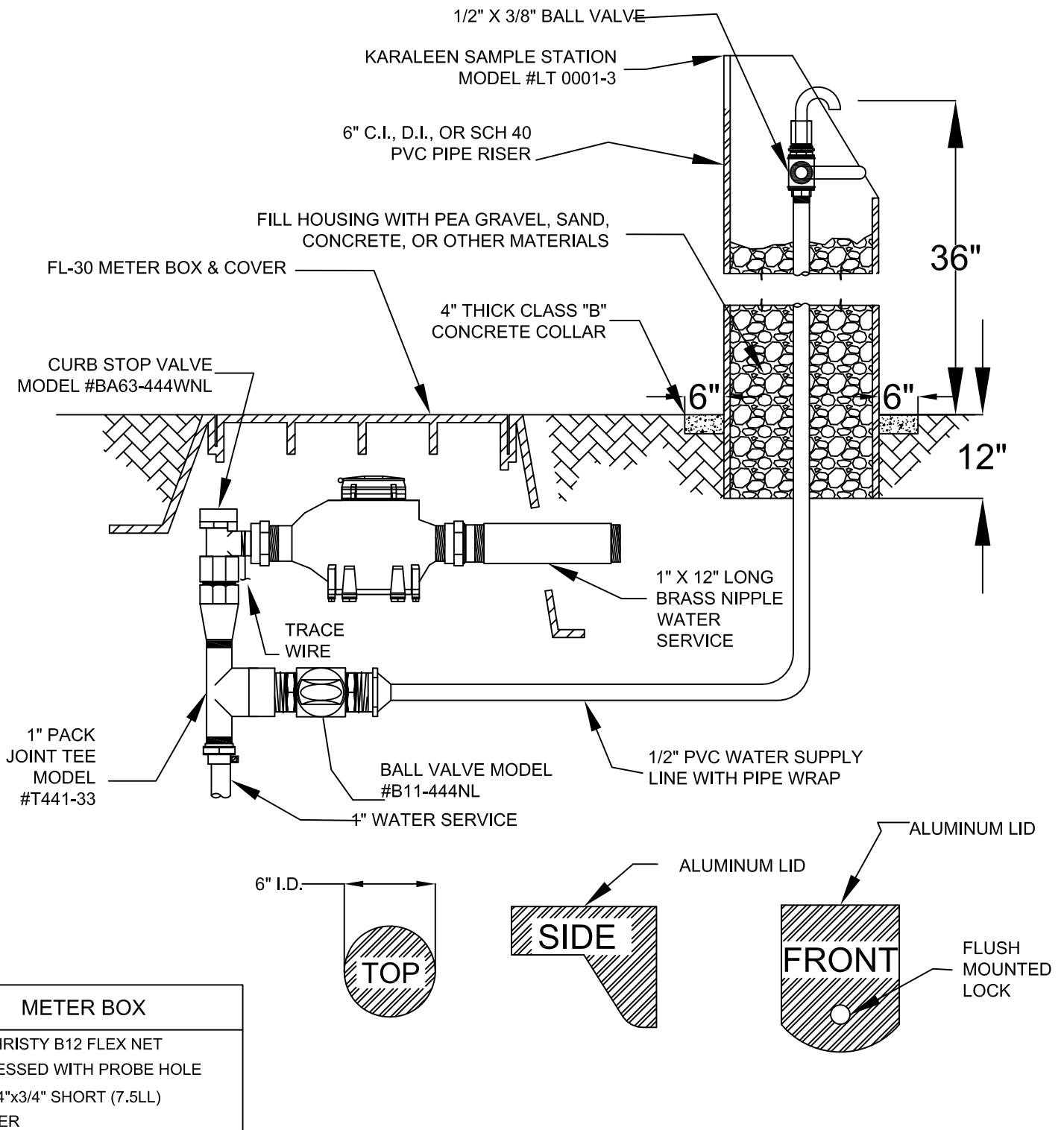
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

308

SHEET 3 OF 3

CURB DRAIN INSTALLATION



CITY OF TRACY



Think Inside the Triangle™

REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

400

SHEET 1 OF 2

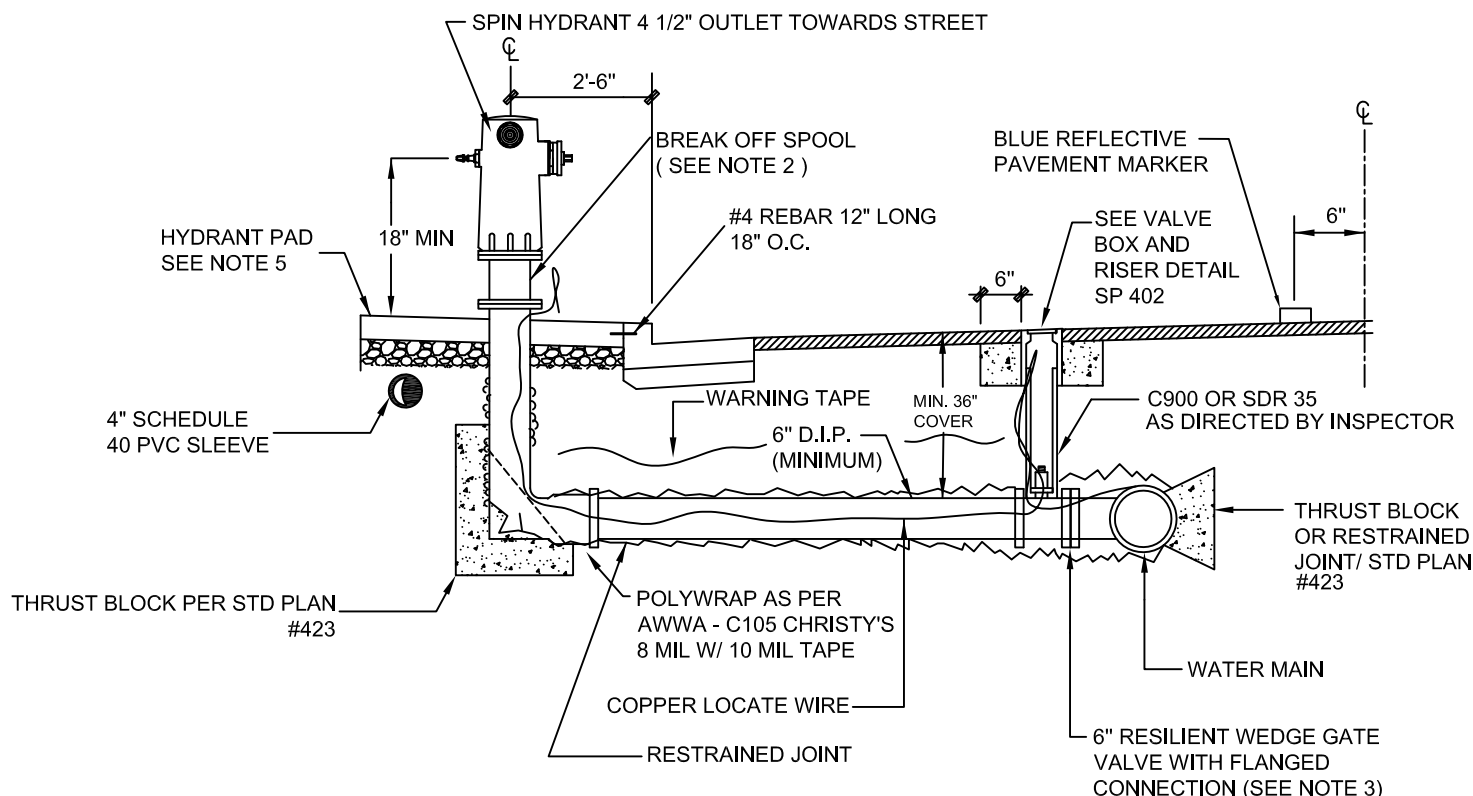
**WATER QUALITY
SAMPLING STATION**

NOTES:

1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.
2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.
3. No galvanized pipe shall be used.
4. Compact around the meter to 95%. Onsite plumber shall not remove meter box to connect the pipe.
5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.
6. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.
7. FZ sensus meters should be used in locations where domestic and fire services share one service line.
8. Polyethylene type encasement wrap or 10MIL pipe wrap $\frac{1}{2}$ lapped from main to Christy Box.
9. Tracer wire and marker tape from main to Christy Box.
10. Polywrap from main to box polyethylene sleeve or 10 MIL tape - $\frac{1}{2}$ tapped from main to Christy box

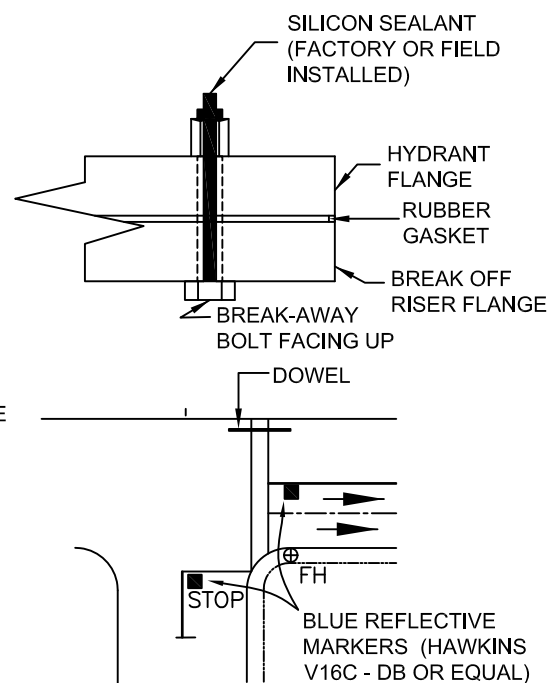
CITY OF TRACY

 Think Inside the Triangle™	REVIEWED BY: <i>Robert Armijo</i>	STANDARD PLAN No. 400	WATER QUALITY SAMPLING STATION	
	CITY ENGINEER RCE 63173			SHEET 2 OF 2
	Res No. 2020-031	DATE: February 18, 2020		
	Prepared By: Leisser M.	Checked By: Thomas W.		
	Rev:	Rev:		



NOTES:

- HYDRANT SHALL HAVE 1, 4 1/2" OUTLET AND 1, 2 1/2" HOSE OUTLET, JONES 4040/CLOW 850 OR APPROVED EQUAL. HYDRANTS AND ALL EXPOSED PARTS SHALL BE PAINTED ONE COAT PRIMER AND TWO FINISHING COATS OF BENJAMIN MOORE SAFETY YELLOW OR EQUAL. ALL HYDRANTS FROM ONSITE FIRE SYSTEMS TO BE PAINTED RED
- BREAK OFF SPOOL 6" MIN. IN LENGTH SHALL BE INSTALLED 2" ABOVE CONCRETE SLAB. THE BOLTS ATTACHING HYDRANT TO SPOOL AND SPOOL TO BURY SHALL BE BREAK-OFF TYPE, HEX HEAD, STAINLESS STEEL. NUTS SHALL BE DOWN. PAINT SPOOL.
- VALVE SHALL BE PLACED ADJACENT TO THE MAIN AS A RESILIENT WEDGE GATE VALVE. TOTALLY ENCAPSULATED, FACTORY EPOXY LINED & COATED.
- THRUST BLOCK SHALL BE INSPECTED AND APPROVED AT THE TIME OF CONSTRUCTION PER CITY STANDARD PLAN 423.
- CONCRETE PAD SHALL BE 4'-6" x 5'-0". SLOPE SHALL BE 1/4" IN 1' TO CURB. CONCRETE SHALL BE CLASS "B" 2500 PSI ; 4" MAXIMUM SLUMP ; 3/4" MAXIMUM AGGREGATE WITH 1/2 LB. LAMPBLACK PER CUBIC YARD. PAD SHALL BE FINISHED TO THE SPECIFICATIONS OF THE SIDEWALK.
- 10 AWG LOCATE WIRE 1'-0" ABOVE PIPE (COLOR BLUE)
- BLUE 6" WIDE WARNING TAPE. "CAUTION POTABLE WATER LINE BURIED BELOW (CHRISTY'S DETECTABLE MARKING TAPE)
- HYDRANTS SHALL BE PLACED AT PROPERTY LINE EXTENSION, 3 FT. FROM DRIVEWAYS, AND NEAR STREET LIGHTS, OR AS SHOWN ON PLANS APPROVED BY CITY ENGINEER. 4' MIN CLEARANCE FROM ALL ABOVE GROUND OBSTRUCTIONS. CENTERLINE OF HYDRANT 2'-6" BEHIND FACE OF CURB.
- HYDRANT BODIES ARE TO BE LINED WITH FACTORY TWO PART EPOXY.
- TRENCH BACKFILL AS PER STD PLAN #500.
- ONSITE/PRIVATE PROPERTY HYDRANTS SHALL BE PAINTED RED.
- CENTER LINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN LOCATED IN PLANTER.
CENTERLINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN IN 10' ATTACHED WALK. CENTERLINE OF HYDRANT IS 7'-6" BEHIND FACE OF CURB WHEN IN 5' WALK. CENTERLINE OF HYDRANT IS 2'-6" BEHIND FACE OF CURB WHEN IN 7'-6" WALK.



BLUE REFLECTIVE MARKER:
BLUE MARKERS SHALL BE PLACED ON THE LEFT HAND SIDE OF TRAVEL LANE ADJACENT TO THE FIRE HYDRANT TO THE CENTER OF STREET.

