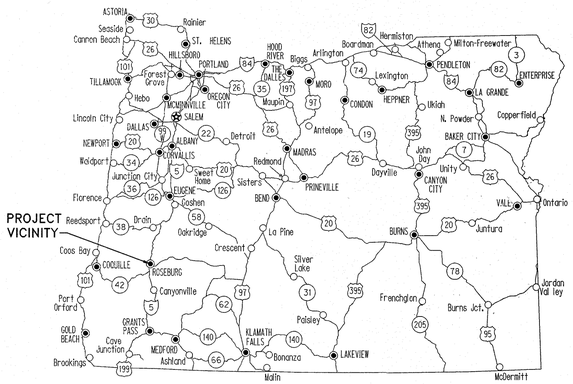
CASCADE COURT SEWER SEPARATION PROJECT



VICINITY MAP
NTS

THE CITY OF ROSEBURG
TIMBER CAPITAL OF THE NATION

CITY PROJECT NUMBER 15PW07

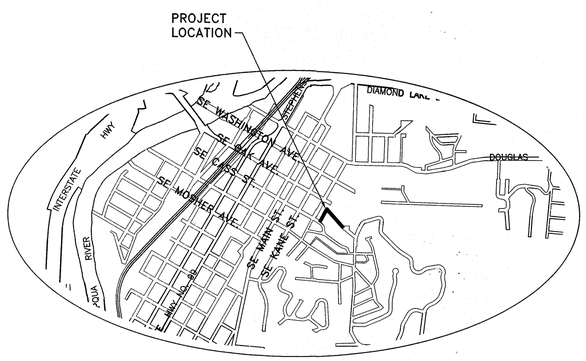
LEGEND

(ELEV.)	EXISTING CONTOUR ELEV.
ELEV.	NEW CONTOUR ELEV.
	EXISTING EDGE OF AC OR GRAVEL
	SAW CUT
RW	EXISTING RIGHT–OF–WAY
R/W	NEW RIGHT–OF–WAY
SS	EXISTING SANITARY SEWER (SS)
SS	NEW SANITARY SEWER (SS)
PS	EXISTING PRESSURE SEWER (PS)
PS	NEW PRESSURE SEWER (PS)
STS	EXISTING STORM SEWER (STS)
STS	NEW STORM SEWER (STS)
W	EXISTING WATER
W	NEW WATER
PUG	EXISTING POWER (UNDERGROUND)
POH	EXISTING POWER (OVERHEAD)
UGU UGU	NEW UNDERGROUND (TV, POWER, PHONE)
C	NEW ELECTRICAL CONDUIT
GAS	EXISTING GAS
TV TV	EXISTING CABLE TV
	EXISTING FENCE
X	NEW FENCE
S–F	SILT FENCE (S–F)
	EASEMENT
	PROPERTY LINE
TFC	TOP FACE OF CURB
BFC	BOTTOM FACE OF CURB
AC	ASPHALT
CONC	CONCRETE
FF	FINISH FLOOR
FG	FINISH GRADE
OG	ORIGINAL GROUND

	MANHOLE (MH)
	CURB INLET (CI)
	CATCH BASIN (CB)
	CLEANOUT
	FIRE HYDRANT
	VALVE
	WATER METER
	BLOWOFF
	POWER POLE
	LIGHT POLE
	GUY WIRE
	TELEPHONE PEDISTAL
	GAS METER
	CABLE TV PEDISTAL
MAIL	MAIL BOX
	TREE (CONIFER)
	TREE (DICIDUOUS)
X X	DETAIL CALLOUT

SHEET INDEX

1. COVER SHEET
2. UTILITY PLAN & PROFILE
3. STANDARD STORM SEWER DETAILS
4. SANITARY SEWER MANHOLE DETAILS
5. SANITARY SEWER PIPE DETAILS
6. STANDARD DETAILS



LOCATION MAP
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OAR 952–001–0090

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Roseburg, Oregon 97470
PHONE (541) 673–0166
FAX (541) 440–9392
iemail@ieengineering.com

REGISTERED PROFESSIONAL ENGINEER
72572PE
OREGON
NOVEMBER 13, 1980
ERIK D. RANGER
EXPIRES: 12/31/2016

Rev.	Date	Dwg	Description

Project Name:
CASCADE COURT
SEWER SEPARATION PROJECT

Title:
COVER SHEET

DES	EDR	PROJECT NO. 149–199
DWG	ANV	DATE: JULY 15, 2016
CHK	EDR	SCALE: NONE
APP	EDR	SHEET: 1 OF 6

DO NOT DUPLICATE

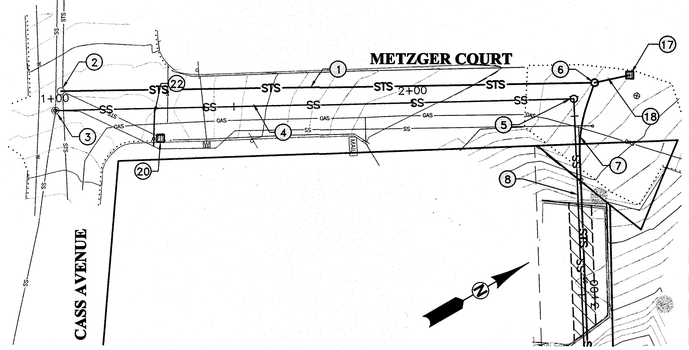
Z:\JOBS\0149-City of Roseburg\149-199 Cascade Court Improvements (see 151-24)\CADD\CONSTRUCTION\149-199_C.dwg
Jul 15, 2016
EricR

