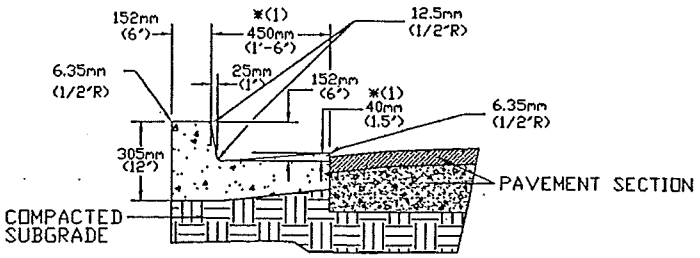
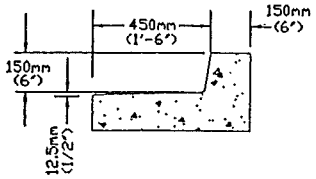


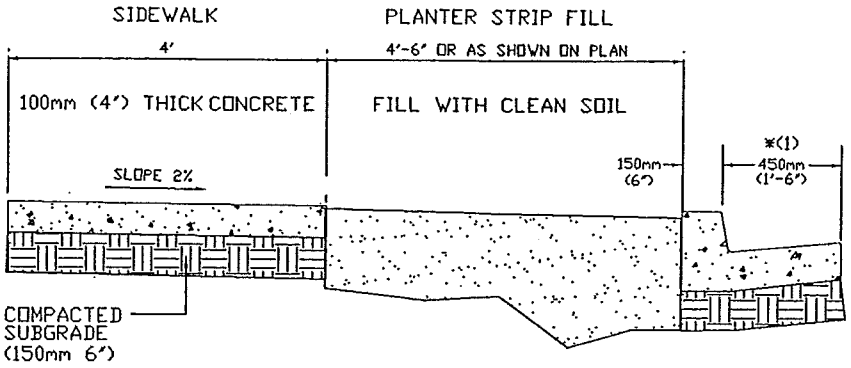
COLLECTING CURB



SPILLING CURB

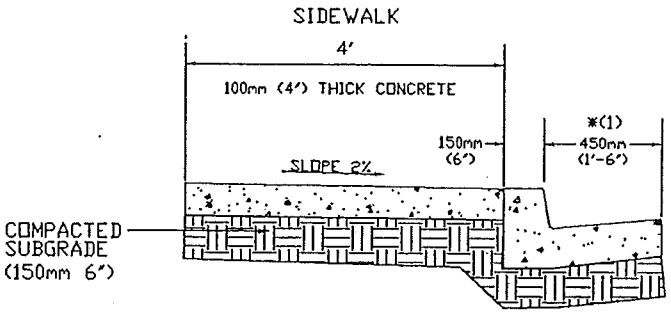
STANDARD CURB &GUTTER

N. T. S.



DETACHED SIDEWALK WITH PLANTER STRIP

N. T. S.



SIDEWALK ADJACENT TO CURB

N. T. S.

NOTE:

* 1. WHERE MATCHING ADJACENT CURB WITH 600mm (2') GUTTER CONSTRUCT WITH 600mm WIDTH AND 50 mm (2") GUTTER FALL.

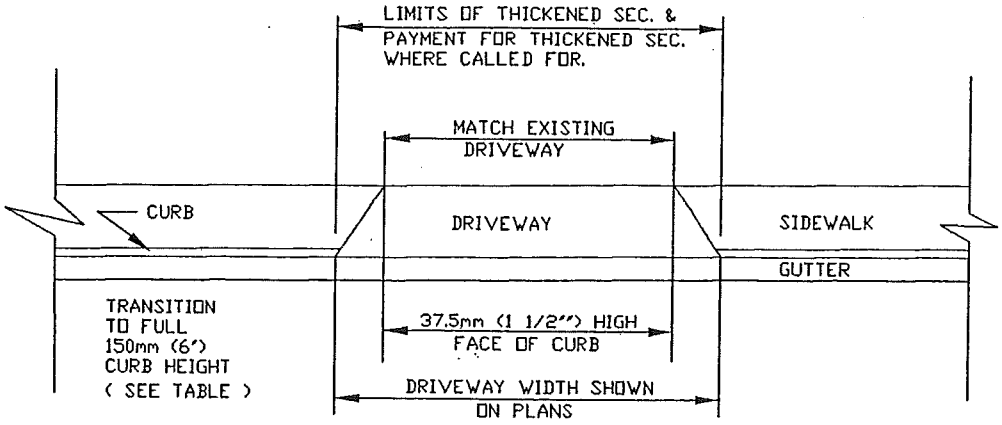
2. SEE DRAWING 2 FOR APPLICABLE NOTES.

