

TESORO VIEJO



TESORO VIEJO MASTER MUTUAL WATER COMPANY

STANDARD PLANS

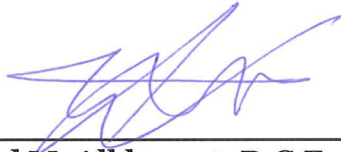
April 2016

Prepared by:
Tesoro Viejo Master Mutual
Water Company
7020 N. Van Ness Boulevard
Fresno, CA 93711

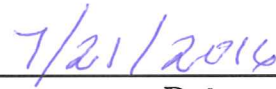
Keith Jolly, P.E.
District Engineer

PREFACE

MADERA COUNTY DEPARTMENT OF PUBLIC WORKS



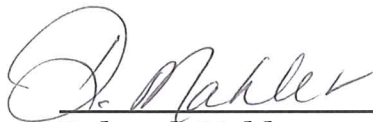
Ahmad M. Alkhayyat, R.C.E. 67605
Public Works Director



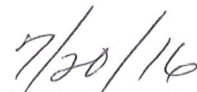
Date

These Standard Plans are found to be acceptable and/or meet the design criteria
and standards of Madera County

MADERA COUNTY FIRE PREVENTION FOR LAND DEVELOPMENT

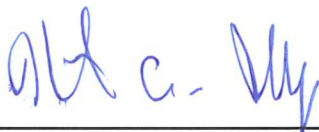


Deborah Mahler
Fire Marshal/Deputy Director



Date

TESORO VIEJO MASTER MUTUAL WATER COMPANY



Keith A. Jolly, P.E. 82923
District Engineer



Date

TESORO VIEJO MASTER MUTUAL WATER COMPANY
STANDARD PLANS

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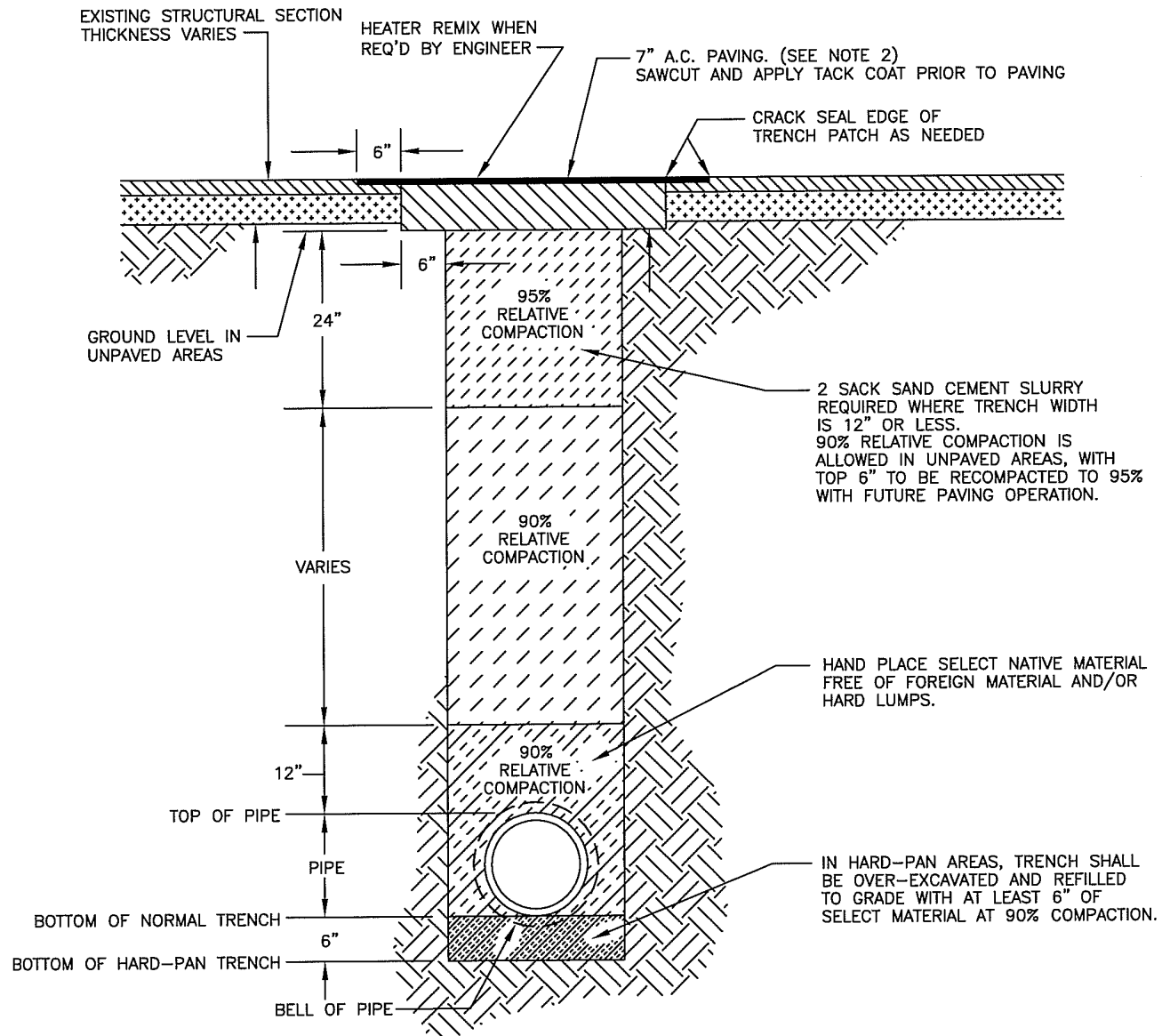
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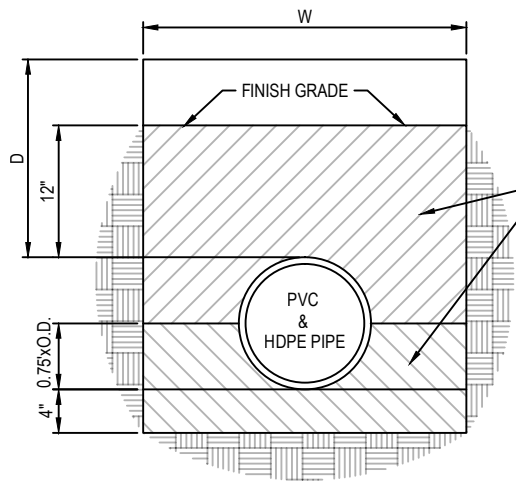


NOTES:

1. TEMPORARY TRENCH RESURFACING SHALL CONSIST OF A MINIMUM OF 4" COLD MIX AND SHALL BE REQUIRED WHENEVER THE STREET IS TEMPORARILY OPENED TO TRAFFIC. ALL TEMPORARY MATERIAL SHALL BE COMPLETELY REMOVED PRIOR TO FINAL PAVING.
2. PERMANENT TRENCH RESURFACING IN PAVED AREAS SHALL CONSIST OF 7" A.C. PAVING OR MATCH EXISTING PAVEMENT SECTION IF TRENCH IS WIDER THAN 6' UNLESS SPECIFIED OTHERWISE. EXISTING PAVEMENT TRENCH EDGES SHALL BE SAWCUT AND APPLY TACK COAT PRIOR TO FINAL PAVING.
3. TRENCH RESURFACING STRUCTURAL SECTION IN OTHER THAN PERMANENTLY PAVED OR UNPAVED AREAS SHALL BE DETERMINED BY THE TVMMWVC.
4. ALL TRENCH BACKFILL WILL BE TESTED FOR OPTIMUM MOISTURE. TO BE CONSIDERED A PASSING TEST, THE IN-PLACE MATERIAL MUST BE WITHIN 2% (ABOVE OR BELOW) THE OPTIMUM MOISTURE.
5. NO JETTING OF TRENCH BACKFILL WILL BE ALLOWED. BACKFILL IS TO BE PLACED IN MAXIMUM 18" LIFTS, THEN COMPACTED.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
TRENCH BACKFILL AND RESURFACING	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-1

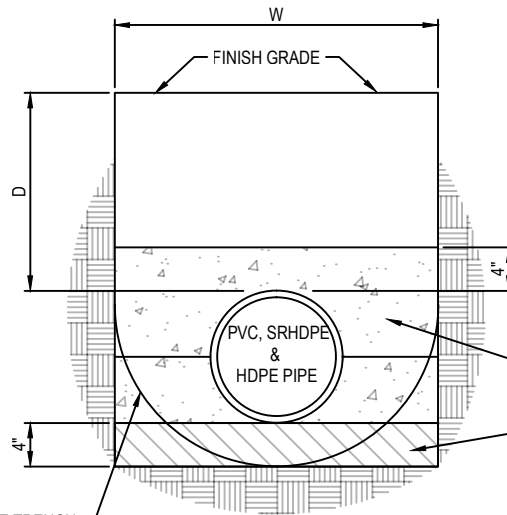
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IMPORTED MATERIAL: LESS THAN 10% PASSING NO. 8 SIEVE; 100% PASSING 1/2" SIEVE FOR ALL PIPE (3/8") CRUSHED ROCK) OR 85 TO 95% PASSING 1/2" SIEVE AND 100% PASSING 3/4" SIEVE. (1/2" CRUSHED ROCK)

DETAIL A

PVC & HDPE PIPE NTS



SLURRY BACKFILL PER CALTRANS SEC. 19-3.03F

IMPORTED MATERIAL: LESS THAN 10% PASSING NO. 8 SIEVE; 100% PASSING 1/2" SIEVE FOR ALL PIPE (3/8") CRUSHED ROCK) OR 85 TO 95% PASSING 1/2" SIEVE AND 100% PASSING 3/4" SIEVE. (1/2" CRUSHED ROCK)

DETAIL B

SRHDPE, PVC & HDPE PIPE ONLY (NONRIDGID) NTS

NOTES:

1. TRENCH WIDTH:

PIPE SIZE
30" AND UNDER
OVER 30"

TRENCH WIDTH = W
O.D. + 16"
O.D. x 1.25 + 12"

2. HIGH DENSITY POLYETHYLENE (HDPE) STORM DRAIN PIPE SHALL BE TYPE "S" AS DESCRIBED IN SECTION 64 OF THE CALTRANS STANDARD SPECIFICATIONS. PIPE INSTALLATION AND PIPE CONFIGURATION SHALL BE AS SHOWN ON THIS DRAWING AND AS DESCRIBED IN THESE GENERAL NOTES. JOINTS SHALL BE SEALED WITH A RUBBER GASKET. GASKETS SHALL MEET THE REQUIREMENT OF ASTM F-477.

3. FILL HEIGHTS "D" FOR NONRIDID (PVC & HDPE) DRAN PIPE SHALL BE A MINIMUM OF 36 INCH AND A MAXIMUM OF 15 FEET, AND (SRHDPE) SHALL HAVE A MINIMUM OF ONE FOOT (IN ADDITION TO THE ROADWAY STRUCTURAL SECTION) AND A MAXIMUM OF 30 FEET FROM THE TOP OF PIPE FINISH GRADE. (SEE DETAILS A & B FOR TRENCH BACKFILL REQUIREMENTS. CONTRACTOR MAY USE EITHER DETAIL A OR B).

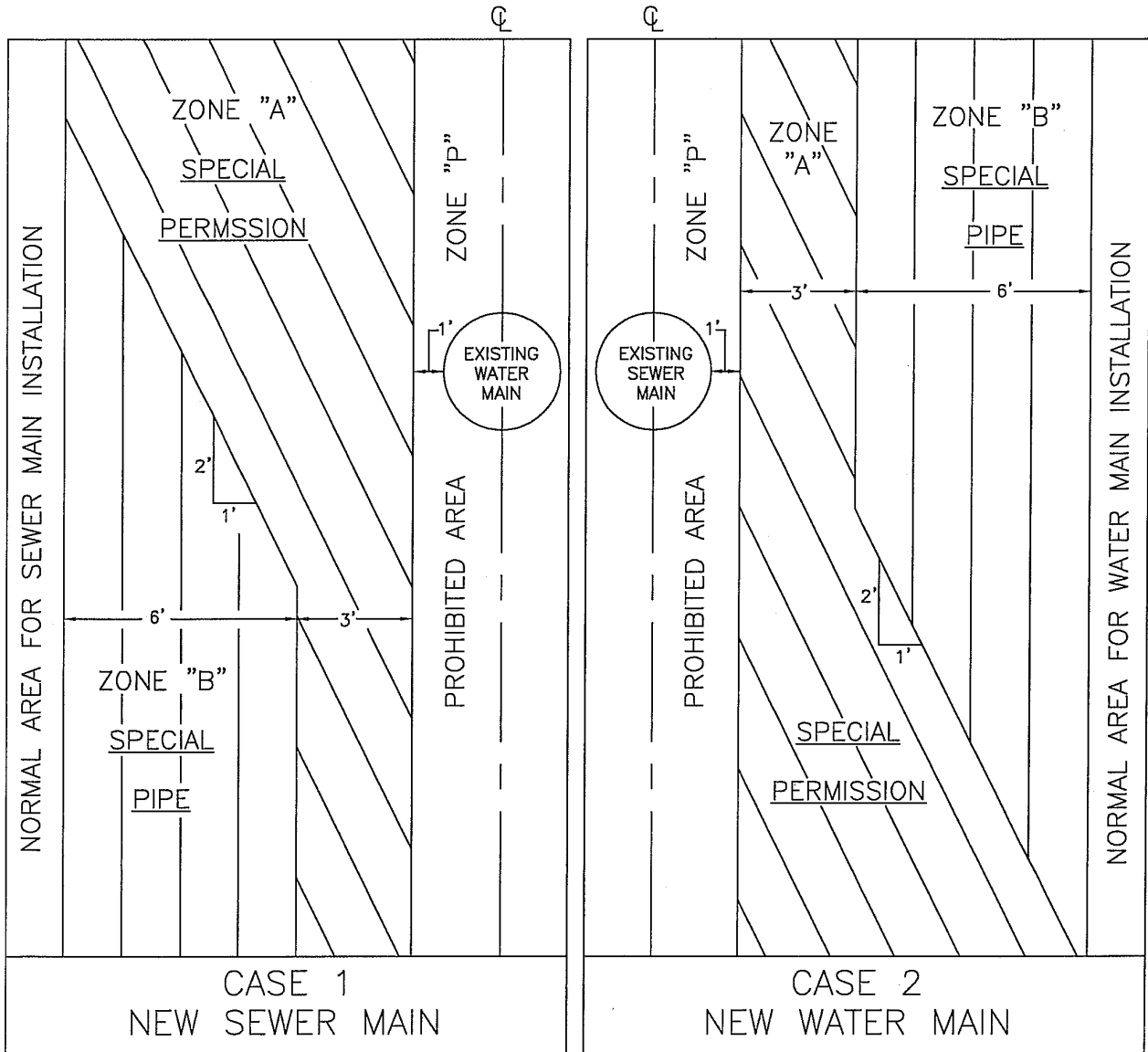
4. PIPE MATERIAL CHANGES BETWEEN STRUCTURES ARE PROHIBITED. OUTFALL/INLET RUNS AND STUBS INTO FUTURE SITES SHALL BE RCP. (SEE SECTION 63-5 D.1.C. AND 63-7 D.4. FOR CONCRETE PIPE APPLICATION.)

5. REFER TO TB-1 FOR TREATMENT OF THE TOP PORTION OF THE TRENCH WITHIN THE TESORO VIEJO STREET.

6. THE DIAMETER OF THE ALTERNATE, ROUNDED TRENCH BOTTOM SHALL BE EQUAL TO THE WIDTH OF THE TRENCH.


<p>TESORO VIEJO MASTER MUTUAL WATER COMPANY</p>	
<p>HDPE, SRHDPE PVC STORM DRAIN PIPE ONLY (NONGRID) BEDDING AND BACKFILL</p>	
<p>APPROVED: DRAWN: DATE: SCALE:</p>	<p>DWG NO. TB-2</p>

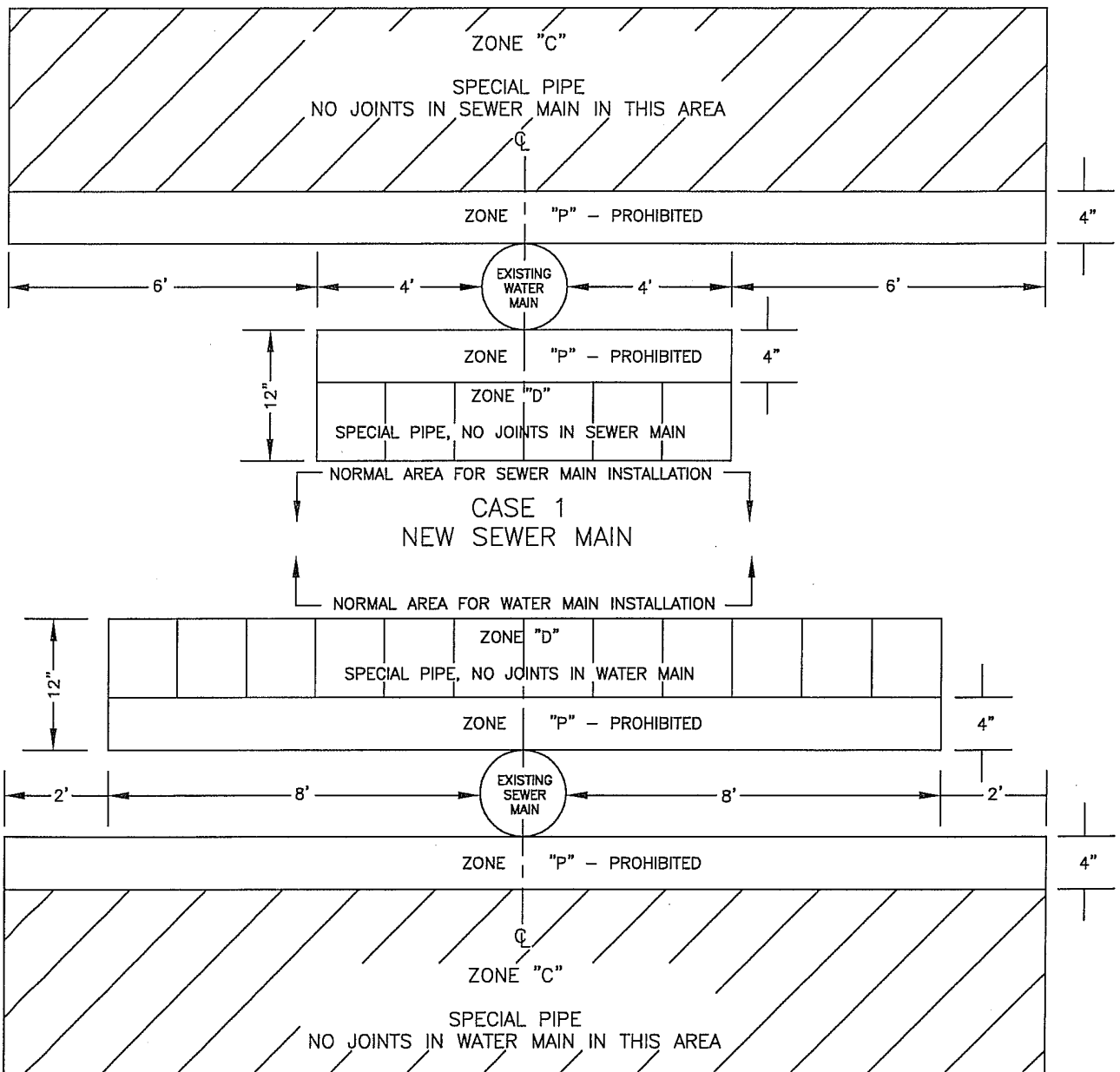
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NOTE:

1. ZONES IDENTICAL ON EITHER SIDE OF CENTER LINES.
2. ZONES "P" ARE PROHIBITED ZONES, NO VARIANCES OR SPECIAL CASES.
3. ZONES A & B ARE TO BE USED ONLY WHEN 10' MINIMUM SEPARATION CANNOT BE ATTAINED.


	TESORO VIEJO MASTER MUTUAL WATER COMPANY
SEWER AND WATER MAIN PARALLEL CONSTRUCTION SEPARATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-3



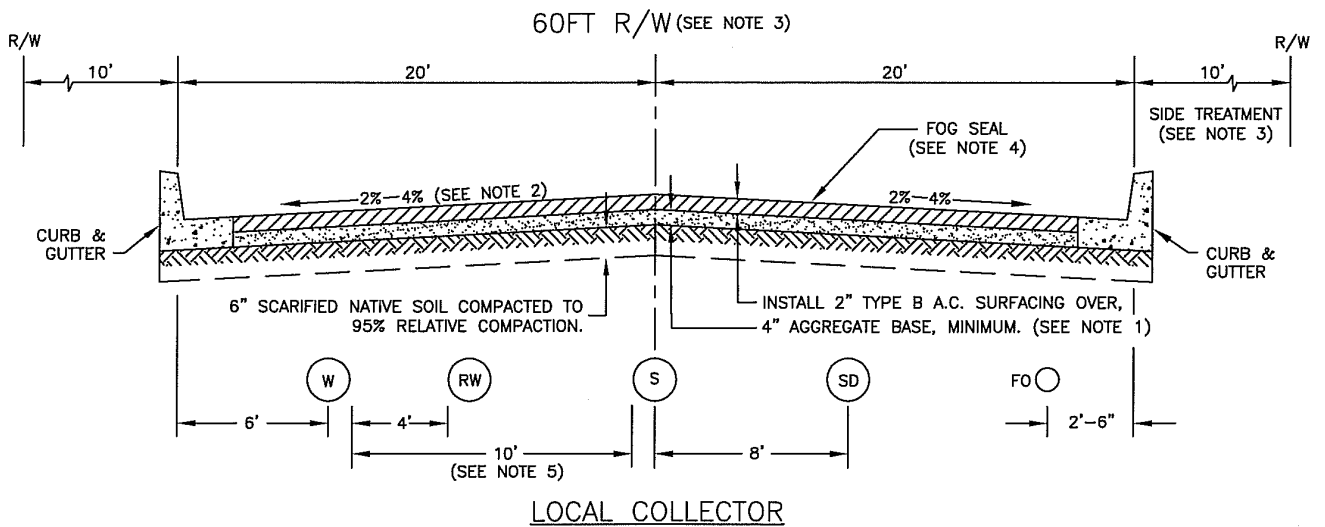
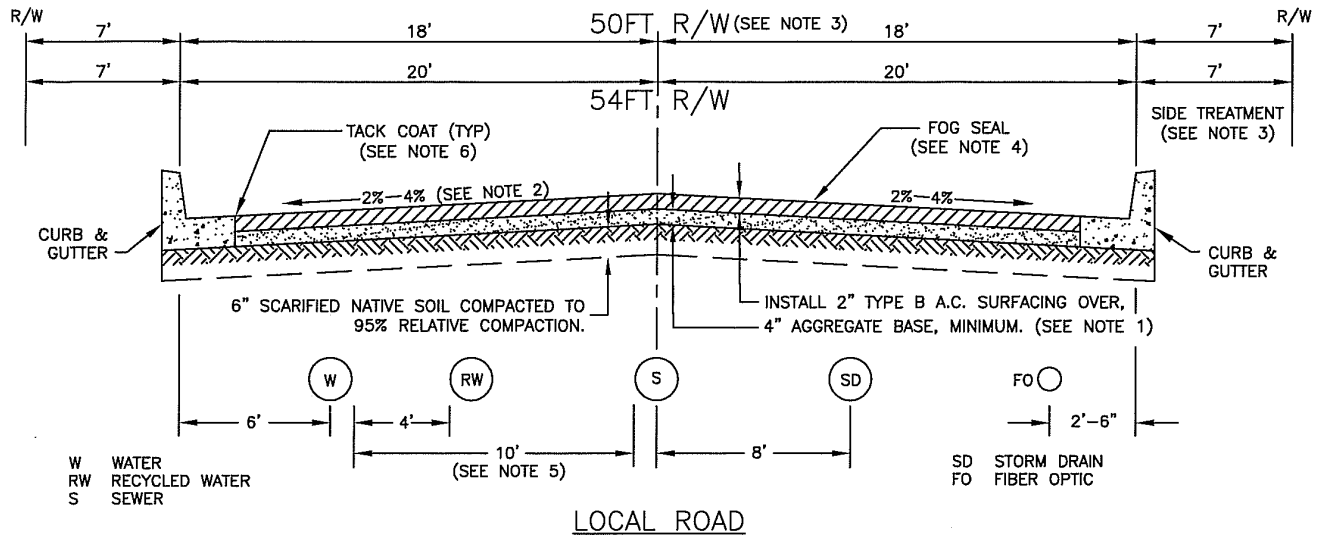
CASE 2
NEW WATER MAIN (SEE NOTE 2)

NOTES:

1. ZONES "P" ARE PROHIBITED ZONES, NO VARIANCES OR SPECIAL CASES.
2. A NEW WATER MAIN CROSSING A PIPE CARRYING NOT-POTABLE FLUIDS SHALL BE CONSTRUCTED NO LESS THAN 45 DEGREES TO THE PIPE BEING CROSSED.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
SEWER AND WATER MAIN CROSSING CONSTRUCTION SEPARATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-4

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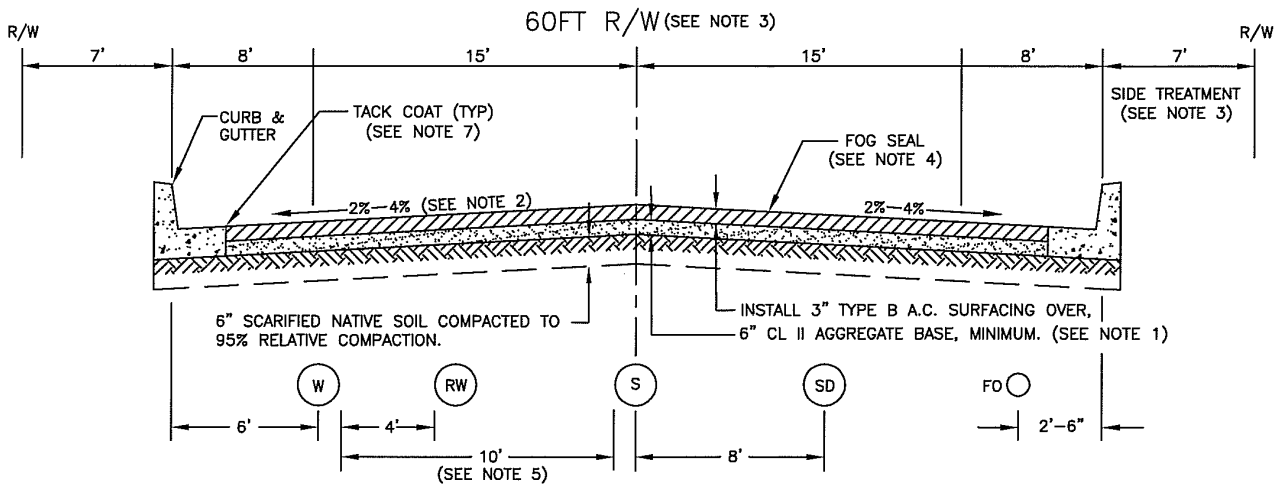


NOTES:

1. ROADWAY STRUCTURAL SECTIONS SHOWN ARE MINIMUMS. ACTUAL STRUCTURAL COMPONENT VALUES SHALL BE DETERMINED BY SOILS/TRAFFIC ANALYSES FOR "R" VALUE AND TRAFFIC INDEX (T1). IN NO CASE SHALL THE ACTUAL STRUCTURAL SECTION BE LESS THAN THE MINIMUMS SHOWN.
2. PAVEMENT CROSS-SLOPES ARE MINIMUM-MAXIMUM VALUES.
3. SIDEWALK PATTERNS AND R/W WIDTH WILL VARY WITH LOCATION.
4. FOG SEAL SHALL BE APPLIED WHEN SPECIFIED.
5. SEWER/WATER SPACING MUST COMPLY WITH STATE GUIDANCE MEMO 2003-02. SEE STANDARD SPECIFICATIONS.
6. APPLY TACK COAT TO GUTTER PAN FACE PRIOR TO PAVING.

TESORO VIEJO MASTER MUTUAL WATER COMPANY	
LOCAL STREET SECTIONS AND UTILITY LOCATIONS	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-5

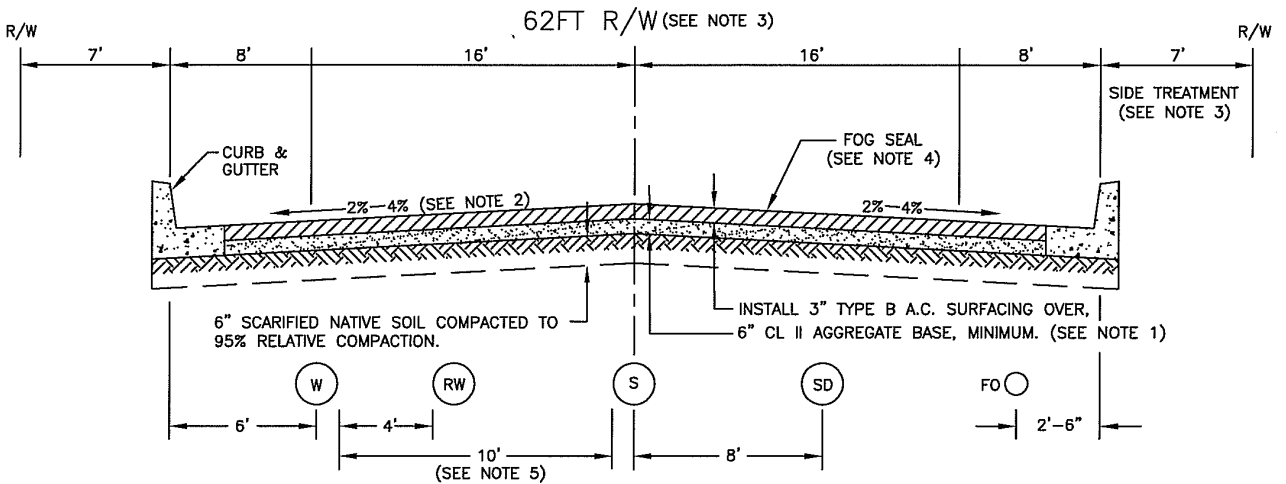
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W WATER
RW RECYCLED WATER
S SEWER

COLLECTOR STREET, 2 LANE UNDIVIDED

SD STORM DRAIN
FO FIBER OPTIC



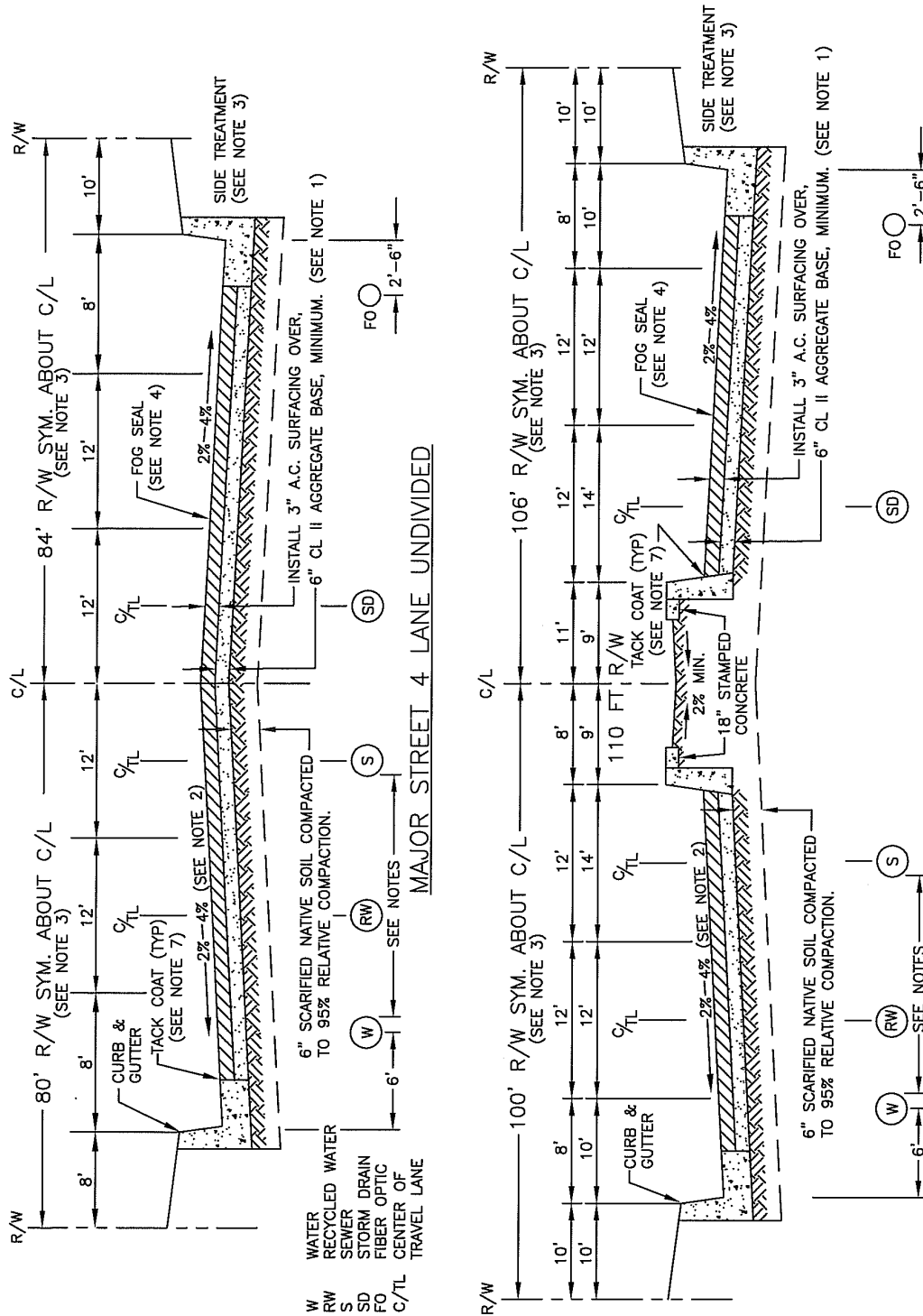
INDUSTRIAL STREET, 2 LANE UNDIVIDED

NOTES:

1. ROADWAY STRUCTURAL SECTIONS SHOWN ARE MINIMUMS. ACTUAL STRUCTURAL COMPONENT VALUES SHALL BE DETERMINED BY SOILS/TRAFFIC ANALYSES FOR "R" VALUE AND TRAFFIC INDEX (T1). IN NO CASE SHALL THE ACTUAL STRUCTURAL SECTION BE LESS THAN THE MINIMUMS SHOWN.
2. PAVEMENT CROSS-SLOPES ARE MINIMUM-MAXIMUM VALUES.
3. SIDEWALK PATTERNS AND R/W WIDTH WILL VARY WITH LOCATION.
4. FOG SEAL SHALL BE APPLIED WHEN SPECIFIED.
5. SEWER/WATER SPACING MUST COMPLY WITH STATE GUIDANCE MEMO 2003-02. SEE STANDARD SPECIFICATIONS.
6. ADDITIONAL R/W MAY BE REQUIRED FOR BICYCLE LANES AND BUS TURNOUTS.
7. APPLY TACK COAT TO GUTTER PAN FACE PRIOR TO PAVING.


 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
TWO LANE COLLECTOR & INDUSTRIAL STREET SECTIONS AND UTILITY LOCATIONS	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-6

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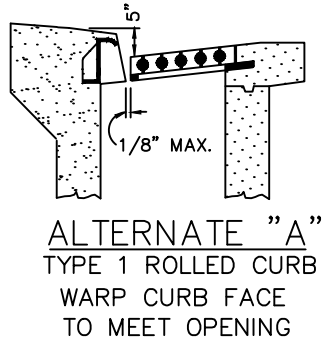
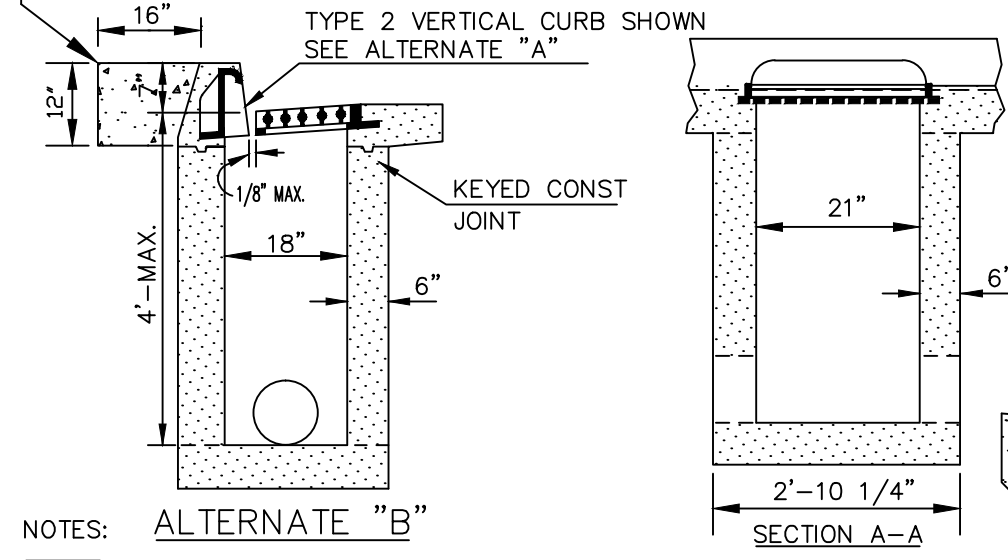
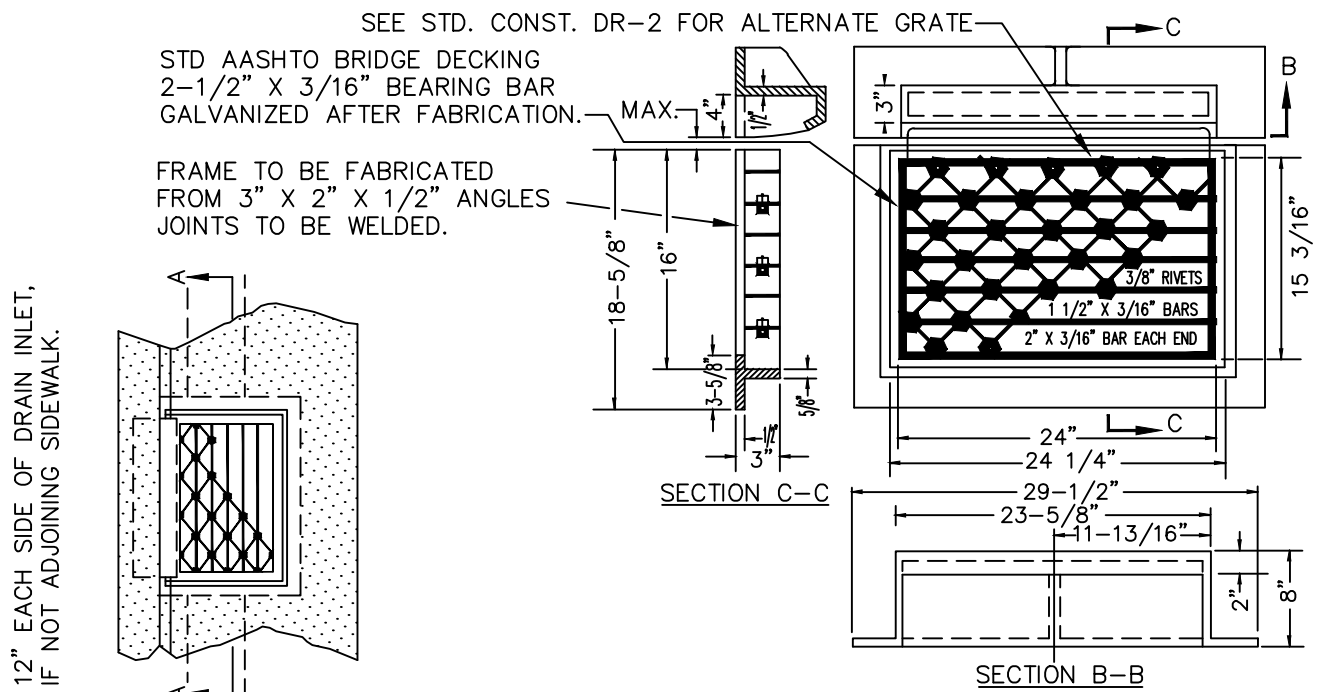


NOTES:

1. ROADWAY STRUCTURAL SECTIONS SHOWN ARE MINIMUMS. ACTUAL STRUCTURAL COMPONENT VALUES SHALL BE DETERMINED BY SOILS/TRAFFIC ANALYSES FOR "R" VALUE AND TRAFFIC INDEX (TI). IN NO CASE SHALL THE ACTUAL STRUCTURAL SECTION BE LESS THAN THE MINIMUMS SHOWN.
2. PAVEMENT CROSS-SLOPES ARE MINIMUM-MAXIMUM VALUES.
3. SIDEWALK PATTERNS AND R/W WIDTH WILL VARY WITH LOCATION.
4. FOG SEAL SHALL BE APPLIED WHEN SPECIFIED.
5. SEWER/WATER SPACING MUST COMPLY WITH STATE GUIDANCE MEMO 2003-02. SEE STANDARD SPECIFICATIONS.
6. ADDITIONAL R/W MAY BE REQUIRED FOR BICYCLE LANES AND BUS TURNOUTS.
7. APPLY TACK COAT TO GUTTER PAN/MEDIAN CURB FACE PRIOR TO PAVING.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
FOUR LANE MAJOR STREET SECTIONS AND UTILITY LOCATIONS	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. TB-7

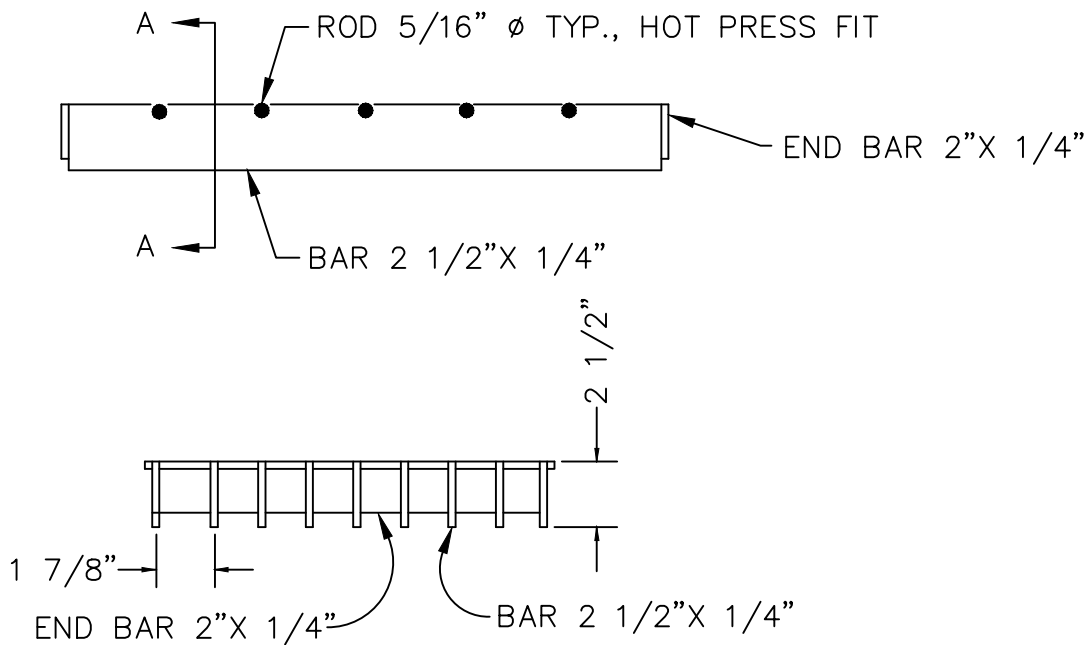
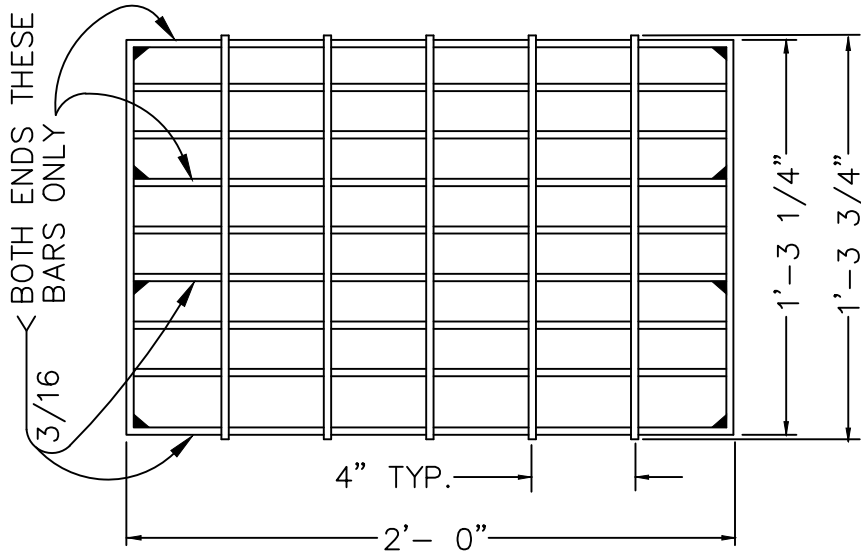
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- NOTES:
1. THIS STRUCTURE IS TO SERVE ONLY TO PICK UP GUTTER DRAINAGE OR AS A JUNCTION BOX FOR SMALL PIPES IN A LONGITUDINAL DIRECTION ONLY.
 2. 12 INCH LENGTH OF 1/4 INCH GALVANIZED CHAIN TO BE PERMANENTLY AFFIXED TO THE GRATE AND ONE CORNER OF THE INLET FRAME ADJACENT TO THE CURB.
 3. STANDARD GUTTER DEPRESSION EXCEPT ALTERNATE A TO BE DEPRESSED 1-3/8 INCHES.
 4. SLOPE CATCH BASIN BOTTOM 2 INCHES TO OUTLET.
 5. THE INSIDE SURFACE OF FRONT AND BACK WALLS OF THE CATCH BASIN SHALL NOT DEVIATE MORE THAN TWO INCHES IN VERTICAL ALIGNMENT FROM THE INSIDE SURFACE OF THE WALLS OF THE TOP. INLET PORTION..
 6. CONCRETE SHALL BE CLASS A. SIX SACK. 3000 PSI.


