[redacted] General Standard Details

STANDARD DETAIL DRAWINGS INDEX

[redacted] STANDARD UTILITY LOCATIONS — Water Line & Sewer Line Separation

[redacted]: [redacted] TRENCH DETAIL — Standard Utility

[redacted]: [redacted] STANDARD [redacted] Utility Trench Detail / Trench - Street Cut.

[redacted] PIPE ANCHOR / TRENCH CUT-OFF WALL DETAIL

[redacted]: STANDARD MANHOLE Detail (Storm & Sanitary)

[redacted] FLAT-TOP MANHOLE Detail (Storm & Sanitary)

[redacted] MANHOLE BASE STANDARD DETAILS

[redacted]

[redacted]

[redacted]

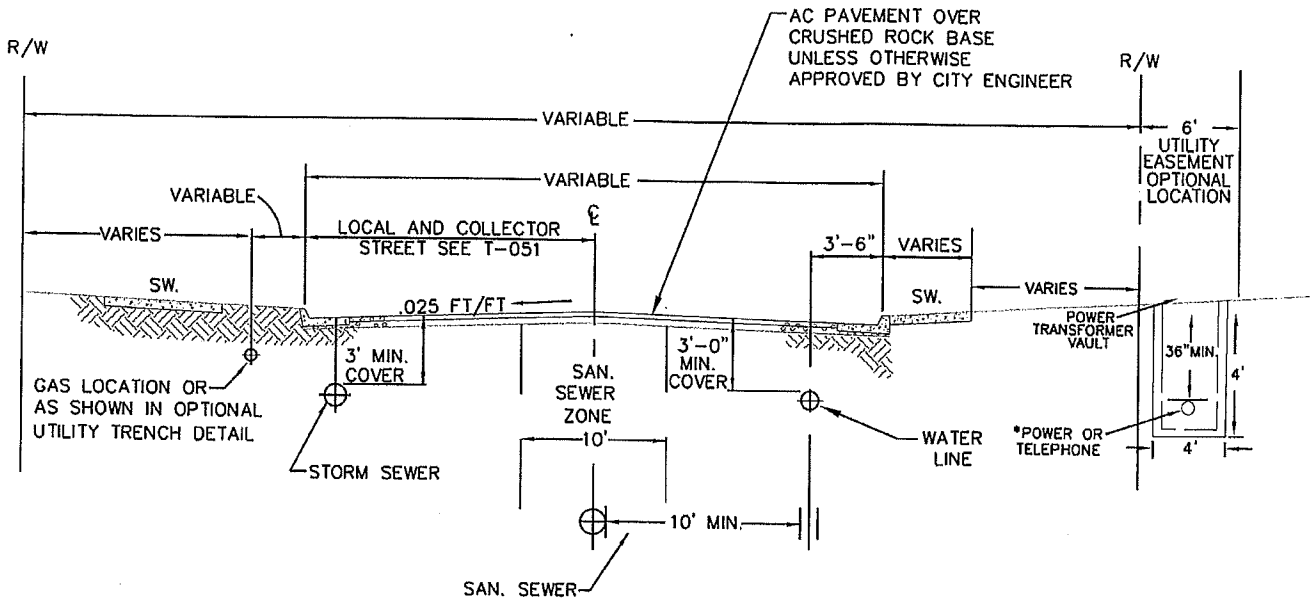
[redacted] MANHOLE FRAME GRADE ADJUSTMENT

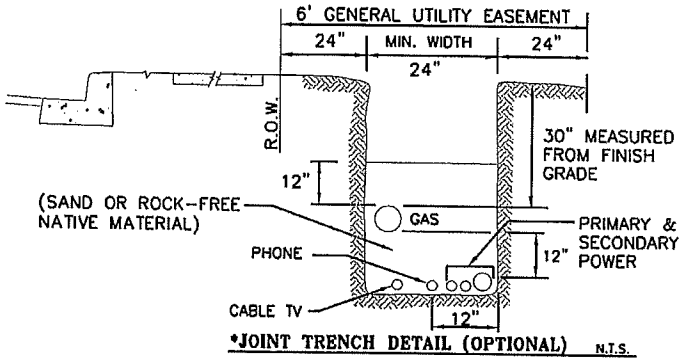
[redacted]

[redacted]

Single & Joint Use Casing for Water & Sewer Lines

City of Coos Bay 500 Central Ave Coos Bay, Oregon 97420 541.269.8918	H B H Consulting Engineers	STANDARD DETAIL DRAWING INDEX	DETAIL NO. S-010 12/11/2007





NOTES:

1. WATER MAIN TO BE LOCATED 3'-6" INSIDE FROM FACE OF CURB OR AS OTHERWISE DIRECTED.
2. 10' HORIZONTAL SEPARATION BETWEEN WATER AND SEWER WHERE POSSIBLE. COMPLY WITH SEPARATION REQUIREMENTS OF OAR 333-061-050.
3. WATER DISTRIBUTION MAINS SHALL HAVE 36" MINIMUM COVER OR AS OTHERWISE DIRECTED.
4. SEWER MAINS SHALL HAVE 5.25' (63") MINIMUM COVER UNLESS OTHERWISE APPROVED TO AVOID CONFLICTS WITH WATER AND OTHER UTILITIES.
5. WATER MAINS TO BE LOCATED ON NORTH OR EAST SIDE OF STREET WHEN PRACTICAL.
6. SEWER, STREETS AND DRAINAGE SUBJECT TO CITY STANDARDS.
7. WATER DISTRIBUTION MAINS SUBJECT TO THE COOS BAY/NORTH BEND WATER BOARD.
8. MANHOLE LIDS SHALL NOT BE LOCATED DIRECTLY IN NORMAL WHEEL PATH.
9. ALL LAYOUTS AND LOCATIONS ARE SUBJECT TO CITY APPROVAL.

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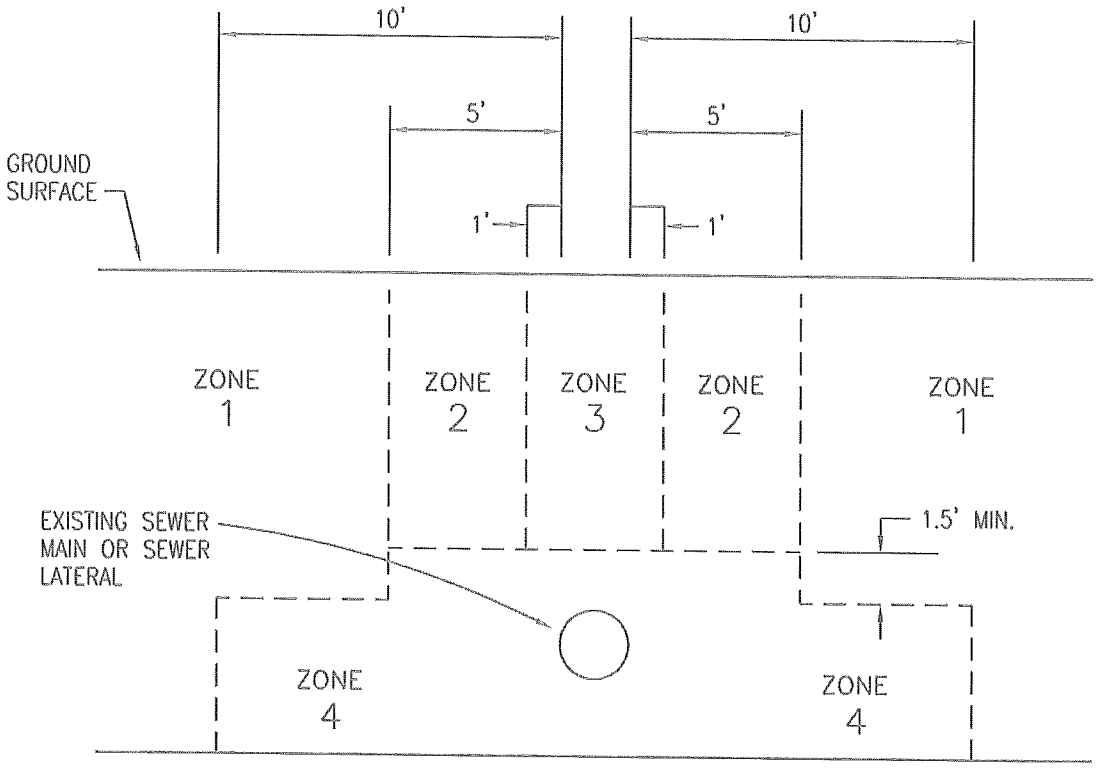
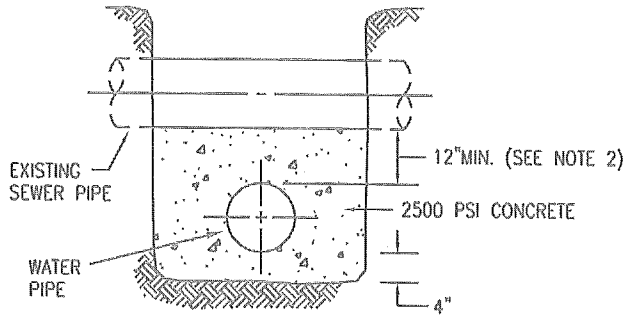
STANDARD UTILITY LOCATIONS

DETAIL NO.



WATER & SEWER LINE IN PARALLEL CONDITIONS

ZONE	VERTICAL SEPARATION	HORIZONTAL SEPARATION	RESTRICTIONS
1	Water line higher than sewer	5'	Only crossing restrictions apply
1	Water line level or lower than sewer	10'	Only crossing restrictions apply
2	Water line 1.5' higher than sewer	Greater than 1' but less than 5'	Case-by-case determination
3	Water line 1.5' higher than sewer	Less than 1'	Parallel water line prohibited
4	Water line less than 1.5' above sewer	Less than 5'	Parallel water line prohibited
4	Water line level or lower than sewer	Less than 10'	Parallel water line prohibited



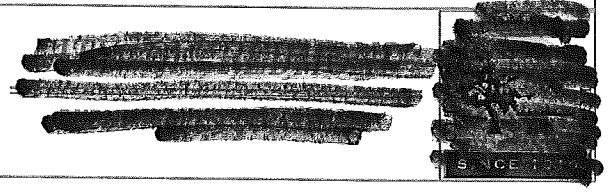
CONCRETE ENCASEMENT UNDER EXISTING PIPES

NOTE:

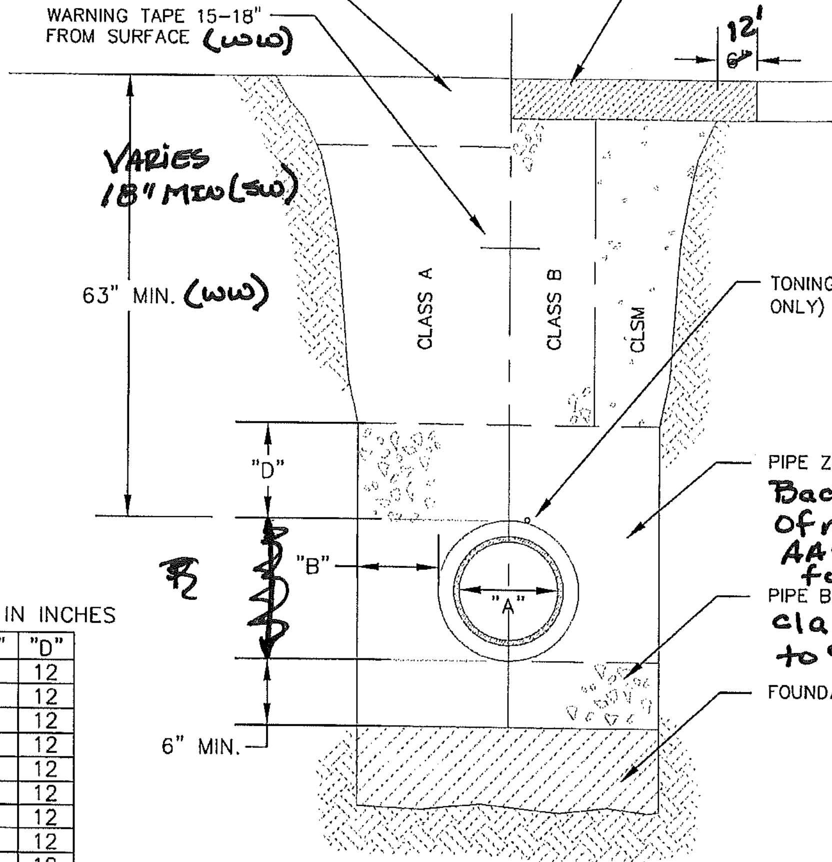
1. WATER & SEWER LINE CROSSINGS SHALL COMPLY WITH DESIGN STANDARDS, B. SEWER OR O.A.R. 333-61-050 FOR SEPARATION AND PIPE MATERIAL REQUIREMENTS.
2. SEPARATION LESS THAN 12" FOR WATER & SEWER LINE CROSSINGS MUST BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE ENCASEMENT TO BE USED IN CASES WHERE A WATER MAIN CROSSES UNDER AN EXISTING SEWER MAIN, WITH CITY APPROVAL. MINIMUM ENCASEMENT LENGTH SHALL BE 3 FEET EACH SIDE.
4. UNDERGROUND UTILITIES SHALL NOT BE LOCATED CLOSER THAN 10' HORIZONTALLY FROM ANY WATER AND SEWER MAIN. UNDER SPECIAL PERMISSION FROM THE CITY ENGINEER, SEPARATION MAY BE REDUCED TO 5'.

5 Service Connections for water and sewer shall be Located no closer than 10' Horz.

DATE :	SCALE :	WATER LINE & SEWER LINE SEPARATION
6/30/95	NONE	
DRAWING NO.	APPROVED BY :	
[redacted]	G.KOLB	



WW - WASTEWATER
SW - Storm water



DIMENSIONS IN INCHES

"A"	"B"	"D"
4	10	12
6	10	12
8	10	12
10	10	12
12	12	12
15	12	12
18	16	12
21	16	12
24	18	12
30	18	12
36	24	14

~~WASTEWATER~~
NOTES:

1. TRENCH EXCAVATION SHALL BE CONDUCTED IN A SAFE MANNER WITH ALL NECESSARY BRACING AND SHORING PROVIDED FOR COMPLIANCE WITH OSHA.

2. FOUNDATION STABILIZATION SHALL BE PROVIDED WHEN MATERIAL AT BOTTOM OF TRENCH IS UNSUITABLE IN THE OPINION OF THE CITY TO PROVIDE A STABLE TRENCH BASE.

~~3. CONSTRUCTION IN PUBLIC RIGHT-OF-WAY SHALL COMPLY WITH CITY STANDARDS.~~

4. CLASS B BACKFILL REQUIRED IN ALL ROADWAYS AND TRAFFIC PATHS EXCEPT WHERE CLSM BACKFILL IS REQUIRED. ~~BY COUNTY, ODOT, OR CITY.~~

5. TONING WIRE REQUIRED AT SERVICE LATERALS, FORCE MAINS, and Storm water lines. WIRE SHALL BE ~~12~~ 18 GA. MINIMUM SOLID COPPER WIRE WITH GREEN 30 MIL THICK HDPE INSULATION RATED FOR DIRECT BURY. USE APPROVED WATERPROOF SPLICE AT ALL CONNECTIONS.

6. wastewater Lines shall have WARNING TAPE SHALL BE 6" WIDE, 4 MIL THICK, APWA GREEN, READING "CAUTION SEWER LINE BURIED BELOW".

7. MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY ~~SANITARY SEWER DESIGN STANDARDS MANUAL.~~ of Coos Bay Design Manual

8. COMPACT ALL FILL AS SPECIFIED.

Standard Utility

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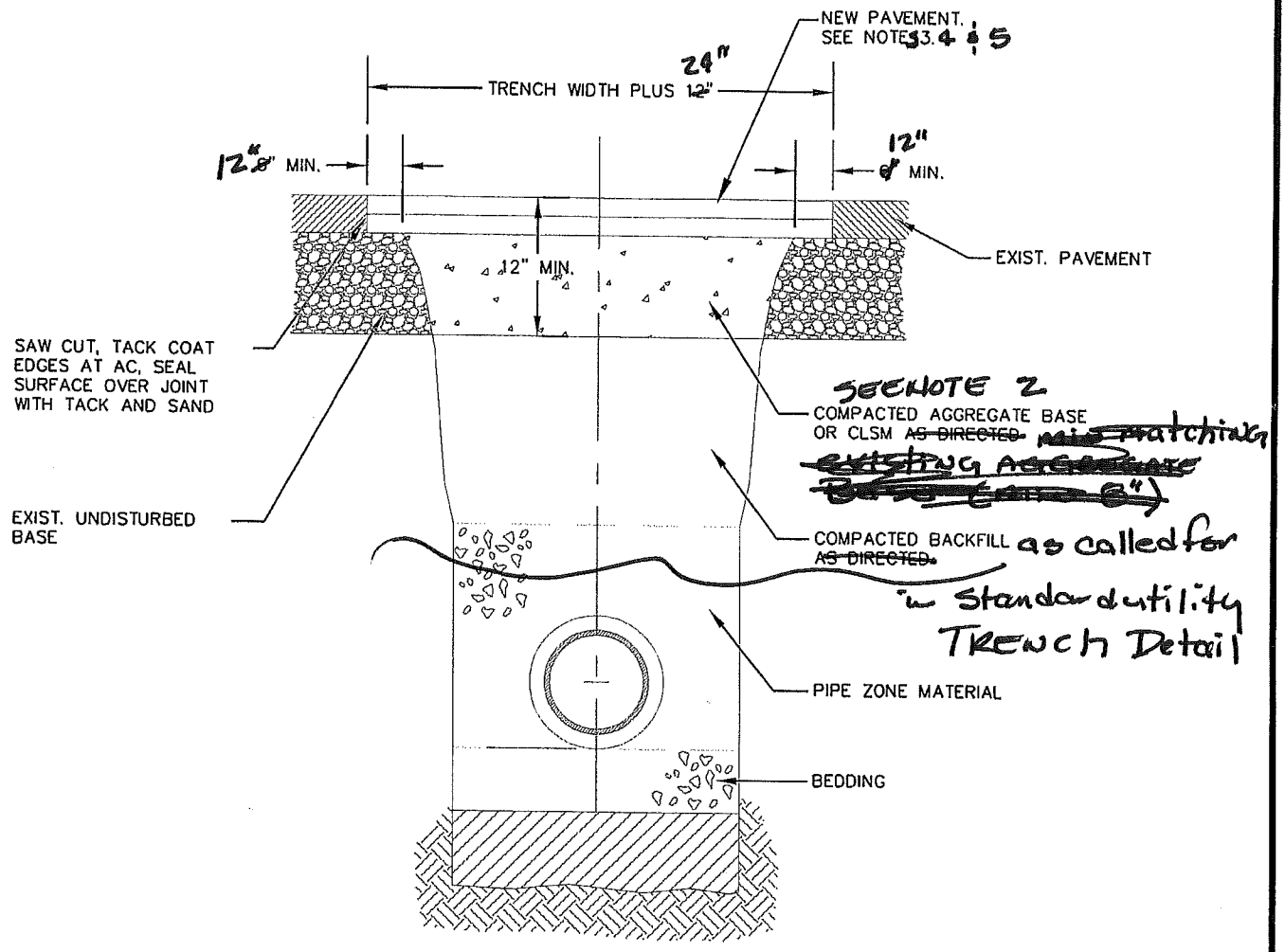
[redacted]

[redacted] TRENCH DETAIL
[redacted]

DETAIL NO.
[redacted]

\\Workgroups\Coos Bay Devel Standards\CB Sewer Standards\sdetails-SEWER.dwg S-100 6/5/2008 4:21:18 PM

5. In situations where existing PCC ~~Concrete~~ pavement is overlayed with AC Pavement. Place PCC pavement in accordance to Note 3 w AC Pavement placed in accordance w/ Note 4.



NOTES:

1. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT IMMEDIATELY PRIOR TO REPAVING.

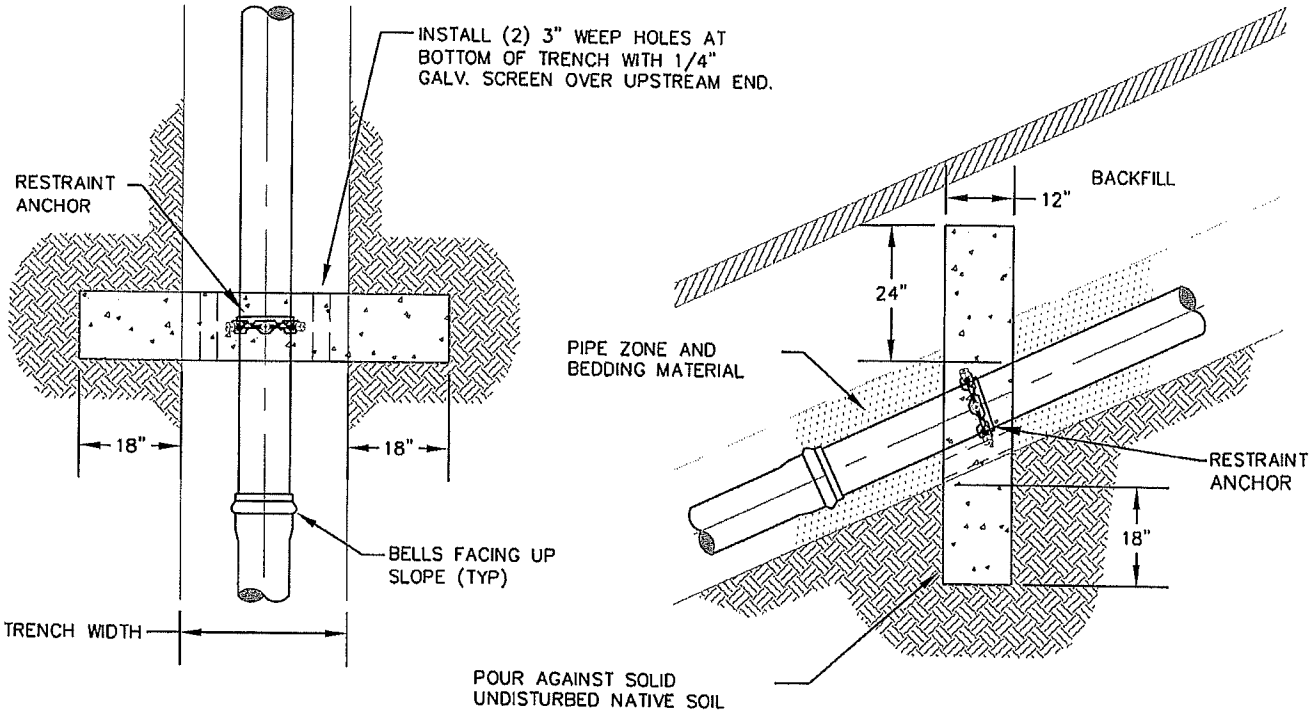
~~2.~~ 3. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6 INCHES OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. ~~dowel bars~~ smooth 1" dowel bars shall be installed @ mid depth

~~3.~~ 4. PLACE AC MIX TO A MINIMUM THICKNESS OF 4 INCHES OR THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. COMPACT AS DIRECTED. AC PAVEMENT SHALL BE PLACED IN AT LEAST TWO 2" LIFTS.

~~4. COMPLY WITH THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OVER THE ROAD IN WHICH THE STREET CUT OCCURS.~~

2. Place Compacted Aggregate Base or ~~CTB~~ CLSM to a minimum Thickness of 8" inches or the thickness of Removed ~~Base~~, Aggregate Base, Which ever is Greater. Compacted as directed.

