



Rosamond Community Services District

3179 35th Street West

Rosamond, California 93560

(661) 256-3411

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**STANDARD WATER & SEWER
SPECIFICATIONS & DRAWING DETAILS**

April 9, 2008

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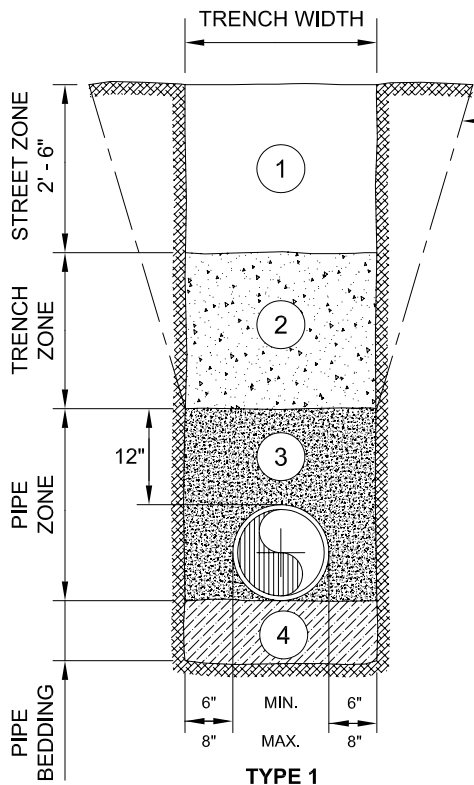
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WATER NOTES

1. THE WATER FACILITIES TO BE DEDICATED TO THE R.C.S.D SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE R.C.S.D.
2. THE R.C.S.D. ENGINEERING DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION. TELEPHONE (661) 256-3411
3. THE CONSTRUCTION PLANS MUST BE APPROVED BY THE R.C.S.D. PRIOR TO THE START OF ANY WATER CONSTRUCTION. TWO (2) SETS OF APPROVED PLANS AND A COMPLETE ELECTRONIC COPY (AUTOCAD DWG FORMAT) OF SAID PLANS SHALL BE FURNISHED TO THE R.C.S.D. PRIOR TO DISTRICT APPROVAL THE PLANS MUST BE SIGNED BY A CALIFORNIA REGISTERED ENGINEER.
4. PRIOR TO ACCEPTANCE OF THE WATER FACILITIES, ALL NECESSARY EASEMENT DOCUMENTS SHALL BE PROPERLY EXECUTED AND RECORDED. THREE (3) COPIES EACH OF THE RECORDED DOCUMENTS SHALL BE FURNISHED TO THE R.C.S.D.
5. WATER MAINS SHALL BE INSTALLED FIVE (5) FEET FROM THE CURB FACE UNLESS OTHERWISE INDICATED IN THE PLANS. ALL WATER SERVICES SHALL BE METERED.
6. WORK IN THE STATE OF CALIFORNIA OR THE COUNTY OF KERN RIGHTS-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE APPROPRIATE ENCROACHMENT PERMITS.
7. THE WATER SYSTEM, INCLUDING LATERALS, SHALL BE HYDROSTATIC TESTED, AFTER ALL UNDERGROUND UTILITIES ARE CONSTRUCTED, AND PRIOR TO PLACING STREET PAVEMENT. ALL WORK SHALL BE LEFT OPEN AND UNCOVERED UNTIL INSPECTED BY R.C.S.D.
8. ALL VALVES SHALL BE FLANGE CONNECTED TO FITTINGS.
9. ALL WATER LINES SHALL HAVE A MINIMUM COVER OF 36 INCHES.
10. ONE (1) COMPLETE SET OF DRAWINGS (CHRONOFLEXES OR MYLAR), AND ONE (1) COMPLETE ELECTRONIC SET (AUTOCAD DWG FORMAT) OF DRAWINGS SHALL BE FURNISHED TO THE DISTRICT ON COMPLETION OF CONSTRUCTION.
11. TRENCHING MATERIAL TO BE COMPACTED TO 90%. TRENCHING MATERIAL TO BE COMPACTED TO 95% UNDER SURFACE GRADE.
12. WATER SERVICE WILL NOT BE TURNED ON UNTIL ALL SEWER LINES HAVE BEEN INSPECTED BY AN R.C.S.D REPRESENTATIVE, REGARDLESS OF KERN COUNTY FINAL APPROVALS.
13. ALL FIRE HYDRANTS SHALL BE WET BARREL TYPE.

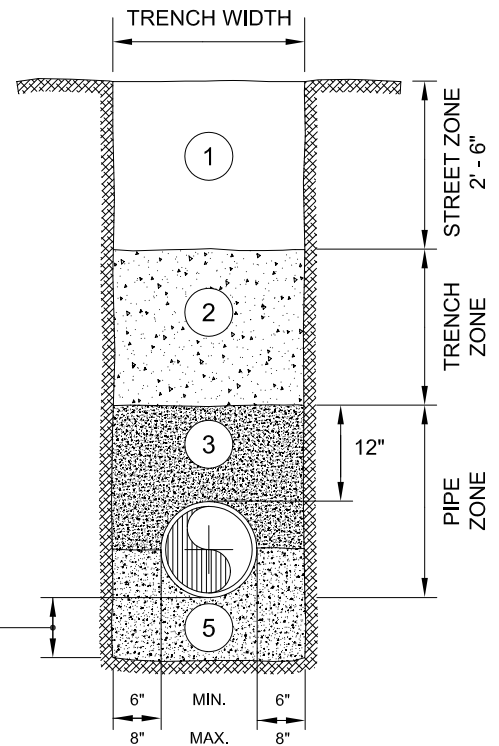
<i>Rosamond Community Services District</i>		STANDARD SPECIFICATIONS AND DRAWING DETAILS	
SHEET NO. W-1	STANDARD WATER NOTES		DATE DRAWN 11/07
R.C.S.D. ENGINEERING DEPARTMENT	REVISION NO.:002-0308B	DRAWN BY : EVAN R. CRABTREE	APPROVED BY.:



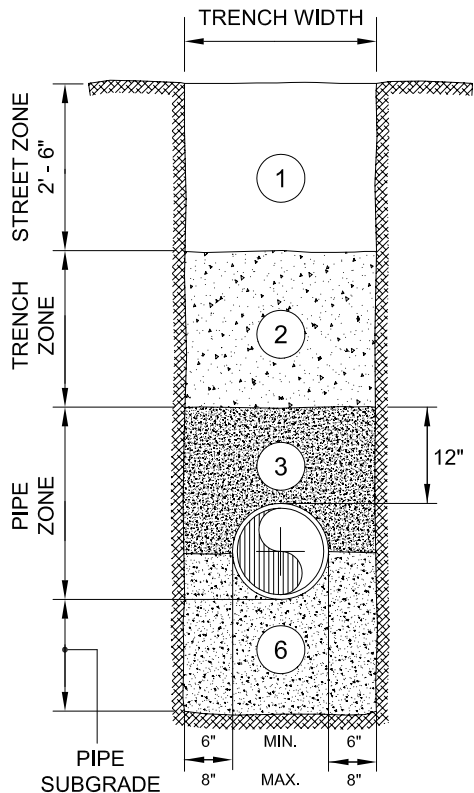
TYPE 1

EXCAVATION LINE AT CONTRACTOR'S OPTION

6" MINIMUM PIPE BEDDING



**TYPE 2
ROCKY OR OVER-EXCAVATED**



**TYPE 3
UNSUITABLE MATERIALS IN SUBGRADE**

- ① BACKFILL COMPACTED TO 90% RELATIVE COMPACTION, 95% WHEN UNDER ROAD
- ② BACKFILL COMPACTED TO 90% RELATIVE COMPACTION
- ③ SELECT MATERIAL OR SAND COMPACTED TO 90% RELATIVE COMPACTION ($\frac{3}{4}$ " MAXIMUM GRADATION)
- ④ 3" TO 6" NATIVE MATERIAL WITH $\frac{3}{4}$ " MAXIMUM GRADATION OR SAND WHERE REQUIRED BY INSPECTOR OR ENGINEER
- ⑤ SAND COMPACTED TO 85% RELATIVE COMPACTION
- ⑥ SAND OR AGGREGATE COMPACTED TO 85% RELATIVE COMPACTION AND TO DEPTH SPECIFIED BY INSPECTOR OR ENGINEER

NOTES :

1. SAND AND SELECT MATERIAL SHALL BE PER STANDARD R.C.S.D. SPECIFICATIONS FOR EARTHWORK.
2. SEE R.C.S.D. STANDARD SPECIFICATIONS FOR EARTHWORK IF TRENCH WIDTH EXCEEDS THE MAXIMUM SHOWN IN THIS DRAWING.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

WATER PIPE BEDDING AND BACKFILL DETAILS

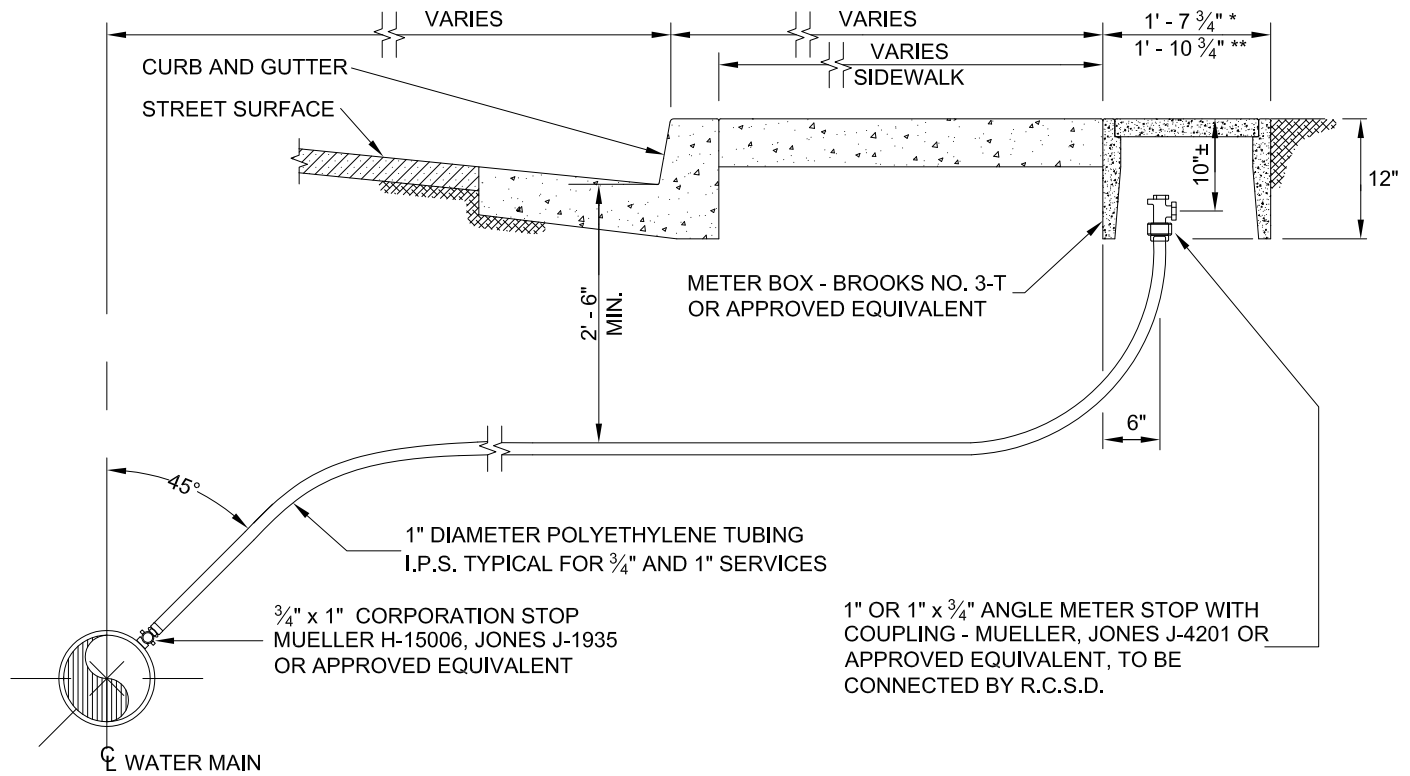
SHEET NO.
W-2

R.C.S.D. ENGINEERING DEPARTMENT

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SECTION

NOTES :

1. IF METER BOX IS LOCATED ON A SLOPE NEXT TO A CURB OR SIDEWALK, A PROTECTIVE RETAINING WALL SHALL BE CONSTRUCTED.
2. CORPORATION STOP TAP SHALL BE MADE AS SPECIFIED BY THE PIPE MANUFACTURER'S INSTALLATION GUIDE. ALL DRY TAPS SHALL BE MADE WITH MACHINE WITH GUIDE OR PILOT FOR TAP.
3. THE REQUIRED SIZE OF THE SERVICE MUST BE APPROVED BY THE DISTRICT.
4. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
5. METER BOXES SHALL BE CONSTRUCTED IMMEDIATELY BEHIND THE SIDEWALK WHERE SIDEWALKS ARE ADJACENT TO CURB.
6. * INDICATES METER BOX AND DIMENSION FOR 3/4" SERVICE.
** INDICATES METER BOX AND DIMENSION FOR 1" SERVICE.