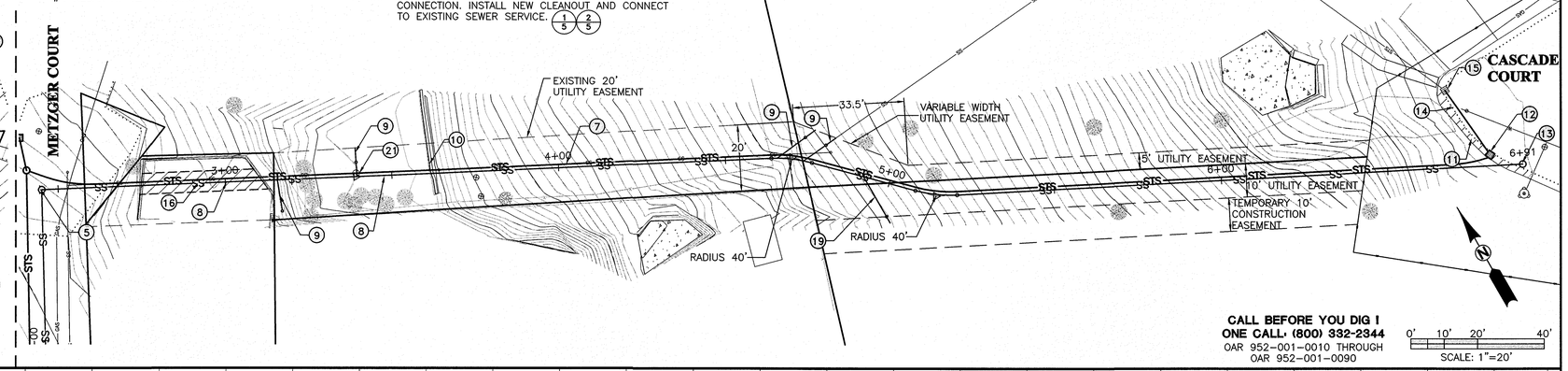
KEYED CONSTRUCTION NOTES: (#)

1. INSTALL 150 LF OF 12" PE CORRRUGATED STS PIPE @ 6.86% SLOPE (4/3)
2. CONNECT NEW 12" PIPE TO EXISTING STORM MH
   RIM ELEV.= 561.6
   EX. 12" INV. IN (E)= 557.3
   EX. 12" INV. IN (NE)= 557.6
   NEW 12" INV. IN (N)= 554.7
   EX. 12" INV. OUT (W)= 554.6
3. CONNECT TO EXISTING SANITARY SEWER MANHOLE
   RIM ELEV.= 562.3
   EX. INV. IN (E)= 556.9
   EX. INV. IN (N)= 555.5 (REMOVED)
   NEW INV. IN (N)= 555.0
   EX. INV. OUT (W)= 554.0
4. INSTALL 145 LF OF 8" 3034 SS PIPE @ 8.10% SLOPE (4/5)
5. INSTALL 48" SS MANHOLE (1/4) (6/4)
   RIM ELEV.= 571.8 (MATCH EXISTING)
   8" INV. IN (NE)= 567.0
   8" INV. OUT (SW)= 566.75
6. INSTALL 48" STS MANHOLE (1/3)
   RIM ELEV.= 572.1 (MATCH EXISTING)
   8" INV. IN (NE)= 567.0
   12" INV. IN (N)= 567.0
   12" INV. OUT (SW)= 565.0
7. INSTALL 440 LF OF 8" SOLID WALL, BUTTWELDED HDPE DR17 PIPE FOR STS. IN COMMON TRENCH WITH SS PIPE, MINIMUM COVER=1.5'. RADIUS SHOWN IS 40'. (5/3)
8. INSTALL 445 LF OF 8" SOLID WALL, BUTTWELDED HDPE DR17 PIPE FOR SS. IN COMMON TRENCH WITH STS PIPE, MINIMUM COVER=3.5'. RADIUS SHOWN IS 40'. (5/3)
9. INSTALL 4" SEWER SERVICE CONNECTION WITH NEW CLEANOUT AND CONNECT TO EXISTING SEWER SERVICE TO PROPERTY LINE. CONNECTION AT MAIN TO BE EITHER PLASTIC SADDLE WITH STAINLESS STEEL STRAPS, RUBBER SADDLE WITH STAINLESS STEEL TRAPS, ELECTRO FUSION SADDLE, OR INSERTA TEE. (1/5) (2/5)
10. REMOVE AND REPLACE BLOCK RETAINING WALL AS REQUIRED
11. REMOVE 45 LF OF EXISTING CURB AND GUTTER AND REPLACE WITH NEW MONOLITHIC CURB AND GUTTER (1/6)
12. INSTALL CG-2 INLET W/ TYPE 1 GRATE AND CATCH BASIN INSERT.
    GRATE ELEV.= 686.3 (MATCH EXISTING) (2/3) (7/3)
    8" INV IN= 683.25
    8" INV. OUT= 683.15
13. INSTALL 48" SS MH (1/4) (6/4)
    RIM ELEV.= 686.4 (MATCH EXISTING)
    8" INV. OUT= 681.5
14. INSTALL 24 LF OF 8" PE CORRUGATED OR SOLID WALL HDPE STS PIPE @ 1.00% SLOPE (4/3)
15. REMOVE EXISTING INLET AND INSTALL CG-2 INLET W/ TYPE 1 GRATE AND CATCH BASIN INSERT. PLUG EXISTING OUTLET PIPE WITH GROUT
    GRATE ELEV.= 686.1 (MATCH EXISTING) (2/3) (7/3)
    8" INV. OUT= 683.5
16. SAWCUT AND REMOVE EXISTING PATIO AND RETAINING WALL AS REQUIRED. REPLACE EXISTING WALL AND PATIO SECTION. MATCH EXISTING CONCRETE THICKNESS OF WALL. PATIO TO BE 4" THICK. EPOXY DOWEL WALL SECTIONS TO EXISTING WALL WITH 24" #4 REBAR AT 12" SPACING.
17. INSTALL G-2 INLET W/ TYPE 2 GRATE AND CATCH BASIN INSERT.
    GRATE ELEV.= 574.0 (MATCH EXISTING) (3/3) (7/3)
    12" INV. OUT= 570.0
18. INSTALL 10 LF OF 12" PE CORRUGATED STS PIPE @ 33.3% SLOPE. (4/3)
19. INSTALL 4" SEWER SERVICE CONNECTION WITH NEW CLEANOUT FOR FUTURE SERVICE. CONNECTION AT MAIN TO BE EITHER PLASTIC SADDLE WITH STAINLESS STEEL STRAPS, RUBBER SADDLE WITH STAINLESS STEEL TRAPS, ELECTRO FUSION SADDLE, OR INSERTA TEE. MARK NEW LATERAL LOCATION WITH PRESSURE TREATED 2"x4", PAINTED GREEN. (1/5) (2/5)
20. REMOVE EXISTING CATCH BASIN, INSTALL CG-2 CATCH W/ TYPE 1 GRATE AND CONNECT TO EXISTING 12" PIPE. MAINTAIN 8" CURB EXPOSURE AND INCREASE CURB OPENING HEIGHT TO 5" AND WIDTH TO 4".
    TFC ELEV.= 561.6 (MATCH EXISTING) (2/3) (7/3)
    EX. 12" INV. OUT (SW)= 559.7
21. REMOVE EXISTING SS MH
22. INSTALL 8"x4" 3034 TEE FOR SEWER SERVICE CONNECTION. INSTALL NEW CLEANOUT AND CONNECT TO EXISTING SEWER SERVICE. (1/5) (2/5)