MARKER LOCATION

CITY OF TRACY

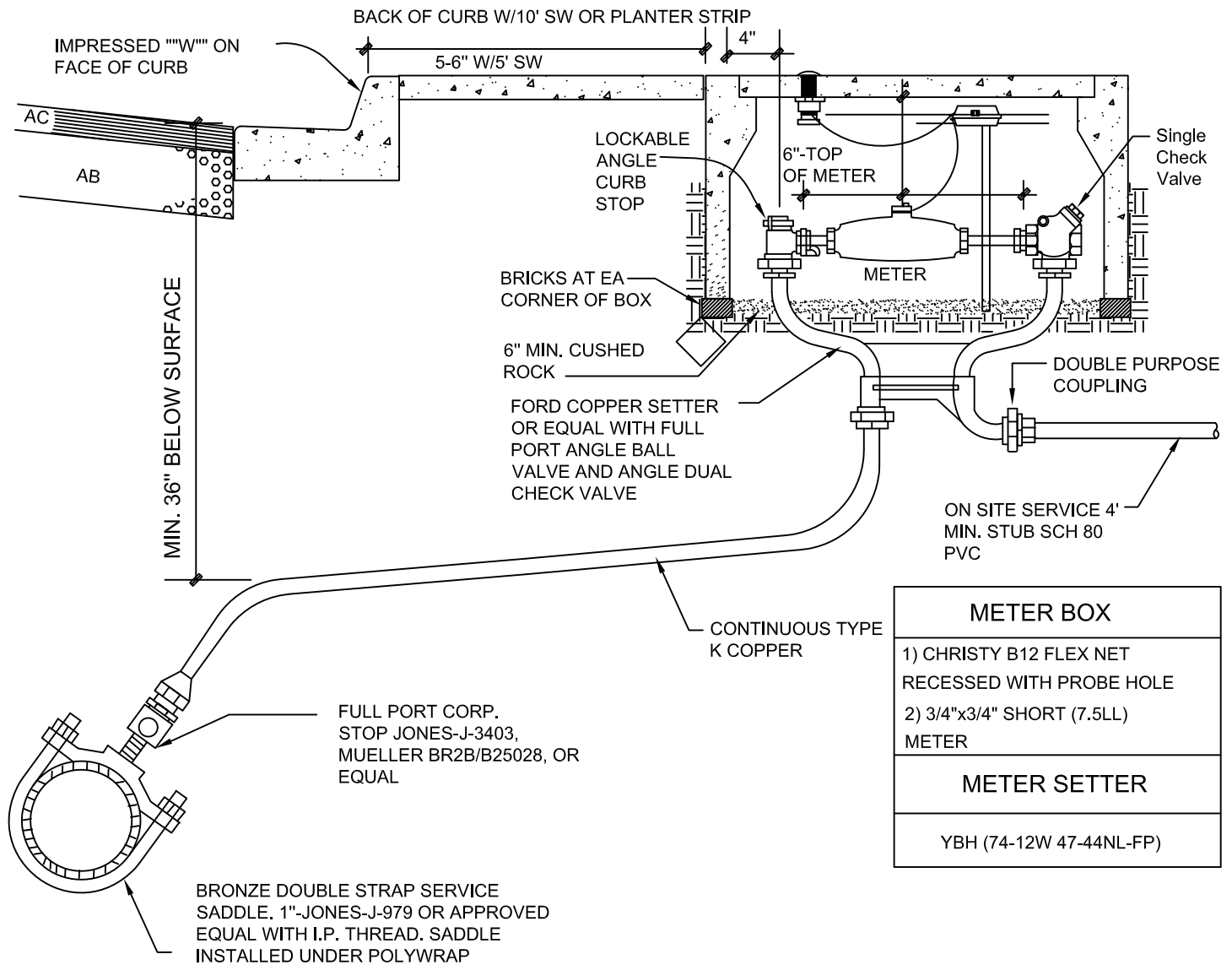


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

401

FIRE HYDRANT



NOTES:

1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.
2. Meter box shall be designed and set to accommodate sensus flex net recessed box with probe hole lid in addition to sensus radio read meter reading system.
3. No galvanized pipe shall be used.
4. Compact around the meter to 95%. Onsite plumber shall not remove meter box to connect the pipe.
5. All underground copper water lines within the city right-of-way shall be a single continuous piece polywrapped to City of Tracy Standards.
6. No landscape irrigation lines shall be allowed between the meter box & the sidewalk.
7. Unused existing services shall be abandoned by potholing, cutting out and removing the corporation stop and saddle at the main and installing a full circle 316 stainless steel repair clamp with 316 accessories over the hole.
8. FZ sensus meters should be used in locations where domestic and fire services share one service line.
9. Polyethylene type encasement wrap or 10MIL pipe wrap $\frac{1}{2}$ lapped from main to Christy Box
10. Tracer wire and marker tape from main to Christy Box.

CITY OF TRACY



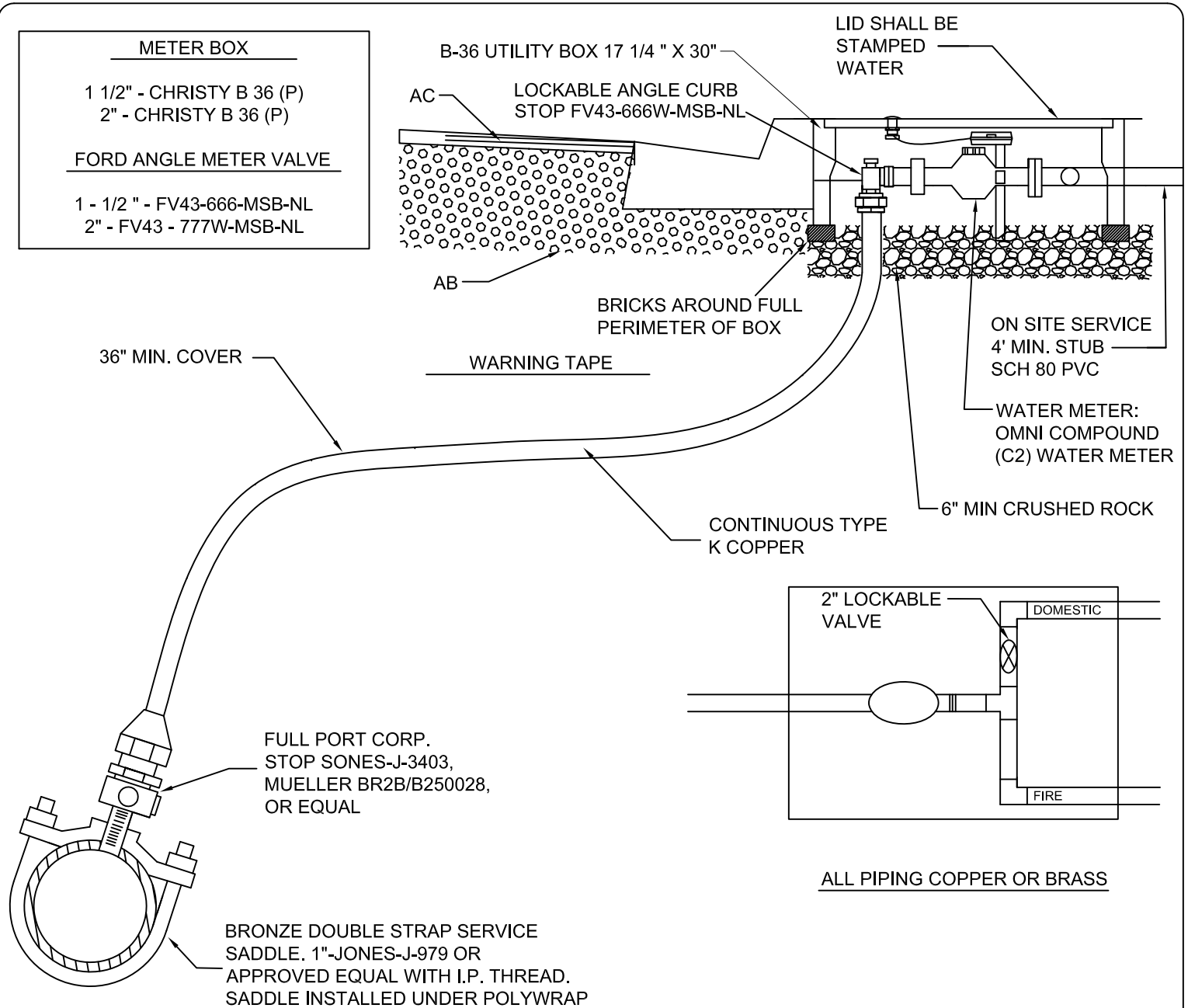
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REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

403

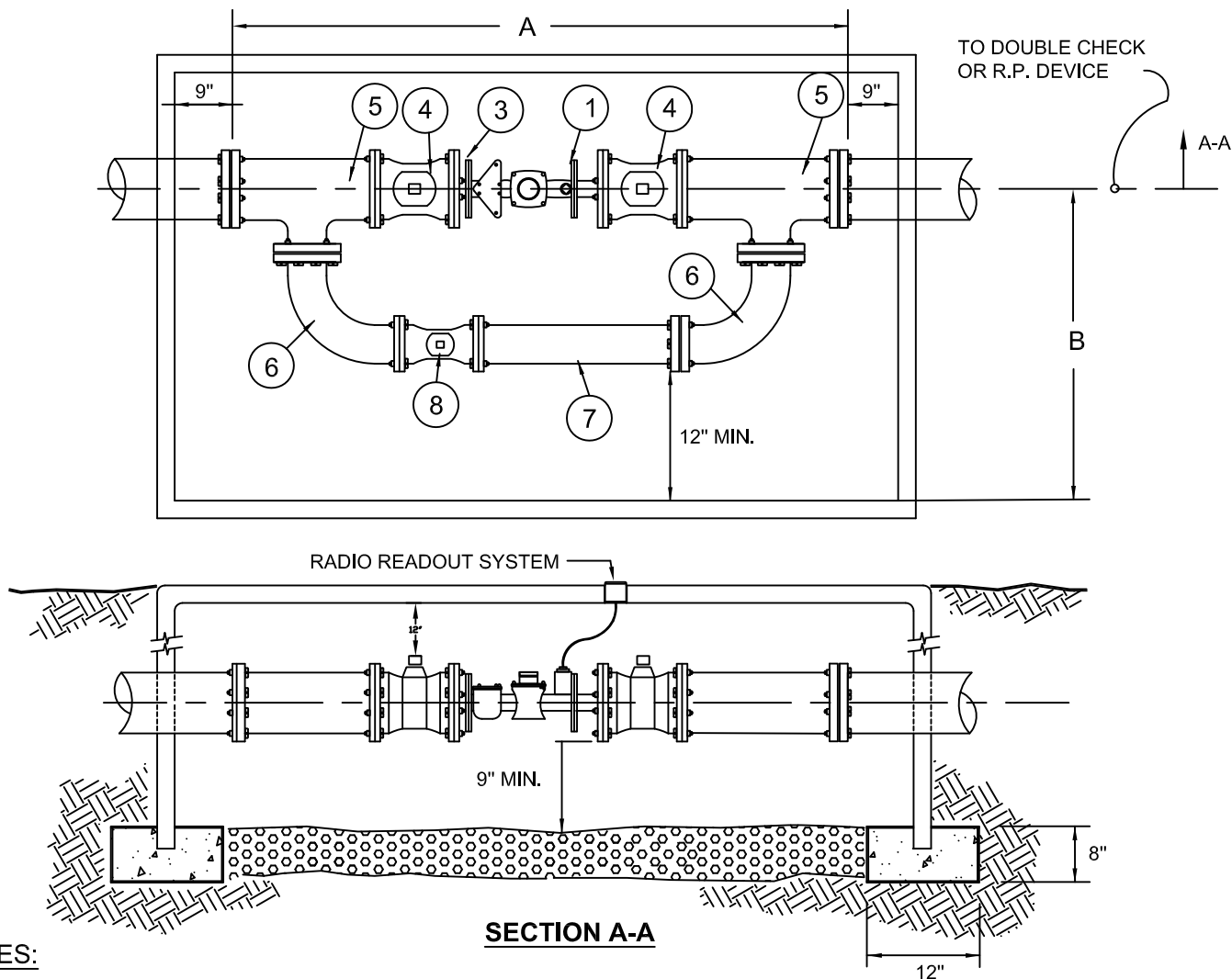
1" WATER SERVICE
(1" METER OR 3/4"x3/4" SHORT LAY LENGTH)



- NOTES:**
1. Meter shall be sensus touch read (TR/PL) with touch read pad installed with flex net transceiver unit (M X U model 520M). One transceiver unit shall be with each meter and read in 100 cubic feet. Meter shall be minimum size as specified by the City Engineer and shall be set with rubber gaskets. Meter shall be furnished and set by contractor with the M X U model 520M read unit to be given to the City to be installed by the City at a later date.
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 8. F2 sensus meters should be used in locations where domestic and fire services share one service line.
 9. Polyethylene Encasement Wrap or 10MIL Pipe Wrap Tape - $\frac{1}{2}$ lapped from main to Christy Box.
 10. Tracer wire and marker tape from main to Christy Box.

CITY OF TRACY

 Think Inside the Triangle	REVIEWED BY: <i>Robert Armijo</i>		STANDARD PLAN No. 404
	CITY ENGINEER RCE 63173		
	Res No. 2020-031	DATE: February 18, 2020	1 1/2 " & 2" SERVICE
	Prepared By: Leisser M.	Checked By: Thomas W.	
	Rev:	Rev:	



NOTES:

- METER TYPE T2 TURBO FOR IRRIGATION/C2 COMPOUND FOR DOMESTIC FLEX NET TRANSCEIVER.
- INSTALL LOCKABLE STEEL VAULT LID WITH METER REGISTER IN LID. LID STAMPED RECLAIMED WATER.
- FOR WATER METERS LARGER THAN 6", DESIGNER SHALL SUBMIT A SEPARATE DESIGN FOR APPROVAL BY CITY ENGINEER.
- ALL PIPE AND FITTINGS WITHIN VAULT SHALL BE FLANGED DUCTILE IRON PIPE.
- THE MINIMUM SIZE SERVICE FOR A STREETScape APPLICATION AND NEIGHBORHOOD PARK IS 4 INCH.
- NO LANDSCAPE IRRIGATION LINES SHALL BE ALLOWED BETWEEN THE METER BOX AND THE SIDEWALK.
- WATER METER SHALL BE LOCATED WITHIN THE CITY R.O.W

No.	NAME		
1	FLEX NET METER	6	90° ELBOW
2	COUPLING	7	BYPASS PIPE DIP SAME SIZE
3	ADAPTER	8	BYPASS GATE VALVE W/ NUT
4	GATE VALVE W/ NUT		
5	TEE		

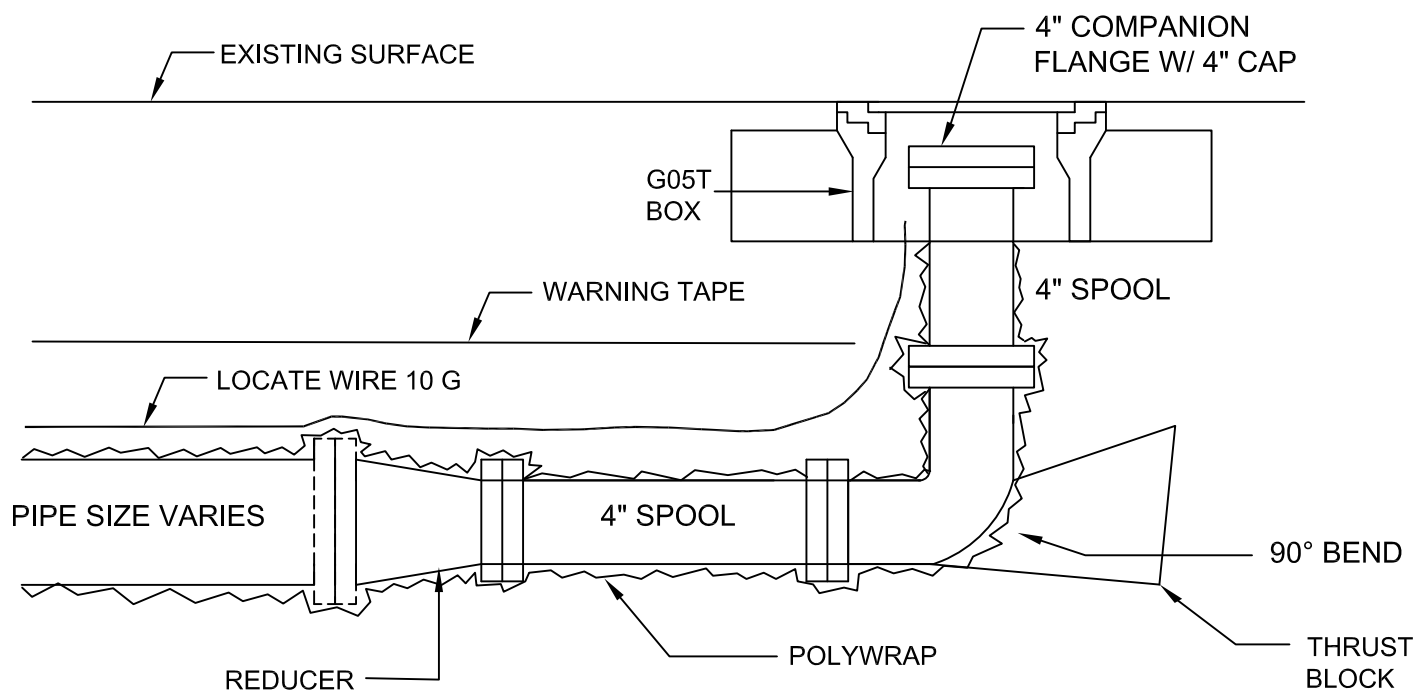
DIMENSIONS		3"	4"	6"
A	OVER ALL LENGTH	63	73	86
B	WIDTH PIPE ϕ TO BYPASS	19	21	26
C	PIPE ϕ TO MAXIMUM HEIGHT	16	17	21
MAIN LINE WIDTH				
WEIGHT				
BY PASS SIZE		3"	3"	4"

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD PLAN No.	406
3", 4" & 6"	
DOMESTIC/IRRIGATION METER	



NOTES:

1. FOR THRUST BLOCK DIMENSIONS, SEE STANDARD PLAN NO. 423
2. THE FUTURE EXTENSION STUB SHALL BE TESTED AND CHLORINATED WITH THE REST OF THE MAIN AND BLOWN OFF THROUGH THE PIPE.
3. BLOW OFF SHALL BE 4" MINIMUM FOR BACTERIOLOGICAL TESTING FOR DUCTILE IRON FLANGED PIPE.
4. USE CURB STOP ON 2" SVC OR BLOW OFF ONLY.
5. TRAFFIC BOX SHALL BE CHRISTY G05T WITH G5 LID OR APPROVED EQUAL.
6. VALVE AND BLOW OFF BOXES SHALL BE INSTALLED IN PAVED AREA ONLY UNLESS APPROVED BY THE CITY ENGINEER.