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
W-3

3/4" AND 1" STANDARD WATER SERVICES

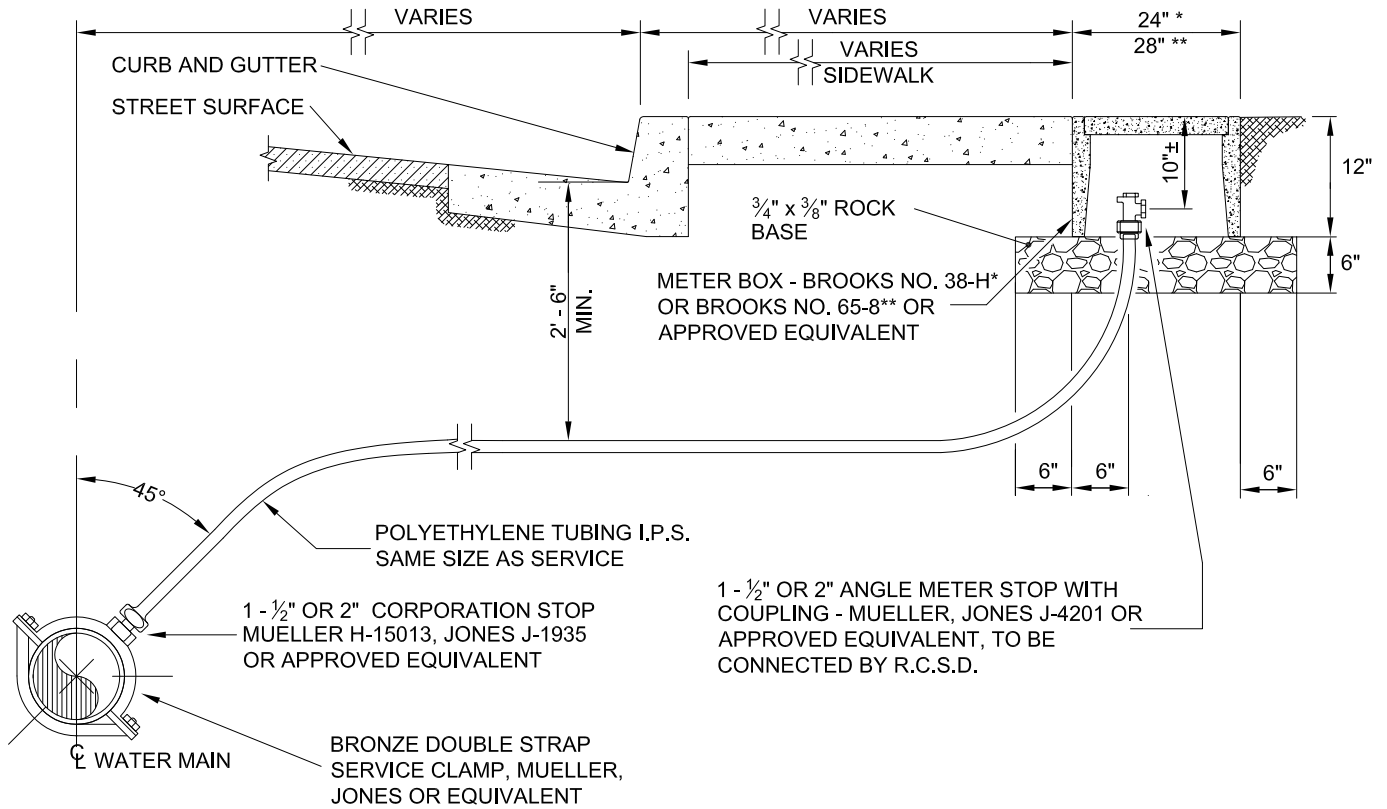
DATE DRAWN
11/07

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SECTION

NOTES :

1. THE REQUIRED SIZE OF THE SERVICE MUST BE APPROVED BY THE DISTRICT.
2. THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
3. METER BOXES SHALL BE CONSTRUCTED IMMEDIATELY BEHIND THE SIDEWALK WHERE SIDEWALKS ARE ADJACENT TO CURB.
4. IF METER BOX IS LOCATED ON A SLOPE NEXT TO A CURB,OR SIDEWALK A PROTECTIVE RETAINING WALL SHALL BE CONSTRUCTED.
5. CORPORATION STOP TAP SHALL BE MADE AS SPECIFIED BY THE PIPE MANUFACTURER'S INSTALLATION GUIDE. ALL DRY TAPS SHALL BE MADE WITH MACHINE WITH GUIDE OR PILOT FOR TAP.
6. * INDICATES METER BOX AND DIMENSION FOR 1 - 1/2" SERVICE.
 ** INDICATES METER BOX AND DIMENSION FOR 2" SERVICE.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

1- 1/2" AND 2" STANDARD WATER SERVICES

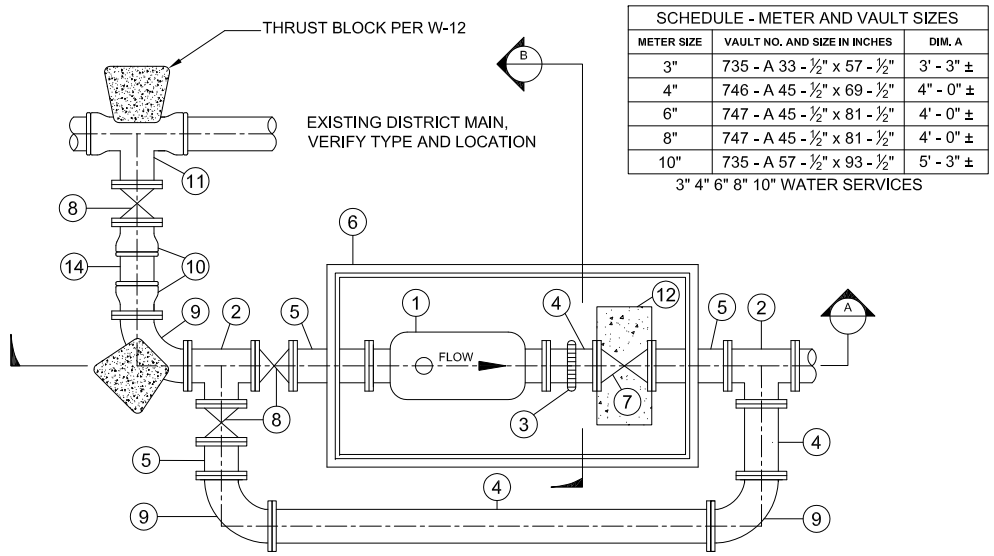
SHEET NO.
W-4

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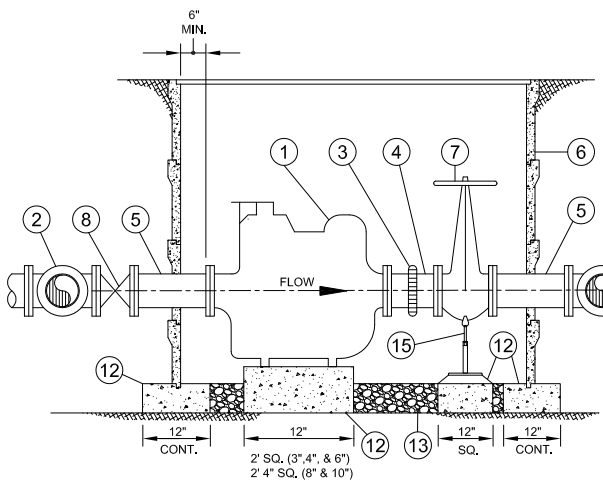
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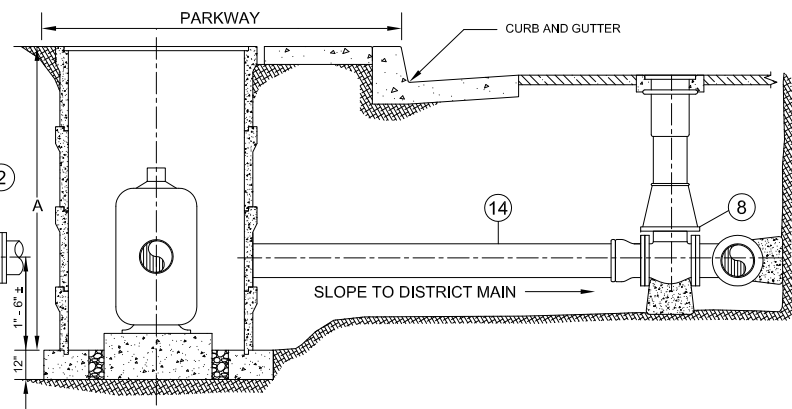
SCHEDULE - METER AND VAULT SIZES		
METER SIZE	VAULT NO. AND SIZE IN INCHES	DIM. A
3"	735 - A 33 - 1/2" x 57 - 1/2"	3' - 3" ±
4"	746 - A 45 - 1/2" x 69 - 1/2"	4' - 0" ±
6"	747 - A 45 - 1/2" x 81 - 1/2"	4' - 0" ±
8"	747 - A 45 - 1/2" x 81 - 1/2"	4' - 0" ±
10"	735 - A 57 - 1/2" x 93 - 1/2"	5' - 3" ±