GENERAL NOTES:

1. CONTRACTOR TO POTHOLE ALL EXISTING SEWER LATERALS IN EASEMENT AND VERIFY DEPTH AND LOCATION PRIOR TO BEGINNING CONSTRUCTION. DEPTH AND SLOPE OF SS PIPE TO BE ADJUSTED AS REQUIRED.
2. PIPE SLOPES FOR HDPE SHALL BE ADJUSTED AS REQUIRED TO MATCH FIELD CONDITIONS.
3. ALL DISTURBED SLOPES TO BE TRACK WALKED AND ROUGHENED. THEN SEED SHALL BE PLACED PER SPECIFICATIONS AND COVERED WITH TYPE "C" EROSION MATTING PER SPECIFICATIONS AND (2/6)
4. INSTALL PIPE ANCHOR ON HDPE WHERE SHOWN AS THUS ▮ IN PROFILE. (6/3)
5. CONTRACTOR TO REMOVE INTERNAL BEADS ON HDPE PIPE USING SUITABLE DEBEADING MACHINE. DEBEADING IS INCIDENTAL TO INSTALLATION.
6. WHEN WORKING ON PRIVATE PATIO, CONTRACTOR TO REMOVE AND REPLACE ALL FENCING AND ITEMS ON PATIO AS REQUIRED, INCIDENTAL TO INSTALLATION.
7. REMOVE TREES LOCATED WITHIN THE PIPE ALIGNMENT. PROTECT TREES OUTSIDE OF THE PIPE. ALIGNMENT. AVOID DIGGING THROUGH ROOTS WITH EQUIPMENT. CUT ROOTS CLEANLY WITHOUT PULLING TREES TO REMAIN.





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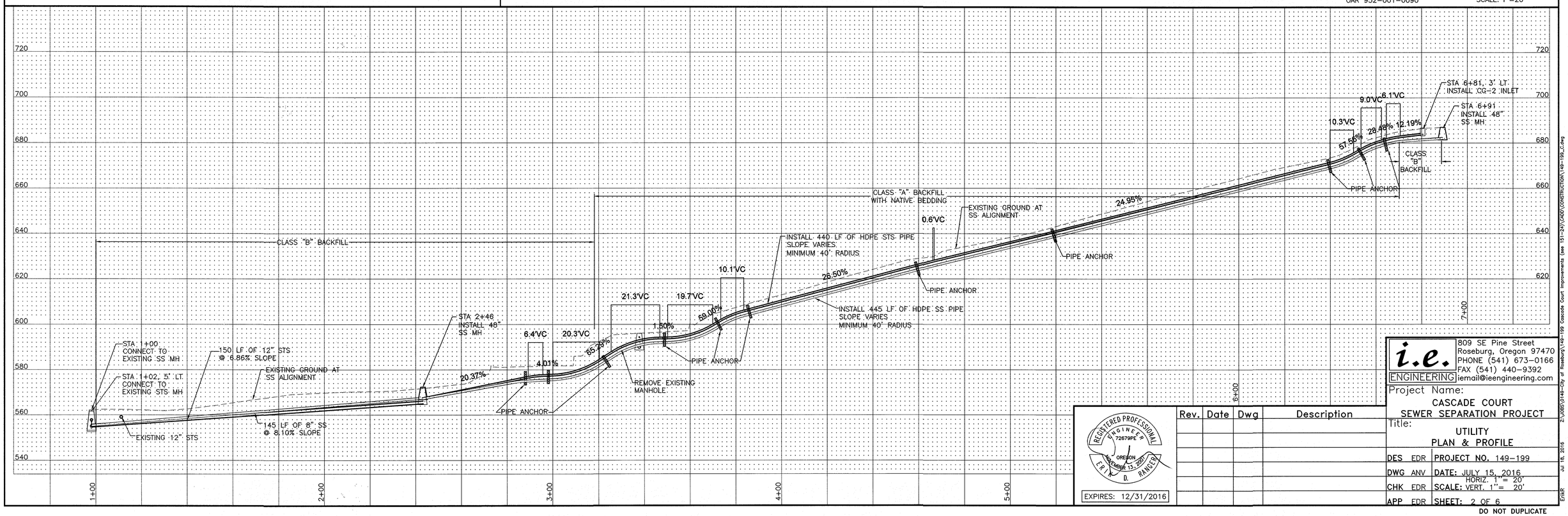
0' 10' 20' 40'
SCALE: 1"=20'