CITY OF TRACY



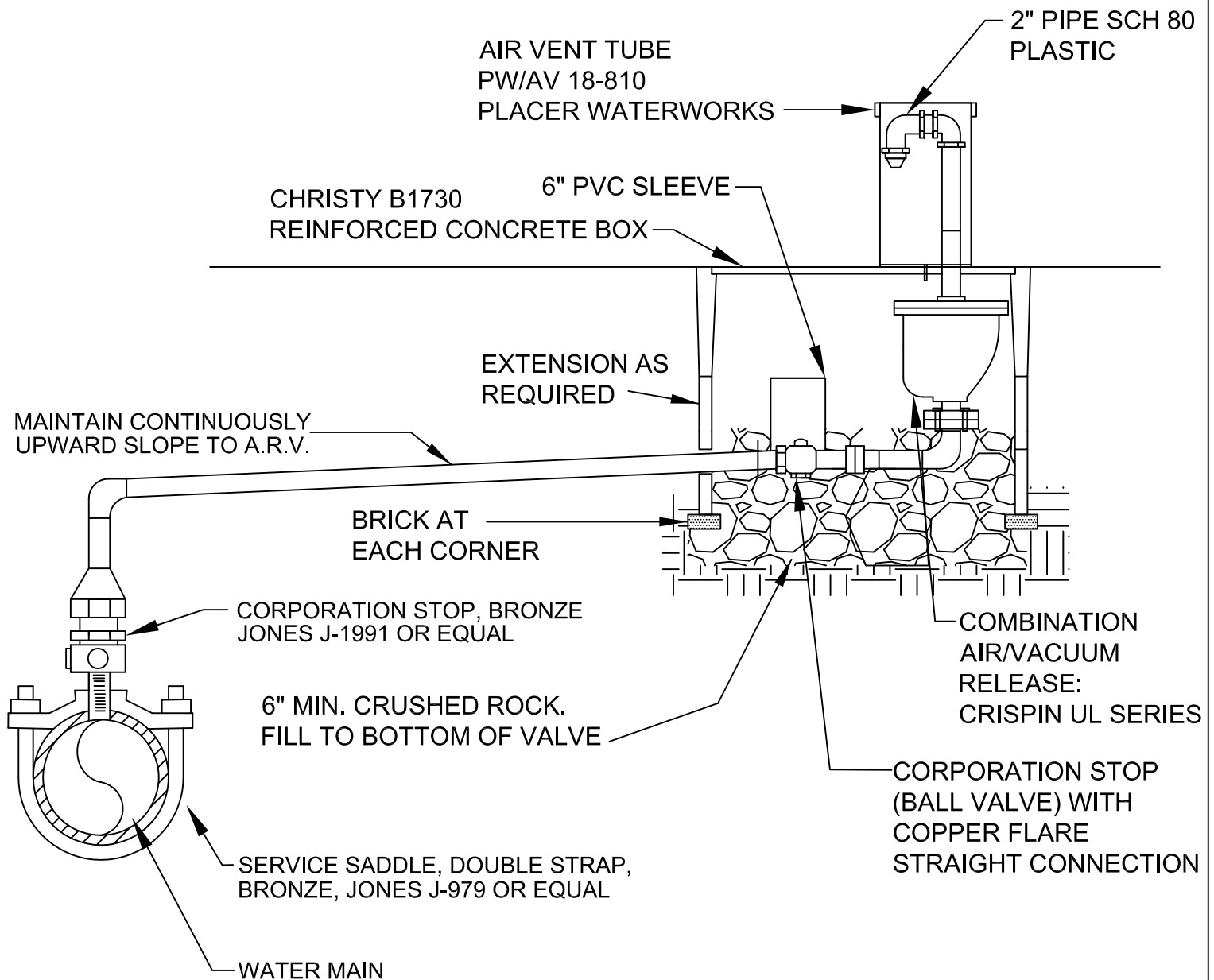
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REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

407

**BLOWOFF FOR
FUTURE EXTENSION**



NOTES:

1. VENT TUBE SHALL BE LABELED "POTABLE WATER" USING 2" LETTERS.
2. ALL PIPING SHALL BE BRASS OR COPPER BETWEEN THE MAIN AND ARV.
3. TRACER WIRE AND MARKER TAPE FROM MAIN TO CHRISTY BOX.
4. COPPER TYPE K POLYWRAP FROM MAIN WITH POLYETHYLENE SLEEVE OR 10MIL TAPE
 $\frac{1}{2}$ LAPPED FROM MAIN TO CRISTY BOX.

CITY OF TRACY

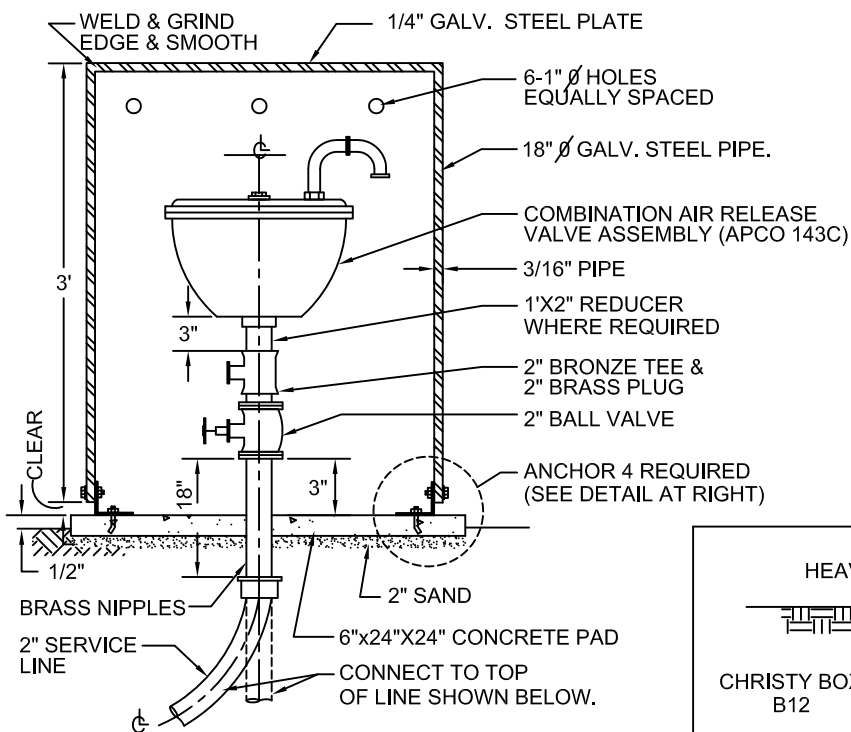


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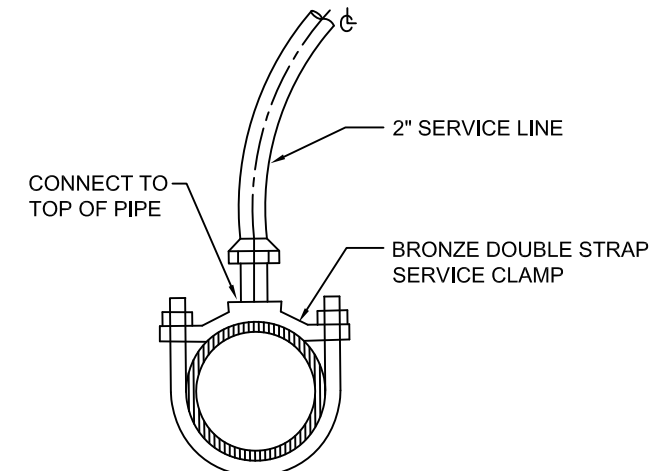
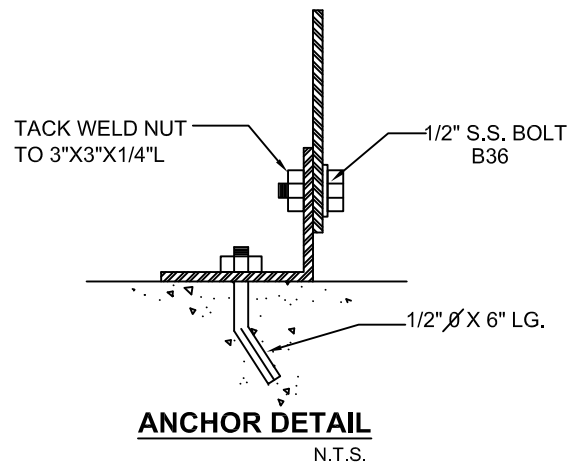
STANDARD
PLAN
No.

408

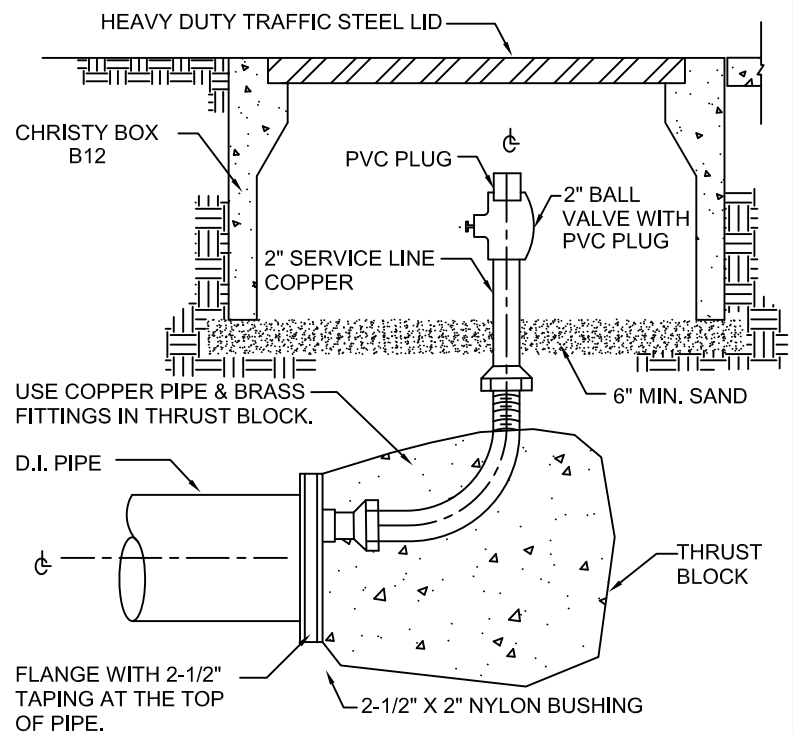
**COMBINATION AIR &
VACUUM RELEASE VALVE
WITH AIR VENT TUBE**



ELEVATION
N.T.S.



**CONNECTION AT
MAINLINE HIGH POINT**
N.T.S.



**BLOW OFF CONNECTION
AT END OF MAIN LINE**
N.T.S.

NOTES:

1. ASSEMBLIES INSTALLED AT EASEMENTS, ROADS AND STREETS WITHOUT CURBS SHALL BE PROTECTED WITH GUARD POST.
2. POST CONSISTS OF 6' LENGTH OF 4" PIPE FILLED WITH GROUT AND SET 3' BE GRADE IN 16" O.D. CONC. BASE POSITION POSTS 2' IN FRONT OF AND 2.5' EACH SIDE OF ASSEMBLIES. CROWN CONC. BASE AT TOP TO SHED WATER.
3. NO GALVANIZED STEEL PIPE SHALL BE USED.
4. POLYWRAP ALL PIPE IN FITTINGS.

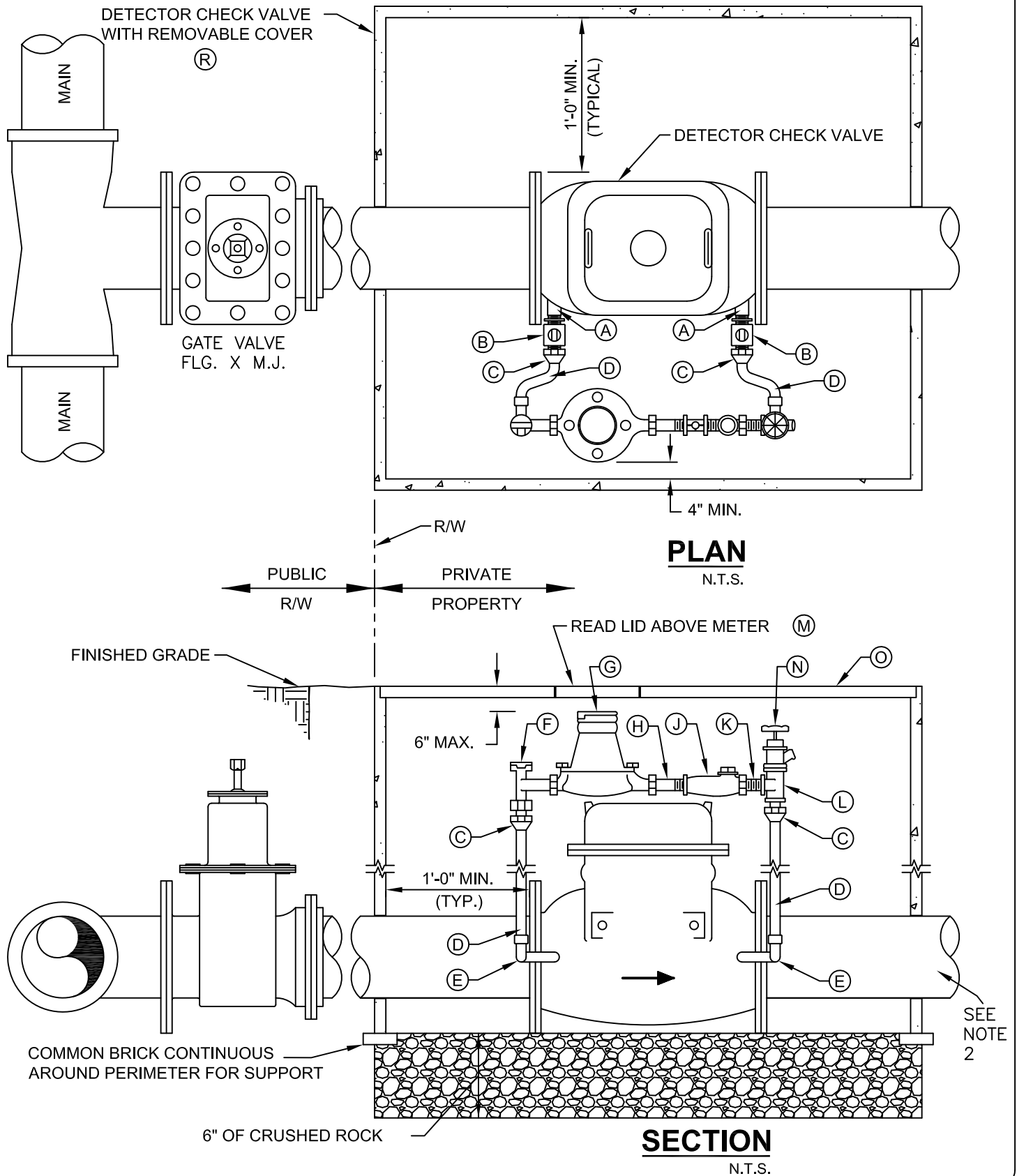
CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No. **409**

**COMBINATION AIR &
VACUUM RELEASE VALVE
ASSEMBLY & BLOWOFF**



CITY OF TRACY



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REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

STANDARD
PLAN
No.