TOWN OF COLMA FILE: CSD-D9.DWG RATIO: 1:24 DATE: 3/1/98	STANDARD DETAIL STANDARD CURB, GUTTER & SIDEWALK	1

NOTES: POUR IN PLACE CONCRETE

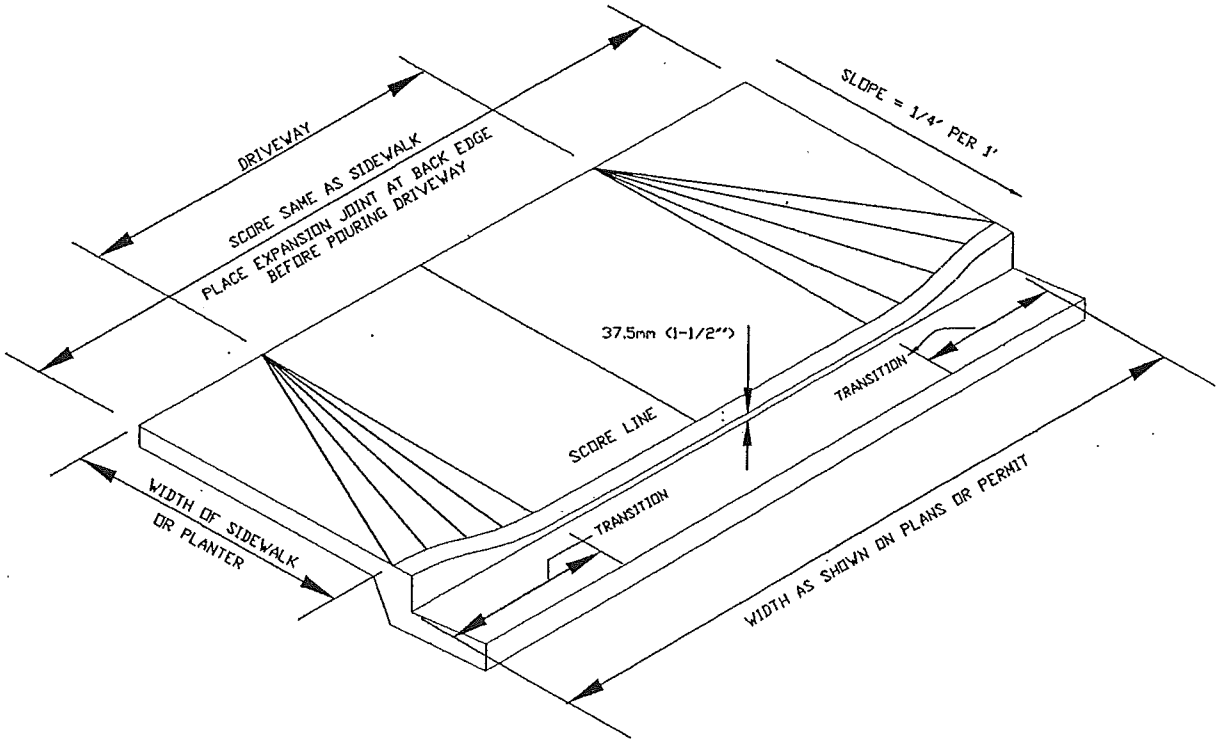
1. SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION IN THE TOP 150mm (6 INCHES).
2. WHERE SOFT OR OTHERWISE UNSUITABLE SUBGRADE MATERIAL IS ENCOUNTER THE CITY ENGINEER MAY REQUIRE REMEDIAL WORK, INCLUDING BUT NOT LIMITED TO, PLACING A LAYER OF BASE UNDER THE CONCRETE SECTION.
3. UNDERCUT SUBGRADE SHALL BE FILLED WITH APPROVED GRANULAR MATERIALS.
4. EXISTING CONCRETE SHALL BE REMOVED AT EXPANSION OR WEAKENED PLAIN JOINTS OR AT SAW CUTS.
5. SAW CUTS SHALL BE AT LEAST 37.5mm (1 1/2") DEEP.
6. MISCELLANEOUS CONCRETE WORK SHALL MATCH ADJACENT CONCRETE LEFT IN PLACE IN SCORE, TEXTURE AND COLOR.
7. SUBGRADE SHALL BE THROUGHLY WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
8. CONCRETE SHALL BE CLASS II, 350 Kg OF CEMENT PER CUBIC METER (5 SACKS PER CUBIC YARD), WITH 25mm (1 INCH) MAX. AGGREGRATE
9. NO COLOR OR ADMIXTURES SHALL BE USED WITHOUT THE WRITTEN PERMISSION OF THE CITY ENGINEER.
10. CONCRETE SHALL HAVE A SLUMP OF NOT MORE THAN 100mm (4" INCHES)
11. EXPANSION JOINTS OF 6.25mm TO 12.5mm (1/4" TO 1/2") THICKNESS SHALL BE PLACED ON BOTH SIDES OF DRIVEWAY APPROACHES AND CURB RAMPS, AT CURB RETURN POINTS THROUGH BOTH CURBS AND SIDEWALKS AND AT POINTS IN BETWEEN SO EXPANSION AT POINTS JOINTS ARE NO FARTHER THAN 18M (60 FEET) APART.
12. NO CONCRETE SHALL BE PLACED UNTIL THE CITY ENGINEER HAS INSPECTED FORMS AND SUBGRADE.
13. ALL EXPOSED SURFACES SHALL BE BROOM FINISHED AS DIRECTED BY THE CITY ENGINEER.
14. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE CURED BY MEANS OF THE IMPERVIOUS MEMBRANE METHOD.

TOWN OF COLMA FILE: CSD-D10.DWG RATIO: 1:24 DATE: 3/1/98	STANDARD DETAIL NOTES POUR IN PLACE CONCRETE	2

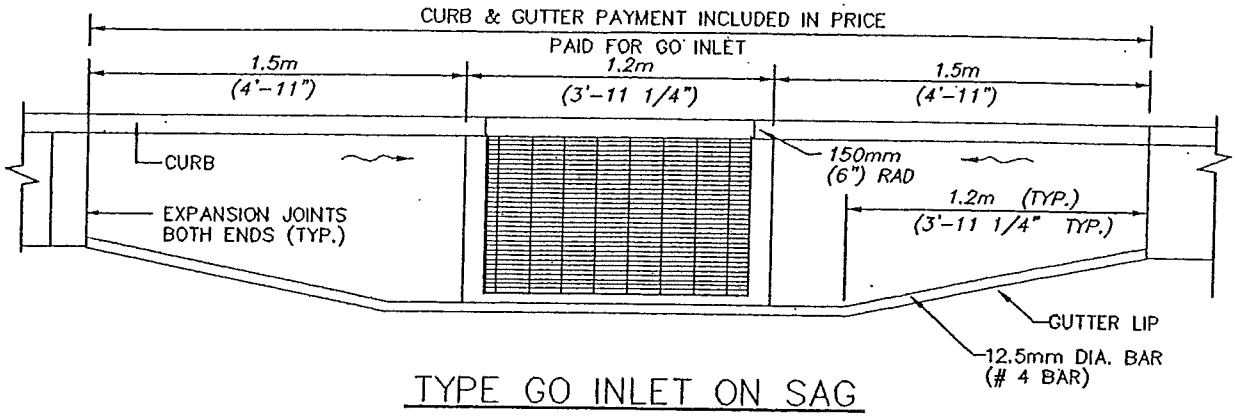


1. SEE DRAWING 2 FOR APPLICABLE NOTES.
2. WHEN PLACED ON PLASTIC, CONTINUE THICKENED SECTION OF CONCRETETHROUGH SIDEWALK.

TYPE	THICKNESS	TRANSITION
RESIDENTIAL	6"	3'
COMMERCIAL	8"	4'

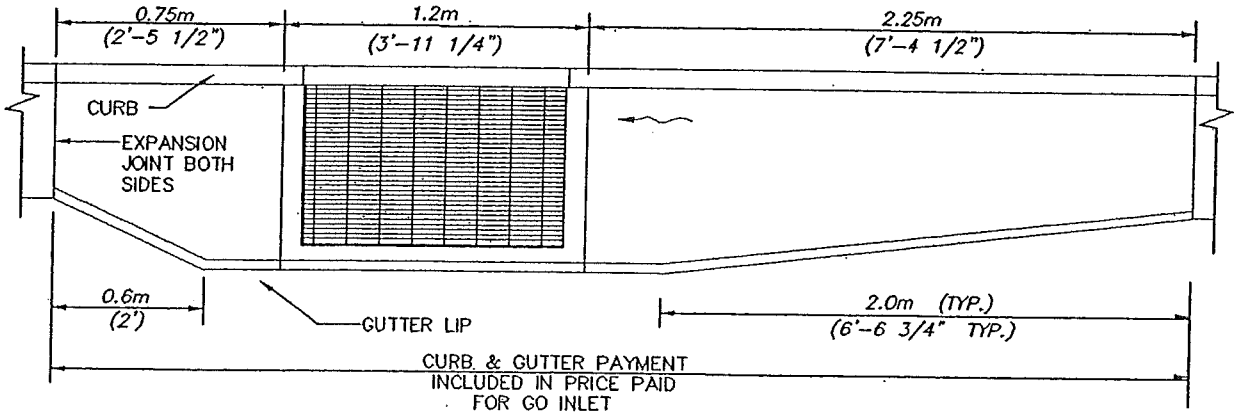


TOWN OF COLMA	STANDARD DETAIL	3
FILE: CSD-D25.DWG	DRIVEWAY APPROACH	
RATIO: 1:24		
DATE: 3/1/98		



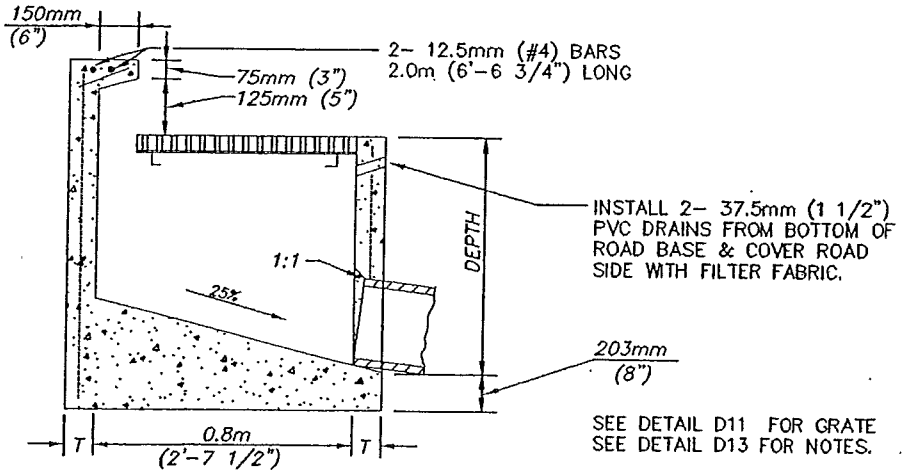
TYPE GO INLET ON SAG

SCALE: N.T.S.