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email@ieengineering.com

REGISTERED PROFESSIONAL ENGINEER 72679PE OREGON DECEMBER 13, 2001 ERIK D. RANSEM

EXPIRES: 12/31/2016

Rev.	Date	Dwg	Description

Project Name:
CASCADE COURT
SEWER SEPARATION PROJECT

Title:
UTILITY
PLAN & PROFILE

DES	EDR	PROJECT NO.	149-199
DWG	ANV	DATE:	JULY 15, 2016
CHK	EDR	SCALE:	HORIZ. 1"= 20' VERT. 1"= 20'
APP	EDR	SHEET:	2 OF 6

DO NOT DUPLICATE

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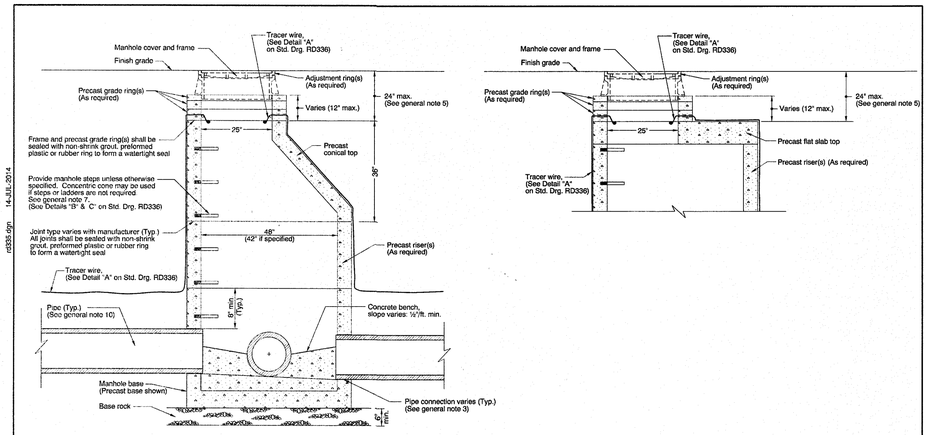
Jul 15, 2016 EdNR



GENERAL NOTES FOR ALL DETAILS:

1. All precast products shall conform to requirements of ASTM C478.
2. Standard precast manhole section diameter shall be 48". Use 42" if specified by the Engineer.
3. See Std. Drg. RD345 for pipe to manhole connections.
4. See Std. Drg. RD344 for manhole base section.
5. Adjust 24" maximum.
6. All connecting pipes shall have a tracer wire, or approved alternate.
7. See Std. Drg. RD337 for manhole safety ladder.
8. See Std. Drg. RD336 for details not shown.
9. See Std. Drg. RD356 for manhole covers and frames, manhole adjustment rings, etc.
10. Max. pipe diameter varies with pipe material.
11. See Std. Drg. RD342 for shallow manholes.
12. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.

CALC. BOOK NO. N/A — BASELINE REPORT DATE 14-JUL-2014

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

STANDARD STORM SEWER MANHOLE

2015

DATE	REVISION DESCRIPTION

RD335 — rd335.dgn 14-JUL-2014

Effective Date: June 1, 2016 - November 30, 2016 (1/3) RD335

GENERAL NOTES FOR ALL DETAILS:

1. Where precast inlets are used as an alternate to cast-in-place inlets, a 4" compacted leveling bed of sand or ¼"-0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
2. Graphics show CG-1 inlet with Type 2 grate. See Table A for inlet dimensions. Type 1 grate allowed only in locations not subject to bicycle or pedestrian use. For frame and grate details, see Std. Drg. RD365.
3. Provide sump only where shown on plans, and allowed by jurisdiction. See Detail B for inlet without sump.
4. For curb details, see Std. Drgs. RD700 & RD701.
5. See Std. Drg. RD336 for tracer wire details, or approved alternate.
6. Max. pipe diameter varies with pipe material.
7. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
8. All concrete shall be commercial grade concrete.
9. ¾" preformed filler (in concrete pavement or gutter only) to extend through thickness of concrete.
10. See Std. Drg. RD363 for gutter transition section, when curb and gutter are required.
11. See Std. Drg. RD339 for pipe to structure connections.