3" 4" 6" 8" 10" WATER SERVICES

PLAN



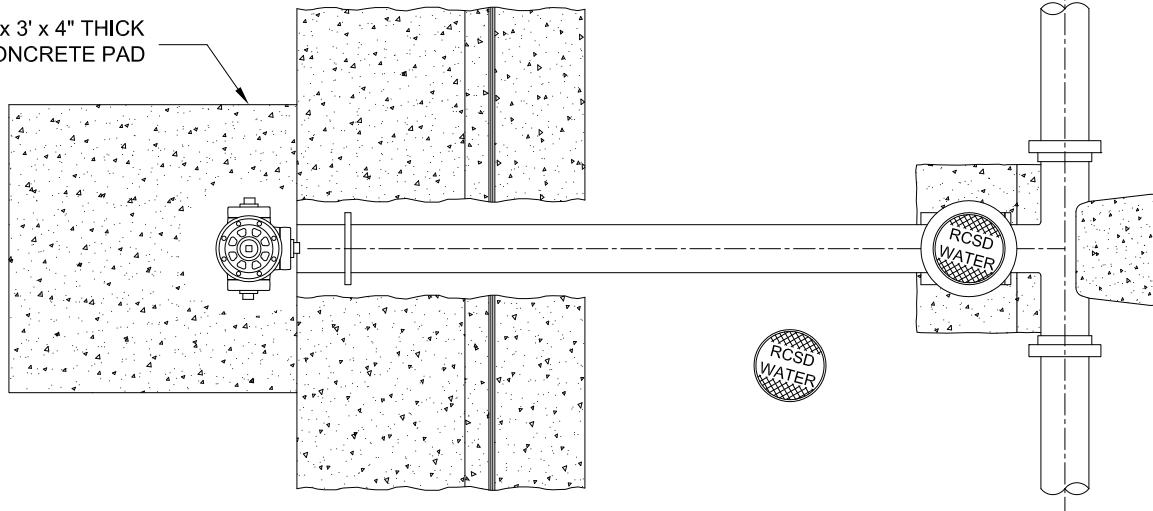
SECTION A



SECTION B

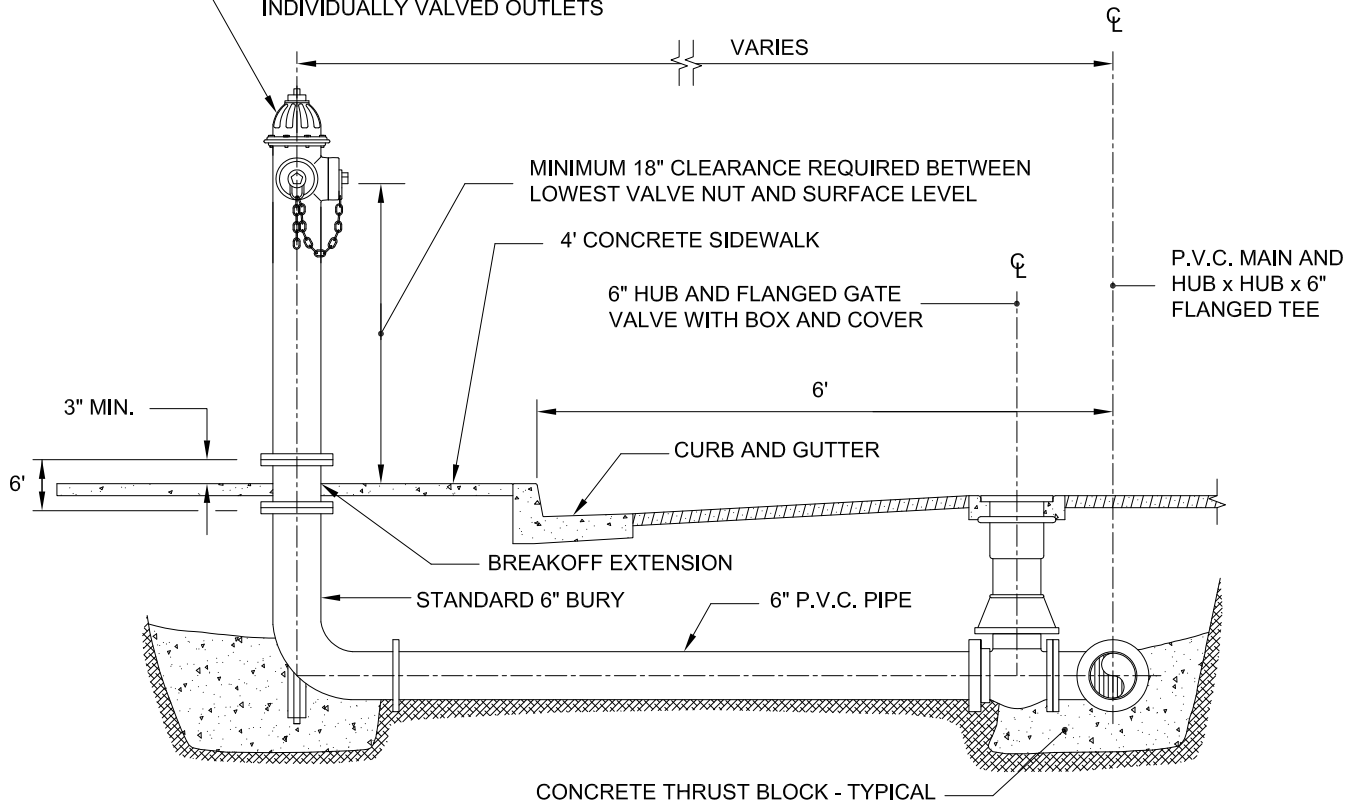
- ITEM DESCRIPTION**
- ① COMPOUND METER, ROCKWELL OR APPROVED EQUAL.
 - ② SCHEDULE 40 STEEL TEE TRIPLE FLANGED
 - ③ GROOVED COUPLING ADAPTER, VICTAULIC STYLE 77 OR EQUAL.
 - ④ SCHEDULE 40 STEEL PIPE, SINGLE FLANGED WITH PLAIN END - 12" LONG MINIMUM.
 - ⑤ SCHEDULE 40 STEEL PIPE FLANGED AT BOTH ENDS.
 - ⑥ PRECAST CONCRETE VAULT - GALVANIZED COVER WITH 7" x 14" READING LID - BROOKS PRODUCTS OR APPROVED EQUAL.
 - ⑦ GATE VALVE - FLANGED, 3" DIAMETER, FOR 4" THROUGH 10" SERVICES USE FLANGED BUTTERFLY VALVES.
 - ⑧ GATE VALVE - FLANGED, WITH VALVE BOX.
 - ⑨ SCHEDULE 40 STEEL 90° BEND, FLANGED AT BOTH ENDS.
 - ⑩ ADAPTER - FLANGED WITH RING TIGHT.
 - ⑪ CAST IRON TEE WITH FLANGED OUTLET.
 - ⑫ CLASS 'A' CONCRETE SUPPORTS.
 - ⑬ CLASS II AGGREGATE BASE - 12" MINIMUM THICKNESS.
 - ⑭ POLYVINYL CHLORIDE PIPE - CLASS 150 FOR 4" THROUGH 10" DIAMETER SERVICES. USE SCHEDULE 40 FLANGED STEEL PIPE FOR 3" DIAMETER SERVICE.
- NOTE :** ALL STEEL PIPE SHALL BE FUSION EPOXY LINED AND COATED - 100% SOLID THERMOSETTING, APPLIED BY FLUIDIZED BED METHOD.
- ⑮ ADJUSTABLE PIPE SUPPORT GRINNEL OR APPROVED EQUAL.

3' x 3' x 4" THICK
CONCRETE PAD



PLAN

FIRE HYDRANT
COUNTY - MUELLER A-421A OR
CLOW 850 (WET BARREL ONLY)
OR EQUAL, 1 - 4 1/2" AND 2 - 2 1/2"
INDIVIDUALLY VALVED OUTLETS



ELEVATION

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

FIRE HYDRANT ASSEMBLY

SHEET NO.
W-6

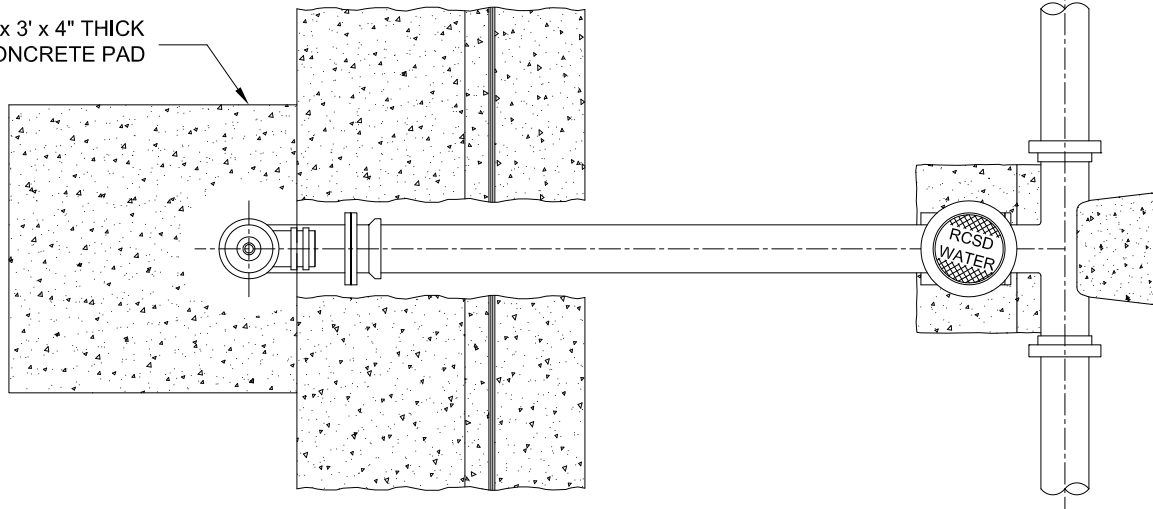
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REVISION NO.:002-0308B

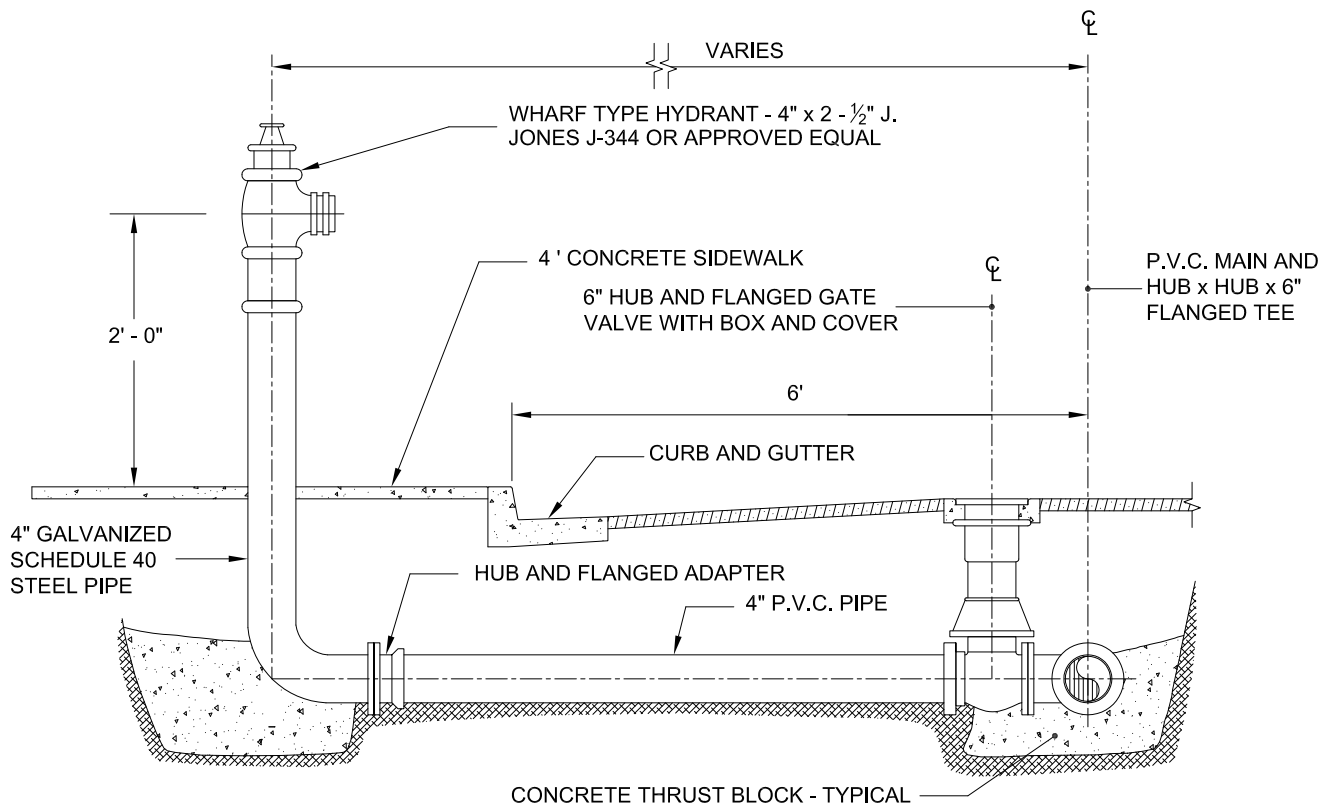
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3' x 3' x 4" THICK
CONCRETE PAD



PLAN



ELEVATION

NOTE : WRAP GALVANIZED RISER BELOW GROUND WITH 2 LAYERS OF 8 MIL THICK POLYKEN OR APPROVED EQUAL.

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
W-7

WHARF TYPE HYDRANT ASSEMBLY

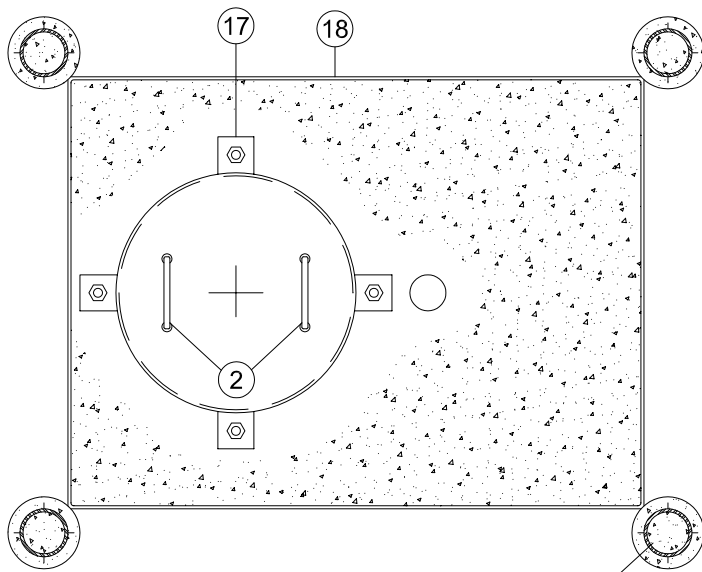
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11/07

