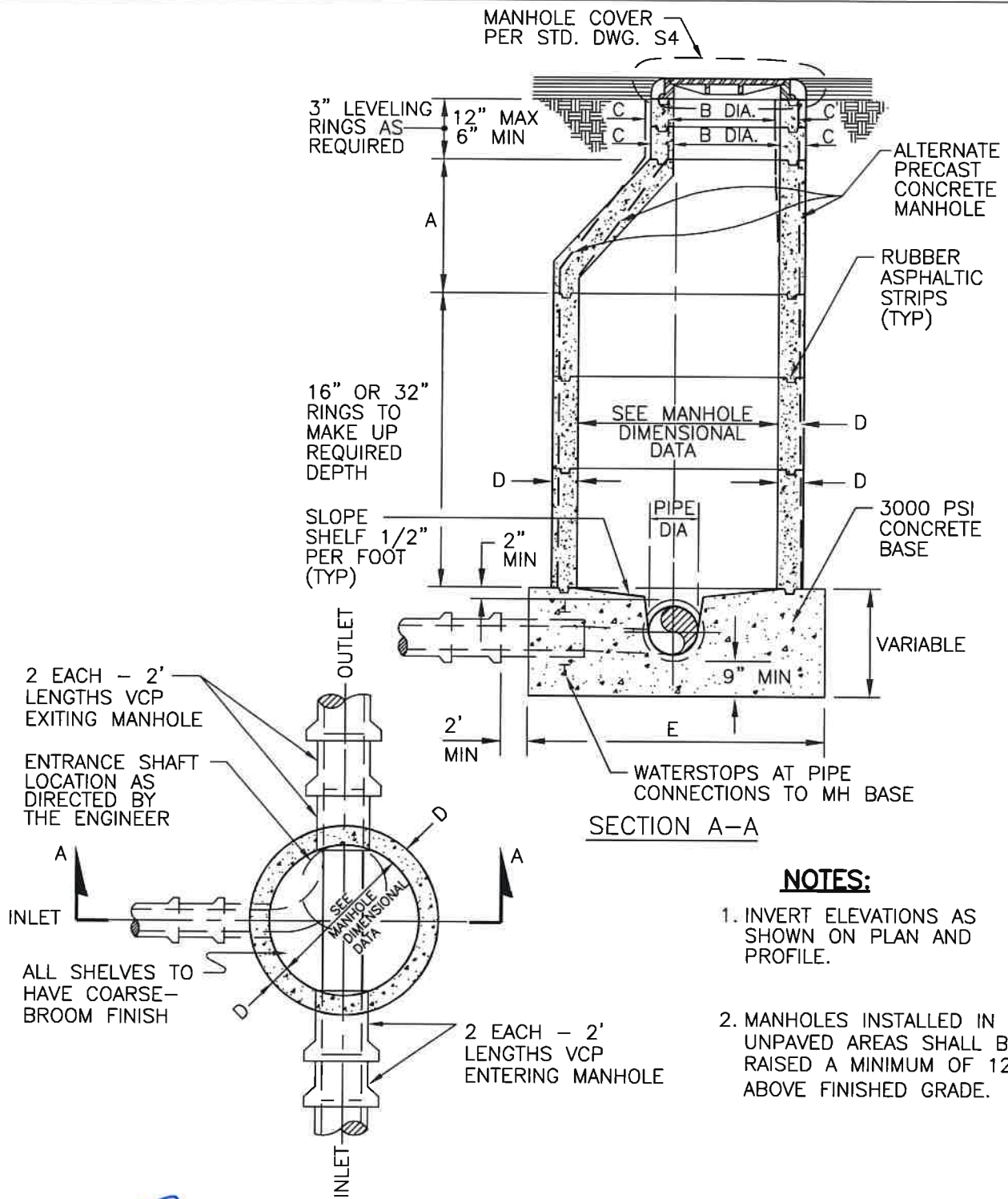


Current List of Standard Wastewater Details

Standard #	Standard Title	Approval Date
S1	Standard 48" Manhole – Main 15" Diameter or Less (2 Pages)	8/28/17
S2	Manhole 5 FT by 3 FT – 18" Diameter or Larger (2 Pages)	8/28/17
S3	Drop Manhole	8/28/17
S4	Manhole Cover	8/28/17
S5	House Lateral Connection (2 Pages)	8/28/17
S6	Sewer Lateral Cleanout	8/28/17
S7	Sewer Main Cleanout Access	9/18/17
S8	4" Backwater Device (Laterals 2' or Deeper)	9/18/17
S9	4" Backwater Device (Shallow Laterals)	9/18/17
S10	Pipe Bedding and Trench Backfill (2 Pages)	8/28/17



NOTES:

1. INVERT ELEVATIONS AS SHOWN ON PLAN AND PROFILE.
2. MANHOLES INSTALLED IN UNPAVED AREAS SHALL BE RAISED A MINIMUM OF 12" ABOVE FINISHED GRADE.


RENE GUERRERO, CITY ENGINEER RCE NO. 66263	9/29/17 DATE	CITY OF POMONA PUBLIC WORKS DEPARTMENT	
		STANDARD 48" MANHOLE MAIN 15" DIAMETER OR LESS	
		DRAWN BY: DC CHECKED BY: NB, IL APPROVED BY: DP	STANDARD
△	REVISIONS	DATE	INITIAL
		S1 1 OF 2	