	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	<p align="center">DROP INLET TYPE 'A'</p>
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <p align="center">DR-1</p>

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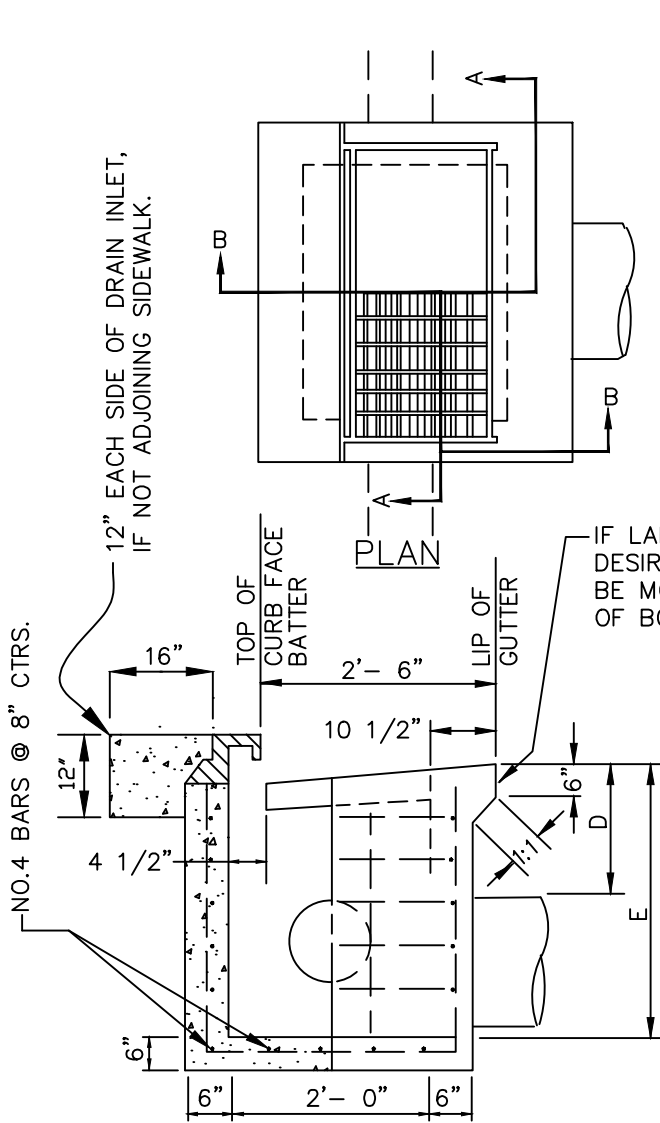


NOTES:

1. INSTALLED GRATE SHALL BE PERMANENTLY SECURED TO FRAME WITH 12" LENGTH OF GALVANIZED CHAIN.
2. AT THE CONTRACTOR'S OPTION, END SPACING OF 5/16" CROSS RODS MAY BE 2". INTERIOR SPACING SHALL REMAIN 4".

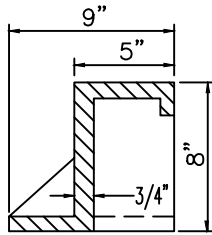
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
ALTERNATE GRATE FOR INLET TYPE 'A'	
APPROVED:	DWG NO.
DRAWN:	DR-2
DATE:	
SCALE:	

Dwg: Z:\GIS_DATA\BASE\T\M\M\C\DETAILS\STORM DRAIN\T\M\M\C\DRAINAGE.DWG | Saved: 12-15-15 03:01pm KJOLLY | Plotted: 12-15-15 03:07pm KJOLLY

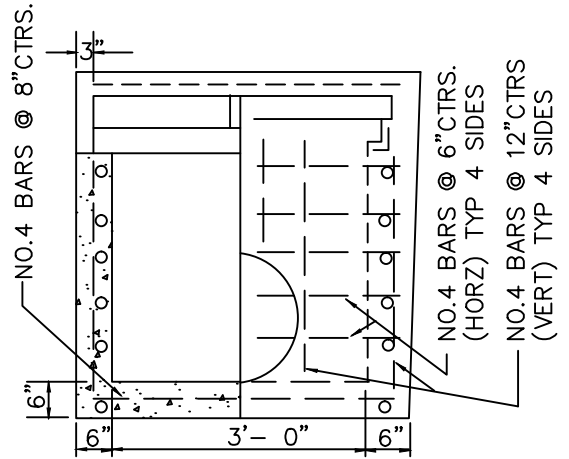


SECTION B-B

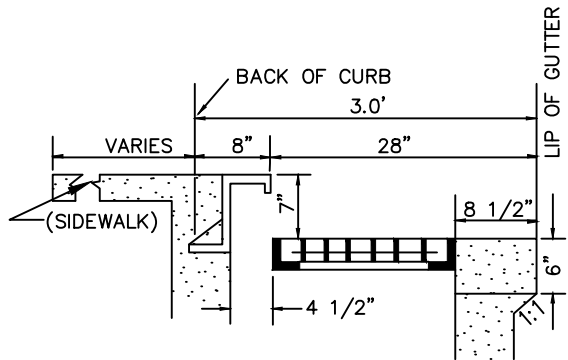
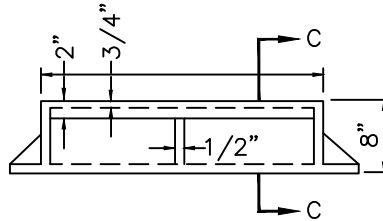
REINFORCING STEEL NOT REQUIRED IN INLETS LESS THAN E=48".



SECTION C-C



SECTION A-A



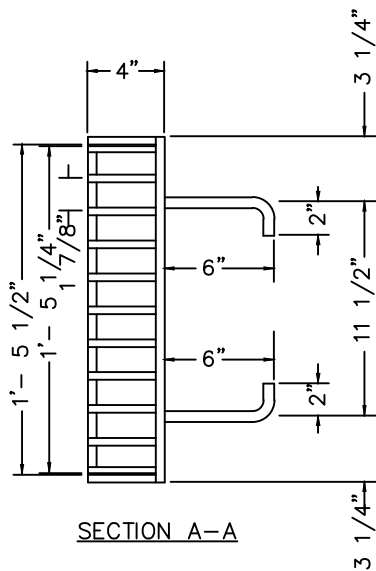
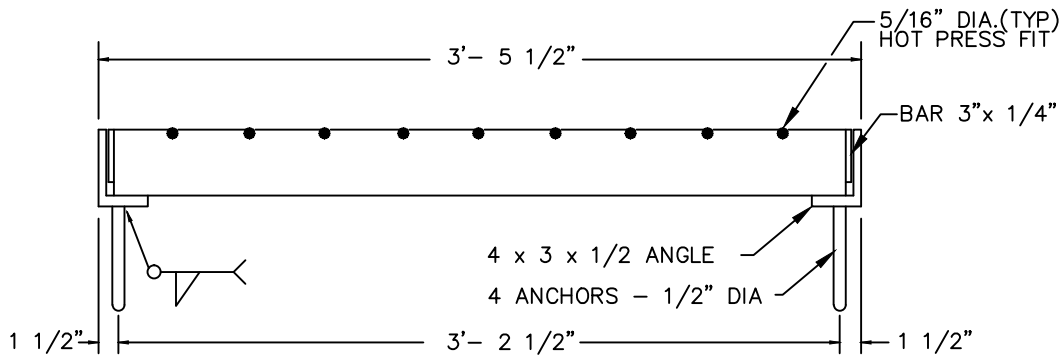
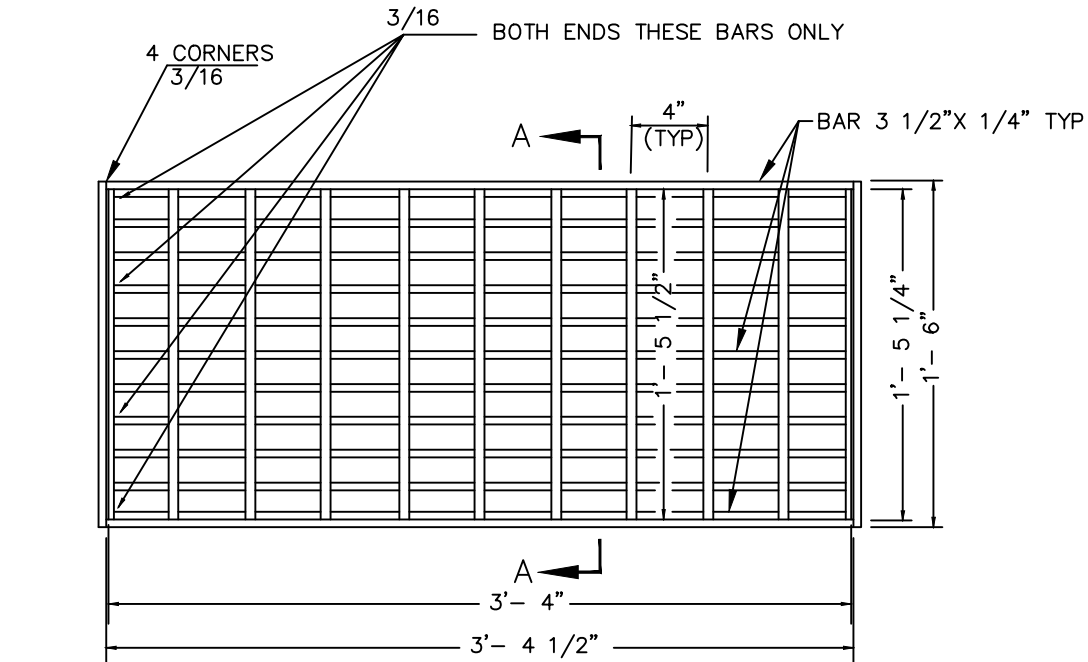
TYPE 1 ROLLED CURB

NOTES:


1. DIMENSIONS D + E MAY VARY WITH EACH LOCATION.
2. SEE STD. CONST. DWG. DR-4 FOR INLET GRATE.
3. THE INSIDE SURFACE OF FRONT AND BACK WALLS OF THE CATCH BASIN SHALL NOT DEVIATE MORE THAN TWO INCHES IN VERTICAL ALIGNMENT FROM THE INSIDE SURFACE OF THE WALLS OF THE TOP INLET PORTION.
4. SLOPE FLOOR 2 INCHES TO OUTLET.
5. CONCRETE SHALL BE CLASS A. SIX SACK. 3000 PSI.

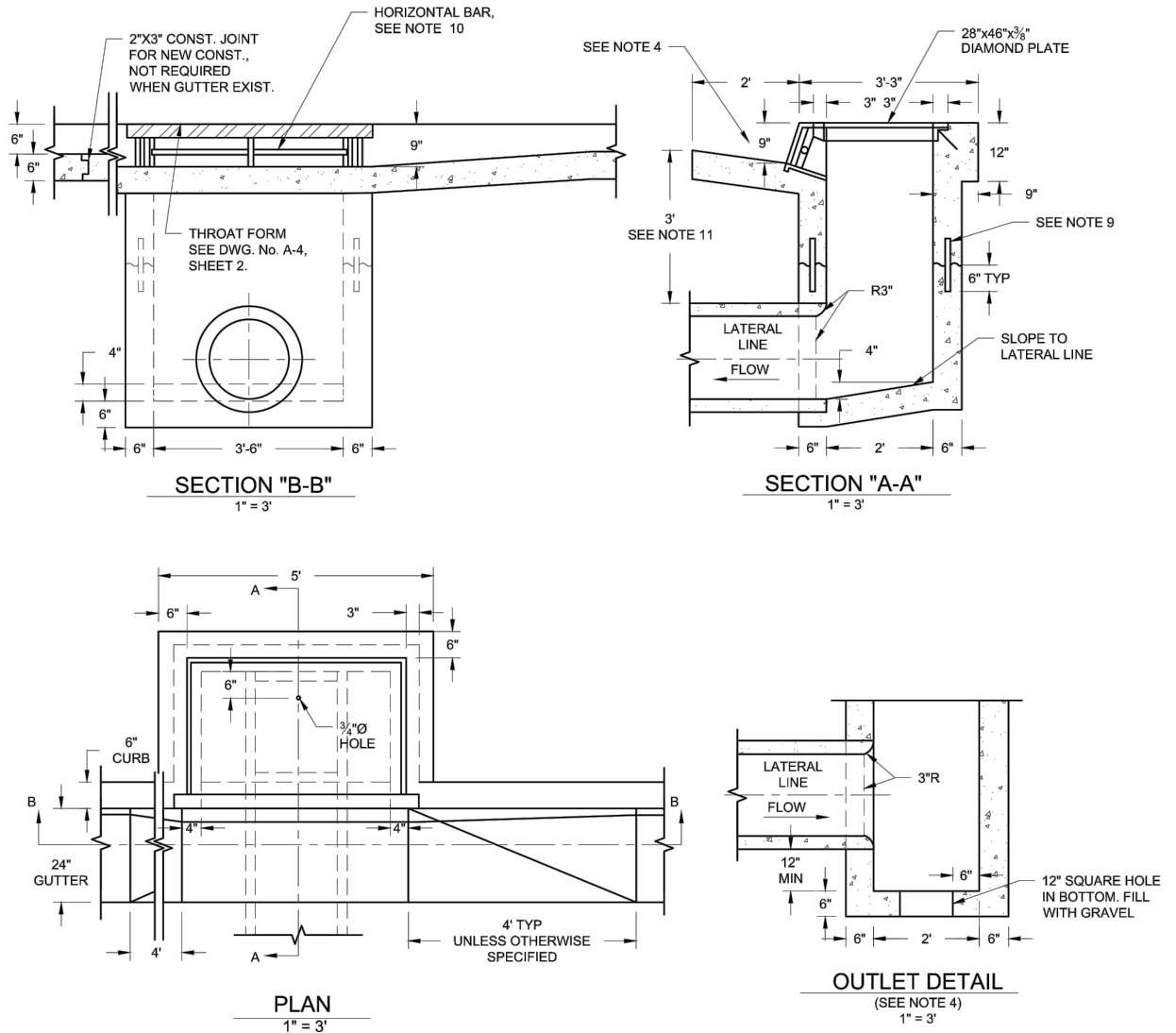
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<h2 style="margin: 0;">DROP INLET TYPE 'C'</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="text-align: center; font-size: 1.2em; font-weight: bold;">DR-3</div>

Dwg: Z:\GIS_DATABASE\DETAILS\STORM DRAIN\TVM\WCDRAINAGE.DWG | Saved: 12-15-15 03:01pm KJOLLY | Plotted: 12-15-15 03:08pm KJOLLY




NOTE:
 AT THE CONTRACTOR'S
 OPTION, END SPACING OF 5/16"
 CROSS RODS MAY BE 2".
 INTERIOR SPACING SHALL
 REMAIN 4".

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
DROP INLET FRAME & GRATE FOR TYPE 'C' INLETS	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-4



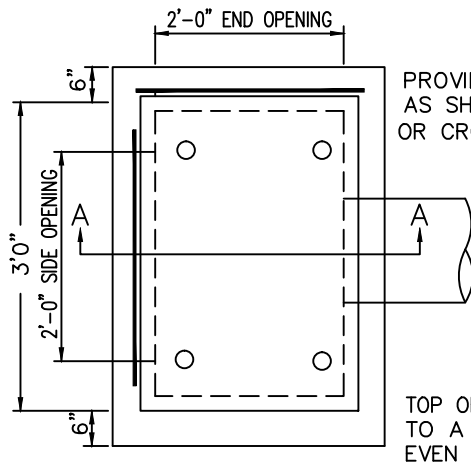
NOTES:

1. THE INLET MAY BE MODIFIED SLIGHTLY TO MATCH EXISTING IMPROVEMENTS, AS DIRECTED BY THE ENGINEER.
2. STRUCTURE SHALL BE CLASS "A" CONCRETE. EXPOSED SURFACES SHALL BE FINISHED AS PER CURB SPECIFICATIONS.
3. COST OF FRAME AND GRATE AND THROAT FORM SHALL BE INCLUDED IN PRICE OF INLET OR OUTLET.
4. WHEN EMPLOYED AS OUTLET, PLACE GUTTER CONCRETE TO 6" BELOW TOP OF CURB GRADE.
5. 4" CURB AND GUTTER WINGS SHALL BE INCLUDED IN THE PRICE OF THE INLET/OUTLET.
6. ADDITIONAL CURB AND GUTTER SHALL BE CONSTRUCTED OR RECONSTRUCTED ON EACH SIDE OF BOX AS INDICATED ON THE PLANS AND COST THEREOF SHALL BE INCLUDED IN PRICE OF INLET OR OUTLET.
7. FLOOR OF THE INLET SHALL SLOPE FROM ALL WALLS TO THE LATERAL LINE AND SHALL BE GIVEN A STEEL TROWELED FINISH.
8. AT THE CONTACT POINT BETWEEN THE LATERAL LINE AND THE INLET WALL A SMOOTH 3" RADIUS CURVE SHALL BE CONSTRUCTED.
9. IF INLET IS CONSTRUCTED IN A TWO STAGE POUR, PROVIDE A ROUGHENED CONSTRUCTION JOINT AND PLACE ONE No. 4 BAR 12" LONG IN EACH OF THE FOUR WALLS, AS SHOWN.
10. DELETE HORIZONTAL BAR WHERE SHOWN ON THE PROJECT PLANS OR SPECIFIED IN THE PROJECT SPECIAL PROVISIONS, OR WHERE USED AS AN OUTLET.
11. PIPE MINIMUM DEPTH MAY BE ADJUSTED BY THE DESIGNER OR ENGINEER. MAY REQUIRE PIPE CLASS CHANGE OR SPECIAL BACKFILL.
12. REINFORCEMENT SHALL BE PER DETAIL DR-3.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
<h2 style="margin: 0;">DROP INLET TYPE 'D'</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="font-size: 1.5em; font-weight: bold; margin: 5px 0;">DR-5</div>

Dwg: Z:\GIS_DATABASE\MMWC\DETAILS\STORM DRAIN\TYMMWC-DRAINAGE.DWG | Saved: 04-21-16 10:22am KJOLLY | Plotted: 04-21-16 10:22am KJOLLY

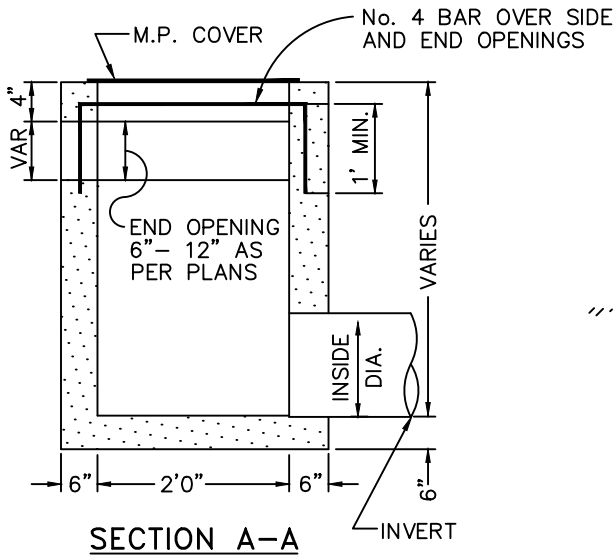
Dwg. Z:\GIS_DATABASE\TMMWC\DETAILS\STORM DRAIN\TMMWC\DRAINAGE\DWG | Saved: 12-15-15 03:01pm KJOLLY | Plotted: 12-15-15 03:09pm KJOLLY



PLAN

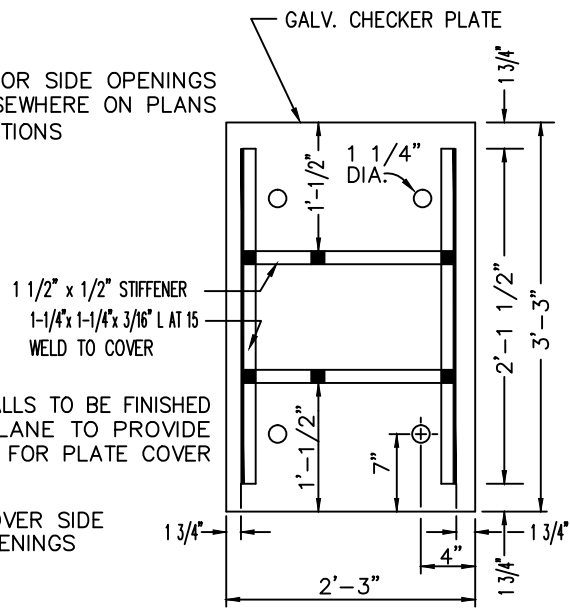
PROVIDE END OR SIDE OPENINGS AS SHOWN ELSEWHERE ON PLANS OR CROSS SECTIONS

TOP OF ALL WALLS TO BE FINISHED TO A FLAT PLANE TO PROVIDE EVEN BEARING FOR PLATE COVER

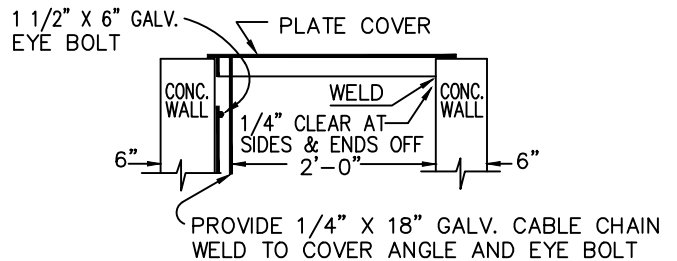
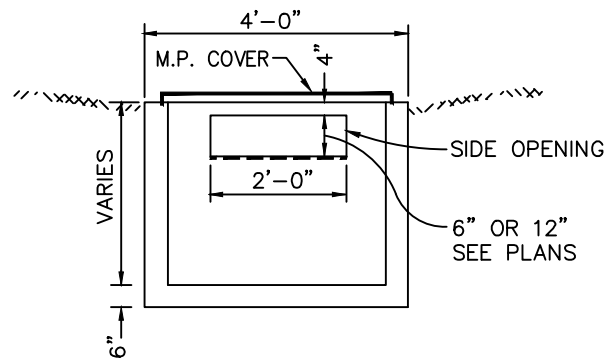


SECTION A-A

-REINFORCEMENT PER DR-3



(UNDERSIDE) PLAN



SECTION METAL PLATE COVER

NOTES:

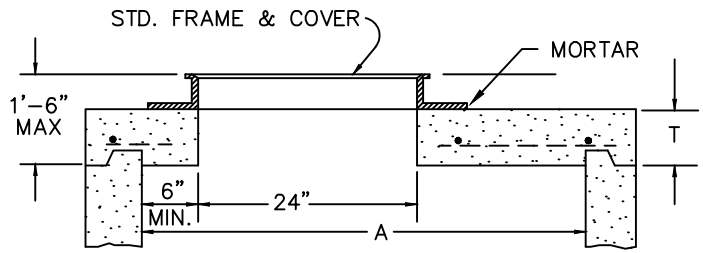
1. METAL PLATE COVER TO BE GALVANIZED.
2. THIS STRUCTURE TO BE USED ONLY TO PICKUP ON SITE DRAINAGE ON PRIVATE PROPERTY UNLESS SPECIFICALLY APPROVED BY THE TMMWC.
3. DRAIN INLETS NOT WITHIN A PAVED AREA SHALL HAVE A 12 INCH WIDE COLLAR OF 6" THICK CONCRETE.
4. THE INSIDE SURFACE OF FRONT AND BACK WALLS OF THE CATCH BASIN SHALL NOT DEVIATE MORE THAN TWO INCHES IN VERTICAL ALIGNMENT FROM THE INSIDE SURFACE OF THE WALLS OF THE TOP INLET PORTION.
5. SLOPE FLOOR 2 INCHES TO OUTLET.
6. CONCRETE SHALL BE CLASS A. SIX SACK. 3000 PSI.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
<h2 style="margin: 0;">DROP INLET TYPE 'F'</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-5B

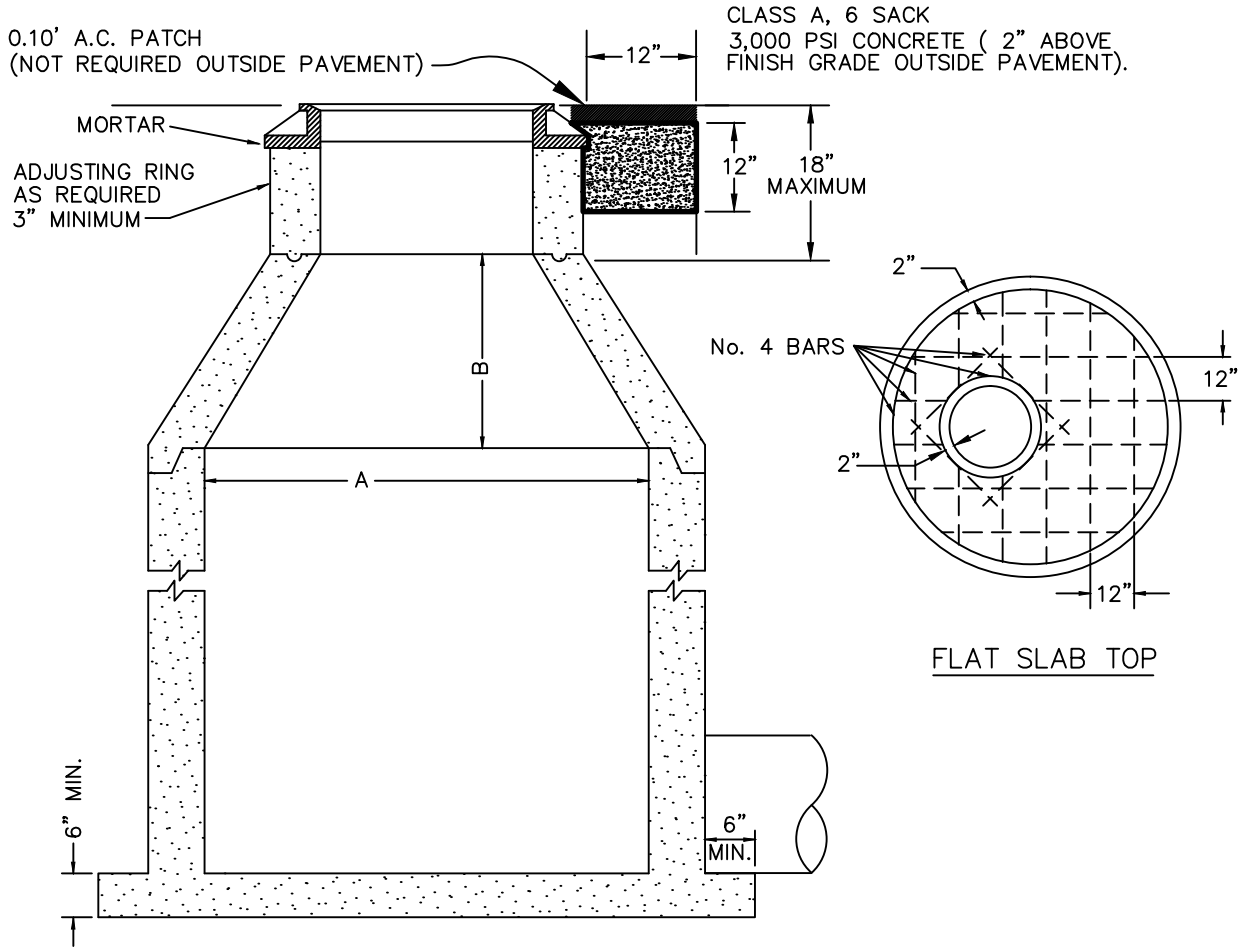
Dwg. Z:\GIS_Database\TM\WMC\DETAILS\STORM DRAIN\TM\WMC\DRAINAGE.DWG | Saved: 12-15-15 03:01pm KJOLLY | Plotted: 12-15-15 03:10pm KJOLLY

NOTES

ECCENTRIC CONES SHALL BE USED WHERE SPECIFIED ON THE PLANS
 JOINTS MAY BE EITHER KEYED OR TONGUE AND GROOVE.



FLAT SLAB SHALL BE USED WHEN DEPTH DOES NOT PERMIT USE OF TAPER UNIT



NOTE: TOP OF FRAME SHALL BE 1/8 INCH BELOW ADJACENT PAVEMENT


TABLE OF DIMENSIONS

M.H.	A	B	T MIN.
48"	48"	18"	6"
60"	60"	30"	8"
72"	72"	42"	8"

DIMENSION "B" IS A MINIMUM DIMENSION AND MAY BE GREATER IF DEPTH PERMITS.

RISER SECTIONS, CONES, AND ADJUSTING RINGS SHALL CONFORM TO ASTM DESIGNATION C-478

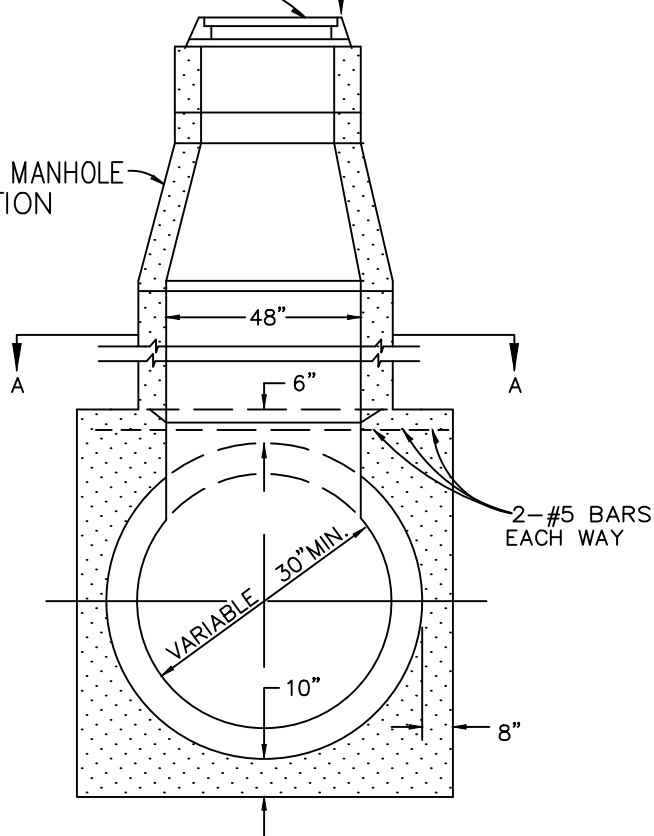
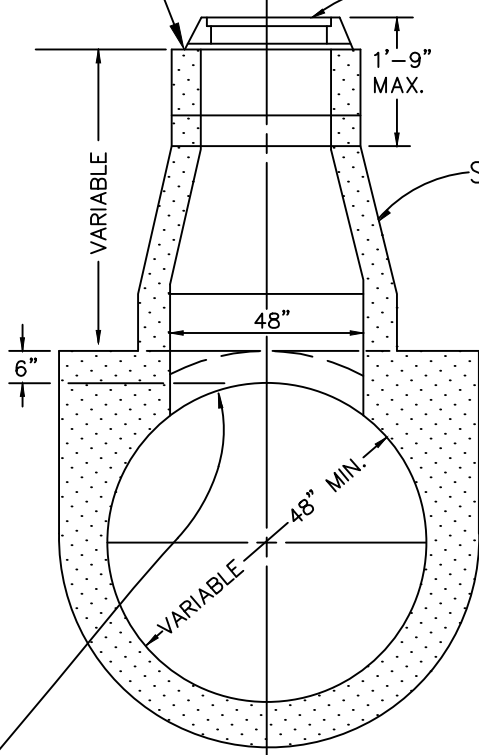
FRAME SHALL BE SECURED TO RISER OR FLAT SLAB TOP WITH CEMENT MORTAR

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
STANDARD PRECAST MANHOLE (DRAINAGE)	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-6

ADJUSTING RINGS AS REQUIRED, 3" MIN.

STANDARD 24" FRAME & COVER

SEE DWG NO. DR-6 FOR CONCRETE COLLAR NOTE.



TYPE A
CAST-IN-PLACE PIPE ONLY

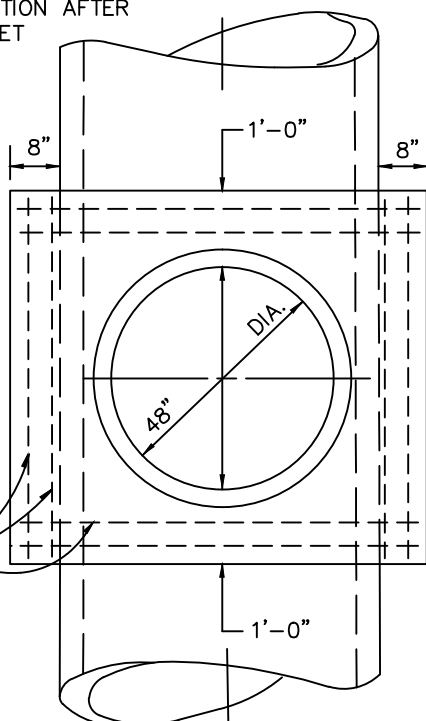
TYPE B

NOTE:

REMOVE CONCRETE IN MANHOLE OPENING AND CONSTRUCTION RISER BASE WHILE CONCRETE IS STILL FRESH


PLACE RISER SECTION AFTER CONCRETE HAS SET

1. ALL PIPE OTHER THAN CAST-IN-PLACE PIPE
2. CAST-IN-PLACE PIPE LESS THAN 48" DIA.

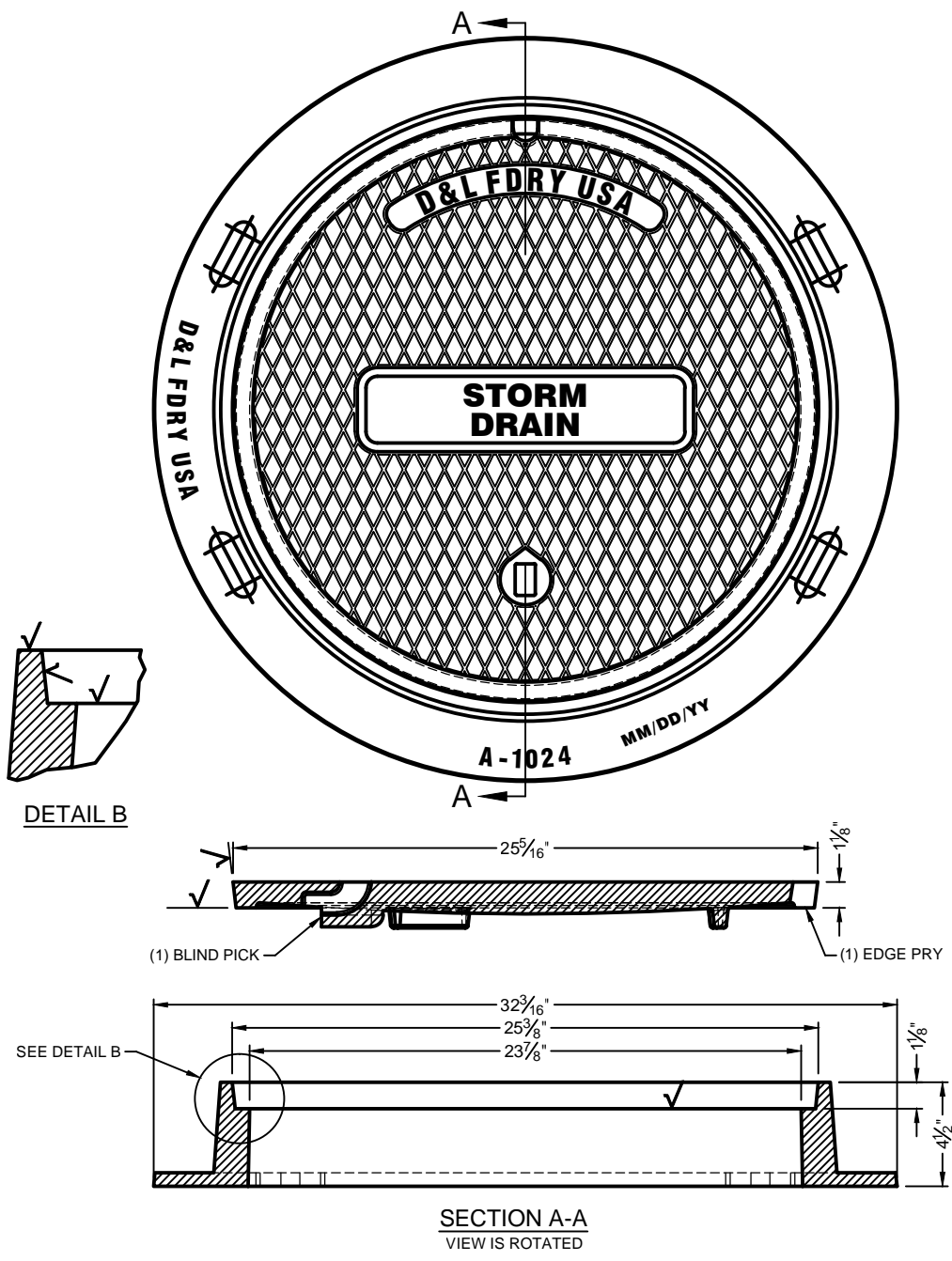


SECTION A-A


2-#5 BARS EACH WAY

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
<h2 style="margin: 0;">TYPE 'A' & 'B' SADDLE MANHOLE</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-7

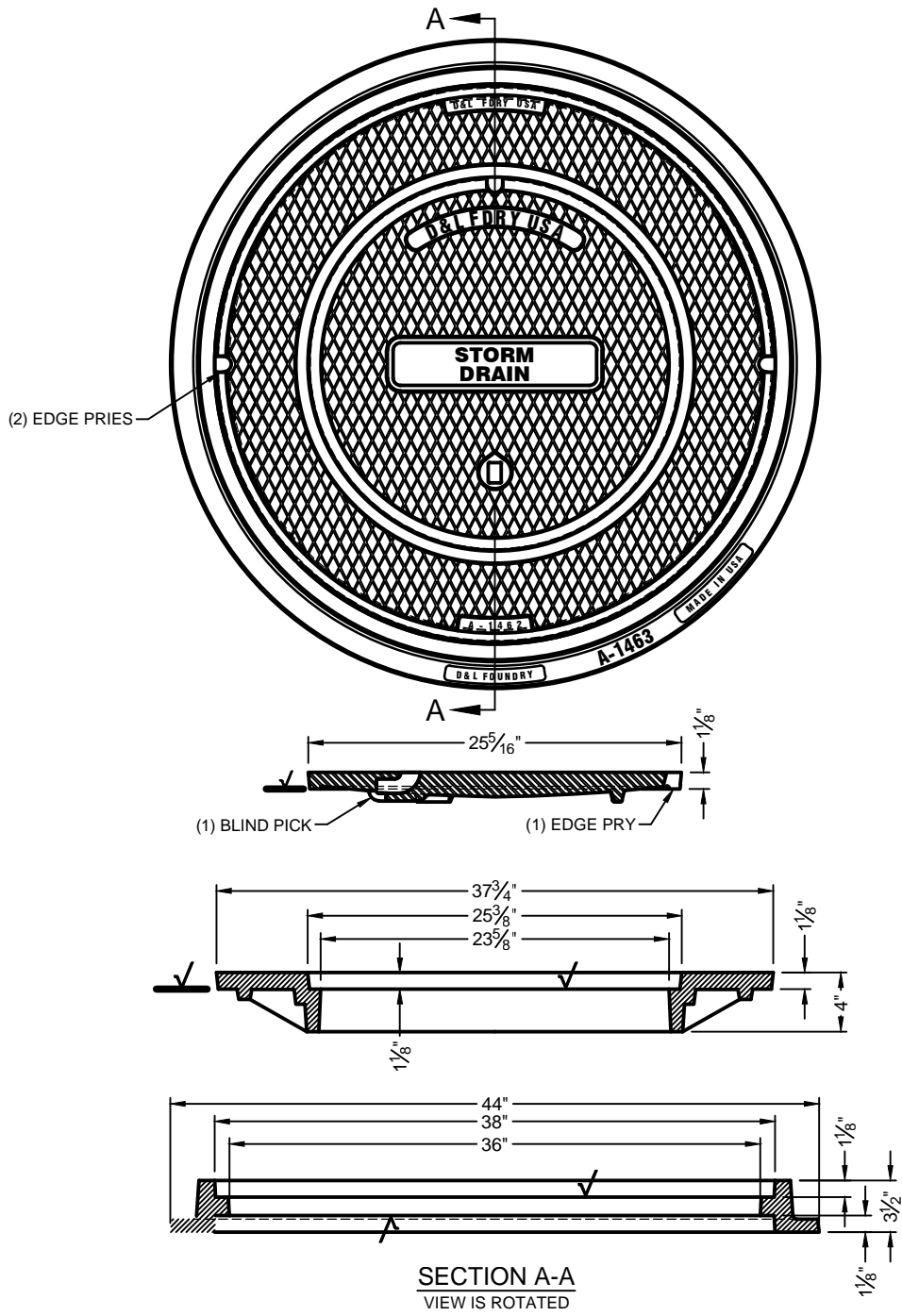
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SECTION A-A
VIEW IS ROTATED