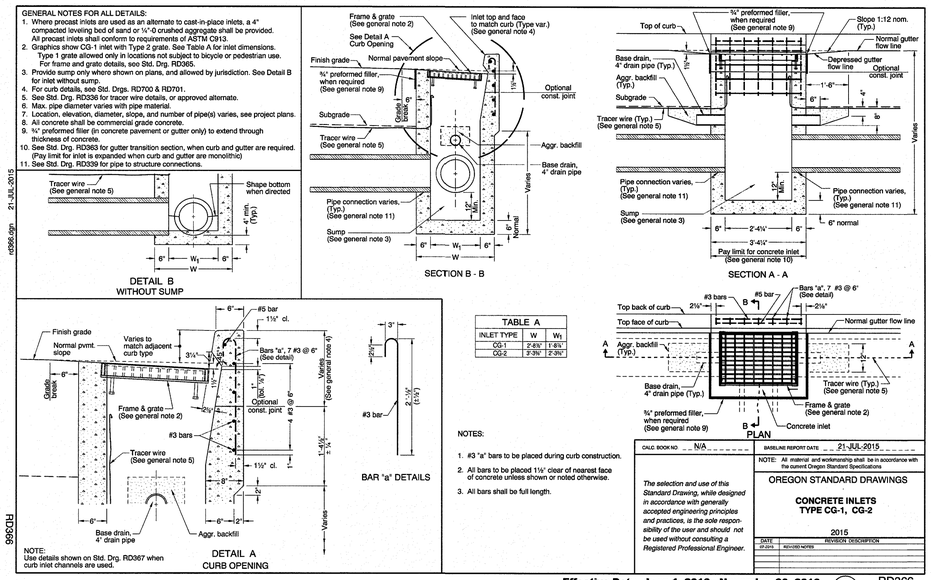


TABLE A		
INLET TYPE	W	W1
CG-1	2'-6¾"	1'-8¼"
CG-2	3'-3¾"	2'-3¾"

NOTES:

1. #3 "a" bars to be placed during curb construction.
2. All bars to be placed 1½" clear of nearest face of concrete unless shown or noted otherwise.
3. All bars shall be full length.

NOTE: Use details shown on Std. Drg. RD367 when curb inlet channels are used.

CALC. BOOK NO. N/A — BASELINE REPORT DATE 21-JUL-2015

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

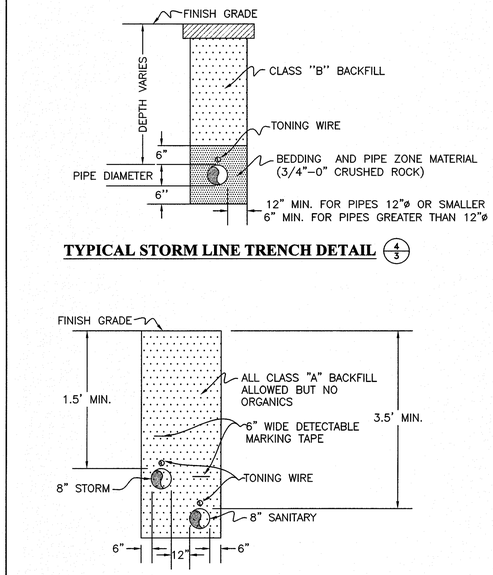
CONCRETE INLETS TYPE CG-1, CG-2

2015

DATE	REVISION DESCRIPTION
07-2015	REVISED NOTES

RD366 — rd366.dgn 21-JUL-2015

Effective Date: June 1, 2016 - November 30, 2016 (2/3) RD366



TYPICAL STORM LINE TRENCH DETAIL (4/3)

DUAL TRENCH DETAIL (5/3)

NOTE: ¾"-0 CRUSHED ROCK TO BE USED FOR TRENCH BACKFILL AND BEDDING FROM STA 2+46 TO STA 3+10

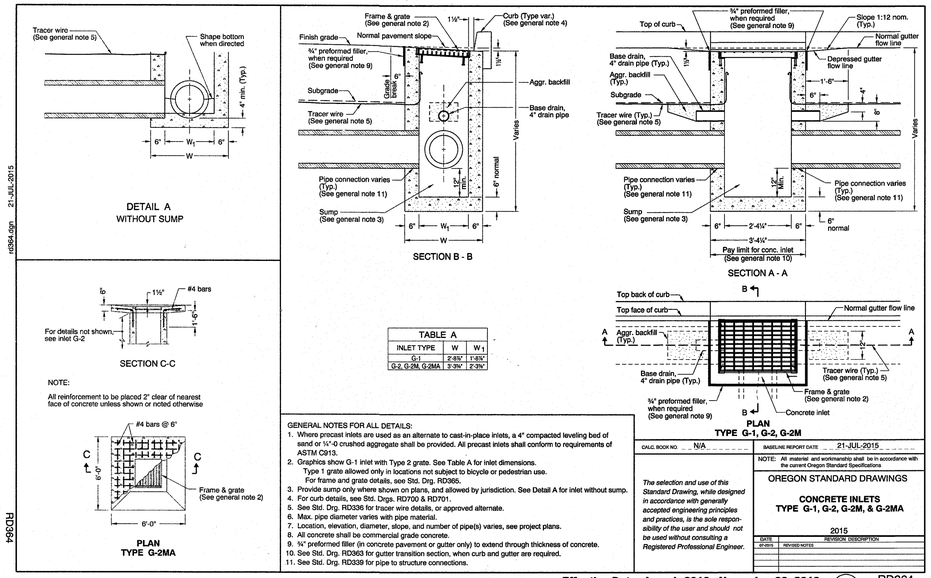


TABLE A		
INLET TYPE	W	W1
G-1	2'-6¾"	1'-8¼"
G-2, G-2M, G-2MA	3'-3¾"	2'-3¾"

NOTE:

All reinforcement to be placed 2" clear of nearest face of concrete unless shown or noted otherwise

PLAN TYPE G-2MA

GENERAL NOTES FOR ALL DETAILS:

1. Where precast inlets are used as an alternate to cast-in-place inlets, a 4" compacted leveling bed of sand or ¼"-0 crushed aggregate shall be provided. All precast inlets shall conform to requirements of ASTM C913.
2. Graphics show G-1 inlet with Type 2 grate. See Table A for inlet dimensions. Type 1 grate allowed only in locations not subject to bicycle or pedestrian use. For frame and grate details, see Std. Drg. RD365.
3. Provide sump only where shown on plans, and allowed by jurisdiction. See Detail A for inlet without sump.
4. For curb details, see Std. Drgs. RD700 & RD701.
5. See Std. Drg. RD336 for tracer wire details, or approved alternate.
6. Max. pipe diameter varies with pipe material.
7. Location, elevation, diameter, slope, and number of pipe(s) varies, see project plans.
8. All concrete shall be commercial grade concrete.
9. ¾" preformed filler (in concrete pavement or gutter only) to extend through thickness of concrete.
10. See Std. Drg. RD363 for gutter transition section, when curb and gutter are required.
11. See Std. Drg. RD339 for pipe to structure connections.