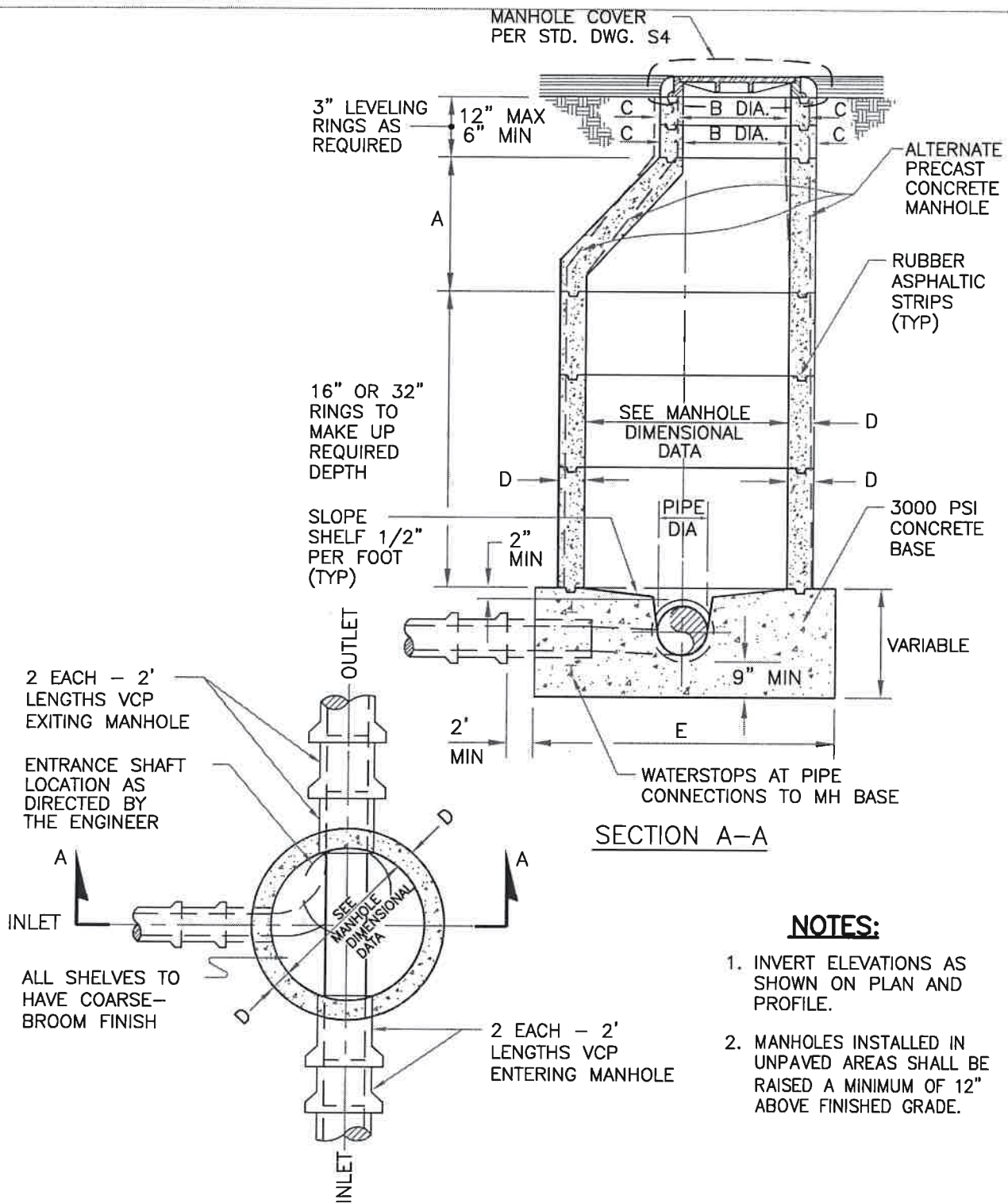
MANHOLE DIMENSIONAL DATA							
MANHOLE DIAMETER	TYPE	A	B **	C	D	E	PIPE DIAMETER
48"	REINFORCED	36"	30"	5"	4 1/8"	6'-0"+	UP TO 21"
48"	REINFORCED	36"	30"	6"	6"	6'-0"+	* 24"

- * IF CONNECTIONS AND TEES ARE REQUIRED, USE NEXT HIGHER DIAMETER MANHOLE.
- ** WHERE 30" OPENING IS NOT POSSIBLE, USE CONCENTRIC COVER, ALHAMBRA FOUNDRY TYPE A-1325 OR EQUIVALENT.

NOTES

1. PRECAST MANHOLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478 AND BE DESIGNED FOR AASHTO H20 LOADING.
2. MATERIALS, EMBEDMENT, PLACEMENT, AND COMPACTION OF GRANULAR EMBEDMENT AND COMPACTED BACKFILL SHALL CONFORM TO THE CITY'S STANDARD DETAILS FOR PIPE BEDDING AND TRENCH BACKFILL.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		9/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				MANHOLE 4 FT BY 3 FT MAIN 15" DIAMETER OR LESS	
				DRAWN BY: DC CHECKED BY: NB, IL	
REVISIONS		DATE INITIAL		APPROVED BY: DP	
△				STANDARD	
				S1 2 OF 2	



NOTES:

1. INVERT ELEVATIONS AS SHOWN ON PLAN AND PROFILE.
2. MANHOLES INSTALLED IN UNPAVED AREAS SHALL BE RAISED A MINIMUM OF 12" ABOVE FINISHED GRADE.

René Guerrero
 RENE GUERRERO, CITY ENGINEER
 RCE NO. 66263
 2/28/17
 DATE

REVISIONS	DATE	INITIAL

CITY OF POMONA
 PUBLIC WORKS DEPARTMENT

**MANHOLE 5 FT BY 3 FT
 18" DIA. AND LARGER**

DRAWN BY: DC	STANDARD	S2 1 OF 2
CHECKED BY: NB, IL		
APPROVED BY: DP		


MANHOLE DIMENSIONAL DATA							
MANHOLE DIAMETER	TYPE	A	B **	C	D	E	PIPE DIAMETER
60"	REINFORCED	36"	30"	6"	6"	7'-0"+	27" TO 39"
60"	REINFORCED	36"	30"	6"	6"	7'-0"+	* 42"

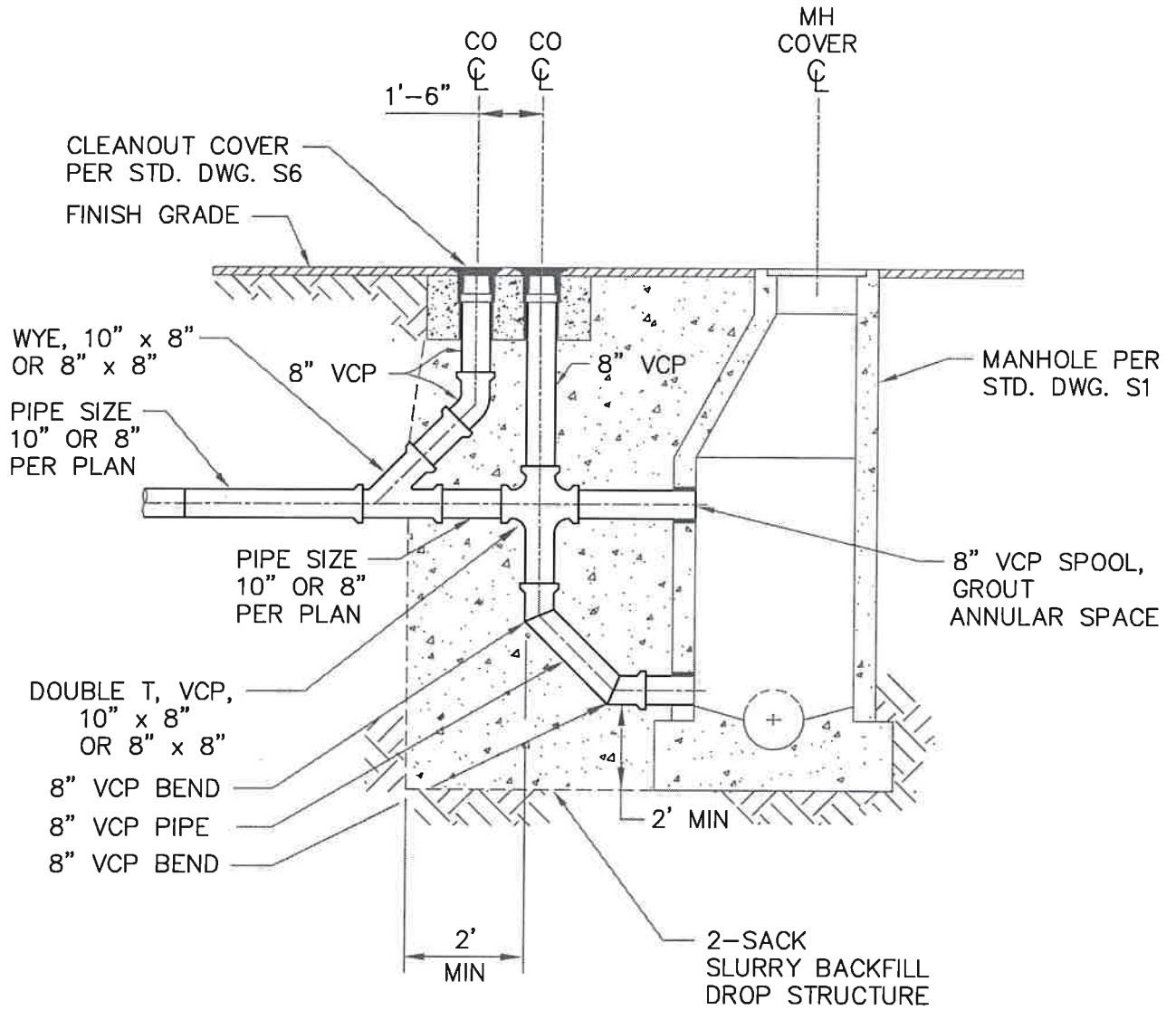
* IF CONNECTIONS AND TEES ARE REQUIRED, USE NEXT HIGHER DIAMETER MANHOLE.