410

SHEET 1 OF 2

DETECTOR CHECK VALVE

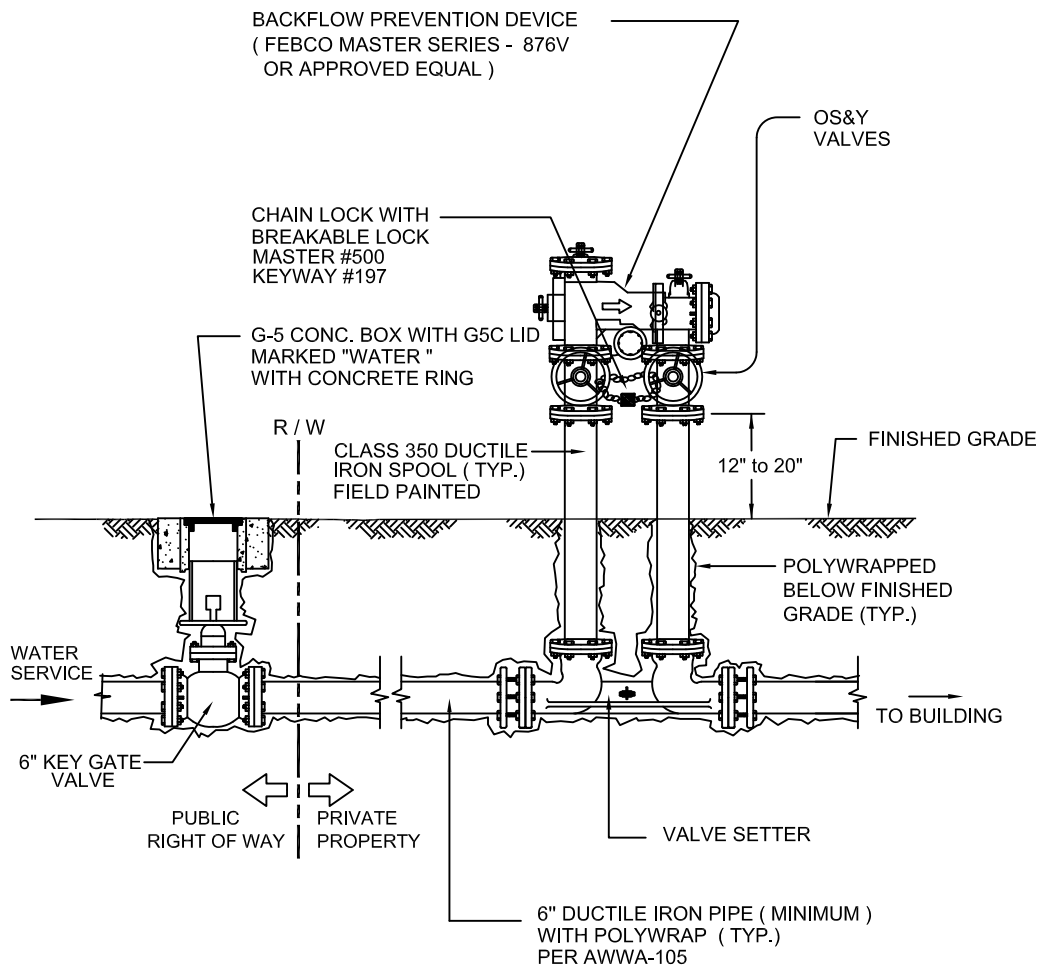
BILL OF MATERIAL		
ITEM	QTY.	DESCRIPTION
SERVICE (- FS)		
A	2	BUSHING (SIZE AS REQUIRED)
B	2	3/4" CORP. STOP, I.P. x K
C	4	3/4" CPLG. K x I.P. FE. - SI
D	2	3/4" COPPER TUBING
E	2	3/4" ELL 90° K x K - SI
F	1	3/4" ANGLE STOP I.P.
G	1	3/4" x 3/4" (SHORT 7.5) SENSUS METER (FLEXNET 520R)
H	1	3/4" METER SPUD
J	1	DOUBLE CHECK VALVE ASSEMBLY
K	2	3/4" x CLOSE NIPPLE
L	1	3/4" TEE SS BRASS
M	1	SELF CLOSING READ LID
N	1	3/4" x 1/4" TEE SS BRASS
O	1	BOLT DOWN COVER

NOTES:

1. DETECTOR CHECK VALVE TYPE SHALL BE APPROVED BY UNDERWRITERS LABORATORIES, INC.
2. POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION REQUIRED ON ALL FIRE SERVICE LINES.

CITY OF TRACY

	REVIEWED BY: <u>Robert Armijo</u> CITY ENGINEER RCE 63173		STANDARD PLAN No. 410	SHEET 2 OF 2
	Res No. 2020-031	DATE: February 18, 2020	DETECTOR CHECK VALVE	
	Prepared By: Leisser M.	Checked By: Thomas W.		
	Rev:	Rev:		



NOTES:

1. A LISTED BACKFLOW PREVENTION DEVICE IS REQUIRED TO BE INSTALLED ON ALL FIRE SPRINKLER SUPPLY LINES.
2. A POST INDICATOR VALVE MAY NOT BE REQUIRED IF THE PROXIMITY OF THE BACKFLOW PREVENTOR TO BUILDING IS ACCEPTABLE TO FIRE DEPARTMENT.
3. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN THE PRIVATE PROPERTY.
4. DESIGN ENGINEER SHALL CALCULATE AND DETERMINE THE SIZE OF THE IRON PIPE. MINIMUM 6" DIAMETER PIPE IS REQUIRED.
5. FDC SHALL BE LOCATED AT BUILDING.

CITY OF TRACY



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REVIEWED BY:

Robert Armijo

CITY ENGINEER

RCE: 63173

Res No. 2020-031

Prepared By: Leisser M.

Reviewed By: Amy Ray

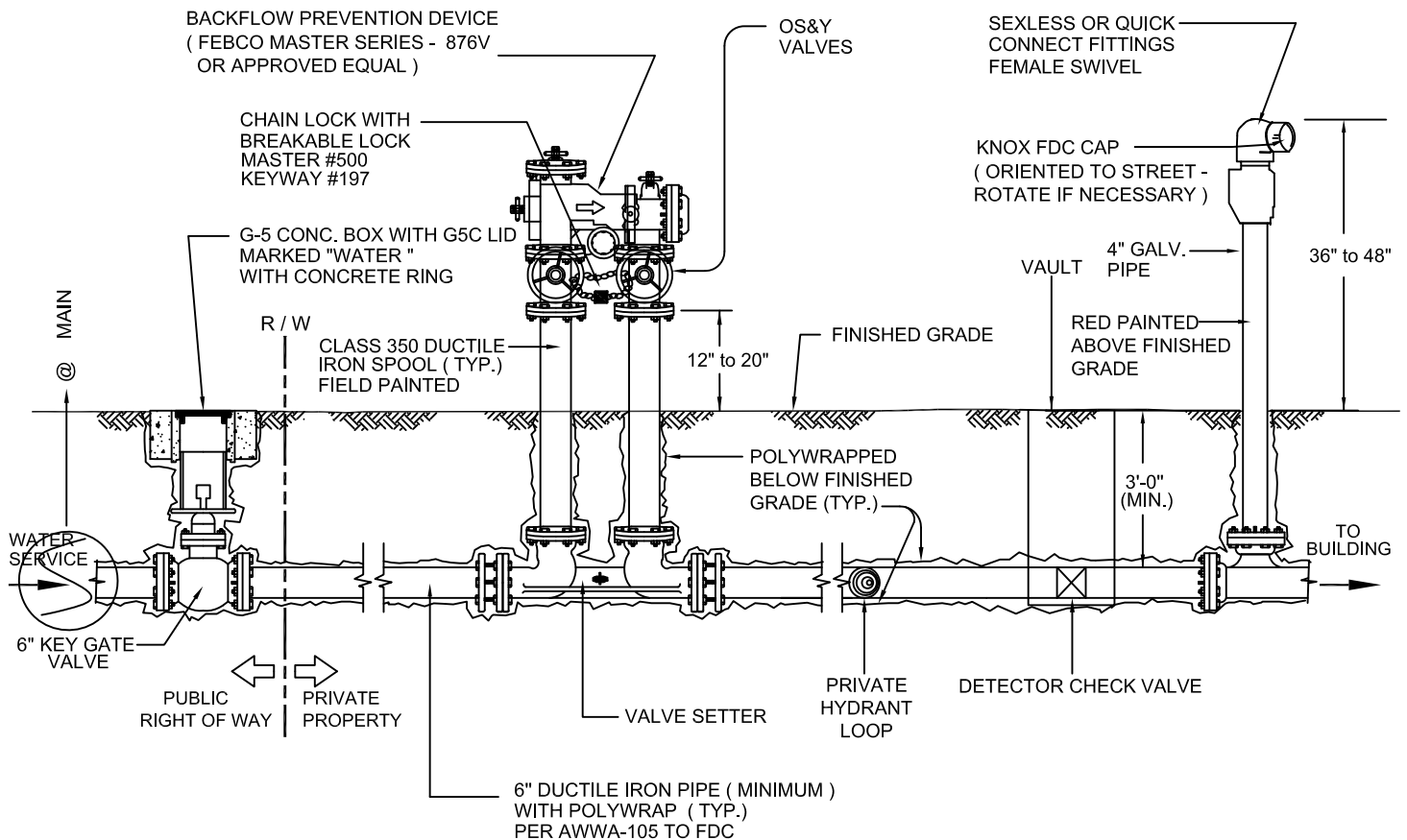
Checked By: Thomas W.

Prevention Chief

STANDARD
PLAN
No.

411

**FIRE DEPARTMENT CONNECTION/
BACKFLOW PREVENTOR**



NOTES:

1. A LISTED BACKFLOW PREVENTION DEVICE IS REQUIRED TO BE INSTALLED ON ALL FIRE SPRINKLER SUPPLY LINES.
2. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN THE PRIVATE PROPERTY.
3. DESIGN ENGINEER SHALL CALCULATE AND DETERMINE THE SIZE OF THE IRON PIPE. MINIMUM 6" DIAMETER PIPE IS REQUIRED.
4. A POST INDICATOR VALVE MAY NOT BE REQUIRED IF THE PROXIMITY OF THE BACK FLOW PREVENTOR TO THE BUILDING IS ACCEPTABLE TO THE FIRE DEPARTMENT.
5. FOR LARGE SYSTEM DEMANDS FDC'S WITH A MINIMUM OF 3-4 HOSE CONNECTIONS SHALL BE REQUIRED.

CITY OF TRACY



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REVIEWED BY:

Robert Armijo

CITY ENGINEER

RCE: 63173

Res No. 2020-031

Prepared By: Leisser M.

Reviewed By: Amy Ray

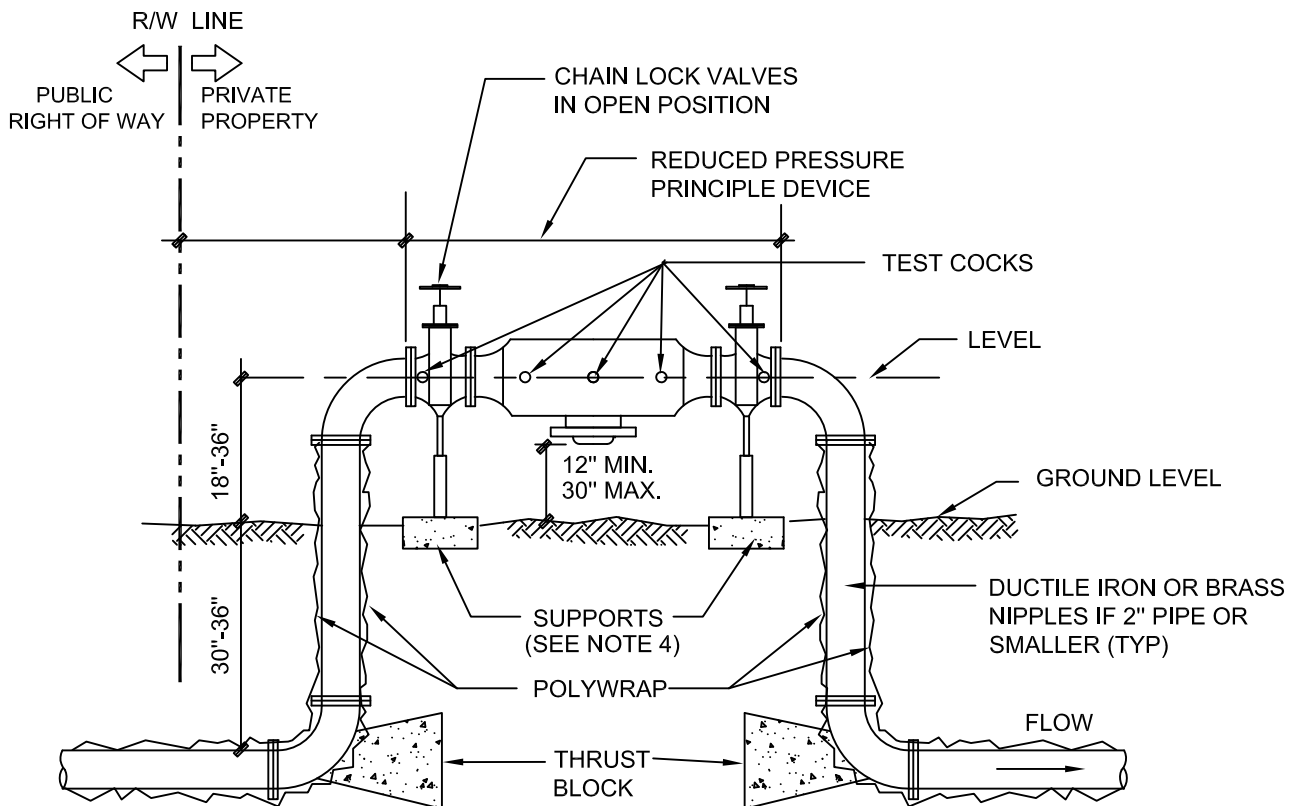
Checked By: Thomas W.

Prevention Chief

STANDARD
PLAN
No.

412

**FIRE DEPARTMENT CONNECTION/
BACKFLOW PREVENTOR**



REDUCED PRESSURE ASSEMBLY
N.T.S.