R.C.S.D. ENGINEERING DEPARTMENT

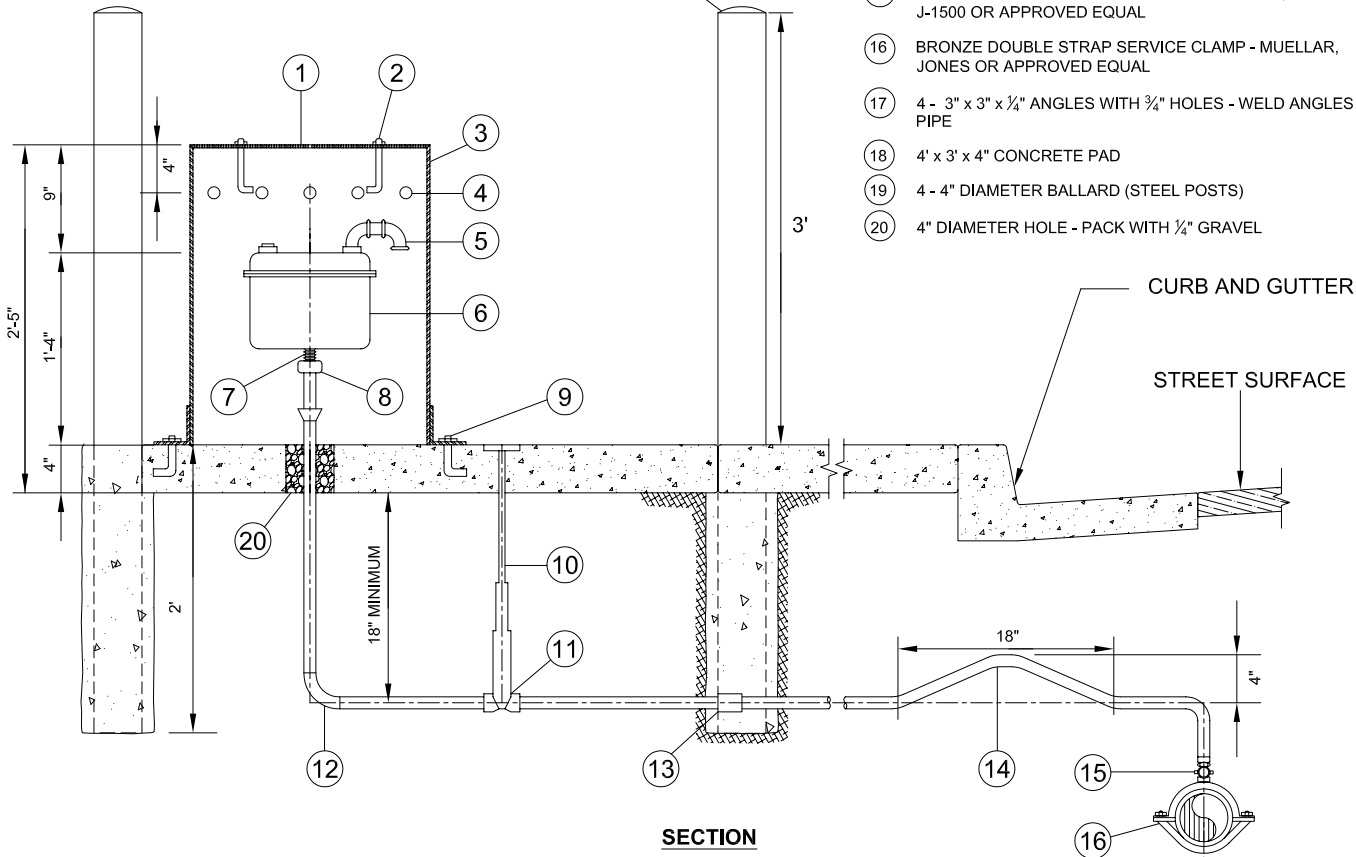
REVISION NO.:002-0308B

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PLAN



SECTION

- | ITEM | DESCRIPTION |
|------|--|
| 1 | 20" DIAMETER, 10 GAUGE (1/4" THICK), SOLID STEEL PLATE - GALVANIZED |
| 2 | 2 - 1/2" x 6" x 4" DROP HANDLES - GALVANIZED |
| 3 | 20" DIAMETER, 10 GAUGE, STEEL PIPE - GALVANIZED |
| 4 | 3 ROWS OF 1" DIAMETER HOLES - 15 HOLES PER ROW |
| 5 | DISCHARGE NIPPLE - SCHEDULE 40 PIPE FITTINGS - GALVANIZED |
| 6 | 1" COMBINATION AIR RELEASE, APCO NO. 143C, OR APPROVED EQUAL |
| 7 | SHORT BRASS NIPPLE - THREADED |
| 8 | ADAPTER - COPPER TO BRASS |
| 9 | 5/8" DIAMETER ANCHOR BOLTS |
| 10 | CURB BOX - MUELLER H-10314 OR TYLER SERIES 6500 |
| 11 | CURB VALVE - MUELLER H-15204 OR JONES J-1902 |
| 12 | BRONZE QUARTER BEND - JONES J-1552 OR EQUAL |
| 13 | COUPLING - JONES J-1528 OR EQUAL |
| 14 | 1" TYPE K COPPER SERVICE PIPE |
| 15 | 1" CORPORATION STOP - MUELLER NO. H-1500, JONES J-1500 OR APPROVED EQUAL |
| 16 | BRONZE DOUBLE STRAP SERVICE CLAMP - MUELLER, JONES OR APPROVED EQUAL |
| 17 | 4 - 3" x 3" x 1/4" ANGLES WITH 3/4" HOLES - WELD ANGLES TO PIPE |
| 18 | 4' x 3' x 4" CONCRETE PAD |
| 19 | 4 - 4" DIAMETER BALLARD (STEEL POSTS) |
| 20 | 4" DIAMETER HOLE - PACK WITH 1/4" GRAVEL |

NOTE : WHERE THERE IS NO CURB AND GUTTER, INSTALL 4 - 4" DIAMETER BALLARD (STEEL POST) AT EACH CORNER OF PAD. POSTS SHALL BE EMBEDDED IN 2' OF CONCRETE AND SHALL EXTEND 3' ABOVE GROUND. SWEDGED WITH PORTLAND CEMENT CONCRETE LEAVING A ROUNDED "DOME" ON PIPE TOP. PAINT ALL BALLARDS WITH 2 (TWO) COATS OF CATERPILLAR YELLOW.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

COMBINATION AIR RELEASE VALVE ASSEMBLY

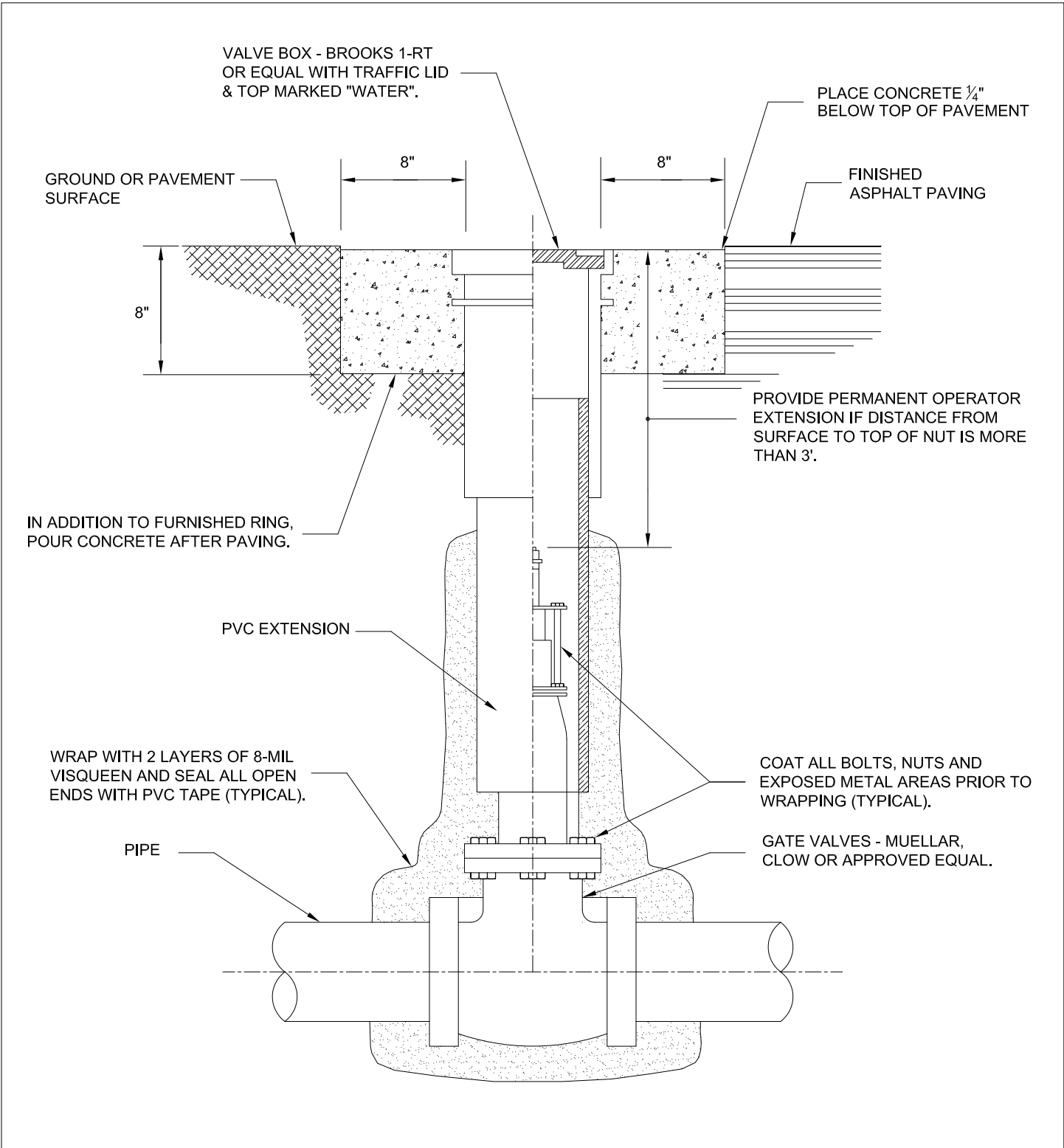
SHEET NO.
W-8

R.C.S.D. ENGINEERING DEPARTMENT

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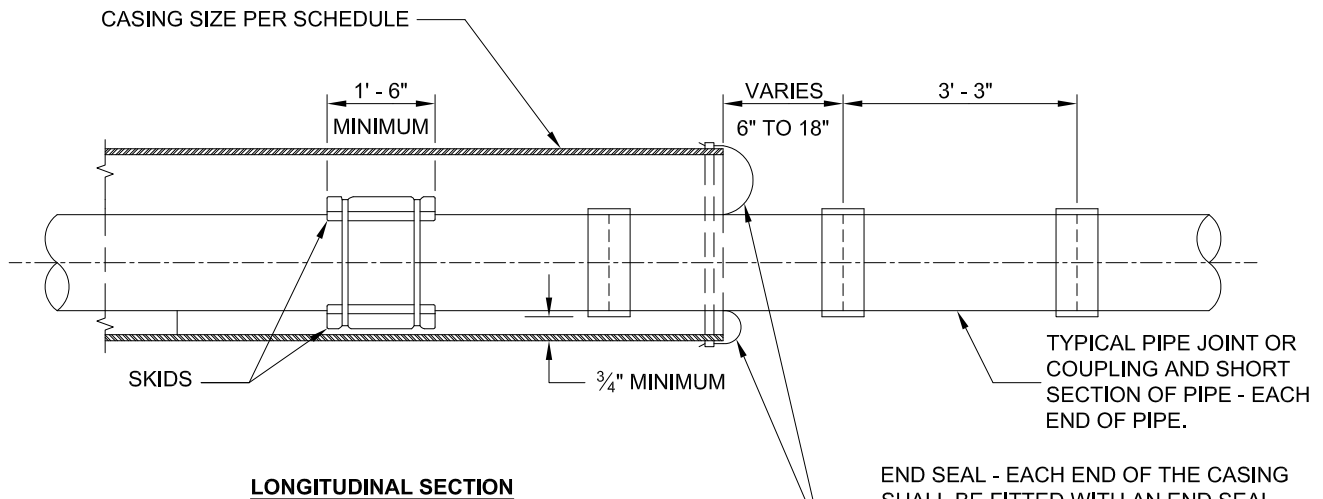
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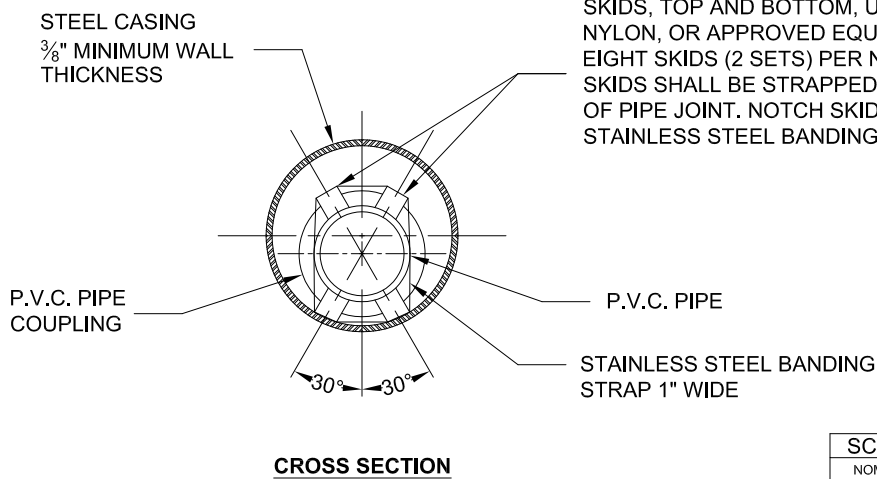
SECTION - ELEVATION

NOTE: PROVIDE ADJUSTABLE VALVE BOXES FOR ALL VALVES 4" OR LARGER.

<i>Rosamond Community Services District</i>		STANDARD SPECIFICATIONS AND DRAWING DETAILS	
SHEET NO. W-9	VALVE BOX ASSEMBLY		DATE DRAWN 11/07
R.C.S.D. ENGINEERING DEPARTMENT	REVISION NO.:002-0308B	DRAWN BY : EVAN R. CRABTREE	APPROVED BY.:



END SEAL - EACH END OF THE CASING SHALL BE FITTED WITH AN END SEAL INSTALLED AS SHOWN AND SECURELY FASTENED WITH STAINLESS STEEL CLAMPS. THE END SEAL SHALL BE A MINIMUM OF 1/8" THICK NEOPRENE.



SKIDS, TOP AND BOTTOM, UNFINISHED REDWOOD, NYLON, OR APPROVED EQUAL, BEVELED AT EACH END. EIGHT SKIDS (2 SETS) PER NOMINAL LENGTH OF PIPE. SKIDS SHALL BE STRAPPED IN PLACE 3' FROM EACH END OF PIPE JOINT. NOTCH SKID TO SEAT THE 1" WIDE STAINLESS STEEL BANDING STRAPS.

SCHEDULE - STEEL CASING FOR PIPE	
NOMINAL PIPE DIAMETER	MINIMUM CASING DIAMETER
4"	12" I.D.
6"	12" I.D.
8"	18" I.D.
10"	20" I.D.
12"	24" I.D.
16"	30" I.D.
24"	40" I.D.