TYPE GO INLET ON GRADE

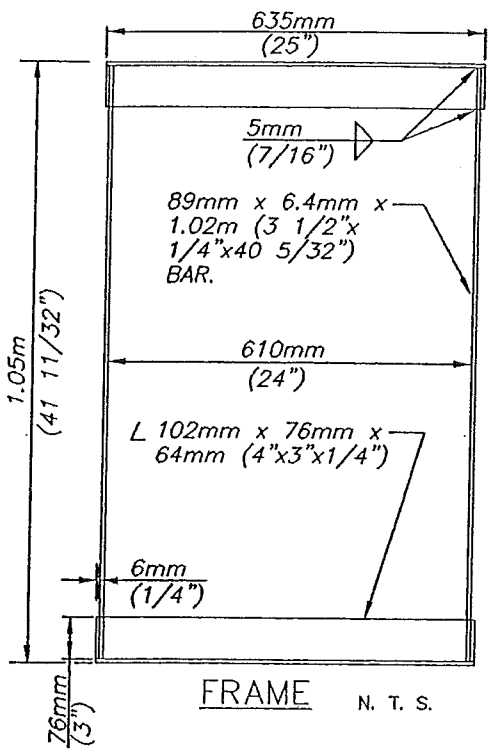
SCALE: N.T.S.



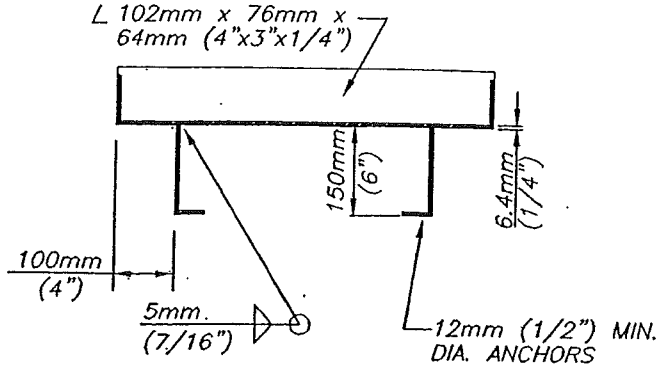
SECTION

SCALE: N.T.S.

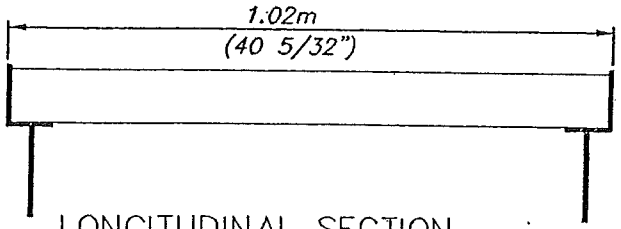
TOWN OF COLMA	STANDARD DETAIL	10
FILE: CSD-D38.DWG	CATCH BASIN GO INLET	
RATIO: 1:24		
DATE: 3/1/98		



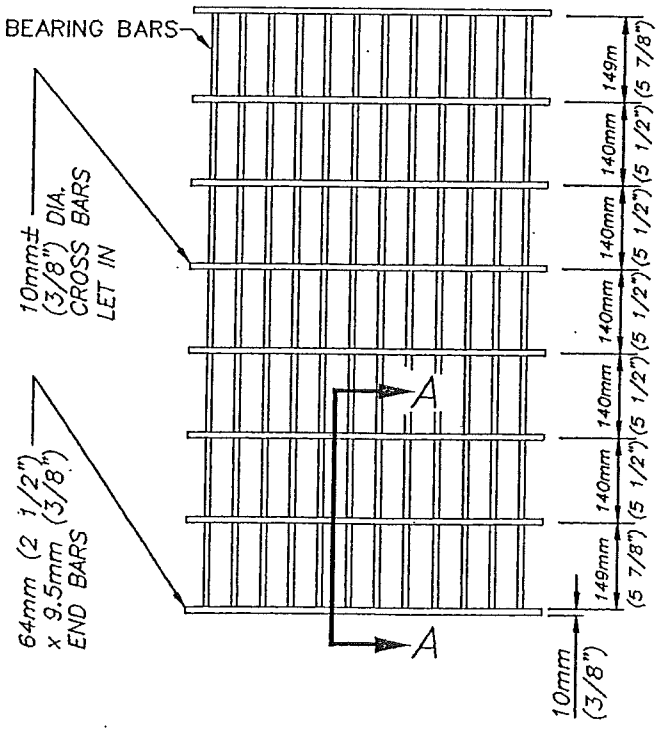
FRAME N. T. S.



CROSS SECTION N. T. S.



LONGITUDINAL SECTION N. T. S.



CATCH BASIN GRATE N. T. S.

1.) BEARING BARS TO BE 89mm (3 1/2") x 9.5mm (3/8") BARS 48mm (1 7/8") CENTERS.

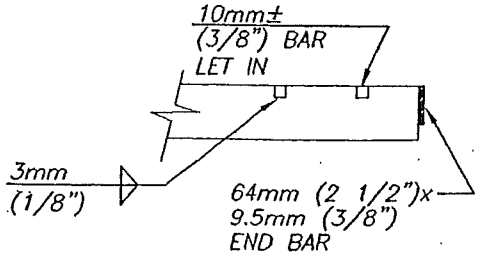
2.) 10mm± (3/8") DIA. CROSS BARS MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.

3.) ALL STEEL SHALL BE STRUCTURAL GRADE.

4.) ALL STEEL SHALL BE HOT DOPPED GALVANIZED AFTER FABRICATION.