CALC. BOOK NO. N/A — BASELINE REPORT DATE 21-JUL-2015

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

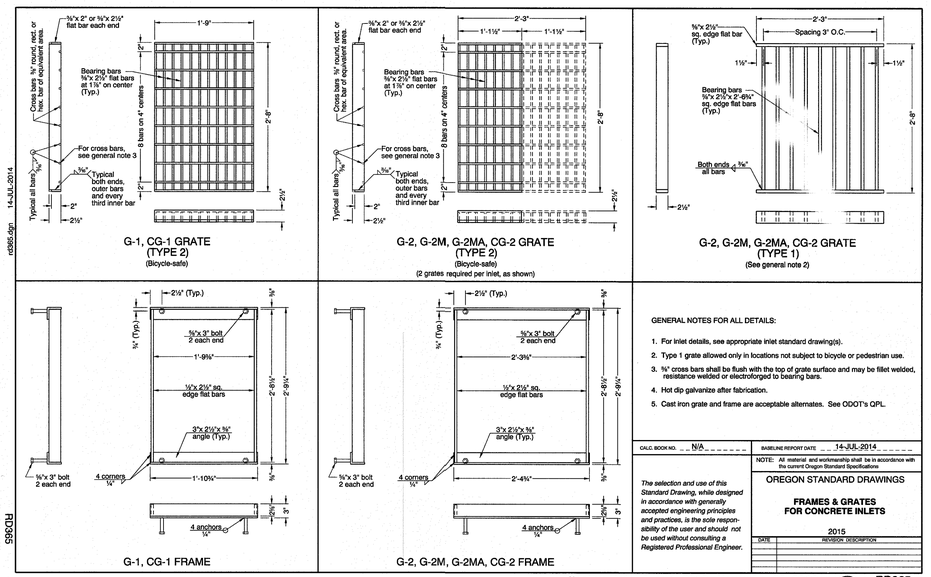
CONCRETE INLETS TYPE G-1, G-2, G-2M, & G-2MA

2015

DATE	REVISION DESCRIPTION
07-2015	REVISED NOTES

RD364 — rd364.dgn 21-JUL-2015

Effective Date: June 1, 2016 - November 30, 2016 (3/3) RD364



GENERAL NOTES FOR ALL DETAILS:

1. For inlet details, see appropriate inlet standard drawing(s).
2. Type 1 grate allowed only in locations not subject to bicycle or pedestrian use.
3. ¾" cross bars shall be flush with the top of grate surface and may be fillet welded, resistance welded or electroforged to bearing bars.
4. Hot dip galvanize after fabrication.
5. Cast iron grate and frame are acceptable alternates. See ODOT's QPL.

CALC. BOOK NO. N/A — BASELINE REPORT DATE 14-JUL-2014

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON STANDARD DRAWINGS

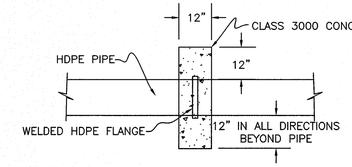
FRAMES & GRATES FOR CONCRETE INLETS

2015

DATE	REVISION DESCRIPTION

RD365 — rd365.dgn 14-JUL-2014

Effective Date: June 1, 2016 - November 30, 2016 (7/3) RD365



PIPE ANCHOR DETAIL (6/3)

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FAX (541) 440-9392
iemail@ieengineering.com

REGISTERED PROFESSIONAL ENGINEER — 72679PE — OREGON — NOVEMBER 13, 1987 — FRANK D. RANGER

EXPIRES: 12/31/2016

Rev.	Date	Dwg	Description

Project Name: CASCADE COURT SEWER SEPARATION PROJECT

Title: STANDARD STORM SEWER DETAILS

DES	EDR	PROJECT NO. 149-199
DWG	ANV	DATE: JULY 15, 2016
CHK	EDR	SCALE: ---
APP	EDR	SHEET: 3 OF 6

Z:\CDES\0149-City of Roseburg\149-199 Cascade Court Improvements (see 151-247)\CADD\CONSTRUCTION\149-199_c.dwg — EnterR — Jul 15, 2016

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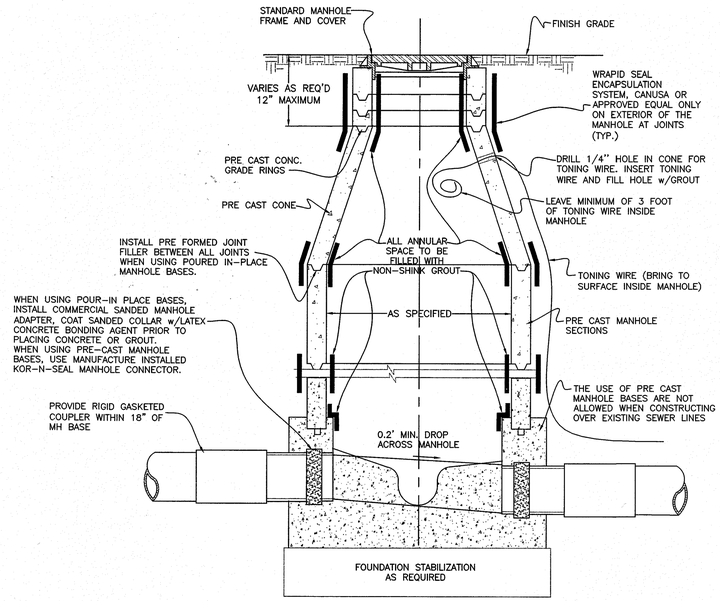
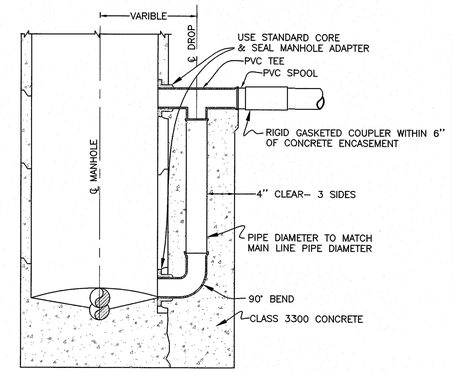