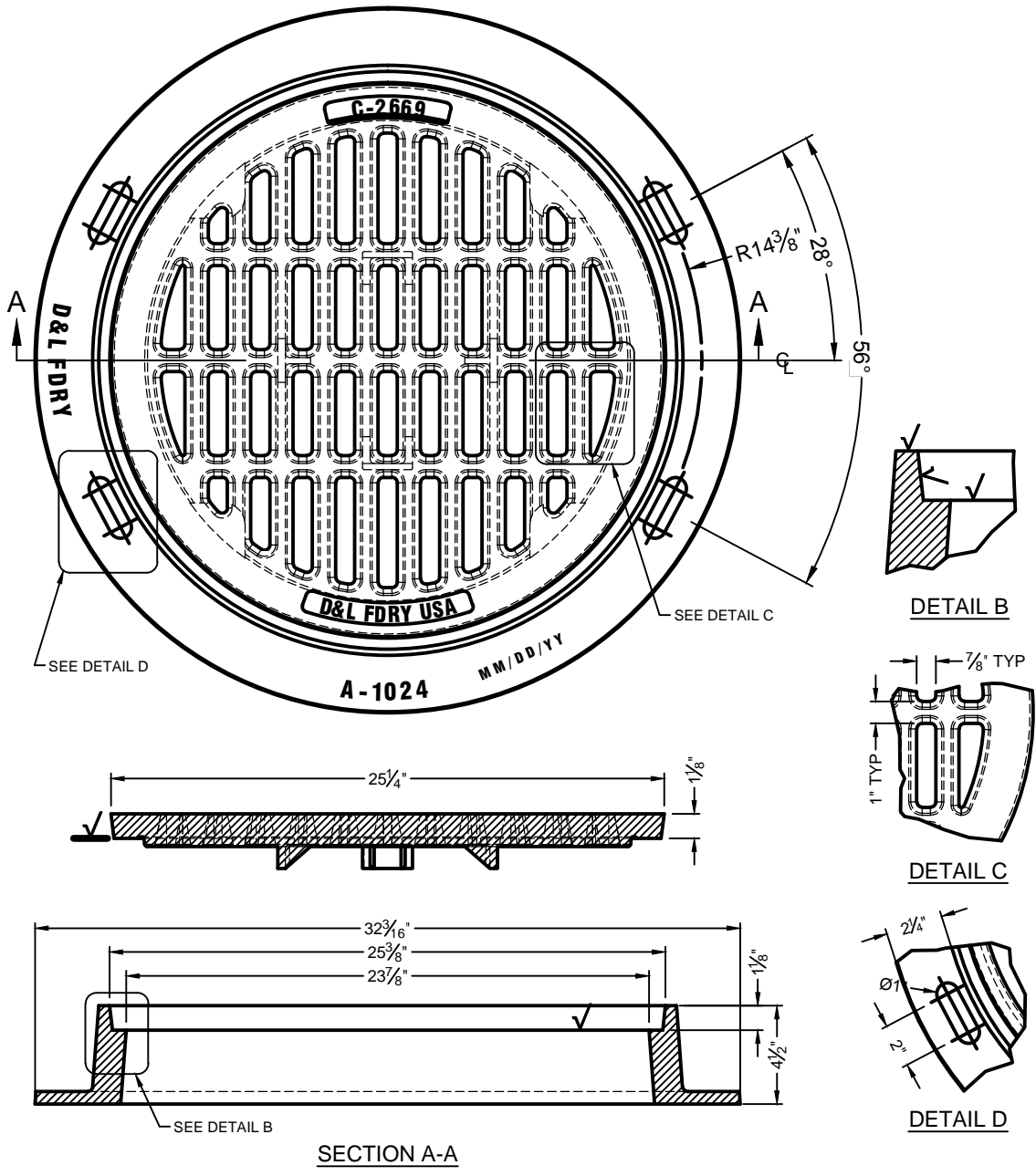
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
STANDARD DRAINAGE MANHOLE FRAME AND COVER	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="font-size: 24pt; font-weight: bold; text-align: center;">DR-8</div>

Dwg: Z:\GIS_DATABASE\MMWC\DETAILS\STORM DRAIN\MMWC-DRAINAGE.DWG | Saved: 12-22-15 01:12pm KJOLLY | Plotted: 12-22-15 01:25pm KJOLLY




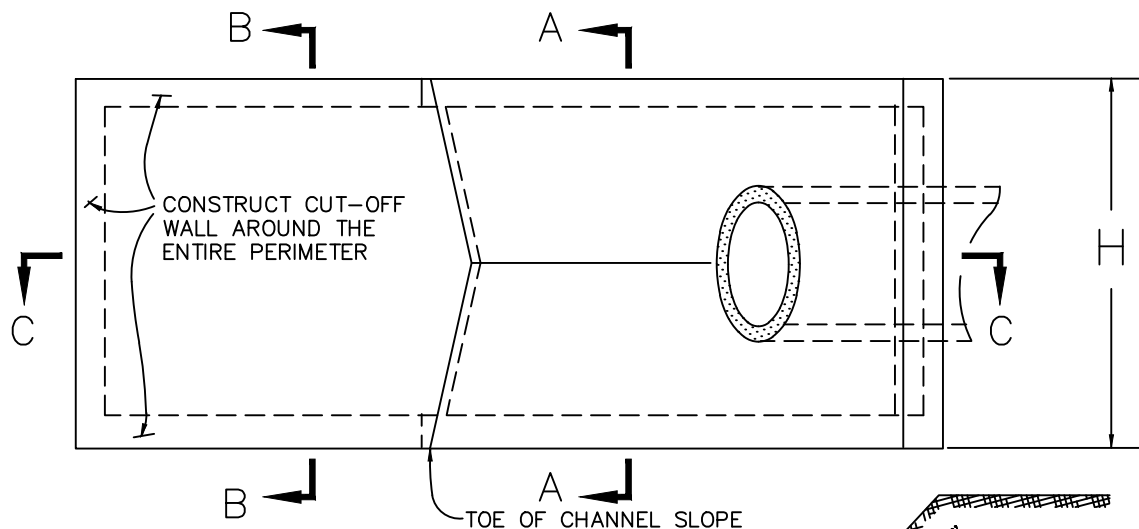
	TESORO VIEJO MASTER MUTUAL WATER COMPANY
<h2 style="margin: 0;">STANDARD 36" MANHOLE FRAME AND COVER</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-9

Dwg: Z:\GIS_DATABASE\MMWC\DETAILS\STORM DRAIN\TYMMWC-DRAINAGE.DWG | Saved: 12-22-15 01:12pm KJOLLY | Plotted: 12-22-15 01:31pm KJOLLY



SECTION A-A

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
GRATE TYPE MANHOLE COVER	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <hr/> DR-10

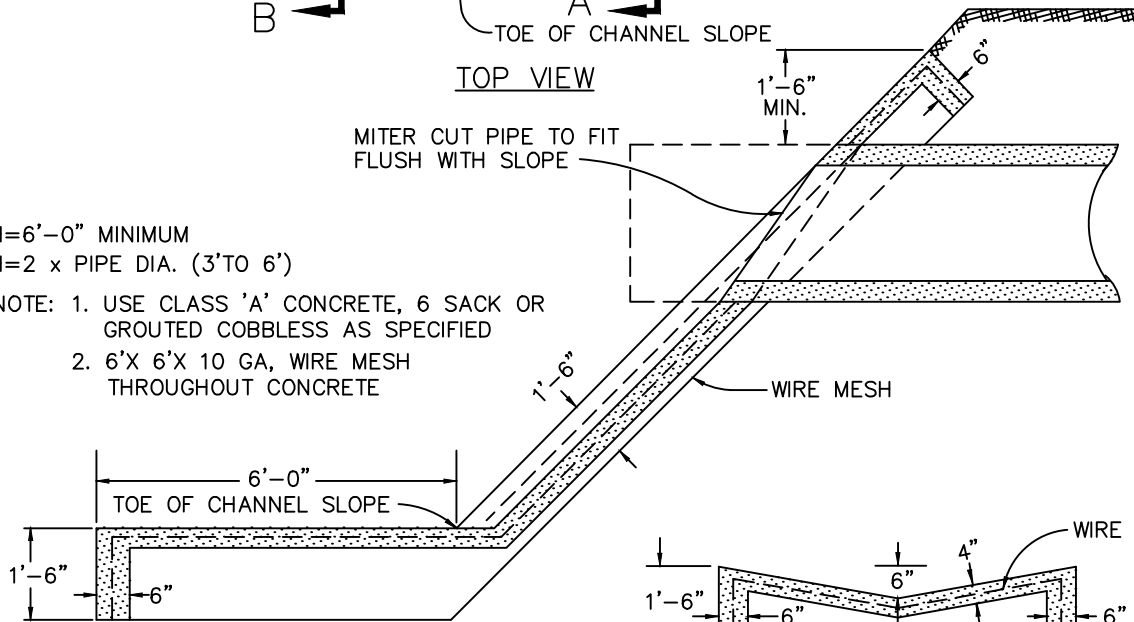


TOP VIEW

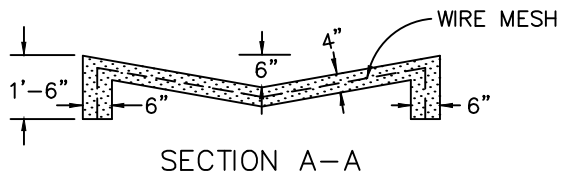
H=6'-0" MINIMUM
H=2 x PIPE DIA. (3' TO 6')

- NOTE: 1. USE CLASS 'A' CONCRETE, 6 SACK OR GROUTED COBBLES AS SPECIFIED
2. 6'X 6'X 10 GA, WIRE MESH THROUGHOUT CONCRETE

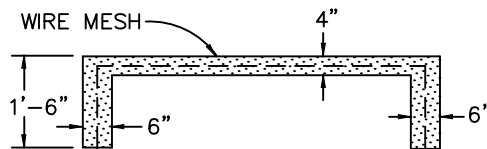
MITER CUT PIPE TO FIT FLUSH WITH SLOPE



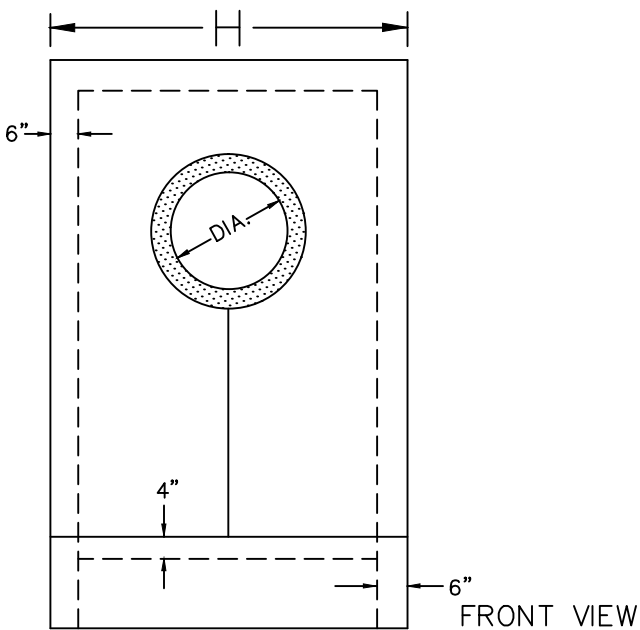
SECTION C-C



SECTION A-A



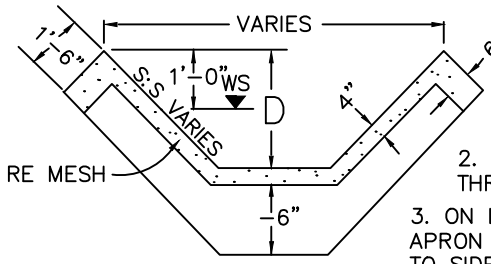
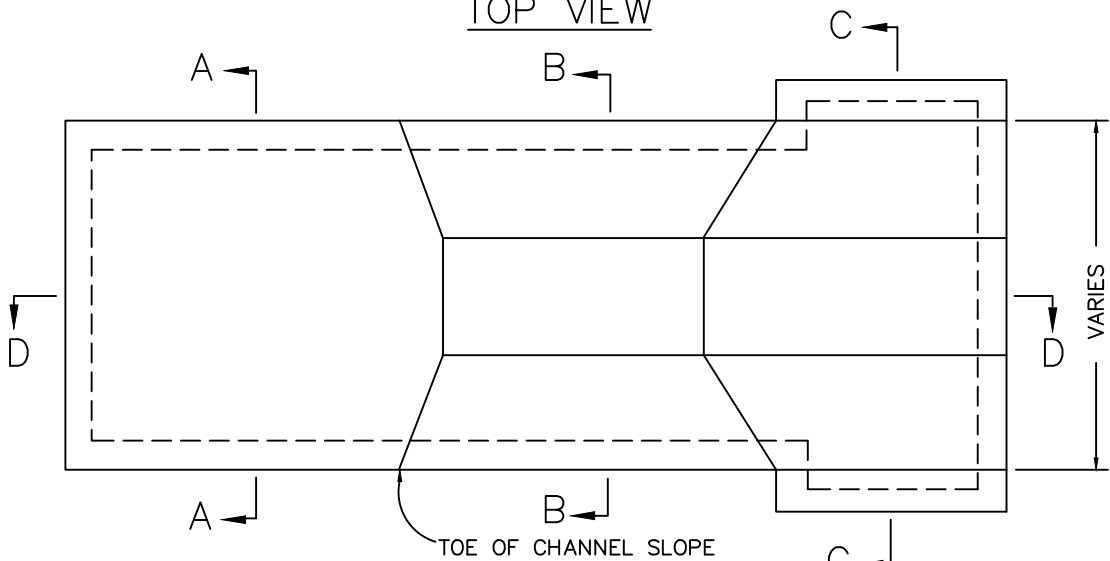
SECTION B-B



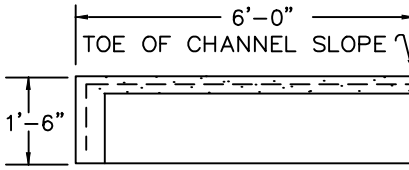
	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	<p align="center">SLOPE PROTECTION</p>
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-11

Dwg: Z:\GIS_DATABASE\DETAILS\STORM DRAIN\TM\WCDRAINAGE.DWG | Saved: 12-15-15 03:13pm KJOLLY | Plotted: 12-15-15 03:33pm KJOLLY

TOP VIEW

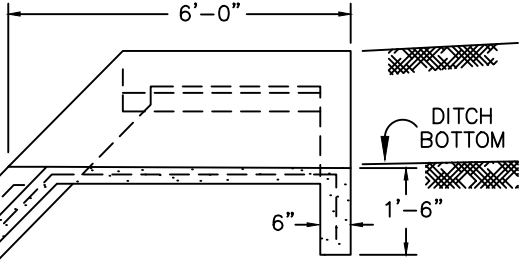


SECTION C-C

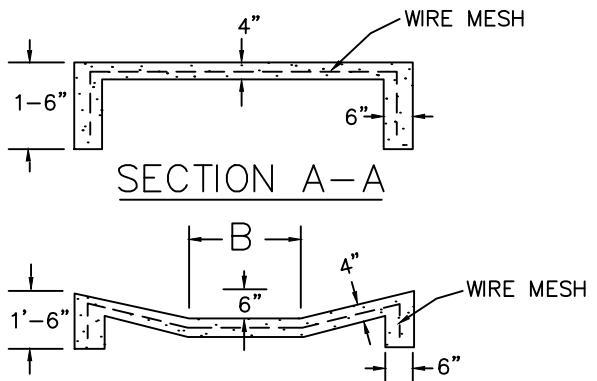


SECTION D-D

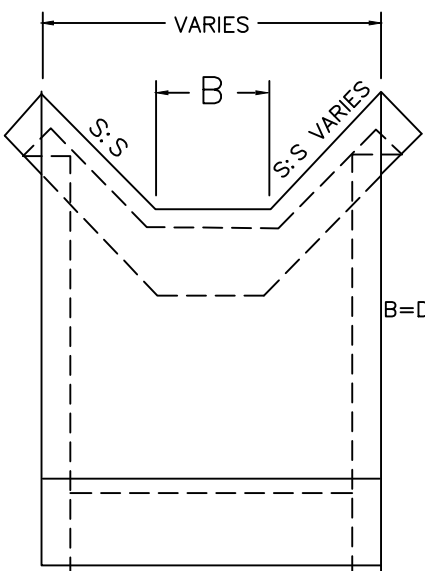
- NOTES:**
1. USE CLASS 'A' CONCRETE OR GROUTED COBBLES AS SPECIFIED
 2. 6X6X10 GA WIRE MESH THROUGHOUT CONCRETE
 3. ON LINED CHANNELS APRON SHALL CONNECT TO SIDE LINING



SECTION A-A



SECTION B-B



FRONT VIEW

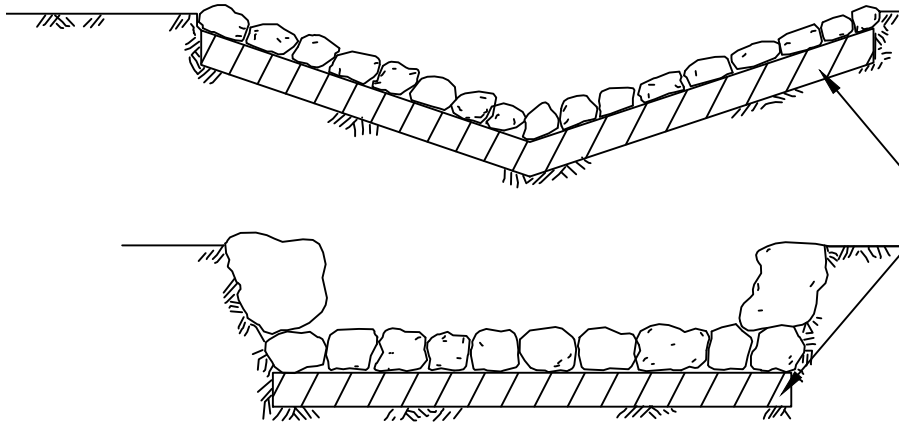
B=DITCH BOTTOM WIDTH OR AS SHOWN ON PLANS

TESORO VIEJO **TESORO VIEJO MASTER MUTUAL WATER COMPANY**

EROSION CONTROL DITCH DISCHARGE

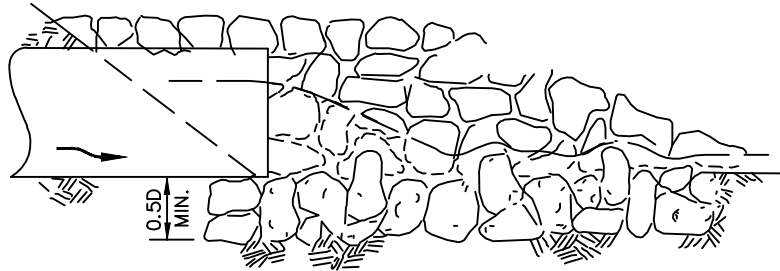
APPROVED:
DRAWN:
DATE:
SCALE:

DWG NO.
DR-12

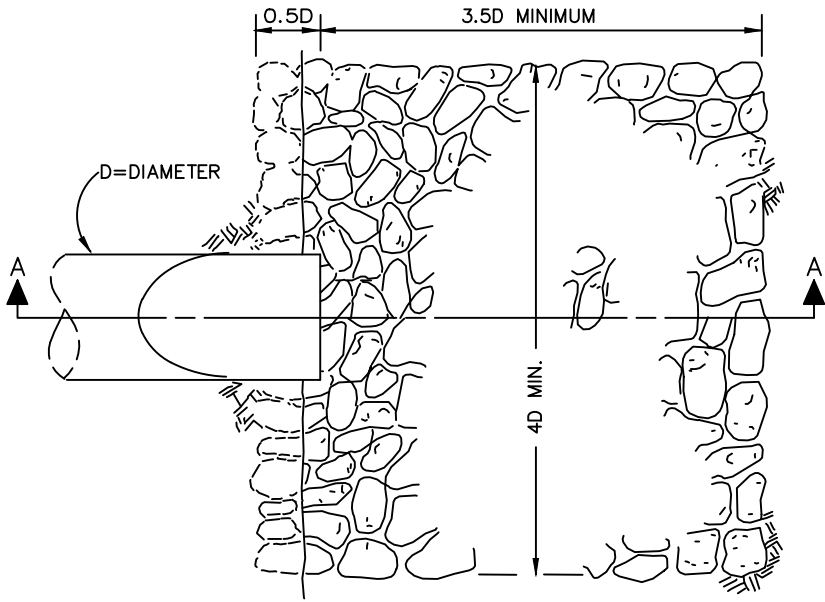


BACKING AGGREGATE
 THICKNESS 0.5' MINIMUM
 SAND EQUIVALENT NOT LESS
 THAN 20. (FOR GROUTED
 COBBLES ONLY)

STREAM BANK SLOPE PROTECTION



SECTION A-A



CULVERT OUTFALL

NOTE:

STONE LINING SHALL BE GROUTED COBBLES CONFORMING TO THE REQUIREMENTS OF THE STANDARD CONSTRUCTION SPECIFICATIONS OR QUARRY ROCK CONFORMING TO THE REQUIREMENTS OF THE STANDARD CONSTRUCTION SPECIFICATIONS.

TESORO VIEJO **TESORO VIEJO MASTER MUTUAL WATER COMPANY**

CULVERT OUTFALL & STREAM BANK SLOPE PROTECTION

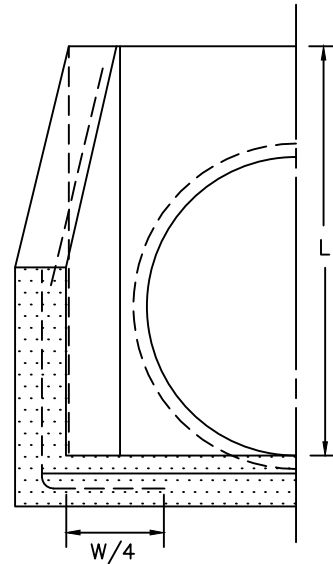
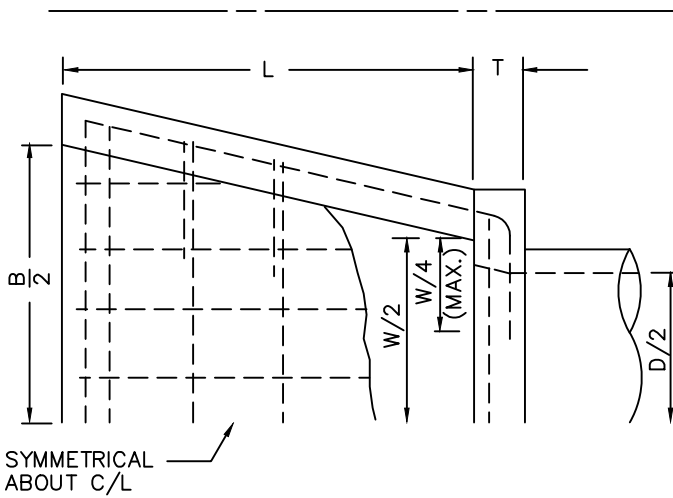
APPROVED:
 DRAWN:
 DATE:
 SCALE:

DWG NO.
DR-13

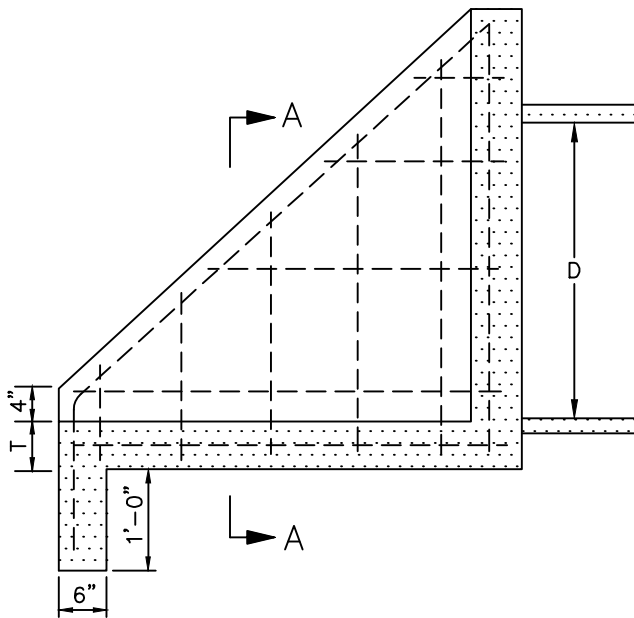
Dwg: Z:\GIS_DATABASE\DETAILS\STORM DRAIN\TM\WC\DRAINAGE\DWG | Saved: 12-15-15 03:13pm KJOLLY | Plotted: 12-15-15 03:34pm KJOLLY

DIMENSIONS & REINFORCING

D	W	B	L	T	ALL REINFORCING
33"	3'- 5"	5'- 3"	4'- 0"	6"	# 5 @ 12"
36"	3'- 8"	5'- 8"	4'- 2"	6"	# 5 @ 12"
42"	4'- 4"	6'- 4"	4'- 8"	6"	# 5 @ 12"
48"	4'-10"	7'- 2"	5'- 2"	8"	# 6 @ 12"
54"	5'- 4"	8'- 0"	6'- 0"	8"	# 6 @ 12"
60"	6'- 0"	8'-10"	6'- 6"	8"	# 6 @ 12"



HALF SECTION A-A



NOTES:

1. "B" MAY BE REDUCED IF REQUIRED BY CHANNEL DIMENSIONS
2. REINFORCING BAR SPACING SHOWN IS MAXIMUM SPACING.
3. USE CLASS 'A' CONCRETE, 6 SACK.
4. PRECAST FLARED END SECTIONS MAY ALSO BE USED UPON ENGINEER APPROVAL.

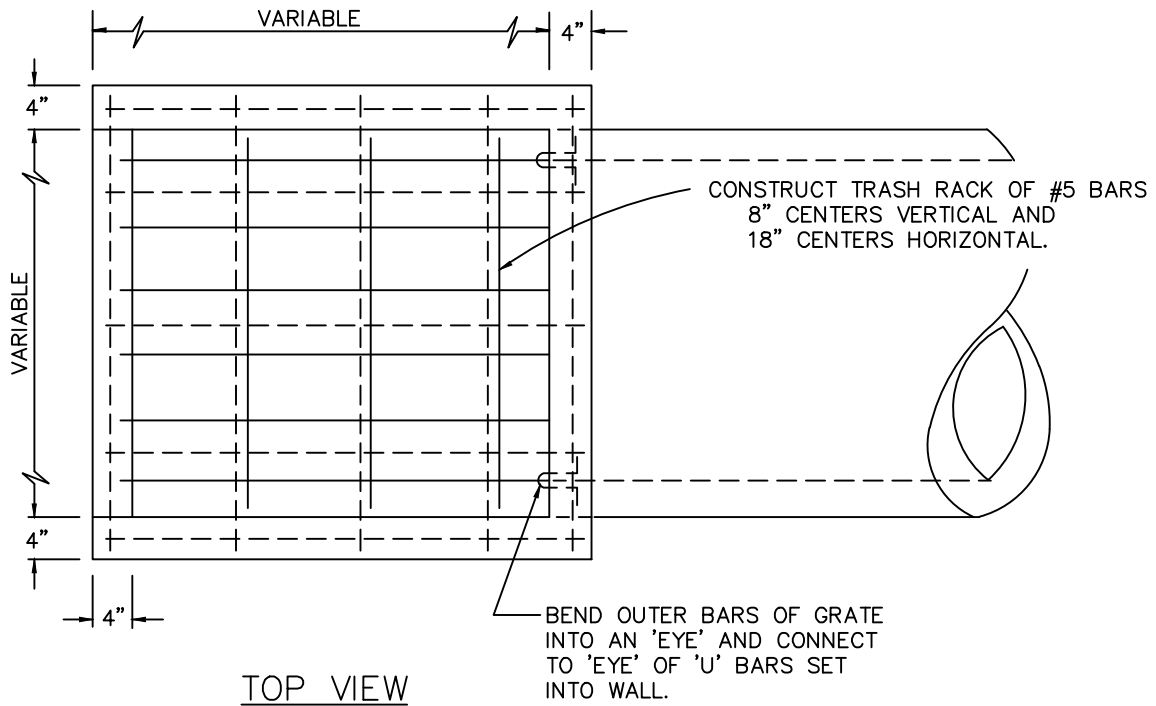
TESORO VIEJO MASTER MUTUAL WATER COMPANY

PIPE INLET/OUTLET STRUCTURE

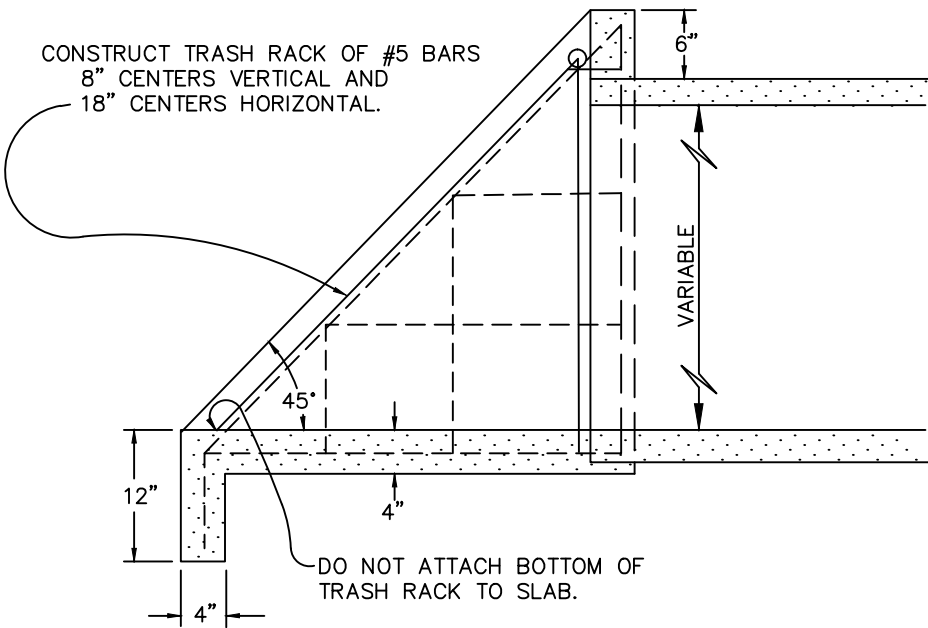
APPROVED:
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DATE:
SCALE:

DWG NO.

DR-14



TOP VIEW



SIDE VIEW

NOTE:

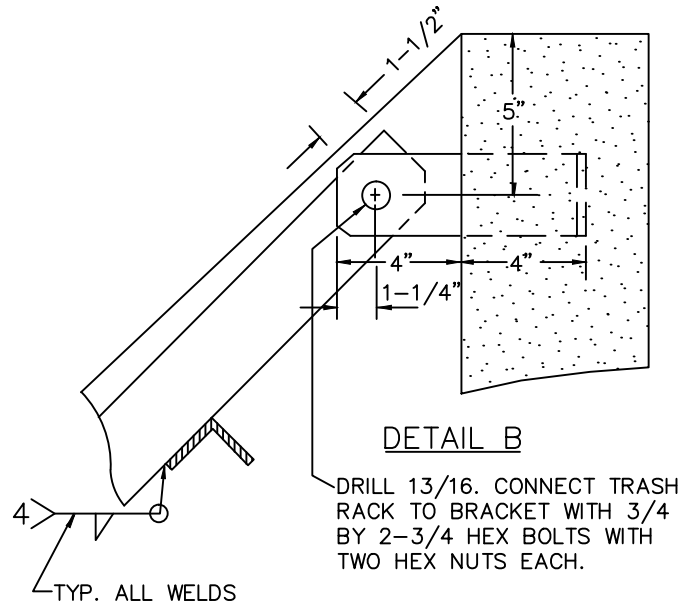
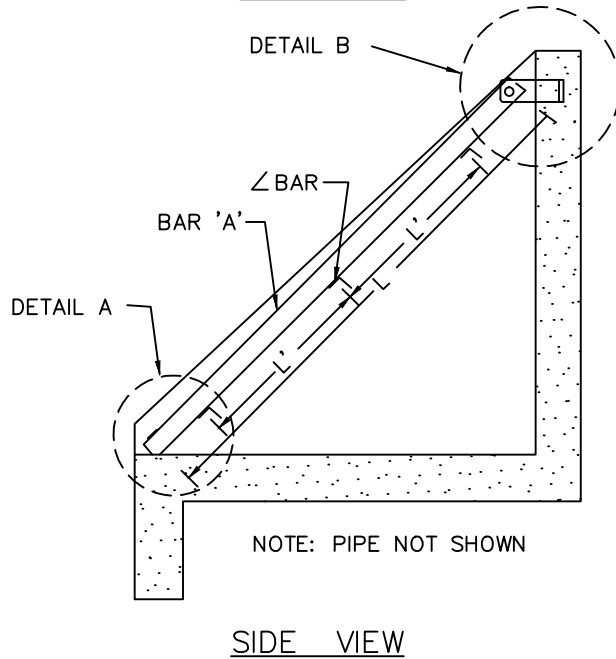
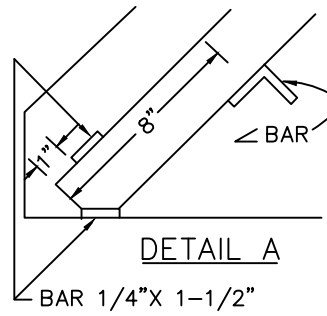
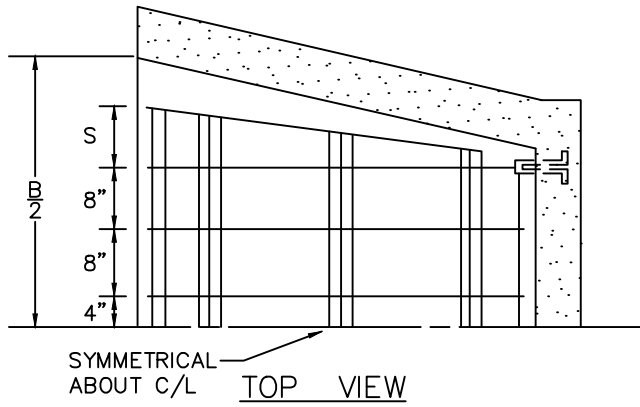
ALL REINFORCING TO BE #4 @ 12"
 USE CLASS 'A' CONCRETE, 6 SACK.

TESORO VIEJO **TESORO VIEJO MASTER MUTUAL WATER COMPANY**

PIPE INLET/OUTLET STRUCTURE & TRASH RACK (30" PIPE OR SMALLER)

APPROVED:
 DRAWN:
 DATE:
 SCALE:

DWG NO.
DR-15



DIA.	NUMBER & SIZE		L	L'	S	H
	BAR A	L BAR				
33"	8-3/8 X 2 1/2	3-2 X 2 X 1/4	5'-1"	1'-10"	8"	3'-8"
36"	"	"	5'-4"	1'-11"	8"	3'-10"
42"	9-3/8 X 2 1/2	"	5'-11"	2'-3"	9"	4'-4"
48"	"	4-2 X 2 X 1/4	6'-7"	1'-9"	10"	4'-10"
54"	10-3/8 X 3	4-3 X 3 X 1/4	7'-9"	2'-1 1/2"	10 1/2"	5'-8"
60"	11-3/8 X 3 1/2	"	8'-5"	2'-4"	11"	6'-2"

NOTES

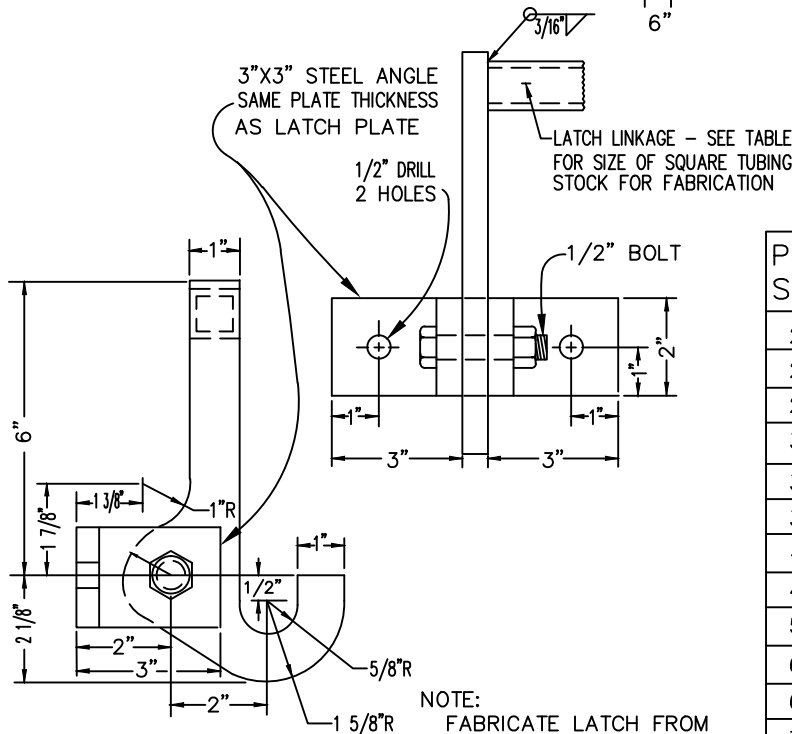
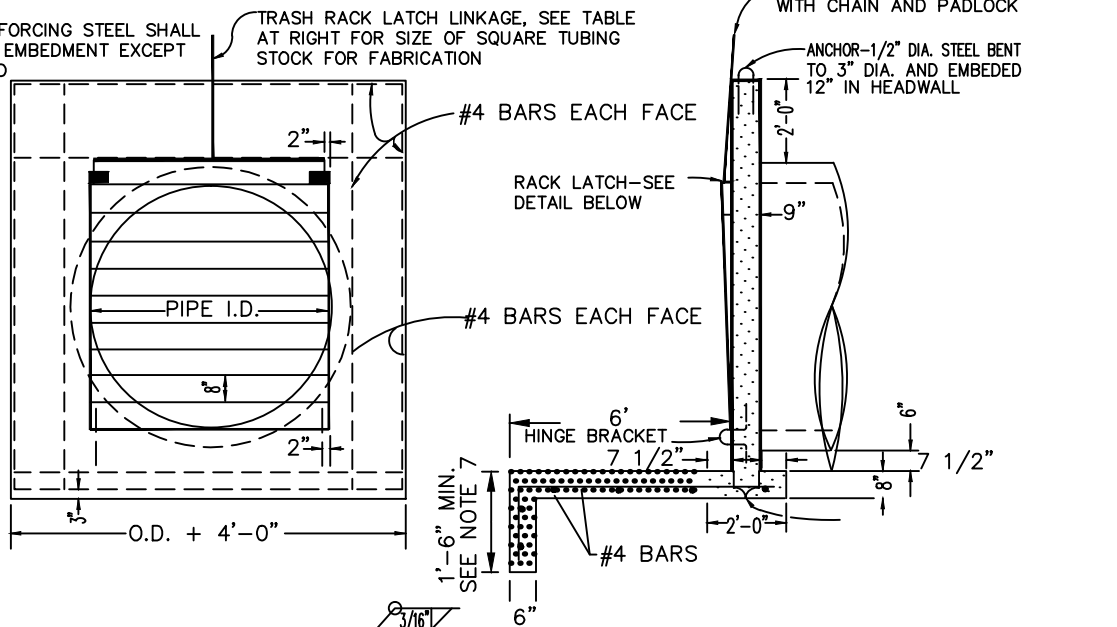
1. THIS TRASH RACK MAY BE USED WITH PIPE INLET STRUCTURES.
2. MATERIAL TO CONFORM TO ASTM DESIGNATION A-36.
3. 'S' MAY VARY WITH 'B'. SEE DWG NO. DR-14.
4. ALL FILLET WELDS TO BE 3/16"
5. 2- HINGES REQUIRED FOR 33, 36 & 42 INCH PIPES. 3- HINGES REQUIRED FOR 48, 54 & 60 INCH PIPES.

TESORO VIEJO **TESORO VIEJO MASTER MUTUAL WATER COMPANY**

TRASH RACK (33" PIPE OR LARGER)

APPROVED:	DWG NO.
DRAWN:	DR-16
DATE:	
SCALE:	

NOTE:
ALL REINFORCING STEEL SHALL
HAVE 2" EMBEDMENT EXCEPT
AS NOTED



PIPE SIZE	RACK BAR SIZE	LATCH PLATE THICKNESS	LATCH LINKAGE SIZE
21"	#4	1/4"	1", .095" THICK
24"	"	"	"
27"	#5	"	"
30"	"	3/8"	"
33"	#6	"	"
36"	"	"	1", .133" THICK
42"	#7	"	"
48"	"	1/2"	"
54"	"	"	"
60"	#8	"	"
66"	"	"	"
72"	"	"	"
84"	"	"	"

NOTES:

1. ENTIRE RACK TO BE WELDED REINFORCING STEEL OR ROUND BARS OF EQUAL DIA. WITH HORIZONTAL BARS BEING 8" CENTER TO CENTER.
2. USE CLASS "A" CONCRETE, 6 SACK.
3. ROOM SHALL BE PROVIDED DOWNSTREAM TO LAY RACK FLAT.
4. FASTEN LATCH BRACKET TO HEADWALL WITH 1/2" X 6" BOLTS WITH HEX NUTS, OR 1/2" EXPANSION BOLTS.
5. WHEN RACK IS IN THE CLOSED POSITION, THE BOTTOM RACK BAR SHALL BE TIGHT AGAINST THE TOP OF THE HINGE BRACKET SO THAT THE RACK CANNOT BE LIFTED OFF THE LATCH.
6. FABRICATE HINGE BRACKET FROM #4 RE-BAR.
7. CUTOFF WALL NOT REQUIRED IF HEADWALL IS TIED TO DWG NO. DR-11.