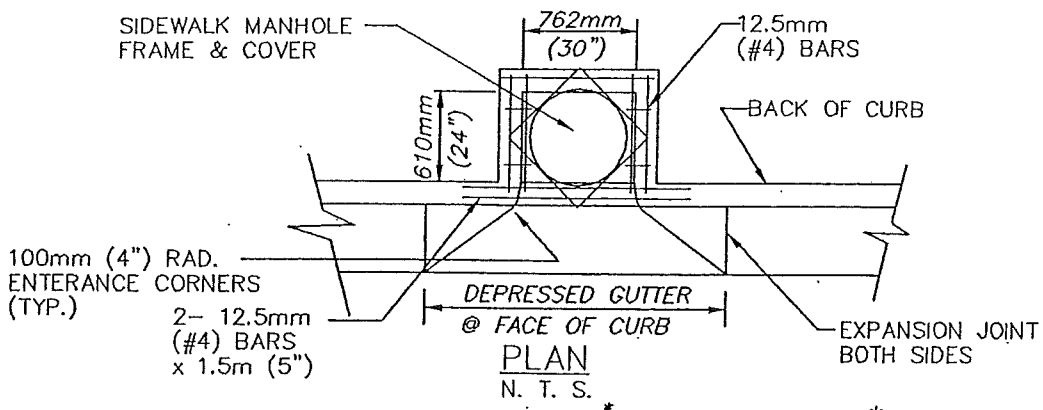
5.) TOP & BOTTOM OF GRATE SHALL BE GROUND FLUSH AFTER WELDING.

6.) STATE STD. GRATE 600-12X MAY BE USED.



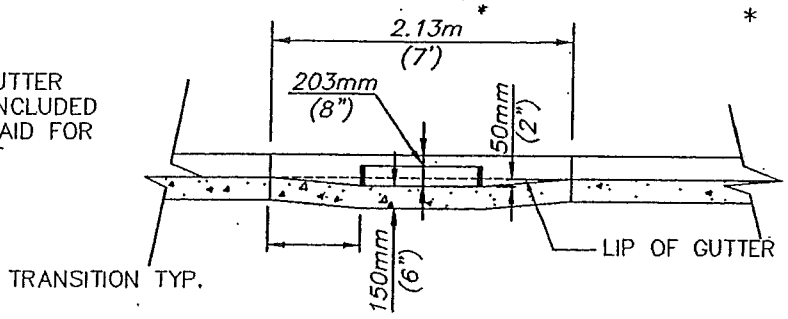
SECTION "A-A" N. T. S.

TOWN OF COLMA	STANDARD DETAIL	11
FILE: CSD-D40.DWG	GO INLET FRAME & GRATE	
RATIO: 1:24		
DATE: 3/1/88		

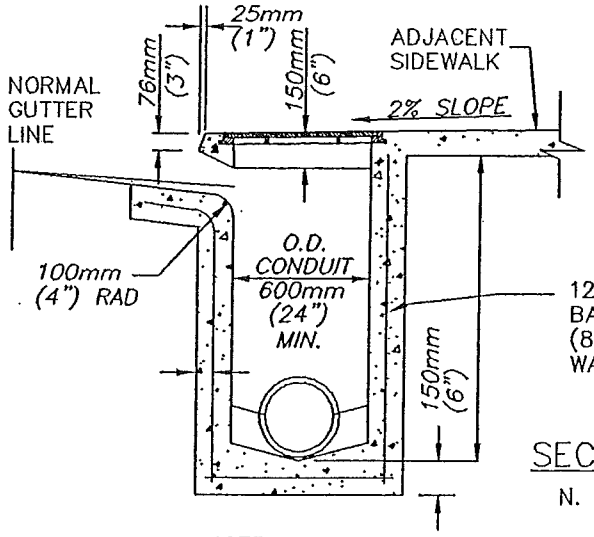


PLAN
N. T. S.

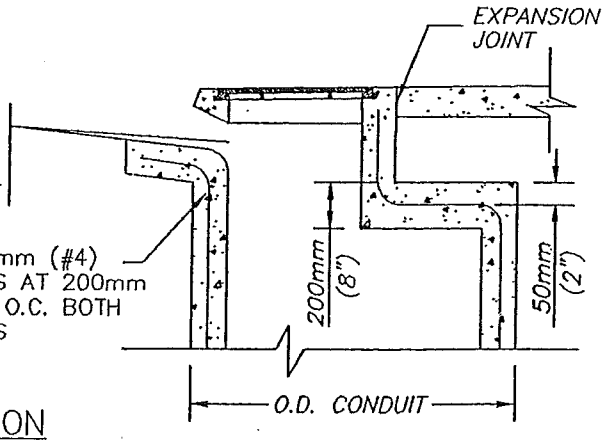
CURB & GUTTER PAYMENT INCLUDED IN PRICE PAID FOR CURB INLET



GUTTER SECTION AT FACE OF CURB
N. T. S.



SECTION
N. T. S.



USE THIS SECTION WHEN O.D. OF CONDUIT EXCEEDS WALL WIDTH

NOTE:

1. SEE DRAWING 13 FOR NOTES
2. TOP SHALL BE CAST IN PLACE.
3. ADJACENT SIDEWALK SHALL BE POURED MONOLITHIC WITH TOP.
4. MANHOLE FRAME SHALL BE PHOENIX 1067, D&L SUPPLY 1067, SOUTH BAY FOUNDRY OR EQUAL, MARKED "STORM DRAIN"

TOWN OF COLMA	STANDARD DETAIL	12
FILE: CSD-D41.DWG	STORM DRAIN CURB INLET	
RATIO: 1:24		
DATE: 3/1/98		

NOTES: CATCH BASINS, CURB INLETS, DROP INLETS, DRAINAGE STRUCTURES

1. WALL THICKNESS AND CEMENT CONTENT SHALL CONFORM TO TABLE BELOW:

GREATEST DIMENSION (HORIZONTAL OR VERTICAL)	WALL THICKNESS	CEMENT CONTENT
LESS THAN 1.2m (4")	150mm (6")	350 kg/m3 (5 SACK) CLASS II
1.2 TO 2.4m (4' TO 8')	150mm (6")	400 kg/m3 (6 SACK) CLASS I
OVER 2.4m (8')	200mm (8")	400 kg/m3 (6 SACK) CLASS I

2. SAME BRAND OF CEMENT AND SAME COLOR ADDITIVE (IF ANY) SHALL BE USED FOR EXPOSED ELEMENTS AS USED FOR ADJACENT CURB, GUTTER, SIDEWALK AND FLATWORK.