NOTES:

PRIOR TO DELIVERY OF PRECAST MANHOLE SECTIONS FOR THE JOB SITE, PERFORM YARD PERMEABILITY TESTS AT THE POINT OF MANUFACTURE. TEST ALL MANHOLE SECTIONS TO BE SUPPLIED FOR THIS PROJECT. ALL TEST SPECIMENS WILL BE MAT TESTED, AND SHALL MEET THE PERMEABILITY TEST REQUIREMENTS OF ASTM C 498. THE ENGINEER MAY REQUIRE THAT EACH MANHOLE BE TESTED PER ASTM C 1244 AS AN ALTERNATIVE TO ASTM C 498. ALL TESTS SHALL BE OBSERVED AND CERTIFIED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER OR CERTIFIED SPECIAL INSPECTOR PROVIDED BY THE MANUFACTURER

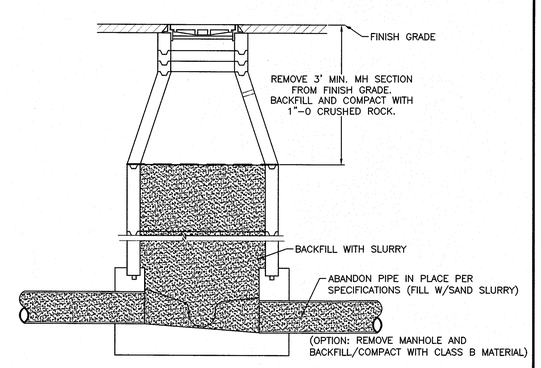
TYPICAL SEWER MANHOLE (1/4)

NTS



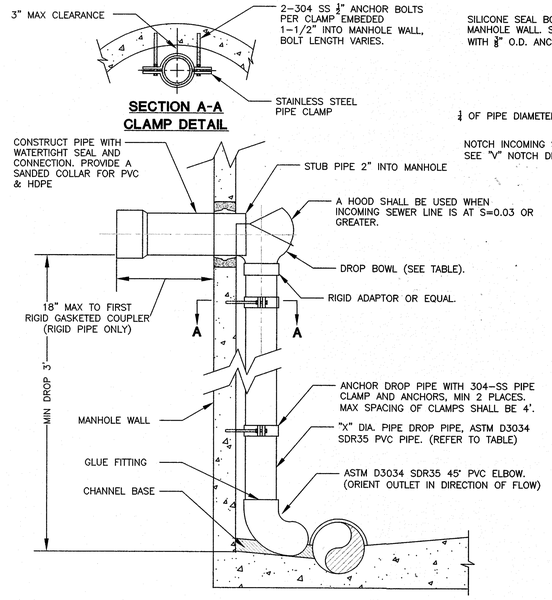
TYPICAL OUTSIDE DROP MANHOLE (2/4)

NTS

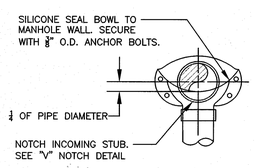


TYPICAL MANHOLE (ABANDONED) (3/4)

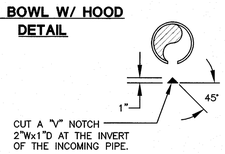
NTS



SECTION A-A CLAMP DETAIL



DROP BOWL W/ HOOD DETAIL



"V" NOTCH DETAIL

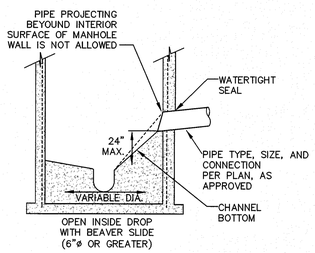
INCOMING SEWER SIZE	DROP PIPE SIZE "X"	DROP BOWL MODEL
8" DIA.	6" DIA.	A-6
10" DIA.	8" DIA.	B-8
12" DIA.	10" DIA.	B-10

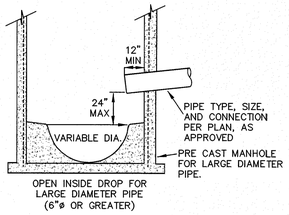
DROP BOWL MODEL DETAIL

ALL INSIDE DROP CONNECTIONS SHALL USE THE DROP BOWL AS PRODUCED BY: RELINER-DURAN, INC. OR EQUAL

PIPED INSIDE DROP CONNECTION WITH DROP BOWL (4/4)

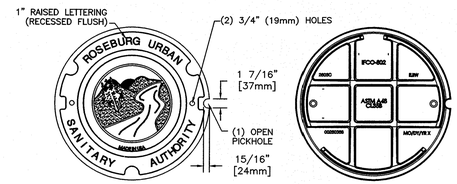
NTS

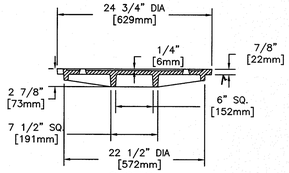




OPEN INSIDE DROP MANHOLE (5/4)