TESORO VIEJO TESORO VIEJO MASTER MUTUAL WATER COMPANY

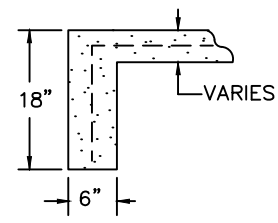
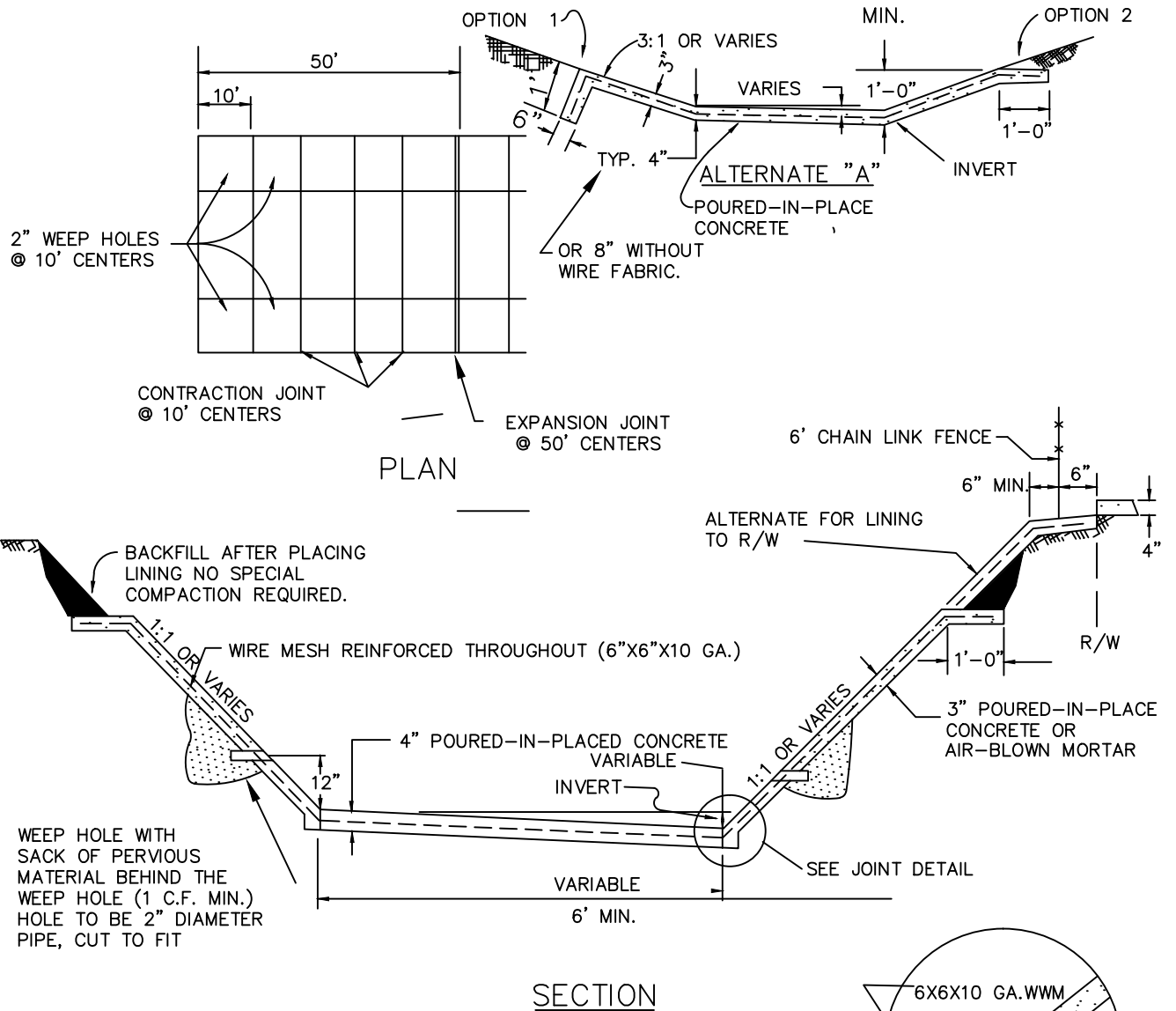
PIPE OUTFALL ACCESS CONTROL RACK

APPROVED:
DRAWN:
DATE:
SCALE:

DWG NO.

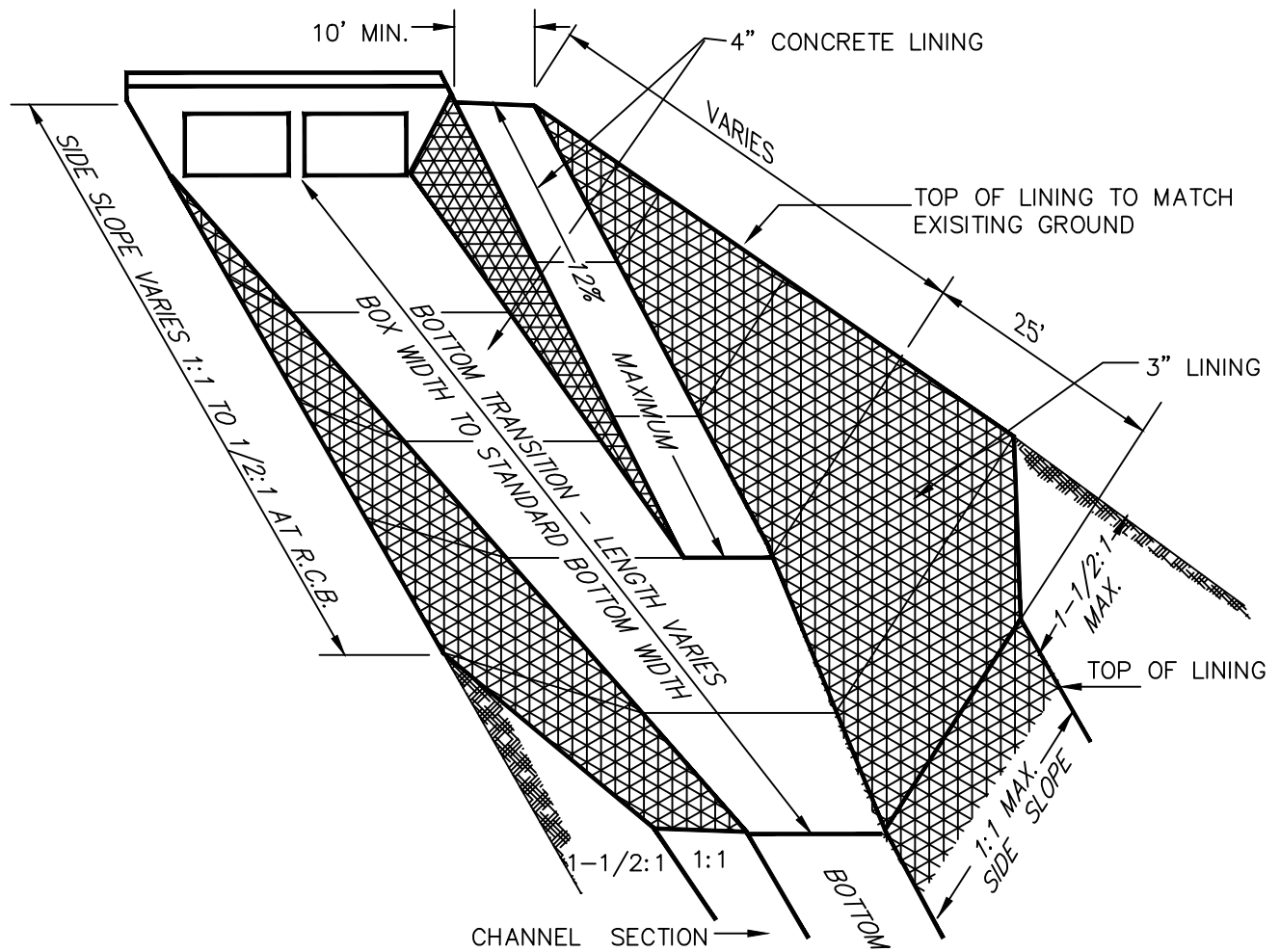
DR-17

Dwg. Z:\GIS_DATABASE\DETAILS\STORM DRAIN\TM\WCDRAINAGE.DWG | Saved: 12-15-15 03:51pm KJOLLY | Plotted: 12-15-15 03:55pm KJOLLY



CUTOFF WALL
 TO BE PLACED ALONG ENTIRE END OF LINED SECTION AT BEGINNING AND AT END OF LINING

TESORO VIEJO MASTER MUTUAL WATER COMPANY	
LINED CHANNEL SECTION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-18



NOTES:

BOTTOM TRANSITION
25' MINIMUM LENGTH
WITH NO RAMP.

WEEP HOLES AND JOINTS
AS REQUIRED FOR ALL
LINED CHANNEL SECTIONS.

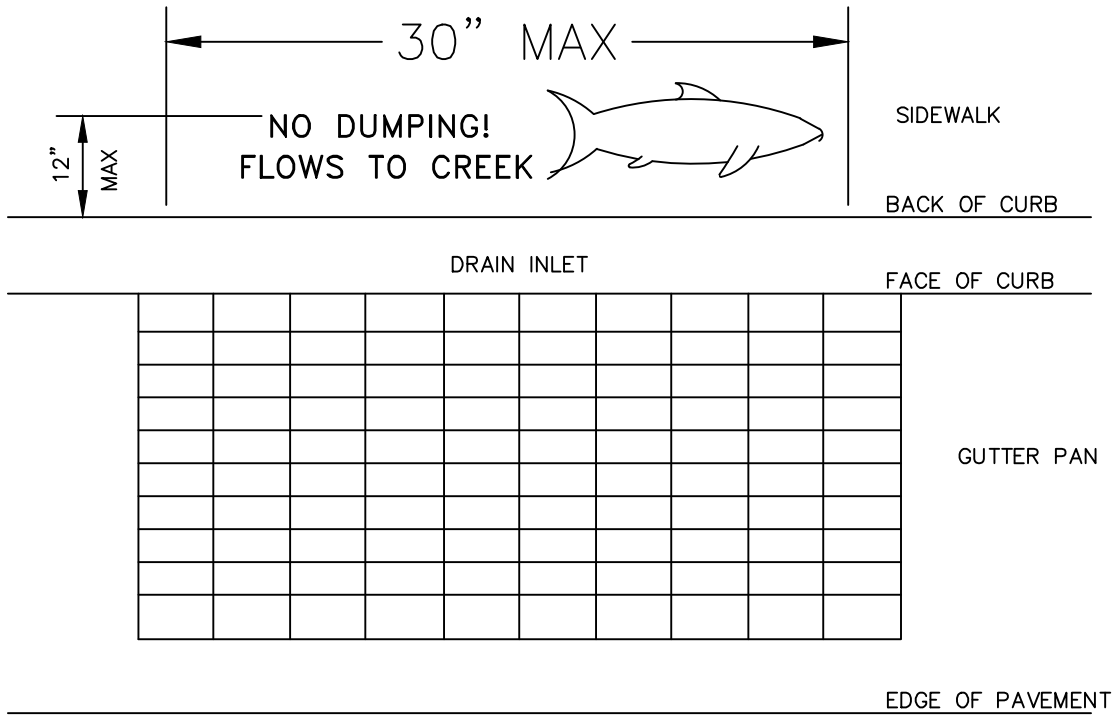
LOW SIDE OF CHANNEL
TO BE OPPOSITE
RAMP.

SIDE SLOPE LINING MAY BE
DELETED ON CHANNELS WITH
BOTTOM LINING ONLY

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
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**TYPICAL RAMP AND
TRANSITION DETAIL**

APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-19
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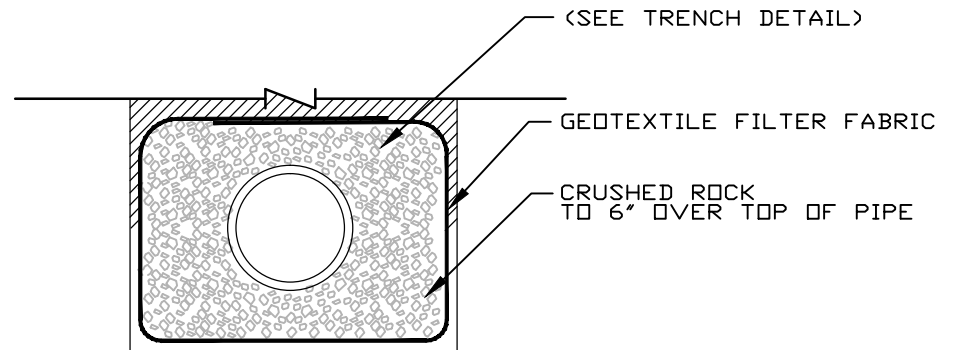
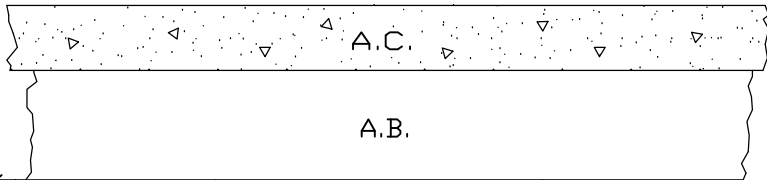


NOTES:

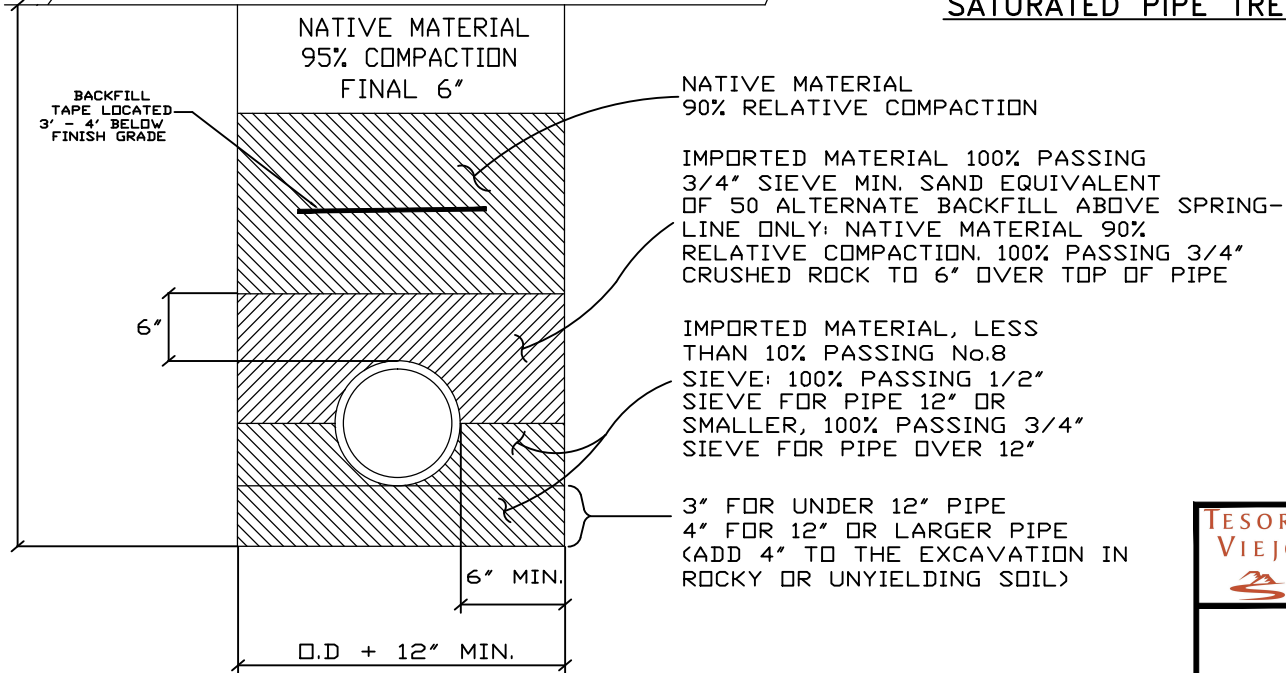
1. LETTERING SHALL BE 1 1/4 TO 1 1/2 INCHES HIGH. THE MESSAGE AND SYMBOL SHALL BE DEPRESSED 1/8 TO 1/4 INCH INTO THE CONCRETE. THE FISH SYMBOL SHALL BE A MINIMUM OF 11 INCHES LONG AND 3 1/2 INCHES HIGH.
2. THE STAMP SHALL BE APPROVED BY THE TVMMWC PRIOR TO ITS USE
3. THIS DETAIL SHALL APPLY TO ALL DRAIN INLET DESIGNS. WHERE THE SIDEWALK DOES NOT ADJOIN THE BACK OF CURB, THE NOTICE SHALL BE STAMPED IN THE CONCRETE BACKUP, BEHIND THE DRAIN INLET. WHERE THE DRAIN INLET IS PLACED IN A "V" GUTTER WITHOUT A CURB INLET, THE NOTICE SHALL BE STAMPED ON ONE SIDE OR THE OTHER, PARALLEL TO THE LENGTH OF THE INLET.
4. THE MESSAGE SHALL BE FREE OF BLEMISHES, LEGIBLE AND ACCEPTABLE TO THE TVMMWC.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
"NO DUMPING" PUBLIC NOTICE DETAIL	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. DR-20

Dwg: Z:\GIS_DATABASE\TVMMWC\DETAILS\STORM DRAIN\TVMMWC\DRAINAGE.DWG | Saved: 12-15-15 03:51pm KJOLLY | Plotted: 12-15-15 03:57pm KJOLLY

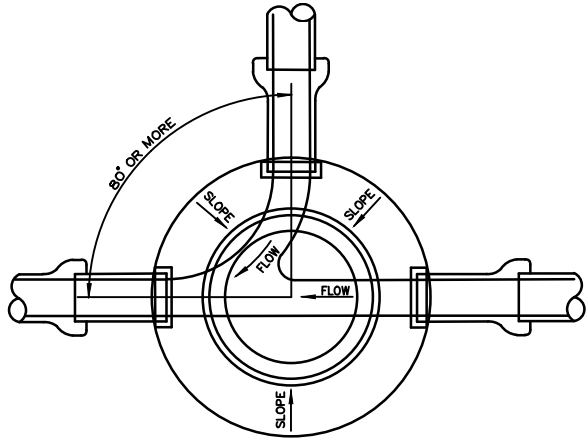


SATURATED PIPE TRENCH



NOTE: BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE

	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	SEWER MAIN TRENCH AND BACKFILL	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-1	



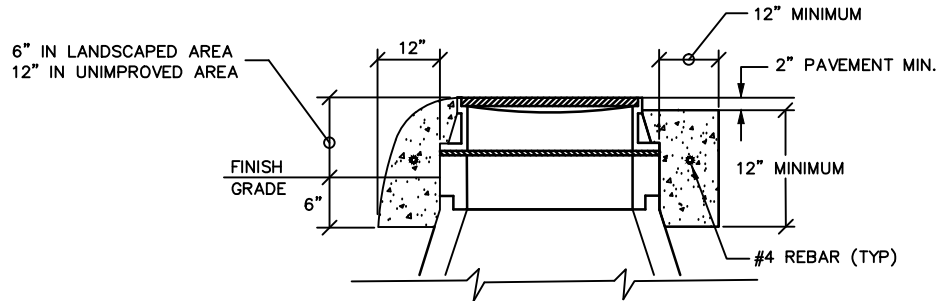
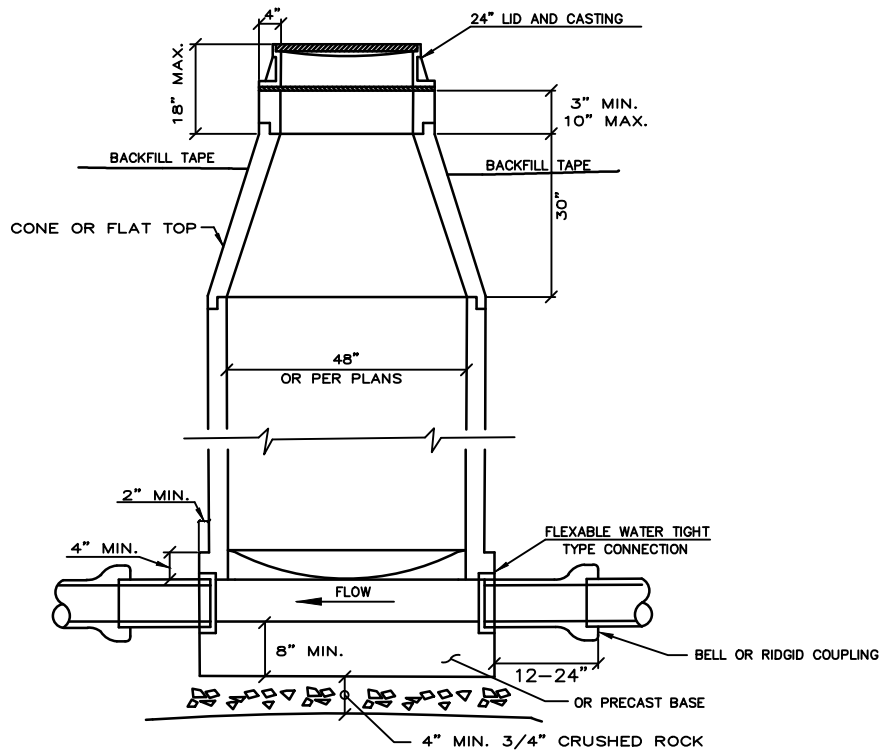
NOTES

JOINTS SHALL BE MORTARED INSIDE AND OUT.


UNUSED CHANNELS SHALL BE COMPLETELY FILLED WITH GROUT.

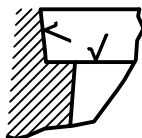
STUBS SHALL BE PLUGGED AND END MARKED ABOVE FINISHED GRADE WITH A REDWOOD 4 BY 4 POST PAINTED GREEN.

IF AN ECCENTRIC CONE IS USED, PLACE SUCH THAT THE OPENING IS OVER THE UPSTREAM INVERT.

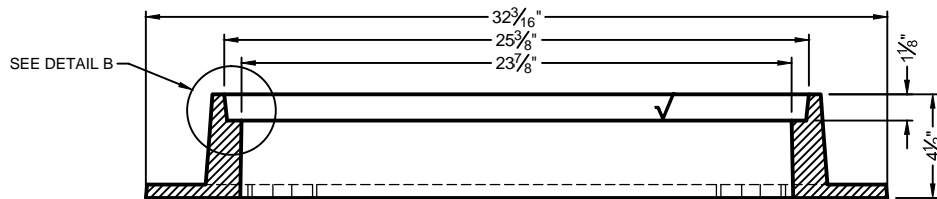
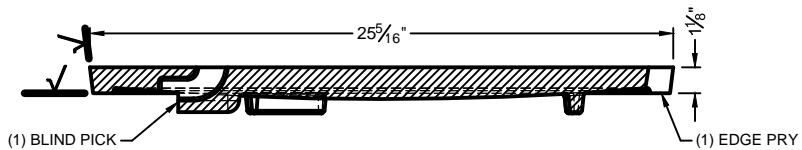


CONCRETE COLLAR DETAIL


 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
SEWER MANHOLE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-2



DETAIL B

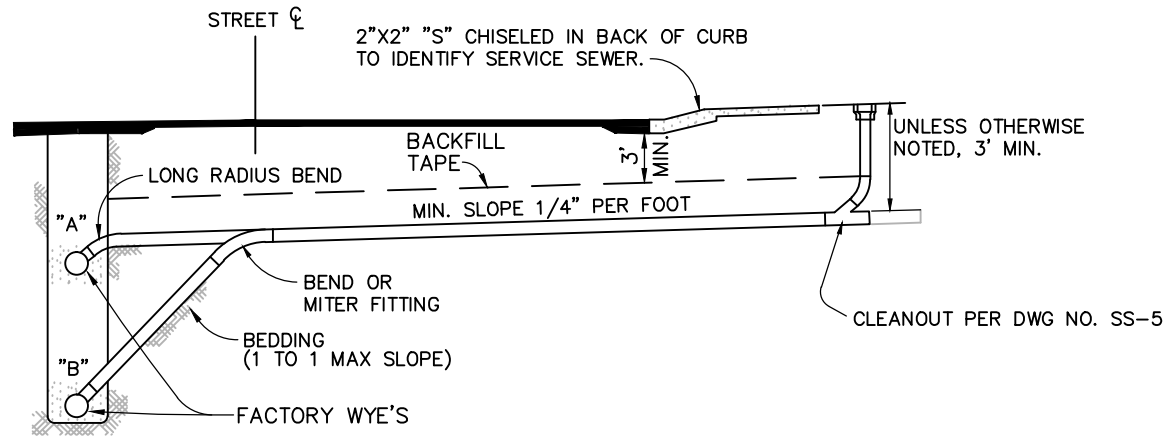


SECTION A-A
VIEW IS ROTATED

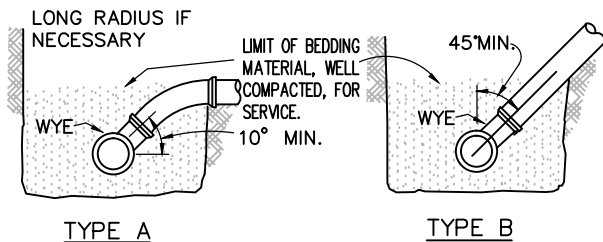
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
STANDARD SEWER MANHOLE FRAME AND COVER	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-3

GENERAL NOTES:


1. ALL SERVICE LINES SHALL BE 4" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
2. SERVICES SHALL HAVE SAME BEDDING AND BACKFILL AS LATERAL SEWER.
3. CONTRACTOR SHALL USE THE MOST APPROPRIATE TYPE CONNECTION (A OR B) FOR THE PARTICULAR SITUATION ENCOUNTERED.
4. SERVICE SEWER SHALL HAVE MINIMUM 4'-0" COVER AT PROPERTY LINE WHENEVER LATERAL DEPTH AND SERVICE SEWER SLOPE OF 1/4" PER FOOT (MINIMUM) PERMIT.
5. WHEN THE LATERAL SEWER DEPTH IS SUCH THAT MINIMUM COVER AT PROPERTY LINE CANNOT BE MET, THE MINIMUM SLOPE OF 1/4" PER FOOT SHALL GOVERN THE COVER.
6. MIN. SPECIFIED COVER AT THE PROPERTY LINE SHALL BE MEASURED FROM EXISTING GROUND SURFACE OR EDGE OF ADJACENT ROADWAY, WHICHEVER IS LOWER.
7. A SPECIFIC ELEVATION AT THE PROPERTY LINE, WHEN SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER, SHALL GOVERN.
8. MITER FITTING SHALL BE MAX. 45°.
9. SEWER SERVICES FROM SEWER MAINS 14 FT AND GREATER IN DEPTH SHALL HAVE THE CROTCH OF THE VCP "WYE" FITTING FILLED WITH CONCRETE.

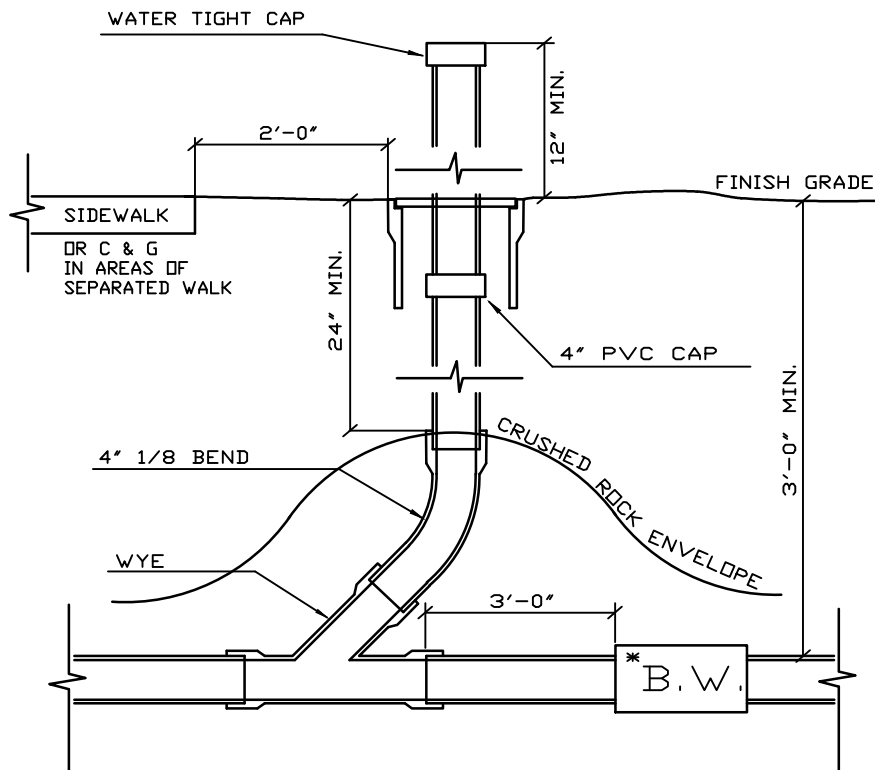


ELEVATION




CONNECTION DETAILS

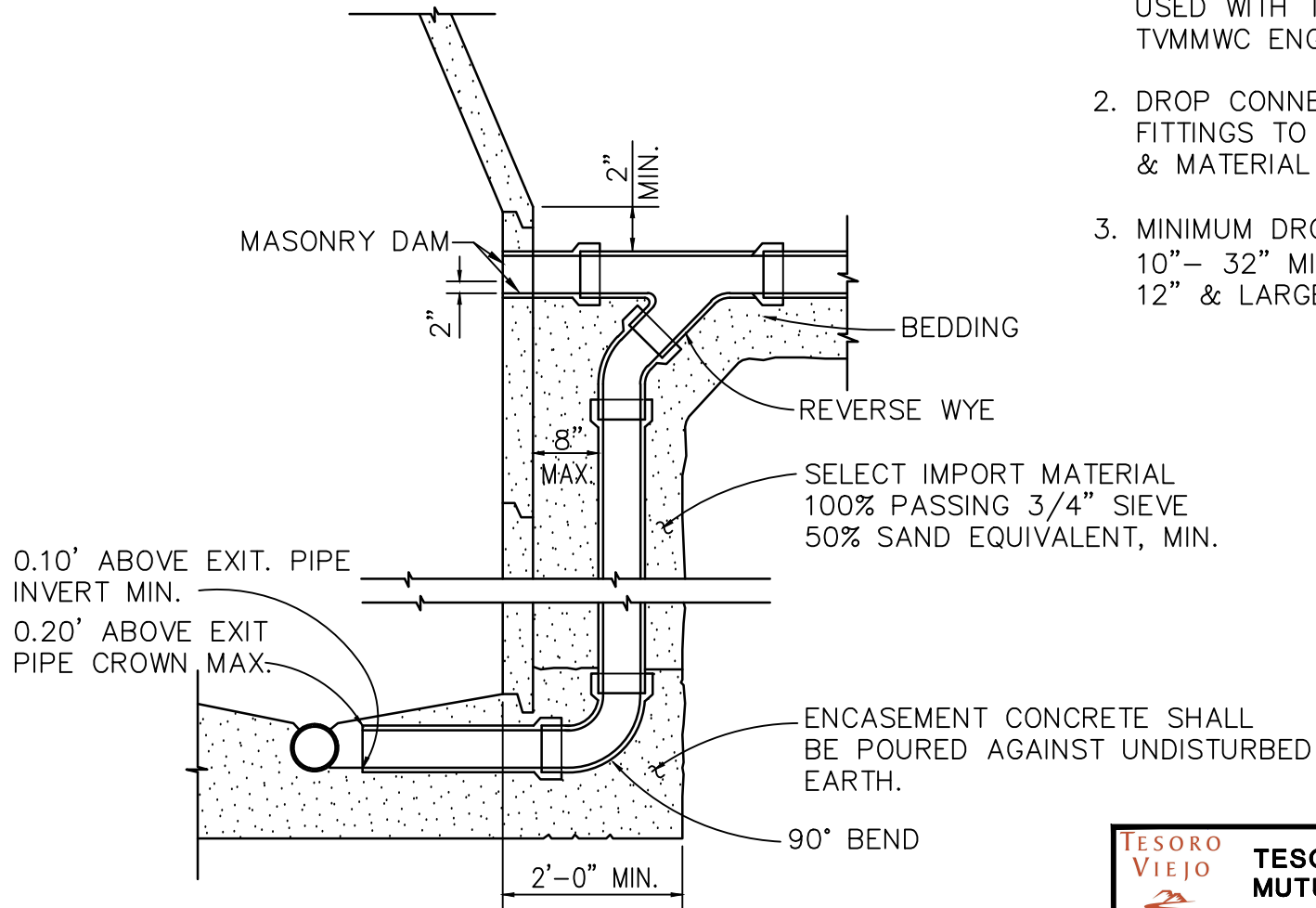
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
SEWER SERVICE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-4



NOTES:

- 1) INSTALL ROUND NON-TRAFFIC TYPE CONCRETE VALVE BOX & COVER MARKED "SEWER" IN A NON - TRAFFIC AREA , INSTALL METAL LID MARKED "SEWER" IN AREAS WITH POTENTIAL TRAFFIC.
- 2) THREE FOOT PVC STUB SHALL BE INSTALLED UPSTREAM OF CLEANOUT.
- 3) CLEANOUT BOX TO BE FREE OF ALL DIRT AND READY AT TIME OF PRE-FINAL INSPECTION.
- 4) SERVICES OVER 100' LONG AND COMMERCIAL SERVICES REQUIRE A MIN. 6" CLEANOUT WITH 6" FITTINGS.
- 5) CONNECTION TO MAIN SHALL BE WITH A FACTORY WYE OR AT A MANHOLE.
- 6) CONTRACTOR SHALL INSTALL CLEANOUT RISER 12" ABOVE GRADE AND INSTALL WATER TIGHT CAP.
- 7) BUILDING CONTRACTOR SHALL SET BOX TO FINISH GRADE AND INSTALL PVC CAP PRIOR TO PRE-FINAL.
- * 8) INSTALL BACKWATER VALVE IF REQUIRED BY IMPROVE-
MENT STANDARDS OR IMPROVEMENT PLANS.


 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
SEWER SERVICE CLEANOUT	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-5

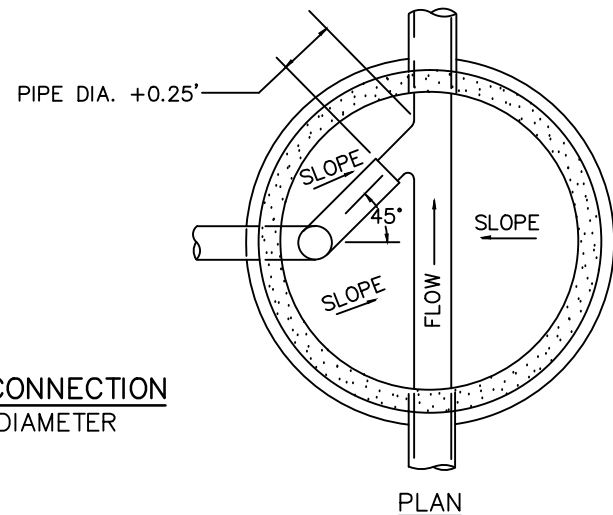
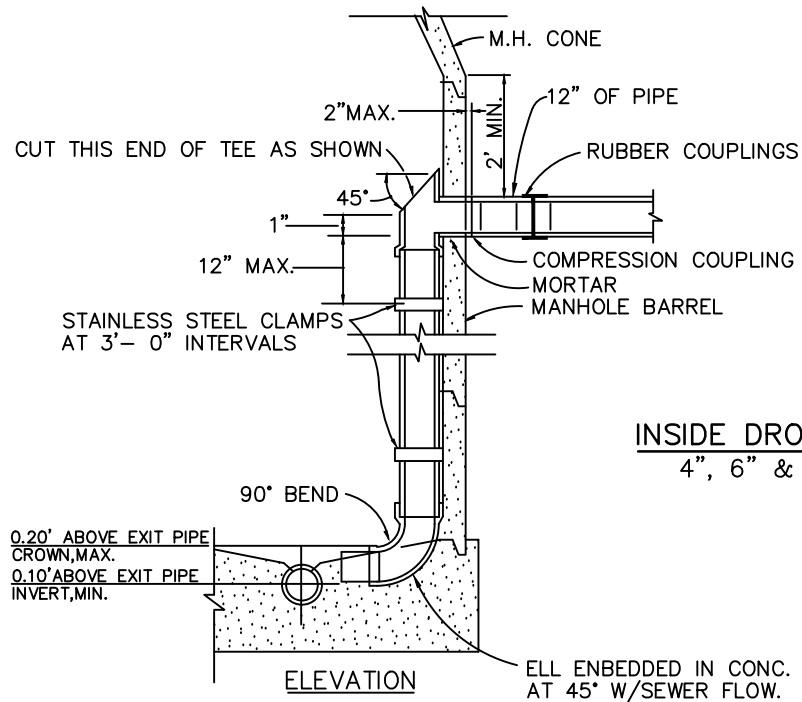


OUTSIDE DROP CONNECTION
10" DIAMETER & LARGER

NOTES:


1. AN OUTSIDE DROP CAN ONLY BE USED WITH THE APPROVAL OF THE TVMMWC ENGINEER
2. DROP CONNECTION PIPE AND FITTINGS TO BE SAME SIZE & MATERIAL AS LATERAL.
3. MINIMUM DROPS:
10" - 32" MINIMUM DROP
12" & LARGER - 36" MINIMUM DROP

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	OUTSIDE DROP CONNECTION	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-6

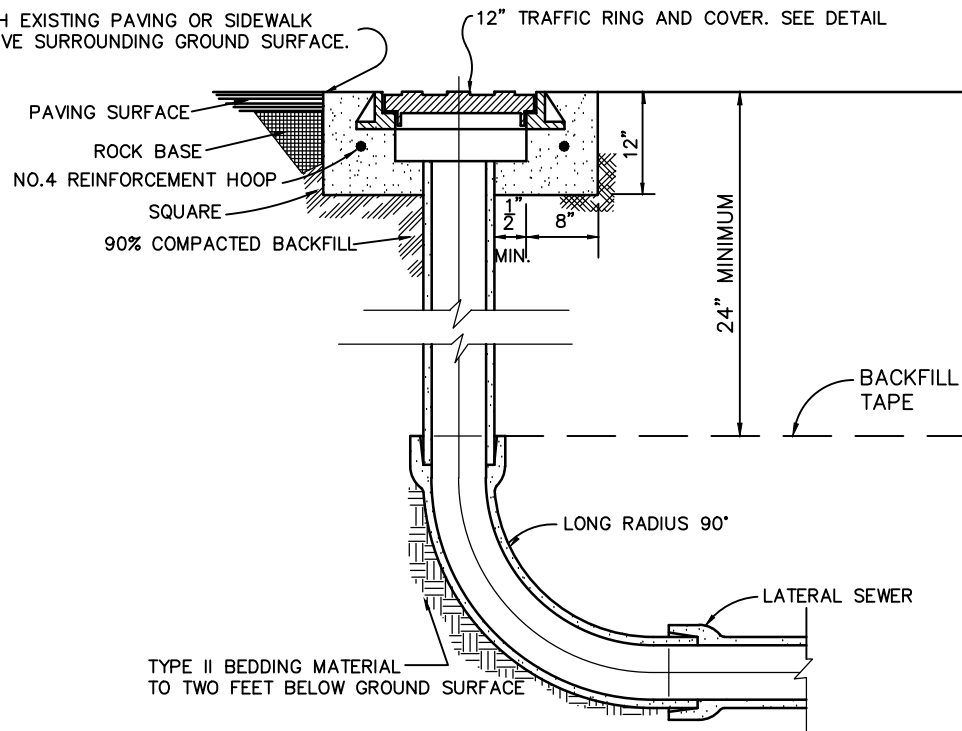


INSIDE DROP CONNECTION
4", 6" & 8" DIAMETER

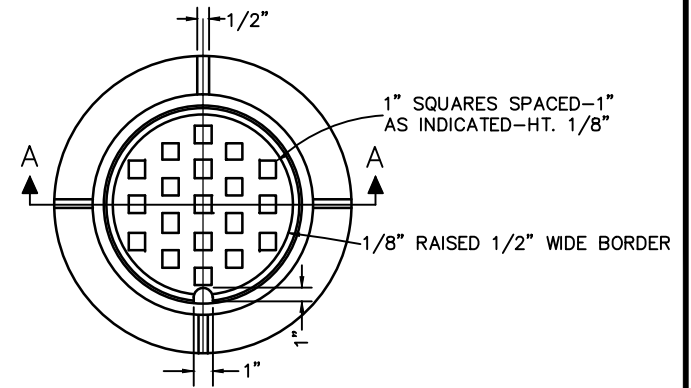
- NOTES:**
1. ALL INSIDE DROP PIPING SHALL BE P.V.C. PIPE, SCHEDULE 40, A.B.S. SCHEDULE 40, OR PVC SDR-35.
 2. PRIME AND CEMENT ALL JOINTS AS RECOMMENDED BY THE MANUFACTURER FOR SCH 40 OR A.B.S. PIPES.
 3. DROP CONNECTION PIPE & FITTINGS TO BE SIZE AS ENTERING PIPE.
 4. CLAMPS SHALL BE 1-1/2" X 12 GAGE STAINLESS STEEL, ANCHORED TO M.H. WALL WITH 2-1/2" STAINLESS STEEL BOLTS.
 5. AN INSIDE DROP CAN ONLY BE USED WITH THE APPROVAL OF THE TESORO VIEJO MASTER MUTUAL WATER COMPANY ENGINEER.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	INSIDE DROP CONNECTIONS	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-7

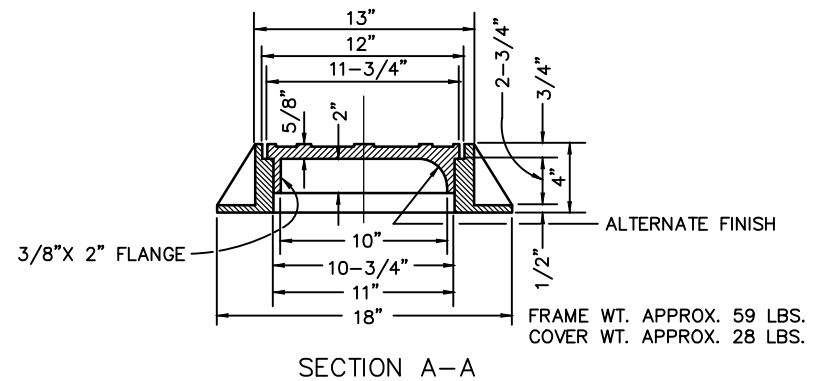
FLUSH WITH EXISTING PAVING OR SIDEWALK
OR 1" ABOVE SURROUNDING GROUND SURFACE.