** WHERE 30" OPENING IS NOT POSSIBLE, USE CONCENTRIC COVER, ALHAMBRA FOUNDRY TYPE A-1325 OR EQUIVALENT.

NOTES


1. PRECAST MANHOLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478 AND BE DESIGNED FOR AASHTO H20 LOADING.
2. MATERIALS, EMBEDMENT, PLACEMENT, AND COMPACTION OF GRANULAR EMBEDMENT AND COMPACTED BACKFILL SHALL CONFORM TO THE CITY'S STANDARD DETAILS FOR PIPE BEDDING AND TRENCH BACKFILL.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		8/28/17 DATE		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				MANHOLE 5 FT BY 3 FT STANDARD 48" MANHOLE	
				DRAWN BY: DC CHECKED BY: NB, IL	
				APPROVED BY: DP	
△	REVISIONS	DATE	INITIAL	STANDARD	
				S2 2 OF 2	

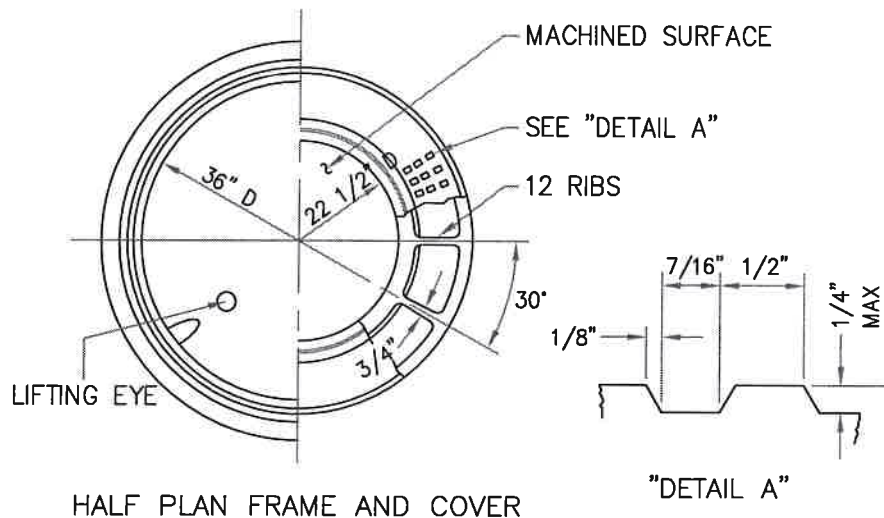


NOTES:

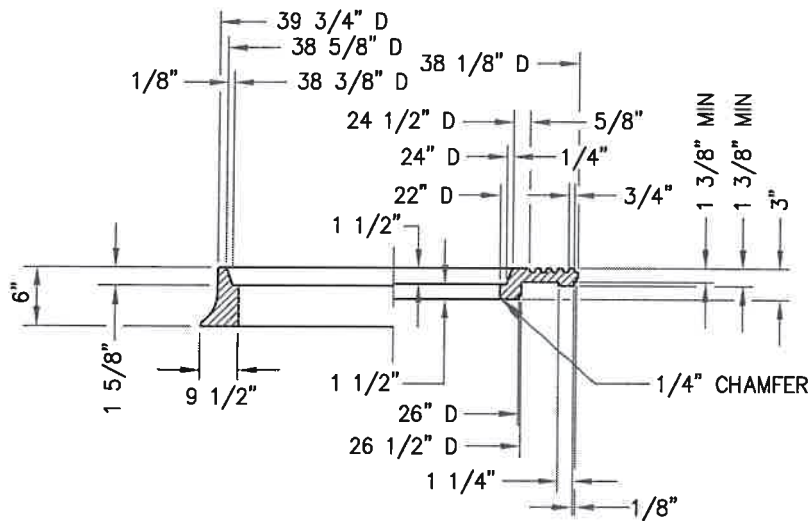
1. MANHOLES INSTALLED IN UNPAVED AREAS SHALL BE RAISED MINIMUM 12" ABOVE FINISH GRADE.
2. CLEANOUTS MAY BE INSTALLED AT FINISH GRADE.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		3/28/17 DATE	
△	REVISIONS	DATE	INITIAL

CITY OF POMONA PUBLIC WORKS DEPARTMENT	
DROP MANHOLE	
DRAWN BY: DC CHECKED BY: NB, IL APPROVED BY: DP	STANDARD S3



HALF PLAN FRAME AND COVER



HALF SECTION FRAME AND COVER

NOTES:

1. FRAME AND COVER SHALL BE CAST IRON.
CAST IRON SHALL CONFORM TO ASTM 48,
CLASS 35B.
2. WEIGHTS: FRAME 314 - 363 LBS
OUTER COVER 285 - 330 LBS
INNER COVER 147 - 171 LBS
3. MACHINE ALL MATCHING SURFACES AND
SEATS OF FRAME AND COVER
4. IMPORTED FRAME AND COVERS SHALL HAVE
THE COUNTRY OF ORIGIN MARKED IN
COMPLIANCE WITH FEDERAL REGULATIONS.