NOTES:

1. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED ON PRIVATE PROPERTY IN A LOCATION APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. BACKFLOW PREVENTION DEVICE SHALL CONSIST OF REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE AS REQUIRED BY TITLE 17 OF FOUNDATION FOR CROSS CONNECTION U.S.C. AND AS SHOWN ON APPROVED LIST ON FILE WITH PUBLIC WORKS. SIZE AND MODEL OF BACKFLOW DEVICE TO BE DETERMINED FOR EACH INSTALLATION DEPENDING UPON ALLOWABLE HEAD LOSS . WHERE BACKFLOW PREVENTION DEVICE IS INSTALLED IN COMBINATION WITH FIRE AND DOMESTIC SERVICE IT SHALL BE APPROVED BY FIRE MARSHALL.
3. BARRIER POST SHALL BE LOCATED TO PROTECT PIPING AND VAULTS. CURB AND PARKING BARRIERS CAN BE CONSIDERED AS PROTECTION IF EFFECTIVELY LOCATED. MINIMUM DISTANCE 4' FROM FACE OF CURB.
4. BACKFLOW PREVENTION DEVICE 3" OR LARGER SHALL BE SUPPORTED . USE GRINNELL FIG. 264 , WITH 4" THICK , 12" SQUARE CONCRETE FOOTING .
5. WATER SUPPLY - NO CONNECTIONS OR TEES WILL BE ALLOWED BETWEEN METER AND DEVICE .
6. TEST COCKS SHALL BE MUELLER H-11007 OR AS FURNISHED WITH THE BACKFLOW PREVENTION DEVICE. ALL TEST COCKS SHALL HAVE PLUGS.
7. DEVICE SHALL BE ACCESSIBLE FOR TESTING AND MAINTENANCE .
8. CERTIFICATION REQUIRED PRIOR TO ACCEPTANCE .
9. NO GALVANIZED PIPE.

CITY OF TRACY

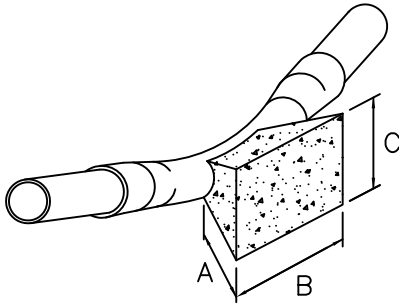


REVIEWED BY: <i>Robert Armijo</i>	
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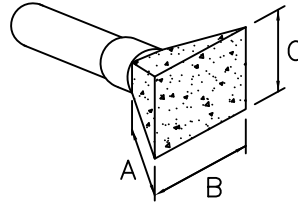
STANDARD
PLAN
No.

413

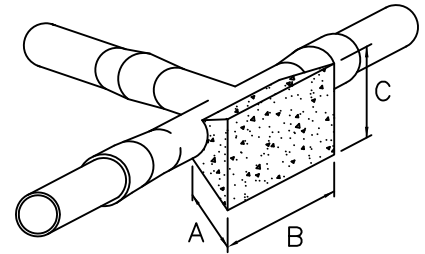
**BACKFLOW
PREVENTION DEVICE**



BENDS



DEAD ENDS



TEES

THRUST BLOCK AREA REQUIRED

ALLOWABLE SOIL BEARING VALUE - 2500 POUNDS PER SQUARE FOOT

FITTINGS	6" LINE			8" LINE			10" LINE			12" LINE		
	A	B	C	A	B	C	A	B	C	A	B	C
22 1/2° BEND	1'	1'-6"	1'-6"	1'	2'	2'	1'	3'	2'	1'-6"	3'	3'
45° BEND	1'	2'	2'	1'-6"	3'	2'-6"	1'-6"	3'-6"	3'	2'	4'	4'
90° BEND	1'-6"	3'	3'	1'-6"	4'	3'	2'	5'	4'	2'	7'	4'
DEAD END	1'	2'-6"	2'	1'-6"	3'	3'	2'	4'	3'-6"	2'	5'	4'
TEE	1'	2'-6"	2'	1'-6"	3'	3'	2'	4'	3'-6"	2'	5'	4'

NOTES:

1. CONCRETE SHALL BE CLASS B, 2500 PSI MINIMUM AT 28 DAYS.
2. THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
3. MINIMUM BEARING AREAS ARE SHOWN IN THE ABOVE TABLE.
4. THRUST BLOCKS WILL BE WEDGE-SHAPED AND SHALL NOT OVERLAP BELL ON FITTINGS OR INTERFERE WITH BOLTS ON FLANGE.

CITY OF TRACY



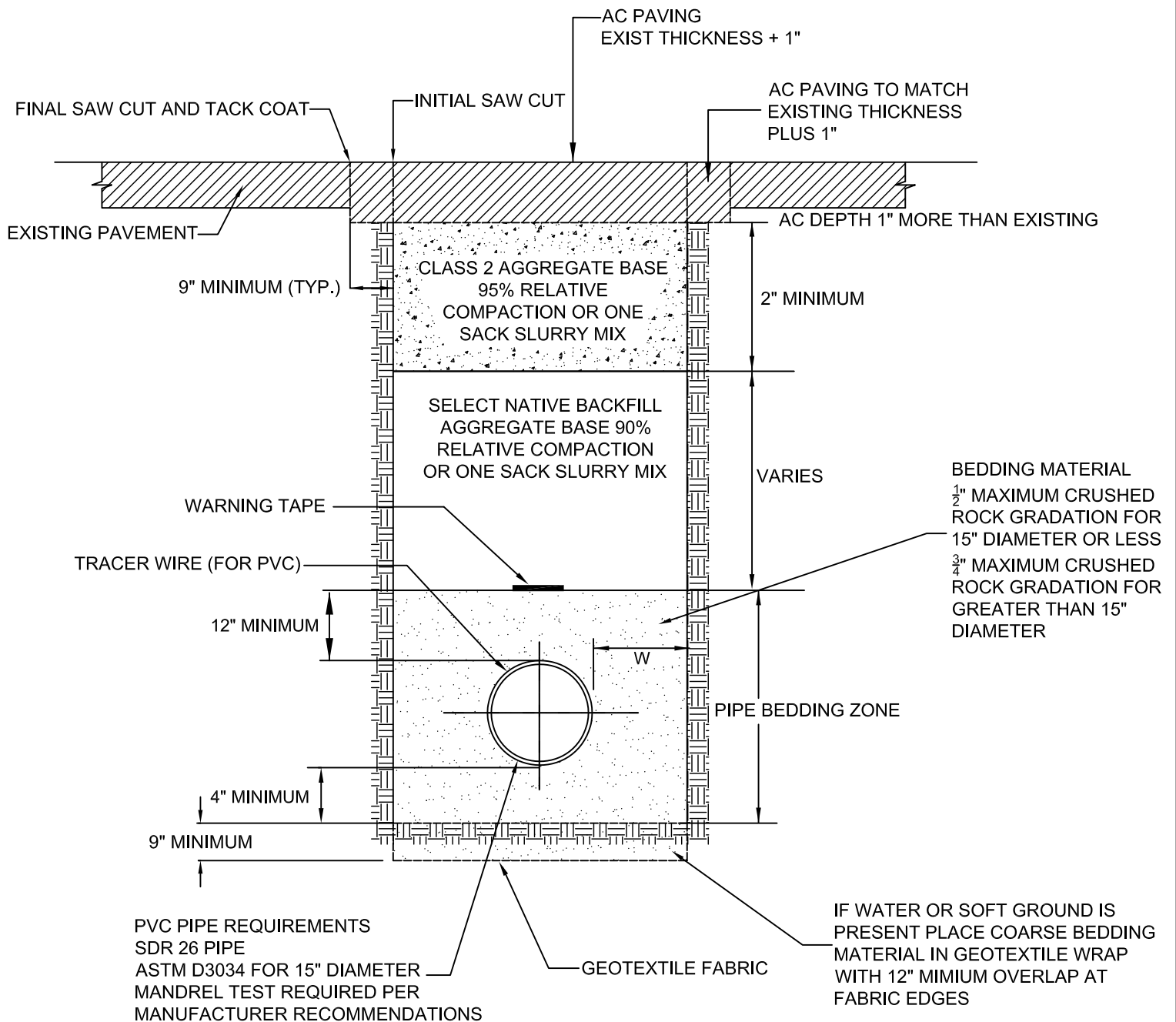
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STANDARD
PLAN
No.

414

THRUST BLOCK



NOTES:

1. GEOTEXTILE FABRIC FOR FOUNDATION ROCK SHALL BE PROVIDED BENEATH SANITARY SEWERS, MANHOLES AND STRUCTURES WHERE WATER OR SOFT GROUND IS PRESENT, THE GEOTEXTILE FABRIC SHALL BE WRAPPED ENTIRELY AROUND THE ROCK WITH A MINIMUM TWELVE (12) INCHES OVERLAP, PUNCTURES IN THE GEOTEXTILE FABRIC SHALL BE COVERED WITH TWELVE (12) INCH SQUARE MINIMUM PATCH.
2. THESE ARE MINIMUM REQUIREMENTS, IF OTHER JURISDICTIONAL AGENCY REQUIREMENTS EXCEED THOSE SHOWN, THE GREATER REQUIREMENT SHALL BE MET.
3. ALL FLEXIBLE PIPE SHALL HAVE LOCATING WIRE ATTACHED EVERY 5FT TO PIPE.

CITY OF TRACY



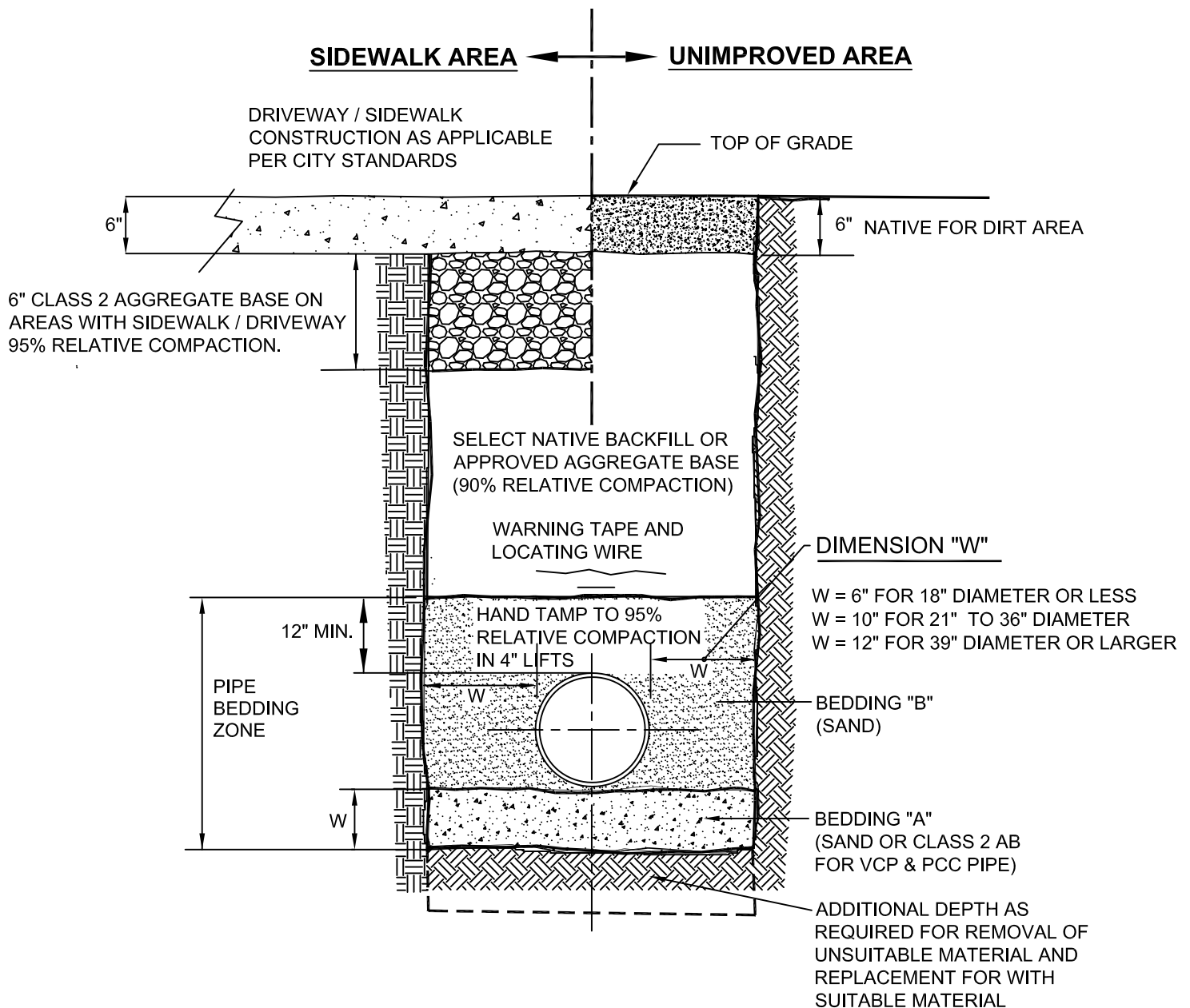
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STANDARD
PLAN
No.

500

TRENCH BACKFILL DETAIL FLEXIBLE PIPE



TYPE 2

N.T.S.

SIDEWALK OR UNIMPROVED AREAS TRENCH BACKFILL DETAIL

NOTES:

1. SEE NOTES ON SHEET 3

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
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Res No. 2020-031	DATE: February 18, 2020
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Rev:	Rev:

STANDARD
PLAN
No.

501

SHEET 2 OF 3

TRENCHING & RESURFACING

NOTES:

1. UNSUITABLE SUB GRADE MATERIAL SHALL BE EXCAVATED AND STABILIZED WITH #3 ROCK (PER ASTM C-33 OR APPROVED EQUAL) OR ONE SACK CEMENT SLURRY AS APPROVED BY THE CITY ENGINEER.
2. BEDDING "A" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30), FOR CLAY AND CONCRETE PIPE, CLASS 2 AGGREGATE BASE PER CITY STANDARD SPECIFICATIONS MAY BE USED.
3. BEDDING "B" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30).
4. SELECT NATIVE BACKFILL MATERIAL - MATERIAL FROM EXCAVATION, FREE FROM STONES, LUMPS EXCEEDING 3" IN GREATEST DIMENSION, VEGETABLE MATTER, CLAY, OR UNSATISFACTORY MATERIAL.
5. ALL TRENCHES SHALL BE SHORED OR PROTECTED IN ACCORDANCE WITH "OSHA" AND OTHER STATE AND FEDERAL SAFETY CODES, REGULATIONS AND ORDINANCES.
6. PLACEMENT OF BACKFILL SHALL BE IN 12" LIFTS EVENLY PLACED AND MECHANICALLY COMPACTED TO THE RELATIVE DENSITY SPECIFIED. COMPACTION TESTS SHALL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER. ALL COST RELATED TO THESE TESTS SHALL BE BORNE BY OWNER/CONTRACTOR/UTILITY COMPANY WHEN SUCH TESTS ARE REQUIRED. IF RESULTS OF THESE TESTS DO NOT MEET THE SPECIFIED REQUIREMENTS, BACKFILL SHALL BE EXCAVATED, REPLACED, COMPACTED AND RETESTED. IN CASE OF ONE SACK SLURRY MIX, NO COMPACTION TEST WILL BE REQUIRED. COMPACTION BY JETTING WITHIN THE PIPE BEDDING ZONE MAY BE ALLOWED BY SPECIAL PERMISSION OF THE CITY ENGINEER.
7. INITIAL CUT IN STREET PAVEMENT SHALL BE EQUAL TO THE WIDTH OF THE TRENCH WITH THE OPTION OF BEING JACK HAMMERED OR SAW CUT.
8. FINAL CUT IN STREET PAVEMENT SHALL BE 18" WIDER THAN THE TRENCH WIDTH (9" ON EACH SIDE) AS SHOWN IN THE DETAIL AND SHALL BE MADE BY AN ASPHALT GRINDER OR SAW CUTTING ONLY.
9. ALL TRENCHES SHALL BE BACKFILLED AND TEMPORARILY PAVED OR STEEL PLATED AT THE END OF EACH WORKING DAY.
10. TEMPORARY BITUMINOUS SURFACING (CUTBACK) SHALL BE PLACED AND COMPACTED IMMEDIATELY ABOVE THE TRENCH FOLLOWING BACKFILL COMPACTION AND APPROVAL OF THE CITY ENGINEER. MINIMUM DEPTH OF CUTBACK SHALL BE 2" OR AS SPECIFIED BY THE CITY ENGINEER. CUTBACKS SHALL BE MAINTAINED IN A CONDITION SATISFACTORY TO THE CITY ENGINEER UP UNTIL THE TIME OF FINAL PAVING.
11. FINAL PAVING ABOVE TRENCH SECTION SHALL BE PLACED WITHIN 14 DAYS OF ITS BACKFILL AND COMPACTION. EXTENSION MAY BE GRANTED BY THE CITY ENGINEER DUE TO WEATHER CONDITIONS. DEPTH OF FINAL PAVING SHALL BE 1" GREATER THAN EXISTING PAVEMENT. IN THE EVENT PERMANENT PAVING IS NOT COMPLETED WITHIN 14 DAYS, THE CITY WILL CONSIDER THIS AS INCOMPLETE WORK AND WILL TAKE THE ACTION NECESSARY, IN ACCORDANCE WITH PREVAILING CITY ORDINANCES AND POLICIES.
12. TEMPORARY CUTBACK SHALL BE REMOVED PRIOR TO THE PLACEMENT OF FINAL PAVING. FINAL PAVING SHALL BE PLACED ON UNDISTURBED, PREVIOUSLY INSPECTED AND COMPACTED AGGREGATE BASE OR ONE SACK SLURRY MIX. RECOMPACTION SHALL BE REQUIRED FOR ANY DISTURBED BASE OR SURFACE.
13. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH CITY OF TRACY STANDARD SPECIFICATIONS.
14. FOR A PARALLEL TRENCH LONGER THAN ONE HALF THE LENGTH OF A BLOCK, A 2" GRIND AND OVERLAY FROM THE LIP OF GUTTER TO CENTERLINE OF ROADWAY IS REQUIRED.
15. PROPER TRAFFIC CONTROL AND COVERING OF TRENCHES SHALL BE MAINTAINED IN ACCORDANCE WITH PREVAILING SAFETY AND TRAFFIC CONTROL STANDARDS FOR WORK IN CONSTRUCTION AREAS.
16. NO TRENCH SHALL BE OPENED IN ANY STREET FOR THE PURPOSE OF LAYING PIPES OR CONDUITS MORE THAN TWO HUNDRED (200) FEET AT A TIME.
17. TRENCHING SHALL NOT BE ALLOWED ON ANY STREET WHICH AS BEEN RECONSTRUCTED OR PAVED WITH THE PAST THREE YEARS NOR ON ANY SLURRY SEALED STREET FOR A PERIOD OF EIGHTEEN (18) MONTHS.
18. 48 HOURS ADVANCE NOTICE SHALL BE REQUIRED FOR ALL CITY INSPECTIONS. CALL THE CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600.
19. REMOVE AND REPLACE THE REMAINING SECTION OF PAVEMENT IF DISTANCE BETWEEN T-CUT EDGE AND LIP OF GUTTER IS LESS THAN 36"
20. FILTER FABRIC BETWEEN DRAIN ROCK AND BEDDING REQUIRED

CITY OF TRACY



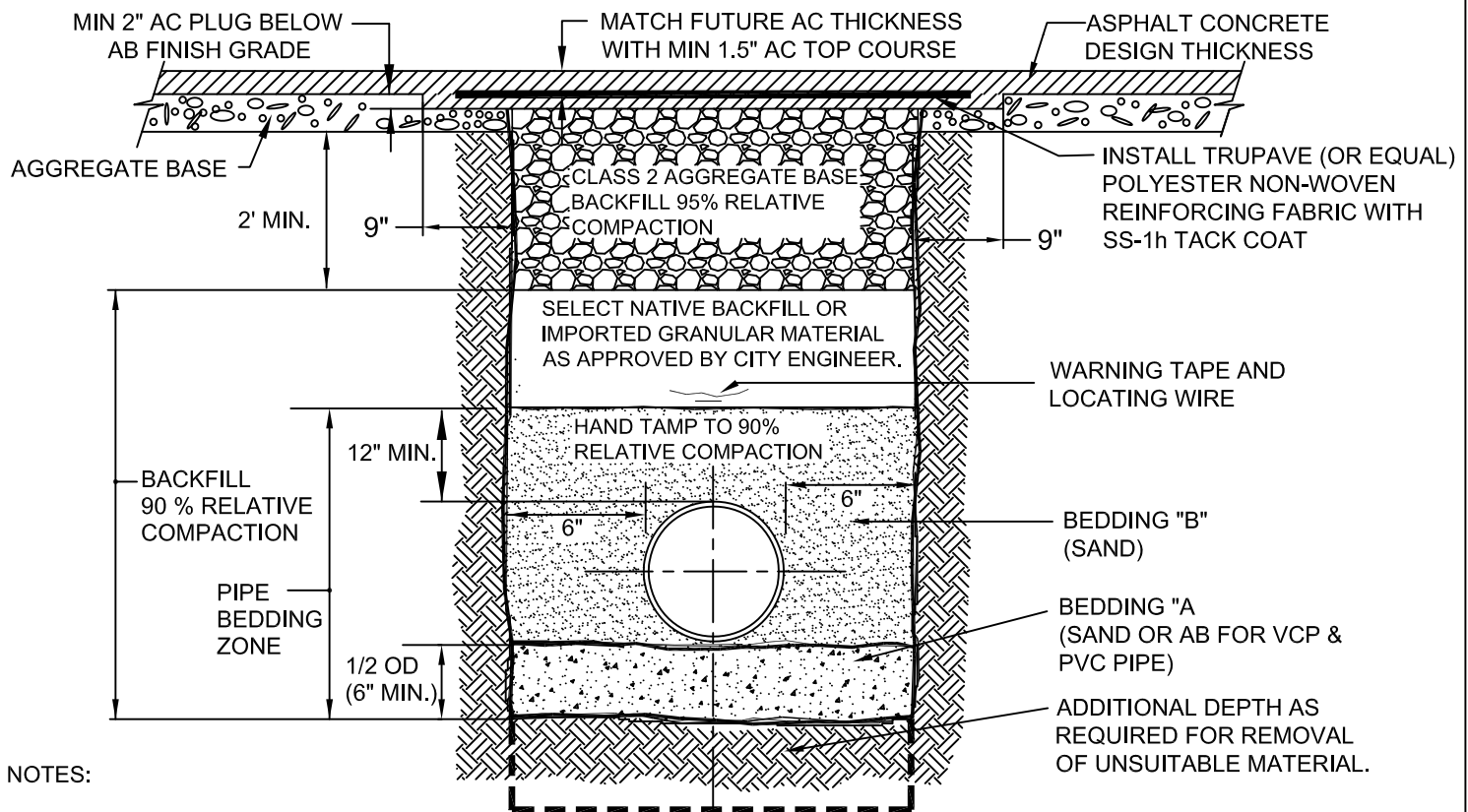
REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Checked By: Thomas W.
Rev:	Rev:

STANDARD
PLAN
No.

501

SHEET 3 OF 3

**TRENCHING &
RESURFACING**



NOTES:

1. BEDDING "A" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30). FOR CLAY AND CONCRETE PIPE, CLASS 2 AGGREGATE BASE PER CITY STANDARD SPECIFICATIONS MAY BE USED. BEDDING "B" SHALL BE COMPOSED OF SAND (SAND EQUIVALENT NOT LESS THAN 30).
2. SELECT NATIVE BACKFILL MATERIAL - MATERIAL FROM EXCAVATION, FREE FROM STONES, LUMPS EXCEEDING 3" IN GREATEST DIMENSION, VEGETABLE MATTER, CLAY, OR UNSATISFACTORY MATERIAL.
3. UNSUITABLE SUBGRADE MATERIAL SHALL BE EXCAVATED AND STABILIZED WITH #3 ROCK (PER ASTM C-33 OR APPROVED EQUAL) OR WITH CEMENT SLURRY / CONCRETE AS APPROVED BY THE CITY ENGINEER.
4. ALL TRENCHES SHALL BE SHORED OR PROTECTED IN ACCORDANCE WITH "OSHA" AND OTHER STATE AND FEDERAL SAFETY CODES, REGULATIONS AND ORDINANCES.
5. THE FINAL 2 FEET OF BACKFILLED MATERIAL SHALL BE EITHER AGGREGATE BASE (95% RELATIVE COMPACTION) OR ONE (1) SACK SLURRY MIX.
6. PLACEMENT OF BACKFILL SHALL BE IN 12" LIFTS EVENLY PLACED AND MECHANICALLY COMPACTED TO THE RELATIVE DENSITY SPECIFIED. COMPACTION TESTS SHALL BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER. ALL COST RELATED TO THESE TESTS SHALL BE BORNE BY OWNER/CONTRACTOR/UTILITY COMPANY WHEN SUCH TESTS ARE REQUIRED. IF RESULTS OF THESE TESTS DO NOT MEET THE SPECIFIED REQUIREMENTS, BACKFILL SHALL BE EXCAVATED, REPLACED, COMPACTED AND RETESTED. IN CASE OF ONE SACK SLURRY MIX, NO COMPACTION TEST WILL BE REQUIRED. COMPACTION BY JETTING WITHIN THE PIPE BEDDING ZONE MAY BE ALLOWED BY SPECIAL PERMISSION OF THE CITY ENGINEER.
7. 48 HOURS ADVANCE NOTICE SHALL BE REQUIRED FOR ALL CITY INSPECTIONS. CALL THE CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600.
8. PROPER TRAFFIC CONTROL AND COVERING OF TRENCHES SHALL BE MAINTAINED IN ACCORDANCE WITH PREVAILING SAFETY AND TRAFFIC CONTROL STANDARDS FOR WORK IN CONSTRUCTION AREAS.
9. ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH CITY OF TRACY STANDARD SPECIFICATIONS.

CITY OF TRACY

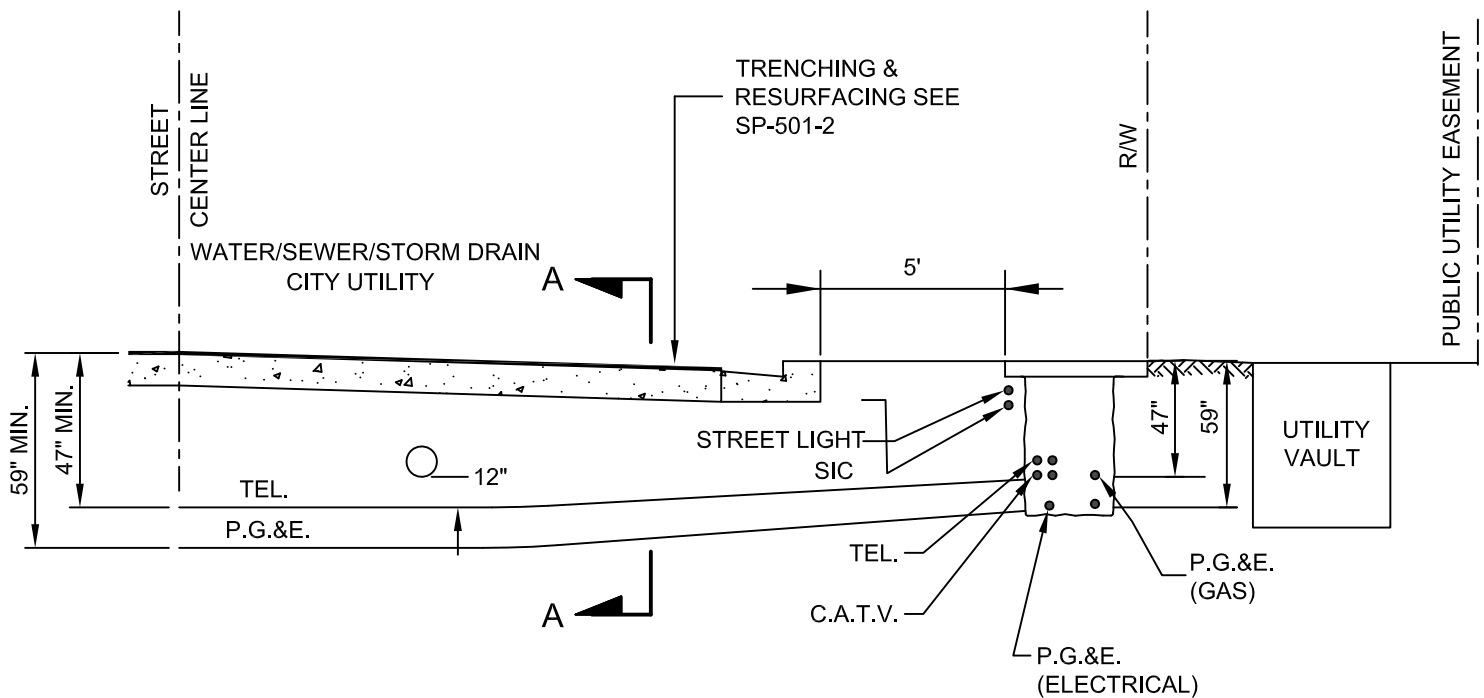


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STANDARD
PLAN
No.