Standard Utility TRENCH Detail



NOTES:

1. CUT-OFF WALLS REQ'D AT ALL PIPELINES WHERE SLOPE EXCEEDS 20%.
2. RESTRAINED JOINT PIPE REQUIRED AT SLOPES BETWEEN 15% AND 20%.
3. WALLS SHALL BE FORMED WITHIN TRENCH. REMOVE FORMS PRIOR TO BACKFILLING.
4. [redacted]
5. SPACING OF WALLS SHALL BE:

SLOPE	SPACING
20-34%	35 FEET
35-50%	25 FEET
51-+ %	15 FEET

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[redacted]

PIPE ANCHOR / TRENCH CUT-OFF WALL DETAIL

DETAIL NO.
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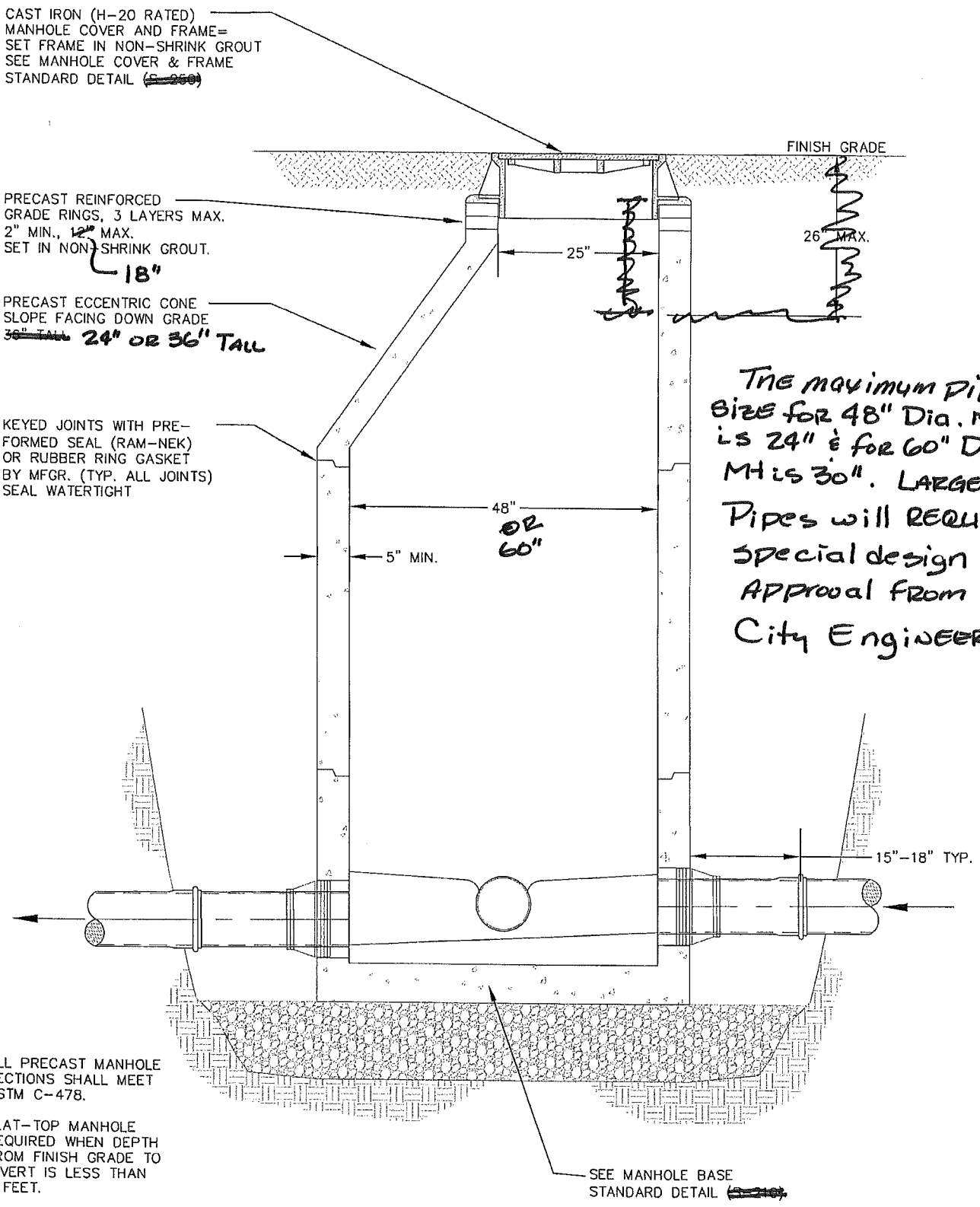

The maximum pipe size for 48" Dia. MH is 24" & for 60" Dia. MH is 30". Larger Pipes will require special design & Approval from City Engineer.

ALL PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478.

FLAT-TOP MANHOLE REQUIRED WHEN DEPTH FROM FINISH GRADE TO INVERT IS LESS THAN 6 FEET.

INTERIOR DROPS EXCEEDING 24" REQUIRE DROP MANHOLE.

\\Mark\projects\Coos Bay Devel Standards\CB Sewer Standards\s-details-SEWER.dwg, S-200, 6/5/2008 4:21:54 PM, Mark Chamberlain, 1:1

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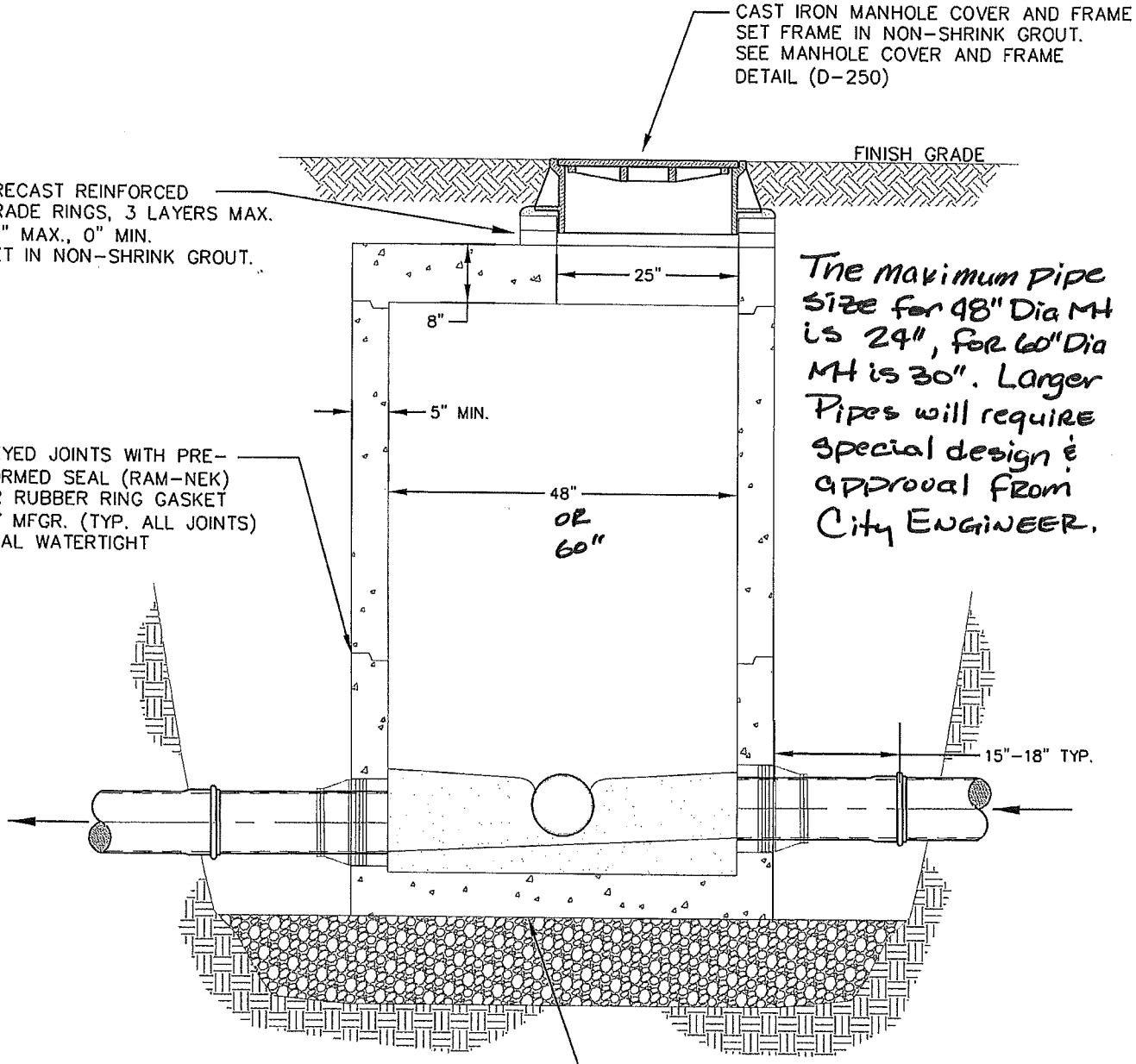
STANDARD MANHOLE DETAIL

DETAIL NO.



The maximum pipe size for 48" Dia MH is 24", for 60" Dia MH is 30". Larger Pipes will require special design & approval from City Engineer.

NOTE:

1) ALL PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478.

2) STANDARD MANHOLE REQUIRED WHEN DEPTH FROM FINISH GRADE TO INVERT IS 6 FEET OR MORE.

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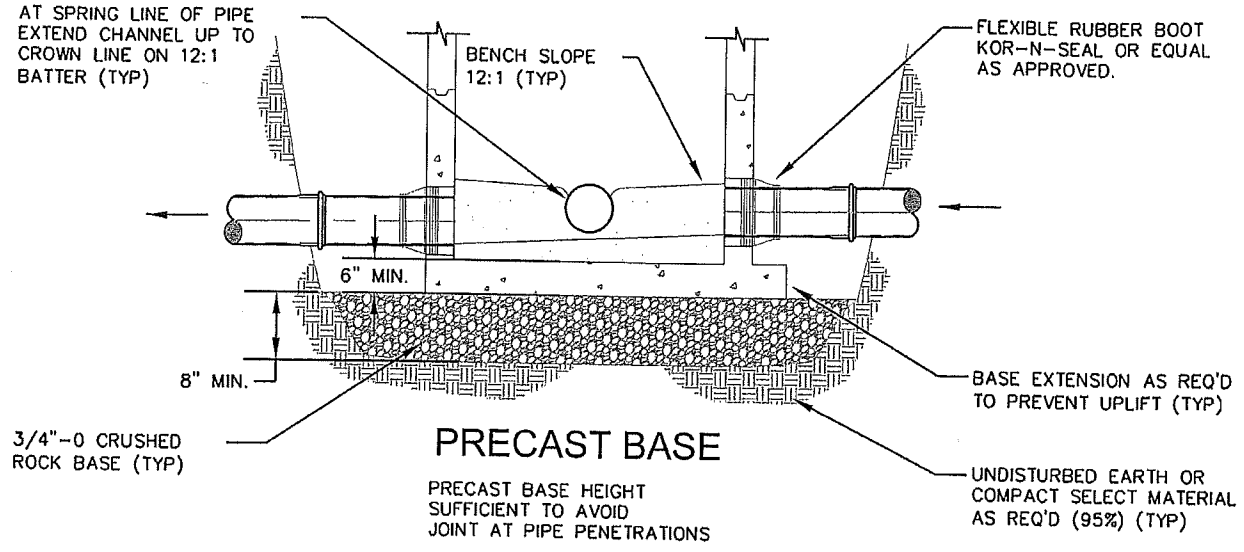
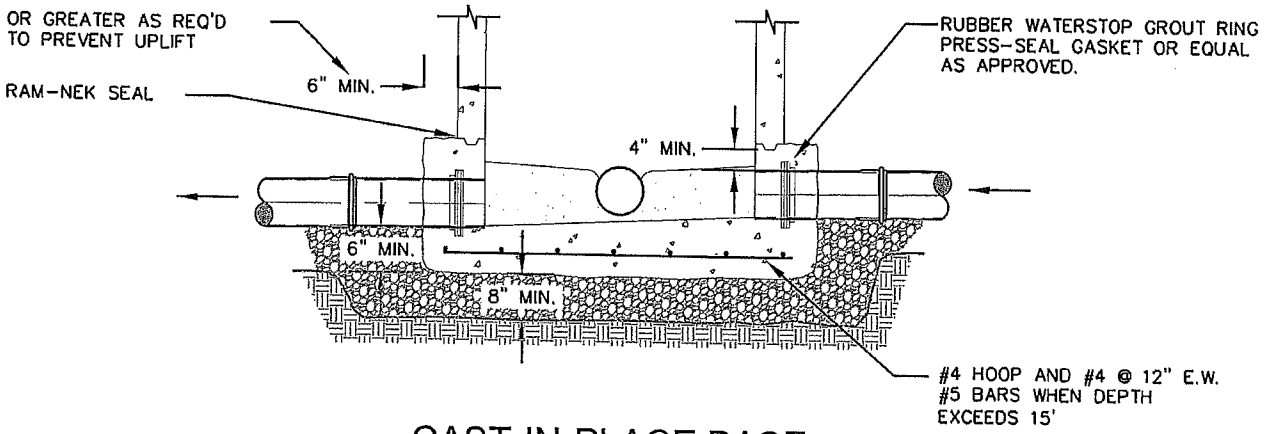
FLAT-TOP MANHOLE DETAIL

DETAIL NO.

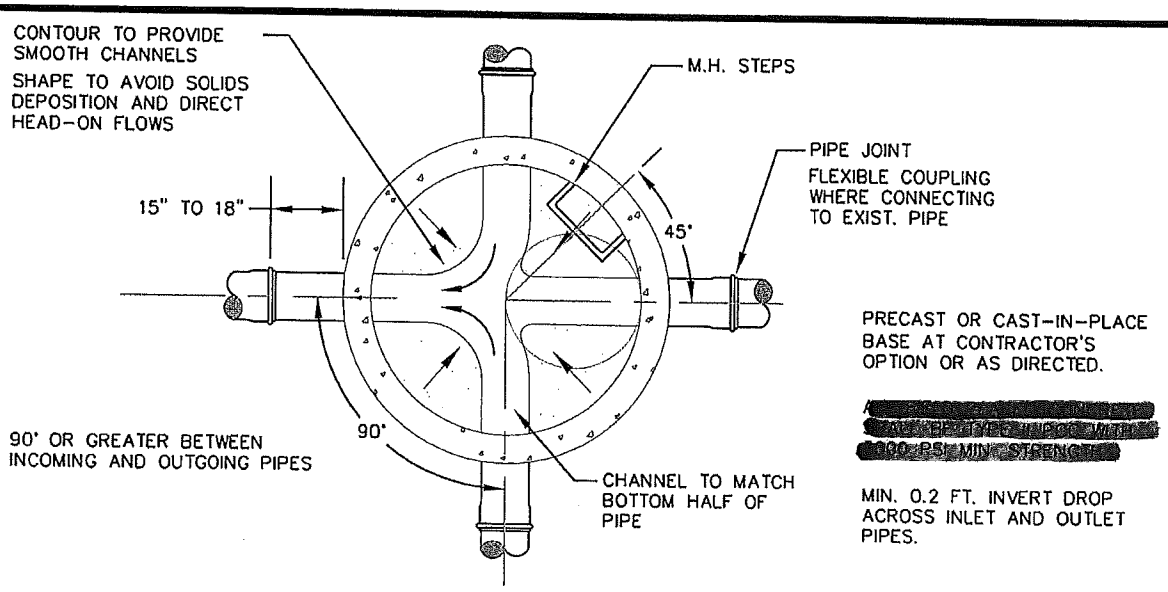


PRECAST BASE

PRECAST BASE HEIGHT SUFFICIENT TO AVOID JOINT AT PIPE PENETRATIONS



CAST-IN-PLACE BASE



PRECAST OR CAST-IN-PLACE BASE AT CONTRACTOR'S OPTION OR AS DIRECTED.

[redacted]

MIN. 0.2 FT. INVERT DROP ACROSS INLET AND OUTLET PIPES.

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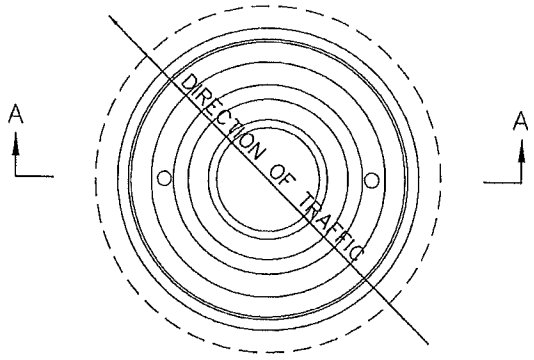
[redacted]

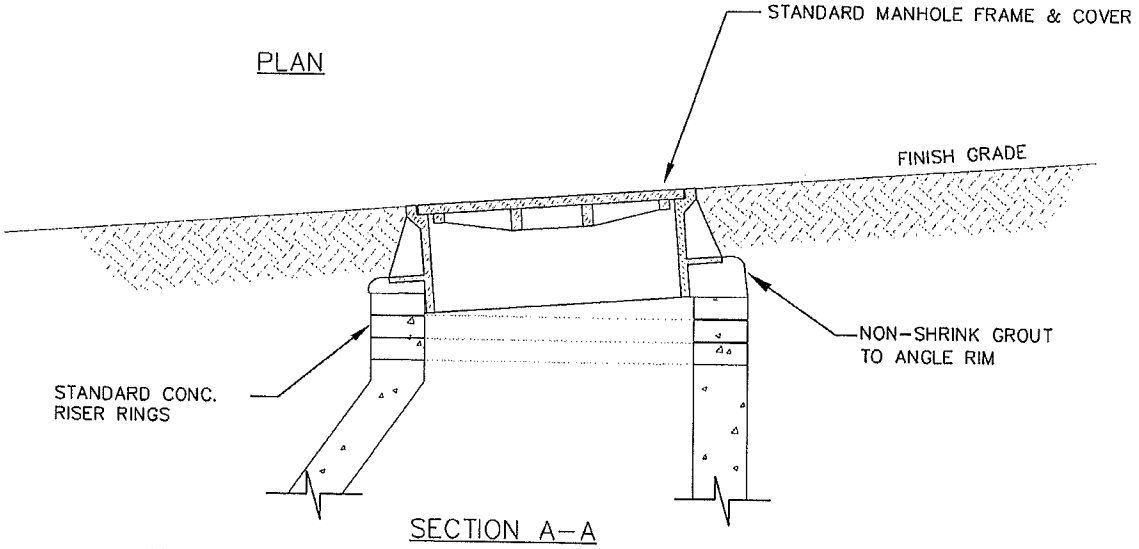
MANHOLE BASE STANDARD DETAILS

DETAIL NO.

[redacted]

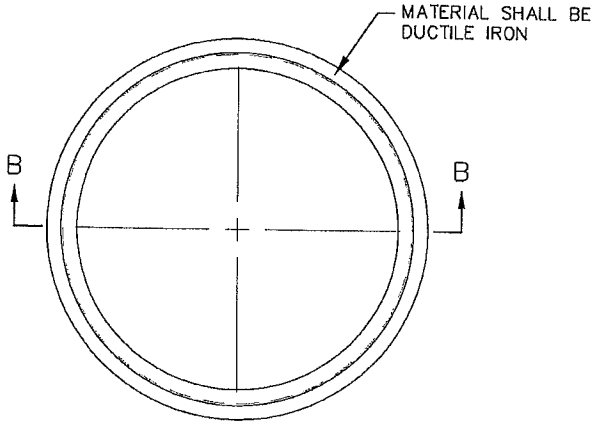


PLAN

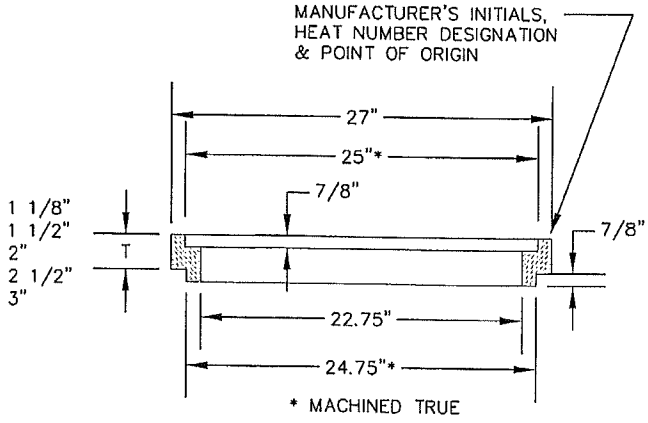


SECTION A-A

TYPICAL MANHOLE GRADE ADJUSTMENT IN STREET



MANHOLE ADJUSTMENT RINGS
FOR RESURFACING



SECTION B-B

City of Coos Bay
500 Central Ave
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MANHOLE FRAME GRADE ADJUSTMENT

DETAIL NO.

[redacted]

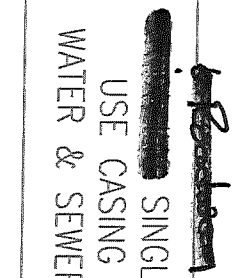
DRAWING NO.

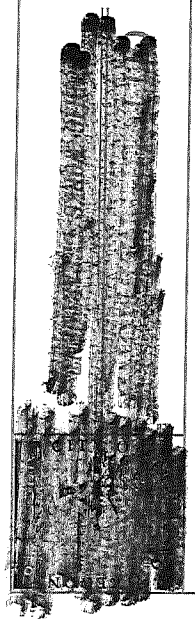
DATE : 8/17/95

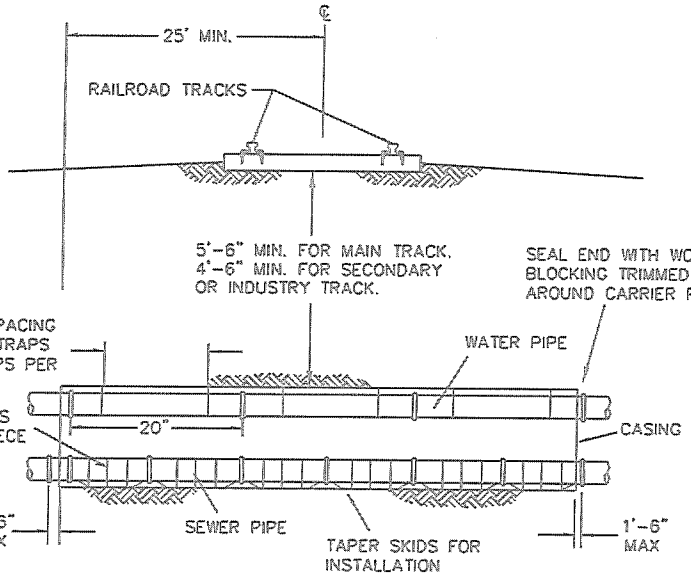
APPROVED BY : G.KOLB

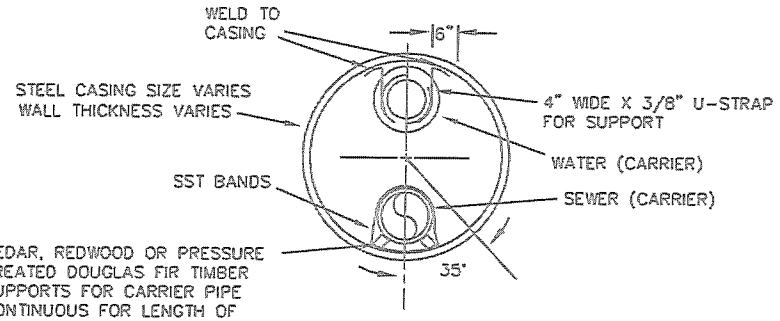
SCALE : NONE

USE CASING FOR WATER & SEWER LINES

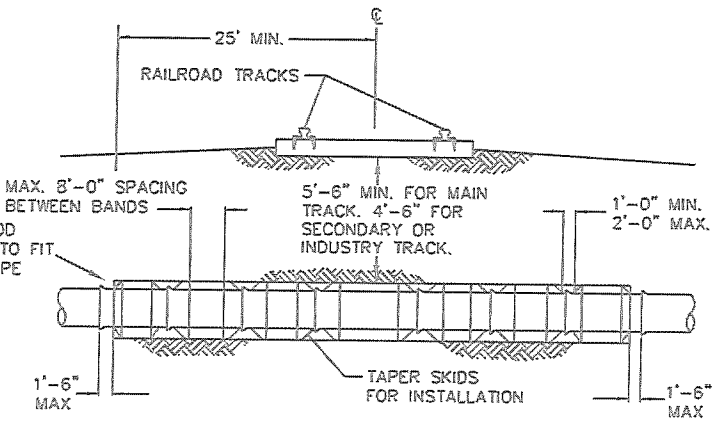


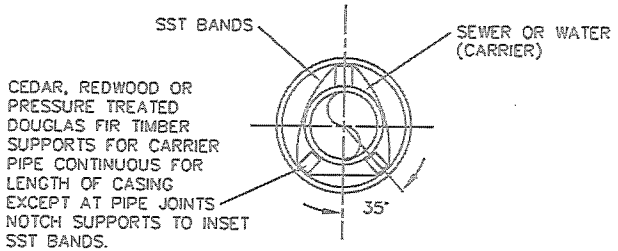






JOINT USE CASING





SINGLE USE CASING

RAILROAD CROSSING DETAIL

NOTES:

1. MINIMUM CASING WALL THICKNESS VARIES WITH CASING SIZE. SEE TABLE
2. CASING SHALL CONFORM TO SEWER SLOPE WHEN APPLICABLE.
3. CROSSING DETAIL MAY BE USED FOR HIGHWAYS, STREETS, AND ROADS WITH MIN. WALL THICKNESS OF 0.25 INCH.