Rene J. Guerrero
RENE GUERRERO, CITY ENGINEER
RCE NO. 66263

8/28/17
DATE

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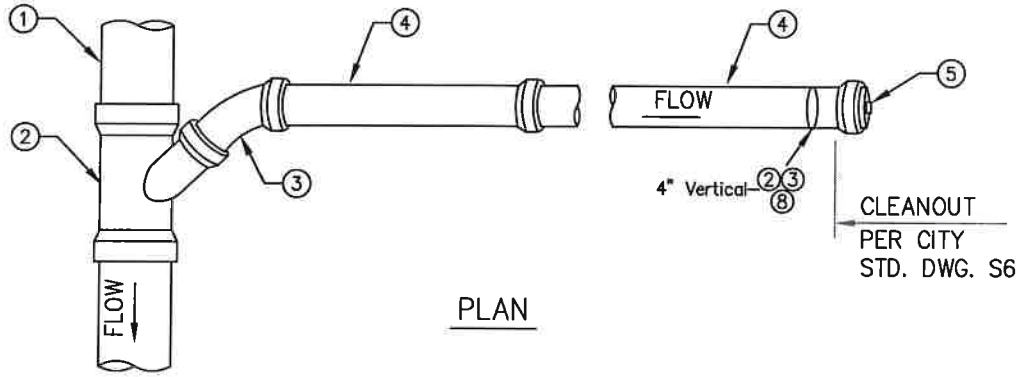
MANHOLE COVER

DRAWN BY: DC
CHECKED BY: NB, IL
APPROVED BY: DP

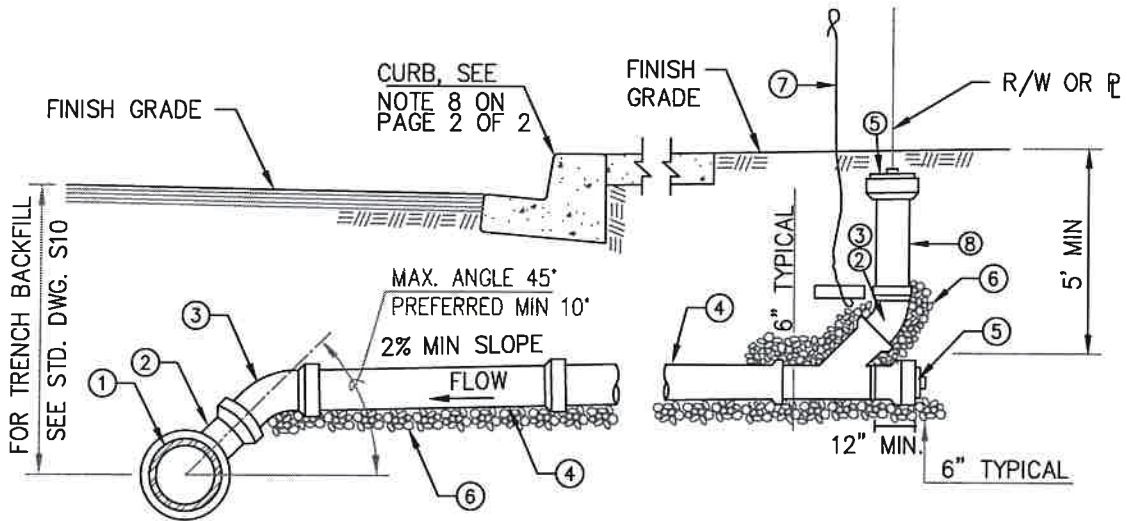
STANDARD S4

REVISIONS

DATE INITIAL




PLAN



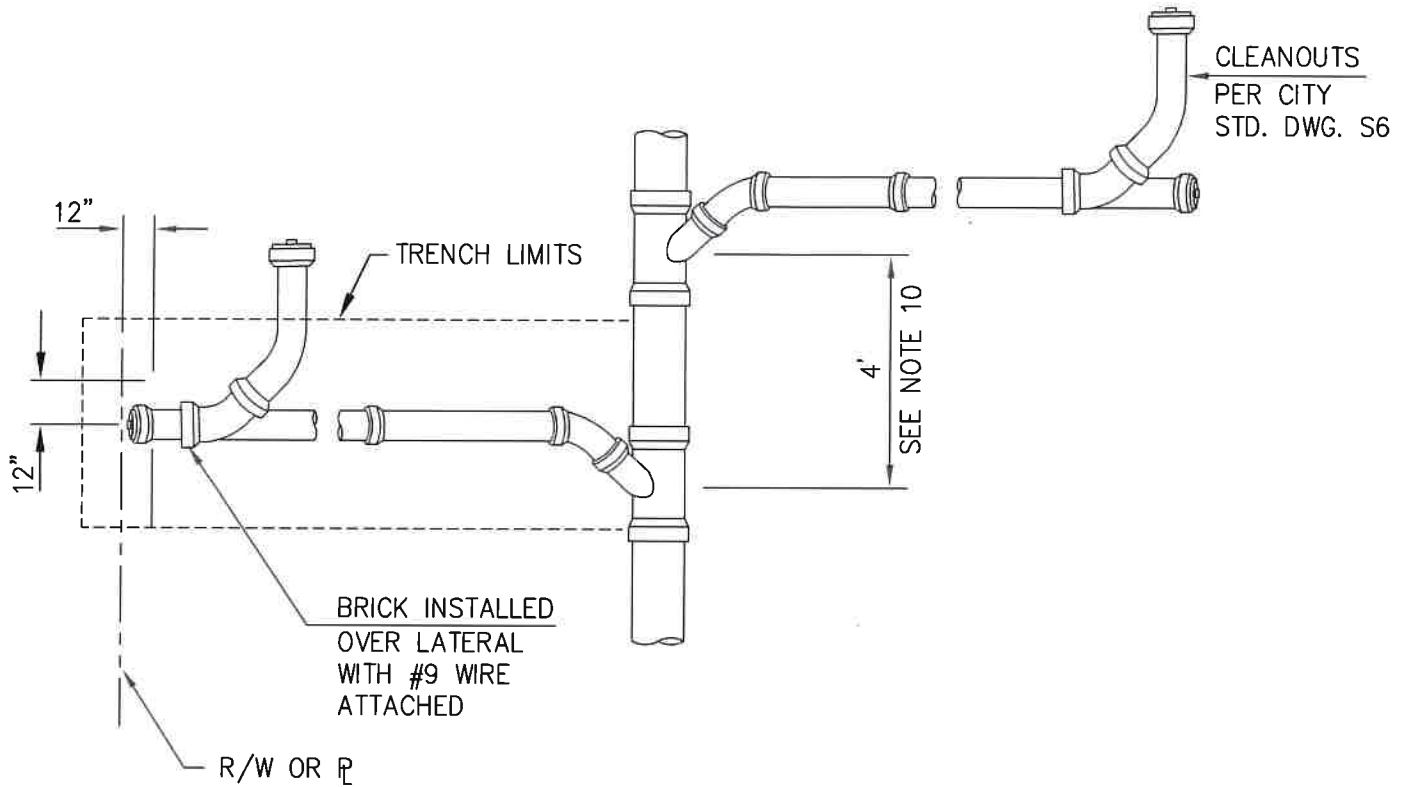
ELEVATION

FOR SEWER LATERAL NOTES, SEE PAGE 2 OF 2

ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
①	SEWER MAIN	⑤	PLUG OR CAP
②	45° WYE	⑥	3/4" MAXIMUM CRUSHED ROCK
③	45° ELBOW	⑦	9 WIRE ATTACHED TO A BRICK; WIRE TO BE LAID ON TOP OF PIPE
④	PIPE LATERAL, SEE NOTES 3 & 5 ON PAGE 2 OF 2	⑧	CLEANOUT PER STD. DWG. S6