3. THE MAXIMUM SLUMP OF CONCRETE SHALL BE 100mm (4") MEASURED BY SLUMP CONE OR KELLY BALL.

4. REINFORCING SHALL BE 12.5mm DIA. (#4) BARS AT 300mm (12") O.C. BOTH WAYS.

5. BASE SHALL BE PLACED AGAINST UNDISTURBED EARTH. SIDES MAY BE FORMED OR PLACED AGAINST UNDISTURBED EARTH.

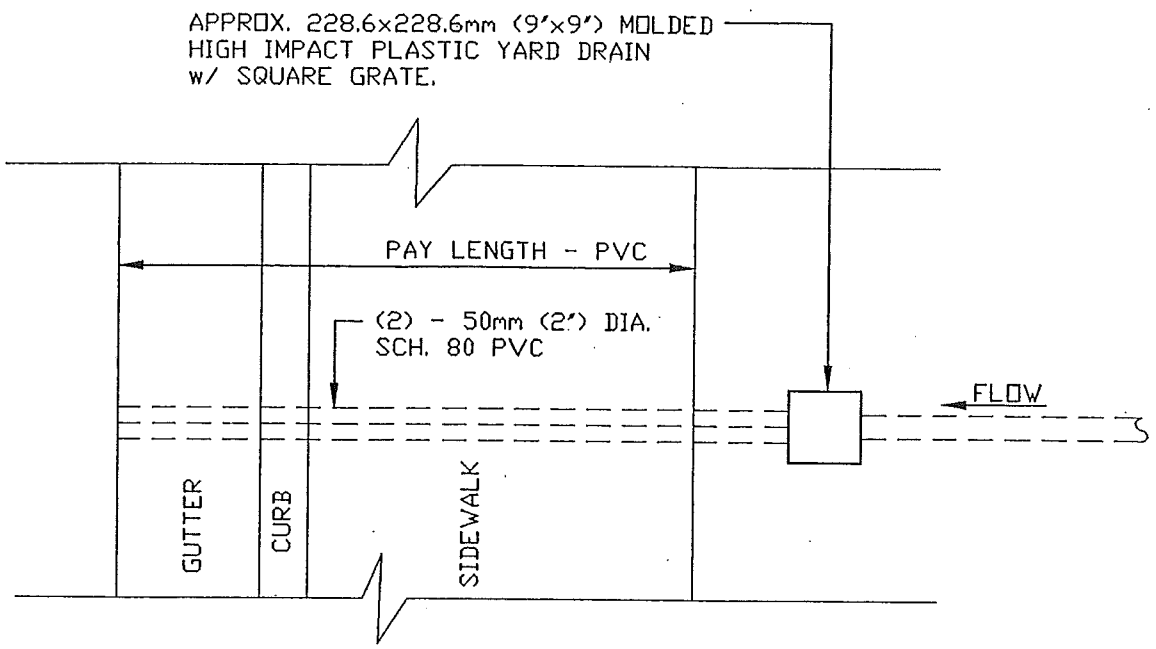
6. NO CONCRETE SHALL BE PLACED PRIOR TO FORM AND STEEL APPROVAL BY THE CITY ENGINEER.

7. PLACE 37.5mm DIA. (1 1/2") WEEP HOLES TO DRAIN ROAD BASE WHERE DIRECTED BY CITY ENGINEER.

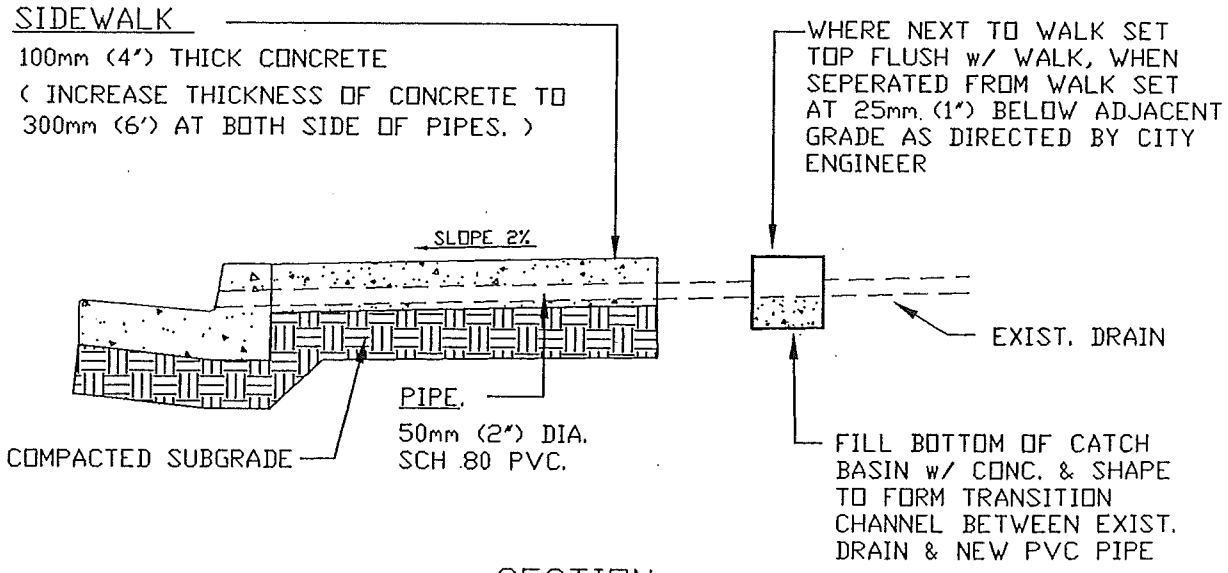
8. FIBERGLASS FORM MAY BE USED FOR CURB INLET TOP.

9. EXPANSION JOINTS SHALL BE PLACED THRU CURB AND SIDEWALK AT BOTH BOTH SIDES OF CATCH BASIN. PAYMENT FOR CURB AND GUTTER BETWEEN THE EXPANSION JOINTS SHALL BE INCLUDED IN THE PRICE PAID FOR THE CATCH BASIN OR CURB INLET.

TOWN OF COLMA CALIFORNIA	TOWN OF COLMA FILE: CSD-D42.DWG RATIO: 1:24 DATE: 3/1/98	STANDARD DETAIL NOTES CATCH BASIN, INLET, DRAINAGE STRUCTURES	13



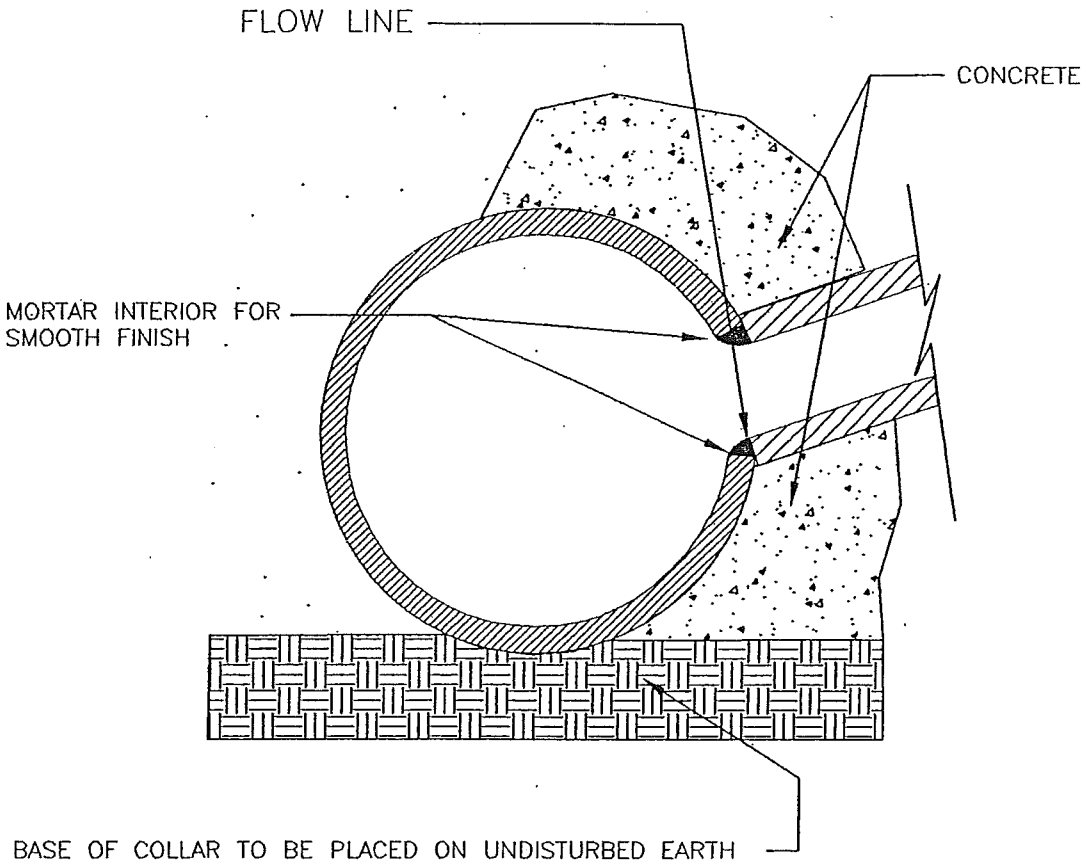
PLAN



SECTION

NOTE: SEE DRAWING 2 FOR APPLICABLE NOTES.