FLUSHING BRANCH




TYPICAL 12" TRAFFIC RING & COVER

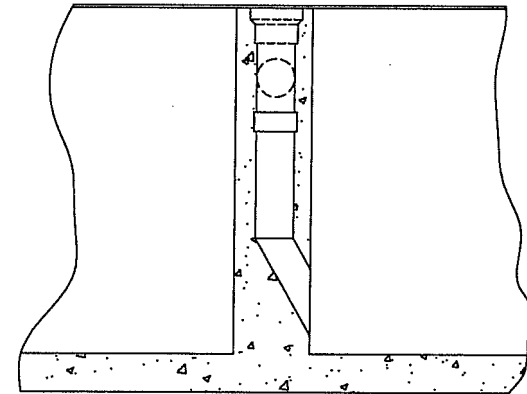
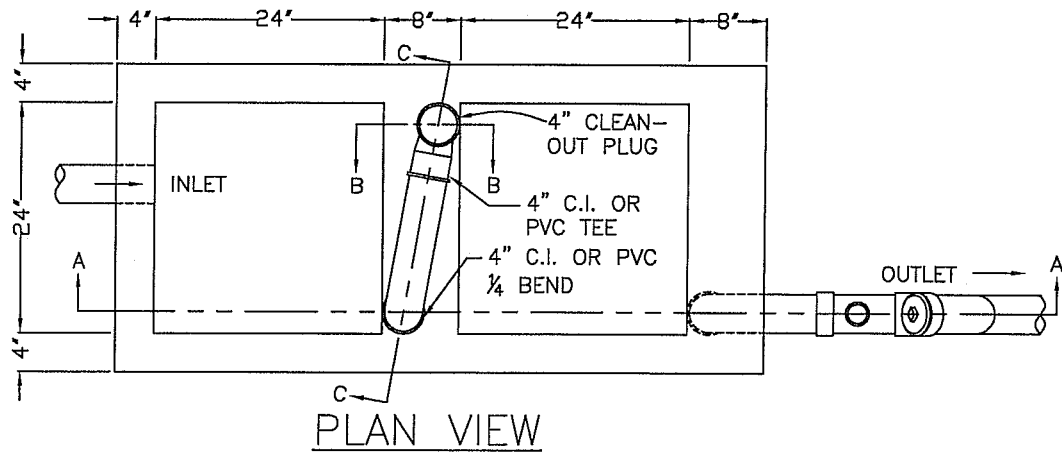


SECTION A-A

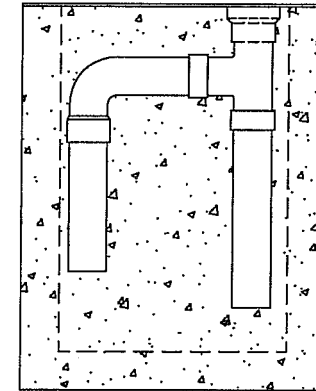
NOTES:

1. ALL PIPE AND FITTINGS SHALL BE THE SAME SIZE AND MATERIAL AS THE HORIZONTAL PIPE TO WHICH THEY CONNECT. JOINT SHALL BE AS SPECIFIED FOR THE TYPE OF PIPE USED.
2. A FLUSHING BRANCH CAN ONLY BE USED WITH THE APPROVAL OF THE TVMMWC ENGINEER

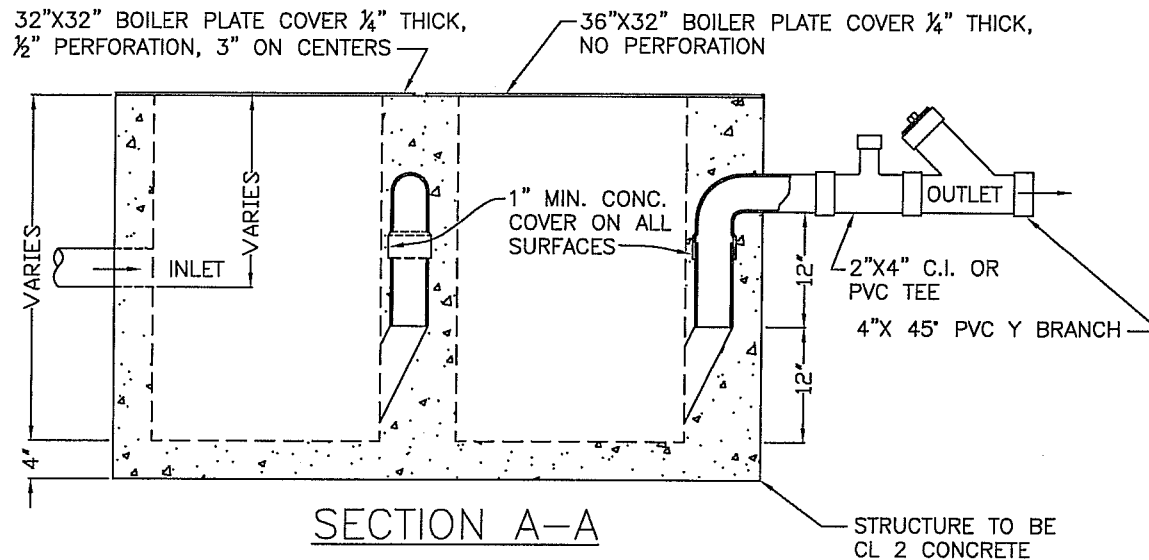
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	FLUSHING BRANCH	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. SS-8



SECTION B-B



SECTION C-C



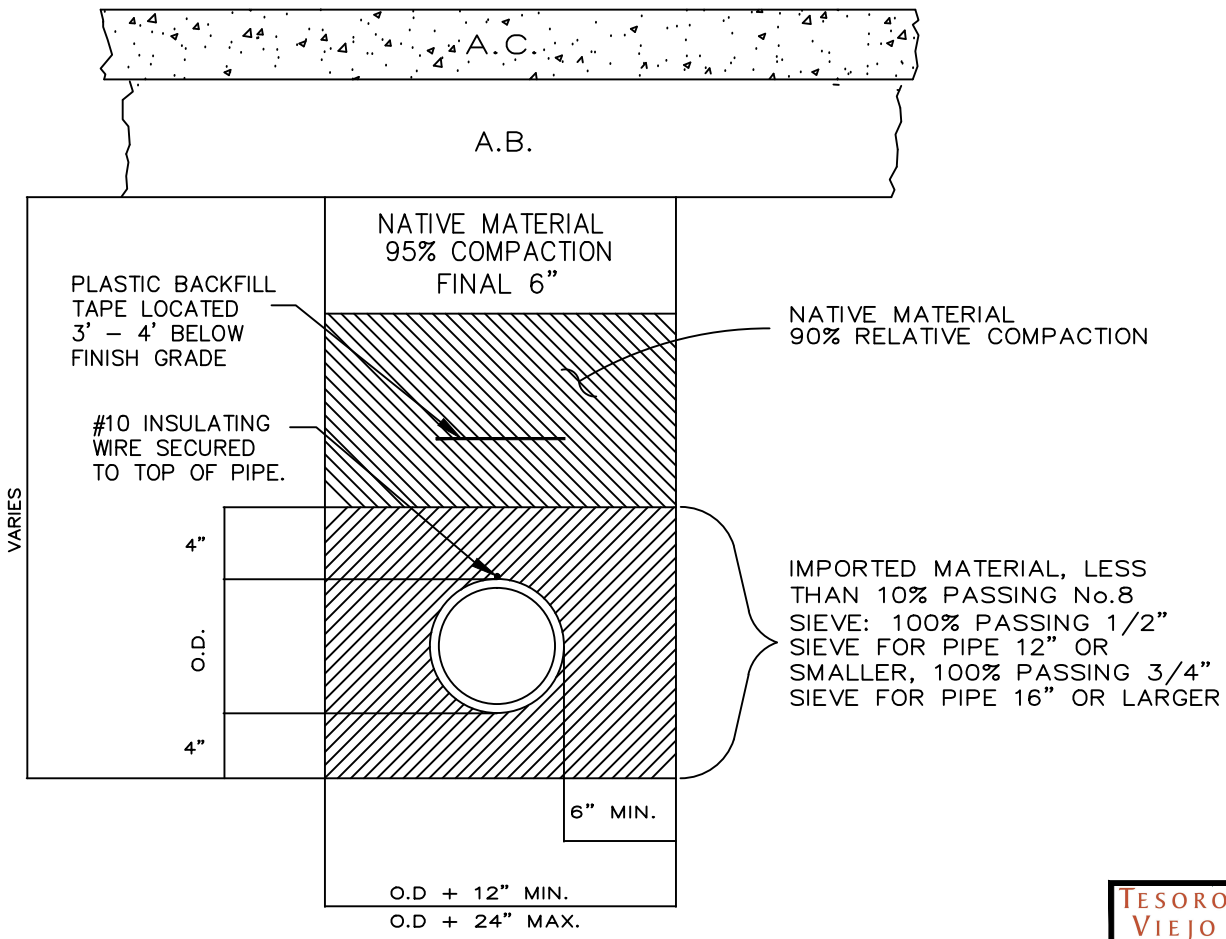
TESORO VIEJO MASTER MUTUAL WATER COMPANY

COMMERCIAL & INDUSTRIAL GREASE TRAP

APPROVED:
DRAWN:
DATE:
SCALE:

DWG NO.


SS-9



NOTES:

BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE.

IN ROCKY OR UNYIELDING SOIL, THE TRENCH SHALL BE EXCAVATED A MINIMUM OF 12" BELOW THE PIPE AND THE TRENCH WIDTH SHALL BE INCREASED TO 12".

	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	WATER MAIN TRENCH & BACKFILL	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-1	

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG

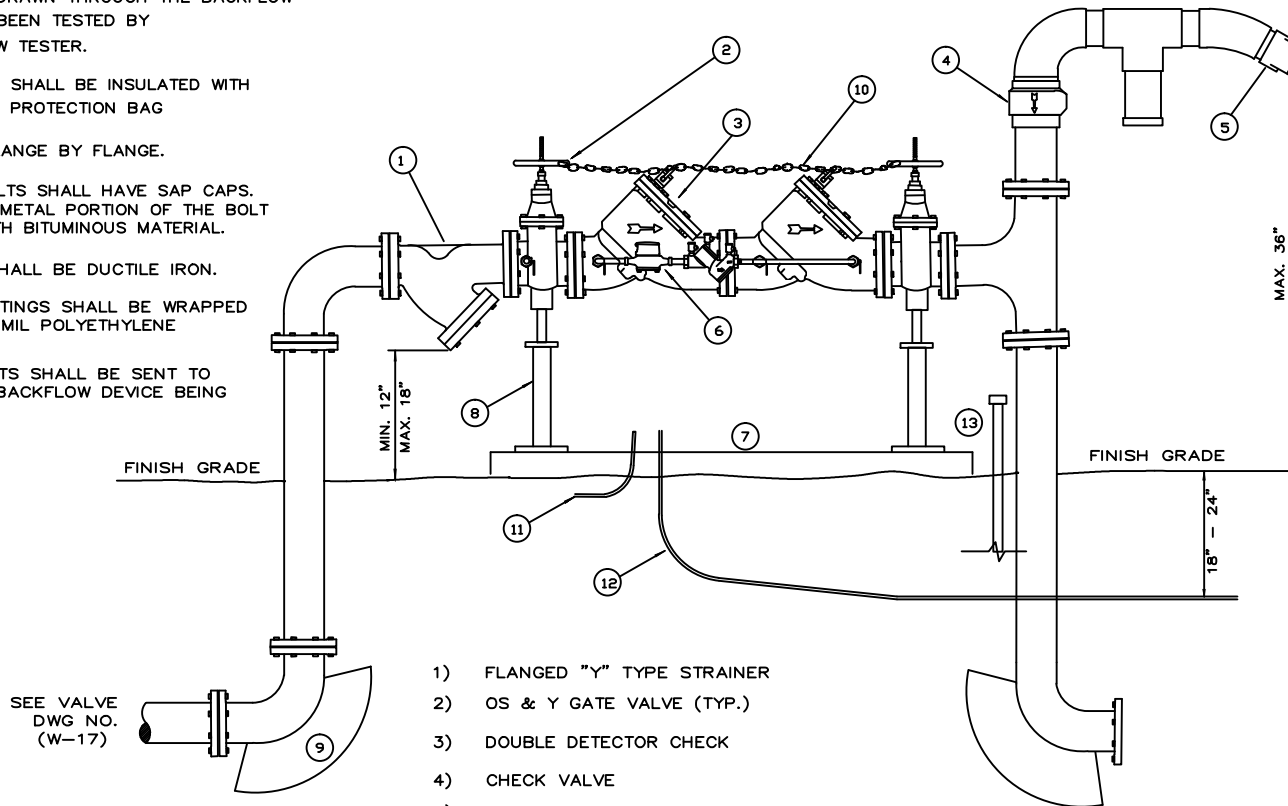
FITTINGS SHALL BE FLANGE BY FLANGE.

BURIED NUTS AND BOLTS SHALL HAVE SAP CAPS. THE REMAINING BARE METAL PORTION OF THE BOLT SHALL BE COATED WITH BITUMINOUS MATERIAL.


PIPE AND FITTINGS SHALL BE DUCTILE IRON.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.

CERTIFICATION RESULTS SHALL BE SENT TO THE TVMMWC PRIOR BACKFLOW DEVICE BEING PLACED IN SERVICE.



- 1) FLANGED "Y" TYPE STRAINER
- 2) OS & Y GATE VALVE (TYP.)
- 3) DOUBLE DETECTOR CHECK
- 4) CHECK VALVE
- 5) SIAMESE 45 DEGREE FDC WITH END CAPS
- 6) WATER METER (PURCHASED THROUGH TVMMWC)
- 7) 3 1/2" THICK REINFORCED CONCRETE SLAB.
- 8) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 9) THRUST BLOCK (TYP.)
- 10) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 11) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (W-16)
- 12) 1/2" CONDUIT DIRECTLY BENEATH METER 2" ABOVE SLAB. EXTEND CONDUIT TO BUILDING SEE TELEMETERING DETAIL (W-11)
- 13) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
FIRE PROECTION ASSEMBLY	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-2

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.

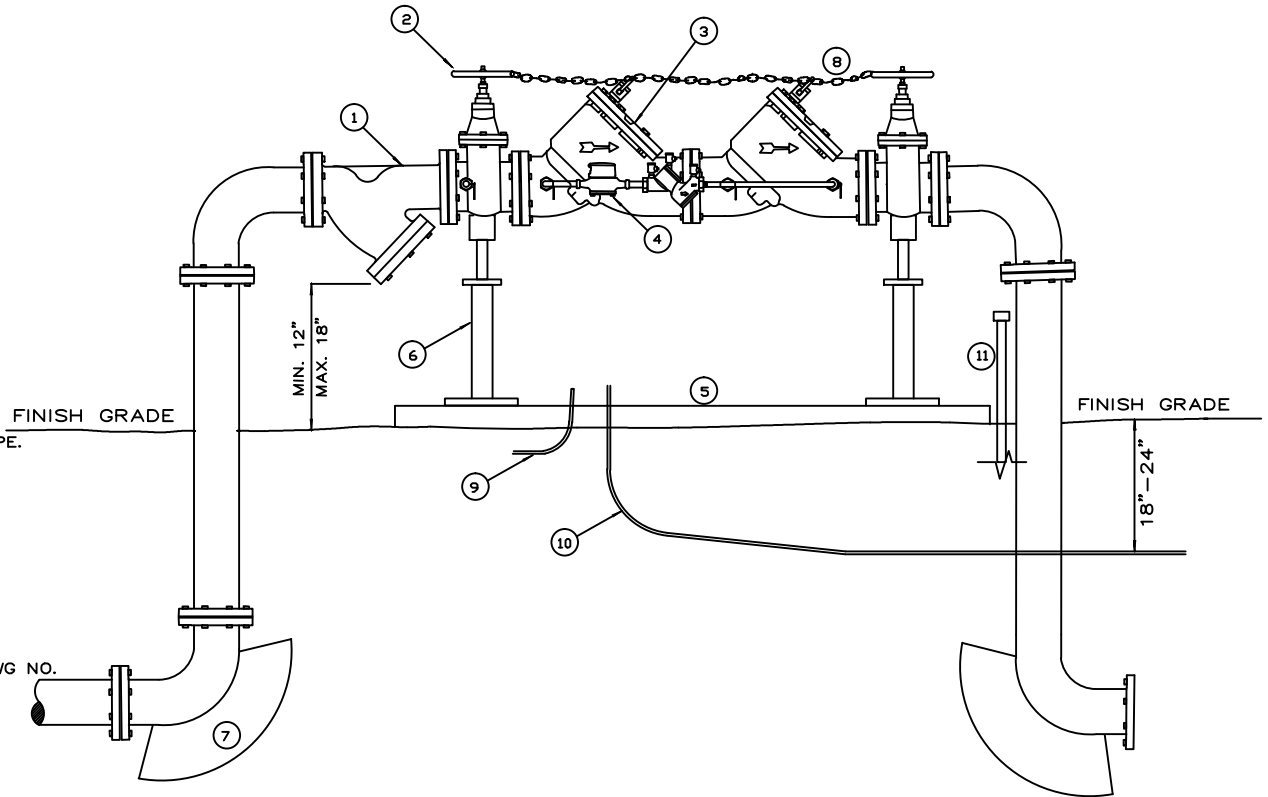
FITTINGS SHALL BE FLANGE BY FLANGE.

BURIED NUTS AND BOLTS SHALL HAVE SAP CAPS. THE REMAINING BARE METAL PORTION OF THE BOLT SHALL BE COATED WITH BITUMINOUS MATERIAL.


PIPE AND FITTINGS SHALL BE DUCTILE IRON.

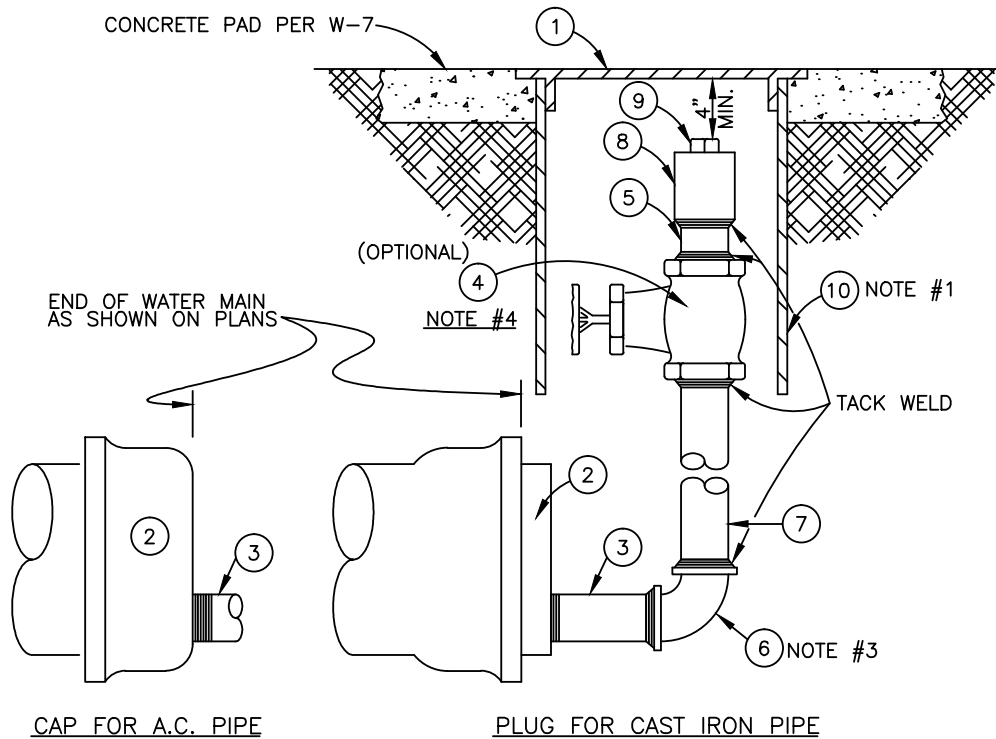
BURIED PIPE AND FITTINGS SHALL BE WRAPPED AND SEALED WITH 8 MIL POLYETHYLENE AND VINYL TAPE.

CERTIFICATION RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.



- 1) FLANGED "Y" TYPE STRAINER See valve DWG NO.
- 2) OS & Y GATE VALVE (TYP.) (W-17)
- 3) DOUBLE DETECTOR CHECK
- 4) WATER METER (PURCHASED THROUGH TVMMWC)
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB.
- 6) SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- 7) THRUST BLOCK (TYP.)
- 8) 1/4" NON CASE HARDENED CHAIN WITH BREAKAWAY LOCK BETWEEN VALVES.
- 9) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (W-16)
- 10) 1/2" CONDUIT DIRECTLY BENEATH METER 2" ABOVE SLAB. EXTEND CONDUIT TO BUILDING SEE TELEMETERING DWG NO. (W-11)
- 11) VALVE TAMPER SWITCH CONDUIT TO BUILDING FIRE CONTROL ROOM.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
ONSITE FIRE PROTECTION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.2em;"> W-3 </div>



BLOW-OFF ASSEMBLY DETAIL


Scale = None

- ① C.I. Valve Box Cover
- ② C.I. Plug or Cap
- ③ Brass Nipple
- ④ Bronze Gate Valve with Bronze Wheel, screw ends
- ⑤ Galv. Nipple
- ⑥ Galv. 90° Elbow
- ⑦ Galv. Riser
- ⑧ Galv. Coupling, threaded
- ⑨ Malleable Iron Plug
- ⑩ Steel Casing for Valve, asphalt dipped

SCHEDULE			
NO.	ITEM DESCRIPTION	WATER MAIN SIZE	
		3"-8" DIA.	10"-20" DIA.
1	CAST IRON VALVE BOX COVER FOR VALVE AND RISER	8"	8"
2	CAST IRON PLUG OR CAP (SEE DRWG W-3)	MAIN SIZE X 2" HOLE	MAIN SIZE X 3" HOLE
3	BRASS NIPPLE	2" X 18"	3" X 18'
4	BRONZE GATE VALVE WITH BRONZE WHEEL SCREW ENDS (NOTE #4)	2"	3"
5	GALVANIZED IRON NIPPLE	2"	3"
6	GALVANIZED IRON 90° ELBOW	2"	3"
7	GALVANIZED IRON RISER	2" X VARIABLE TO GRADE MINUS 4"	3" X VARIABLE TO GRADE MINUS 4"
8	GALVANIZED IRON COUPLING THR'D	2"	3"
9	MALLEABLE IRON PLUG	2"	3"
10	STEEL CASING FOR GATE VALVE AND RISER (ASPHALT DIPPED)	8" X VARIABLE TO GRADE MINUS 3/4"	8" X VARIABLE TO GRADE MINUS 3/4"

NOTES:

1. INSTALL VALVE WELL AND COVER (W-7) WHEN BLOW-OFF ASSEMBLY IS EXPOSED TO TRAFFIC.
2. BLOW-OFF ASSEMBLY SHALL BE INSTALLED ON ALL DEAD-END MAINS.
3. FOR THRUST BLOCK INFORMATION SEE DRAWING W-1.
4. ELIMINATE BRONZE GATE VALVE ON BLOW-OFF ASSEMBLY WHEN MAIN LINE GATE VALVE IS USED FOR (FLUSHING) CLEANING OF LINE.

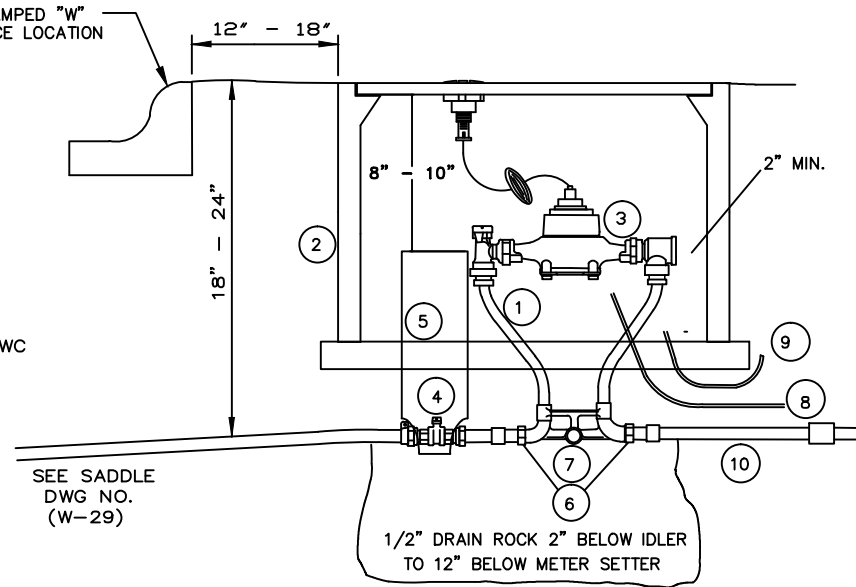
	TESORO VIEJO MASTER MUTUAL WATER COMPANY
BLOWOFF ASSEMBLY	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-4

NOTES:


CONTRACTOR TO INSTALL 1/2" CONDUITS 18" - 24" DEEP FROM METER BOX TO BUILDING (SEE DWG NO. W-10 & W11)
WATER METERS SHALL BE PURCHASED THROUGH THE TVMMWC PURCHASE INCLUDES INSTALLATION.

INSTALL CONCRETE BLOCKING (4"X4" SOLID SLUMP BLOCK) UNDER ENTIRE UTILITY BOX PERIMETER.

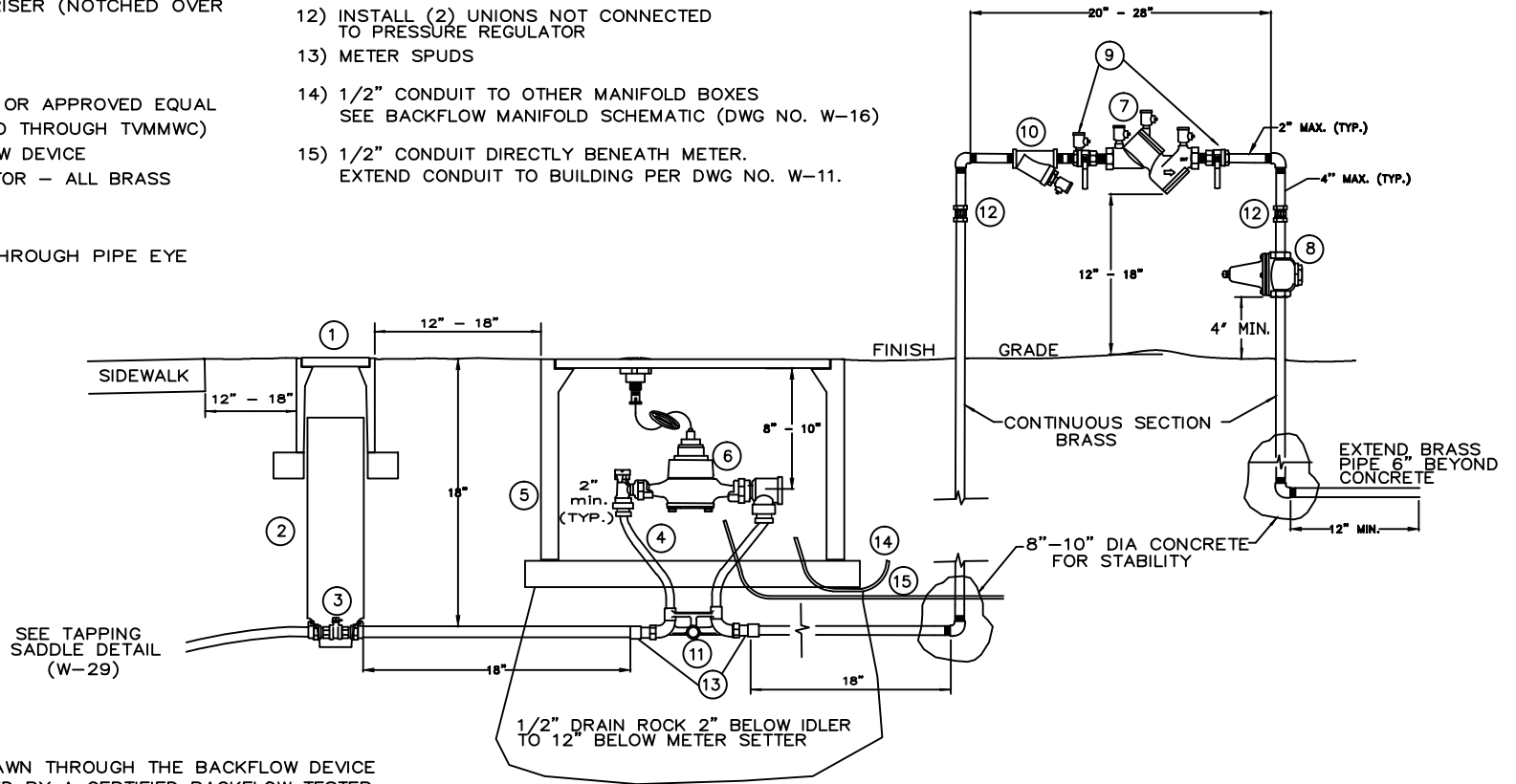
BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.



- 1) METER SETTER
- 2) N-16 UTILITY BOX WITH ALL METAL LID OR APPROVED EQUAL
- 3) WATER METER (PURCHASED THROUGH TVMMWC)
- 4) CURB STOP
- 5) 4" DIA. RISER (NOTCHED OVER PIPE AT BASE)
- 6) 4" METER SPUDS
- 7) SCH. 40 P.V.C. THROUGH PIPE EYE
- 8) 1/2" SCH. 40 PVC OR APPROVED EQUAL TO BUILDING (SEE DWG NO. W-11)
- 9) 1/2" SCH. 40 PVC OR APPROVED EQUAL TO OTHER BOX (SEE DWG NO. W-10)
- 10) 12" BRASS NIPPLE

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	RESIDENTIAL 1" INCH WATER SERVICE LINE
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-5

- 1) CONCRETE VALVE BOX
- 2) 6" CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE)
- 3) CURB STOP
- 4) METER RESETTER
- 5) N-16 UTILITY BOX OR APPROVED EQUAL
- 6) METER (PURCHASED THROUGH TVMMWC)
- 7) R.P TYPE BACKFLOW DEVICE
- 8) PRESSURE REGULATOR – ALL BRASS
- 9) BALL VALVES
- 10) BRASS STRAINER
- 11) SCH. 40 P.V.C. THROUGH PIPE EYE
- 12) INSTALL (2) UNIONS NOT CONNECTED TO PRESSURE REGULATOR
- 13) METER SPUDS
- 14) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16)
- 15) 1/2" CONDUIT DIRECTLY BENEATH METER. EXTEND CONDUIT TO BUILDING PER DWG NO. W-11.



NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER. TEST RESULTS SHALL BE PROVIDED TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.

ALL FITTINGS AND PIPING SHALL BE BRASS BEGINNING AT CURB STOP.

IF USED FOR IRRIGATION DO NOT INCLUDE PRESSURE REGULATOR.


INSTALL CONCRETE BLOCKING (4" X 4" SOLID SLUMP BLOCK) UNDER PERIMETER OF UTILITY BOXES.

CONTRACTOR SHALL INSTALL 1/2" CONDUITS 18" – 24" DEEP SEE BACKFLOW MANIFOLD (DWG NO. W-16) & TELEMETERING (DWG NO. W-11).

WATER METERS SHALL BE PURCHASED THROUGH THE TVMMWC PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	COMMERCIAL 3/4" & 1" WATER SERVICE LINE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-6	

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER. TEST RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACE IN SERVICE.

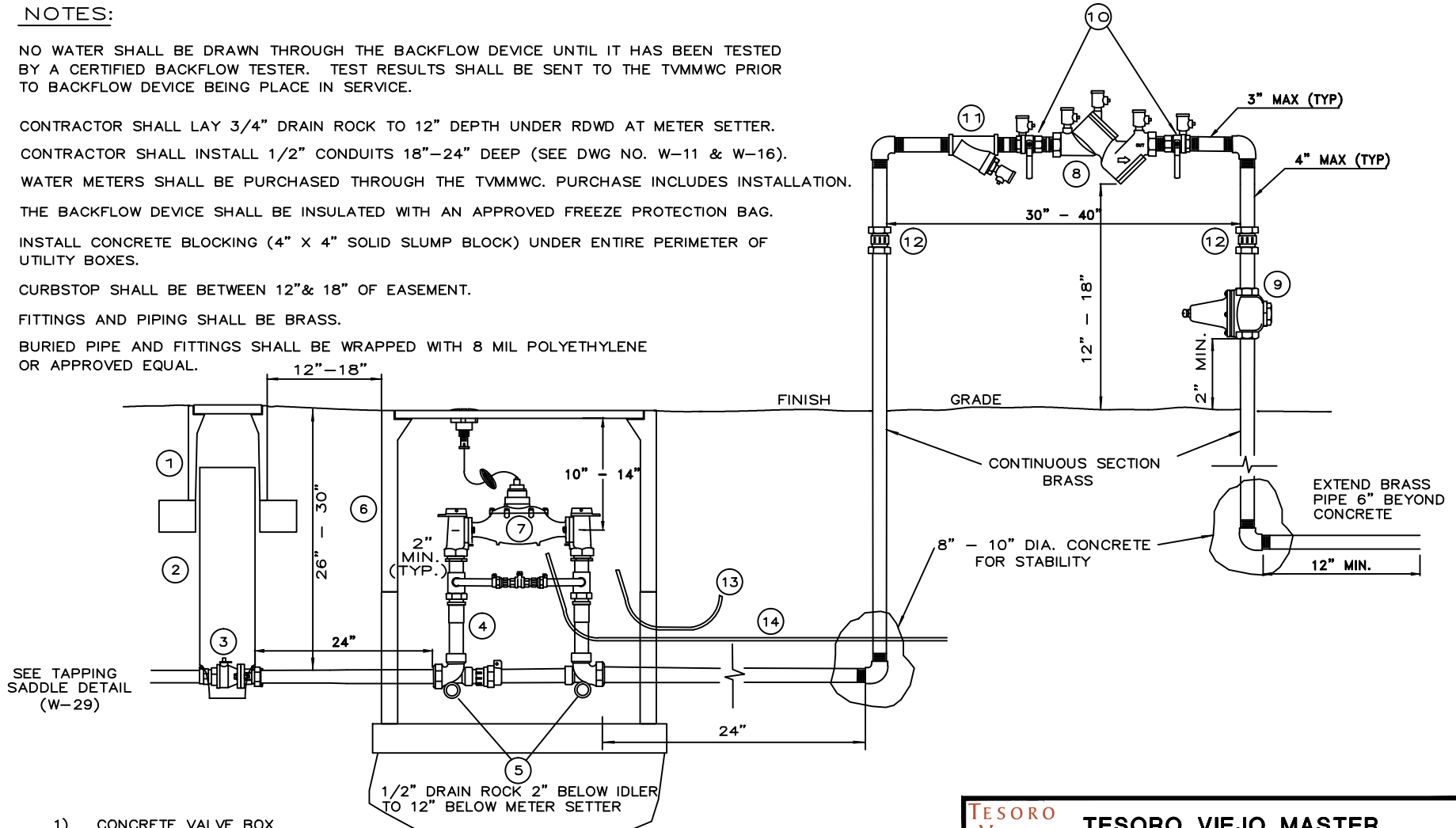
CONTRACTOR SHALL LAY 3/4" DRAIN ROCK TO 12" DEPTH UNDER RDWD AT METER SETTER.
 CONTRACTOR SHALL INSTALL 1/2" CONDUITS 18"-24" DEEP (SEE DWG NO. W-11 & W-16).
 WATER METERS SHALL BE PURCHASED THROUGH THE TVMMWC. PURCHASE INCLUDES INSTALLATION.
 THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.

INSTALL CONCRETE BLOCKING (4" X 4" SOLID SLUMP BLOCK) UNDER ENTIRE PERIMETER OF UTILITY BOXES.

CURBSTOP SHALL BE BETWEEN 12"& 18" OF EASEMENT.

FITTINGS AND PIPING SHALL BE BRASS.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.



SEE TAPPING SADDLE DETAIL (W-29)

1/2" DRAIN ROCK 2" BELOW IDLER TO 12" BELOW METER SETTER

- | | |
|---|---|
| 1) CONCRETE VALVE BOX | 11) BRASS "Y" STRAINER |
| 2) 6"CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE) | 12) INSTALL (2) UNIONS NOT CONNECTED TO REGULATOR |
| 3) CURB STOP | 13) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16) |
| 4) 18" METER SETTER WITH HIGH BYPASS | 14) EXTEND 1/2" CONDUIT FROM METER TO BUILDING. SEE TELEMETERING (DWG NO. W-11) |
| 5) RIGID SCH. 40 P.V.C. THROUGH EYES | |
| 6) B-40 UTILITY BOX WITH EXTENSION | |
| 7) METER (PURCHASED THROUGH TVMMWC) | |
| 8) R.P. TYPE BACKFLOW DEVICE | |
| 9) BRASS PRESSURE REGULATOR | |
| 10) BALL VALVES | |

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	COMMERCIAL 1-1/2" & 2" WATER SERVICE LINE
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-7

NOTES:

NO WATER IS TO BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.

PIPE SHALL BE DUCTILE IRON.

GATE VALVES SHALL BE RESILIENT SEAT.

SPOOLS UPSTREAM & DOWNSTREAM OF METER SHALL BE 5X THE PIPE DIAMETER.

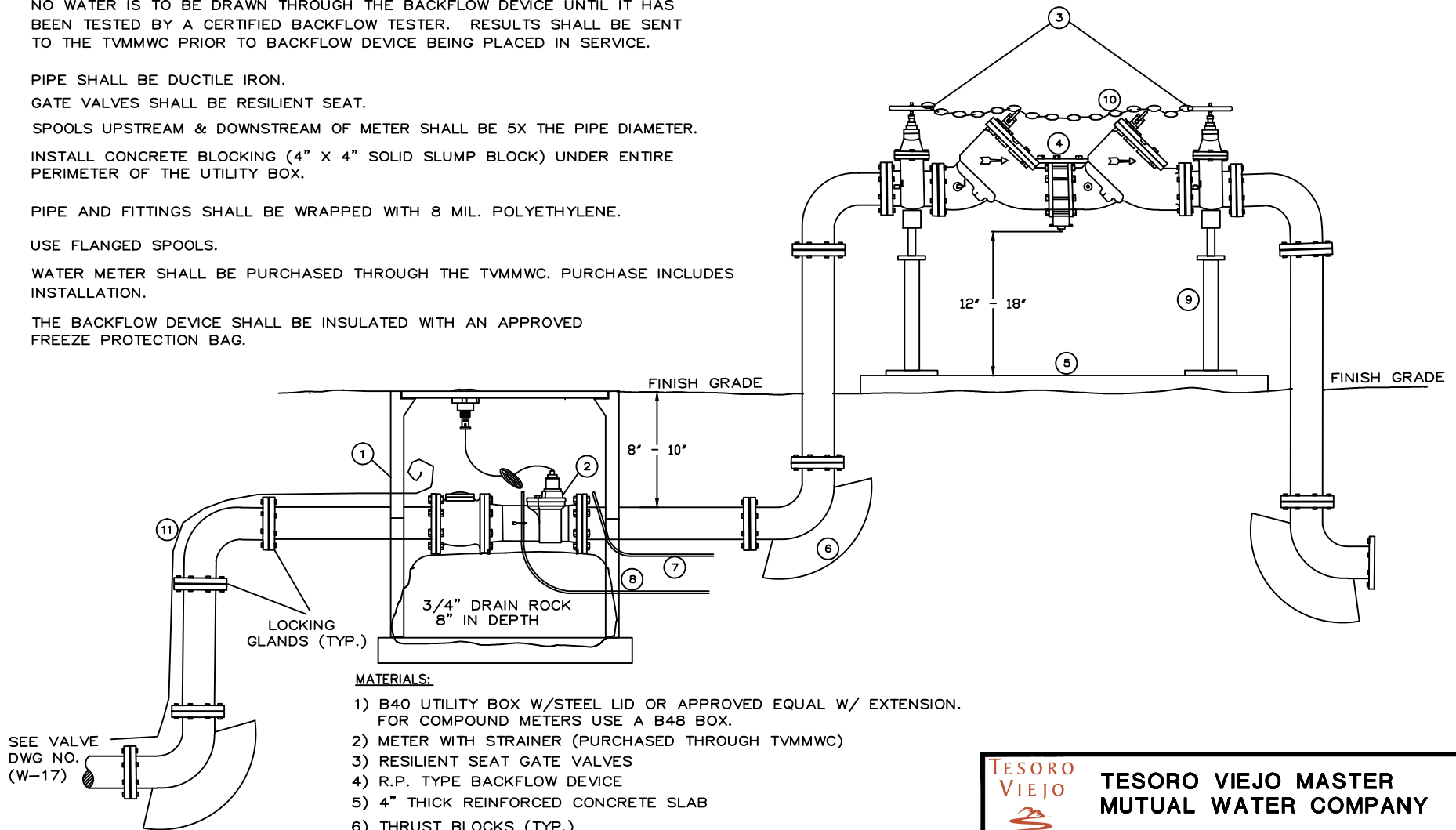
INSTALL CONCRETE BLOCKING (4" X 4" SOLID SLUMP BLOCK) UNDER ENTIRE PERIMETER OF THE UTILITY BOX.

PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL. POLYETHYLENE.

USE FLANGED SPOOLS.

WATER METER SHALL BE PURCHASED THROUGH THE TVMMWC. PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.



MATERIALS:

- 1) B40 UTILITY BOX W/STEEL LID OR APPROVED EQUAL W/ EXTENSION. FOR COMPOUND METERS USE A B48 BOX.
- 2) METER WITH STRAINER (PURCHASED THROUGH TVMMWC)
- 3) RESILIENT SEAT GATE VALVES
- 4) R.P. TYPE BACKFLOW DEVICE
- 5) 4" THICK REINFORCED CONCRETE SLAB
- 6) THRUST BLOCKS (TYP.)
- 7) 1/2" CONDUIT TO OTHER MANIFOLD BOXES
SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16)
- 8) 1/2" CONDUIT FROM METER TO BUILDING.
SEE TELEMETERING DETAIL (DWG NO. W-11)
- 9) SUPPORT STANDS BOLTED INTO CONCRETE
(TWO BOLTS MINIMUM)
- 10) 1/4" NON-CASE HARDENED CHAIN WITH BREAKAWAY LOCK
- 11) TRACING WIRE

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
COMMERCIAL 3" & LARGER WATER SERVICE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-8

NOTES:

NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTIL IT HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.

CONTRACTOR SHALL LAY 3/4" DRAIN ROCK TO 12" DEPTH UNDER RDWD AT METER SETTER.

CONTRACTOR SHALL INSTALL 1/2" CONDUITS 18"-24" DEEP (SEE DWG NO. W-11 & W-16)

WATER METERS SHALL BE PURCHASED THROUGH TVMMWC. PURCHASE INCLUDES INSTALLATION.

THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.

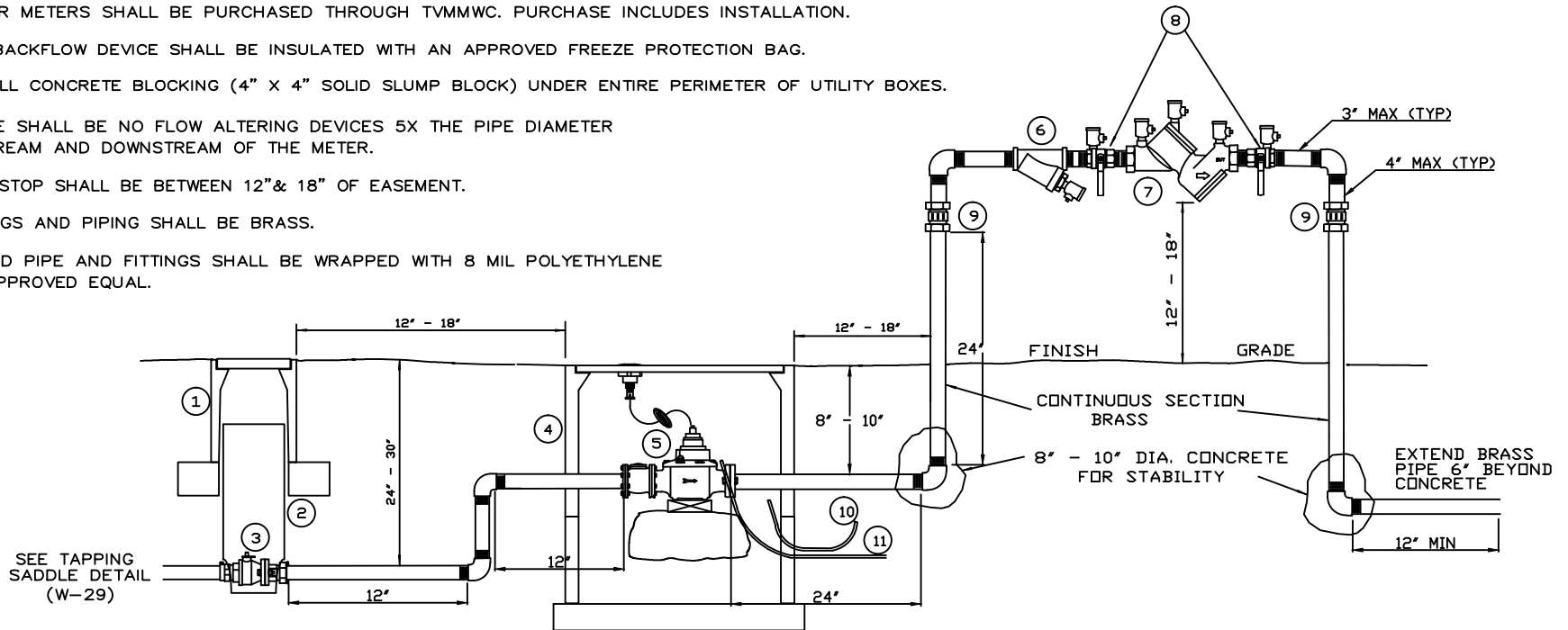
INSTALL CONCRETE BLOCKING (4" X 4" SOLID SLUMP BLOCK) UNDER ENTIRE PERIMETER OF UTILITY BOXES.