CASING PIPE UNDER RAILROADS MIN. STEEL YIELD STRENGTH 35,000 PSI	
PIPE DIAMETER (INCHES)	MINIMUM WALL THICKNESS (INCH)
UNDER 14	0.188
14-16	0.219
18	0.250
20	0.281
22	0.312
24	0.344
26	0.375
28-30	0.406
32	0.438
34-36	0.469
38-42	0.500
* PER AMERICAN RAILWAY ENGINEERING ASSOCIATION, E-72 LOADING	

STREET AND TRANSPORTATION SYSTEMS

STANDARD DETAIL DRAWINGS INDEX

T-050: STANDARD PAVED STREET

T-051: MINIMUM STRUCTURAL STREET DESIGN

~~T-052: STANDARD UTILITY LOCATIONS~~

T-100: TYPICAL CUL-DE-SAC DETAIL

~~T-150: RESIDENTIAL DRIVEWAY APPROACH DETAIL~~ Concrete Driveway Approach Option "A"

~~T-151 COMMERCIAL DRIVEWAY APPROACH DETAIL~~ Concrete Driveway Approach Option "B"

~~T-201 PEDESTRIAN/BIKE PATH~~ Typical Multi-Use Path DETAIL

T-210: STANDARD SIDEWALK DETAILS

~~T-211: SIDEWALK AND RAMP DETAIL WITH PLANTER STRIP~~ Sidewalk & Curb Ramps (w/ Planter strip)

~~T-212: SIDEWALK AND RAMP DETAIL WITHOUT PLANTER STRIP~~ Sidewalk & Curb Ramps (w/out Planter strip

~~T-213: RAMP AND TEXTURE DETAIL WITH PLANTER STRIP~~

~~T-214 RAMP AND TEXTURE DETAIL WITHOUT PLANTER STRIP~~

T-301: CURB AND GUTTER DETAIL

T-302: VALLEY GUTTER DETAIL

T-401: STANDARD STREET LIGHT DETAIL

T-450: ~~STANDARD SIGN DETAIL~~ Typical Stop & Street Name Sign Combination

T-451: STREET SIGN AND LETTERING DETAILS

T-501: STANDARD PERMANENT BARRICADE DETAIL

Cluster Postal Delivery Box Parking Bay

"T" Intersection Alignment Standard.

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STANDARD DETAIL DRAWING INDEX

DETAIL NO. T-10[illegible]

DAN 2008

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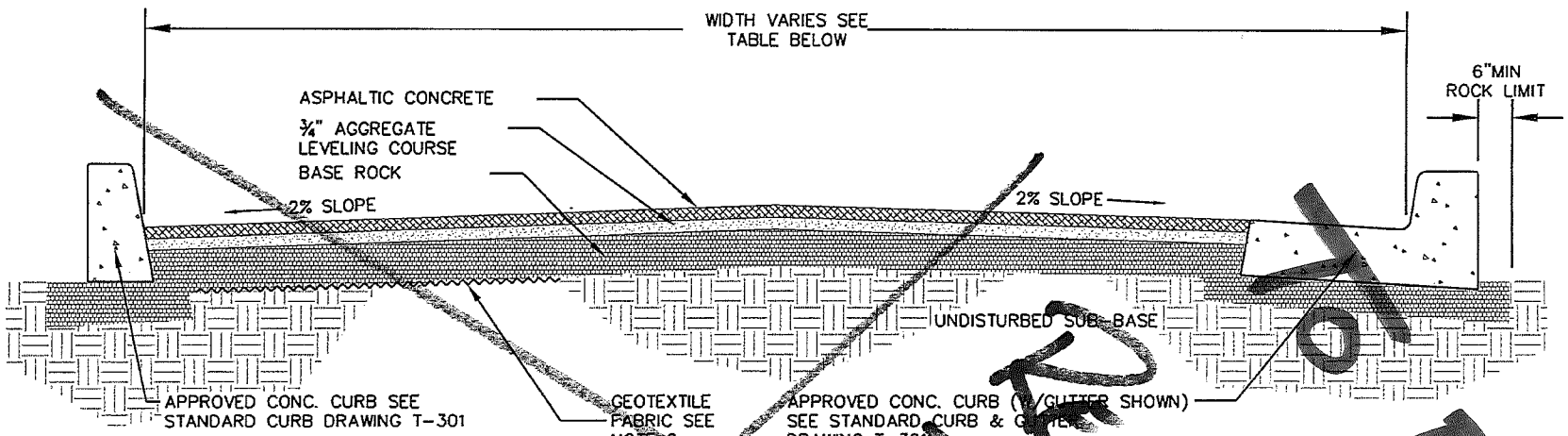
STANDARD PAVED STREET

DETAIL NO. T-050



NOTES:

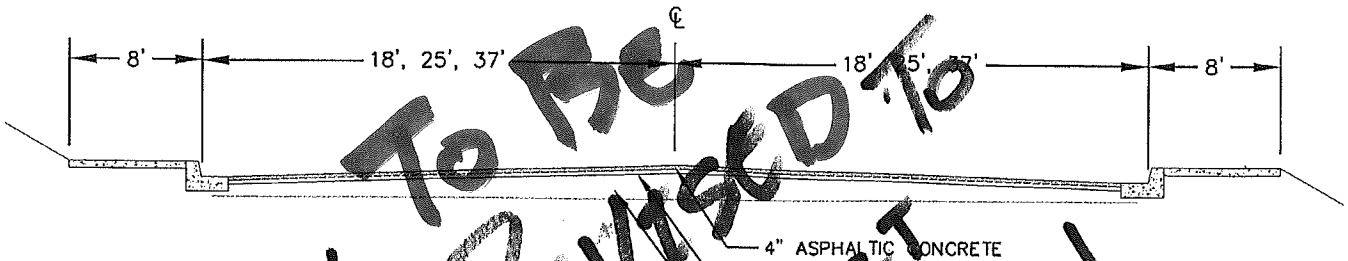
1) REFERENCE CITY OF COOS BAY LAND DEVELOPMENT ORDINANCE
2) STREETS SHALL BE PAVED CENTERED IN THE PUBLIC RIGHT OF WAY
3) DEVELOPER SHALL OBTAIN WRITTEN APPROVAL TO PAVE OVER PUBLIC UTILITIES FROM COOS BAY/NORTH BEND WATER BOARD, PACIFIC POWER & LIGHT, VERIZON TELEPHONE, COMCAST CABLE, NORTH WEST NATURAL, AND THE CITY OF COOS BAY.
4) THE DEVELOPER SHALL OBTAIN A RIGHT OF WAY USE PERMIT AND SUBMIT A COMPLETE SET OF ENGINEERED DRAWINGS SHOWING THE PLAN AND PROFILE VIEWS OF EXISTING CONDITIONS AND PROPOSED WORK. WHEN PROJECT IS COMPLETE, THE DEVELOPER SHALL FURNISH THE CITY WITH A COMPLETE SET OF REPRODUCIBLE DRAWINGS AND CD SHOWING
THE "AS CONSTRUCTED" CONDITIONS OF THE COMPLETED PROJECT.
5) SEE DESIGN STANDARDS MANUAL FOR COMPACTION OF MATERIALS AND TESTING.
6) GEOTEXTILE FABRIC AS REQ'D

STREET TYPE	MIN. WIDTH CURB-TO-CURB
ARTERIAL	
5-LANE	72'-74'
3-LANE	48'-50'
2-LANE	34'-36'
COLLECTOR	50'-52'
LOCAL	
RESIDENTIAL	36'
COMMERCIAL/INDUSTRAIL	40'
DEAD END	36'
CUL-DE-SAC	45' RAD
ALLEY	20'

* WIDTHS MAY BE MODIFIED BY THE CITY ENGINEERING DEPARTMENT TO SUIT SITE CONDITIONS

To Be Revised To Reflect Table in Design Standards

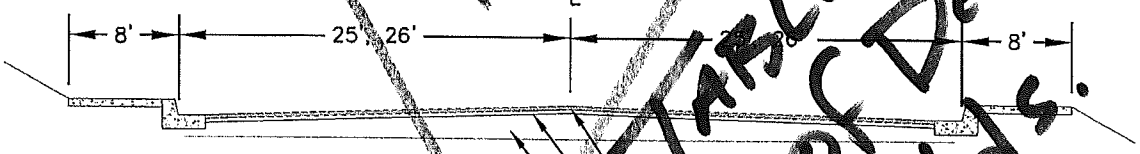
ARTERIAL
STANDARD CURB & GUTTER WITH SIDEWALKS
36'–74' WIDE



4" ASPHALTIC CONCRETE
2' ¾"–0 AGGREGATE LEVELING COURSE
8" 1½"–0 AGGREGATE BASE COURSE

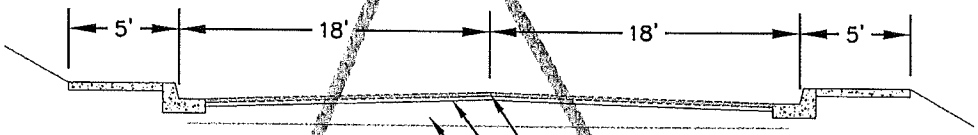
To Be Revised To Reflect Table 1.2.1 of Design Stds.

COLLECTOR STREETS
STANDARD CURB & GUTTER WITH SIDEWALKS
50'–52' WIDE



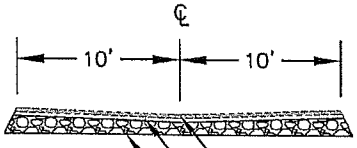
4" ASPHALTIC CONCRETE
2' ¾"–0 AGGREGATE LEVELING COURSE
8" 1½"–0 AGGREGATE BASE COURSE

LOCAL STREET OR DEAD END
STANDARD CURB & GUTTER WITH SIDEWALKS
36' WIDE



2" ASPHALTIC CONCRETE
2" ¾"–0 AGGREGATE LEVELING COURSE
8" 1½"–0 AGGREGATE BASE COURSE

ALLEY
STRIP PAVEMENT WITH VALLEY AND GUTTER
20' WIDE



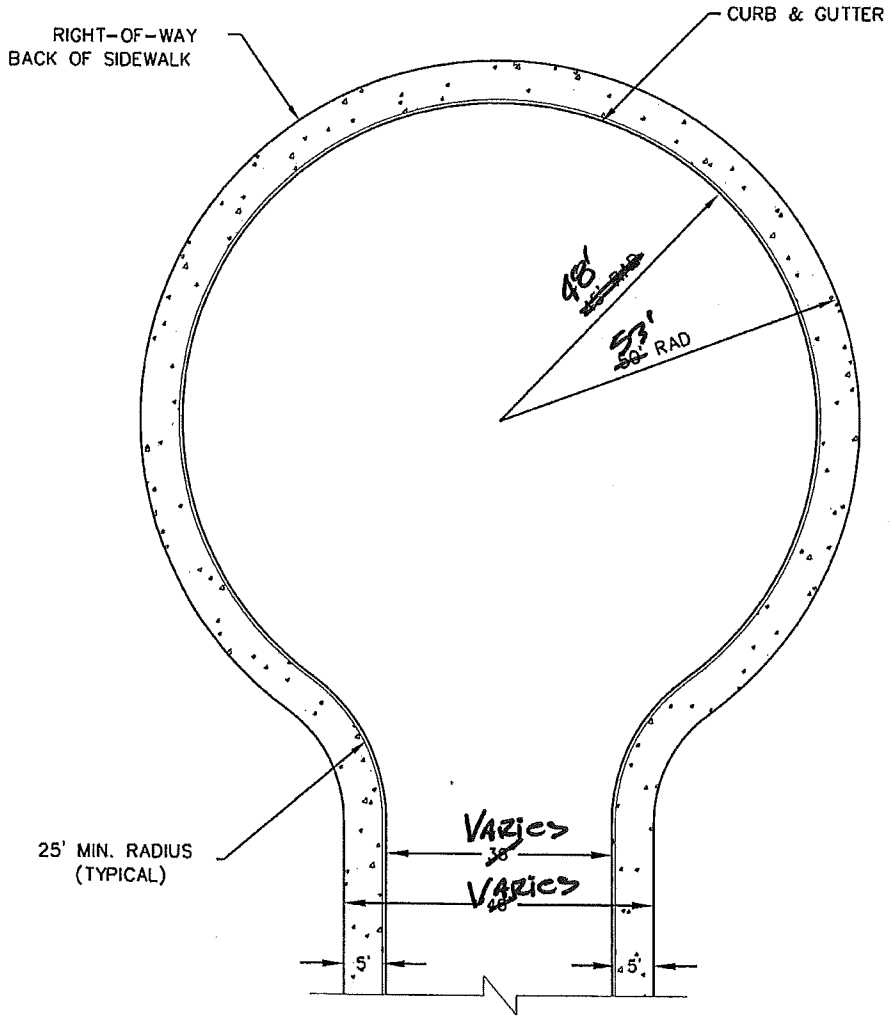
2" ASPHALTIC CONCRETE
2" ¾"–0 AGGREGATE LEVELING COURSE
8" 1½"–0 AGGREGATE BASE COURSE

NOTES:
1. APPROVED SIDEWALKS SEE STANDARD SIDEWALK DETAIL T–210
2. APPROVED CONCRETE CURB & GUTTER SEE STANDARD CURB & GUTTER DETAIL T–301

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

MINIMUM STRUCTURAL STREET DESIGN STANDARDS

DETAIL NO.



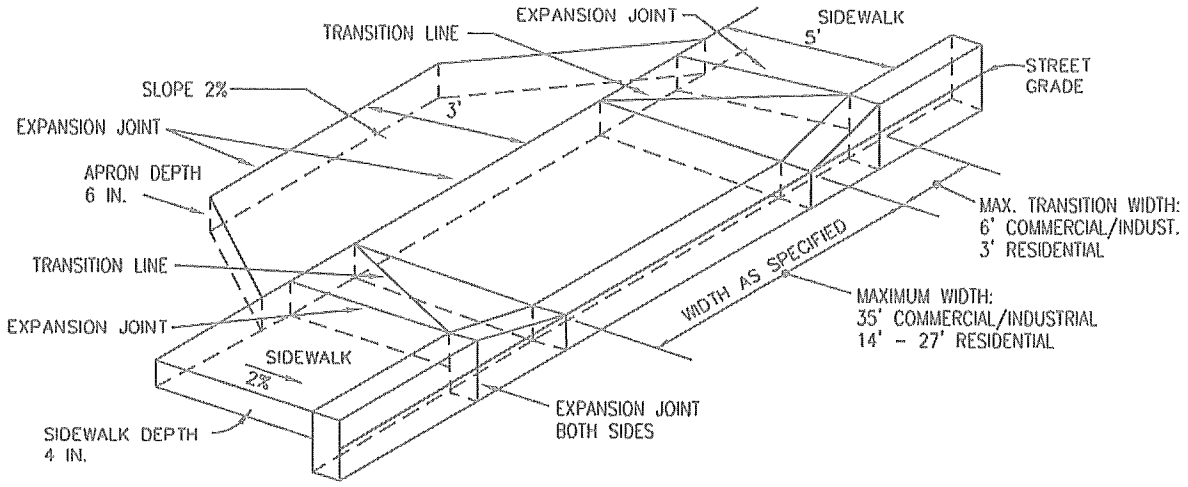
NOTES:

1. CUL-DE-SAC GEOMETRY SHOWN DOES NOT ALLOW FOR ON-STREET PARKING. IF ON-STREET PARKING IS DESIRED, THE RADIUS TO THE FACE OF CURB MUST BE INCREASED TO ACCOUNT FOR A SINGLE PARKING LANE WIDTH. (MINIMUM 8 FEET)

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

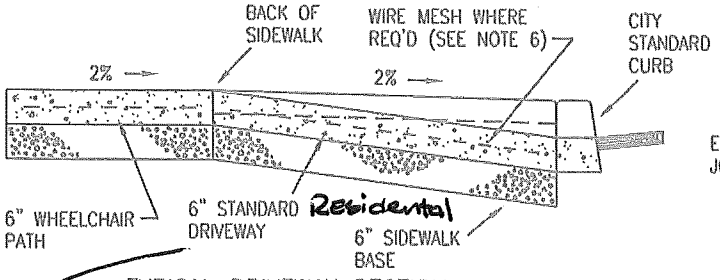
TYPICAL CUL-DE-SAC DETAIL

DETAIL NO.

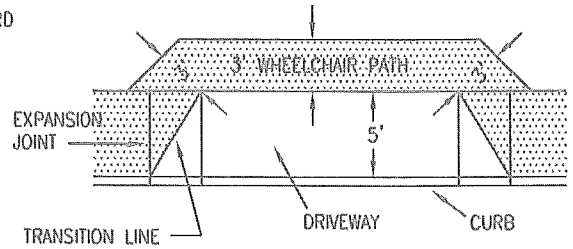


TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK - OPTION "A"

N.T.S.



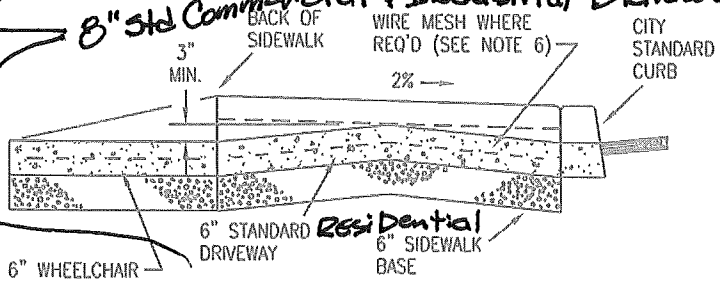
TYPICAL DRIVEWAY SECTION



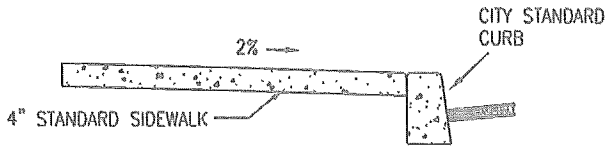
PLAN VIEW

N.T.S.

8" Std Commercial & Industrial Driveway



TYPICAL DROP DRIVEWAY SECTION



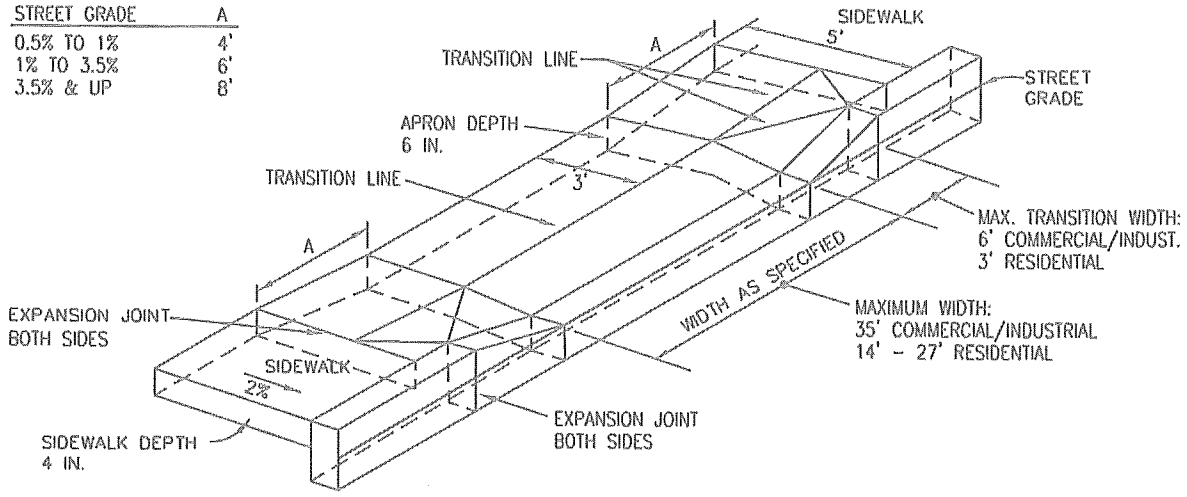
TYPICAL SIDEWALK SECTION (SEE DWG [redacted])

NOTES:

1. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 90% OF RELATIVE MAXIMUM DENSITY (AASHTO T-99) TO 6" THICK MIN.
2. CONCRETE SHALL BE 6.0 SACK, CLASS 3000 AND CONTAIN NO ADDITIVES TO CAUSE RAPID SETTING. 4% - 7% ENTRAINED AIR REQUIRED. PROTECT FROM ADVERSE WEATHER FOR 7 DAYS MIN.
3. LIGHT TRANSVERSE BROOM FINISH REQUIRED ON SIDEWALKS AND DRIVEWAYS.
4. FULL EXPANSION JOINTS AT ENDS OF DRIVEWAY. CONTRACTION JOINTS AT CENTER OF DRIVEWAY AND 5' CENTERS ALONG SIDEWALK.
5. MAINTAIN CONSTANT GRADE AT BACK EDGE THROUGH DRIVEWAYS WHENEVER POSSIBLE.
6. NO. 4 REBAR (2 LONGITUDINAL BARS, TRANSVERSE BARS 4'-0" O.C.) REQUIRED IN COMMERCIAL AND INDUSTRIAL DRIVEWAYS. 6"x 6", 10 GA., WIRE MESH MAY BE USED IN LIEU OF REBAR.
7. DRIVEWAY APRONS ARE REQUIRED AN ALL NEW CONSTRUCTION.

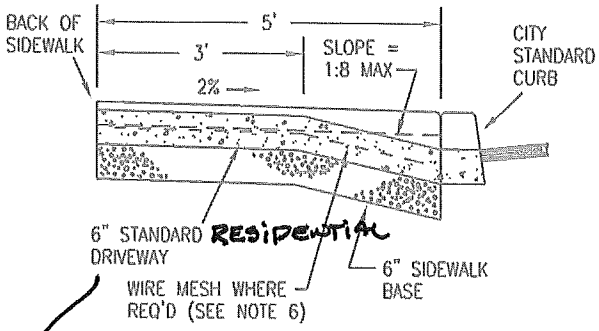
DATE : 1/3/97	SCALE : NONE	CONCRETE DRIVEWAY [redacted] OPTION "A"	[redacted]
DRAWING NO. [redacted]	APPROVED BY : G.KOLB		

STREET GRADE	A
0.5% TO 1%	4'
1% TO 3.5%	6'
3.5% & UP	8'



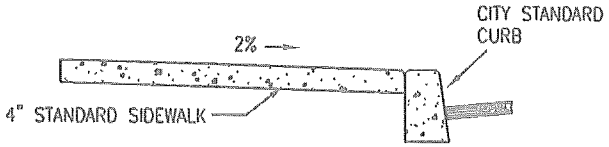
TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK – OPTION "B"

N.T.S.