TOWN OF COLMA	STANDARD DETAIL	20
FILE: CSD-D43.DWG	SIDEWALK UNDERDRAIN	
RATIO: 1:24		
DATE: 3/1/98		

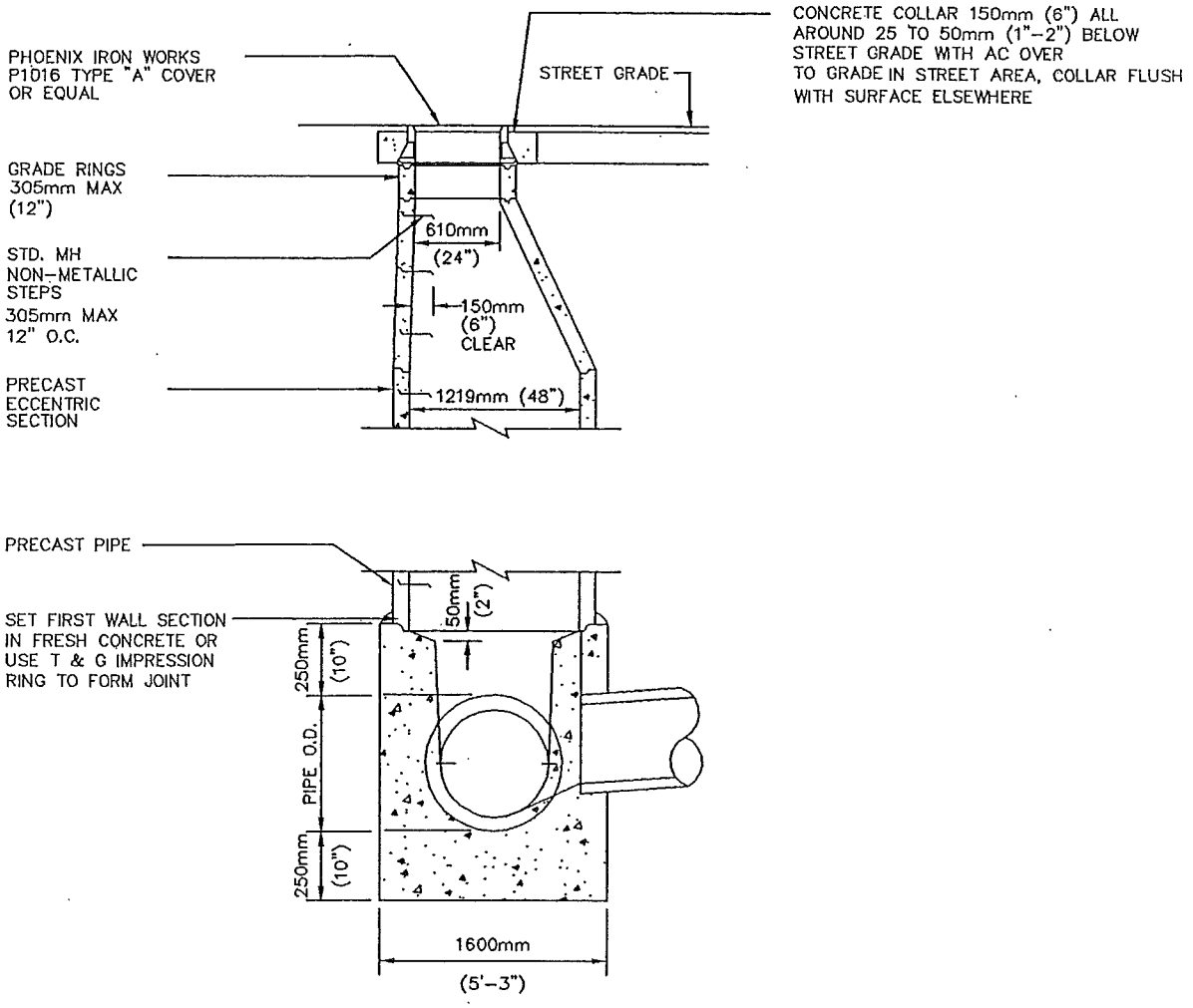


NOTE

1) ALL CONCRETE SHALL BE 350 KG/CUBIC METER (5 SACK) MIX UNLESS OTHERWISE NOTED.

2) COLLAR TO BE WIDTH OF PIPE PLUS 400 mm (16"), 200mm EACH SIDE.