502

SUBDIVISION TRENCHING AND BACKFILL



TYPICAL SECTION

NOTES:

1. SEE CITY STANDARD PLAN SP 503, SHEET 2 OF 2 FOR "UTILITY CROSSING TRENCH SECTION"

CITY OF TRACY

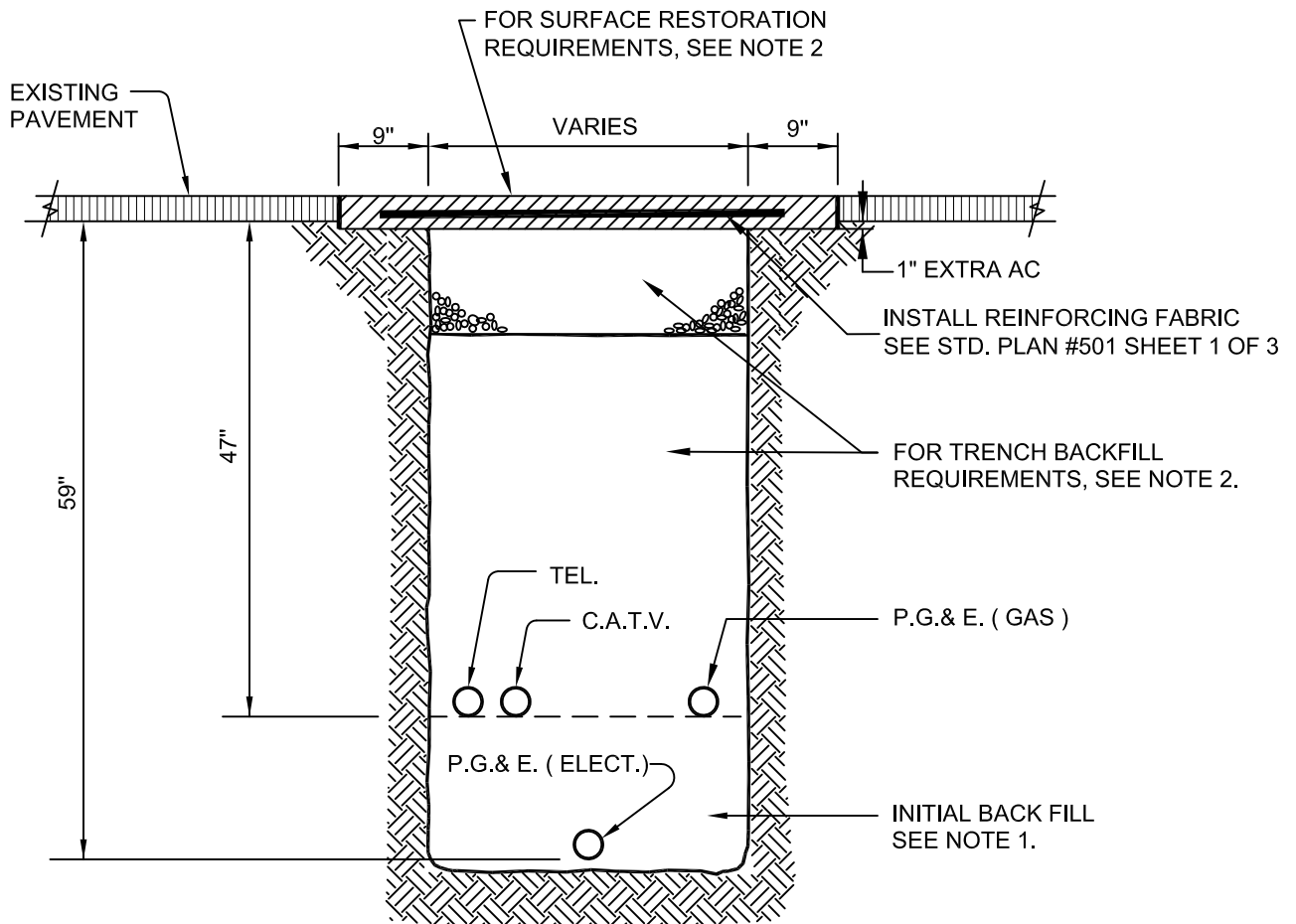


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Rev:	Rev:

STANDARD PLAN No.	503	SHEET 1 OF 2
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DRY UTILITY CROSSINGS



TRENCH DETAIL

N.T.S.

SECTION "A"

NOTES:

1. WHEN MULTIPLE DUCTS ARE IN A COMMON TRENCH, BACK FILL MATERIAL SHALL CONFORM TO CITY OF TRACY STD. PLAN #501.
2. PAVEMENT REPLACEMENT AND TRENCH BACKFILL SHALL CONFORM TO STANDARD PLANS FOR " TRENCHING AND RESURFACING ". (STANDARD PLAN NO. 501)
3. A SINGLE UTILITY MAY BE PLACED IN 6" MIN. WIDE ROCKWHEEL TRENCH IN EXISTING STREETS. BACKFILL FOR 6" WIDE TRENCH SHALL CONSIST OF ONE SACK SLURRY MIX. SURFACE RESTORATION WITHIN PAVED AREAS SHALL STILL REQUIRE 9" TEE CUT ON EACH SIDE OF TRENCH.
4. TEMPORARY PAVEMENT SHALL BE PLACED AND MAINTAINED AT THE LEVEL OF THE ADJACENT ROADWAY AT ALL TIMES UNTIL FINAL PAVEMENT REPLACEMENT IS COMPLETED.
5. 48 HOURS WRITTEN NOTICE IS REQUIRED PRIOR TO COMMENCEMENT OF WORK. CALL CITY OF TRACY CONSTRUCTION MANAGEMENT DIVISION AT (209) 831-4600

CITY OF TRACY



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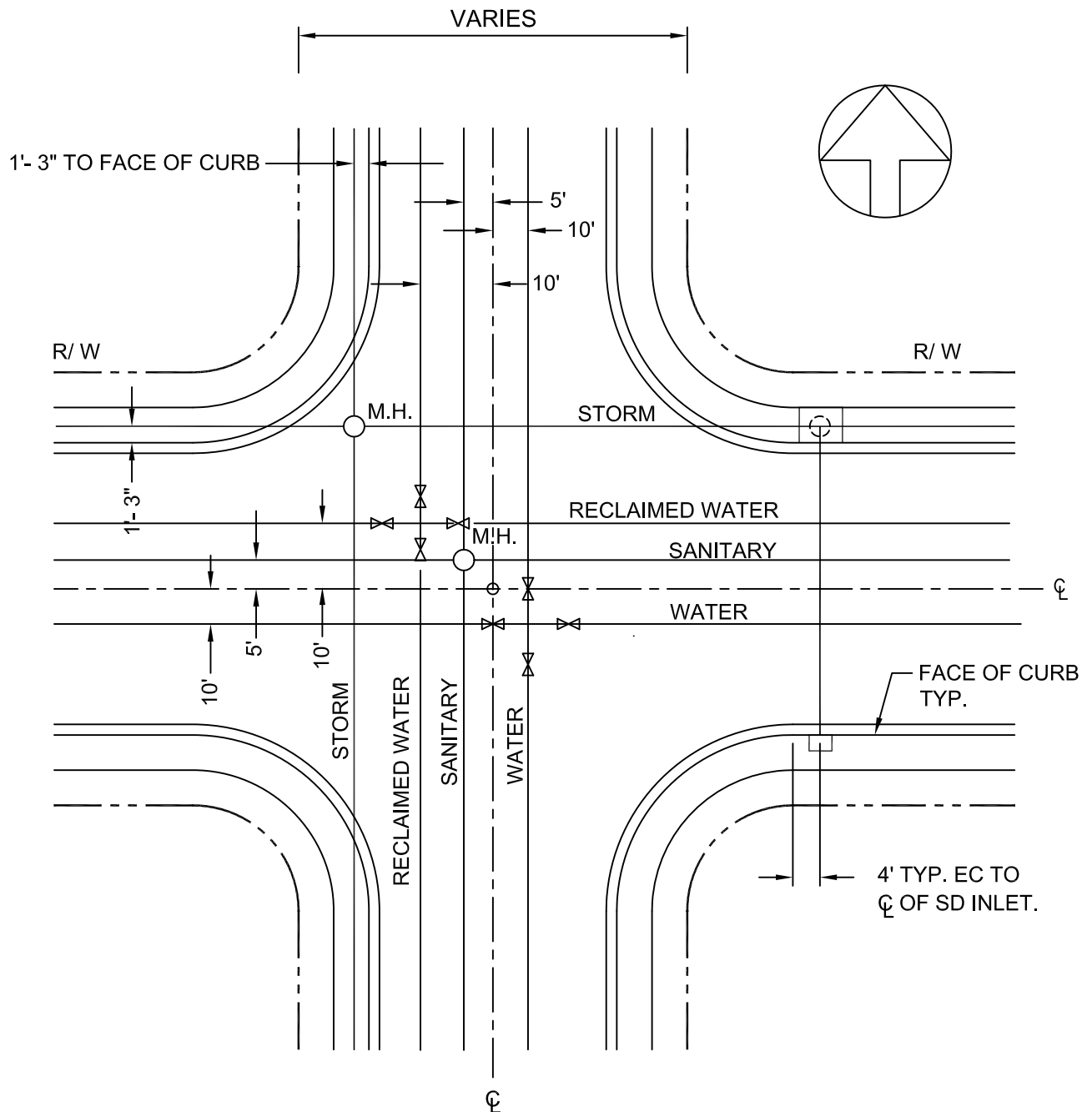
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Rev:	Rev:

STANDARD
PLAN
No.

503

SHEET 2 OF 2

"DRY" UTILITY LOCATIONS



NOTE:

1. WHEN USING STD PLAN #304, TYPE "A" INLET CL OF A STORM DRAIN PIPE SHALL BE 10 INCHES INSIDE FACE OF CURB

CITY OF TRACY



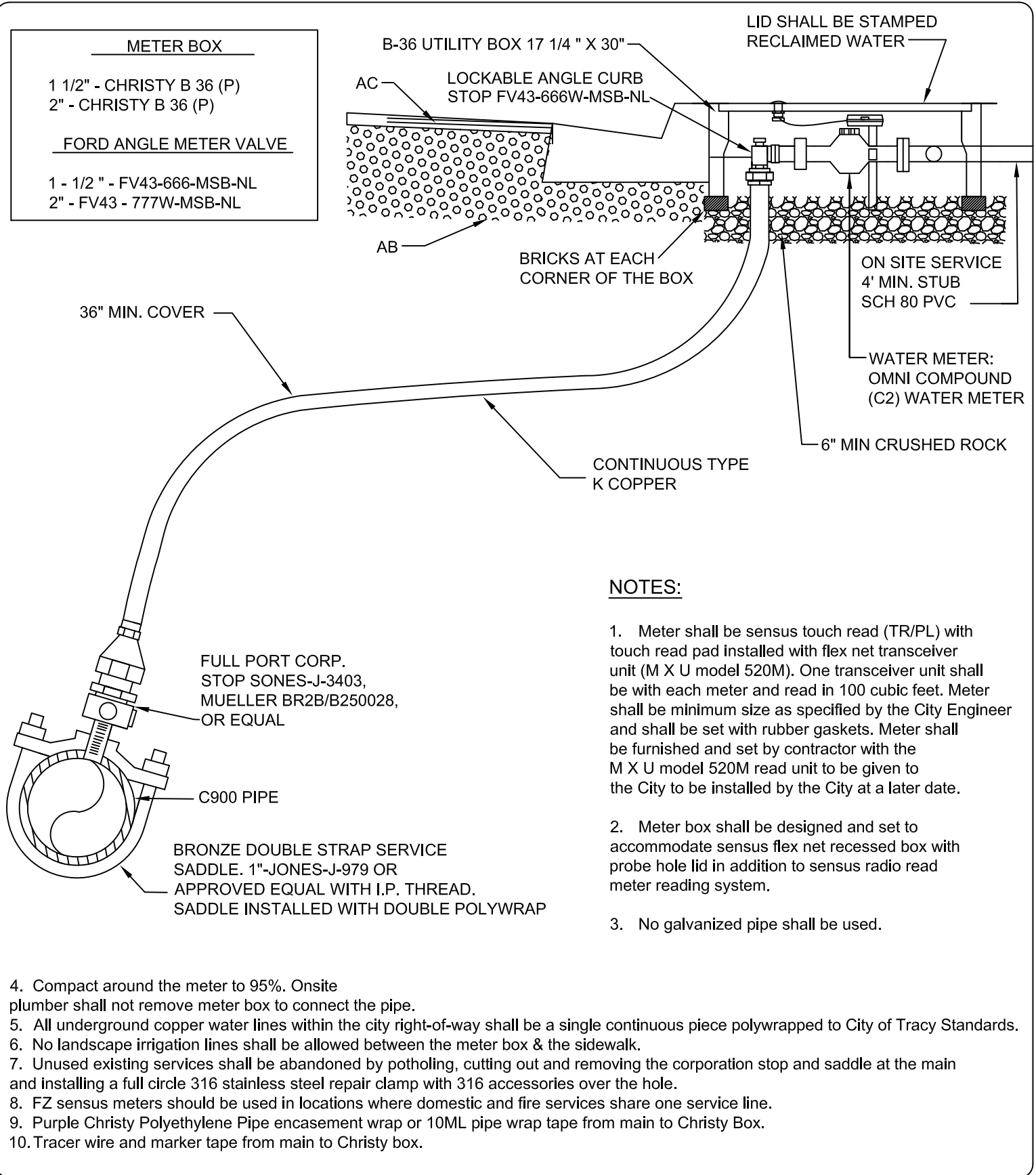
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STANDARD
PLAN
No.

504

**STORM, SEWER &
WATER LOCATIONS**



CITY OF TRACY

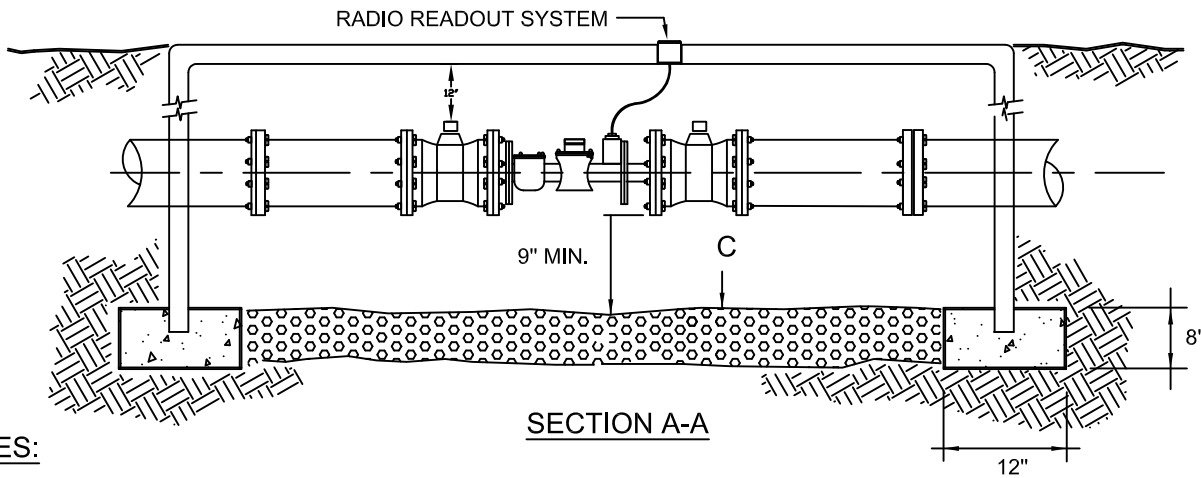
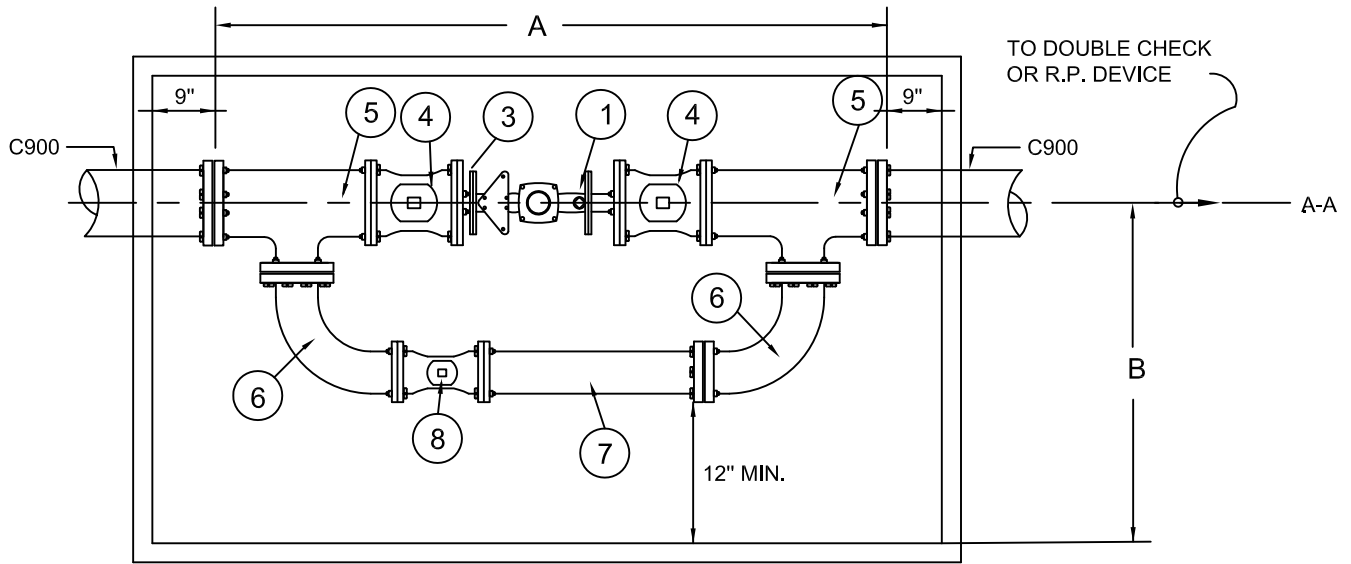


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Prepared By: Leisser M.	Scale: N.T.S
Checked By: Thomas W.	Checked By: Aleck C.