THERE SHALL BE NO FLOW ALTERING DEVICES 5X THE PIPE DIAMETER UPSTREAM AND DOWNSTREAM OF THE METER.


CURBSTOP SHALL BE BETWEEN 12" & 18" OF EASEMENT.

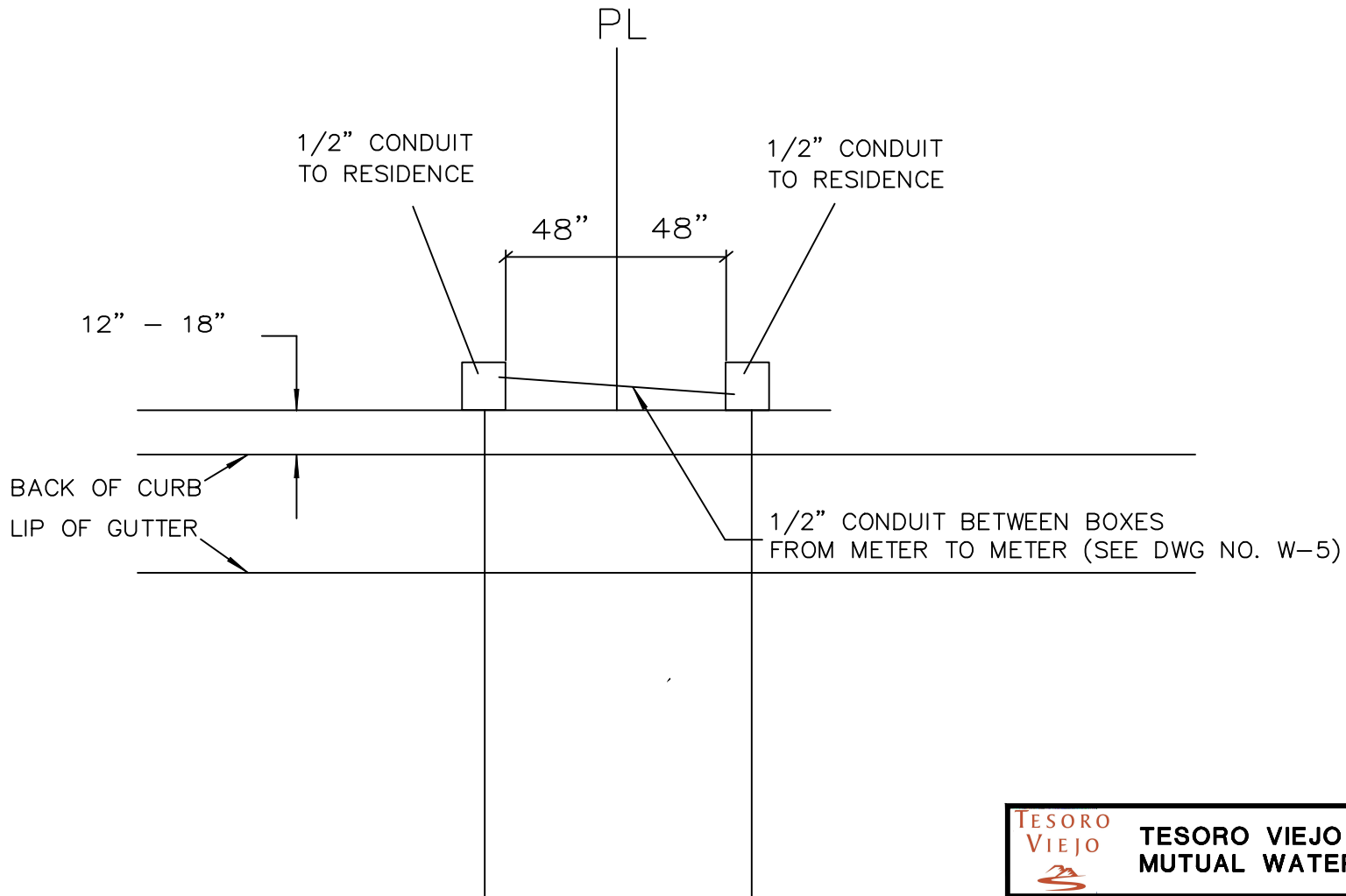
FITTINGS AND PIPING SHALL BE BRASS.


BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

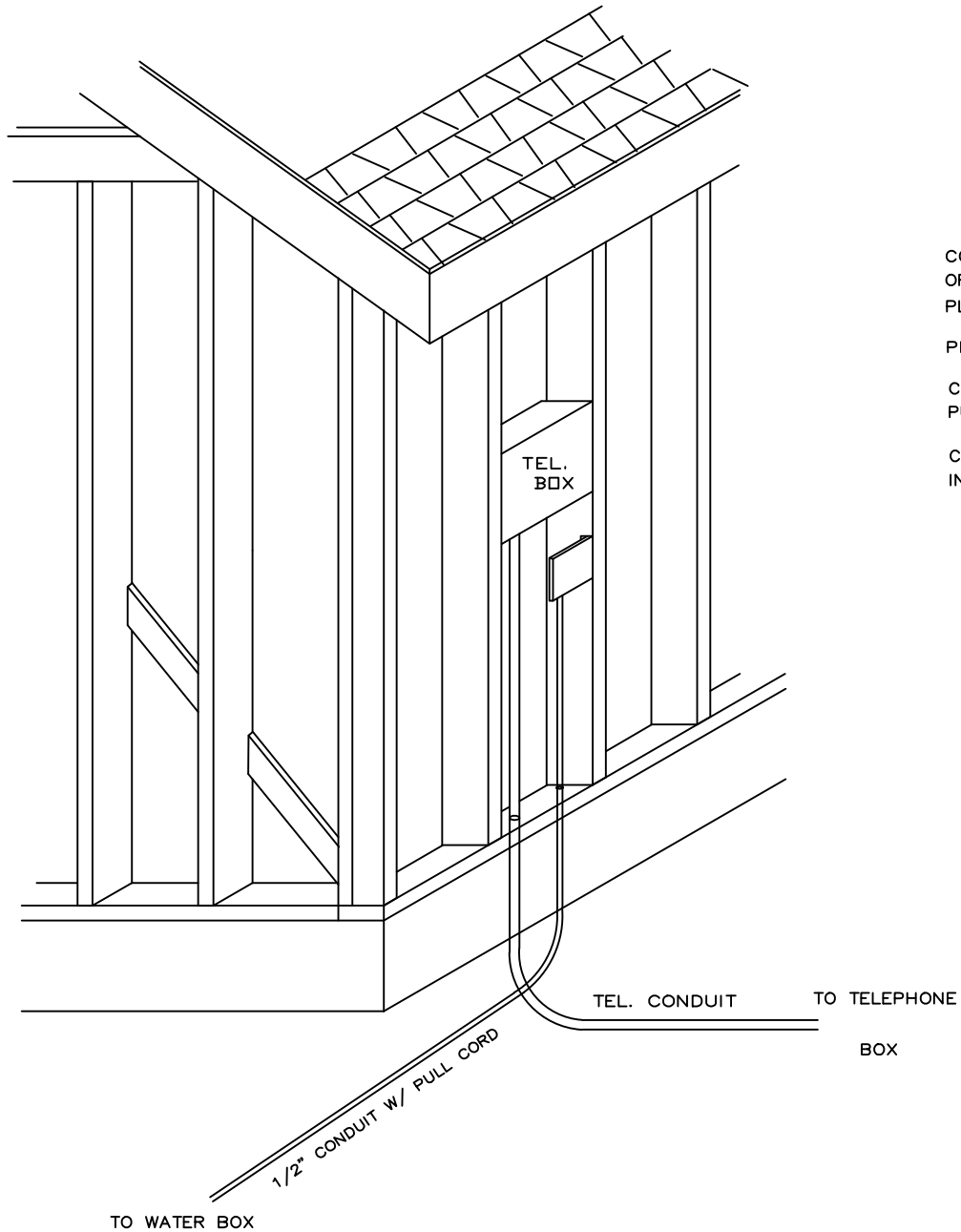


- | | |
|---|---|
| <p>1) CONCRETE VALVE BOX</p> <p>2) 6" CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE)</p> <p>3) CURB STOP</p> <p>4) B-40 UTILITY BOX W/ EXTENSION</p> <p>5) TURBO METER WITH STRAINER (PURCHASED THROUGH THE TVMMWC)</p> <p>6) "Y" STRAINER</p> <p>7) R.P. TYPE BACKFLOW DEVICE</p> <p>8) BALL VALVES</p> <p>9) INSTALL (2) UNIONS</p> | <p>10) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16)</p> <p>11) EXTEND 1/2" CONDUIT FROM METER TO BUILDING. SEE TELEMETERING (DWG NO. W-11)</p> |
|---|---|

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
COMMERCIAL 1-1/2" & 2" IRRIGATION SERVICE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 1.5em;"> W-9 </div>



 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
WATER SERVICE BOX LOCATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-10




CONTRACTOR SHALL INSTALL 1/2" SCH. 40 P.V.C. CONDUIT OR EQUIVALENT 18" - 24" IN DEPTH FROM METER BOX TO PLASTER RING LOCATED NO MORE THAN 12" FROM TELEPHONE BOX.

PLASTER RING NOT TO BE USED AS U.F.E.R.

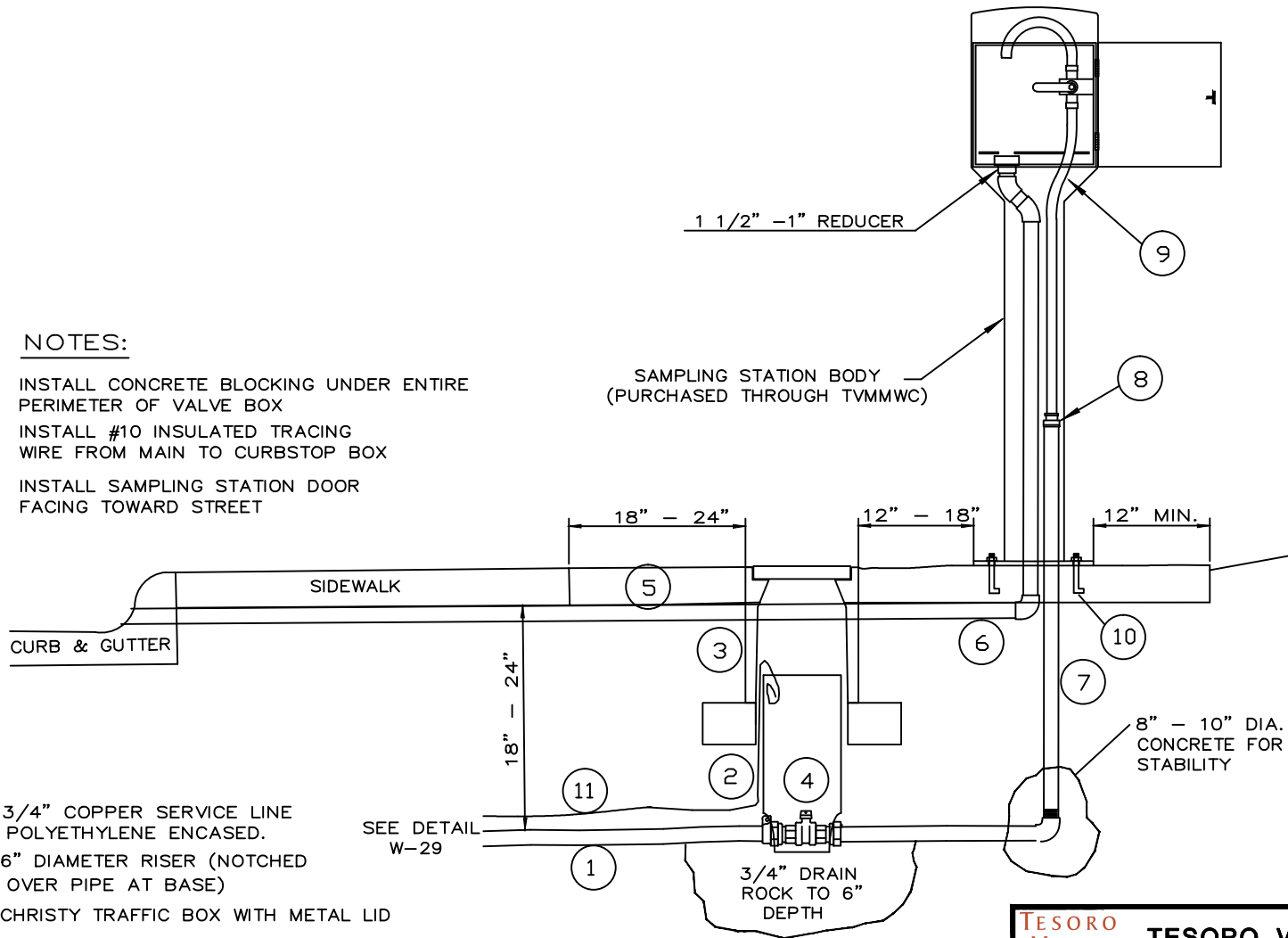
CONDUIT SHALL BE EXPOSED IN METER BOX AND MUST CONTAIN PULL CORD WITH AT LEAST 1 FT OF EXCESS CORD AT EACH END.

CONDUIT ENDS SHALL BE TAPED OR CAPPED TO PREVENT INFILTRATION.


	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	TELEMETERING	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-11	

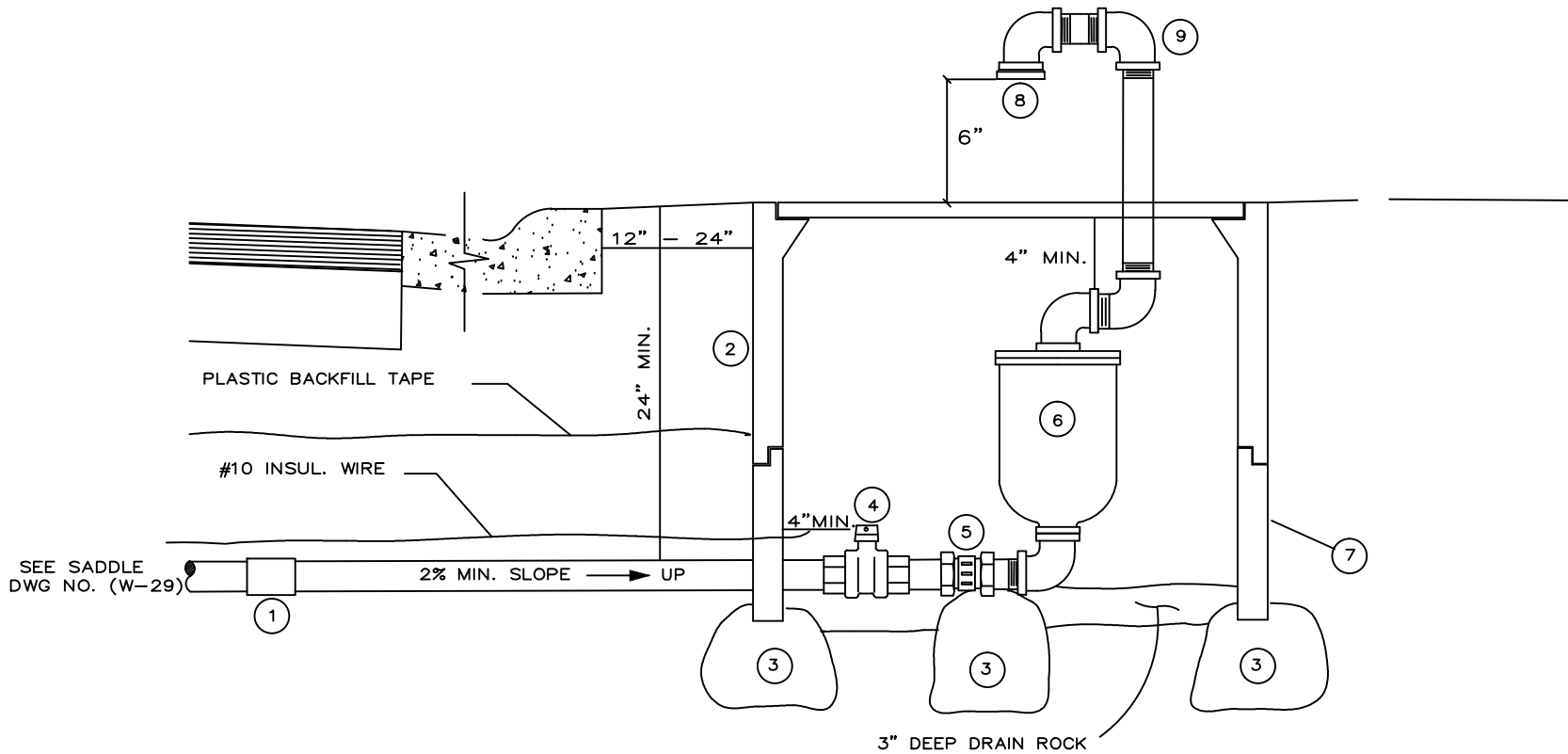
NOTES:

- INSTALL CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF VALVE BOX
- INSTALL #10 INSULATED TRACING WIRE FROM MAIN TO CURBSTOP BOX
- INSTALL SAMPLING STATION DOOR FACING TOWARD STREET



- 1) 3/4" COPPER SERVICE LINE POLYETHYLENE ENCASED.
- 2) 6" DIAMETER RISER (NOTCHED OVER PIPE AT BASE)
- 3) CHRISTY TRAFFIC BOX WITH METAL LID
- 4) CURBSTOP
- 5) 3 1/2" THICK REINFORCED CONCRETE SLAB
- 6) 1" SCH. 40 PVC DRAIN TO GUTTER
- 7) 3/4" BRASS PIPE
- 8) 3/4" TO 1/2" REDUCER (BRASS)
- 9) 1/2" COPPER TUBING
- 10) (4) ANCHOR BOLTS WITH WASHERS & NUTS
- 11) INSTALL TRACING WIRE FROM MAIN TO CURB STOP. PLACE WIRE OUTSIDE THE RISER, BUT INSIDE THE BOX.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
SAMPLING STATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-12



- 1) BRASS THREADED COUPLING (IF REQUIRED)
- 2) B-40 UTILITY BOX W/TRAFFIC COVER MARKED "TVMWWC ARV"
- 3) CONCRETE SUPPORTS
- 4) CURB STOP
- 5) BRASS UNION
- 6) APCO COMBINATION AIR / VACUUM VALVE OR APPROVED EQUAL
- 7) CHRISTY EXTENSION SPOOL (IF NECESSARY)
- 8) BRASS CAP WITH 9 DRILLED 1/16" HOLES OR APPROVED EQUAL.
- 9) USE GALVANIZED PIPE AND FITTINGS ABOVE GROUND

NOTE:

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
<h2 style="margin: 0;">1" & 2" AIR RELEASE VALVE ASSEMBLY</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-13

NOTES:

FITTINGS SHALL BE DUCTILE IRON.

VALVES AND FITTINGS SHALL BE WRAPPED IN 8 MIL. OR THICKER POLYETHYLENE.

SAP-SEAL CAPS SHALL BE THREADED ON ALL BURIED NUTS AND BOLTS.

HYDRANT BOLTS SHALL BE BREAK AWAY TYPE INSTALLED NUT SIDE UP AND FILLED WITH 25 YEAR SILICONE CAULK.

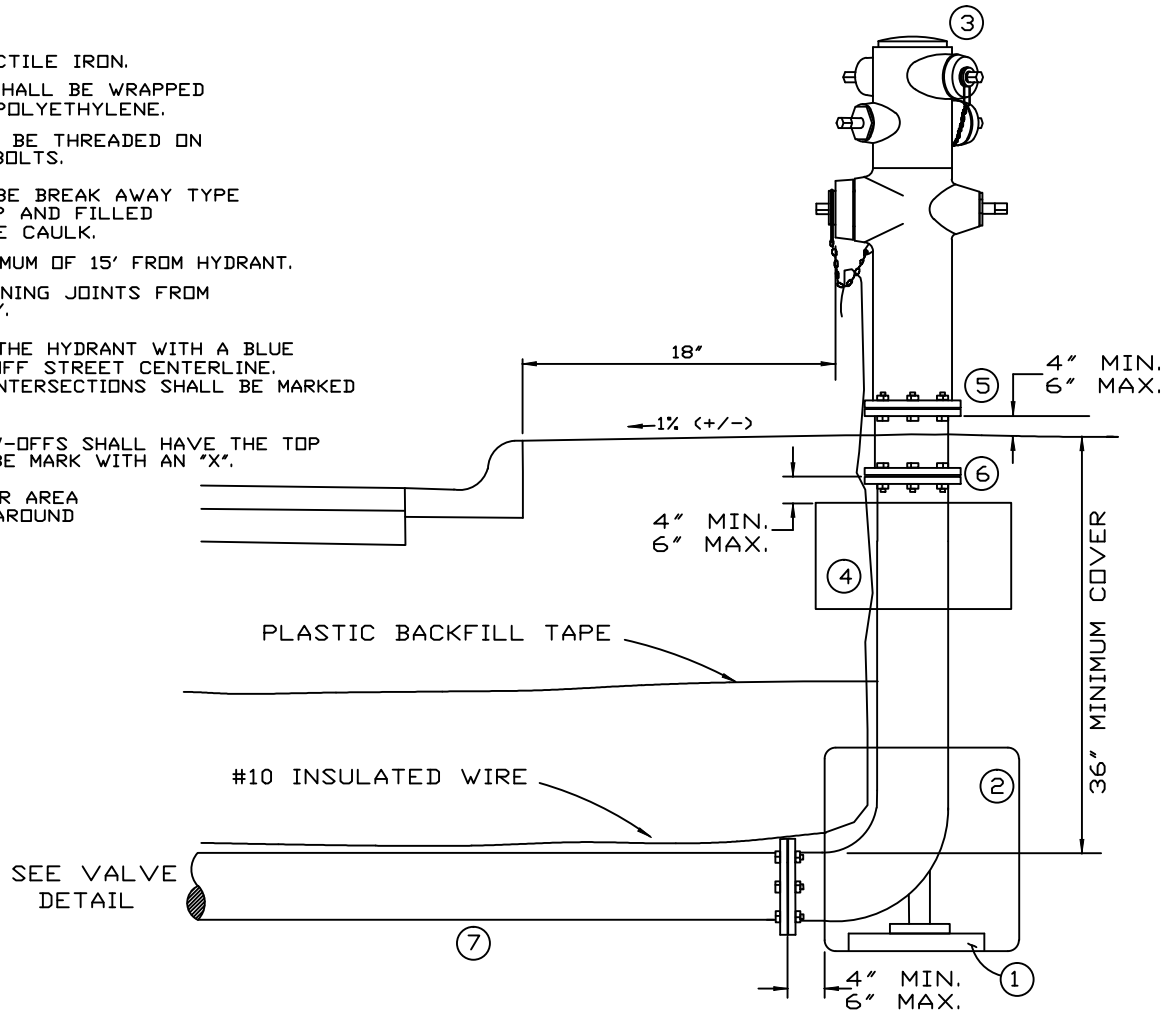
VALVE SHALL BE A MINIMUM OF 15' FROM HYDRANT.

USE APPROVED RESTRAINING JOINTS FROM VALVE TO HYDRANT BURY.

MARK THE LOCATION OF THE HYDRANT WITH A BLUE REFLECTOR PLACED 1' OFF STREET CENTERLINE. HYDRANTS LOCATED AT INTERSECTIONS SHALL BE MARKED ON BOTH STREETS.


HYDRANTS USED AS BLOW-OFFS SHALL HAVE THE TOP 2' PAINTED WHITE AND BE MARK WITH AN "X".

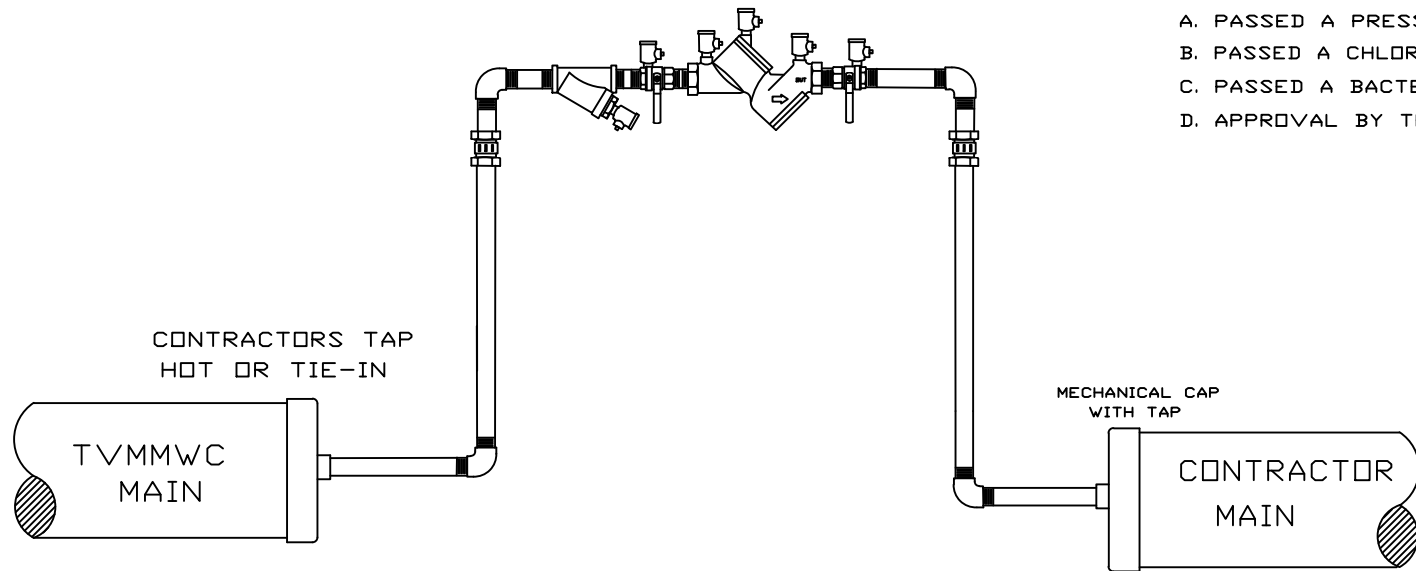
A MINIMUM 3 FOOT CLEAR AREA SHALL BE MAINTAINED AROUND THE FIRE HYDRANT.



MATERIALS:

- 1) BLOCKING
- 2) CONCRETE SUPPORT AGAINST UNDISTURBED SOIL
- 3) FIRE HYDRANT
- 4) 12" X 12" X 12" CONCRETE COLLAR FOR STABILITY
- 5) BREAK AWAY SPOOL WITH BREAK AWAY BOLTS ON HYDRANT FLANGE ONLY
- 6) NON-BREAKAWAY BOLTS
- 7) DUCTILE IRON PIPE ENTIRE LENGTH

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	FIRE HYDRANT ASSEMBLY
APPROVED:	DWG NO.
DRAWN:	W-14
DATE:	
SCALE:	



PRIOR TO CONNECTION TO THE TVMMWC MAIN, THE FOLLOWING CONDITIONS SHALL BE MET:


- A. PASSED A PRESSURE TEST
- B. PASSED A CHLORINE TEST
- C. PASSED A BACTERIOLOGICAL TEST
- D. APPROVAL BY THE TVMMWC INSPECTOR

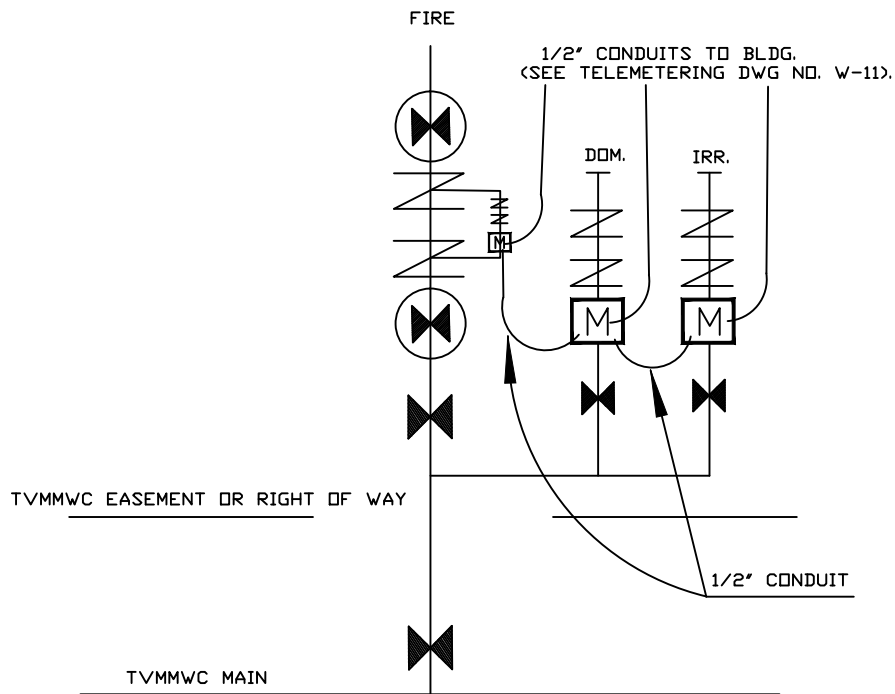
NOTES:

WATER SHALL ONLY BE DRAWN INTO THE CONTRACTORS MAIN THROUGH A TVMMWC APPROVED RP TYPE BACKFLOW DEVICE WHICH HAS BEEN TESTED AND TAGGED BY A CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.

FINAL SYSTEM COMPONENTS NECESSARY FOR TIE-IN SHALL BE PRE-CHLORINATED AND PRE-FLUSHED IN THE PRESENCE OF AN TVMMWC INSPECTOR.


UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE TVMMWC INSPECTOR, CONNECTION TO THE TVMMWC SYSTEM MAY BE MADE. THE TVMMWC INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.

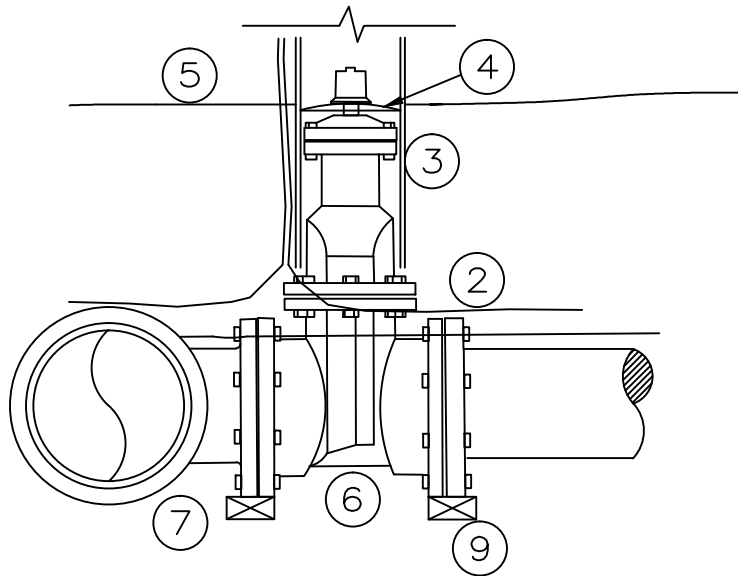
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	CONSTRUCTION WATER DETAIL	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-15



NOTES:

- 1) RESTRAINT ENTIRE MANIFOLD WITH APPROVED RESTRAINT SYSTEMS.
- 2) TAPS SHALL BE MADE SUCH THAT NO DEAD END LINES RESULT.
- 3) ALL LINES 3" AND LARGER SHALL BE DIP WHERE NOT UNDER A PAVED SECTION.
- 4) AFTER THE MANIFOLD, UNDERGROUND AND ABOVE, HAS BEEN ACCEPTED, METERS SHALL BE PURCHASED THROUGH THE TVMMWC AND INSTALLED BY TVMMWC CREWS. WATER MAY NOT BE DRAWN PRIOR TO TESTING OF THE BACKFLOW DEVICE BY A CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.
- 5) PROVIDE A PAD WITHIN THE LIMITS OF THE BACKFLOW MANIFOLD WITH POSITIVE DRAINAGE AND A 2% MAX. SLOPE.
- 6) IN A BACKFLOW MANIFOLD CONFIGURATION THAT INCLUDES DOMESTIC AND IRRIGATION SERVICES, THE IRRIGATION SERVICE TAP SHALL BE DOWNSTREAM OF THE DOMESTIC SERVICE TAP.
- 7) PROVIDE A MINIMUM 3 FOOT SEPARATION BETWEEN BACKFLOWS IN PARALLEL.
- 8) PROVIDE A 3' MINIMUM CLEARANCE FROM TOE OR TOP OF ANY SLOPE. NO SLOPES GREATER THAN 2:1 ADJACENT TO BACKFLOW MANIFOLD. IF THE ABOVE CRITERIA IS NOT MET, A RETAINING WALL IS REQUIRED. THE RETAINING WALL SHALL BE CONSTRUCTED OF CONCRETE OR MASONRY ONLY.

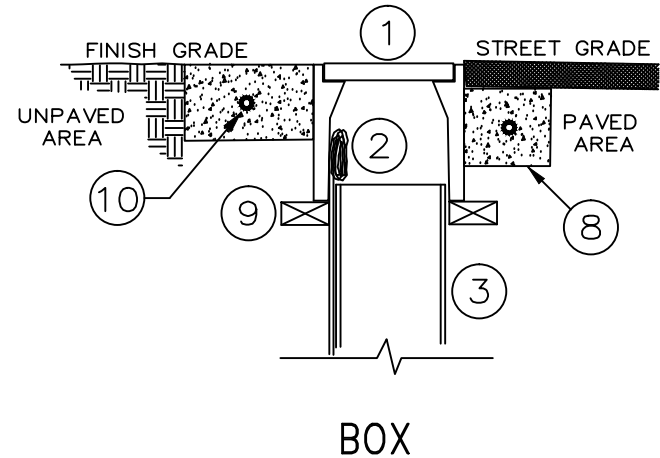
 TESORO VIEJO MASTER MUTUAL WATER COMPANY	BACKFLOW MANIFOLD SCHEMATIC	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-16



GATE VALVE


NOTES:

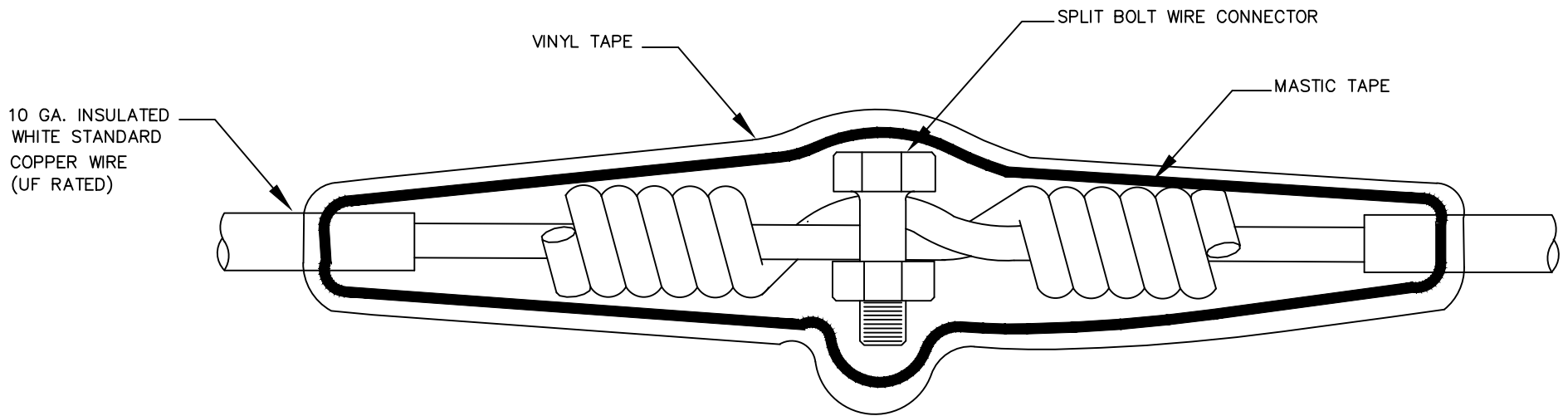
1. TRACING WIRE THROUGH VALVE BOXES SHALL BE PLACED OUTSIDE OF RISER BUT INSIDE OF BOX.
2. TRACING WIRE SHALL BE SPLICED INSIDE THE VALVE BOX PER (DWG NO. W-18) AND SHALL LOOP WITHIN THE VALVE BOX WITH 4' OF SLACK WIRE
3. ALL GATE VALVES SHALL BE CENTERED IN A ONE PIECE RISER STOCK WITH THE USE OF A RISER ALIGNER.
4. OPERATOR NUTS DEEPER THAN 40 INCHES FROM FINISH GRADE SHALL REQUIRE A VALVE NUT EXTENSION 2 FEET MINIMUM IN LENGTH.
5. VALVE BOXES LOCATED IN A PAVED AREA SHALL BE PLACED IN A 6" X 6" CONCRETE COLLAR. PLACEMENT SHALL BE CONTIGUOUS WITH THE UNDERSIDE OF THE PROPOSED PAVEMENT.
6. VALVE BOXES LOCATED IN AN UNPAVED AREA SHALL BE PLACED IN A 12" DEEP BY 6" WIDE CONCRETE COLLAR. THE COLLAR SHALL BEGIN AT FINISH GRADE.
7. INSTALL CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF BOX.
8. VALVES AND FITTINGS SHALL BE WRAPPED IN 8 MIL POLYETHYLENE.



MATERIALS

- 1) CONCRETE VALVE BOX. CHRISTY G-5 OR EQUAL COVER MARKED "WATER"
- 2) #10 INSULATED TRACING WIRE OUTSIDE RISER
- 3) 8" RISER STOCK
- 4) RISER ALIGNER
- 5) PLASTIC BACKFILL TAPE
- 6) GATE VALVE
- 7) DUCTILE IRON TEE
- 8) CONCRETE COLLAR (SEE NOTES)
- 9) CONCRETE BLOCKING (SEE NOTES)
- 10) #4 REBAR AROUND CIRCUM. (TYP.)


 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
<h2>GATE VALVE & BOX</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-17

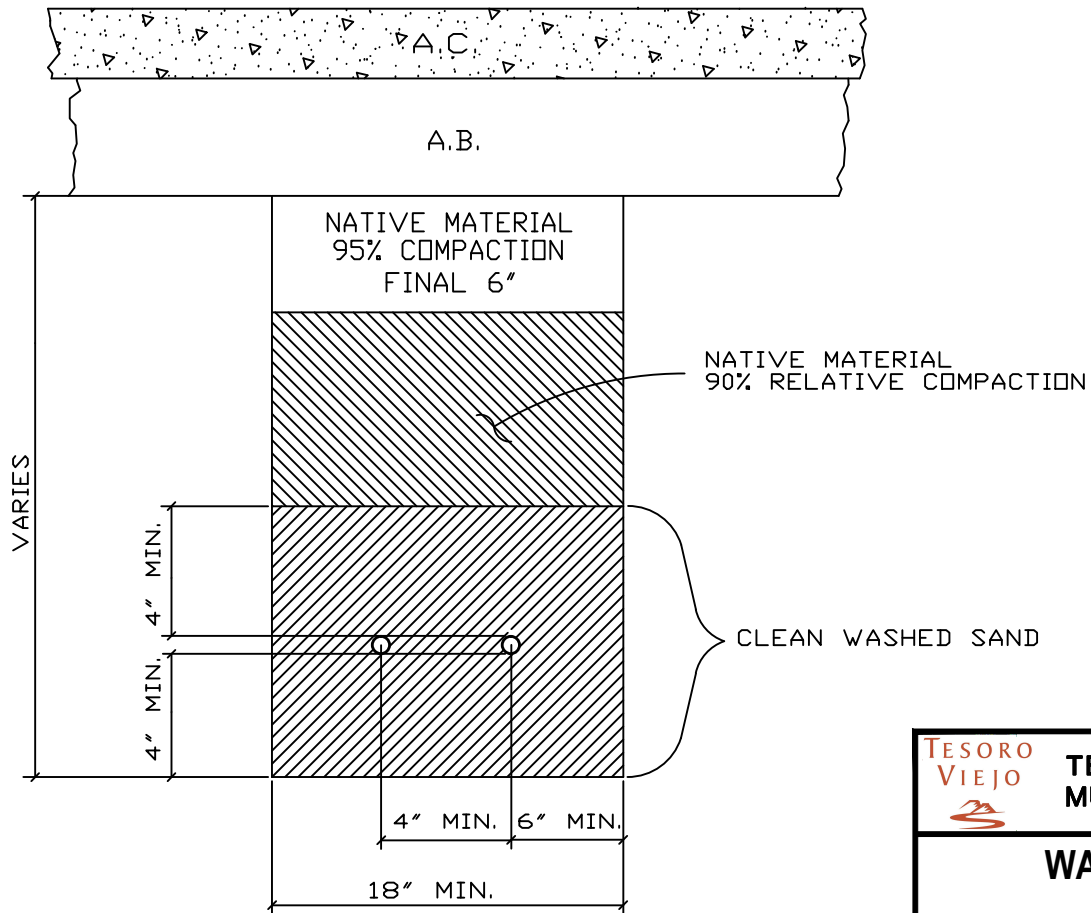



NOTES:

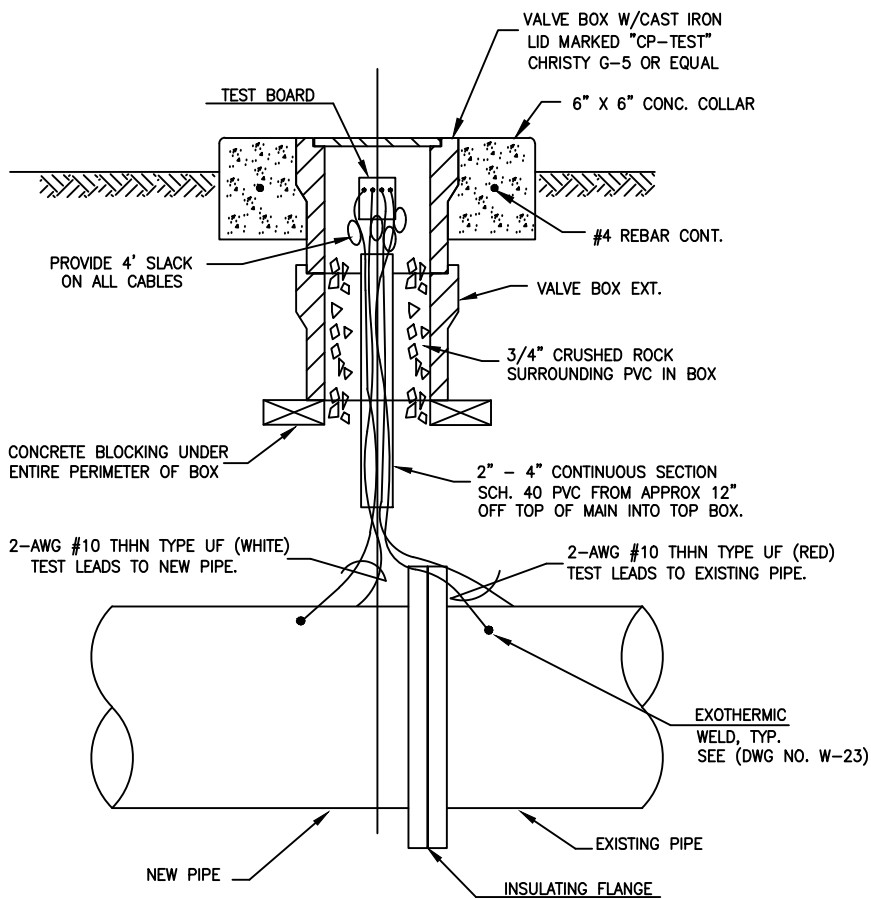
1. TWIST THE WIRE A MINIMUM OF (5) TIMES ON EACH END.
2. INSTALL SPLIT BOLT CONNECTOR.
3. COVER THE ENTIRE SPLICE WITH MASTIC TAPE WRAP
4. WRAP MASTIC WITH VINYL TAPE.