TOWN OF COLMA	STANDARD DETAIL	21
FILE: CSD-D46.DWG	BLIND CONNECTION	
RATIO: 1:24		
DATE: 3/1/98		

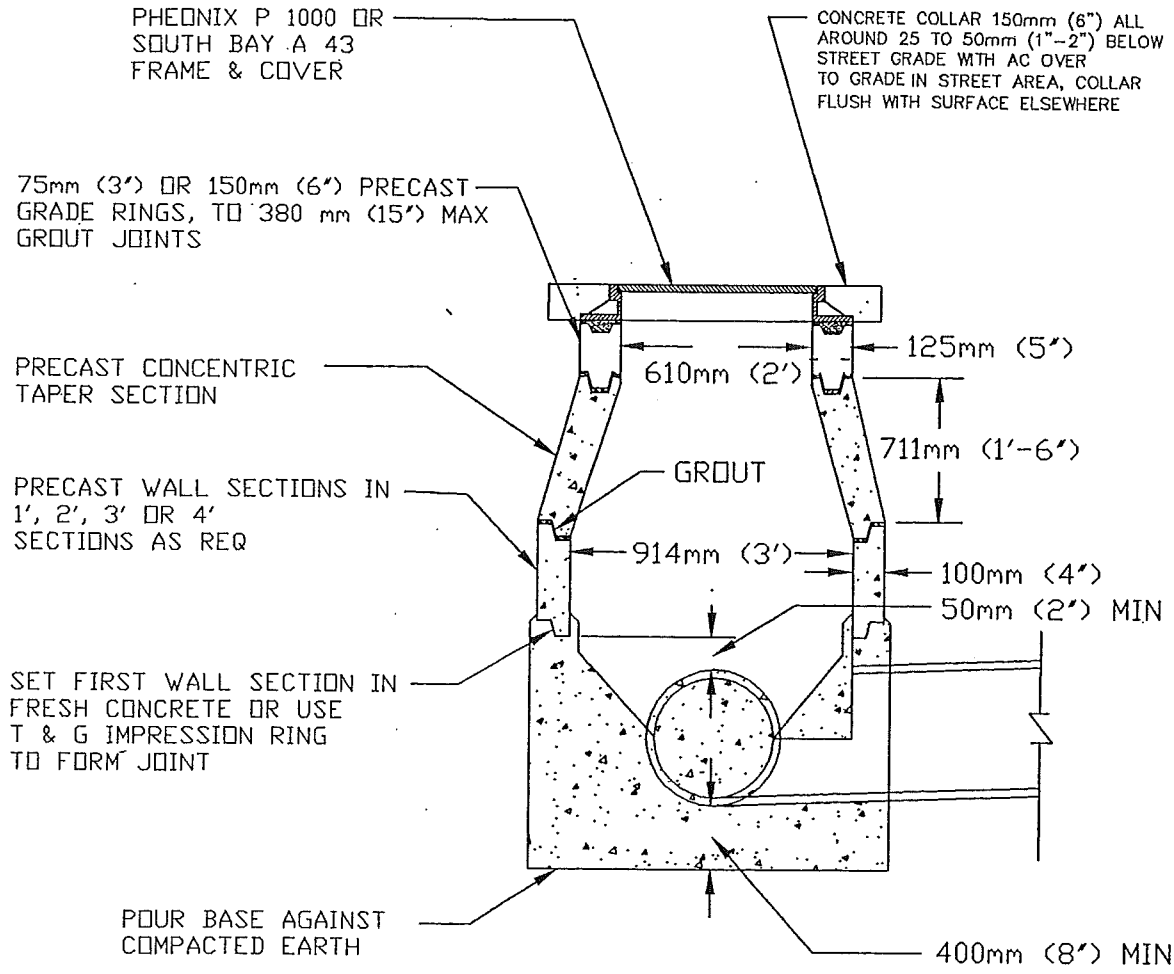


SECTION N. T. S.

NOTES:

1. PRECAST MANHOLE MATERIAL TO CONFORM TO AASHTO D199
2. JOINT GROUT TO BE 1:3 CEMENT:SAND MIX OR RAM-NEK JOINT COMPOUND
3. CONCRETE BASE TO BE 400 KG/CUBIC METER (6 SACK) MIX
4. CONRETE COLLAR TO BE 350 KG/CUBIC METER (5 SACK) MIX

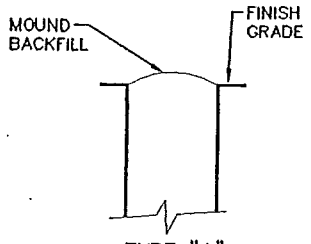
TOWN OF COLMA	STANDARD DETAIL	22
FILE: CSD-D22.DWG	STANDARD MANHOLE	
RATIO: 1:24		
DATE: 3/1/98		



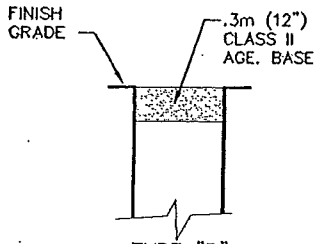
NOTES:

1. USE WHERE COVER TO TOP OF PIPE IS 914MM (3') OR LESS AND LARGEST PIPE SIZE IS GREATER THAN 711 MM (18") I.D. OR WHERE CALLED FOR ON PLANS.
2. PRECAST MANHOLE MATERIAL TO CONFORM TO AASHTO D199.
3. JOINT GROUT TO BE 1:3 CEMENT : SAND MIX OR RAM-NEK JOINT COMPOUND.
4. CONCRETE BASE TO BE 400 KG/CUBIC METER (6 SACK) MIX.

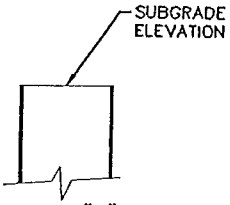
TOWN OF COLMA	STANDARD DETAIL	23
FILE: CSD-D23.DWG	SHALLOW MANHOLE	
RATIO: 1:24		
DATE: 3/1/98		



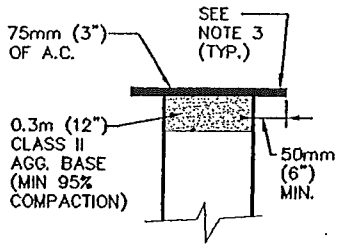
TYPE "A"
(PUBLIC EASEMENT)



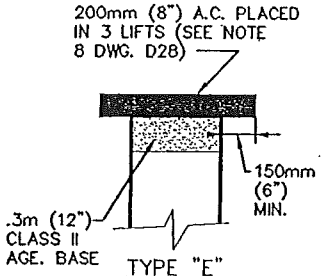
TYPE "B"
(UNPAVED SHOULDERS)



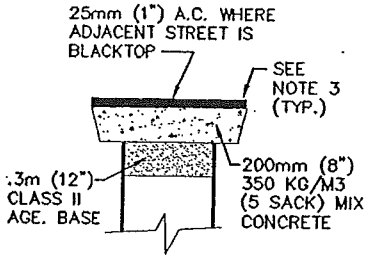
TYPE "C"
(NEW STREETS)



TYPE "D"
(EXIST. A.C. STREETS)

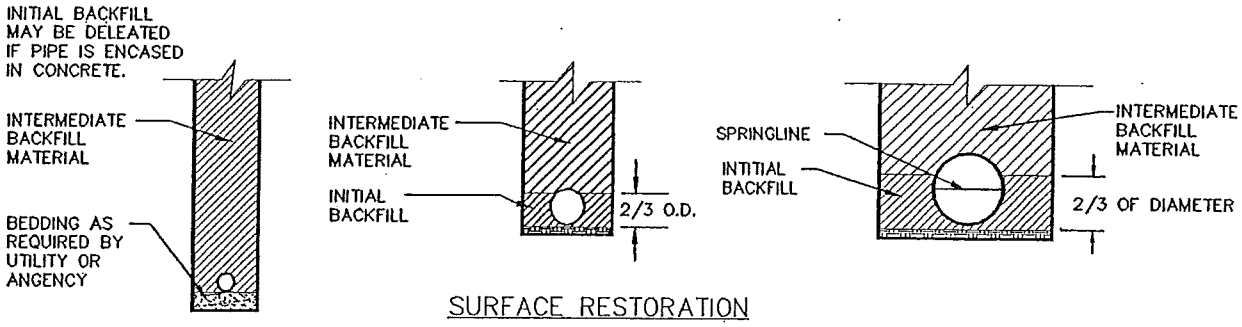


TYPE "E"
(EXIST. CONC., C.T.B., or L.T.B. STREETS)
(TRANSVERS TRENCHES)



TYPE "F"
(EXIST. CONC., C.T.B., or L.T.B. STREETS)
(LONGITUDINAL TRENCHES)

NOTE:



SURFACE RESTORATION

CONDUIT SIZE	< 150mm (6")	150mm (6") TO 0.6m (24")	0.6m (24") TO 1.5m (60")	> 1.5m (60")
MIN. TRENCH WIDTH	0.3m (12")	O.D. + 0.6m (24")	O.D. + 0.9m (36")	O.D. + 1.2m (48")
MAX TRENCH WIDTH AT TOP OF PIPE	AS DIRECTED BY UTILITY *	O.D. + 0.9m (36")	O.D. + 0.9m (36")	O.D. + 1.2m (48")
DEPTH OF INITIAL BACKFILL	AS DIRECTED BY UTILITY	2/3 O.D.	2/3 O.D.	2/3 O.D.

* 0.6m (2') FOR SEWER LATERALS

NOTE:

1. FORMATERIAL AND COMPACTION REQUIREMENTS SEE DWG. D31
2. UTILITY COMPANIES MAY REQUIRE ADDITIONAL INITIAL BACKFILL AND ADDITIONAL COVER.
3. TRENCH EDGES SHALL BE NEATLY CUT WITH SAW OR OTHER APPROVED DEVICE, TRENCH WIDTH PLUS 150mm (6") MIN. ON EITHER SIDE.