STANDARD
PLAN
No.

600

**RECLAIMED WATER
1 1/2" & 2" SERVICE**



NOTES:

1. METER TYPE T2 TURBO WITH FLEX NET FOR IRRIGATION SERVICE.
2. INSTALL LOCKABLE STEEL VAULT LID WITH METER REGISTER IN LID. LID STAMPED RECLAIMED WATER.
3. FOR WATER METERS LARGER THAN 6", DESIGNER SHALL SUBMIT A SEPARATE DESIGN FOR APPROVAL BY CITY ENGINEER.
4. ALL PIPE AND FITTINGS WITHIN VAULT SHALL BE FLANGED DUCTILE IRON PIPE.
5. THE MINIMUM SIZE SERVICE FOR A STREETScape APPLICATION AND NEIGHBORHOOD PARK IS 4 INCH.
6. NO LANDSCAPE IRRIGATION LINES SHALL BE ALLOWED BETWEEN THE METER BOX AND THE SIDEWALK.
7. WATER METER SHALL BE LOCATED WITHIN THE CITY R.O.W

No.	NAME		
1	FLEX NET METER	6	90° ELBOW
2	COUPLING	7	BYPASS PIPE DIP SAME SIZE
3	ADAPTER	8	BYPASS GATE VALVE W/ NUT
4	GATE VALVE W/ NUT		
5	TEE		

DIMENSIONS		3"	4"	6"
A	OVER ALL LENGTH	63	73	86
B	WIDTH PIPE ϕ TO BYPASS	19	21	26
C	PIPE ϕ TO MAXIMUM HEIGHT	16	17	21
MAIN LINE WIDTH				
WEIGHT				
BY PASS SIZE		3"	3"	4"

CITY OF TRACY

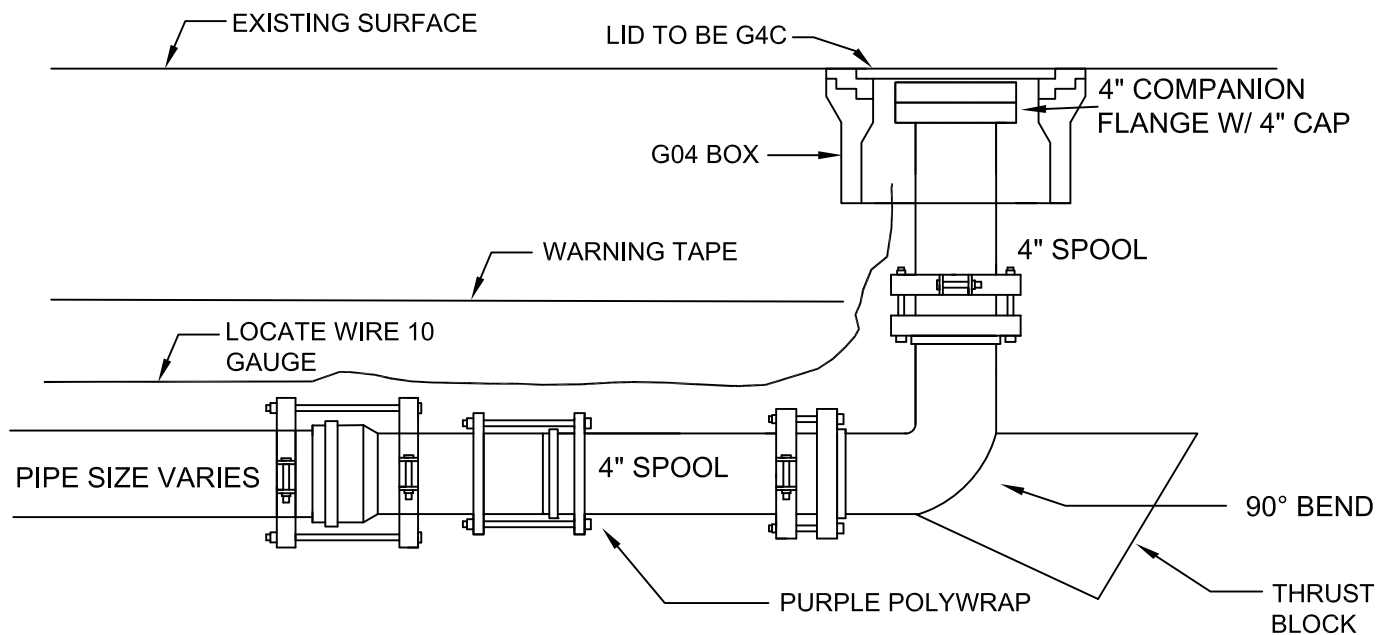


REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
Res No. 2020-031	DATE: February 18, 2020
Prepared By: Leisser M.	Scale: N.T.S
Checked: Thomas W.	Checked: Aleck C.

STANDARD
PLAN
No.

601

3", 4" & 6"
RECLAIMED WATER METER



NOTES:

1. FOR THRUST BLOCK DIMENSIONS, SEE STANDARD PLAN NO. 423
2. THE FUTURE EXTENSION STUB SHALL BE TESTED AND CHLORINATED WITH THE REST OF THE MAIN AND BLOW OFF THROUGH THE PIPE.
3. BLOW OFF SHALL BE 4" MINIMUM FOR BAC-TEE OR 4" DUCTILE IRON FLANGED PIPE.
4. USE BALL VALVE ON 2" SVC OR BLOW OFF ONLY
5. TRAFFIC BOX SHALL BE CHRISTY G04 WITH G4C LID OR APPROVED EQUAL.
6. VALVE AND BLOW OFF BOXES SHALL BE INSTALLED IN PAVED AREA ONLY UNLESS APPROVED BY THE CITY ENGINEER.

CITY OF TRACY



REVIEWED BY: *Robert Armijo*
CITY ENGINEER RCE 63173

STANDARD
PLAN
No.

602

Res No. 2020-031

DATE: February 18, 2020

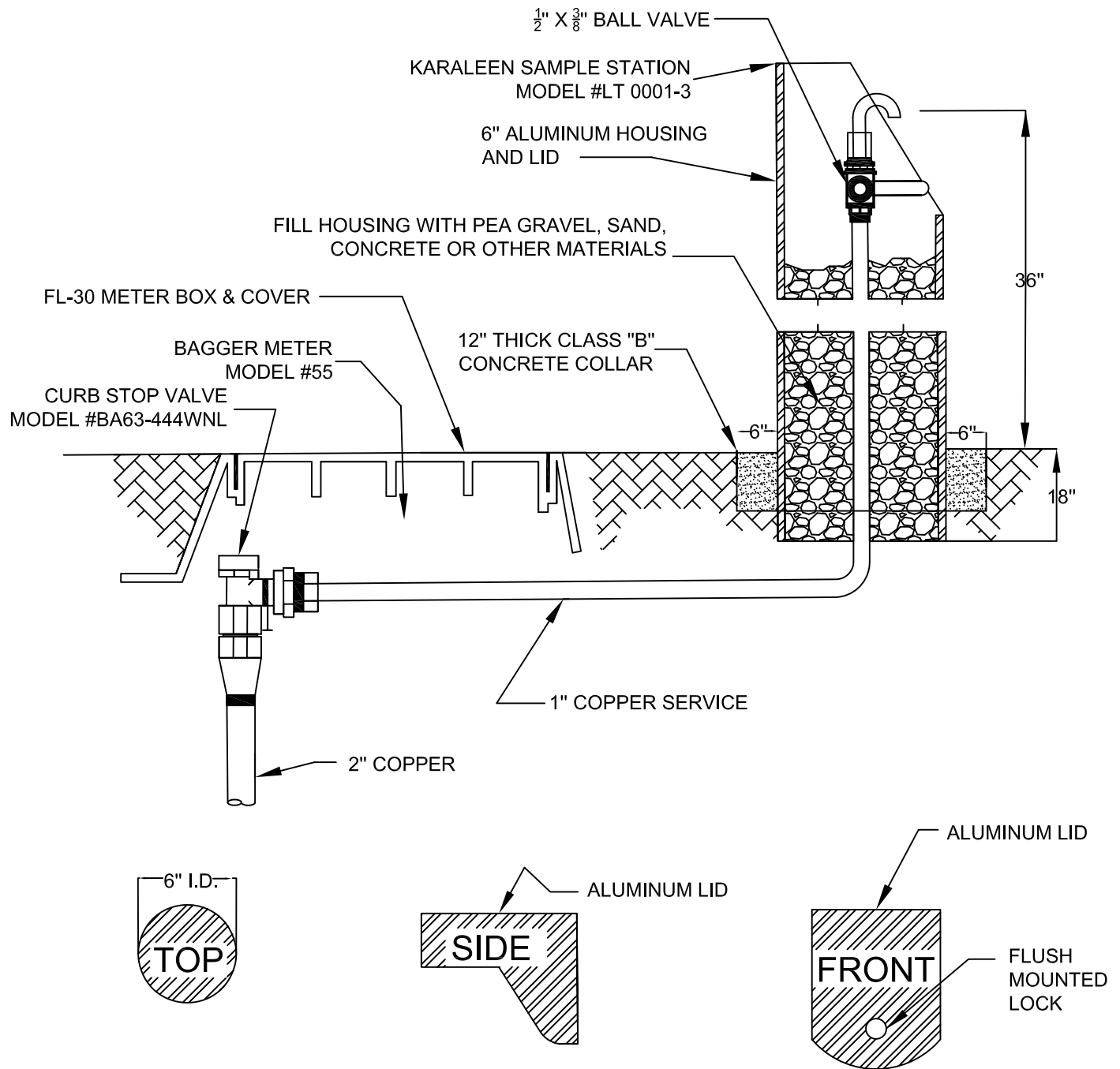
Prepared By: Leisser M.

Scale: N.T.S

Checked By: Thomas W.

Checked By: Aleck C.

**BLOW OFF FOR FUTURE
EXTENSION WITH VALVE
FOR RECLAIMED WATER**



NOTE:

1. Polywrap from main to box with polyethylene sleeve or 10MIL tape - $\frac{1}{2}$ lapped from main to Christy box.
2. Tracer wire required from main to meter box.

CITY OF TRACY



REVIEWED BY: *Robert Armijo*
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Res No. 2020-031 DATE: February 18, 2020

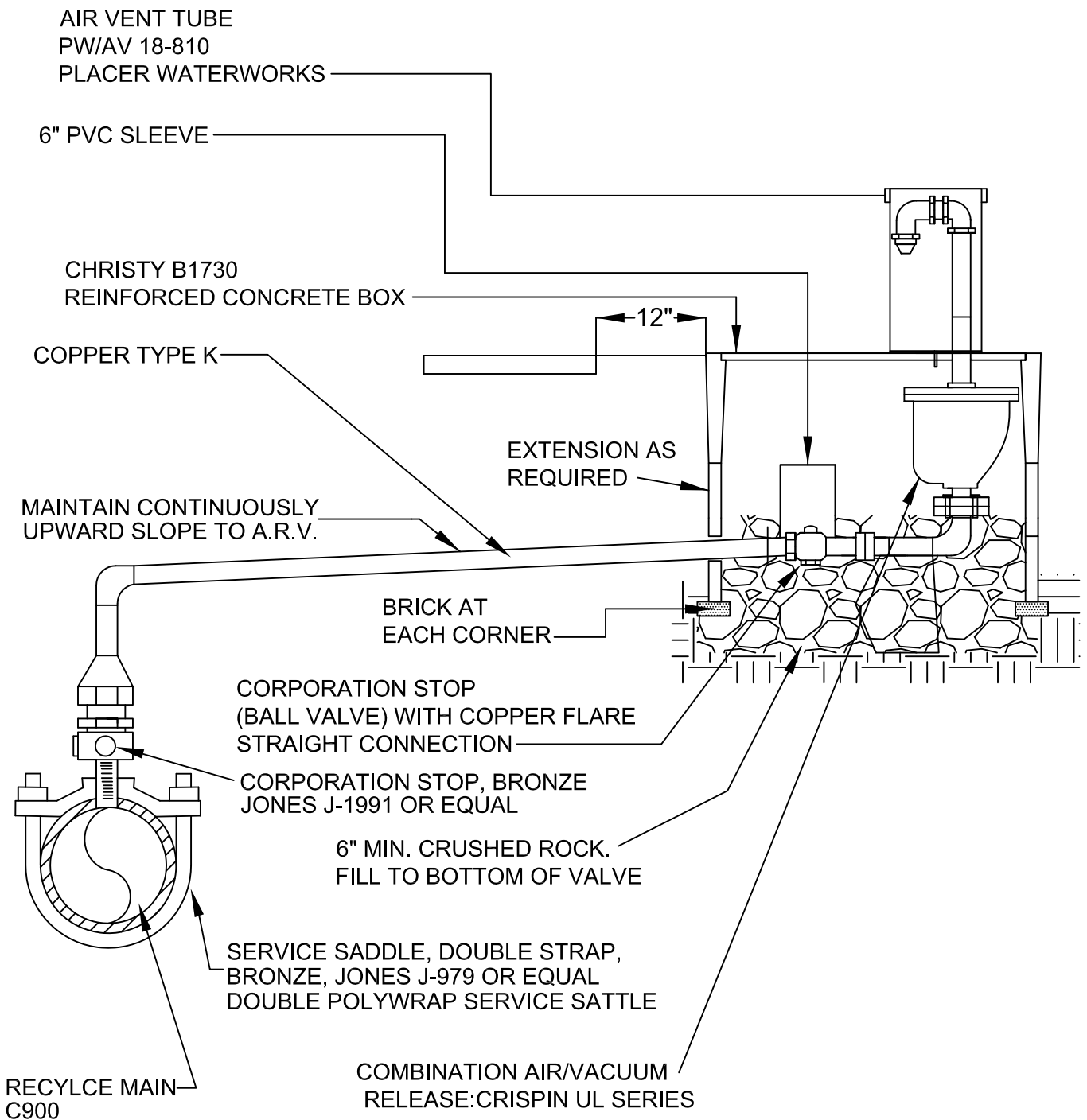
Prepared By: Leisser M. Scale: N.T.S

Checked By: Thomas W. Checked By: Aleck C.

STANDARD
PLAN
No.

603

**RECLAIMED WATER
QUALITY SAMPLING
STATION**



NOTES:

1. VENT TUBE SHALL BE POWDER COATED - TAGGED RECYCLED WATER.
2. ALL PIPING SHALL BE BRASS OR COPPER BETWEEN THE MAIN AND ARV.
3. TRACER WIRE AND MARKER TAPE FROM MAIN TO CHRISTY BOX.
3. PURPLE POLYWRAP FROM MAIN TO BOX WITH POLYETHYLENE SLEEVE OR PURPLE 10MIL TAPE-1/2 LAPPED FROM MAIN TO CHRISTY BOX..

CITY OF TRACY



REVIEWED BY: <i>Robert Armijo</i>	
CITY ENGINEER	RCE 63173
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STANDARD
PLAN
No.

604

**COMBINATION AIR &
VACCUM RELEASE VALVE
WITH BOLLARD**