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263		8/28/17 DATE	
△	REVISIONS	DATE	INITIAL


CITY OF POMONA PUBLIC WORKS DEPARTMENT	
HOUSE LATERAL CONNECTION	
DRAWN BY: DC CHECKED BY: NP, IL APPROVED BY: DP	STANDARD
S5 1 OF 2	

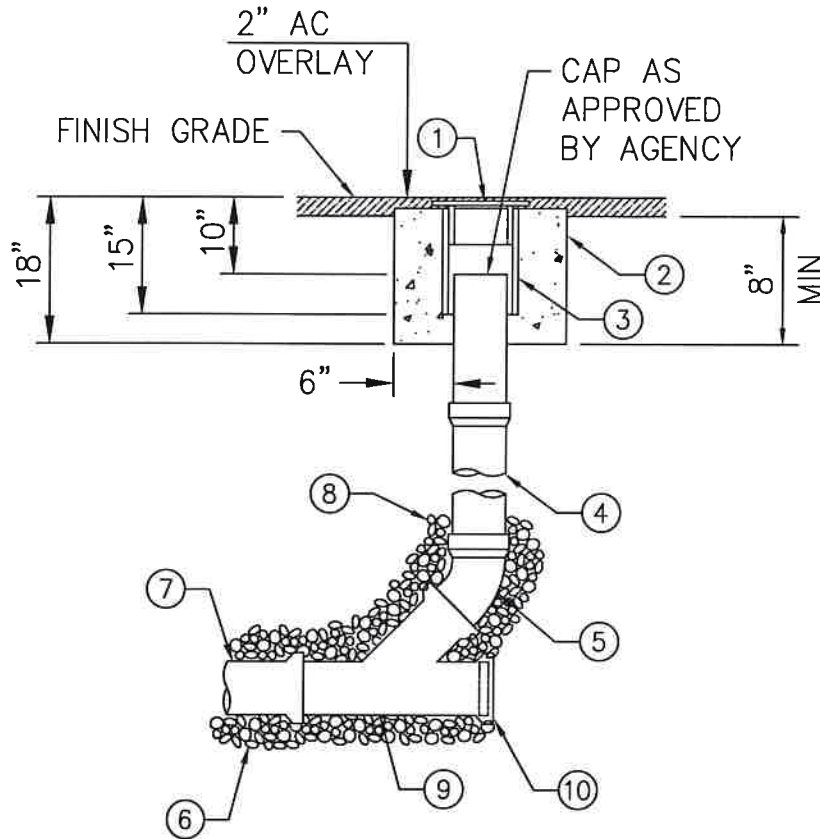


SANITARY SEWER LATERAL DETAIL
SEE NOTE 10 BELOW

NOTES:

1. REFER TO PROJECT SPECIFICATIONS WHERE APPLICABLE.
2. IN NO CASE SHALL LATERAL CONNECT DIRECTLY TO TOP OF SEWER MAIN.
3. LATERAL SHALL BE INSTALLED TO PROPERTY LINE UNLESS SPECIFIED ON PLANS.
4. MINIMUM 5' COVER ABOVE LATERAL AT PROPERTY LINE.
5. LATERAL TO HAVE A MINIMUM SLOPE OF 2%; APPROVAL REQUIRED FOR SLOPE LESS THAN 2%. INSTALL WITH "SEWER" IDENTIFICATION TAPE.
6. VERTICAL PIPE SHALL BE BRACED WHILE BACKFILLING TRENCH.
7. IDENTIFY SANITARY SEWER LATERAL LOCATION ON CURB.
8. MATERIALS SHALL BE SELECTED FROM THE CITY'S APPROVED MATERIALS LIST.
9. FOR SANITARY SEWER LATERAL INSTALLATIONS, SEE PAGE 1 OF 2.
10. FOR SEWERS SPECIFIED AS VCP PIPE, A MINIMUM 3' SECTION OF PIPE IS REQUIRED BETWEEN FITTINGS.
11. SEWER CLEANOUT, SEE STD. DWG. S6


 RENE GUEBRERO, CITY ENGINEER RCE NO. 66263	9/18/17 DATE	CITY OF POMONA PUBLIC WORKS DEPARTMENT	
HOUSE LATERAL CONNECTION		STANDARD	
REVISIONS		DATE	INITIAL
△		DRAWN BY: DC CHECKED BY: NP, IL APPROVED BY: DP	
		S5 2 OF 2	



NOTES:

1. REFER TO CITY'S STANDARD SPECIFICATIONS WHERE APPLICABLE.
2. CLEANOUTS TO BE INSTALLED AT THE END OF MAINS WHERE INDICATED ON THE PLANS.
3. CLEANOUT PIPE TO BE SAME SIZE AND MATERIAL AS SEWER PIPE UP TO 8".
4. BACKFILL TO TOP OF 45° BEND WITH 3/4" CRUSHED ROCK.
5. MATERIALS SHALL BE SELECTED FROM THE CITY'S APPROVED MATERIALS LIST.
6. ITEM NO. 10 TO BE OMITTED IF CONNECTED TO A NEW OR EXISTING LATERAL.

ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
①	12" CAST IRON CLEANOUT BOX COVER, LID TO BE LABELED "SEWER"	⑦	SEWER LATERAL
②	CONCRETE RING	⑧	3/4" CRUSHED ROCK, SEE NOTE 4
③	12" PVC, C-900 X 15" LONG (CLEANOUT BOX)	⑨	STANDARD WYE BRANCH
④	VCP PIPE AT REQUIRED LENGTH AND DIAMETER	⑩	INSTALL PLUG OR CAP
⑤	45° ELBOW		
⑥	3/4" CRUSHED ROCK PIPE BEDDING		


 RENE GUERRERO, CITY ENGINEER
 RCE NO. 66263
 8/28/17
 DATE

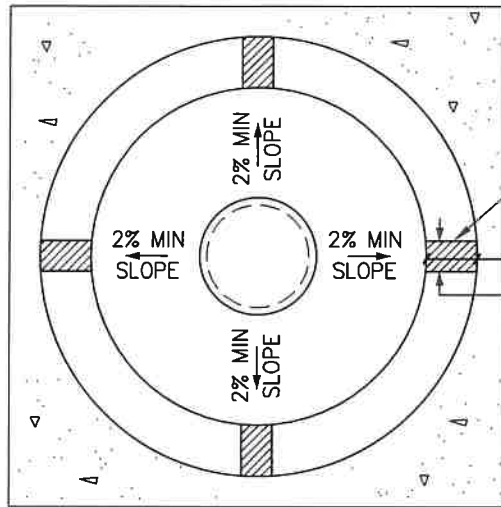
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

SEWER LATERAL CLEANOUT

DRAWN BY: AA
 CHECKED BY: IL, RG, NH
 APPROVED BY: DP

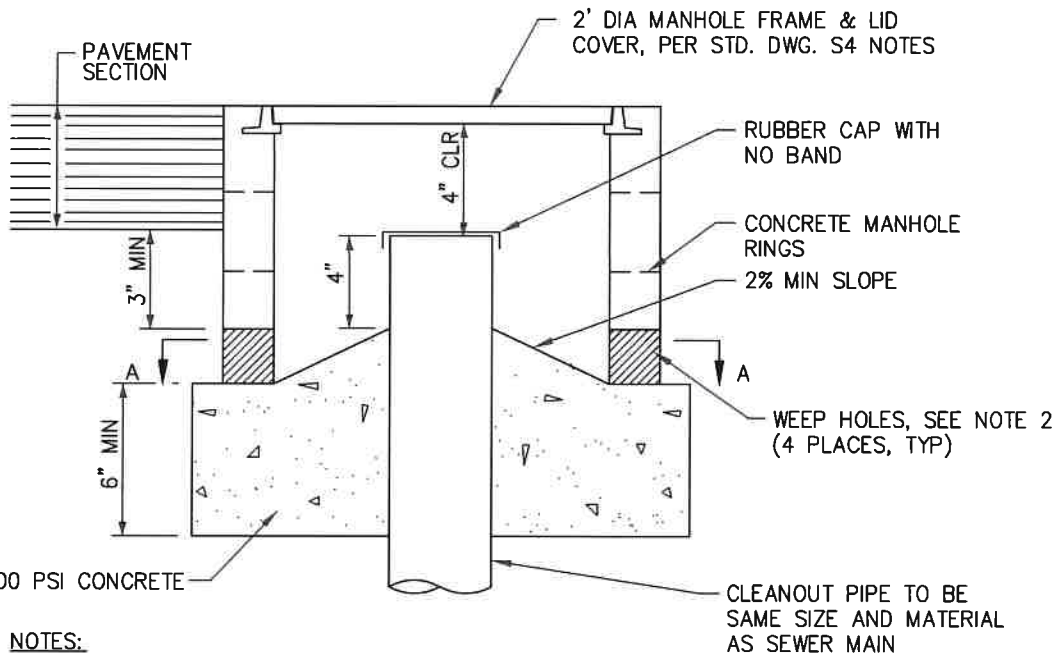
STANDARD S6

REVISIONS
 DATE INITIAL



SECTION A-A

1/2" WIDE X 1" LONG
CUT IN MH RING FOR
WEEP HOLES



2,500 PSI CONCRETE

CLEANOUT PIPE TO BE
SAME SIZE AND MATERIAL
AS SEWER MAIN

NOTES:

1. CLEANOUTS INSTALLED IN LANDSCAPED EASEMENTS SHALL BE RAISED MINIMUM 2" ABOVE FINISH GRADE.
2. WEEP HOLES SHALL NOT BE COVERED WITH AC OR CONCRETE LAYER OF PAVEMENT SECTION.

Rene Guerrero

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9/18/17
DATE

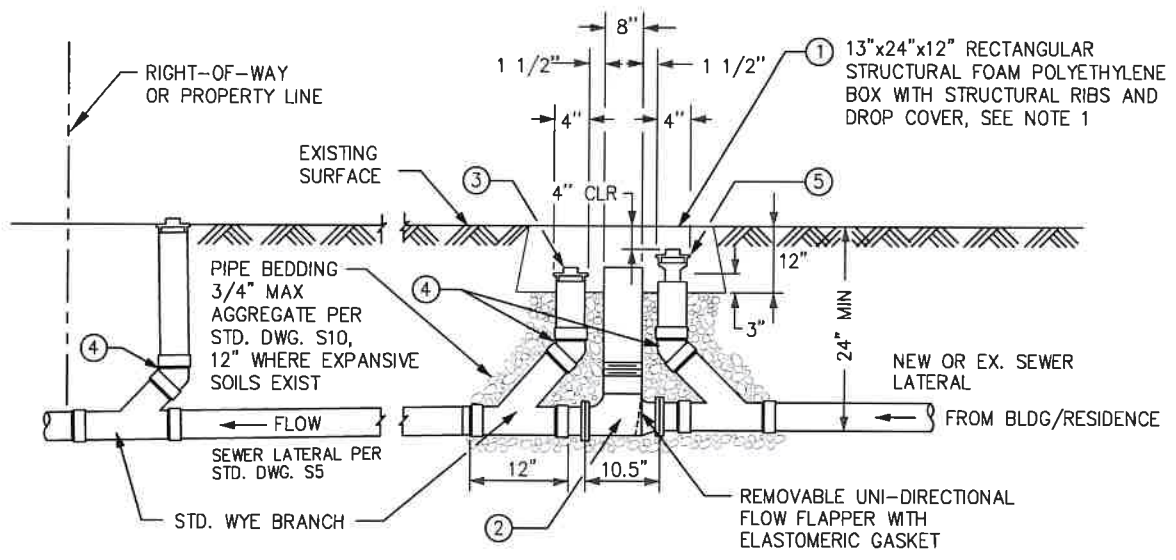
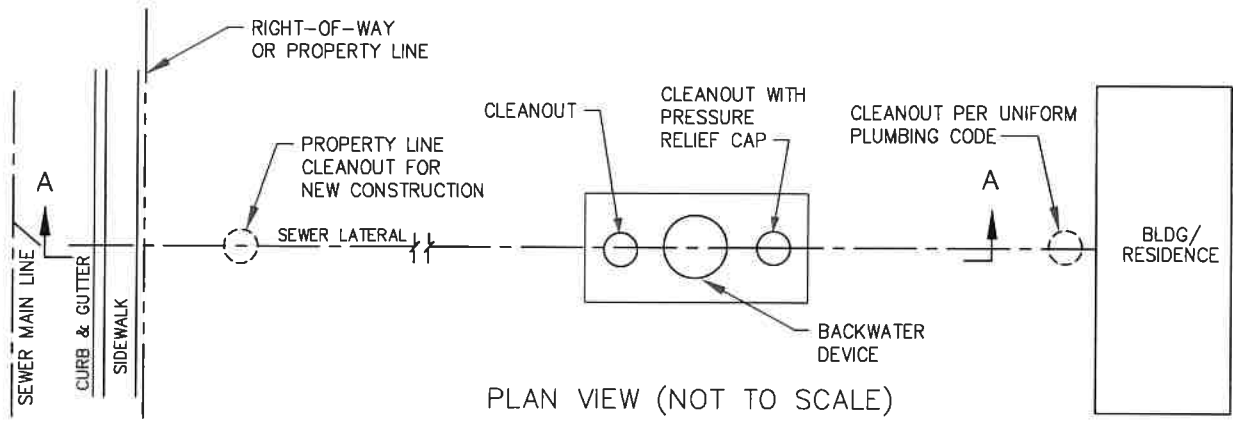
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