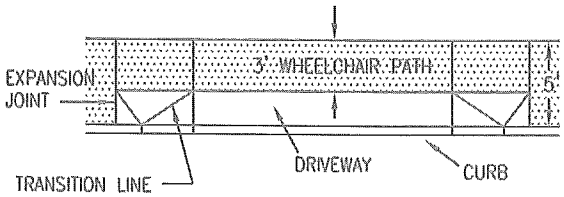


TYPICAL DRIVEWAY SECTION

8" STD Commercial & Industrial Driveway



TYPICAL SIDEWALK SECTION (SEE DWG



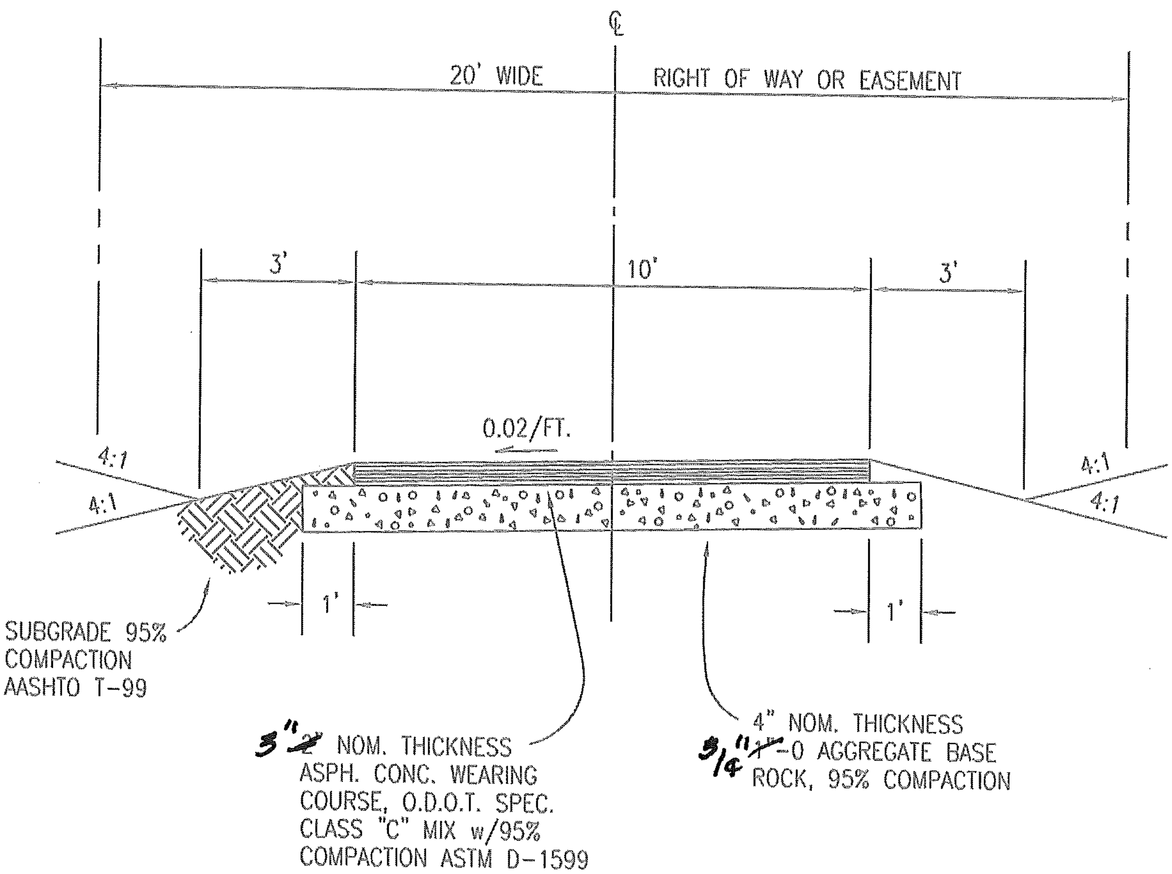
PLAN VIEW

N.T.S.

NOTES:

1. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 90% OF RELATIVE MAXIMUM DENSITY (AASHTO T-99) TO 6" THICK MIN.
2. CONCRETE SHALL BE 6.0 SACK, CLASS 3000 AND CONTAIN NO ADDITIVES TO CAUSE RAPID SETTING. 4% – 7% ENTRAINED AIR REQUIRED. PROTECT FROM ADVERSE WEATHER FOR 7 DAYS MIN.
3. LIGHT TRANSVERSE BROOM FINISH REQUIRED ON SIDEWALKS AND DRIVEWAYS.
4. FULL EXPANSION JOINTS AT ENDS OF DRIVEWAY. CONTRACTION JOINTS AT CENTER OF DRIVEWAY AND 5' CENTERS ALONG SIDEWALK.
5. MAINTAIN CONSTANT GRADE AT BACK EDGE THROUGH DRIVEWAYS WHENEVER POSSIBLE.
6. NO. 4 REBAR (2 LONGITUDINAL BARS, TRANSVERSE BARS 4'-0" O.C.) REQUIRED IN COMMERCIAL AND INDUSTRIAL DRIVEWAYS. 6"x 6", 10 GA., WIRE MESH MAY BE USED IN LIEU OF REBAR.
7. DRIVEWAY APRONS ARE REQUIRED AN ALL NEW CONSTRUCTION.

DATE : 1/3/97	SCALE : NONE	CONCRETE DRIVEWAY
DRAWING NO.	APPROVED BY : G.KOLB	OPTION "B"



4" Portland Concrete meeting the Requirement of Section 00440 - Comm. Grade Concrete

NOTE:
PLACE 6" OF SELECT BACKFILL ON ALL SLOPES TO CATCH POINT PRIOR TO PAVING

DATE :	SCALE :		
6/30/95	NONE	TYPICAL MULTI-USE PATH SECTION	[redacted]
DRAWING NO. [redacted]	APPROVED BY : G.KOLB		

Concrete per City of Coos Bay Standard Specification Section XX. ~~Concrete per section~~

NOTES: ~~Concrete to ODOT Std Spec~~

1) [redacted] for Const. of Res. Commercial etc.

2) STANDARD SIDEWALK CROSS SLOPE SHALL BE 2%. WHEN THE LOT IS BELOW THE TOP OF THE CURB AND SLOPE DOWN FROM CURB, A MINUS 2% SLOPE MAY BE REQUIRED

3) CONCRETE DEPTH FOR SIDEWALKS SHALL SHALL BE A NOMINAL 4" MIN. DRIVEWAY SECTIONS INCLUDING SIDEWALKS THROUGH DRIVEWAYS SHALL BE NOMINAL 6" MIN FOR Residential approaches ~~LOCAL STREETS~~ AND 8" FOR ~~ARTERIALS~~ commercial AND ~~COLLECTORS~~ Industrial approaches.

4) CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATE INTERVALS OF 15' BY CUTTING AT LEAST ⅓ OF THE DEPTH OF THE CONCRETE. "DUMMY" JOINTS SHALL BE INSTALLED AT APPROXIMATE INTERVALS OF 5'. EXPANSION JOINTS WITH PREMOLDED FILLER SHALL BE INSTALLED BETWEEN DRIVEWAYS & SIDEWALKS AT THE DIRECTION OF THE ENGINEER, SEE DRIVEWAY STANDARD

5) INSTALL A BOND BREAKER OR ISOLATION JOINT BETWEEN BACK OF CURB & SIDEWALK, & AROUND ANY OBSTRUCTION WITHIN SIDEWALK AREA

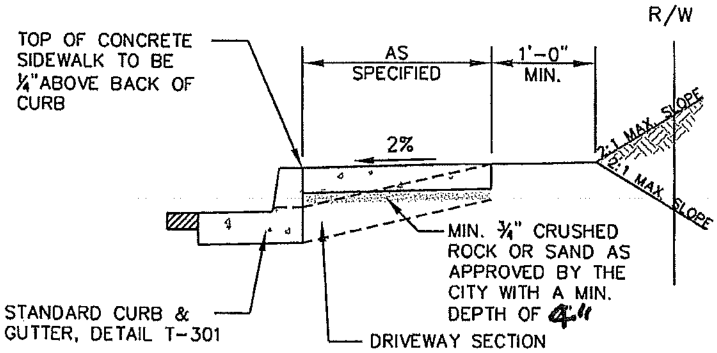
6) DRAIN BLOCKOUTS IN THE CURB SHALL BE EXTENDED TO THE BACK OF THE SIDEWALK WITH A 3" DIA. PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE

7) SEE STANDARD WHEELCHAIR/BICYCLE RAMP DETAILS FOR SIDEWALK PATTERNS AT INTERSECTION CURB RETURNS

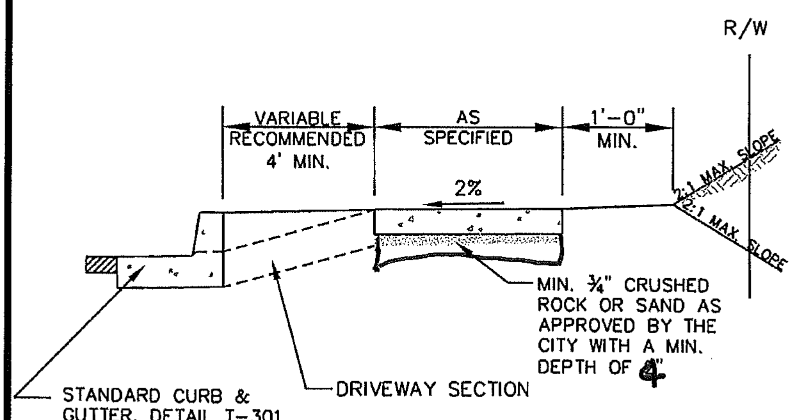
8) SEE, ALSO, STANDARD DETAILS FOR DRIVEWAYS, ~~T-150, T-151~~

9) A MIN. SEPARATION OF 4' BETWEEN CURB & SIDEWALK IS RECOMMENDED FOR LANDSCAPE MAINTENANCE

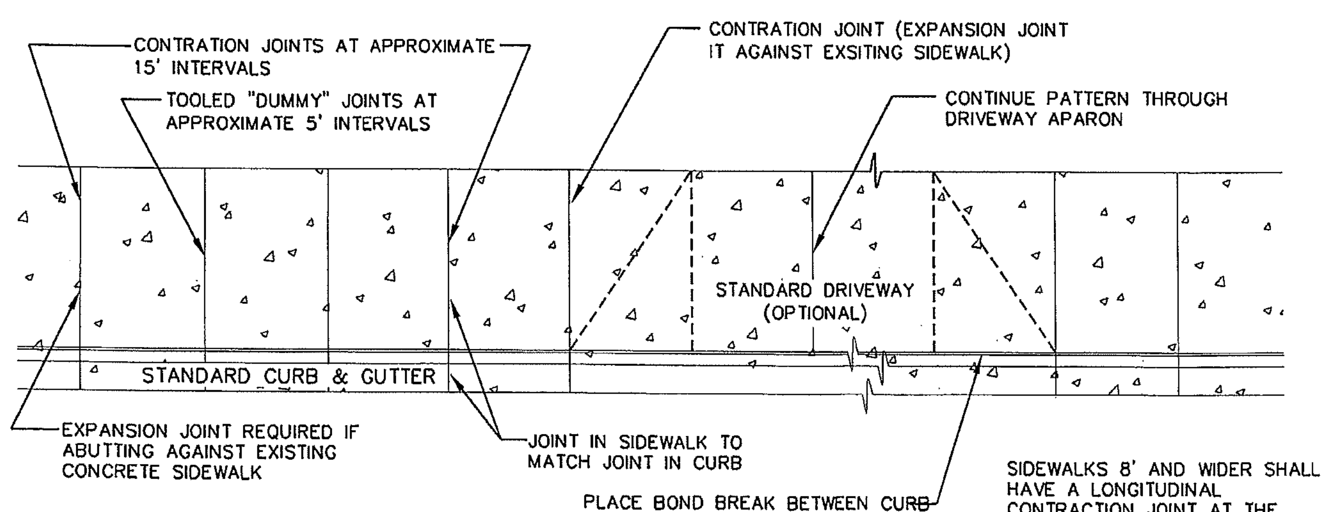
10) SIDEWALKS 8' AND WIDER SHALL HAVE A LONGITUDINAL CONTRACTION JOINT AT THE MIDPOINT



TYPICAL CURB TYPE CROSS SECTION



TYPICAL SETBACK TYPE CROSS SECTION



TYPICAL PLAN VIEW

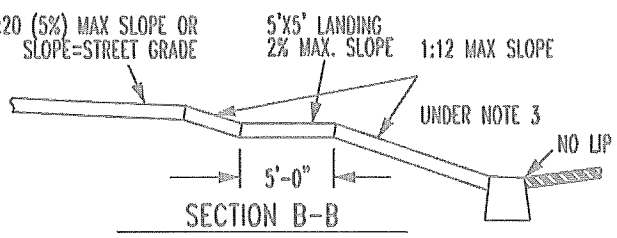
City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

[redacted]

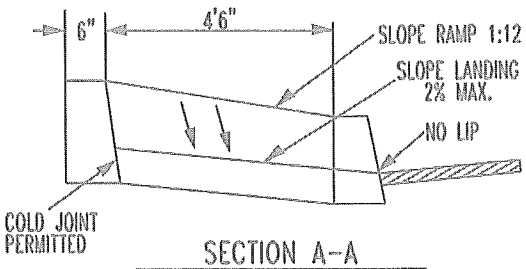
STANDARD SIDEWALK DETAILS

DETAIL NO. [redacted]

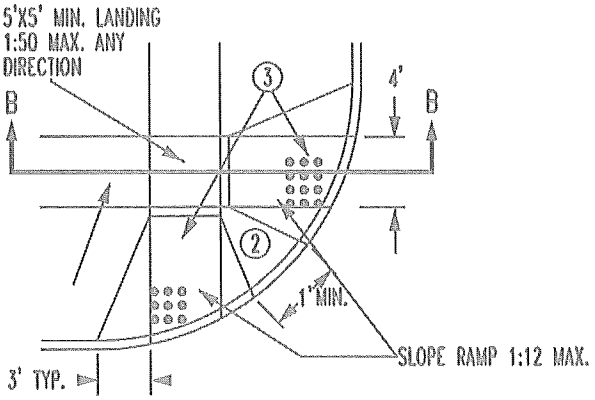
THESE REQUIREMENTS BASED ON OREGON STATE HIGHWAY DIVISION DWG. NO. RD725, 1/96



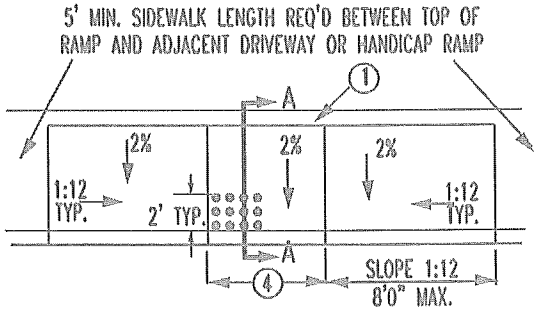
SECTION B-B



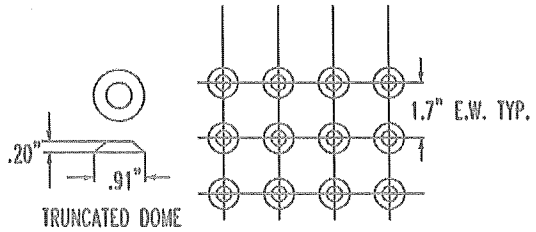
SECTION A-A



PERPENDICULAR RAMP
STANDARD FOR NEW CONSTRUCTION
(SHOWN ON 15' RADIUS)



PARALLEL RAMP
(SHOWN ON TANGENT)



RAMP TEXTURE DETAIL

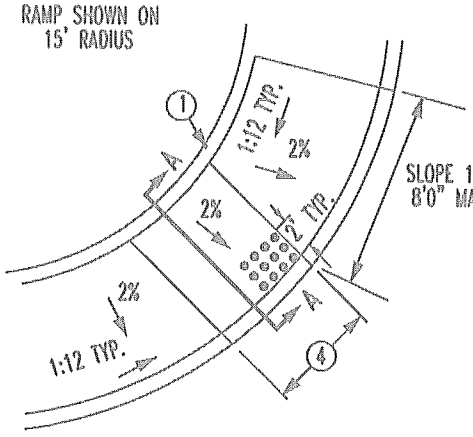
1. PLACE TRUNCATED DOMES AS O.D.O.T.DETAIL DWG. NO. RD255
2. TEXTURE TO BE APPLIED TO LOWER 2' OF RAMP

NOTE:

1. BACK EDGE OF RAMP IMPROVEMENT TO BE THE SAME PROFILE AND GRADE AS THE CONTINUATION OF THE BACK EDGE OF SIDEWALK THROUGH THE RAMP AREA.
2. THIS AREA IS NOT A SIDEWALK AND IS CONCRETE SURFACED ONLY FOR MAINTENANCE PURPOSES. WHERE THIS AREA EXCEEDS 100 SF, OR IS DESIGNED FOR LANDSCAPING IN AN APPROVED SITE PLAN, IT MAY BE LEFT OPEN.
3. IN ALTERATIONS CURB RAMP SLOPE(S) MAY BE 10% FOR A MAX. RISE OF 6" OR 12.5% FOR A MAX. RISE OF 3". CURB RAMPS, IN ALTERATIONSNEED NOT EXCEED 6' IN LENGHT. [O.D.O.T. DWG. NO. RD255]
4. 5'-0" MIN. NEW CONSTRUCTION; 4'-0" MIN. ALTERATIONS; SIDE FLARES: SEE NOTE 6, [ODOT DWG. NO. RD725] - NO GRATING IS TO BE SPECIFIED AT THE BOTTOM OF RAMP - RAMPS FOR BIKEWAYS TO BE A SEPARATE DESIGN CONFORMING TO BIKEWAY STANDARDS.

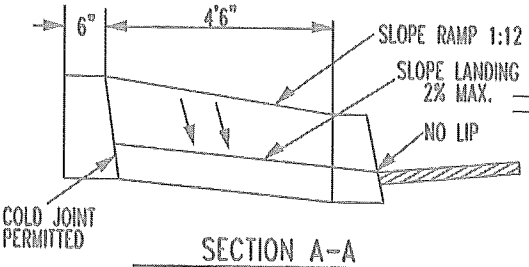
DATE : 4/22/03	SCALE : NONE	SIDEWALK & CURB RAMPS	[redacted]
DRAWING NO. [redacted]	APPROVED BY : JSE		

THESE REQUIREMENTS BASED ON OREGON STATE HIGHWAY DIVISION DWG. NO. RD725, 1/96

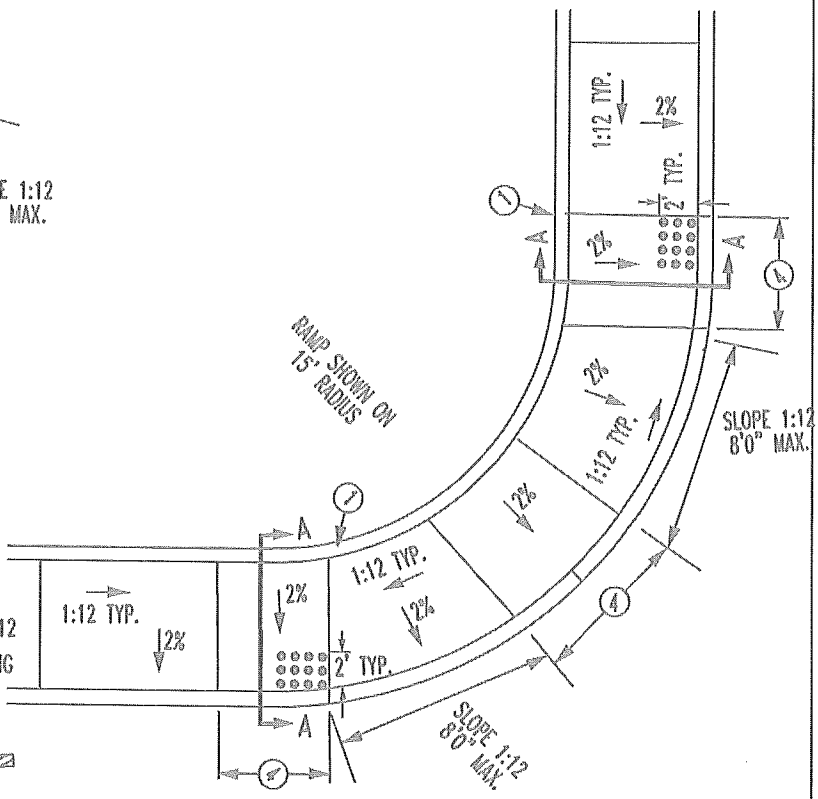


PARALLEL RAMP ON CURB RADIUS CENTER

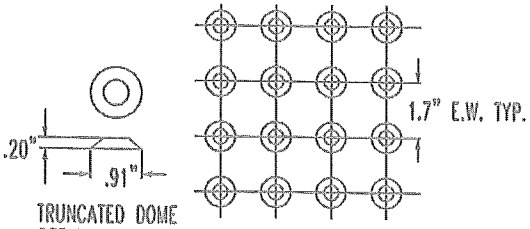
A RAMP-ON-RADIUS WILL BE PERMITTED ONLY AT CITY ENGINEERS DISCRETION



SECTION A-A



PERPENDICULAR RAMP STANDARD
FOR NEW CURB TIGHT CONSTRUCTION

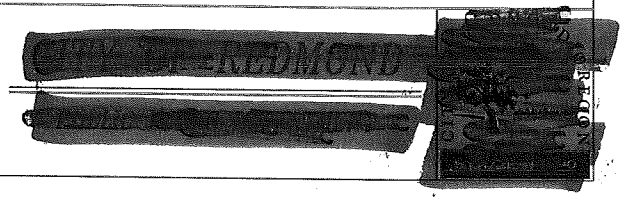


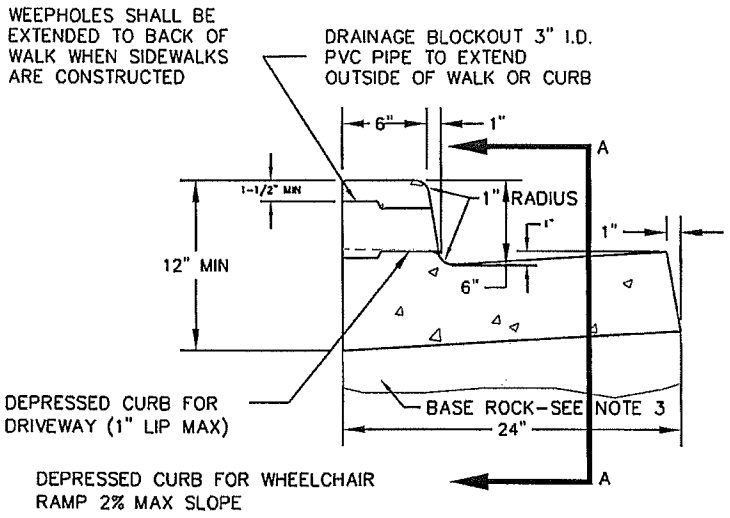
RAMP TEXTURE DETAIL

1. PLACE TRUNCATED DOMES AS PER O.D.O.T. DETAIL DWG. NO. RD725.
2. TEXTURE TO BE APPLIED TO LOWER 2 ' OF RAMP.

NOTES

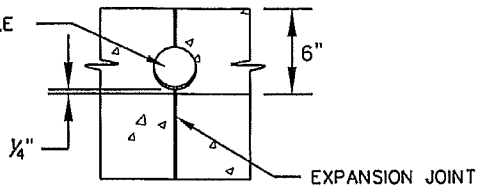
1. BACK EDGE OF RAMP IMPROVEMENT TO BE AT THE SAME PROFILE AND GRADE AS THE CONTINUATION OF THE BACK EDGE OF THE SIDEWALK THROUGH THE RAMP AREA.
2. IN ALTERATIONS CURB RAMP SLOPE(S) MAY BE 10% FOR A MAX. RISE OF 6" OR 12.5% FOR A MAX. RISE OF 3". CURB RAMPS, IN ALTERATIONS NEED NOT EXCEED 6' IN LENGTH. [ODOT DWG. NO. RD725]
3. 5'-0" MIN. NEW CONSTR.; 4'-0" MIN. ALTERATIONS
-SIDE FLARES: SEE NOTE 6, [ODOT DWG. NO. RD725]
-NO GRATING IS TO BE SPECIFIED AT THE BOTTOM OF RAMP
-RAMPS FOR BIKEWAYS TO BE A SEPARATE DESIGN CONFORMING TO BIKEWAY STANDARDS.