NOTES :

1. CASING SHALL BE INSTALLED BY THE BORE, JACK AND/OR TUNNEL METHOD.
2. SKIDS SHALL BE PER DETAIL AND SIZED TO ALLOW INSTALLATION OF CARRIER PIPE AND PROHIBIT PIPE JOINTS FROM EXCEEDING MANUFACTURER'S RECOMMENDED JOINT DEFLECTION.
3. VOIDS AROUND CASING SHALL BE PRESSURE GROUTED, WITH A 4 TO 1 MIX OF CEMENT GROUT.
4. ALL CASING SECTIONS SHALL BE JOINED BY CONTINUOUS WELDING PROCESS.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

STEEL CASING CONDUCTOR PIPE

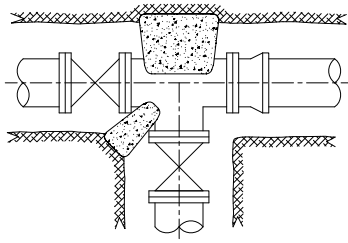
SHEET NO.
W-10

R.C.S.D. ENGINEERING DEPARTMENT

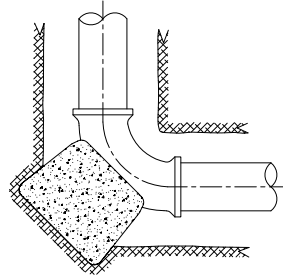
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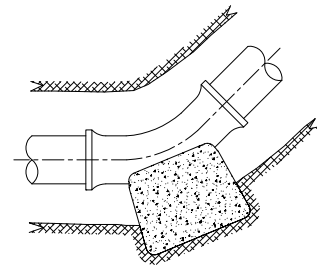
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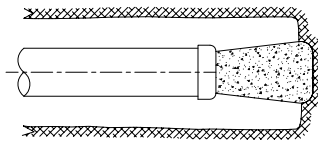
INSTALL THRUST BLOCK IF INLINE VALVE IS USED (CONDITION 6)
CONDITION 1
 (OUTLET OR FIRE HYDRANT)



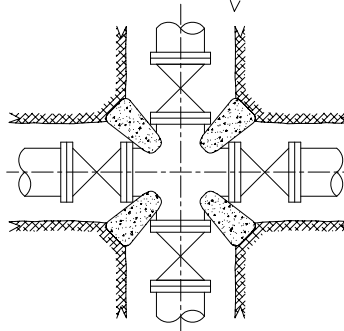
CONDITION 2
 (ANGLE = 90°)



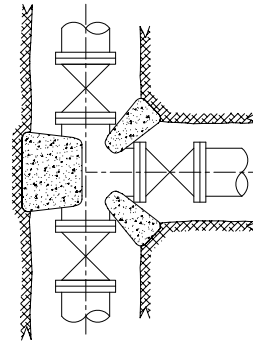
CONDITION 3
 (ANGLE = 45°)



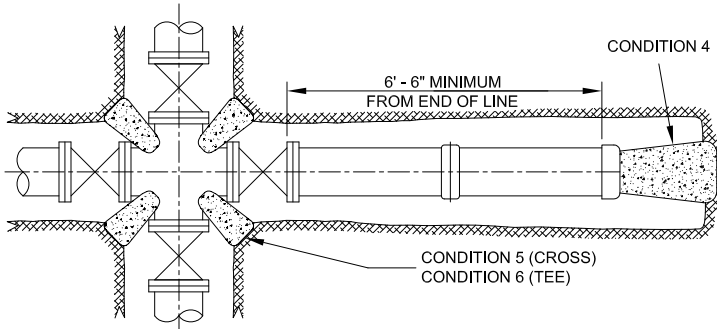
CONDITION 4
 (END CAP)



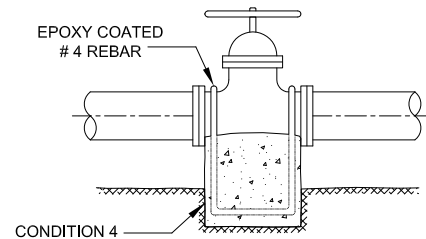
CONDITION 5
 (MAINLINE CROSS)



CONDITION 6
 (MAINLINE TEE)



CROSS OR TEE AT END OF LINE



**ANCHOR FOR INLINE
 12" VALVES OR LARGER**

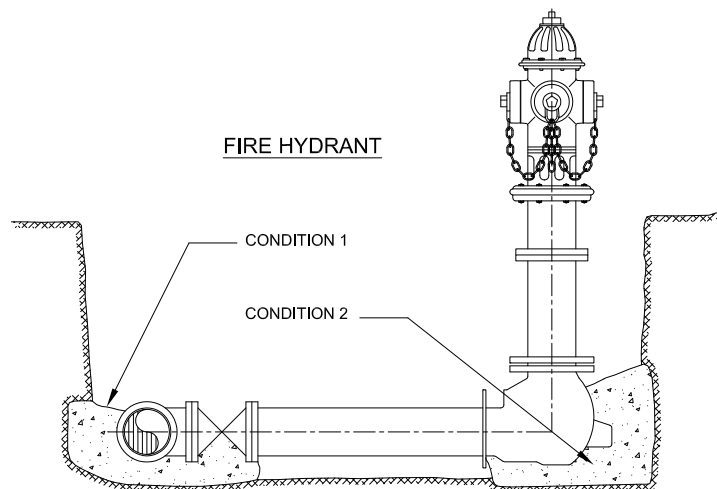
THRUST BLOCK BEARING AREA IN SQ. FT.						
PIPE SIZE	CONDITION					
	1	2	3	4	5	6
6"	5.0	7.0	4.0	5.0	3.5 EACH	3.5 EACH
8"	8.5	12.0	6.5	8.5	6.0 EACH	6.0 EACH
10"	13.0	18.5	10.0	13.0	9.0 EACH	9.0 EACH
12"	18.5	26.0	14.0	18.5	13.0 EACH	13.0 EACH

BASED ON 1500 P.S.F., 200 P.S.I. TEST PROCEDURE

NOTES :

1. SIZE THRUST BLOCK ACCORDING TO THE LARGEST OUTLET DIAMETER ON TEE OR CROSS.
2. ALL CONCRETE THRUST BLOCK BEARING FACES SHALL BE PLACED AGAINST UNDISTURBED SOIL OR APPROVED COMPACTED MATERIAL.
3. SEE SPECIFICATIONS FOR CONCRETE REQUIREMENTS.

FIRE HYDRANT



Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
W-11

TYPICAL THRUST BLOCK DETAILS

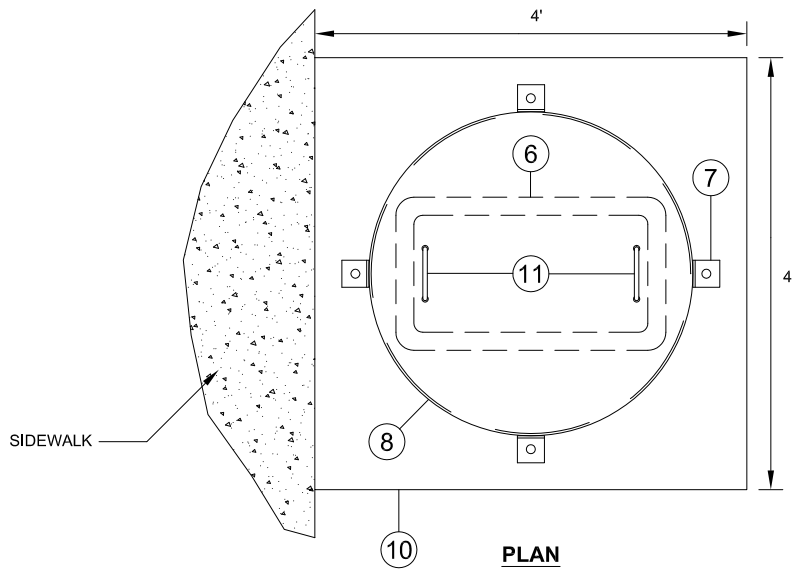
DATE DRAWN
11/07

R.C.S.D. ENGINEERING DEPARTMENT

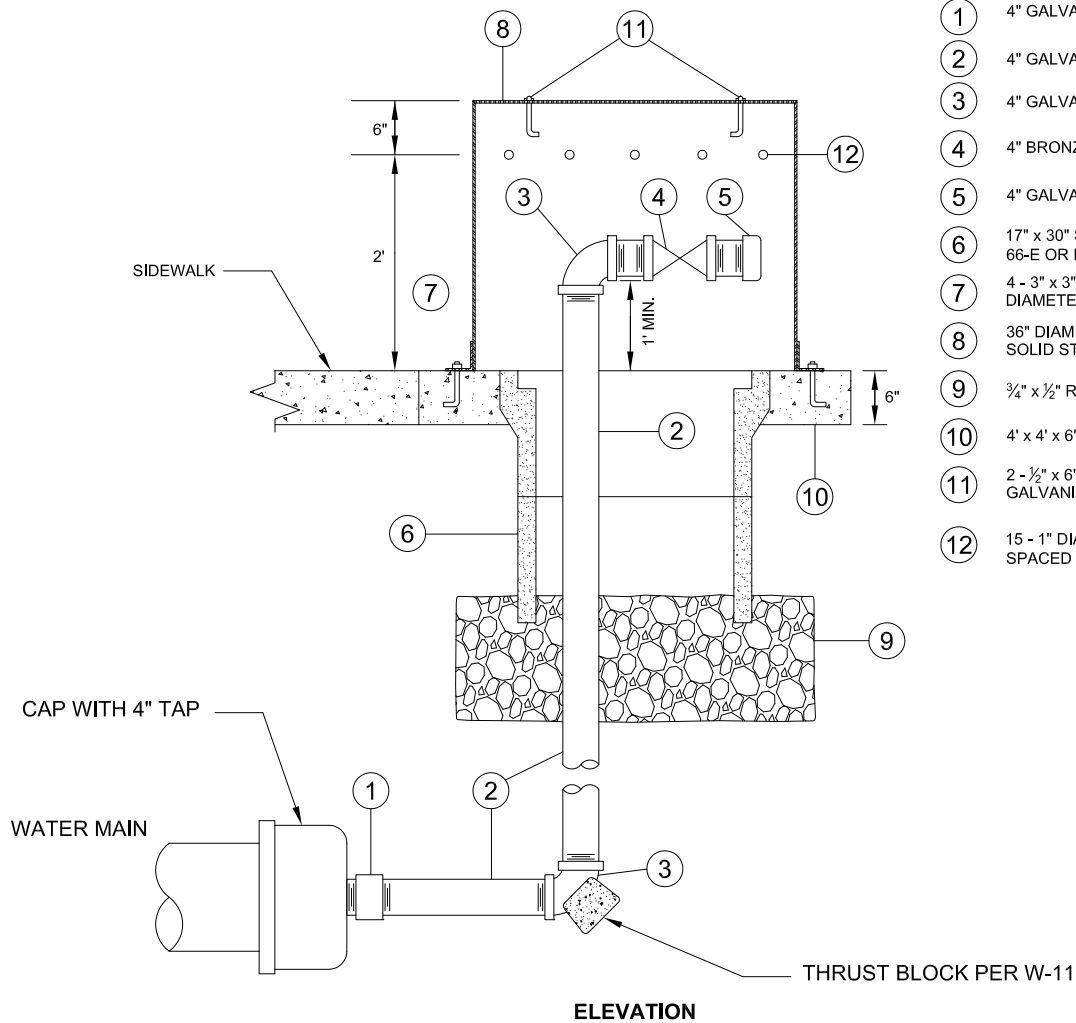
REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:



PLAN



ELEVATION

ITEM	DESCRIPTION
①	4" GALVANIZED STEEL ADAPTOR
②	4" GALVANIZED STEEL PIPE
③	4" GALVANIZED STEEL ELBOW
④	4" BRONZE GATE VALVE
⑤	4" GALVANIZED STEEL THREADED CAP
⑥	17" x 30" SERVICE BOX - BROOKS SERIES 66-E OR EQUAL, NO TOP REQUIRED
⑦	4 - 3" x 3" x 1/4" ANGLES WITH 5/8" DIAMETER ANCHOR BOLTS
⑧	36" DIAMETER, 10 GAUGE (1/4" THICK), SOLID STEEL PLATE - GALVANIZED
⑨	3/4" x 1/2" ROCK BASE
⑩	4' x 4' x 6" CONCRETE PAD
⑪	2 - 1/2" x 6" x 4" DROP HANDLES - GALVANIZED
⑫	15 - 1" DIAMETER HOLES, EQUALLY SPACED

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

4 INCH BLOWOFF ASSEMBLY

SHEET NO.
W-12

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:

SEWER NOTES

1. THE SEWER FACILITIES TO BE DEDICATED TO THE R.C.S.D. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE R.C.S.D.
2. THE R.C.S.D. ENGINEERING DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. TELEPHONE (661) 256-3411.
3. THE CONSTRUCTION PLANS MUST BE APPROVED BY THE R.C.S.D. PRIOR TO THE START OF ANY SEWER CONSTRUCTION. TWO (2) SETS OF APPROVED PLANS AND A COMPLETE ELECTRONIC COPY (AUTOCAD DWG FORMAT) OF SAID PLANS SHALL BE FURNISHED TO THE R.C.S.D. PRIOR TO DISTRICT APPROVAL. THE PLANS MUST BE SIGNED BY A CALIFORNIA REGISTERED ENGINEER.
4. PRIOR TO ACCEPTANCE OF THE SEWER FACILITIES, ALL NECESSARY EASEMENT DOCUMENTS SHALL BE PROPERLY EXECUTED AND RECORDED. THREE (3) COPIES EACH OF THE RECORDED DOCUMENTS SHALL BE FURNISHED TO THE R.C.S.D.
5. THE MANHOLE FRAME AND COVER AND CONCRETE SUPPORT FOR MANHOLES SHALL BE RAISED AND CONSTRUCTED TO FINISHED PAVED GRADE AFTER THE PAVING OPERATION IS COMPLETED. THE RING SECTION SHALL NOT BE MORE THAN 24" FROM THE CONE. THE COMPLETE SEWER SYSTEM SHALL BE COMPLETELY CLEAN PRIOR TO ACCEPTANCE.
6. ASPHALTIC MASTIC OR PORTLAND CEMENT MORTOR SHALL BE PLACED BETWEEN CONE RINGS (MASTIC PREFERRED). FILL ALL HORIZONTAL RING JOINTS WITH MORTOR TO MAKE JOINTS FINAL SURFACES FLUSH WITH INTERIOR RING WALLS (SURFACES).
7. ALL NEW MANHOLE COVERS SHALL BE EQUIPPED WITH DISH INSERTS, ULTRA HIGH DENSITY POLYETHYLENE COPOLYMER MATERIAL THAT MEETS ASTM SPECIFICATION D1248, CLASS A, CATEGORY 5, TYPE III. THICKNESS SHALL BE A UNIFORM 1/8" OR GREATER.
8. THE SEWER SYSTEM, INCLUDING LATERALS, SHALL BE HYDROSTATIC WATER OR AIR TESTED, AND VIDEO CAMERA TESTED, AFTER ALL UNDERGROUND UTILITIES ARE CONSTRUCTED, AND PRIOR TO PLACING STREET PAVEMENT.
9. ALL SEWER LINES SHALL BE VIDEO CAMERA INSPECTED BY THE R.C.S.D. PRIOR TO ACTIVATING WATER SERVICES, REGARDLESS OF KERN COUNTY INSPECTORS' FINAL APPROVAL.
10. WORK IN THE STATE OF CALIFORNIA OR THE COUNTY OF KERN RIGHTS-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE APPROPRIATE ENCROACHMENT PERMITS.
11. EXISTING SEWER LOCATION AND FLOW LINE SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE START OF CONSTRUCTION. THE DISTRICT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
12. ONE (1) COMPLETE SET OF DRAWINGS (CHRONOFLEXES OR MYLAR) AND ONE (1) COMPLETE ELECTRONIC SET (AUTOCAD DWG FORMAT) OF DRAWINGS SHALL BE FURNISHED TO THE DISTRICT ON COMPLETION OF CONSTRUCTION.
13. TRENCHING MATERIAL TO BE COMPACTED TO 90%. TRENCHING MATERIAL TO BE COMPACTED TO 95% UNDER SURFACE GRADE.

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.

S-1

STANDARD SEWER NOTES

DATE DRAWN

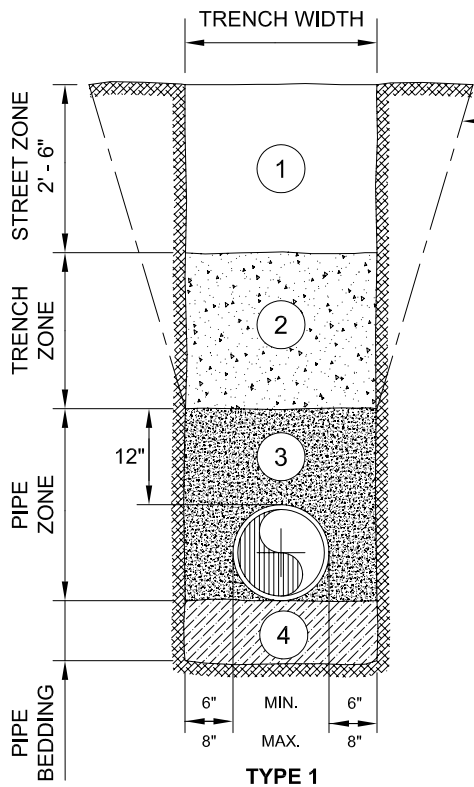
11/07

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

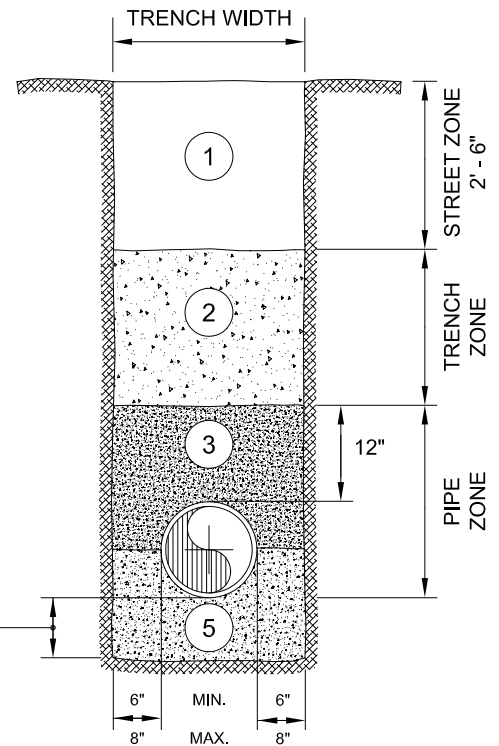
APPROVED BY.:



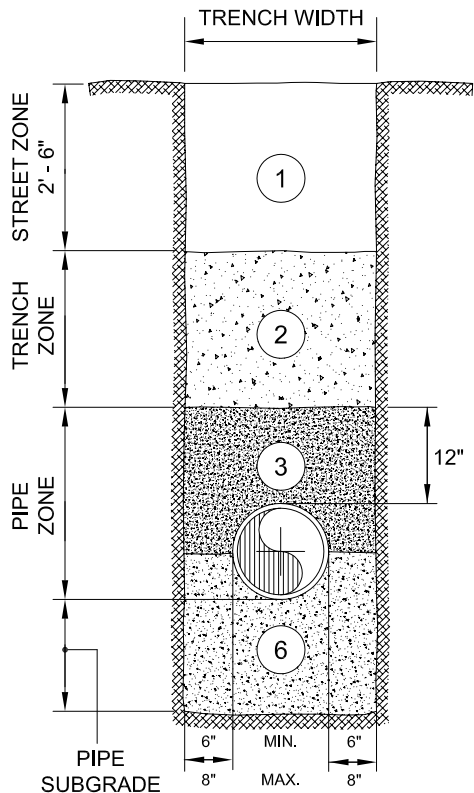
TYPE 1

EXCAVATION LINE AT CONTRACTOR'S OPTION

6" MINIMUM PIPE BEDDING



**TYPE 2
ROCKY OR OVER-EXCAVATED**



**TYPE 3
UNSUITABLE MATERIALS IN SUBGRADE**

- ① BACKFILL COMPACTED TO 90% RELATIVE COMPACTION, 95% WHEN UNDER ROAD
- ② BACKFILL COMPACTED TO 90% RELATIVE COMPACTION
- ③ SELECT MATERIAL OR SAND COMPACTED TO 90% RELATIVE COMPACTION ($\frac{3}{4}$ " MAXIMUM GRADATION)
- ④ 3" TO 6" NATIVE MATERIAL WITH $\frac{3}{4}$ " MAXIMUM GRADATION OR SAND WHERE REQUIRED BY INSPECTOR OR ENGINEER
- ⑤ SAND COMPACTED TO 85% RELATIVE COMPACTION
- ⑥ SAND OR AGGREGATE COMPACTED TO 85% RELATIVE COMPACTION AND TO DEPTH SPECIFIED BY INSPECTOR OR ENGINEER

NOTES :

1. SAND AND SELECT MATERIAL SHALL BE PER STANDARD SPECIFICATIONS FOR EARTHWORK.
2. SEE STANDARD SPECIFICATIONS FOR EARTHWORK IF TRENCH WIDTH EXCEEDS THE MAXIMUM SHOWN IN THIS DRAWING.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

SEWER PIPE BEDDING AND BACKFILL DETAILS

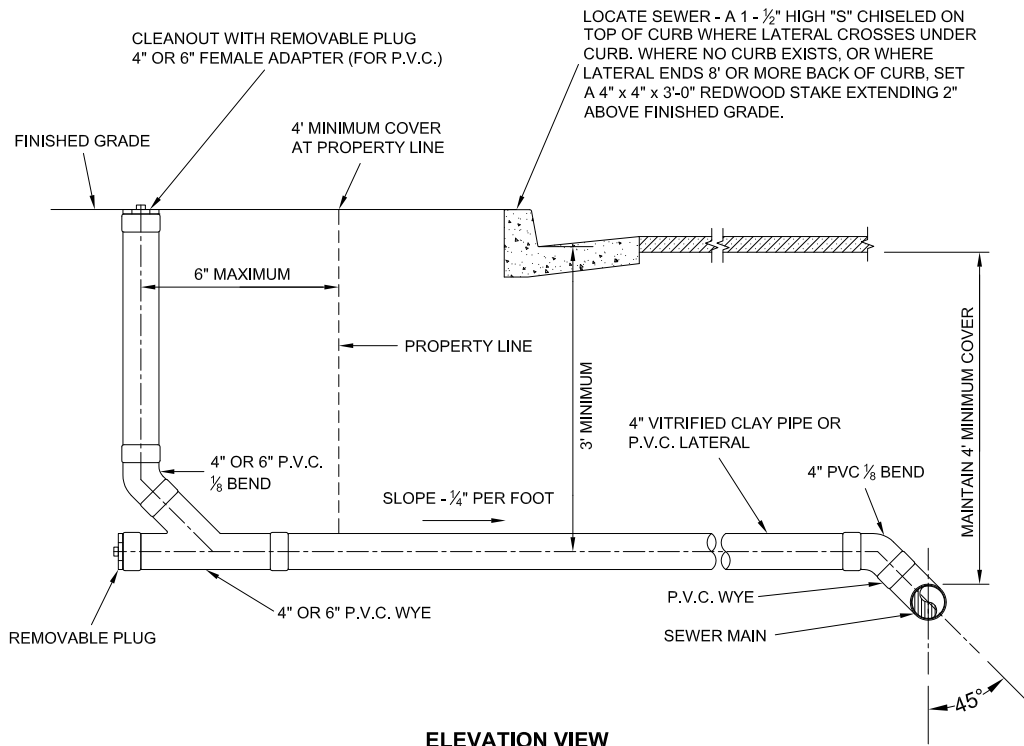
SHEET NO.
S-2

R.C.S.D. ENGINEERING DEPARTMENT

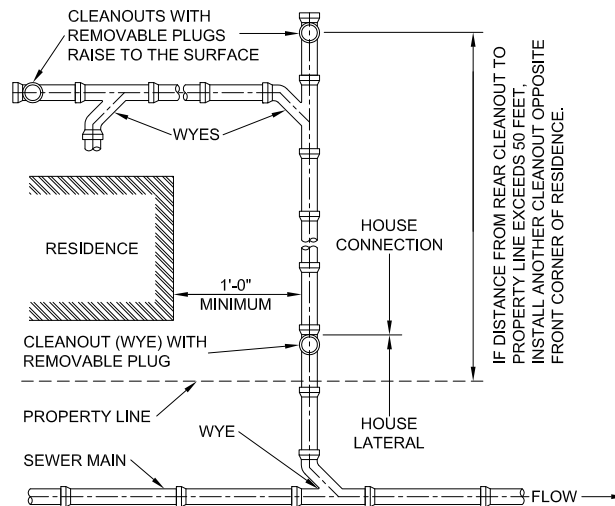
REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:



ELEVATION VIEW



PLAN VIEW

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
S-3

TYPICAL SEWER LATERAL AND HOUSE CONNECTION

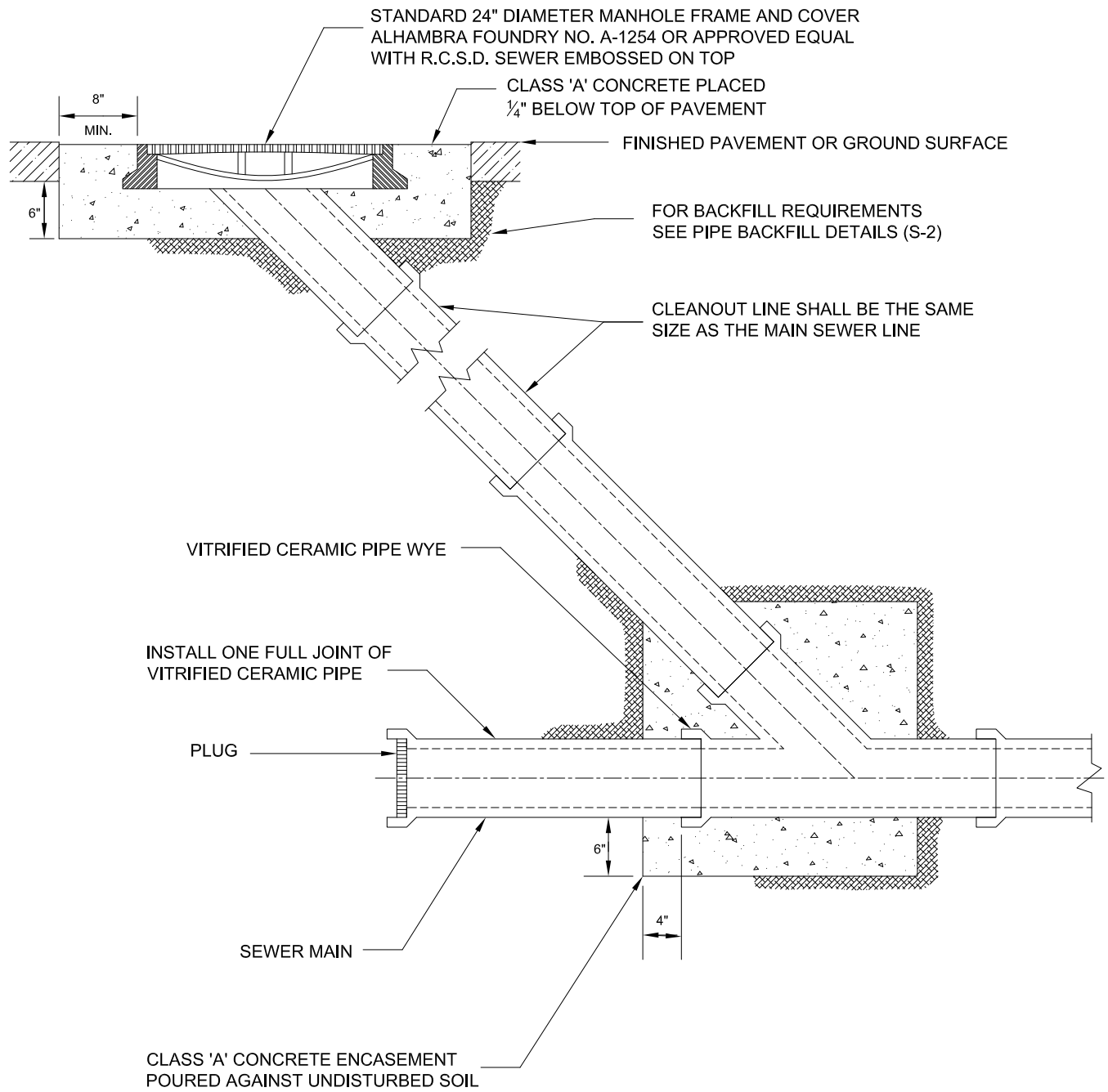
DATE DRAWN
11/07

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

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APPROVED BY.:



SECTION

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

STANDARD CLEANOUT

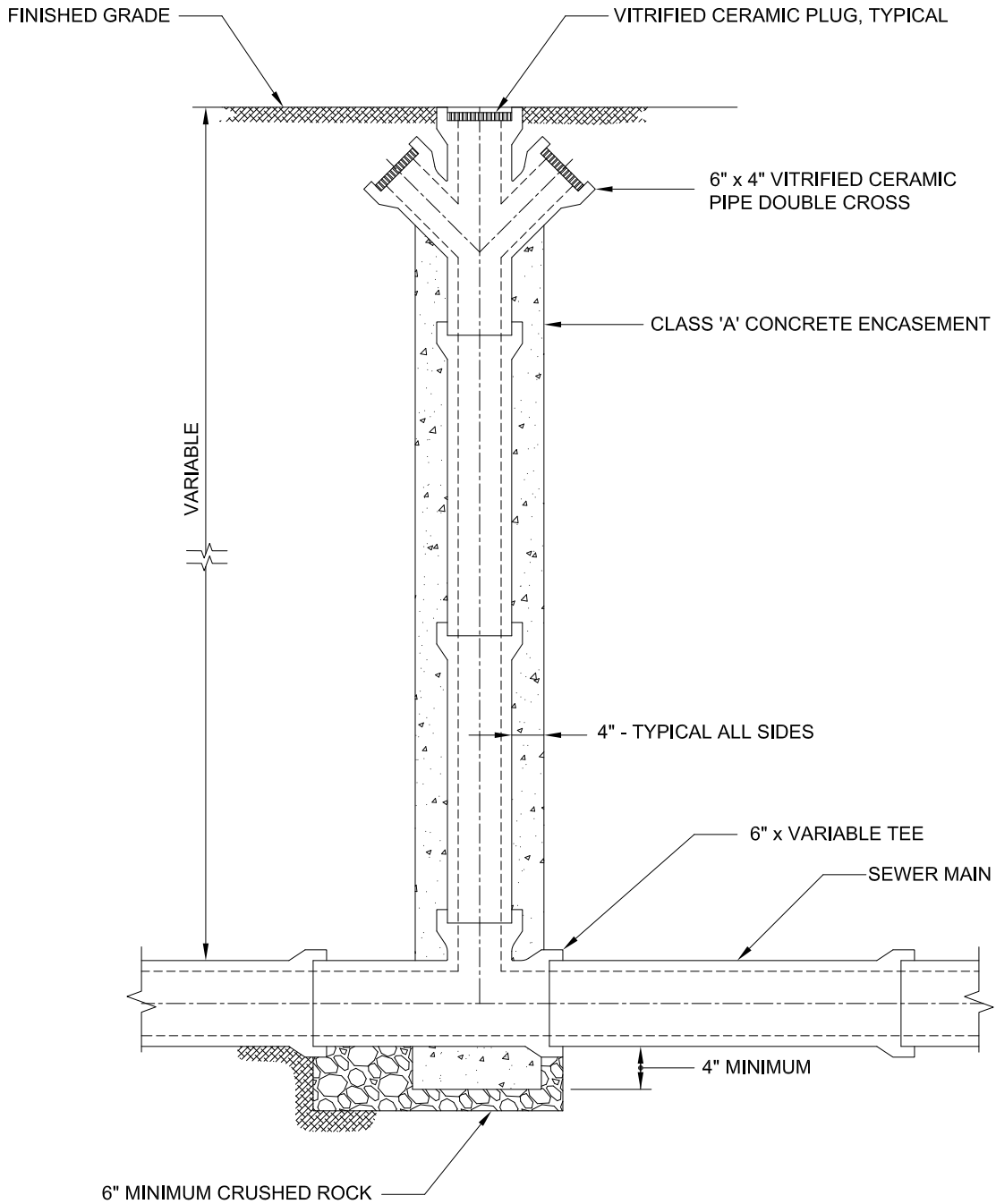
SHEET NO.
S-4

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

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SECTION

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
S-5

STANDARD CHIMNEY

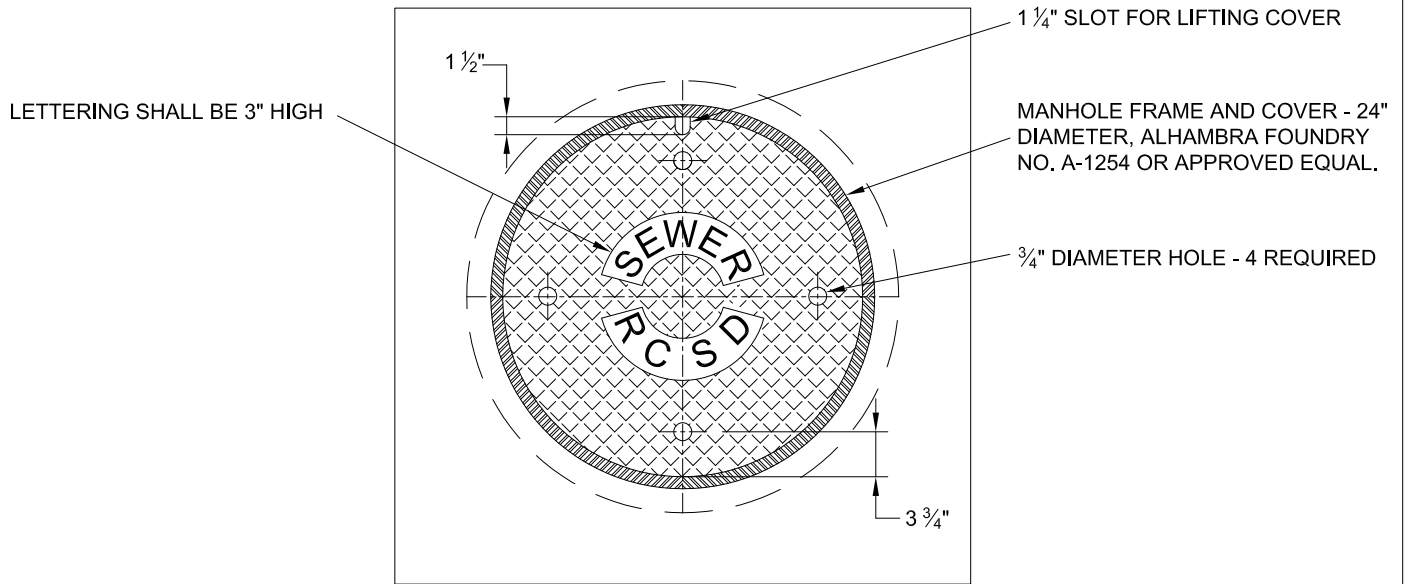
DATE DRAWN
11/07

R.C.S.D. ENGINEERING DEPARTMENT

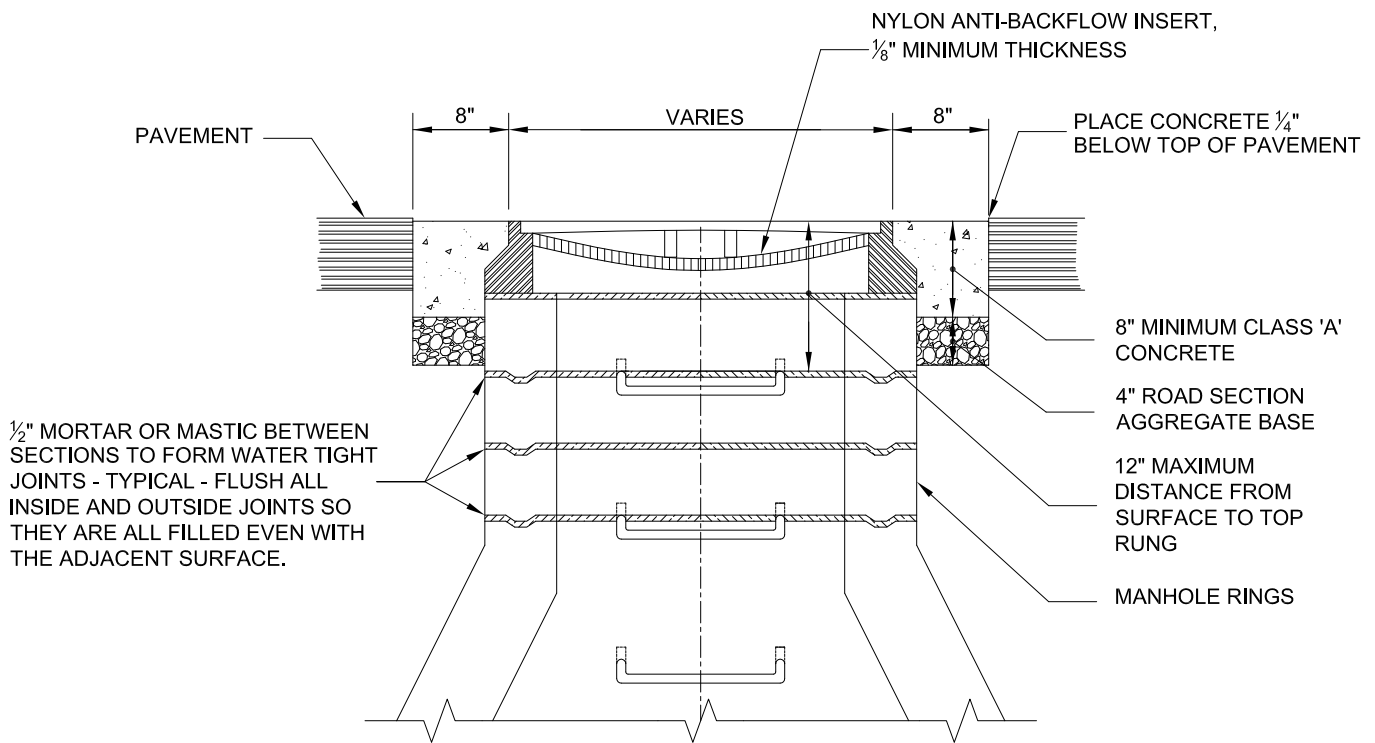
REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:



PLAN



SECTION

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

MANHOLE FRAME AND COVER

SHEET NO.
S-6

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

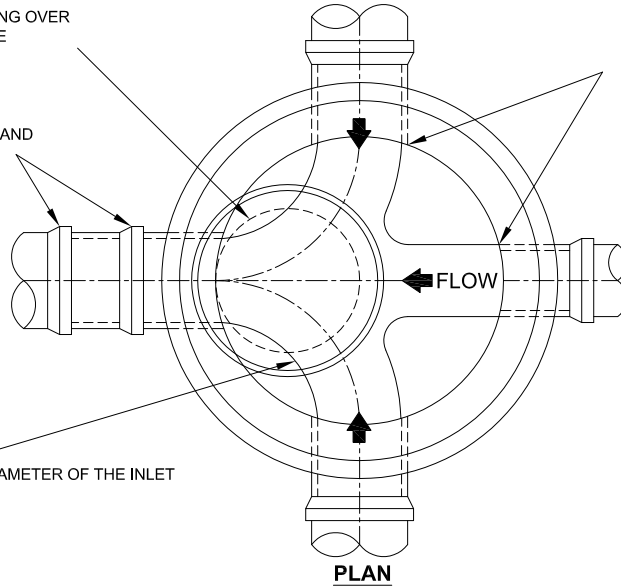
APPROVED BY.:

LOCATE MANHOLE SHAFT OPENING OVER
DOWNSTREAM SIDE OF MANHOLE

BREAK PIPE FLUSH WITH THE INSIDE OF
THE MANHOLE WALL. UNEVEN EDGES SHALL BE
PLASTERED SMOOTH WITH CEMENT MORTAR.