SEWER MAIN CLEANOUT ACCESS

DRAWN BY: AA
CHECKED BY: IL, RG, NH
APPROVED BY: DP

STANDARD S7

REVISIONS	DATE	INITIAL



SECTION A-A (NOT TO SCALE)

NOTES:

1. WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, A TRAFFIC RATED BOX AND LID IS REQUIRED.
2. ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

ITEM NO.	SIZE AND DESCRIPTION
①	INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE, AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
②	BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C) AND APPROVED BY THE BUILDING DIVISION.
③	CLEANOUT PLUG (ABS) THREADED.
④	STANDARD 45° BEND.
⑤	CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP. CAP SHALL NOT PROJECT INTO THE SEWER LATERAL CROSS SECTIONAL AREA.

René Guerrero
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 RCE NO. 66263

9/18/17
 DATE

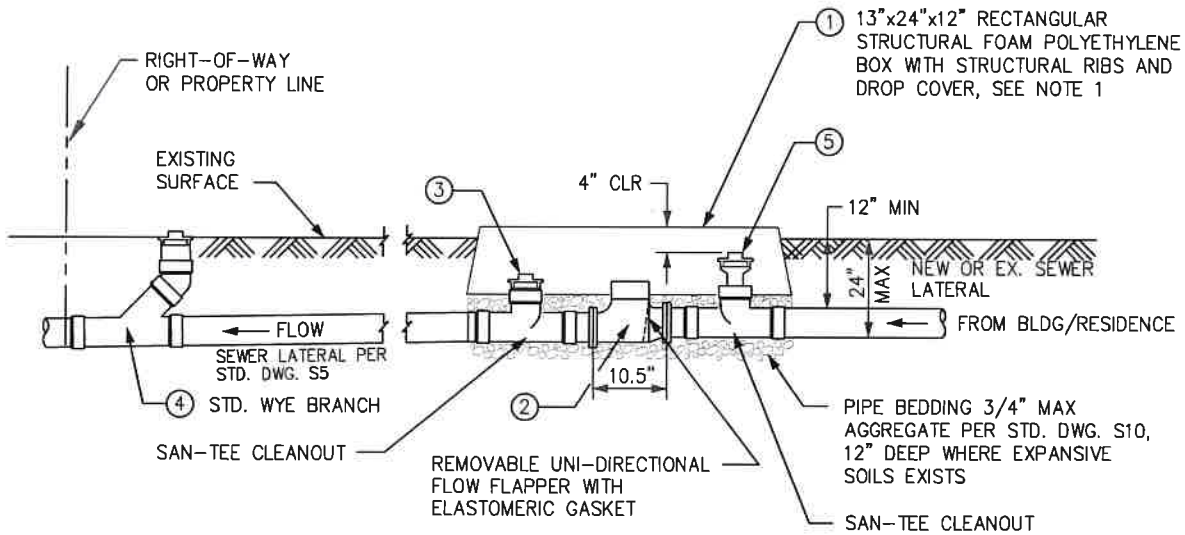
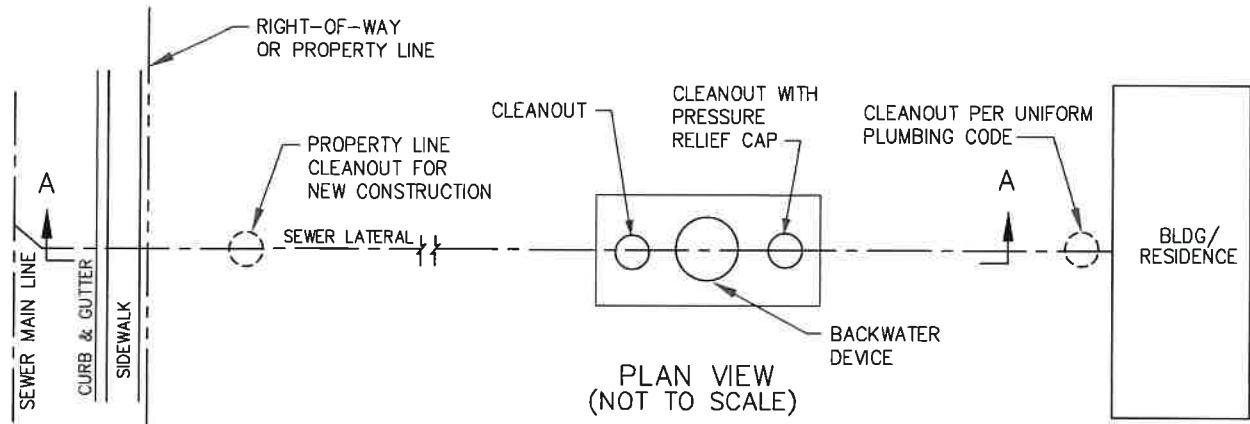
CITY OF POMONA
 PUBLIC WORKS DEPARTMENT

4" BACKWATER DEVICE
 (FOR LATERALS 2' OR DEEPER)

REVISIONS	DATE	INITIAL

DRAWN BY: AA
 CHECKED BY: IL, RG, NH
 APPROVED BY: DP

STANDARD S8



SECTION A-A
(NOT TO SCALE)

NOTES:

1. WHEN BACKWATER DEVICE IS INSTALLED IN THE DRIVEWAY, ALLEY OR STREET, A TRAFFIC RATED BOX AND LID IS REQUIRED.
2. ALL PIPING SHALL BE SPECIFIED AS VCP PIPE.

ITEM NO.	SIZE AND DESCRIPTION
①	INSTALL VALVE BOX SO THAT IT IS FLUSH WITH EXISTING PAVEMENT OR SIDEWALK SURFACE, AND 1" ABOVE GRADE WHEN INSTALLED IN LANDSCAPE AREA.
②	BACKWATER DEVICE AND ATTACHED PARTS SHALL BE PER UNIFORM PLUMBING CODE (U.P.C) AND APPROVED BY THE BUILDING DIVISION.
③	CLEANOUT PLUG (ABS) THREADED.
④	SAN-TEES ARE ALLOWED WHERE ID IS LESS THAN 24" DEEP.
⑤	CLEANOUT WITH AN APPROVED PRESSURE RELIEF CAP. CAP SHALL NOT PROJECT INTO THE SEWER LATERAL CROSS SECTIONAL AREA.