DATE : 4/22/03	SCALE : NONE	SIDEWALK & CURB RAMPS	
DRAWING NO.	APPROVED BY : JSE		

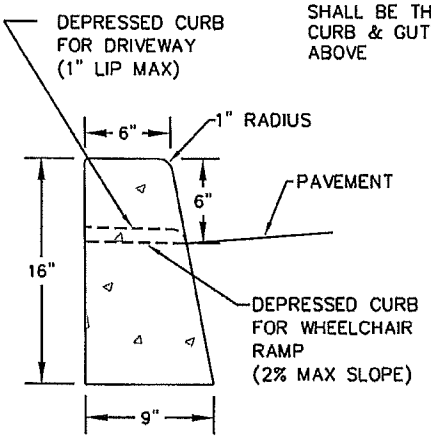


TYPICAL INTEGRAL CURB & GUTTER
NOT TO SCALE

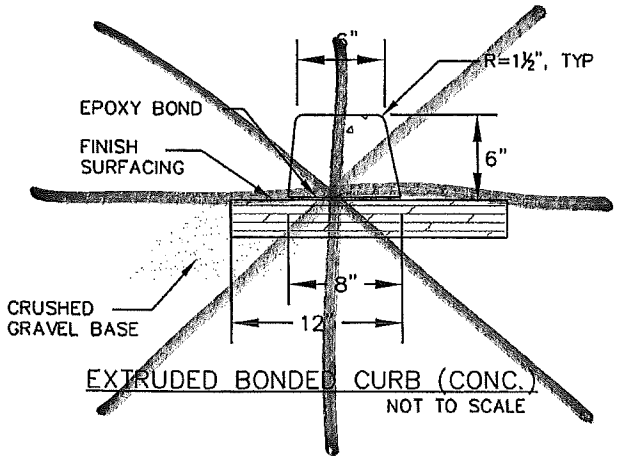
WEEPHOLES ARE TO BE CONSTRUCTED USING 3" ID DRAIN PIPE & COUPLING. PLACE WEEPHOLES AT EXPANSION JOINTS WHENEVER POSSIBLE



SECTION AA: WEEPHOLES
NOT TO SCALE



TYPICAL STRAIGHT CURB (TYPE C)
NOT TO SCALE



EXTRUDED BONDED CURB (CONC.)
NOT TO SCALE

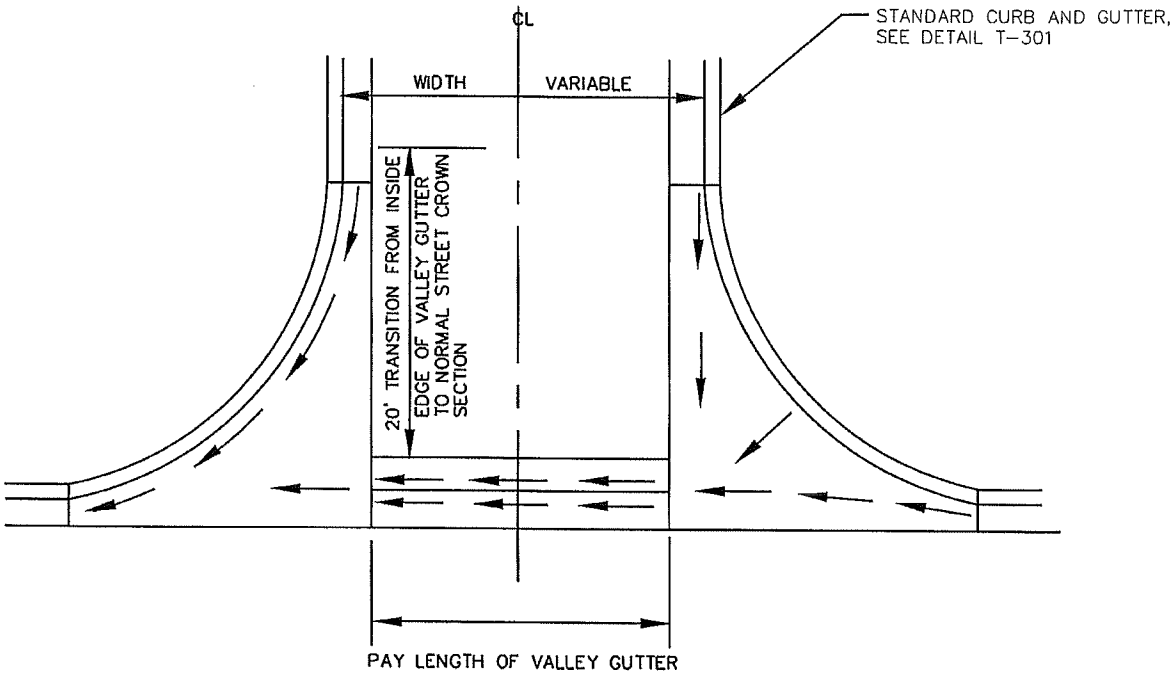
NOTES:

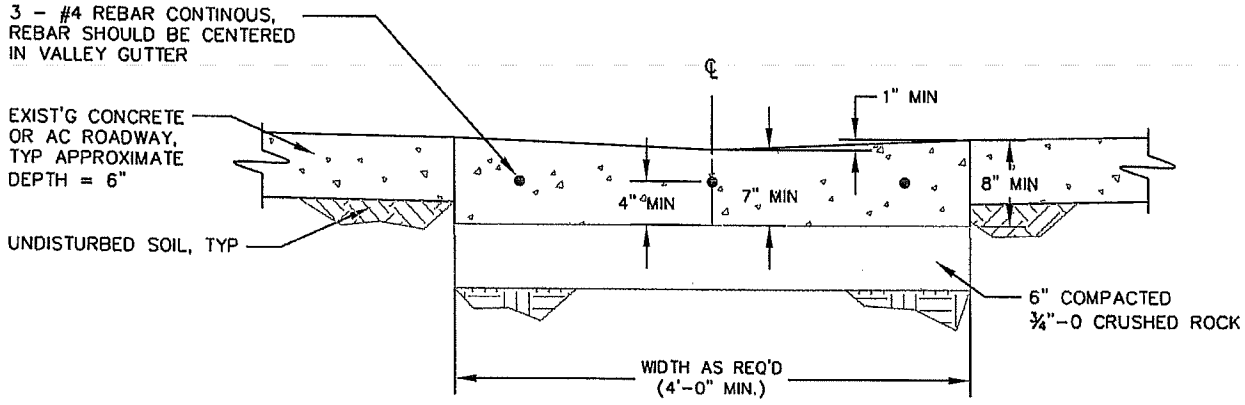
1. Concrete ODOT Std Spec. Section 00440 - Commercial Grade Concrete
2. CONTRACTION JOINTS
   A) TO BE PROVIDED
      -AT EACH POINT OF TANGENCY
      -AT EACH COLD JOINT
      -AT EACH SIDE OF INLET STRUCTURES
      -AT BOTH SIDES OF AN APPROACH
   B) SPACING TO BE NOT MORE THAN ~~18~~ 10 FEET
   C) THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
   D) EXPANSION JOINTS IN CURB & GUTTER SHALL BE PLACED AT MAX ~~45'~~ 50 INTERVALS IN ~~15'~~ 10 MULTIPLES
3. BASE ROCK - 1-1/2"-0", 95% COMPACTION ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER
4. DRAINAGE BLOCK - 3" DIA. PLASTIC PIPE
   A) DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
      -CORE DRILLING, OR
      -VERTICAL SAWCUT OF CURB 18" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB
5. STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING AS SPECIFIED
6. ~~EXTRUDED BONDED CURBS SHALL NOT BE USED IN PUBLIC RIGHT OF WAYS OR PRIVATE STREET~~
7. SEE STANDARD CURB CUT DETAIL FOR DRIVEWAY
8. TYPICAL STRAIGHT CURB (TYPE C) ALLOWED FOR REPLACEMENT OF EXISTING TYPE C CURBS AND NOT RECOMENDED FOR NEW CONSTRUCTION

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

CURB AND GUTTER DETAILS

DETAIL NO.
T-301



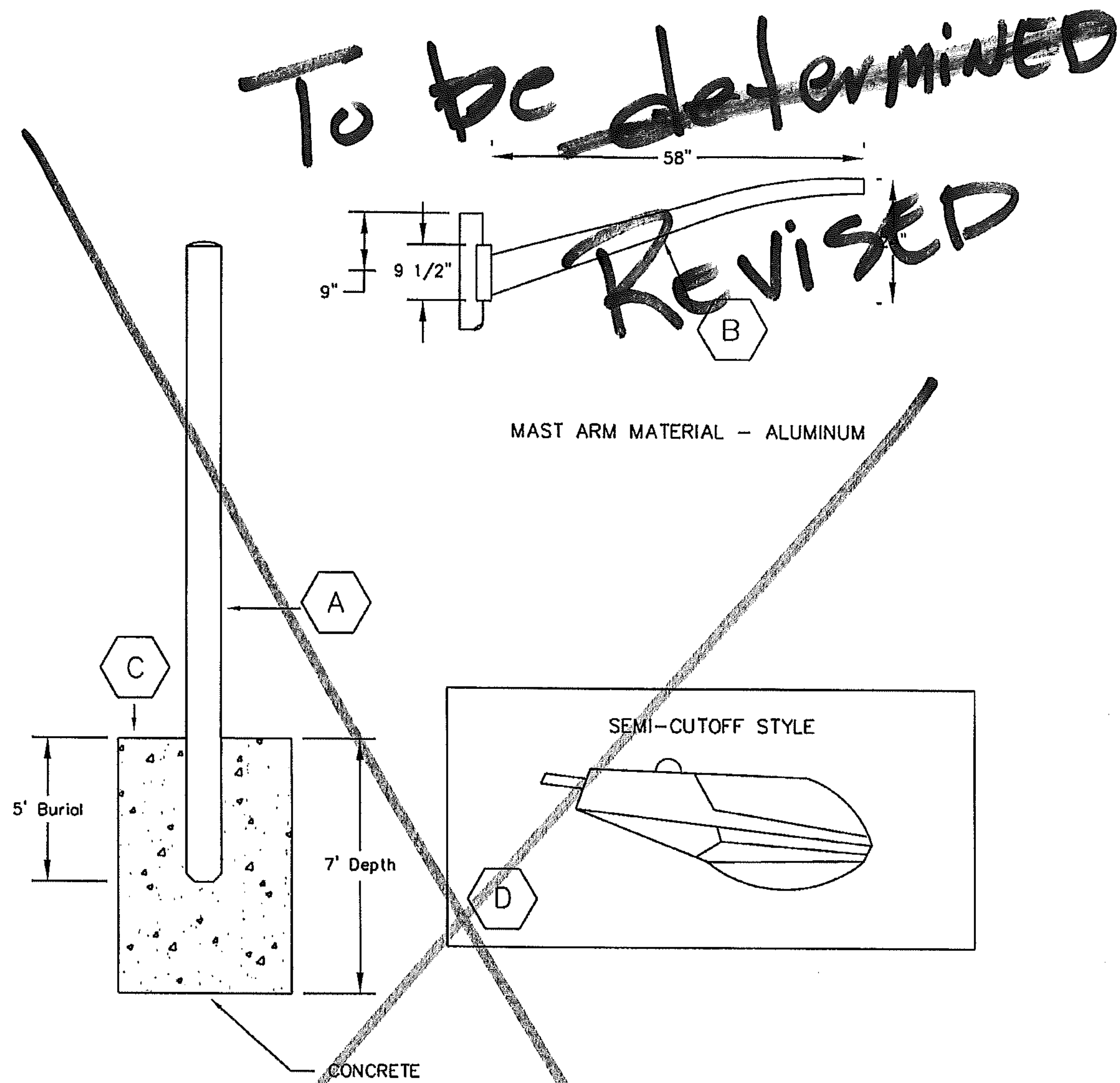


NOTE:
1) VALLEY GUTTERS ARE NOT TO BE USED EXCEPT FOR IN ALLEYS OR OTHER SPECIAL CONDITIONS AS APPROVED BY CITY ENGINEER.
2) [redacted]

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

VALLEY GUTTER DETAIL

DETAIL NO. [redacted]



ITEM	DESCRIPTION
A	25' GRAY METAL POLE
B	5' ALUMINUM MAST ARM
C	CONCRETE
D	100 W HPS ROADWAY LAMP (WILL VARY DEPENDING ON LIGHTING REQUIREMENT)

NOTE:
MOUNTING OF POLE AND LIGHT TO COMPLY WITH LOCAL ELECTRICAL UTILITY REQUIREMENTS AND THE NEC.

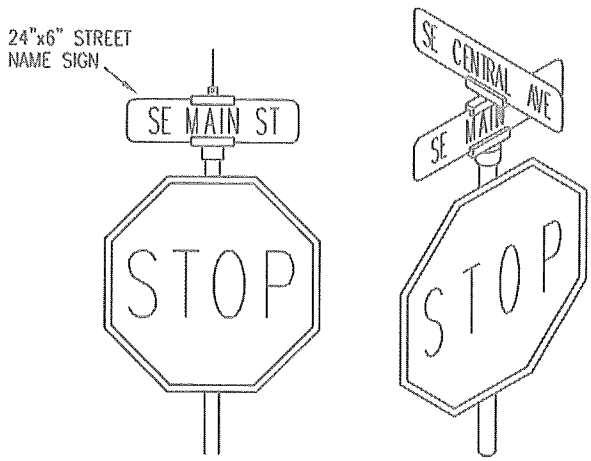
Devel Standards\CB Street Standards\s-details-streets.dwg, 1-211, 6/5/2008 3:46:40 PM, 1:1

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

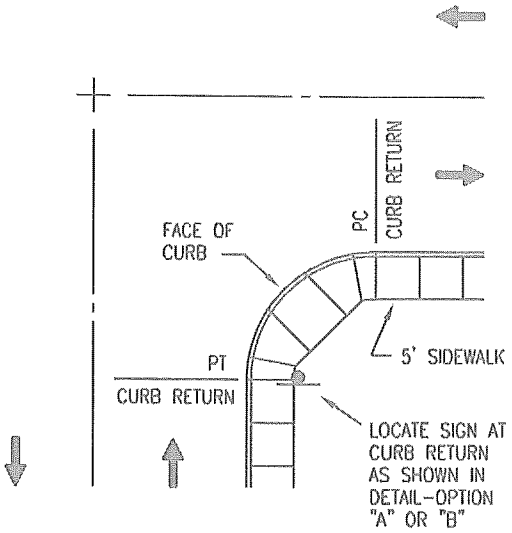
[redacted]

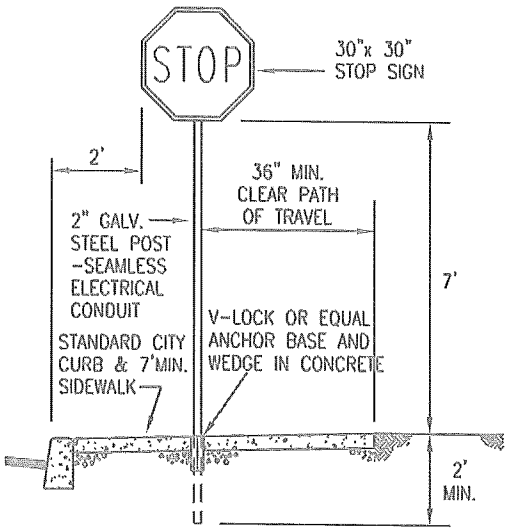
STANDARD STREET LIGHT DETAIL

DETAIL NO.
[redacted]



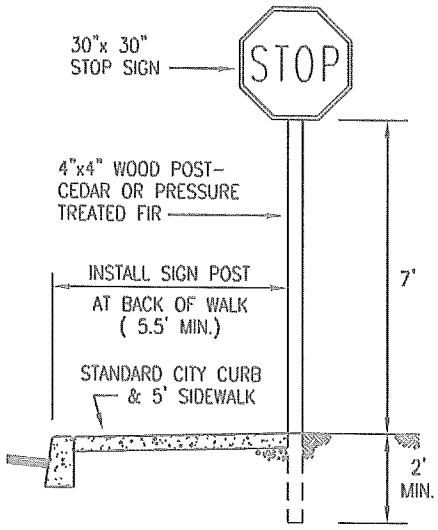
COMBINATION STOP & STREET NAME SIGN





7' MIN. WIDE SIDEWALKS

OPTION "A"

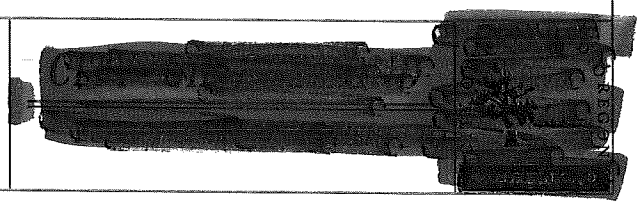


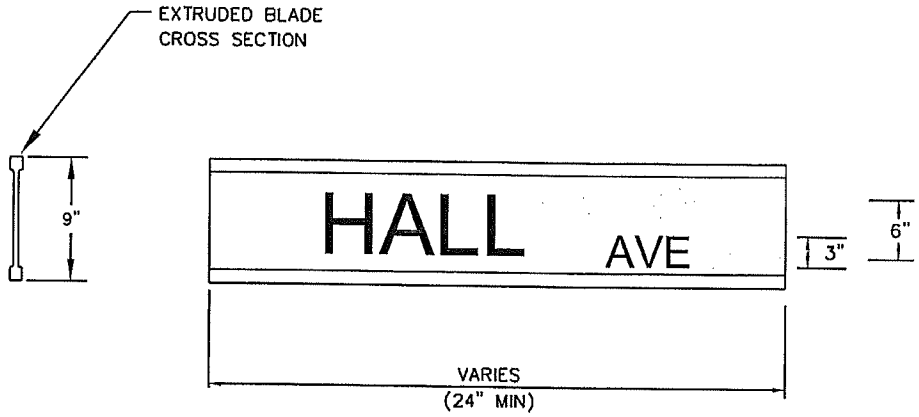
STANDARD 5' WIDE SIDEWALKS

OPTION "B"

STOP SIGN INSTALLATION

1. SIGNS TO MEET ALL FEDERAL AND STATE HIGHWAY DEPT. SPECS.
2. FACES ARE MADE OF ENGINEER GRADE REFLECTIVE 3M BRAND SCOTCHLITE.
3. ALUMINUM BACKING IS MADE OF 5052-H38 ALLOY AND IS OF 0.080 GAUGE THICKNESS.
4. STREET NAME SIGNS TO HAVE 4" WHITE LETTERS WITH GREEN BACKGROUND.
5. SIGNS SHALL BE CONNECTED TO WOOD POST WITH (4) 5/16" X 2" GALVANIZED LAG WOOD SCREWS.

DATE :	SCALE :	TYPICAL STOP & STREET NAME SIGN COMBINATION	
4/22/03	NONE		
DRAWING NO.	APPROVED BY :		
[redacted]	JSE		



NOTES:

1. MATERIALS

STREET NAME SIGN SHALL BE 9" HEIGHT, EXTRUDED ALUMINUM. THE MINIMUM LENGTH SHALL BE 24" AND MAXIMUM LENGHT SHALL BE 36"
BOTH SIDES OF STREET NAME SIGNS SHALL BE GREEN 3M SCOTCHLITE BRAND HIGH INTENSITY REFLECTIVE SHEETING WITH WHITE BORDER.

2. LETTERING

ALL LETTERS, NUMBERS, AND BORDERS USED TO FABRICATE A STREET NAME SIGN SHALL BE HIGH INTENSITY SILIVER USING 3M SCOTCHLITE BRAND. THERE ARE TWO SIZES OF LETTERS THAT MAKE UP A STREET NAME SIGN. FOR PREFIXES, SUFFIXES, AND BLOCK NUMBERS. A 3" SERIES 'C' IS USED. THE ACTUAL NAME OF THE STREET IS A 6" SERIES 'B'. ALL STREET NAME SIGNS SHALL HAVE BLOCK NUMBERS, AS ASSIGNED BY THE CITY, WHEN INSTALLED BY CONTRACTOR.

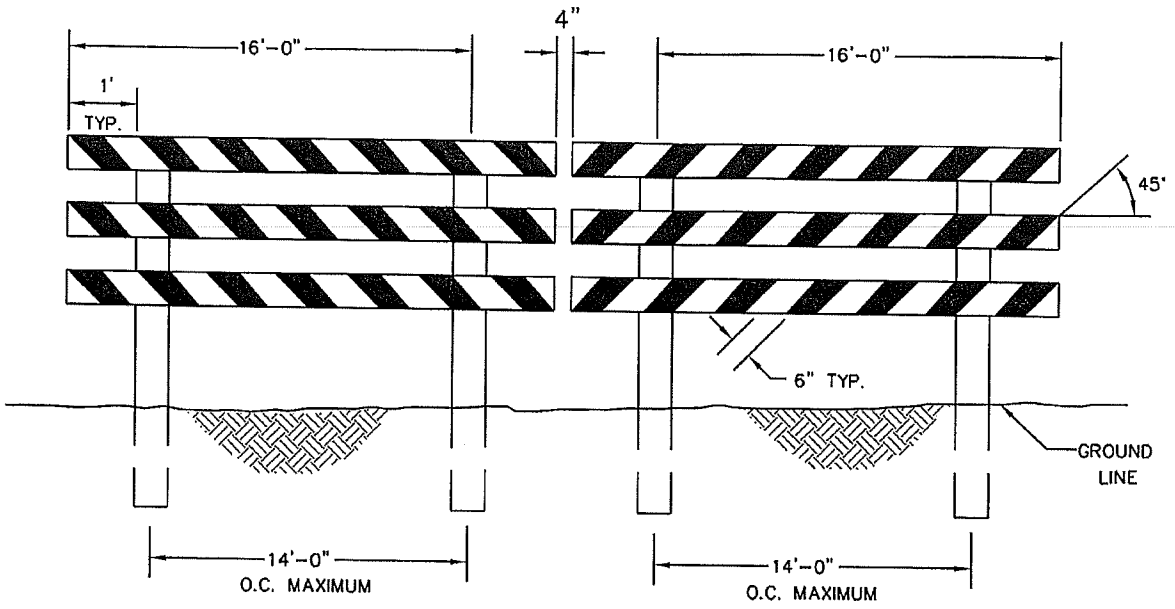
3. MISCELLANEOUS

STREET NAMES SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO THE SIGNS BEING FABRICATED AND INSTALLED.

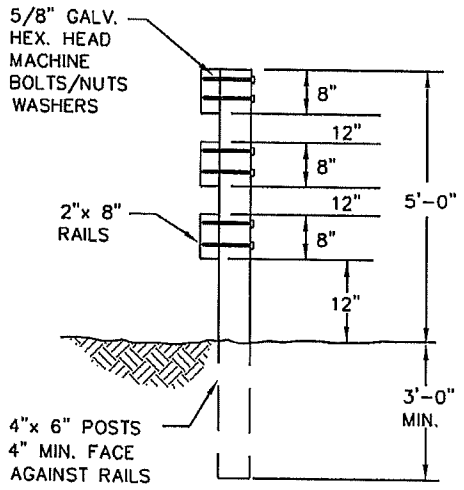
City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

STREET SIGN AND LETTERING DETAILS

DETAIL NO.



ELEVATION



END VIEW

N.T.S.

NOTES:

1. RAILS TO BE RETROREFLECTIVE WHITE AND ORANGE STRIPES. POSTS TO BE PRESSURE TREATED.
2. SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE OREGON SUPPLEMENT.