TOWN OF COLMA	STANDARD DETAIL	30
FILE: CSD-D44.DWG	TRENCH DETAILS	
RATIO: 1:24		
DATE: 3/1/98		

NOTES: TRENCH DETAILS

1. INITIAL BACK FILL MATERIAL SHALL CONFORM TO REQUIREMENTS OF THE UTILITY HAVING JURISDICTION OVER THE INSTALLATION, AND SHALL ALSO MEET THE FOLLOWING MINIMUM REQUIREMENTS: AT LEAST 90% PASSING 19 mm (3/4") SIEVE, NOT MORE THAN 15% PASSING 75 MICRON (NO. 200) SIEVE, SAND EQUIVALENT OF AT LEAST 30, AND RELATIVE COMPACTION OF 95%.

2. INTERMEDIATE BACK FILL SHALL BE ANY SUITABLE NATIVE OR IMPORTED GRANULAR MATERIAL. RELATIVE COMPACTION SHALL BE AT LEAST 95%.

3. CLASS II AGGREGATE BASE SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA. MINIMUM RELATIVE COMPACTION SHALL BE 95%. IF PAVEMENT HAVING A STRUCTURAL SECTION GREATER THAN 80 mm (15") IS CUT, ADDITIONAL BASE MATERIAL MAY BE REQUIRED BY THE CITY ENGINEER. BASE SHALL BE PLACED AND COMPACTED PRIOR TO PLACING THE TEMPORARY PAVEMENT.

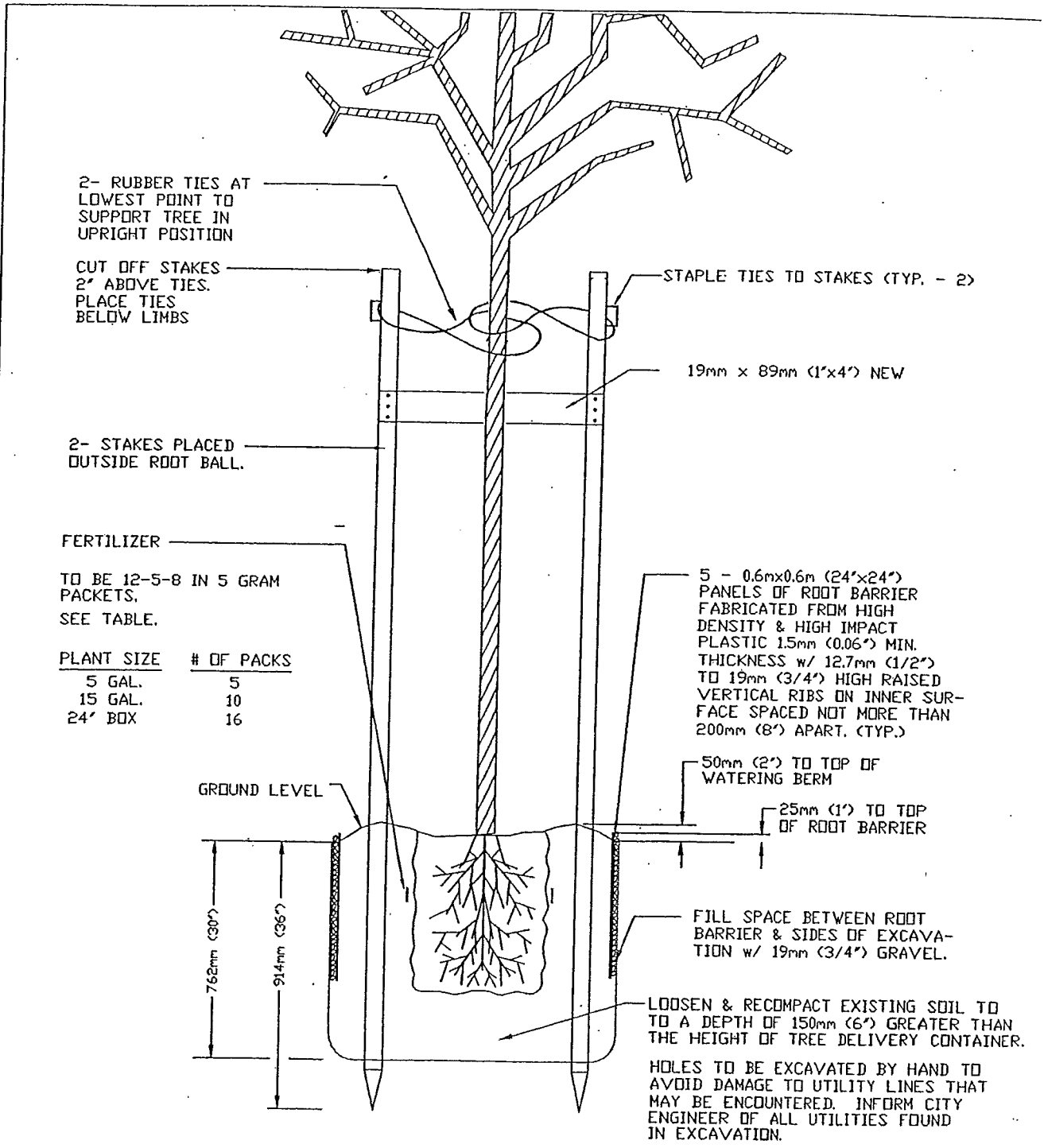
4. WHEN TRENCHES ARE BACK FILLED WITH GRANULAR MATERIALS, ADEQUATE PROVISIONS MUST BE MADE TO DRAIN OFF WATER WHICH WILL BE COLLECTED IN THE TRENCH.

5. THE TESTING AND PERFORMANCE OF MATERIALS SHALL BE IN CONFORMANCE WITH THE METHODS STATED IN THE LATEST EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION MATERIALS MANUAL EXCEPT THAT RELATIVE COMPACTION MAT BE TESTED BY AASHO METHOD T180–57c, OR TEST METHOD CALIF. 231 (NUCLEAR DENSITOMETER).

6. ADDITIONAL THICKNESS AND LIFTS OF ASPHALT CONCRETE MAY BE REQUIRED TO MATCH THE EXISTING STRUCTURAL SECTION ON MAJOR ROADS.

7. CONTRACTOR MUST SHORE ALL TRENCHES IN ACCORDANCE WITH OSHA AND STATE OF CALIFORNIA SAFETY STANDARDS.

TOWN OF COLMA	STANDARD DETAIL	31
FILE: CSD-D45.DWG	NOTES TRENCH DETAILS	
RATIO: 1:24		
DATE: 3/1/98		



NOTES:

1. PLANTING HOLE TO BE TWO TIMES THE DIAMETER OF THE TREE'S DELIVERY CONTAINER.
2. ROOT BARRIER MAY BE OMITTED WHEN TREE IS PLANTED OUTSIDE OF PUBLIC R.O.W. AND AT LEAST 3m (10 FEET) FROM BACK OF SIDEWALK OR CURB.

TOWN OF COLMA	STANDARD DETAIL	40
FILE: CSD-D23.DWG	TREE PLANTING	
RATIO: 1:24		
DATE: 3/1/98		