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 RCE NO. 66263

9/18/17
 DATE

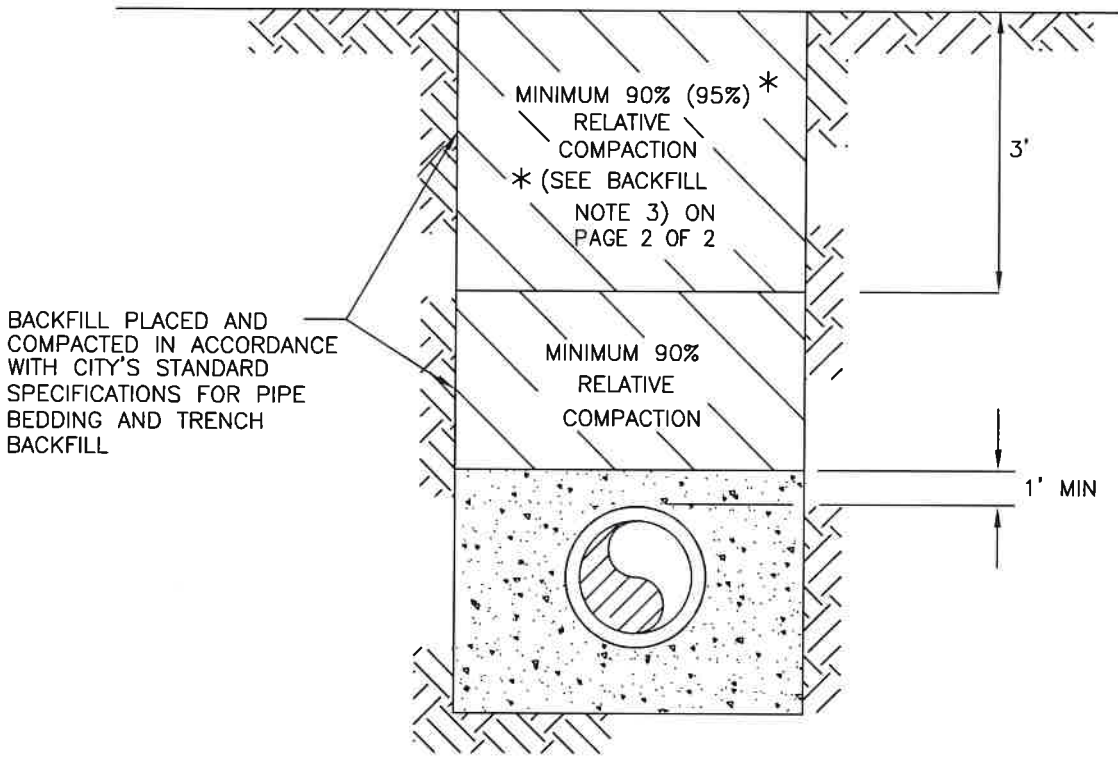
CITY OF POMONA
 PUBLIC WORKS DEPARTMENT

4" BACKWATER DEVICE - SHALLOW
 (FOR LATERALS)

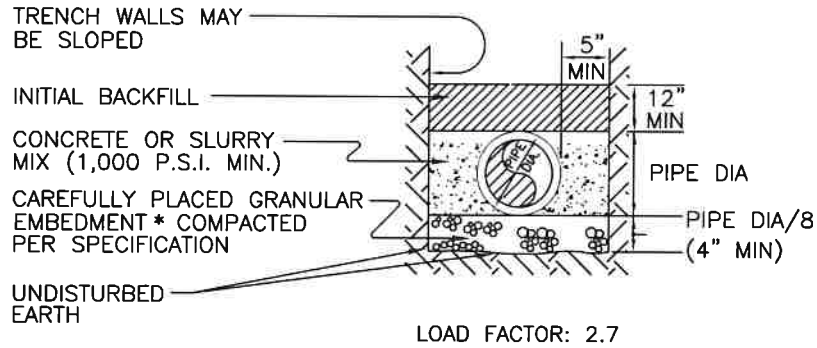
REVISIONS	DATE	INITIAL

DRAWN BY: AA
 CHECKED BY: IL, RG, NH
 APPROVED BY: DP

STANDARD S9



BACKFILL DETAIL
NO SCALE



SLURRY BACKFILL DETAIL

René Guerrero
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RCE NO. 66263

8/28/17
DATE

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PIPE BEDDING AND
TRENCH BACKFILL NOTES

DRAWN BY: AA
CHECKED BY: IL, RG, NH
APPROVED BY: DP

STANDARD

S10
1 OF 2


REVISIONS	DATE	INITIAL

BACKFILL NOTES

1. MATERIAL FOR COMPACTED BACKFILL WILL CONSIST OF SUITABLE NATIVE EXCAVATED MATERIALS, IMPORTED SOILS, OR GRADED GRAVEL AS DEFINED IN THE PROJECT'S STANDARD SPECIFICATIONS FOR PIPE BEDDING.
2. TRENCH BACKFILL SLAG, PEA GRAVEL, CRUSHED ROCK, OR OTHER ALTERNATIVE MATERIALS ARE NOT ACCEPTABLE.
3. COMPACTION UNDER THE STREET SHALL BE 95% TO 6" BELOW PAVEMENT.

BEDDING DETAIL NOTES

1. SLAG, PEA GRAVEL, OR OTHER ALTERNATIVE MATERIALS ARE NOT ACCEPTABLE IN LIEU OF GRANULAR EMBEDMENT. GRANULAR EMBEDMENT IS COARSE GRAINED NATIVE SOIL OR IMPORTED SAND WITH A MINIMUM SAND EQUIVALENCE OF 30, AND OF SUCH SIZE THAT 90 TO 100 PERCENT WILL PASS A NO. 4 SIEVE AND NO MORE THAN 5 PERCENT WILL PASS A NO. 200 SIEVE.
2. TRENCH SHORING AND TRENCH WALL SLOPING SHALL BE IN CONFORMANCE WITH STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY REQUIREMENTS AND THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
3. MATERIALS, EMBEDMENT, PLACEMENT AND COMPACTION OF GRANULAR EMBEDMENT AND COMPACTED BACKFILL WILL CONFORM TO THE CITY'S STANDARD SPECIFICATIONS FOR PIPE BEDDING AND TRENCH BACKFILL.

 RENE GUERRERO, CITY ENGINEER RCE NO. 66263	8/28/17 DATE	CITY OF POMONA PUBLIC WORKS DEPARTMENT	
		PIPE BEDDING AND TRENCH BACKFILL NOTES	
		DRAWN BY: AA	STANDARD
		CHECKED BY: IL, RG, NH	
		APPROVED BY: DP	
△ REVISIONS		DATE	INITIAL