* SOLDERING MAY BE INCLUDED IN ADDITION TO THE ABOVE.

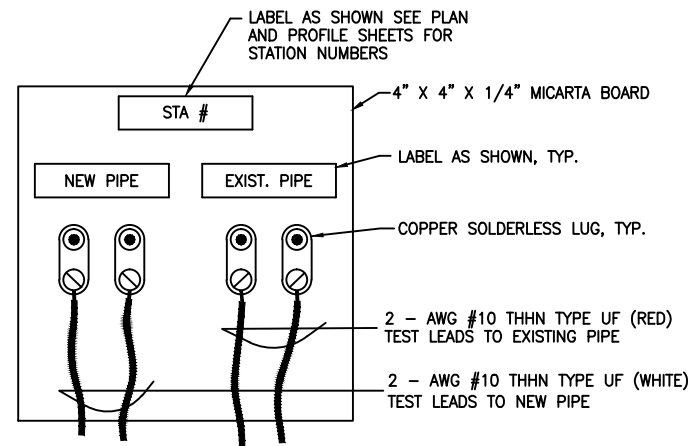
	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	TRACING WIRE SPLICE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-18	




	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	WATER SERVICE TRENCH AND BACKFILL
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-19

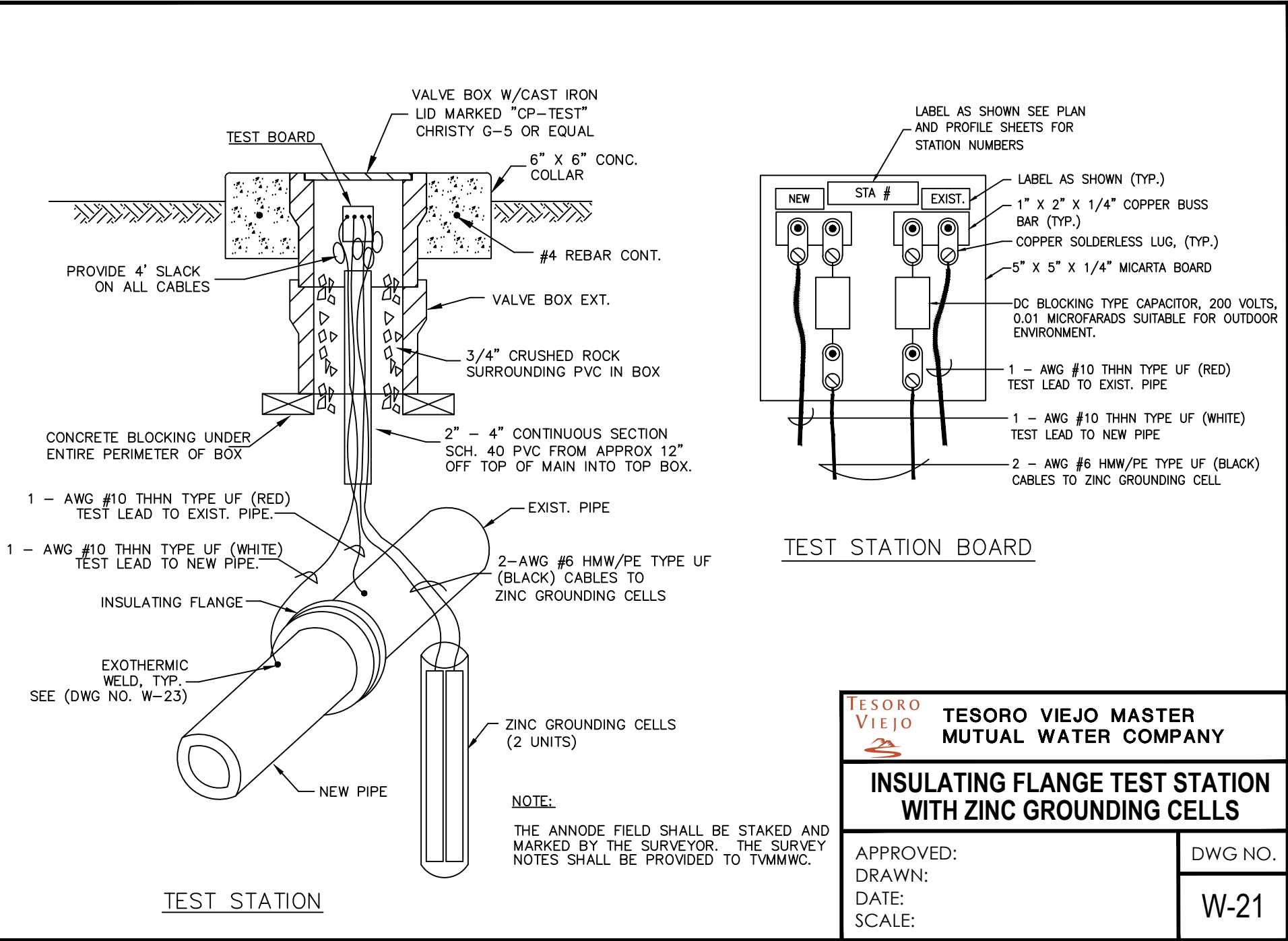


TEST STATION



TEST STATION BOARD

	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	INSULATING FLANGE TESTING STATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.2em;"> W-20 </div>	



VALVE BOX W/CAST IRON LID MARKED "CP-TEST" CHRISTY G-5 OR EQUAL

TEST BOARD

6" X 6" CONC. COLLAR

#4 REBAR CONT.

PROVIDE 4' SLACK ON ALL CABLES

VALVE BOX EXT.

3/4" CRUSHED ROCK SURROUNDING PVC IN BOX

CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF BOX

2" - 4" CONTINUOUS SECTION SCH. 40 PVC FROM APPROX 12" OFF TOP OF MAIN INTO TOP BOX.

1 - AWG #10 THHN TYPE UF (RED) TEST LEAD TO EXIST. PIPE.

1 - AWG #10 THHN TYPE UF (WHITE) TEST LEAD TO NEW PIPE.

INSULATING FLANGE

EXOTHERMIC WELD, TYP. SEE (DWG NO. W-23)

EXIST. PIPE

2-AWG #6 HMW/PE TYPE UF (BLACK) CABLES TO ZINC GROUNDING CELLS

ZINC GROUNDING CELLS (2 UNITS)

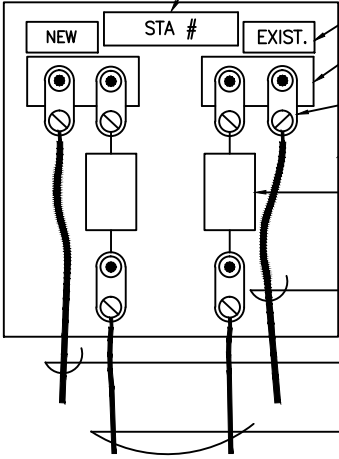
NEW PIPE

TEST STATION

NOTE:

THE ANNODE FIELD SHALL BE STAKED AND MARKED BY THE SURVEYOR. THE SURVEY NOTES SHALL BE PROVIDED TO TMMWC.

LABEL AS SHOWN SEE PLAN AND PROFILE SHEETS FOR STATION NUMBERS



LABEL AS SHOWN (TYP.)

1" X 2" X 1/4" COPPER BUSS BAR (TYP.)

COPPER SOLDERLESS LUG, (TYP.)

5" X 5" X 1/4" MICARTA BOARD

DC BLOCKING TYPE CAPACITOR, 200 VOLTS, 0.01 MICROFARADS SUITABLE FOR OUTDOOR ENVIRONMENT.

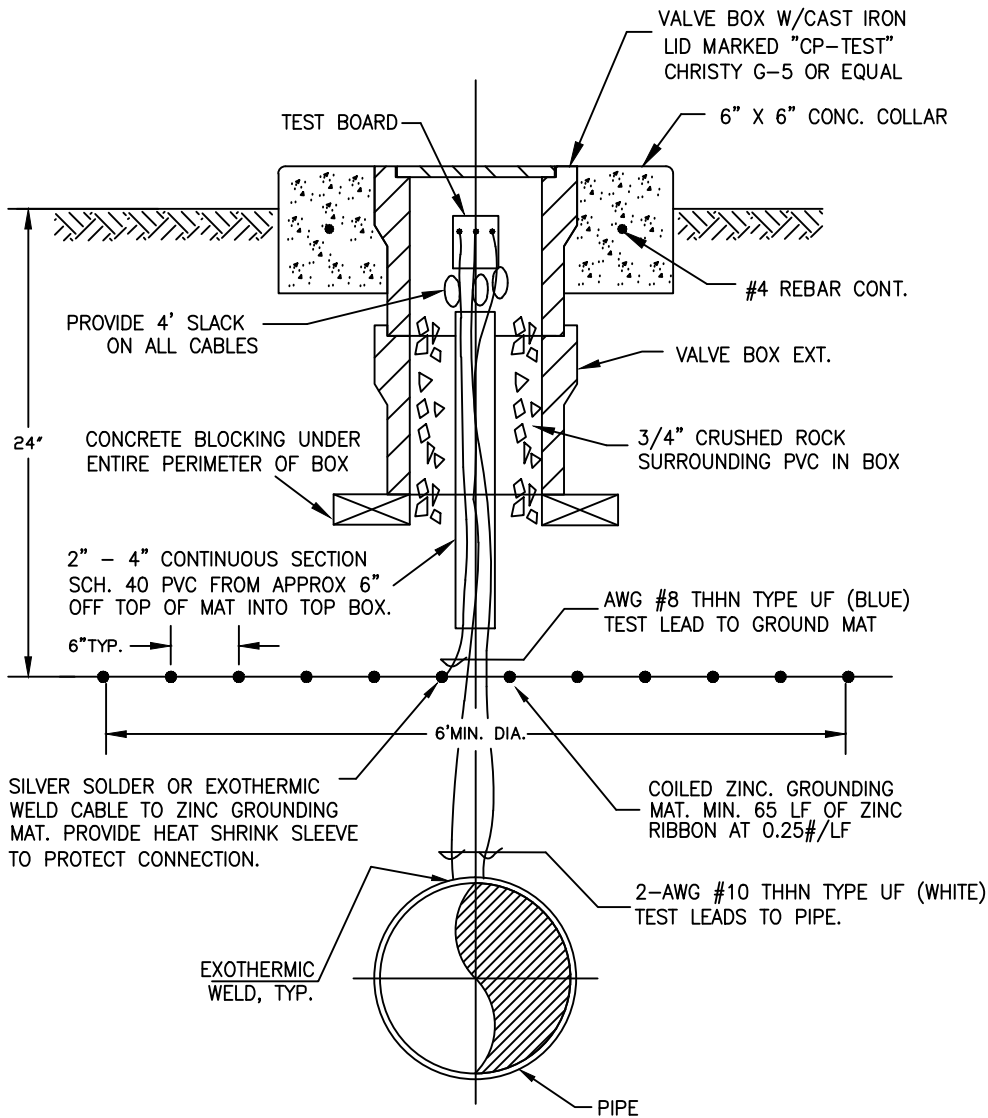
1 - AWG #10 THHN TYPE UF (RED) TEST LEAD TO EXIST. PIPE

1 - AWG #10 THHN TYPE UF (WHITE) TEST LEAD TO NEW PIPE

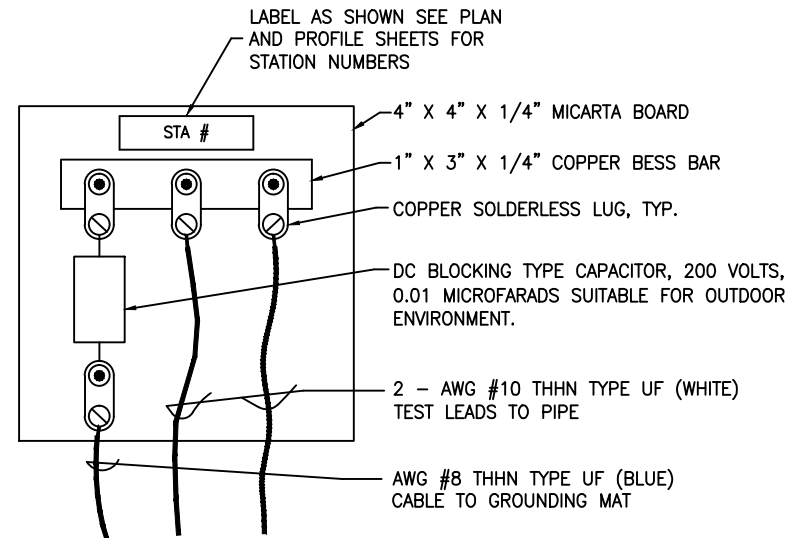
2 - AWG #6 HMW/PE TYPE UF (BLACK) CABLES TO ZINC GROUNDING CELL

TEST STATION BOARD

		TESORO VIEJO MASTER MUTUAL WATER COMPANY	
INSULATING FLANGE TEST STATION WITH ZINC GROUNDING CELLS			
APPROVED:		DWG NO.	
DRAWN:		W-21	
DATE:			
SCALE:			



TEST STATION



TEST STATION BOARD

TESORO VIEJO **TESORO VIEJO MASTER MUTUAL WATER COMPANY**

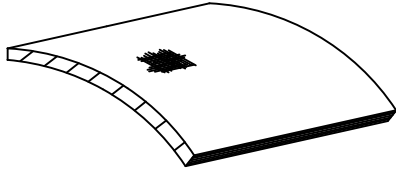
CORROSION TEST STATION

APPROVED:
DRAWN:
DATE:
SCALE:

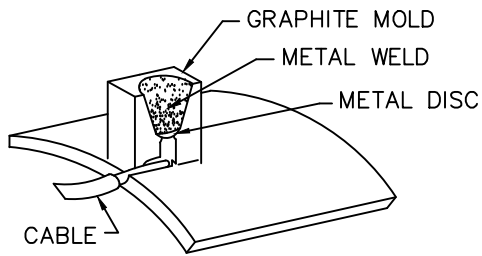
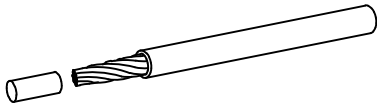
DWG NO.

W-22

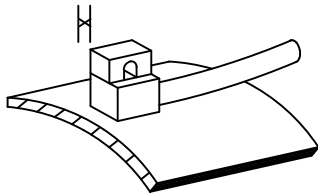
1) FILE TO BARE METAL & CLEAN OVER SURFACE



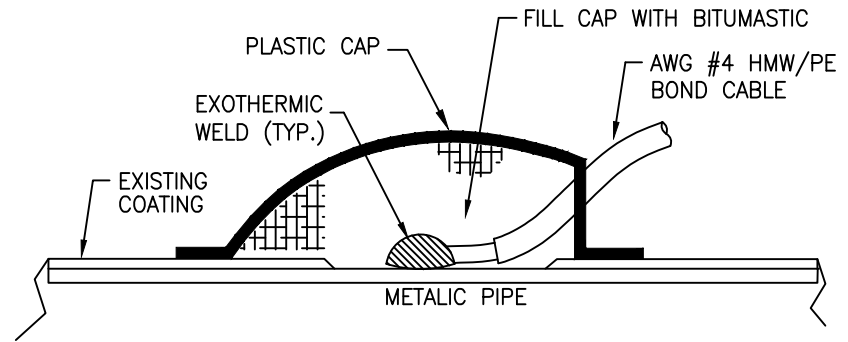
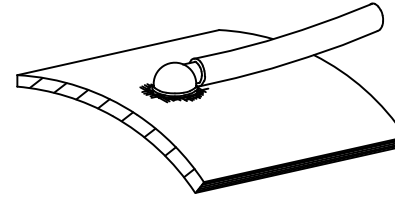
2) STRIP INSULATION FROM WIRE AND ATTACH SLEEVE




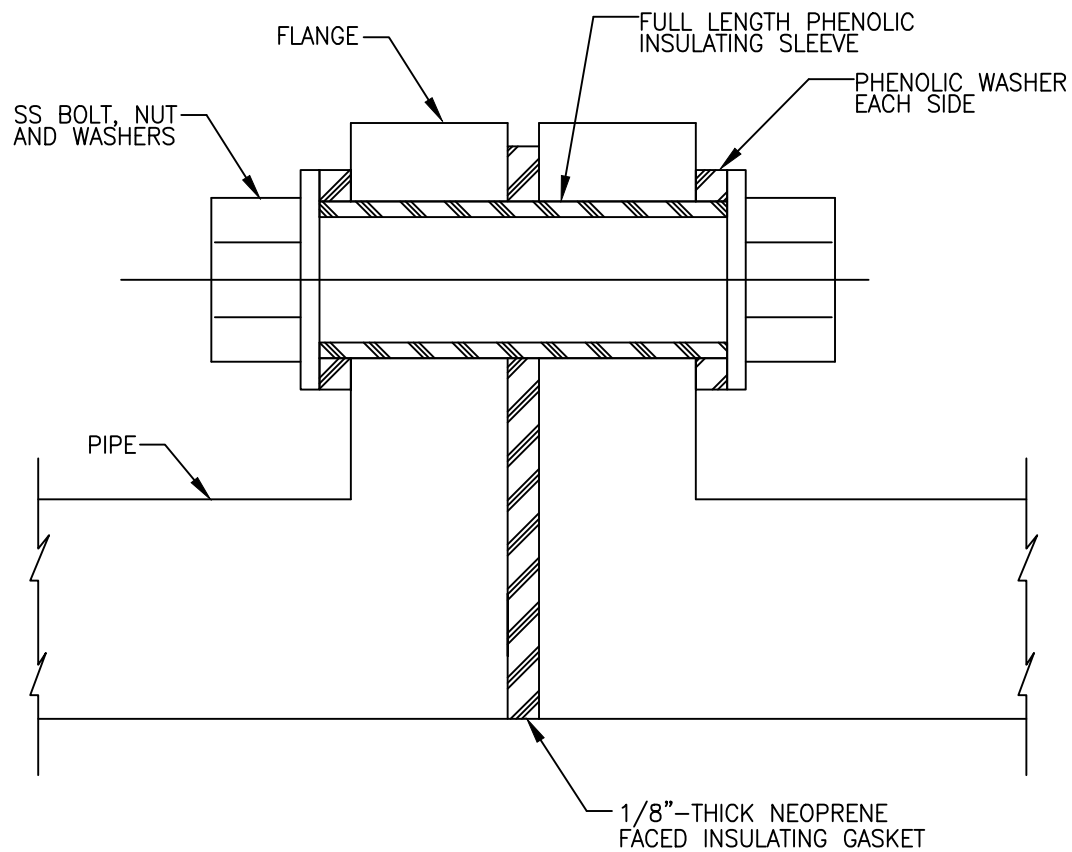
3) HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR, IGNITE WITH FLINT GUN



4) REMOVE SLAG FROM CONNECTION, COVER CONNECTION WITH COMPATIBLE COATING AND CAP OVER ALL EXPOSED METAL




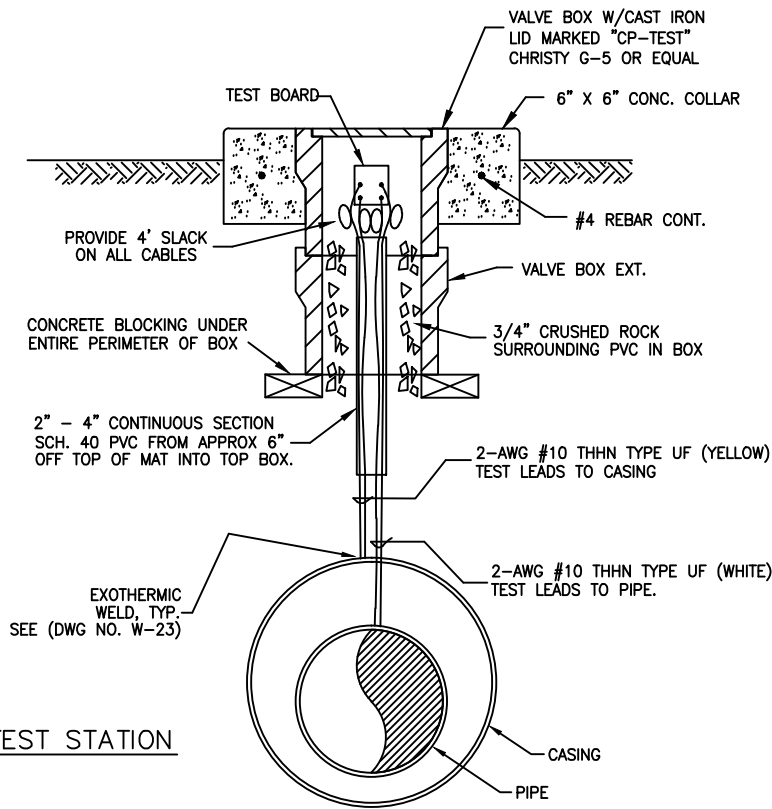
TESORO VIEJO 		TESORO VIEJO MASTER MUTUAL WATER COMPANY	
EXOTHERMIC WELD			
APPROVED:		DWG NO.	
DRAWN:			
DATE:			
SCALE:			
		W-23	



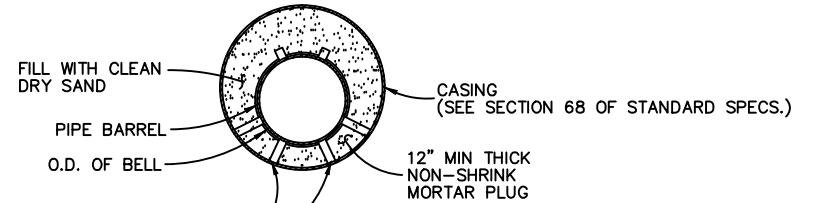
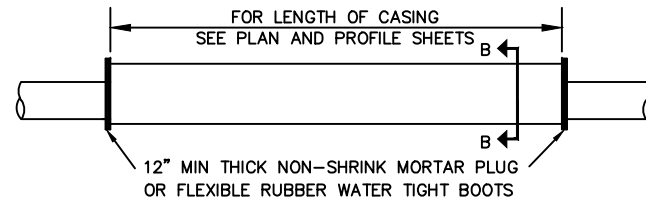
NOTES:

1. DIELECTRIC FLANGE KITS SHALL BE MANUFACTURED BY F.H. MALONEY CP., CALPICO OR EQUAL
2. PROVIDE AN INSULATING FLANGE TEST STATION FOR THE INSULATED FLANGE.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	INSULATED FLANGE	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-24



TEST STATION



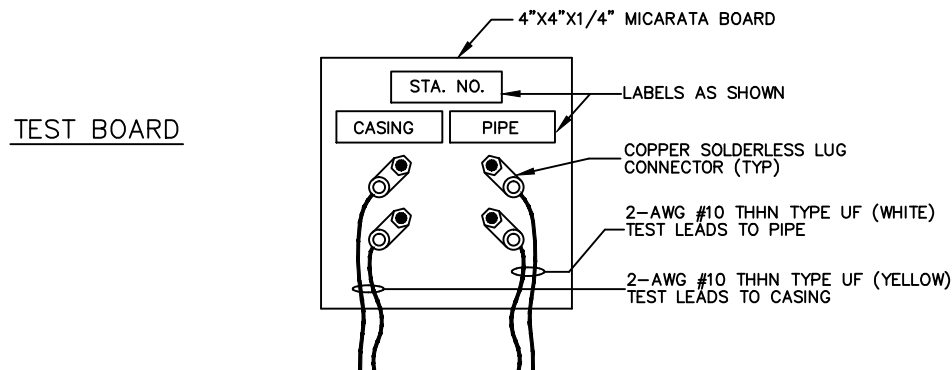
UTILIZE MINIMUM OF (2) SKID RUNNERS PER LENGTH OF PIPE

SECTION B-B


NOTES:

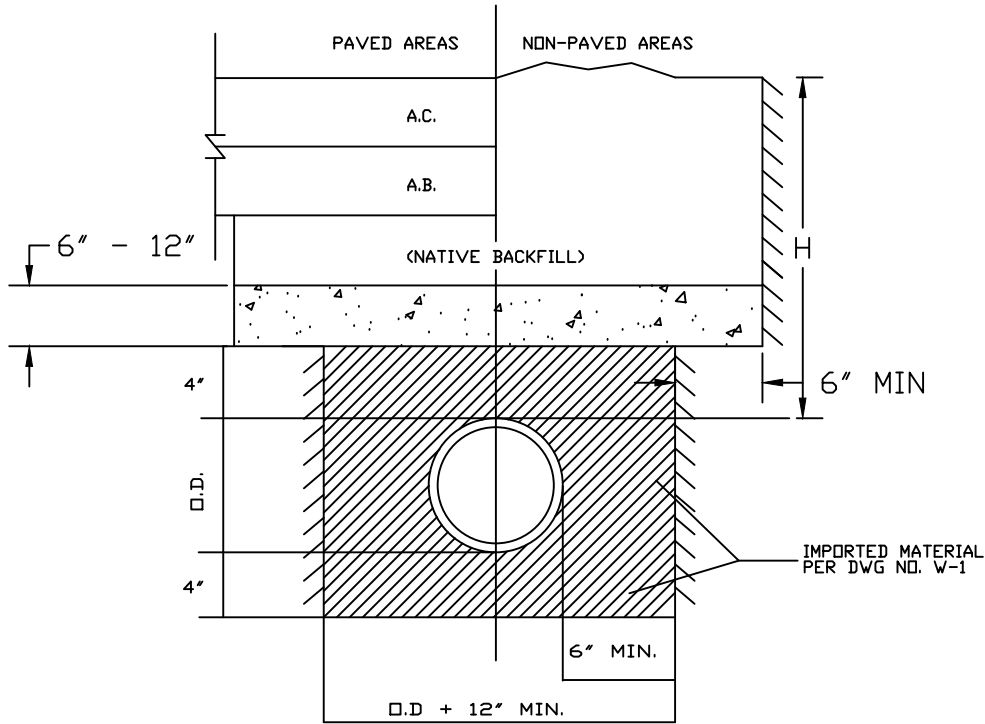
1. THE MINIMUM STRENGTH FOR STEEL CASING SHALL BE 35,000 PSI
2. 18 MIL COAL TAR EPOXY SHALL BE APPLIED ON THE INSIDE & OUTSIDE OF THE STEEL CASING.

CASING DETAIL

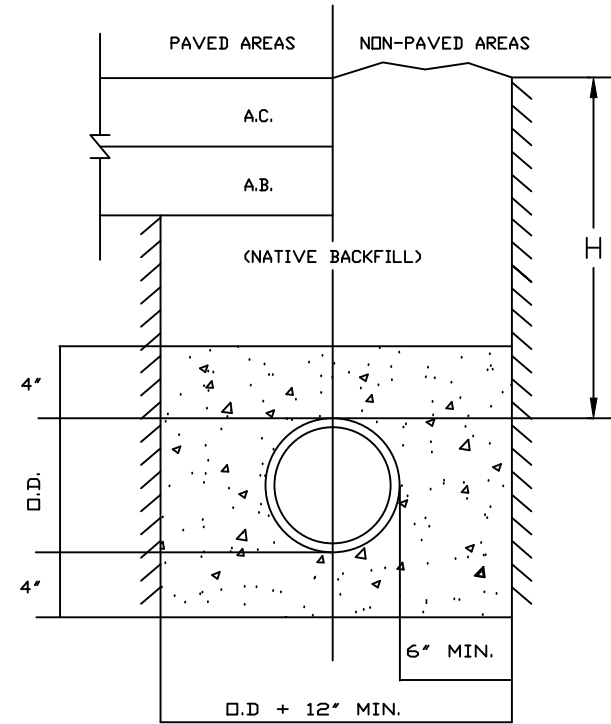


TEST BOARD

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
<h2>CASING & TEST STATION</h2>	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <h1>W-25</h1>



CONCRETE CAP




CONCRETE ENCASEMENT

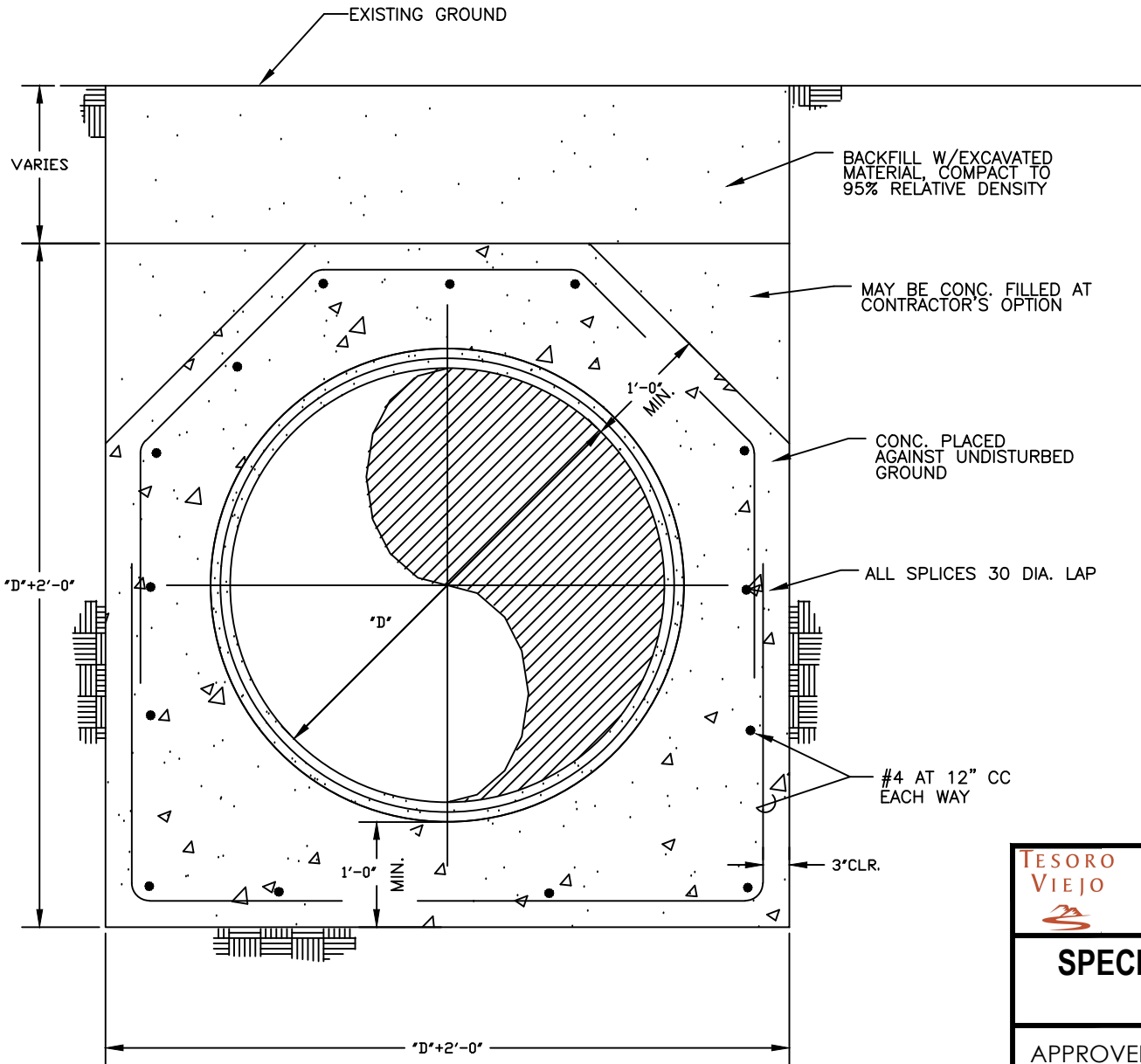
APPLICATION:

- WHERE $30'' < H < 36''$, USE DIP ONLY
- WHERE $20'' < H < 30''$
 - WITH SERVICES, USE DIP AND CONCRETE CAP
 - WITHOUT SERVICES, USE DIP AND CONCRETE ENCASE (WRAP DIP IN FOAM PRIOR TO ENCASEMENT)
- WHERE $H < 20''$, REDESIGN WATERLINE

NOTE:

THIS DETAIL SHALL BE USED ON A CASE-BY-CASE BASIS WITH THE APPROVAL OF THE TMMWC ENGINEER. IN MOST CASES, THE MINIMUM COVER SHALL PREVAIL.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
SHALLOW WATER MAINS	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-26



BACKFILL W/ EXCAVATED MATERIAL, COMPACT TO 95% RELATIVE DENSITY


MAY BE CONC. FILLED AT CONTRACTOR'S OPTION

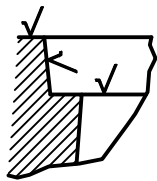
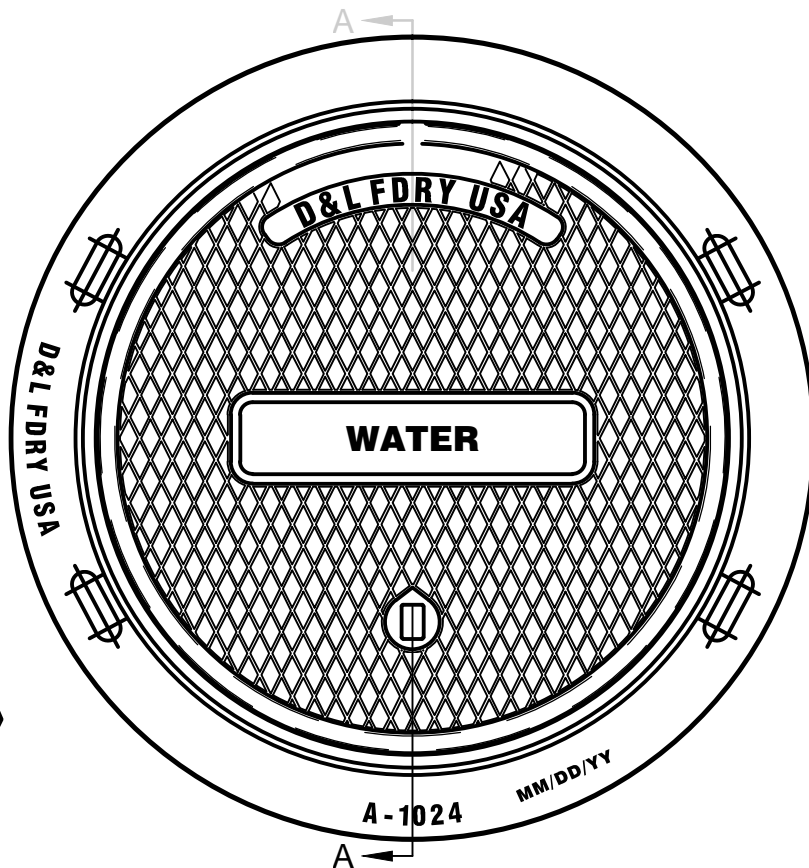
CONC. PLACED AGAINST UNDISTURBED GROUND

ALL SPLICES 30 DIA. LAP

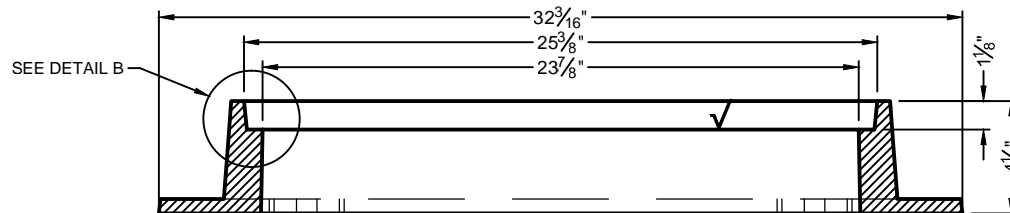
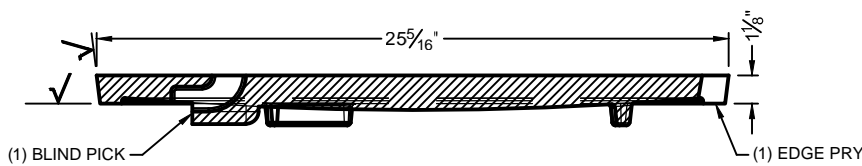
#4 AT 12" CC EACH WAY

3" CLR.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
SPECIAL CONCRETE ENCASEMENT	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-27



DETAIL B



SECTION A-A
VIEW IS ROTATED

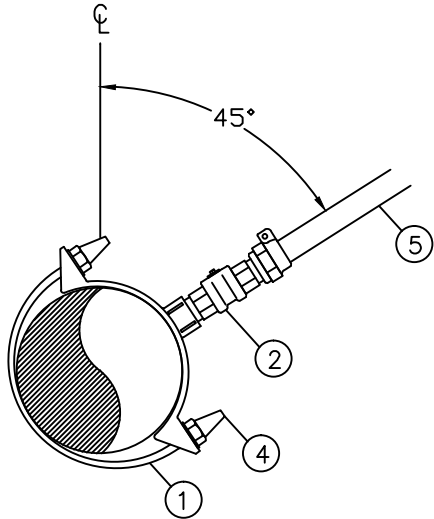
TESORO VIEJO
**TESORO VIEJO MASTER
 MUTUAL WATER COMPANY**

MANHOLE RING AND COVER

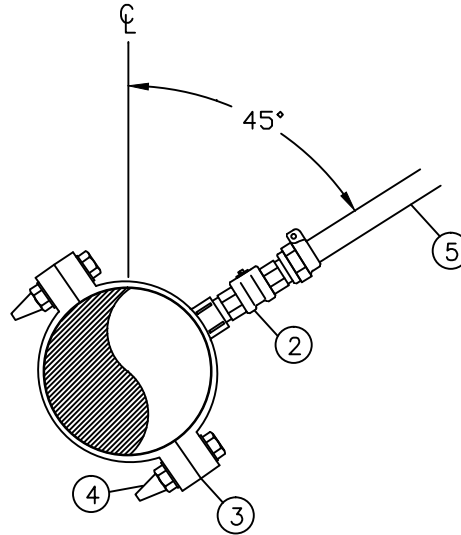
APPROVED:
 DRAWN:
 DATE:
 SCALE:

DWG NO.

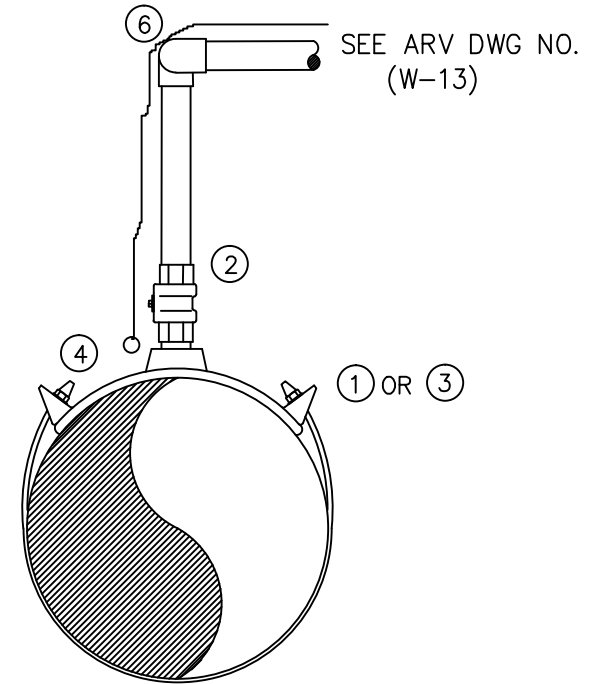
W-28



DOUBLE STRAP
DUCTILE IRON PIPE SADDLE



PVC PIPE SADDLE



ARV SADDLE

MATERIALS:


- 1.) DOUBLE STRAP BRASS SADDLE FOR DUCTILE IRON MAIN
- 2.) INSULATING CORPORATION STOP OR NON INSULATED CORPORATION STOP WITH ZINC CAPS
- 3.) BRASS SADDLE FOR PVC MAIN
- 4.) ZINC CAPS ON ALL BOLTS (ONLY WITH NON-INSULATED CORPORATION STOP)
- 5.) COPPER SERVICE
- 6.) SWING JOINT (2 - 90° BRASS FITTINGS)

NOTES:

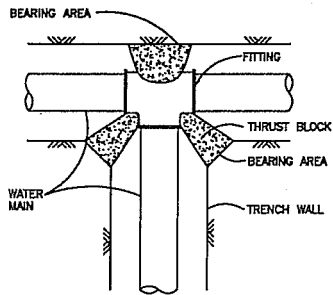
WRAP CORPORATION STOP AND COPPER SERVICE A MINIMUM OF 3' WITH AN APPROVED DIELECTRIC TAPE.

SADDLES SHALL BE WRAPPED IN 8 MIL POLYETHYLENE AND BACKFILLED WITH SAND.

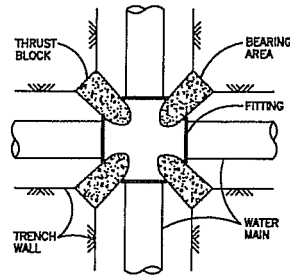
TRACING WIRE SHALL BE REQUIRED ON ARV, HYDRANT RUNS, BLOW OFFS, SERVICES WITHOUT CONTINUOUS COPPER PIPE, AND OTHER MAJOR APPURTANANCES.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	SADDLE DETAIL	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. W-29

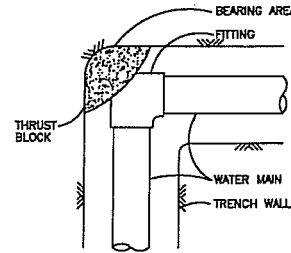
TYPICAL FITTING SECTION



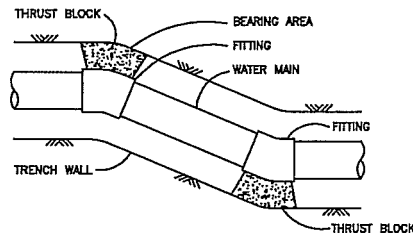
TEE



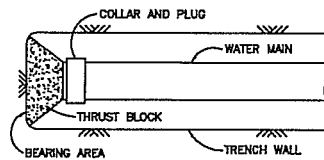
CROSS



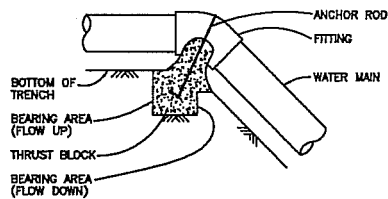
HORIZONTAL 90° BEND



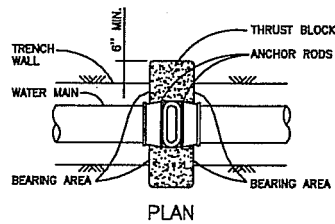
HORIZONTAL BEND



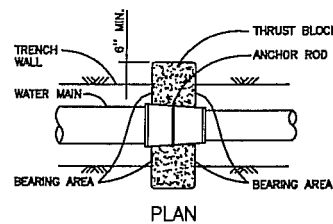
PLUG



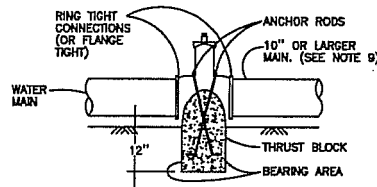
VERTICAL BEND



PLAN

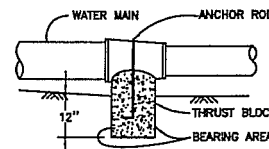


PLAN



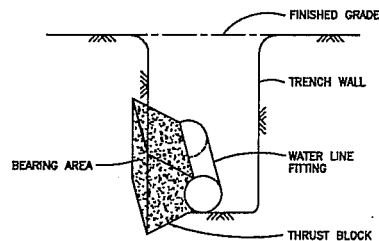
ELEVATION

VALVES



ELEVATION

REDUCERS



MINIMUM BEARING AREAS REQUIRED (SQ.FT)						
90° BEND	TEE*	90° BEND	45° BEND	22 1/2° BEND	11 1/8° BEND	VALVE
4" & 6"	3	5	3	1	1	0
8"	5	8	4	2	1	0
10"	8	12	7	4	2	4
12"	12	17	9	5	2	9

* INCLUDES CROSSES, PLUGS, REDUCERS AND HYDRANTS.