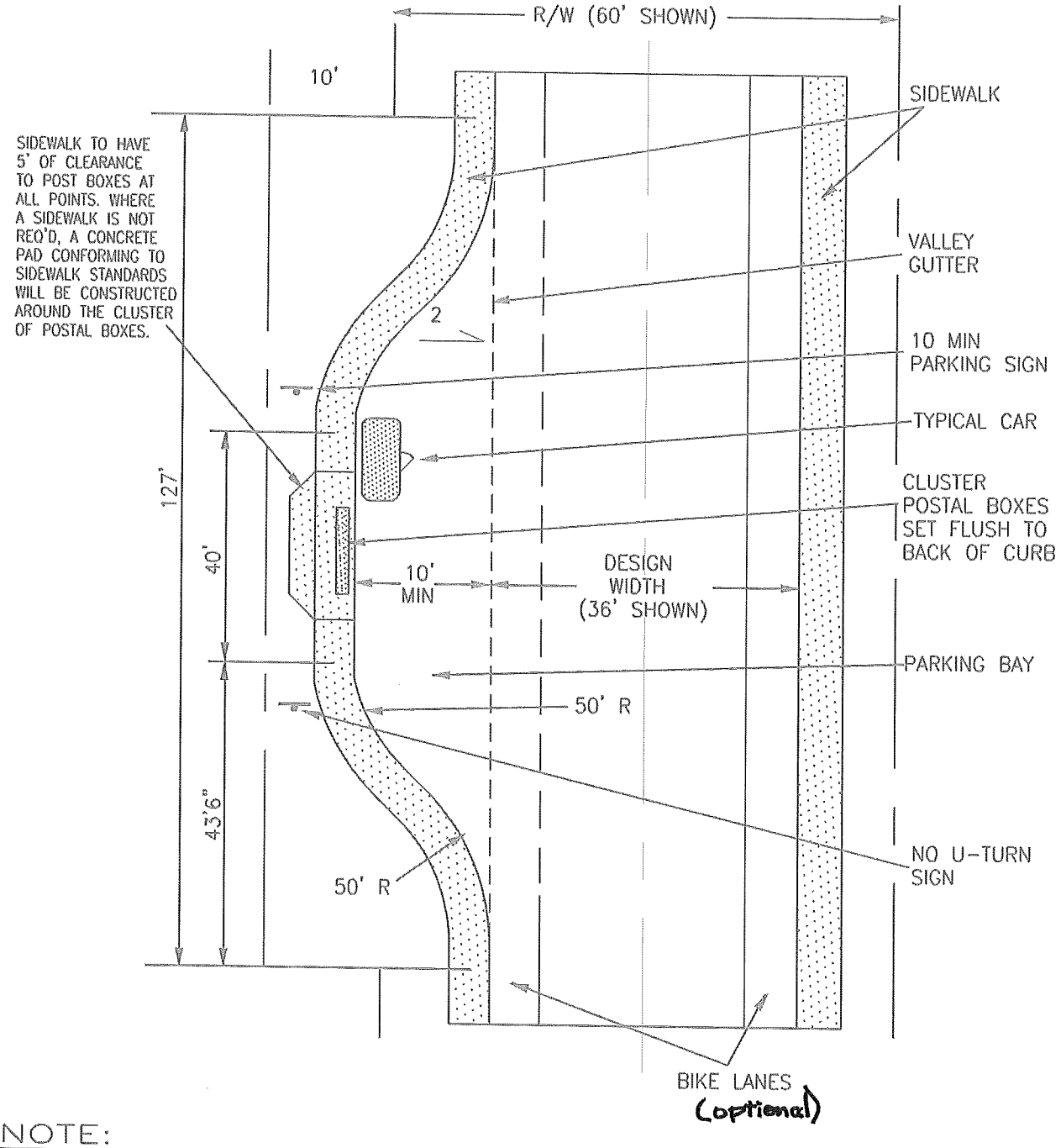
   3F-1 BARRICADES
   6C-8 BARRICADE DESIGN
   6C-9 BARRICADE APPLICATION
3. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
4. FOR WIDER APPLICATIONS, MULTIPLE SECTIONS AS SHOWN SHALL BE USED.

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

H B H
Consulting
Engineers

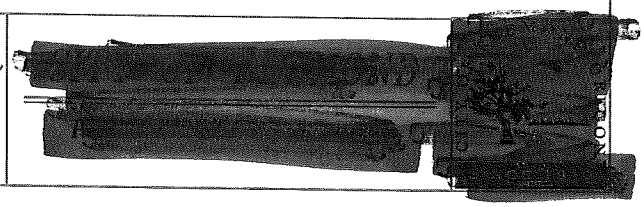
STANDARD PERMANENT BARRICADE DETAIL

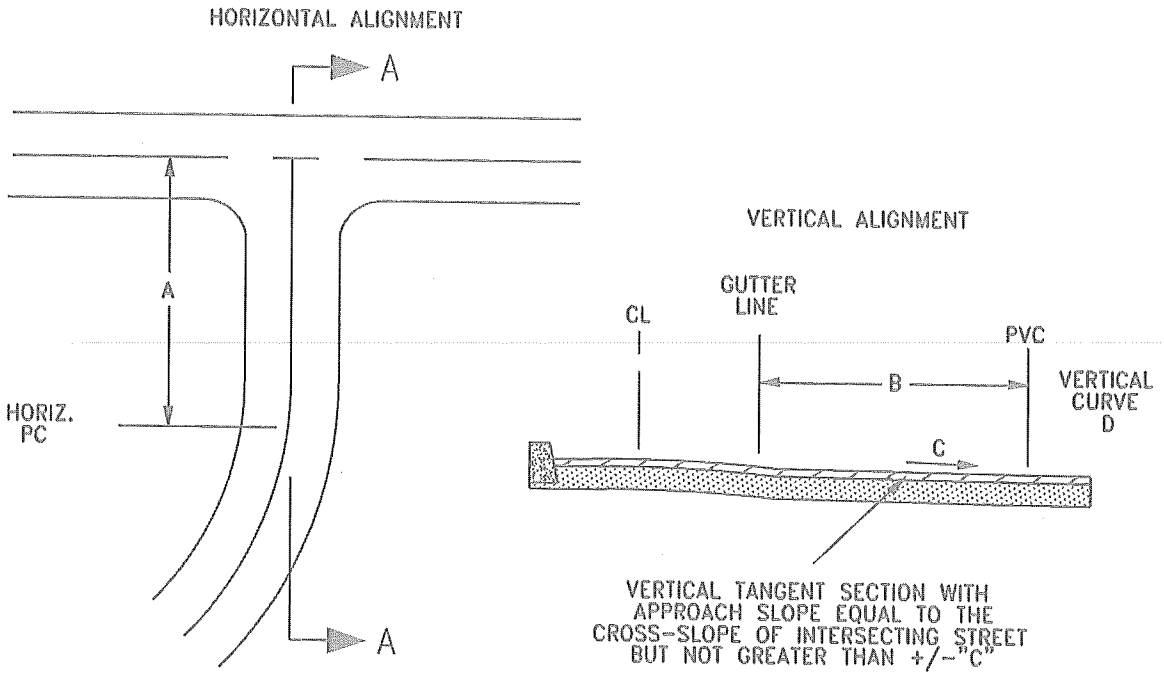
DETAIL NO.
T-501
JAN 2008



NOTE:

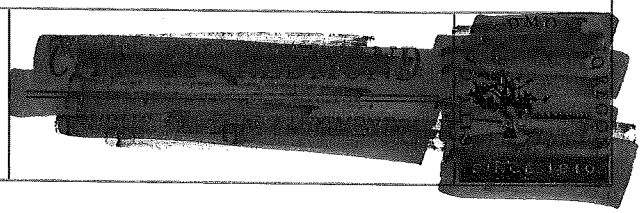
PARKING BAY IS REQUIRED ON DESIGNATED COLLECTOR STREETS (AS SHOWN). IT IS ALSO RECOMMENDED FOR LARGE INSTALLATIONS ON LOCAL STREETS.

DATE : 6/30/95	SCALE : NONE	CLUSTER POSTAL DELIVERY BOX PARKING BAY	
DRAWING NO. [redacted]	APPROVED BY : G.KOLB		



SECTION A-A

THRU STREET	STEM STREET	A MIN.	B MIN.	C MAX. SLOPE	D MINIMUM V.C.
LOCAL/~~INDUSTRIAL~~	LOCAL/~~INDUSTRIAL~~	0'	0'	6%	50'
COLLECTOR	LOCAL/~~INDUSTRIAL~~	50'	50'	4%	50'
COLLECTOR	COLLECTOR	100'	100'	3%	100'
ARTERIAL	LOCAL	50'	50'	4%	100'
ARTERIAL	COLLECTOR	100'	100'	2%	125'
ARTERIAL	ARTERIAL	200'	200'	2%	150'

DATE : 6/30/95	SCALE : NONE	"T" INTERSECTION ALIGNMENT STANDARD	
DRAWING NO.	APPROVED BY : G.KOLB		

SEWER SYSTEM

STANDARD DETAIL DRAWINGS INDEX

[redacted]

S-220: STANDARD INSIDE DROP MANHOLE

S-225: STANDARD OUTSIDE DROP MANHOLE

[redacted] MANHOLE COVER & FRAME DETAILS.

[redacted]

S-300: [redacted]

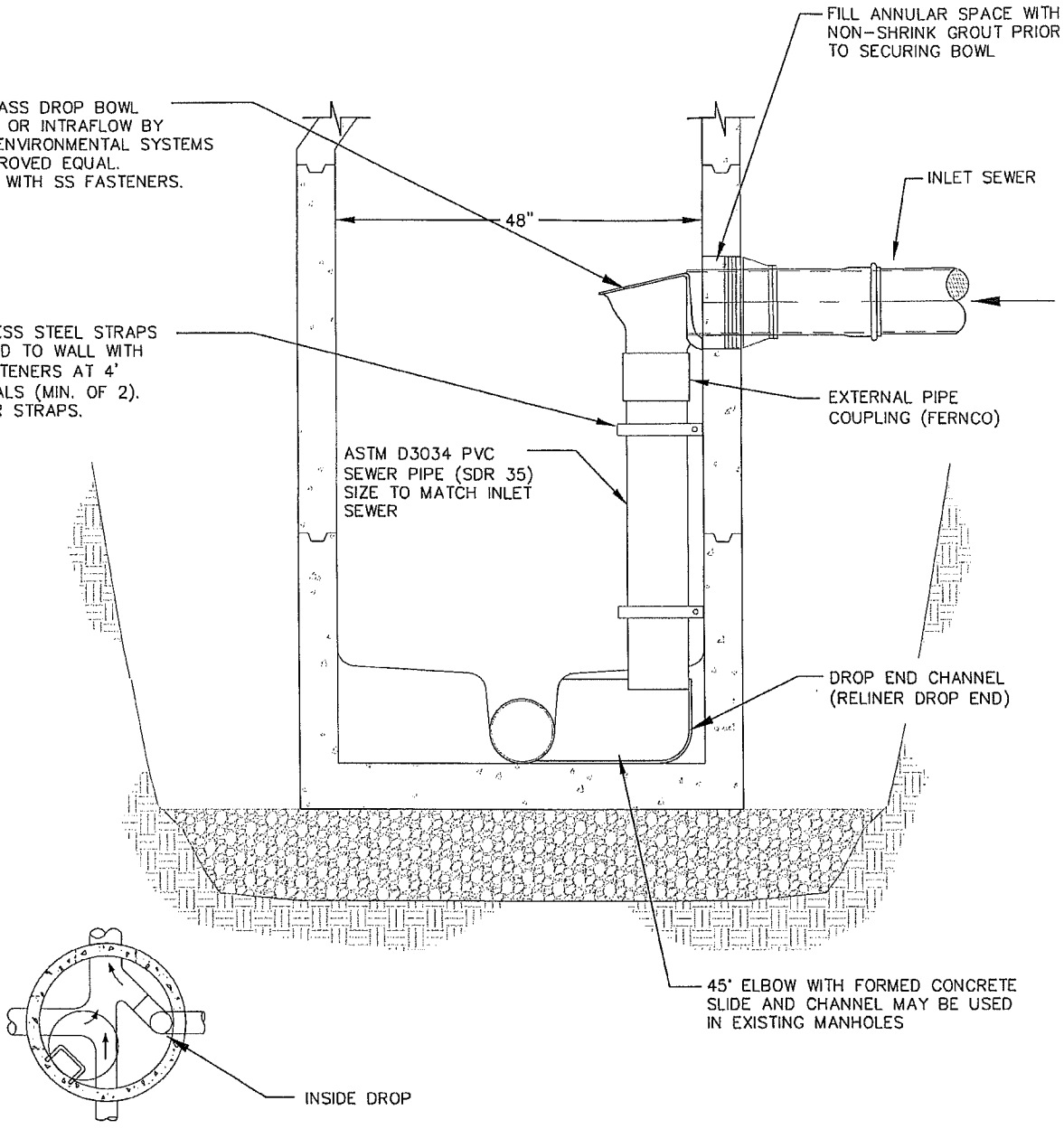
S-400: [redacted]

* PROFILE OF Typical Sanitary Sewer Main Installation

* Typical Sewer Service & Cleanout.

* Typical Sewer Service & Cleanout for Duplex on Common Lot Line

City of Coos Bay 500 Central Ave Coos Bay, Oregon 97420 541.269.8918	H B H Consulting Engineers	STANDARD DETAIL DRAWING INDEX	DETAIL NO. S-010 12/11/2007



NOTES:

1. DROP MANHOLES SHALL ONLY BE USED WITH PRIOR APPROVAL FROM CITY OF COOS BAY.

2. RELINER DROP BOWL, 8" OUTLET (B8) FOR 8" INLET SEWERS. B10 FOR 10" SEWERS. CONSULT CITY ENGINEER FOR LARGER SIZES.

3. EXTEND INLET SEWER PIPE 2" INTO MANHOLE. CUT "V" NOTCH IN BOTTOM OF PIPE PROTRUSION. FOLLOW RELINER INSTRUCTIONS.

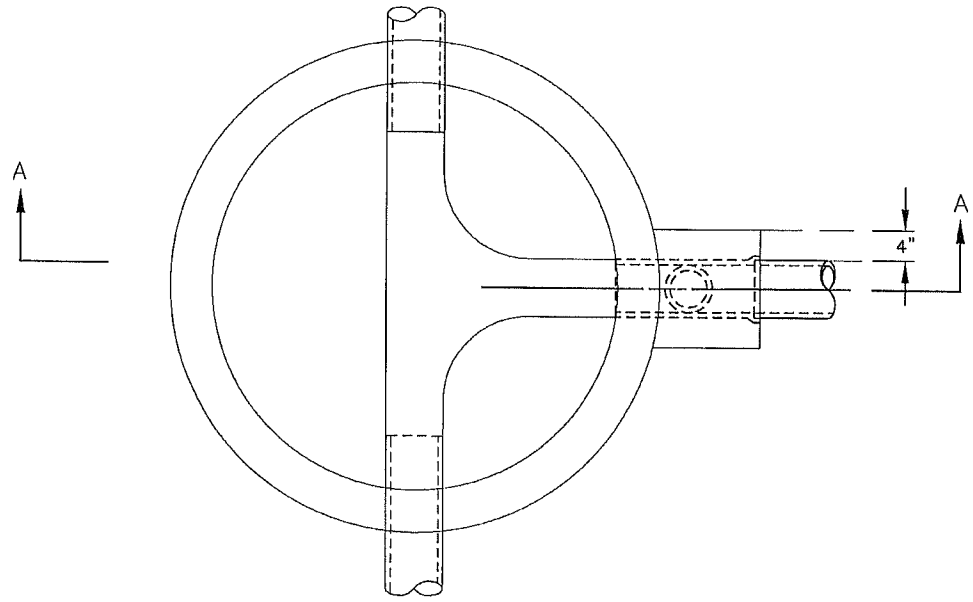
4. INTRAFLOW INSIDE DROP SYSTEM ACCOMODATES 6" TO 12" SEWERS. INTRAFLOW SECTIONS SHALL BE AT LEAST 4" WIDER THAN INLET SEWER. OUTLET ELBOW TO MATCH INLET SEWER SIZE.

5. ONLY ONE DROP ASSEMBLY ALLOWED PER MANHOLE.

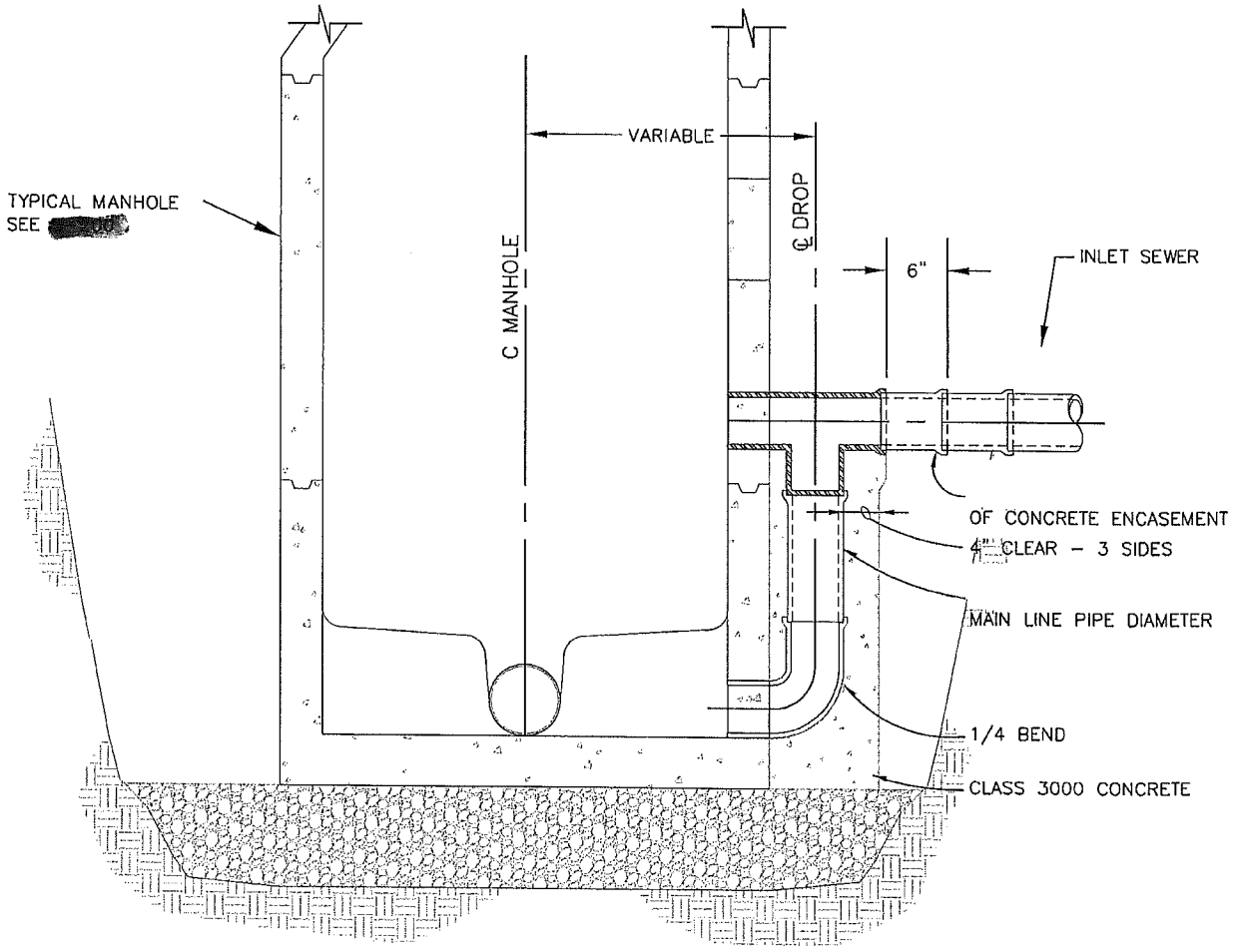
City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

STANDARD INSIDE DROP MANHOLE

DETAIL NO.



PLAN



SECTION A-A

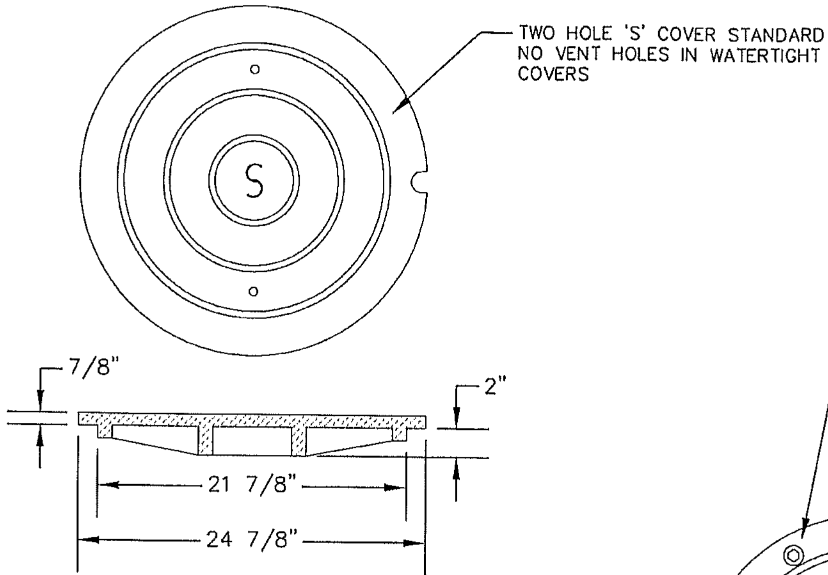
City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

[redacted]

STANDARD OUTSIDE DROP MANHOLE

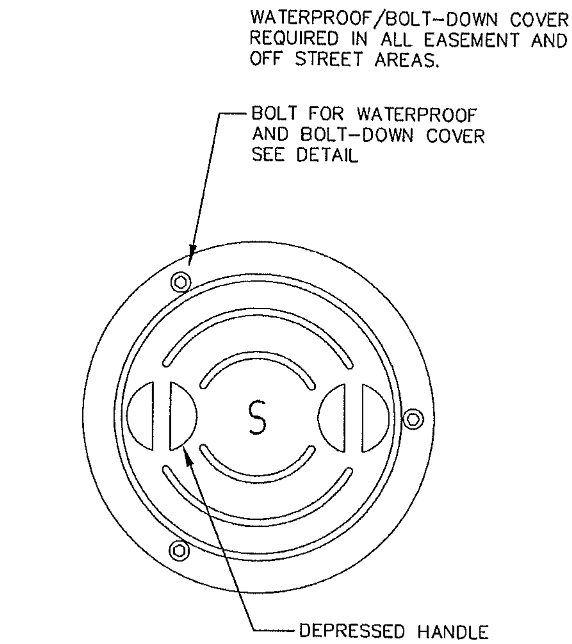
DETAIL NO.

[redacted]

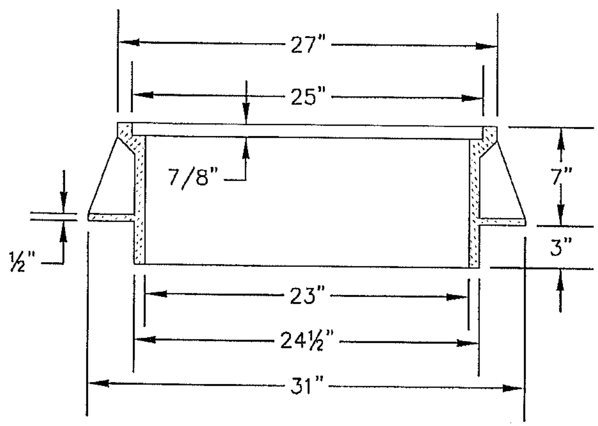


COVER (150 LBS)

(OLYMPIC FOUNDRY MH26S, OR APPROVED EQUAL)

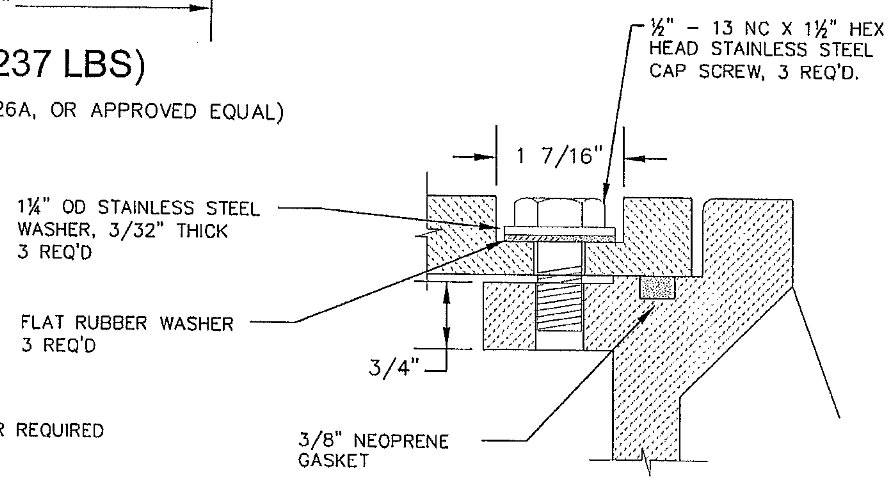


(OLYMPIC FOUNDRY MH26WT, OR APPROVED EQUAL)



FRAME (237 LBS)

(OLYMPIC FOUNDRY MH26A, OR APPROVED EQUAL)



BOLT DOWN DETAIL

NOTE:

1) TAMPER PROOF FRAME AND COVER REQUIRED OUTSIDE OF RIGHT OF WAY OR IN UNDEVELOPED AREAS.