2 - 12" LONG PIPE JOINTS AT INLETS AND
OUTLETS

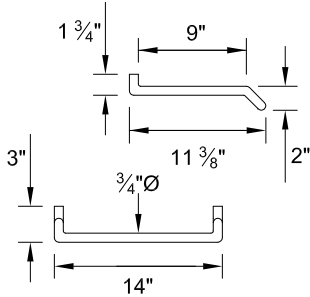
RADIUS EQUALS 2 TIMES THE DIAMETER OF THE INLET



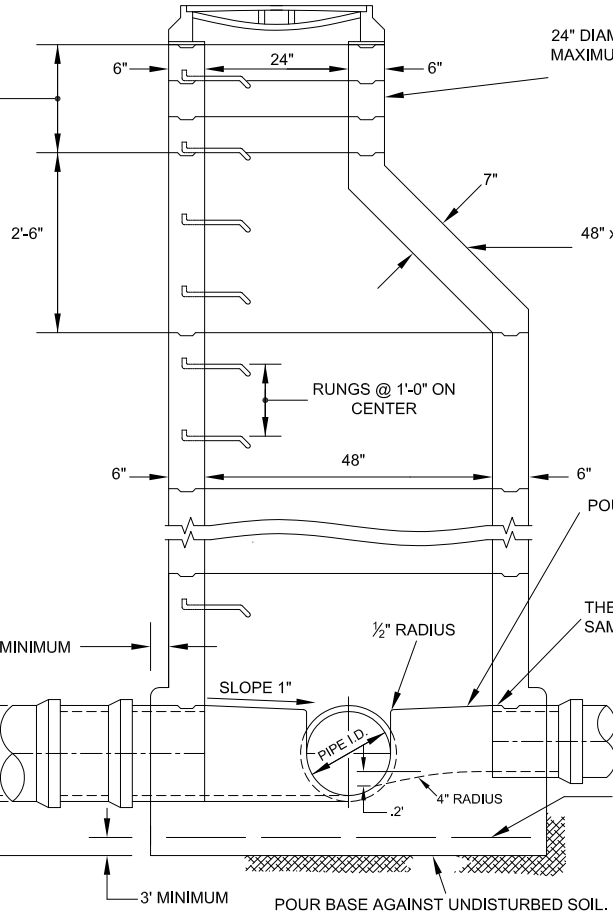
PLAN

12" MINIMUM
18" MAXIMUM

24" DIAMETER COLLAR SECTIONS AS NEEDED.
MAXIMUM HEIGHT 6" PER SECTION.



RUNG



SECTION

NOTES:

1. MANHOLE RINGS, CONES AND SECTIONS SHALL BE AS MANUFACTURED BY ASSOCIATED CONCRETE PRODUCTS OR APPROVED EQUAL..
2. MORTOR SHALL BE: 1 PART CEMENT TO 4 PARTS SAND.
3. STUBOUTS SHALL BE 4'.

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
S-7

48" INTERNAL DIAMETER STANDARD MANHOLE

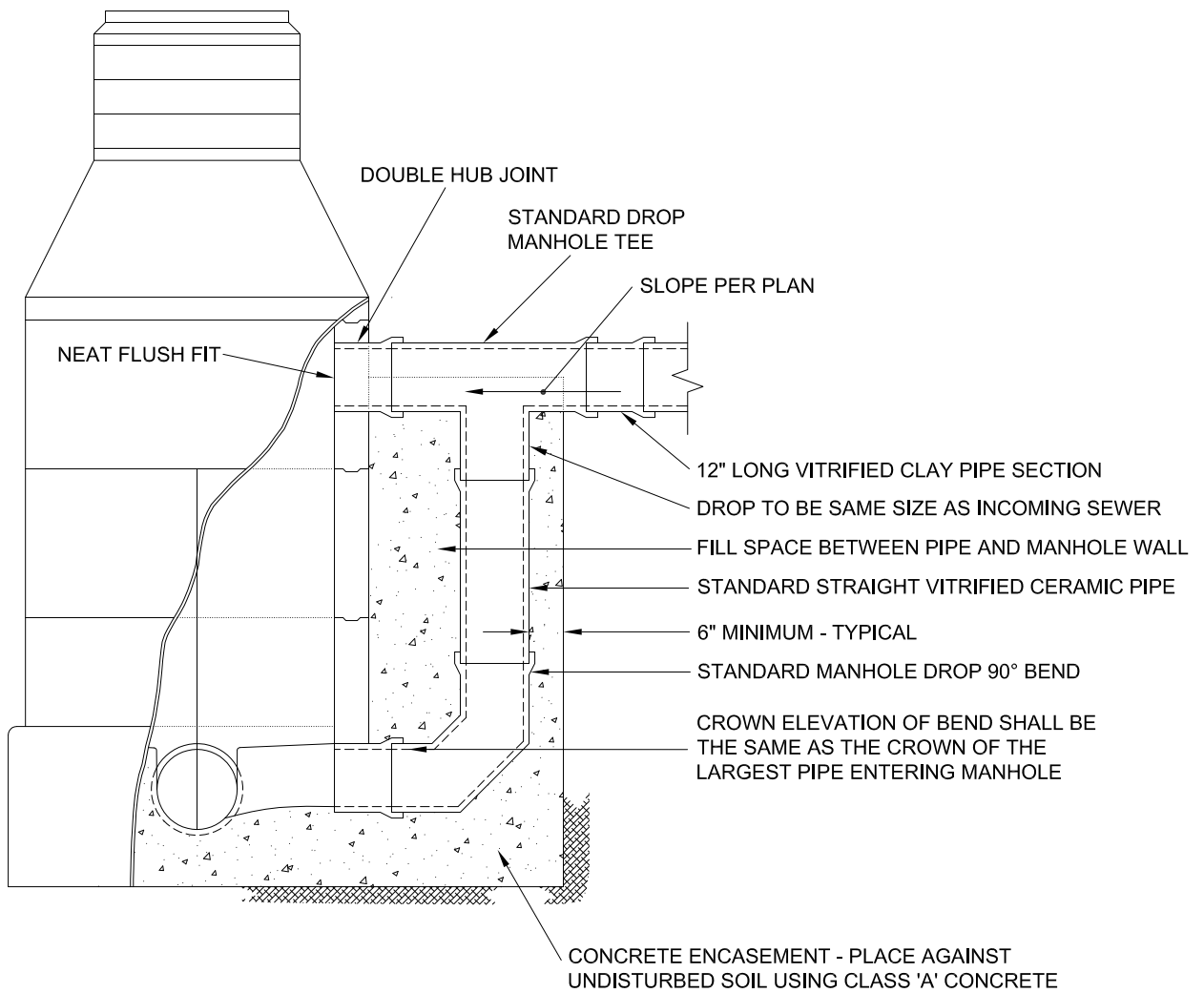
DATE DRAWN
11/07

R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:



SECTION

NOTES:

1. DROP CONNECTION SHALL BE USED IF THE DIFFERENCE IN ELEVATION BETWEEN THE MAIN AND INTERSECTING PIPE IS GREATER THAN 2'-6".
2. THE DROP TYPE MANHOLE IS THE SAME AS THE STANDARD MANHOLE EXCEPT FOR THE DROP TYPE CONNECTION.
3. THE DROP SECTION MAY BE INSTALLED INSIDE THE MANHOLE WHERE PERMITTED BY THE DISTRICT OR THE COUNTY.

STANDARD SPECIFICATIONS AND DRAWING DETAILS

Rosamond Community Services District

DATE DRAWN
11/07

MANHOLE - DROP INLET

SHEET NO.
S-8

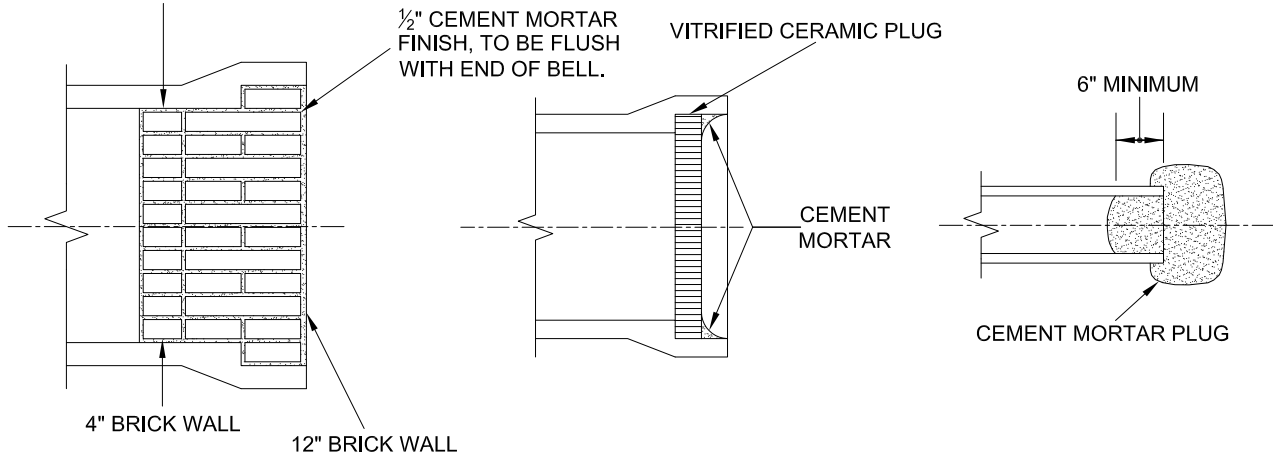
R.C.S.D. ENGINEERING DEPARTMENT

REVISION NO.:002-0308B

DRAWN BY : EVAN R. CRABTREE

APPROVED BY.:

INTERIOR 4" COURSE NOT BONDED TO REMAINDER OF WALL. ALL BRICK SET IN CEMENT MORTAR. RAKE OUT 1/2" OF JOINTS ON INTERIOR FACE OF 4" WALL AND FILL WITH CAULKING MATERIALS.

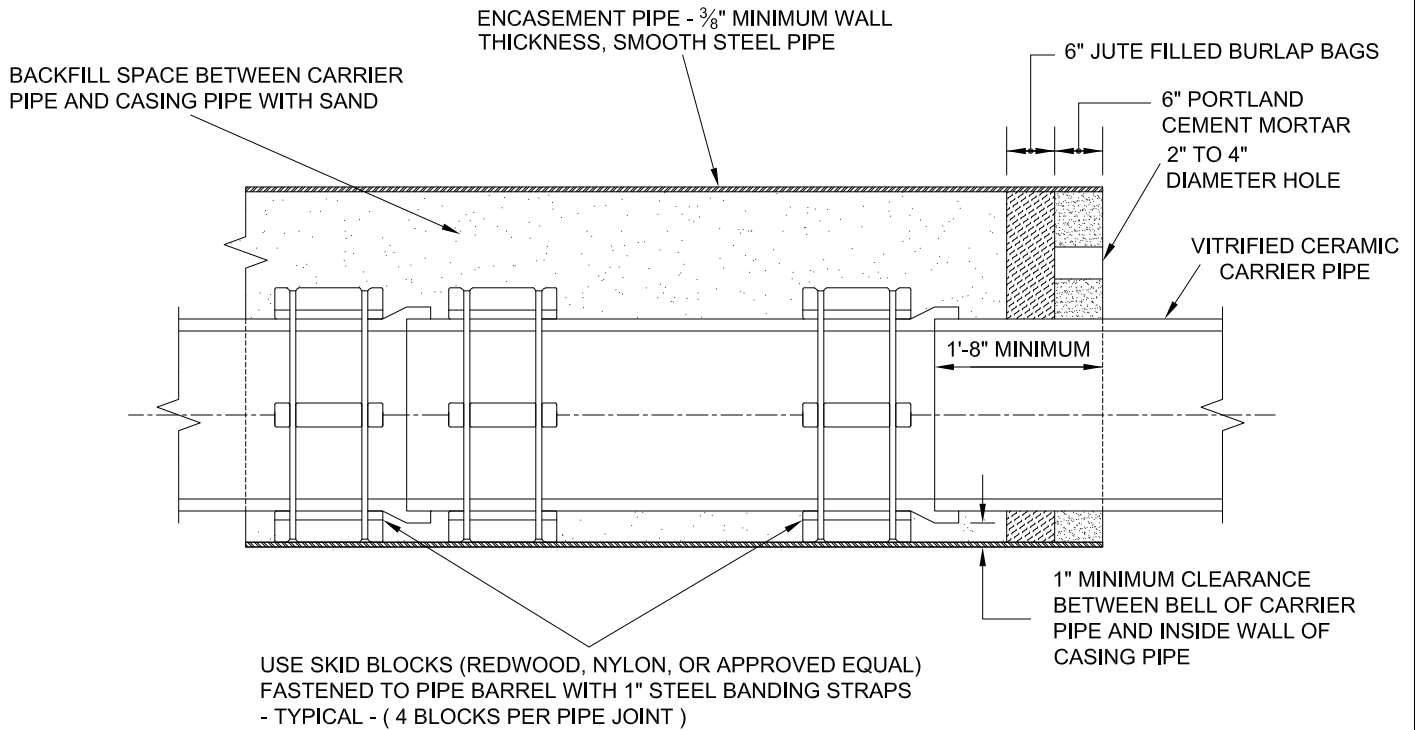


FOR 24" I.D. PIPE OR LARGER

FOR 12" I.D. PIPE OR LARGER

DEAD LINE PLUG

STANDARD PLUGS FOR UNCONNECTED PIPES



TYPICAL PIPE ENCASEMENT

Rosamond Community Services District

STANDARD SPECIFICATIONS AND DRAWING DETAILS

SHEET NO.
S-9

STEEL CASING FOR SEWER PIPE

DATE DRAWN
11/07

R.C.S.D. ENGINEERING DEPARTMENT

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DRAWN BY : EVAN R. CRABTREE

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