NOTES:

1. ALL ANCHORS AND THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.
2. THRUST BLOCK BEARING AREAS ARE BASED UPON A DESIGN WATER PRESSURE OF 150 P.S.I.; AND A SOIL BEARING STRENGTH OF 2000 P.S.I.
3. FOR LOOSE SAND, INCREASE BEARING AREA LISTED BY A FACTOR OF FOUR (4).
4. THE RATIO OF BEARING AREA WIDTH TO HEIGHT SHALL NOT EXCEED 1-1/2 TO 1.
5. CONCRETE SHALL BE CLASS 2, MINIMUM 2000 P.S.I. STRENGTH.
6. ANCHOR RODS TO BE NO. 4 REBAR, WITH 3" END BEND, EMBEDDED A MIN. OF 8" INTO THRUST BLOCK.
7. PLACE 30 LB. FELT BETWEEN ALL FITTINGS AND THRUST BLOCKS.
8. THE CITY ENGINEER SHALL COMPUTE THE REQUIRED BEARING AREAS FOR CASES NOT COVERED HEREIN.
9. THRUST BLOCKS FOR VALVES ARE REQUIRED ONLY WHEN THE WATER MAIN AND VALVE IS EQUAL TO OR GREATER THAN 10" IN DIAMETER.
10. RESTRAINED JOINTS MAY BE APPROVED BY THE TMMWC IN LIEU OF CERTAIN THRUST BLOCKS.



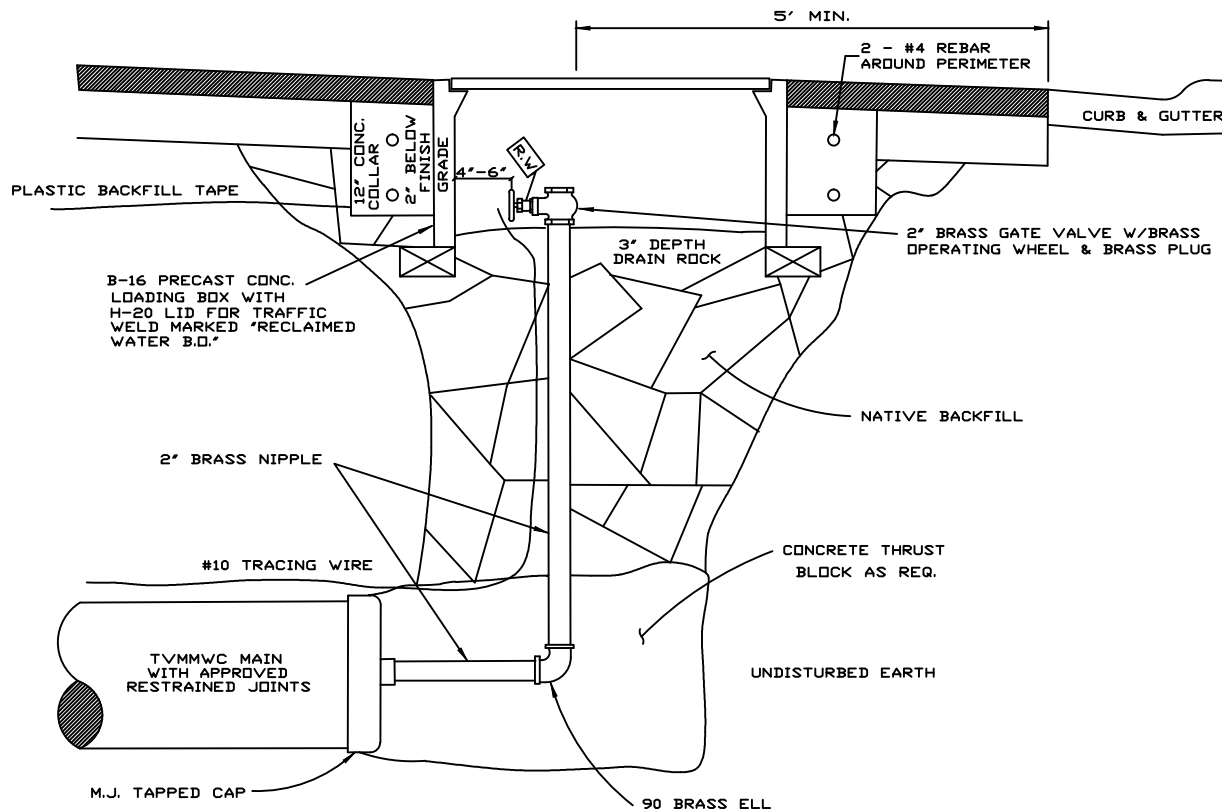
TESORO VIEJO MASTER MUTUAL WATER COMPANY

CONCRETE THRUST BLOCKS


APPROVED:
DRAWN:
DATE:
SCALE:

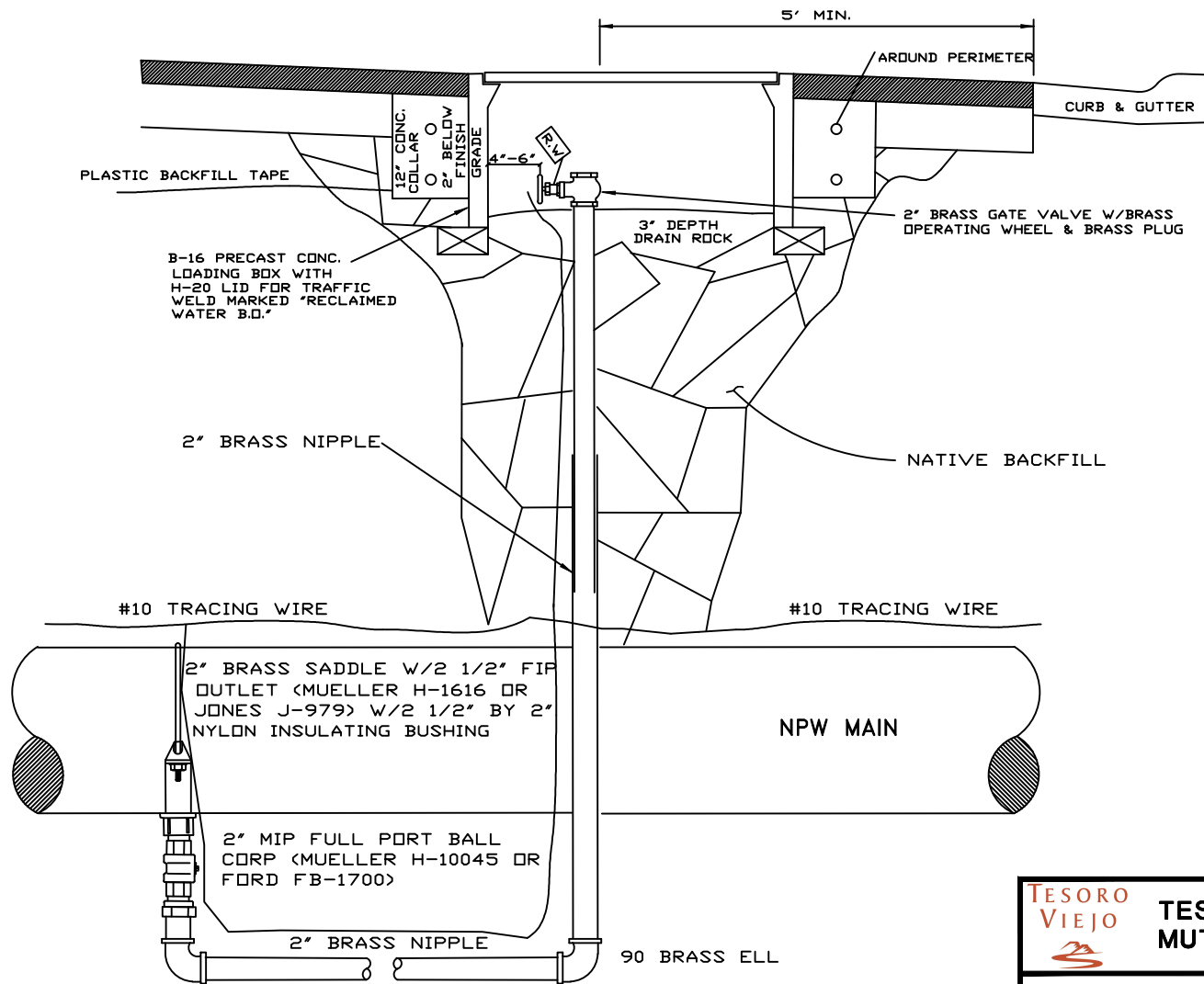
DWG NO.

W-30




NOTE: ALL PIPING INCLUDING BRASS TO BE 8 MIL POLY SEALED.
 WRAP BRASS SPOOLS WITH RECLAIMED WATER ID TAPE. TAPE TO BE PLACED OUTSIDE OF POLY SEAL.
 INSTALL RECLAIMED WATER TAG TO VALVE STEM.

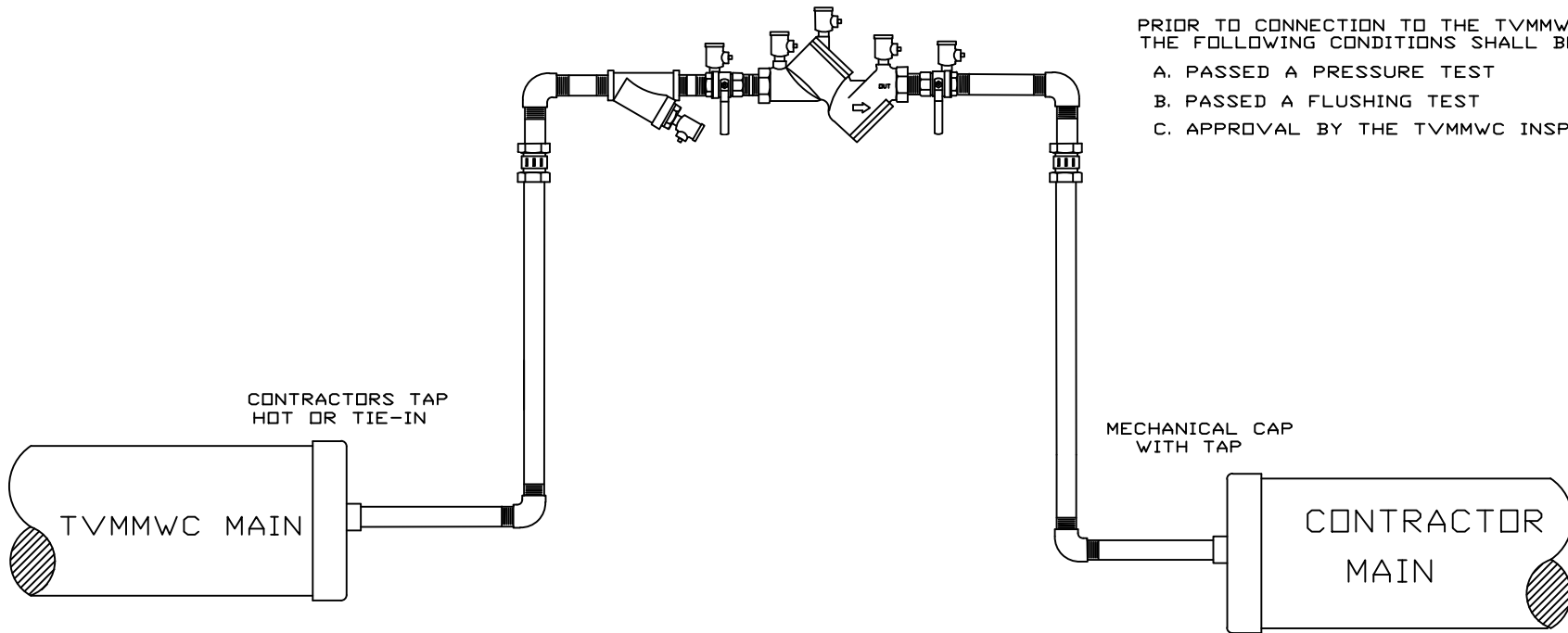
	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	RECYCLED WATER 2" BLOWOFF ASSEMBLY
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-1



NOTES:

- ALL PIPING INCLUDING BRASS TO BE 8 MIL POLY SEALED.
- WRAP BRASS WITH RECLAIMED WATER ID TAPE. TAPE TO BE PLACED OUTSIDE OF POLY SEAL.
- INSTALL RECLAIMED WATER TAG TO VALVE OPERATOR STEM.
- POUR (1) FOOT DEEP BY 6" WIDE CONCRETE COLLAR AROUND UTILITY BOX IF OUTSIDE PAVEMENT AREA.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	RECYCLED WATER INLINE 2" BLOWOFF ASSEMBLY (ALL BRASS)	
APPROVED:	DWG NO.	
DRAWN:	RW-2	
DATE:		
SCALE:		




PRIOR TO CONNECTION TO THE TVMMWC MAIN,
THE FOLLOWING CONDITIONS SHALL BE MET:

- A. PASSED A PRESSURE TEST
- B. PASSED A FLUSHING TEST
- C. APPROVAL BY THE TVMMWC INSPECTOR

NOTES:

WATER SHALL ONLY BE DRAWN INTO THE CONTRACTORS MAIN THROUGH A TVMMWC APPROVED RP TYPE BACKFLOW DEVICE WHICH HAS BEEN TESTED BY A CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE TVMMWC PRIOR TO BACKFLOW DEVICE BEING PLACED IN SERVICE.

UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE TVMMWC INSPECTOR, CONNECTION TO THE TVMMWC SYSTEM MAY BE MADE. THE TVMMWC INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.

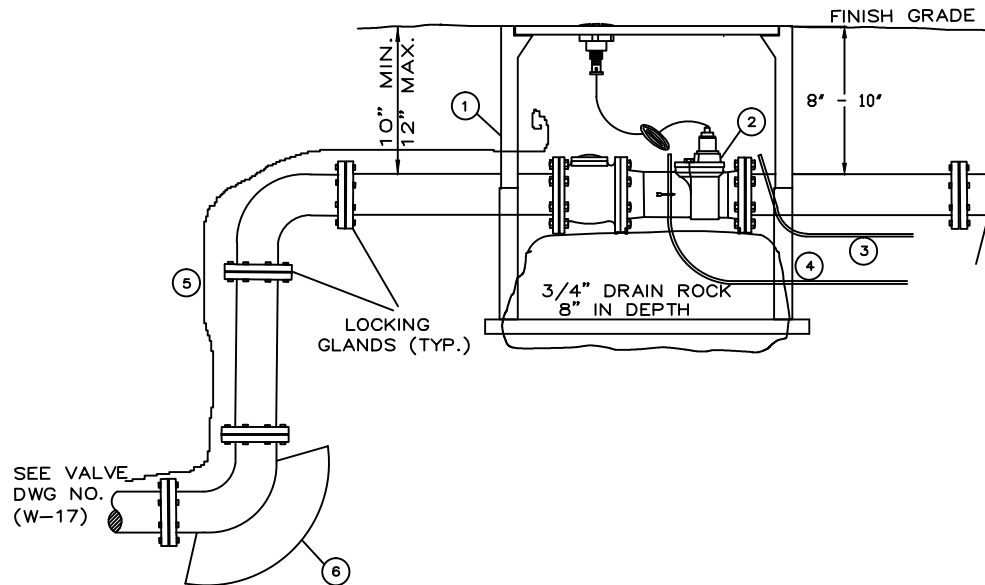
	TESORO VIEJO MASTER MUTUAL WATER COMPANY	
	RECYCLED WATER CONSTRUCTION WATER	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-3	


NOTES:

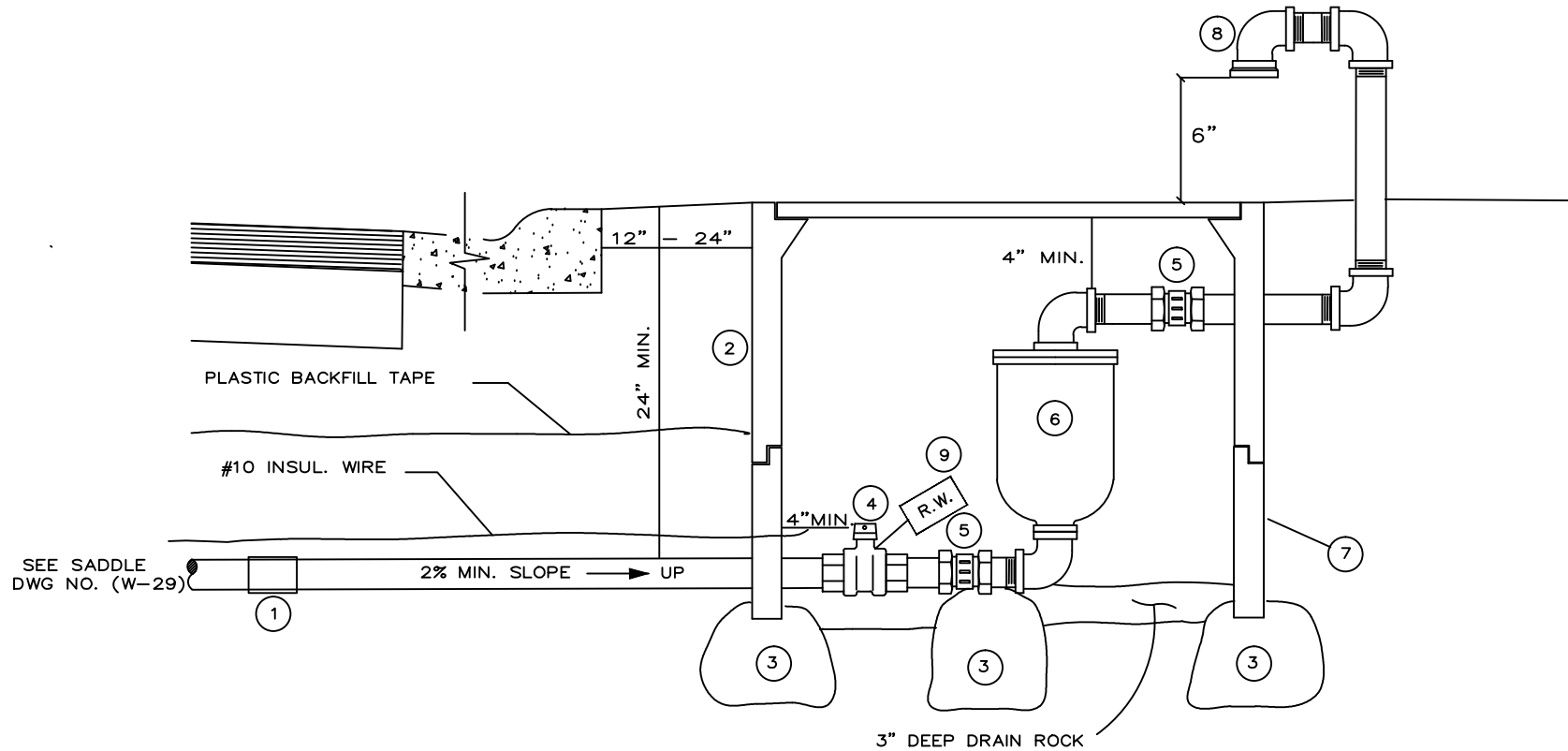
PIPE SHALL BE DUCTILE IRON.
SPOOLS UPSTREAM & DOWNSTREAM OF METER SHALL BE 5X THE PIPE DIAMETER
INSTALL CONCRETE BLOCKING UNDER ENTIRE PERIMETER OF UTILITY BOX.
CONTRACTOR SHALL SUPPLY TVMMWC WITH 2 ROMAC GRIP RING CONFIGURATIONS FOR METER BYPASS AT TIME OF FINAL.
PIPE AND FITTINGS SHALL BE WRAPPED 8 MIL POLYETHYLENE
USE TVMMWC APPROVED RESTRAINED JOINTS OR FLANGED SPOOLS
WATER METER SHALL BE PURCHASED THROUGH THE TVMMWC. PURCHASE INCLUDES INSTALLATION.

MATERIALS:

- 1) B40 UTILITY BOX W/STEEL LID OR APPROVED EQUAL LID SHALL BE WELDED WITH 2" LETTERS STATING "RECLAIMED WATER"
- 2) TURBO METER WITH STRAINER (PURCHASED THROUGH TVMMWC)
- 3) 1/2" CONDUIT TO OTHER MANIFOLD BOXES
SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16)
- 4) 1/2" CONDUIT FROM METER TO BUILDING.
SEE TELEMETERING (DWG NO. W-11)
- 5) TRACING WIRE
- 6) THRUST BLOCKS (TYP.)



	TESORO VIEJO MASTER MUTUAL WATER COMPANY
	RECYCLED WATER 3" & LARGER SERVICE
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-4



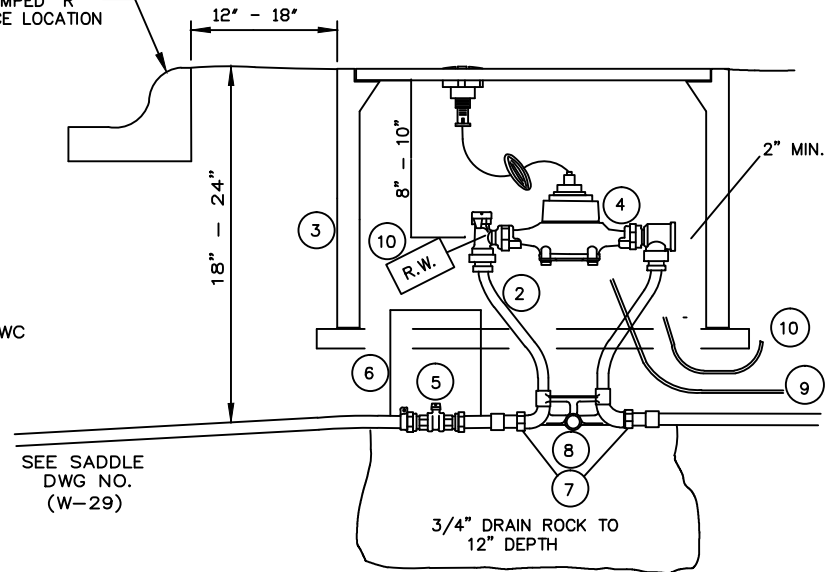
- 1) BRASS THREADED COUPLING (IF REQUIRED)
- 2) B-40 UTILITY BOX W/TRAFFIC COVER MARKED "RECYCLED WATER ARV"
- 3) CONCRETE SUPPORTS
- 4) CURB STOP
- 5) BRASS UNION
- 6) COMBINATION AIR / VACUUM VALVE CRISPIN UL-20, APCO 145C, OR APPROVED EQUAL
- 7) CHRISTY EXTENSION SPOOL (IF NECESSARY)
- 8) BRASS CAP WITH 9 DRILLED 1/16" HOLES OR APPROVED EQUAL.
- 9) RECLAIM WATER I.D. TAG

NOTE:

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
1" AND 2" AIR RELEASE VALVE ASSEMBLY (ALL BRASS)	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. <div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;"> RW-5 </div>

CURB STAMPED "R"
AT SERVICE LOCATION



NOTES:

CONTRACTOR TO INSTALL 1/2" CONDUITS 18" - 24" DEEP FROM METER BOX TO BUILDING (SEE DWG NO. W-10 & W11)

WATER METERS SHALL BE PURCHASED THROUGH THE TVMMWC PURCHASE INCLUDES INSTALLATION.


INSTALL CONCRETE BLOCKING UNDER ENTIRE UTILITY BOX PERIMETER.

BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.

SEE SADDLE
DWG NO.
(W-29)

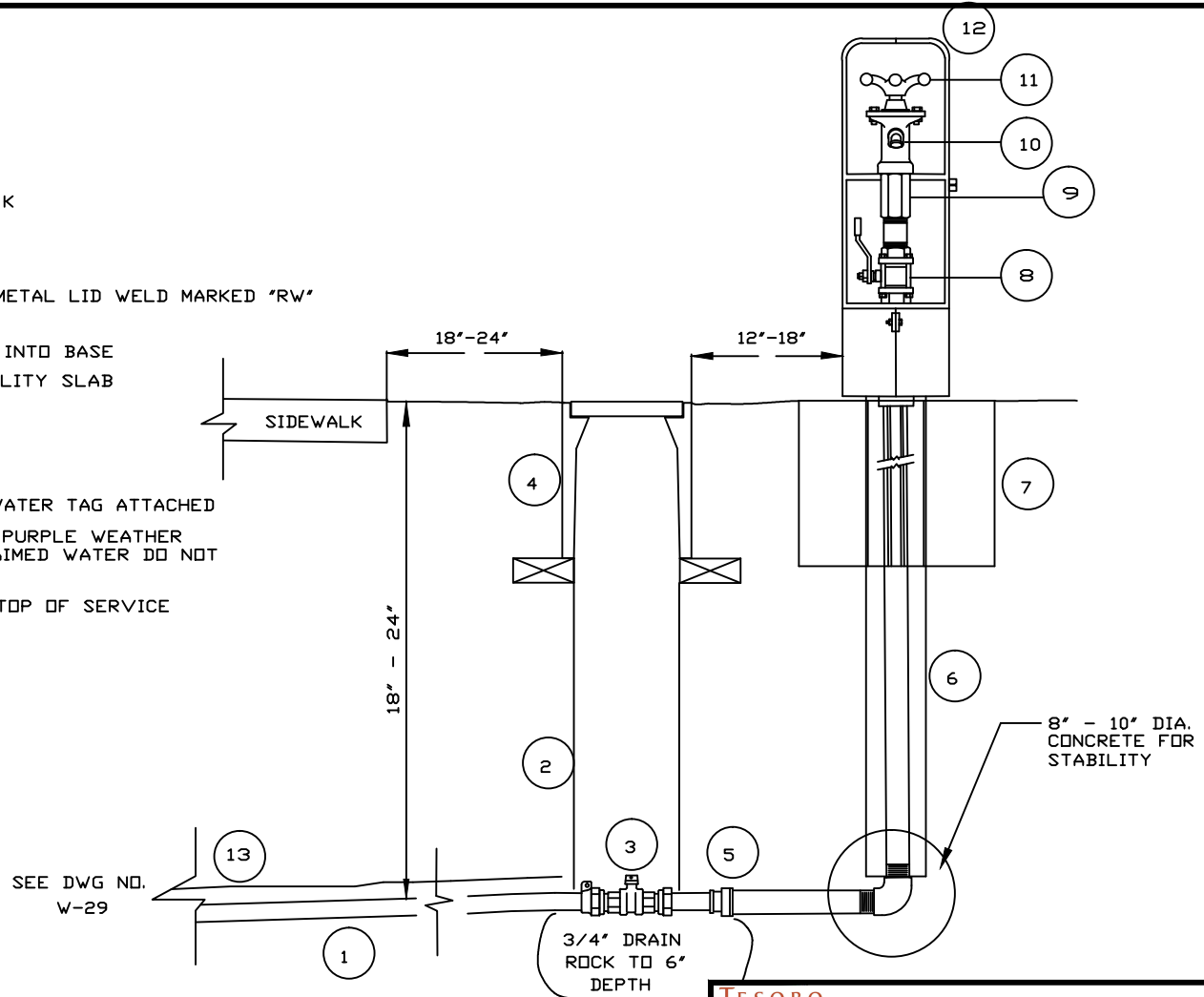
MATERIALS:

- 1) METER SETTER
- 2) B-16 UTILITY BOX WITH ALL METAL LID OR APPROVED EQUAL (LID SHALL BE WELD MARKED WITH 2" LETTERS STATING "RECLAIMED WATER")
- 3) WATER METER (PURCHASED THROUGH TVMMWC)
- 4) CURB STOP
- 5) 4" DIA. RISER STOCK
- 6) METER SPUDS
- 7) SCH. 40 P.V.C. THROUGH PIPE EYE
- 8) 1/2" SCH. 40 PVC OR APPROVED EQUAL TO BUILDING (SEE DWG NO. W-11)
- 9) 1/2" SCH. 40 PVC OR APPROVED EQUAL TO OTHER BOX (SEE DWG NO. W-10)
- 10) RECLAIMED WATER I.D. TAG

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
RESIDENTIAL 3/4" SERVICE LINE	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-6

MATERIALS:

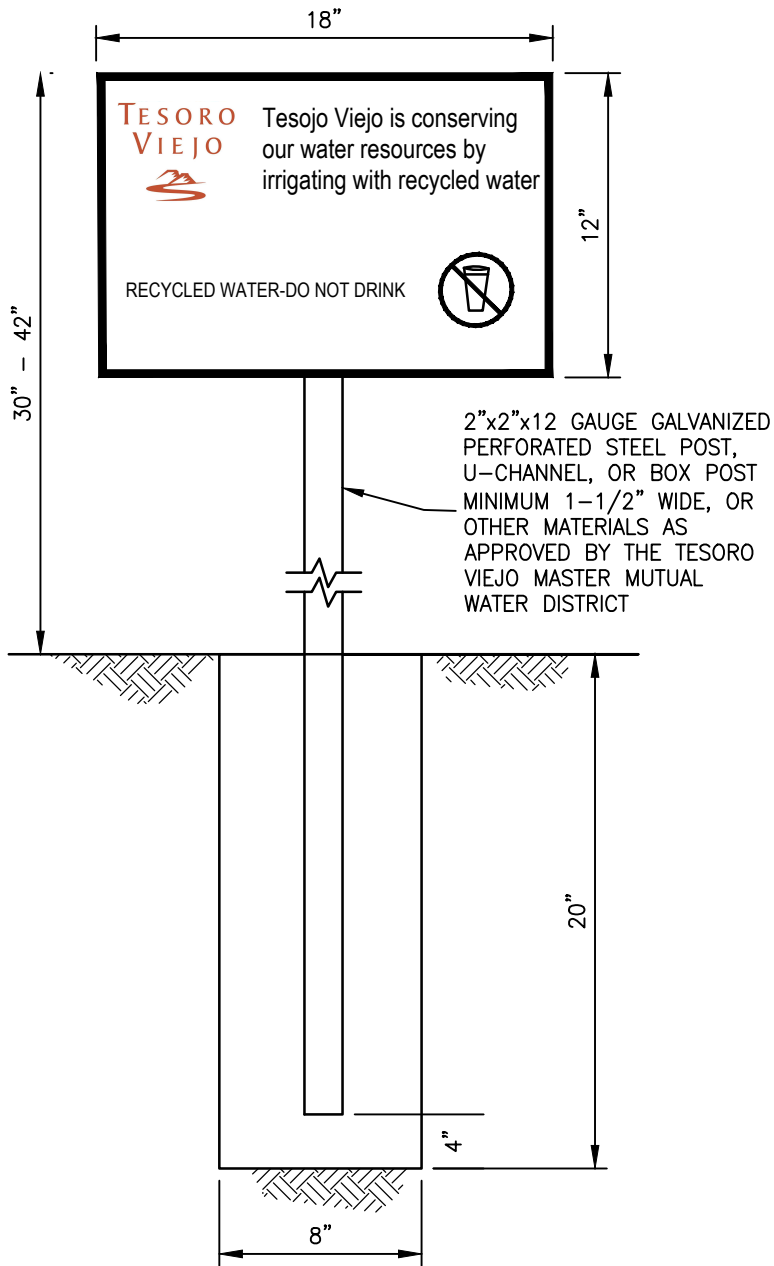
- 1) 3/4" COPPER SERVICE LINE - TYPE K
- 2) 6" DIA. RISOR STOCK
- 3) CURB STOP
- 4) CHRISTY G-5 TRAFFIC BOX W/ ALL METAL LID WELD MARKED "RW"
- 5) 3/4" TO 1" REDUCER ALL BRASS
- 6) 4" LIGHT WELL STEEL PIPE BOLTED INTO BASE
- 7) 12" BY 12" BY 12" CONCRETE STABILITY SLAB
- 8) 1" BRASS BALL VALVE
- 9) HYDRANT STYLE BRASS VALVE
- 10) UNTHREADED BRASS NOZZLE
- 11) HANDLE OPERATOR WITH RECLAIMED WATER TAG ATTACHED
- 12) ALUMINIUM CAST BOX PAINTED WITH PURPLE WEATHER PROOF PAINT. STENCIL MARK "RECLAIMED WATER DO NOT DRINK" ON MINIMUM OF (2) SIDES
- 13) LAY RECLAIMED WATER ID TAPE ON TOP OF SERVICE



NOTES:


- INSTALL CINDERBLOCK OR RED BRICK UNDER VALVE BOX
- ALL PIPING FROM REDUCER THROUGH TEST STATION TO BE 1" BRASS
- ALL FITTINGS TO BE BRASS

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
RECYCLED WATER #88-V ECLIPSE SAMPLING STATION	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-7



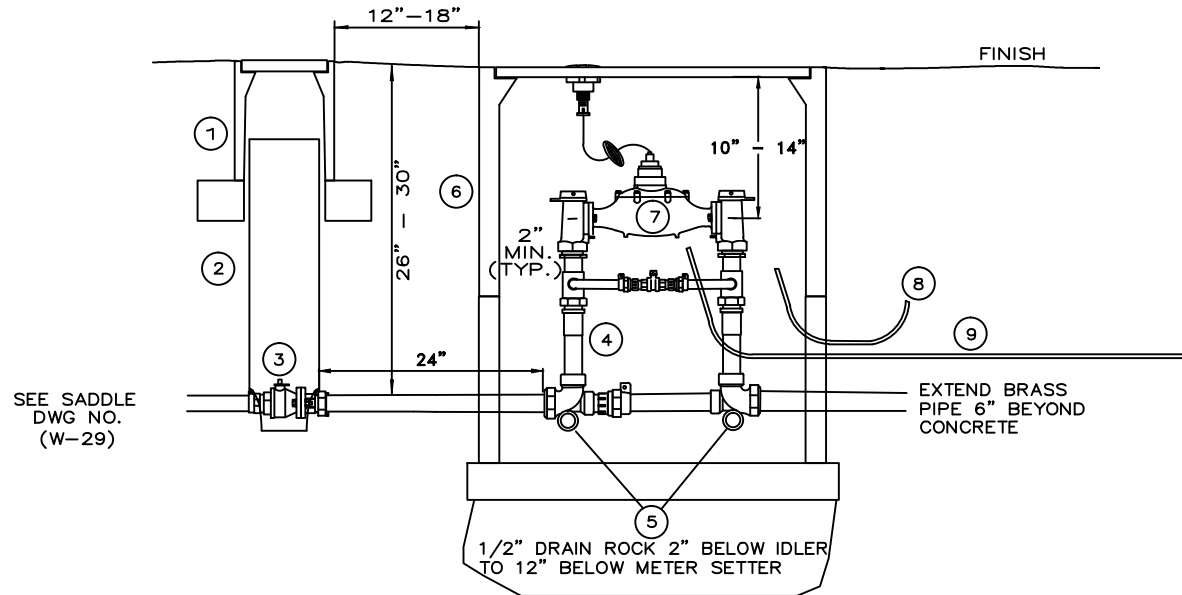
NOTES:

1. ALL USE AREAS WHERE RECYCLED WATER IS USED THAT ARE ACCESSIBLE TO THE PUBLIC SHALL POST WITH ONE OR MORE INFORMATION SIGNS IN CONSPICUOUS LOCATIONS THAT ARE VISIBLE TO THE PUBLIC.
2. INFORMATION SIGNS SHALL BE CONSTRUCTED OF 0.080" THICK ALUMINUM REFLECTIVE SHEETING WITH A PURPLE BACKGROUND AND WHITE LETTERING AND A 3M#1160 GRAFFITI FILM APPLIED, OR APPROVED EQUAL.
3. LOCATION OF SIGN AT EACH RECYCLED WATER SERVICE TO BE DETERMINED BY THE ENGINEER.

	TESORO VIEJO MASTER MUTUAL WATER COMPANY
RECYCLED WATER SIGN	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-8

NOTES:

- CONTRACTOR SHALL LAY 3/4" DRAIN ROCK TO 12" DEPTH UNDER RDWD AT METER SETTER.
- CONTRACTOR SHALL INSTALL 1/2" CONDUITS 18"-24" DEEP (SEE DWG NO. W-11 & W-16).
- WATER METERS SHALL BE PURCHASED THROUGH THE TVMMWC. PURCHASE INCLUDES INSTALLATION.
- INSTALL CONCRETE BLOCKING (4" X 4" SOLID SLUMP BLOCK) UNDER ENTIRE PERIMETER OF UTILITY BOXES.
- CURBSTOP SHALL BE BETWEEN 12"& 18" OF EASEMENT OR BEYOND BACK OF CURB.
- FITTINGS AND PIPING SHALL BE BRASS.
- BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.




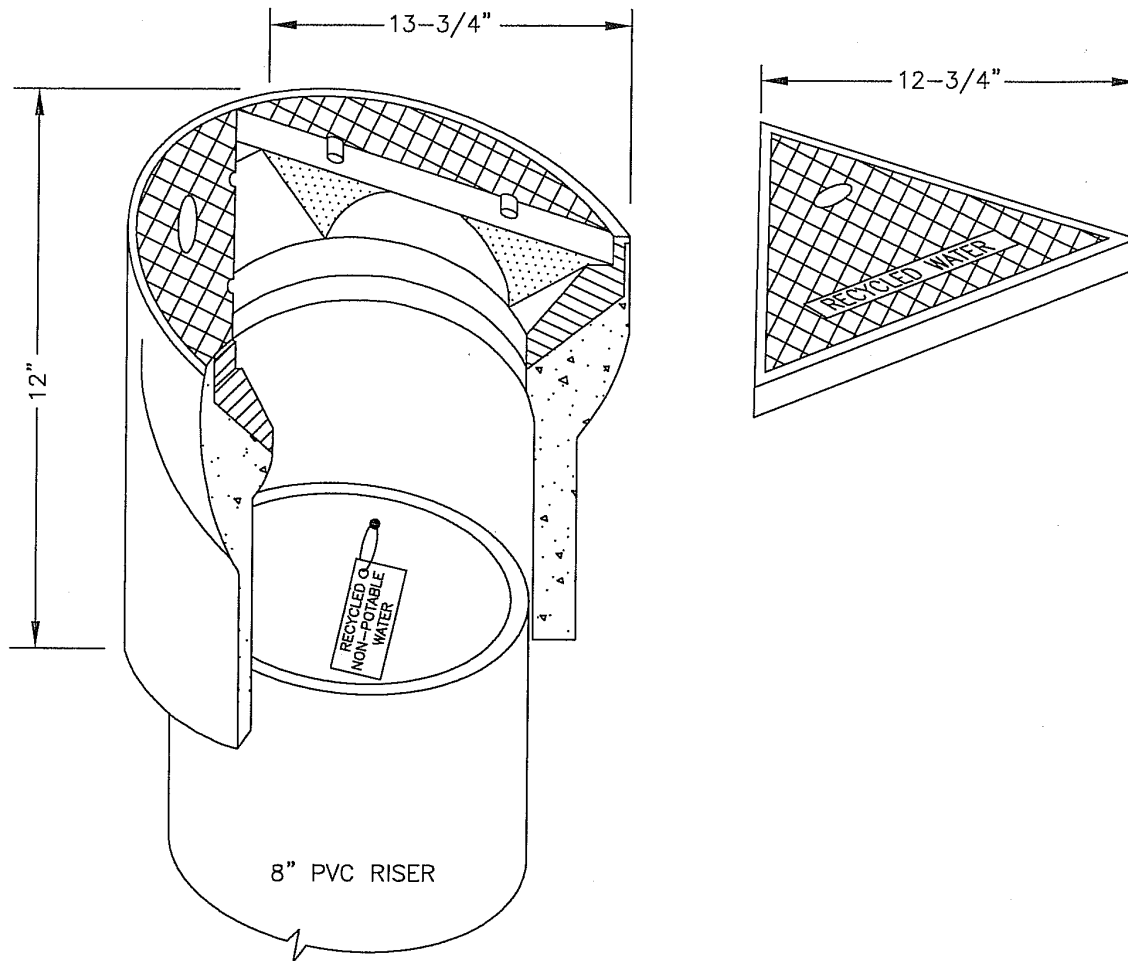
- 1) CONCRETE VALVE BOX
- 2) 6"CONTINUOUS RISER (NOTCHED OVER PIPE AT BASE)
- 3) CURB STOP
- 4) 18" METER SETTER WITH HIGH BYPASS
- 5) RIGID SCH. 40 P.V.C. THROUGH EYES
- 6) B-40 UTILITY BOX WITH EXTENSION
- 7) METER (PURCHASED THROUGH TVMMWC)
- 8) 1/2" CONDUIT TO OTHER MANIFOLD BOXES SEE BACKFLOW MANIFOLD SCHEMATIC (DWG NO. W-16)
- 9) EXTEND 1/2" CONDUIT FROM METER TO BUILDING. SEE TELEMETERING DETAIL (W-11)

SEE SADDLE
DWG NO.
(W-29)

EXTEND BRASS
PIPE 6" BEYOND
CONCRETE


1/2" DRAIN ROCK 2" BELOW IDLER
TO 12" BELOW METER SETTER

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	2" IRRIGATION SERVICE LINE	
	APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-9



NOTES:

1. VALVE BOX SHALL BE CHRISTY MODEL G4BOX TRAFFIC VALVE BOX (10" I.D. X 12" HIGH) OR APPROVED EQUAL.
2. VALVE BOX LID SHALL BE CHRISTY MODEL G4C, CAST IRON, OR APPROVED EQUAL. THE WORDS "RECYCLED WATER" SHALL BE STAMPED OR CAST, OR HARDFACE WELDED ONTO LID.
3. ALL OTHER ASPECTS OF THE BOX, INCLUDING CONCRETE COLLAR, RISER, AND TRACER WIRE SHALL CONFORM TO DWG NO. W-17, GATE VALVE & BOX.
4. HANG 2"X4" METAL TAG LABELED "RECYCLED, NON-POTABLE WATER" NEAR THE TOP OF THE PVC RISER.

 TESORO VIEJO MASTER MUTUAL WATER COMPANY	
RECYCLED WATER VALVE BOX	
APPROVED: DRAWN: DATE: SCALE:	DWG NO. RW-10