2) MANHOLE FRAMES AND COVER SHALL HAVE H-20 RATING

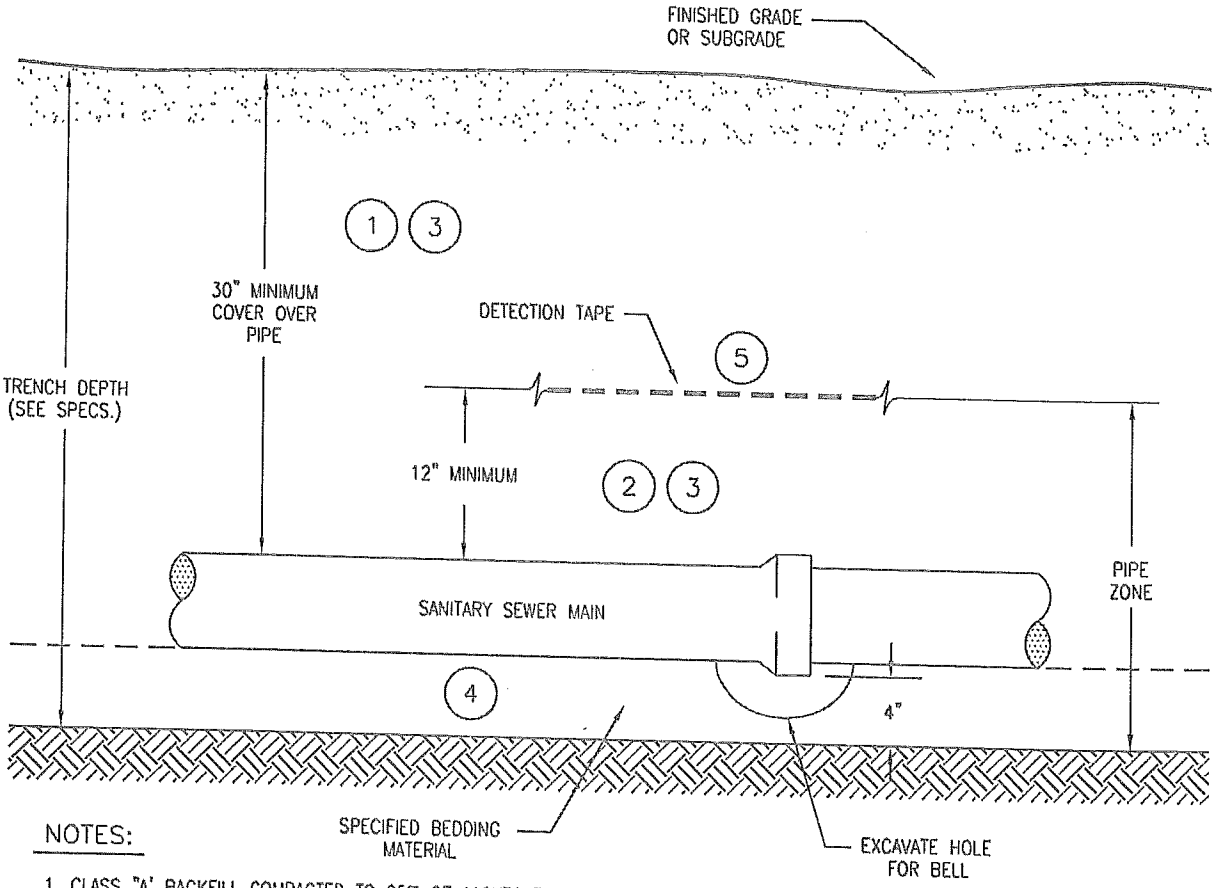
City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

[redacted]

MANHOLE COVER AND FRAME DETAILS

DETAIL NO.

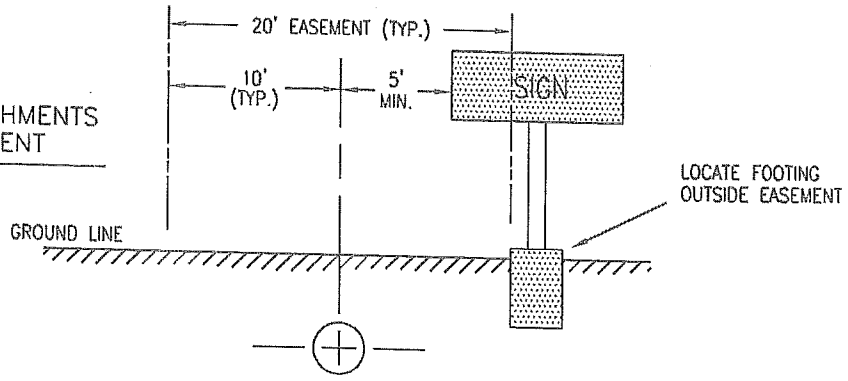
[redacted]



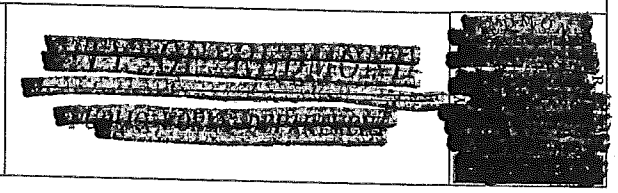
NOTES:

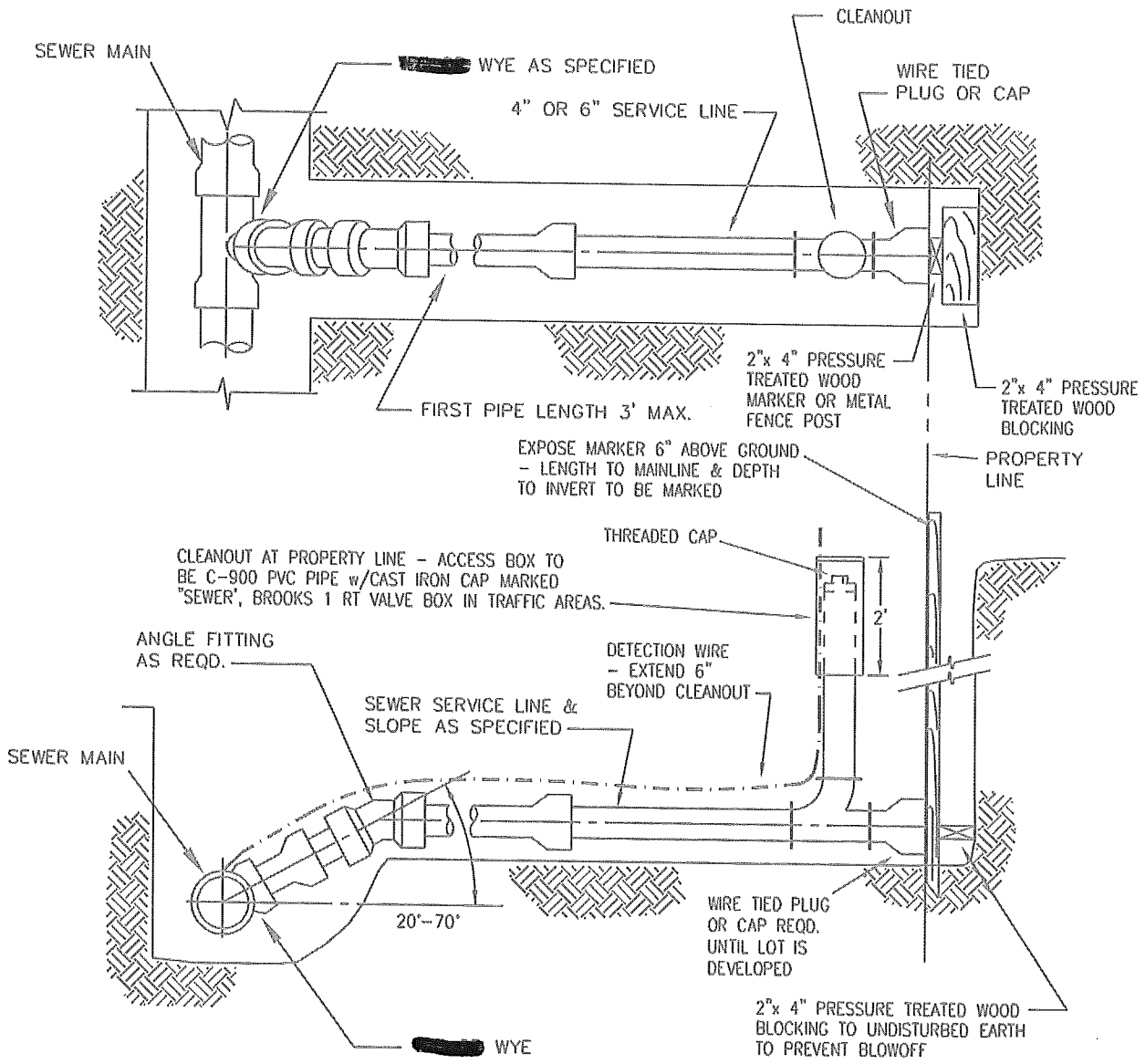
1. CLASS "A" BACKFILL COMPACTED TO 95% OF AASHTO T-99.
2. SPECIFIED PIPE ZONE MATERIAL ABOVE, AROUND, AND BELOW PIPE SHALL BE COMPACTED TO 95% OF AASHTO T-99.
3. THE ENGINEER MAY REQUIRE THIS ZONE TO BE WATER SETTLED TO PROVE THE INTEGRITY OF THE BACKFILL.
4. PIPE BEDDING SHALL MEET THE REQUIREMENTS OF DIVISION I. PIPE BEDDING SHALL BE MECHANICALLY COMPACTED TO 95% OF MAXIMUM AS DETERMINED BY AASHTO T-99.
5. DETECTION TAPE TO BE LOCATED AT TOP OF PIPE ZONE, 12" ABOVE THE PIPE.

ALLOWABLE ENCROACHMENTS
IN UTILITY EASEMENT



DATE :	SCALE :	PROFILE OF TYPICAL SANITARY SEWER MAIN INSTALLATION
1/6/97	NONE	
DRAWING NO.	APPROVED BY :	
	G.KOLB	





NOTE:

MINIMUM SLOPE TO BE 1/4" PER FOOT OR AS APPROVED BY THE CITY ENGINEER.

PROVIDE RUBBER RING ADAPTOR FOR CONNECTION TO SERVICE LINE WITH A CONCRETE, CLAY, OR ASBESTOS CEMENT TEE.

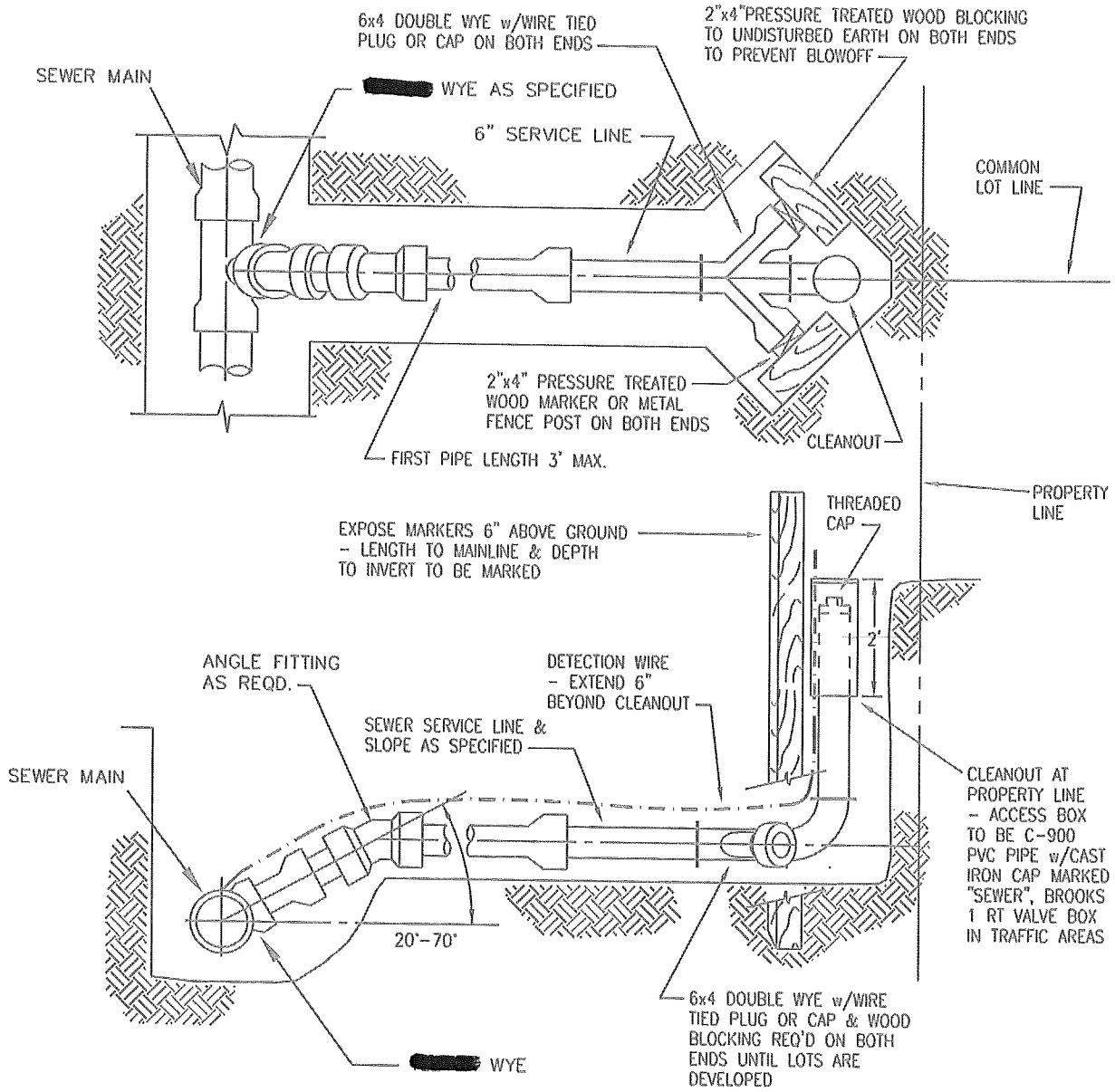
WHERE NO TEE IS PROVIDED, A SERVICE SADDLE OF PROPER SIZE SHALL BE INSTALLED UNDER THE SUPERVISION OF THE CITY.

ALL TRENCH BACKFILL TO CONFORM TO CITY OF [redacted] STANDARDS AND SPECIFICATIONS FOR SEWER MAIN. MINIMUM SERVICE TRENCH WIDTH IS 24".

ALL SERVICE LINES SHALL END WITH A CLEANOUT AT THE PROPERTY LINE.

SEWER SERVICE LINES SHALL NOT HAVE LESS THAN 3.0' OF COVER UNDER ROADWAY AND 2.0' OF COVER TO NATURAL GROUND IN THE RIGHT OF WAY.

DATE :	SCALE :	TYPICAL SEWER SERVICE & CLEANOUT	[redacted]
4/22/03	NONE		
DRAWING NO. [redacted]	APPROVED BY : JSE		



NOTE:

MINIMUM SLOPE TO BE 1/4" PER FOOT OR AS APPROVED BY THE CITY ENGINEER.

PROVIDE RUBBER RING ADAPTOR FOR CONNECTION TO SERVICE LINE WITH A CONCRETE, CLAY, OR ASBESTOS CEMENT TEE.

WHERE NO TEE IS PROVIDED, A SERVICE SADDLE OF PROPER SIZE SHALL BE INSTALLED UNDER THE SUPERVISION OF THE CITY.

ALL TRENCH BACKFILL TO CONFORM TO CITY OF [redacted] STANDARDS AND SPECIFICATIONS FOR SEWER MAIN. MINIMUM SERVICE TRENCH WIDTH IS 24".

ALL SERVICE LINES SHALL END WITH A CLEANOUT AT THE PROPERTY LINE.

SEWER SERVICE LINES SHALL NOT HAVE LESS THAN 3.0' OF COVER UNDER ROADWAY AND 2.0' OF COVER TO NATURAL GROUND IN THE RIGHT OF WAY.

DATE :	SCALE :	TYPICAL SEWER SERVICE & CLEANOUT FOR DUPLEX ON COMMON LOT LINE	[redacted]
4/22/03	NONE		
DRAWING NO.	APPROVED BY :		
[redacted]	JSE		

STORM DRAINAGE

STANDARD DETAIL DRAWINGS INDEX

D-100: STANDARD UTILITY LOCATIONS

D-100: TYPICAL STORM DRAIN TRENCH DETAIL

D-105: STREET CUT STANDARD DETAIL

D-150: PIPE ANCHOR & TRENCH CUT-OFF WALL DETAIL

D-200: STANDARD MANHOLE

D-201: POLLUTION CONTROL MANHOLE

D-205: FLAT TOP MANHOLE

D-210: MANHOLE BASE STANDARD DETAILS

D-220: STANDARD INSIDE DROP MANHOLE W/ DEFLECTION PLATE

D-250: MANHOLE COVER AND FRAME DETAILS MANHOLE COVER & FRAME DETAILS

D-260: MANHOLE FRAME GRADE ADJUSTMENT

D-300: STANDARD INLETS, FRAMES & GRATES

D-301: TRAPPED/POLLUTION CONTROL CATCH BASIN

D-302: DITCH INLET

D-303: AREA DRAIN INLET

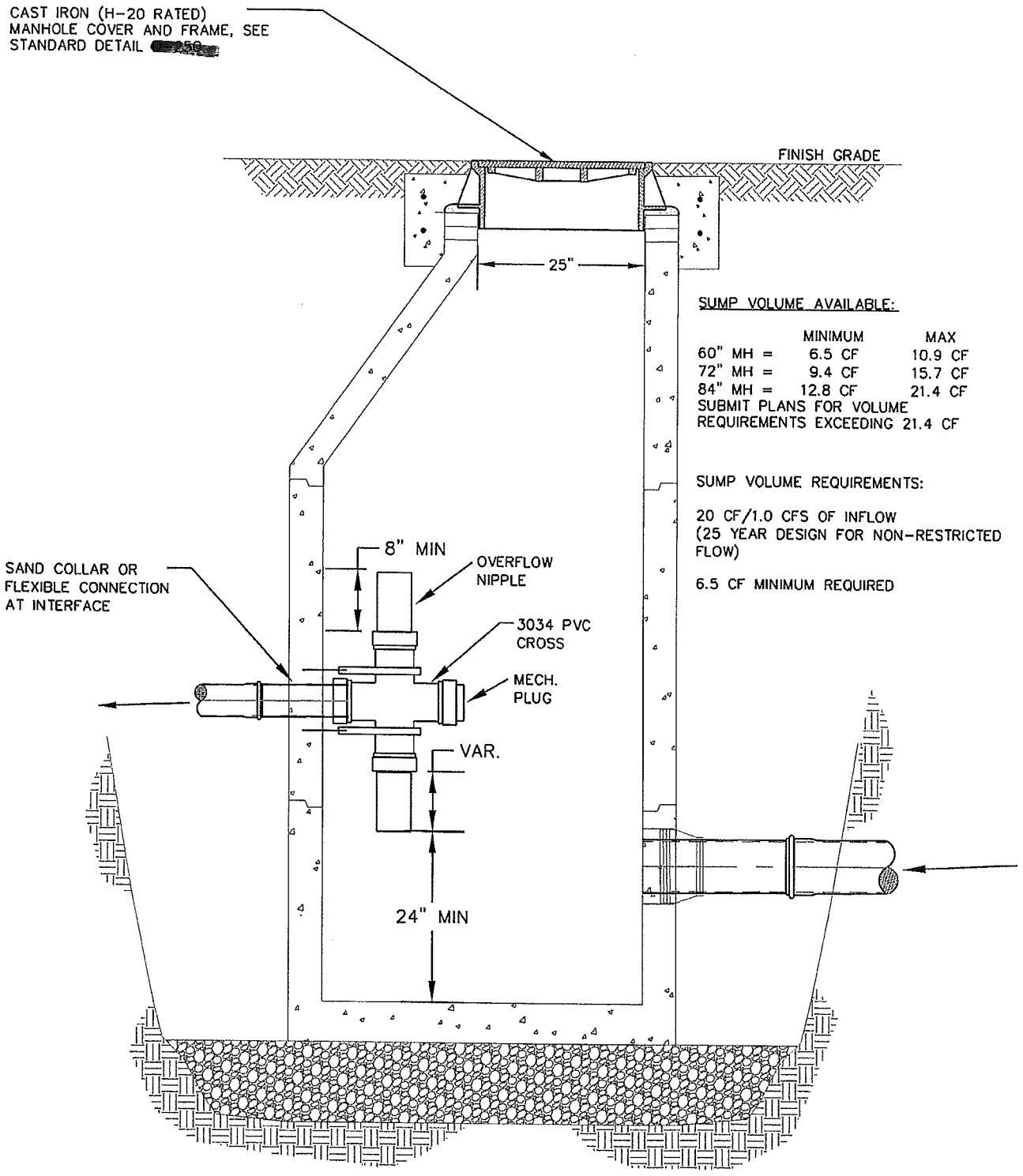
D-304: HEADWALL WITH TIDEGATE

PROFILE OF Typical Sanitary Sewer Main Installation

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

STANDARD DETAIL DRAWING INDEX

DETAIL NO.



SUMP VOLUME AVAILABLE:

	MINIMUM	MAX
60" MH =	6.5 CF	10.9 CF
72" MH =	9.4 CF	15.7 CF
84" MH =	12.8 CF	21.4 CF

SUBMIT PLANS FOR VOLUME REQUIREMENTS EXCEEDING 21.4 CF

SUMP VOLUME REQUIREMENTS:

20 CF/1.0 CFS OF INFLOW
(25 YEAR DESIGN FOR NON-RESTRICTED FLOW)

6.5 CF MINIMUM REQUIRED

FOR STANDARD MANHOLE DETAILS, [redacted]

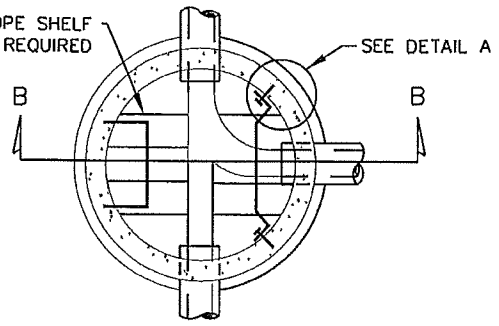
FOR FLAT TOP MANHOLE DETAILS, [redacted]

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

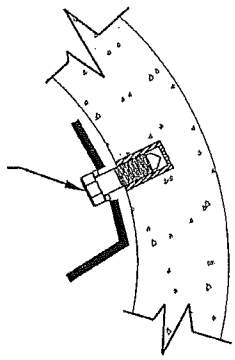
STORM DRAIN POLLUTION CONTROL MANHOLE

DETAIL NO. [redacted]

JAN 2006

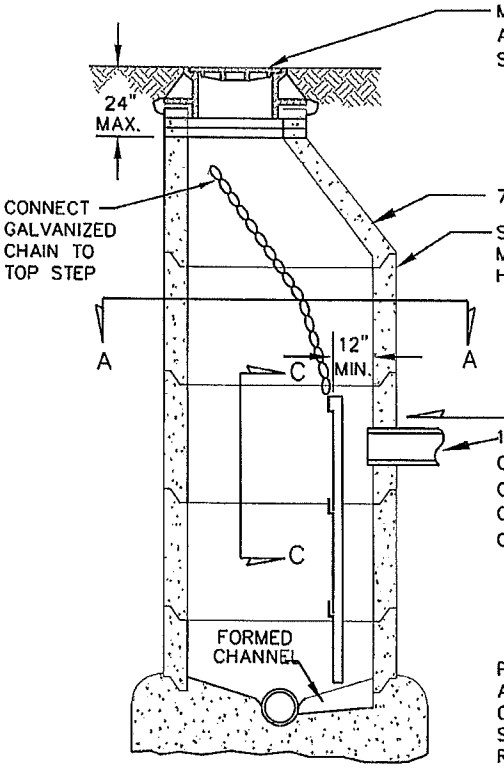


SECTION A–A



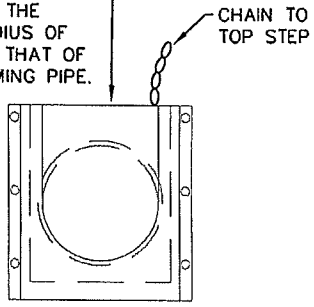
1/2" ø SELF TAPPING CONCRETE ANCHORS, PHILLIPS S-12 OR APPROVED EQUAL, w/ 1/2" ø x 1-1/2" Lg. STAINLESS STEEL BOLT & STAINLESS STEEL LOCK WASHER.

DETAIL A
(PARTITION ATTACHMENT)



SECTION B–B

REMOVABLE DEFLECTION PLATE (PIPE DIA. + 6" WIDTH MINIMUM) MATERIAL TO BE STAINLESS STEEL, ALUMINUM, FIBERGLASS OR HDPE PLATE. TOP PARTITION TO BE CUT SO THAT BOTTOM OF CUT MATCHES THE INVERT OF THE INCOMING PIPE. THE RADIUS OF THE CUT SHOULD MATCH THAT OF THE INSIDE OF THE INCOMING PIPE.



SECTION C–C

PARTITION MATERIAL SHALL BE 1/2" H.D.P.E. (TYPICAL PER ASSOCIATED PIPE), OR 1/8" FIBERGLASS (TYPICAL PER PIPE INC.), OR 16 GA. ALUMINUM OR 18 GA. STAINLESS STEEL. FIBERGLASS SHALL BE 3 OR 4 MAT LAYUP PER MANUFACTURER'S RECOMMENDATIONS. MAXIMUM FLOW IS 3 CFS FOR INSIDE DROP MANHOLE. FOR A 48" DIAMETER MANHOLE, THE MAXIMUM INCOMING PIPE DIAMETER IS 18". A LARGER DIAMETER INCOMING PIPE WILL REQUIRE A SPECIAL DESIGN AND APPROVAL BY THE CITY.

NOTES:

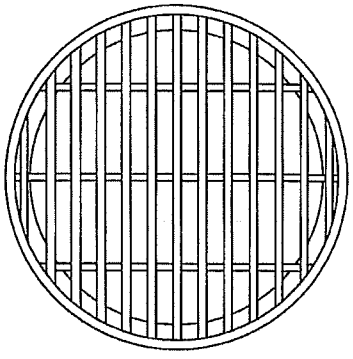
1. INSIDE DROP MANHOLES WITH DEFLECTION PLATE SHALL ONLY BE USED WITH PRIOR APPROVAL FROM CITY.
2. ONLY ONE DROP ASSEMBLY ALLOWED PER MANHOLE.

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

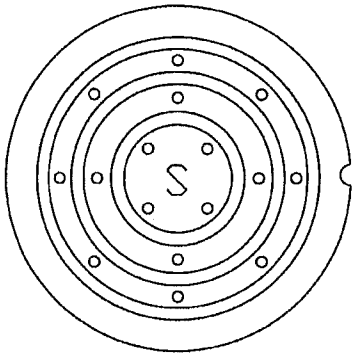
H B H Consulting Engineers

STANDARD INSIDE DROP M.H. W/ DEFLECTION PLATE

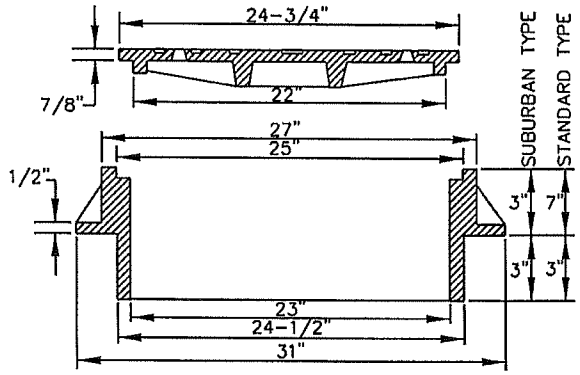
DETAIL NO.
D-220
JAN. 2008



GRATE
(OLYMPIC FOUNDRY #MH26G,
OR APPROVED EQUAL)



STORM
(OLYMPIC FOUNDRY #MH26P
OR APPROVED EQUAL)



FRAME
(OLYMPIC FOUNDRY #MH26A,
OR APPROVED EQUAL)

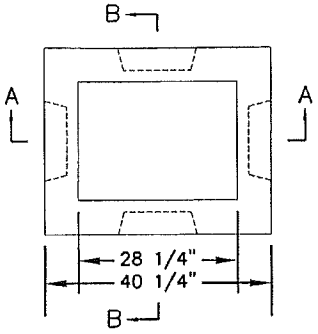
NOTES:

1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY THE CITY.
2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH LID FOR LIFTING HOOK.
5. OPEN GRATES REQUIRE APPROVAL BY CITY, AND MUST BE BICYCLE SAFE IF USED IN TRAFFIC AREAS.

City of Coos Bay
500 Central Ave
Coos Bay, Oregon 97420
541.269.8918

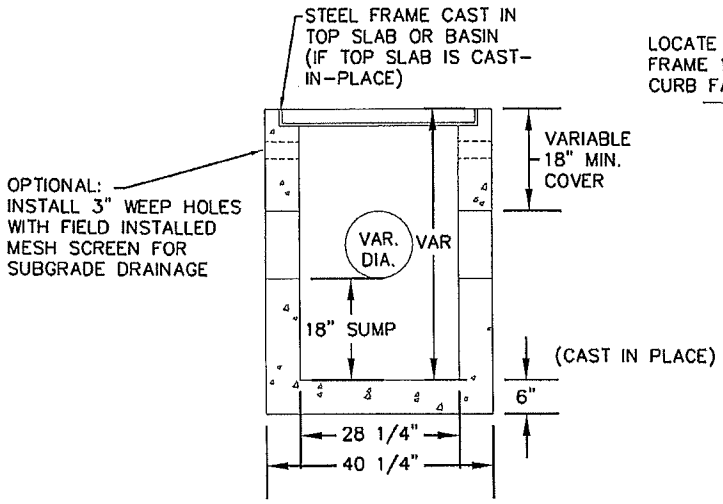
MANHOLE COVER AND FRAME DETAILS

DETAIL NO.
[redacted]
JAN. 2008

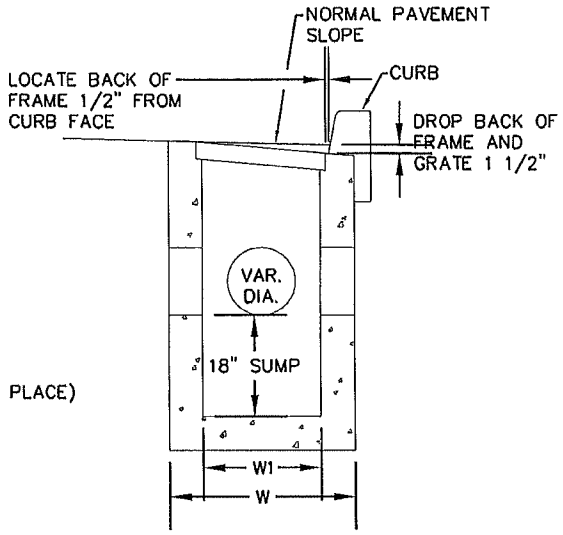


TOP VIEW

INLET TYPE	W	W1
G-1	2' 8-7/8"	1' 8-7/8"
G-2, G-2M	3' 3-3/8"	2' 3-3/8"



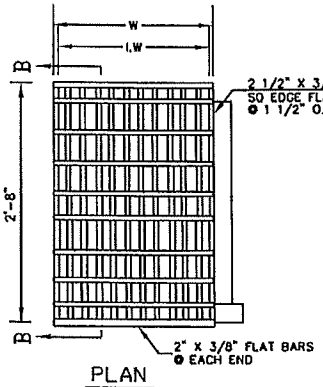
SECTION A-A



SECTION B-B

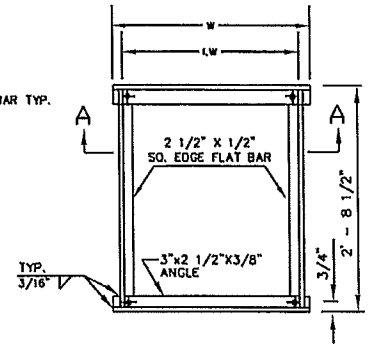
NOTES:
1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. PRECAST BASE WALLS SHALL BE A MINIMUM 4" THICK. CAST-IN-PLACE BASE WALLS SHALL BE 6" THICK.

TYPE	W	I.W
STANDARD	1'-9"	1'-8 1/4"

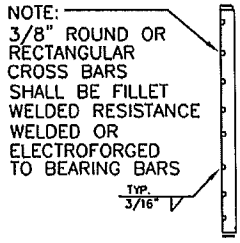


PLAN

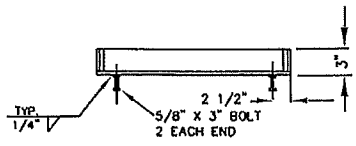
TYPE	DIA. PIPE	W	I.W
STANDARD	10"-12"	1'-10 3/4"	1'-9 3/8"



PLAN



SECTION B-B



SECTION A-A'

NOTE:
USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE.

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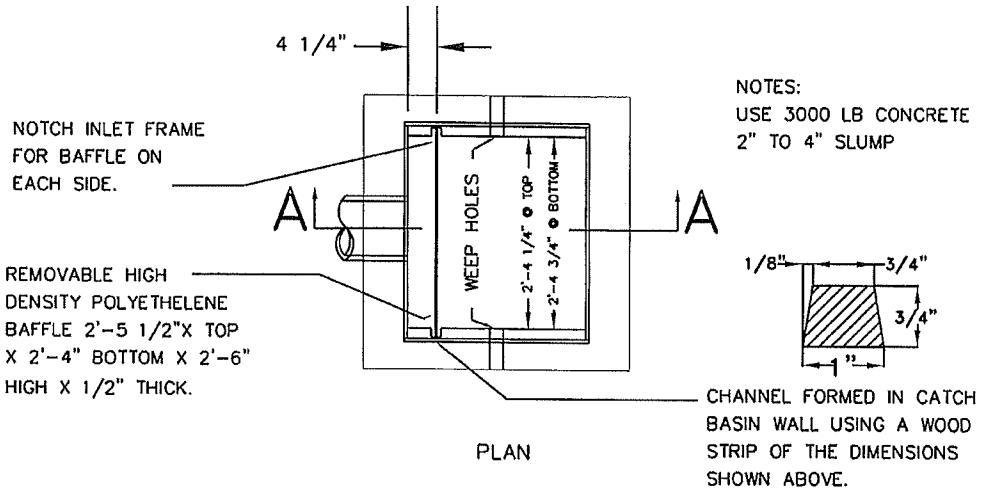
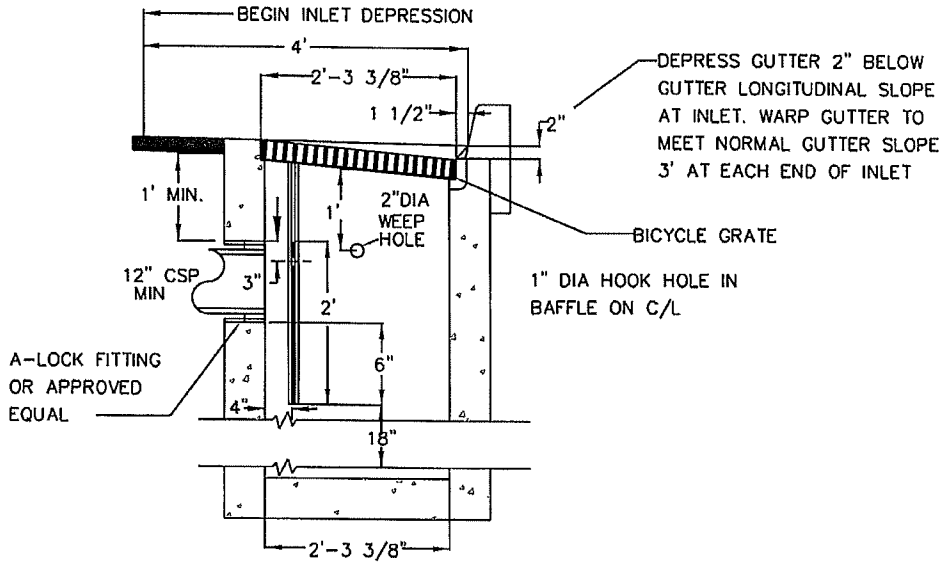
STANDARD INLETS, FRAMES & GRATES

DETAIL NO.



PLAN



SECTION A-A

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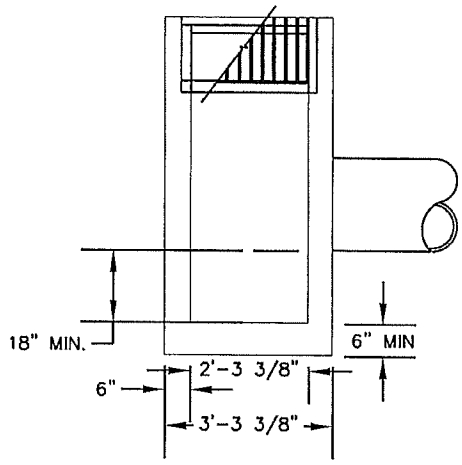
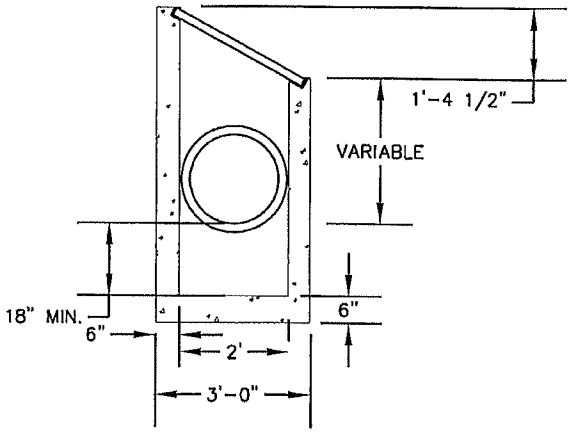
TRAPPED/POLLUTION CONTROL CATCH BASIN

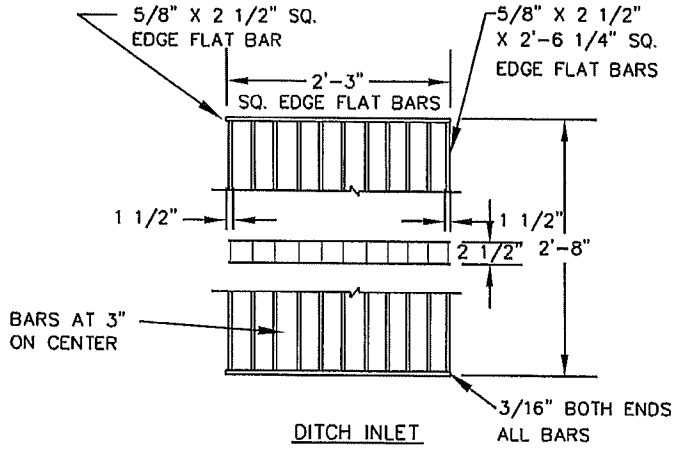
DETAIL NO.



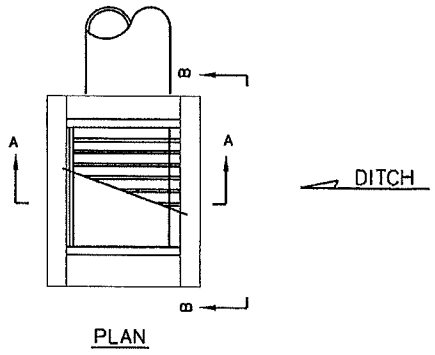
SECTION B-B



SECTION A-A



DITCH INLET



PLAN

NOTES:

1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. CATCH BASIN, FRAME, AND GRATES SHALL MEET H20 LOADING.
3. INSIDE FRAME DIMENSIONS: 2'-3 3/8", 2'-8 1/2".
4. 3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
5. DITCH INLET CATCH BASINS SHALL MEET THE REQUIREMENTS OF ODOT DITCH INLET TYPE "D"

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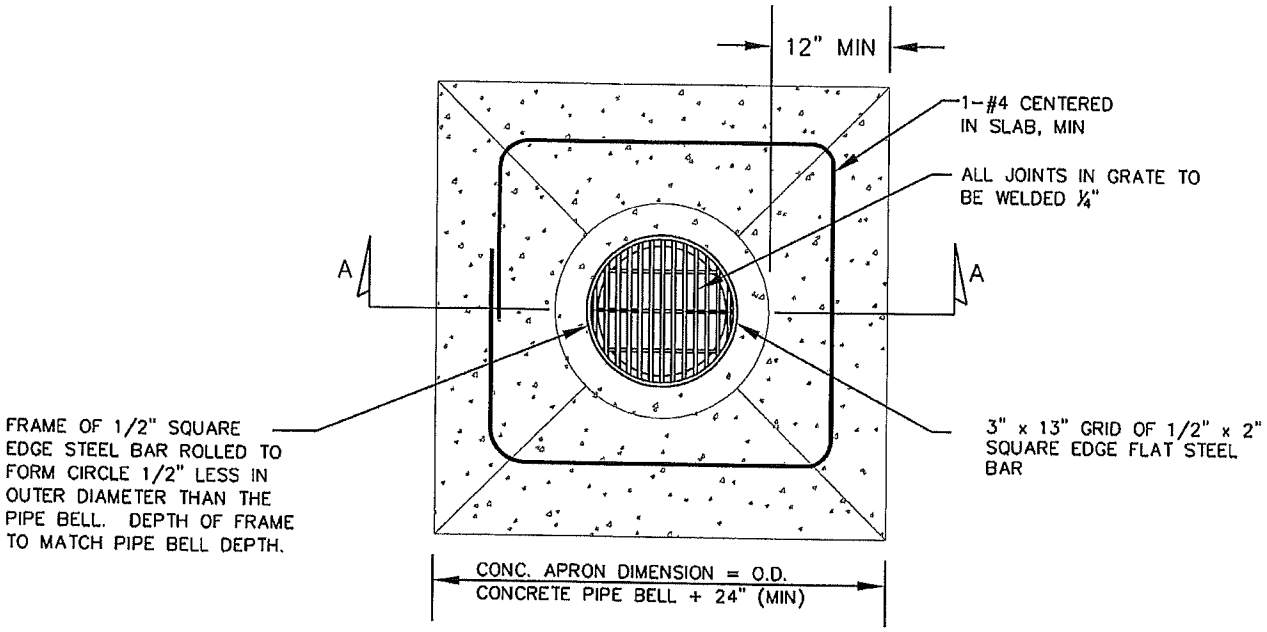
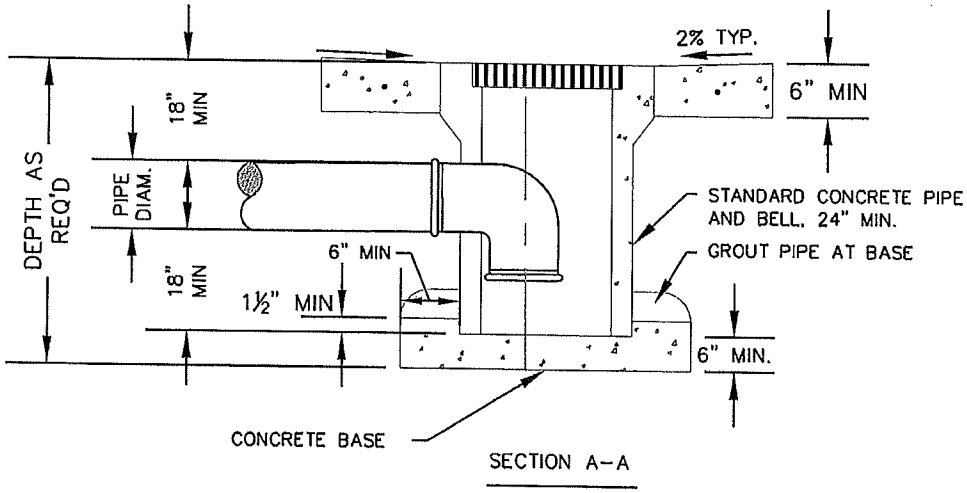
TYPICAL DITCH INLET AND GRATE

DETAIL NO.

[redacted]





SECTION A–A

NOTES:

1. GRATES SHALL BE CONSTRUCTED FOR BICYCLE SAFETY.
2. PRECAST CONCRETE CATCH BASINS MAY BE USED FOR AREA DRAINS WHEN APPROVED BY THE CITY.
3. NOT FOR USE IN VEHICULAR TRAFFIC AREAS.

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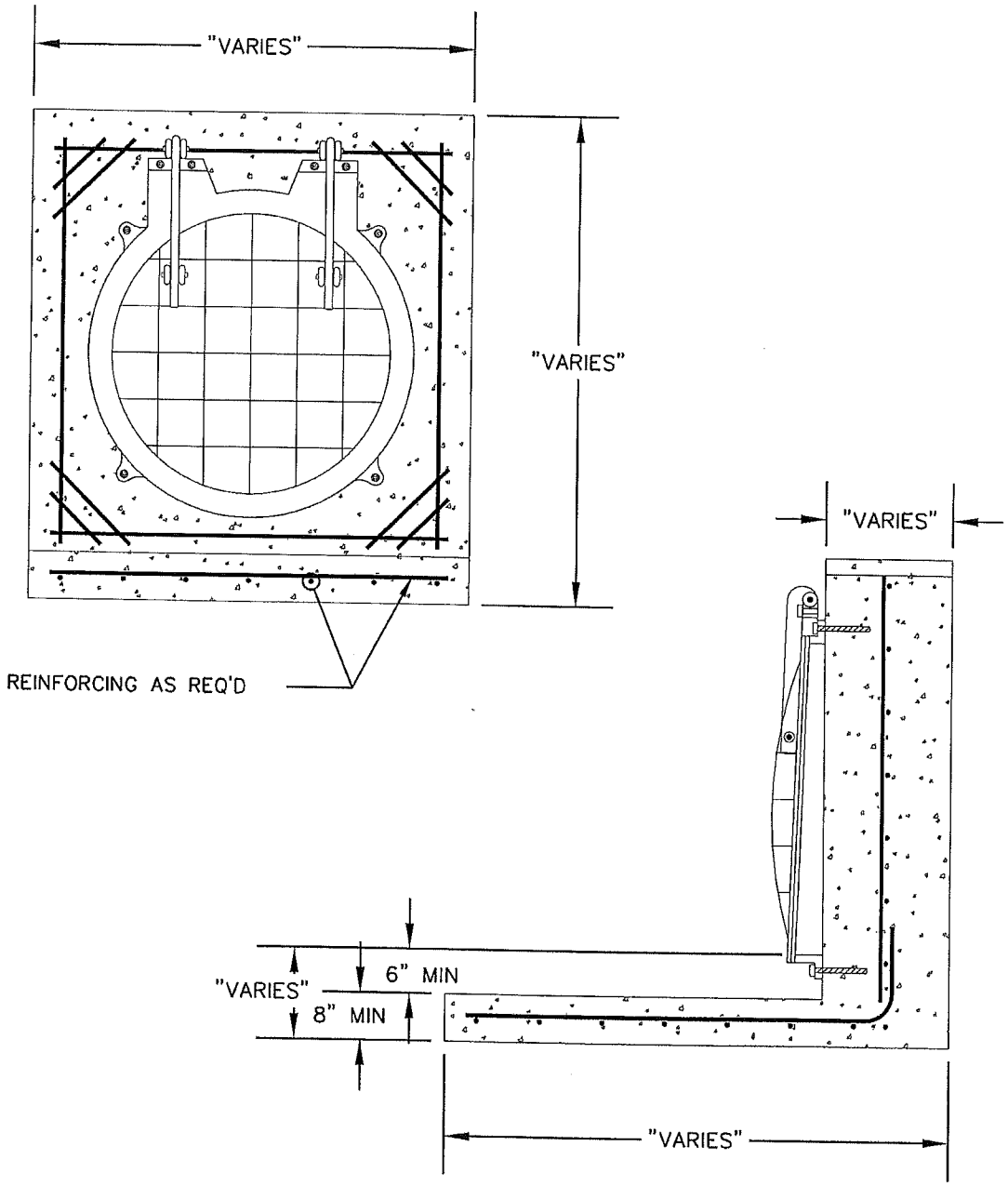
TYPICAL AREA DRAIN INLET

DETAIL NO.



NOTE:

1) OUTFALL HEADWALL SHOWN FOR CLARITY ONLY – ALL OUTFALLS SHALL BE SITE SPECIFIC AND SHALL CONFORM TO THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2) OUTFALL SHALL BE ABOVE THE MEAN LOW WATER LEVEL EXCEPT AS APPROVED BY CITY ENGINEER. INSTALLATION OF TIDEGATE MAY BE REQUIRED WHEN OUTFALL IS IN A TAILWATER CONDITION.
3) ALL TIDEGATES, FLAPGATES OR OTHER OUTLET GATES INSTALLED ON SPECIFIC OUTFALLS SHALL MEET THE REQUIREMENTS OF ODFW, NOAA AND OTHER AGENCIES AS REQUIRED.
4) CONCRETE STRENGTH SHALL BE 3,300 PSI AFTER 28 DAYS.
5) PROVIDE REINFORCING AS REQUIRED.

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HEADWALL WITH TIDEGATE

DETAIL NO.