NTS





TYPICAL SEWER MANHOLE COVER (6/4)

NTS

ROSEBURG URBAN SANITARY AUTHORITY
1297 NE GRANDVIEW P.O. BOX 1185
ROSEBURG, OR 97470
PHONE: (541)-672-1551

SANITARY SEWER MANHOLE DETAILS

SCALE: N.T.S.
DRAWN: DTM
REVISED 03/10/16

REGISTERED PROFESSIONAL ENGINEER 72679PE OREGON NOVEMBER 13, 2001 ERIK D. RANGER

EXPIRES: 12/31/2016

Rev.	Date	Dwg	Description

i.e. ENGINEERING
809 SE Pine Street
Roseburg, Oregon 97470
PHONE (541) 673-0166
FAX (541) 440-9392
iemail@ieengineering.com

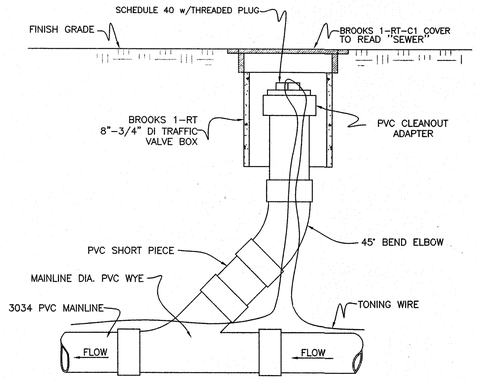
Project Name:
CASCADE COURT SEWER SEPARATION PROJECT

Title:
SANITARY SEWER MANHOLE DETAILS

DES	EDR	PROJECT NO.	149-199
DWG	ANV	DATE:	JULY 15, 2016
CHK	EDR	SCALE:	---
APP	EDR	SHEET:	4 OF 6

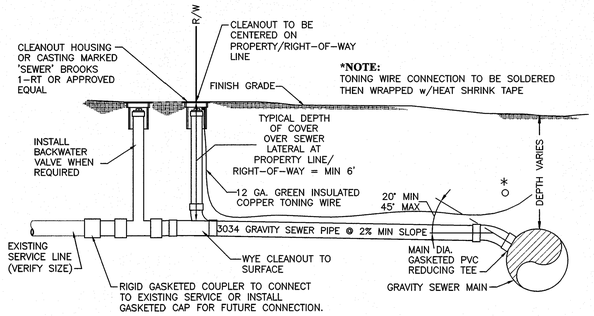
DO NOT DUPLICATE

Z:\JOBS\0149-City of Roseburg\149-199 Cascade Court Improvements (see 151-24)\CADD\CONSTRUCTION\149-199_C.dwg
Jul 18, 2016
EDGR



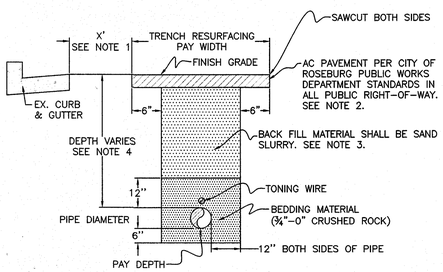
TYPICAL 4"-6" SEWER CLEANOUT (1/5)

NTS



TYPICAL 4"-6" SEWER SERVICE CONNECTION (2/5)

NTS

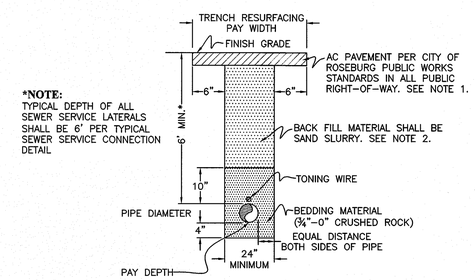


NOTES:

1. WHEN X IS LESS THAN 5', CONTRACTOR SHALL REMOVE AND REPLACE AC PAVEMENT TO CURB AND/OR GUTTER.
2. WHEN SEWER MAINLINE IS NOT LOCATED IN PUBLIC RIGHT-OF-WAY, AC SHALL BE PER APPROVED PLANS.
3. WHEN SEWER MAINLINE IS NOT IN PUBLIC RIGHT-OF-WAY, BACKFILL MATERIAL SHALL BE CLASS "B" PER ODOT/APWA STANDARD SPECIFICATIONS SECTION 00405.
4. TYPICAL DEPTH OF COVER OVER SEWER LATERAL AT PROPERTY LIN/RIGHT-OF-WAY SHALL BE 6' MIN.

TYPICAL SEWER MAINLINE TRENCH (3/5)

NTS



NOTES:

1. WHEN SEWER MAINLINE IS NOT LOCATED IN PUBLIC RIGHT-OF-WAY, AC SHALL BE PER APPROVED PLANS.
2. WHEN SEWER MAINLINE IS NOT IN PUBLIC RIGHT-OF-WAY, BACKFILL MATERIAL SHALL BE CLASS "B" PER ODOT/APWA STANDARD SPECIFICATIONS SECTION 00405.

TYPICAL SEWER SERVICE LINE TRENCH (4/5)

NTS

ROSEBURG URBAN SANITARY AUTHORITY
1297 NE GRANDVIEW P.O. BOX 1185
ROSEBURG, OR 97470
PHONE: (541)-672-1551

SANITARY SEWER PIPE DETAILS

SCALE: N.T.S.
DRAWN: DTM
REVISED 03/10/16

REGISTERED PROFESSIONAL ENGINEER 72678PE OREGON NOVEMBER 13, 2007 ERIK D. RANGER

EXPIRES: 12/31/2016

Rev.	Date	Dwg	Description

i.e. ENGINEERING
809 SE Pine Street
Roseburg, Oregon 97470
PHONE (541) 673-0166
FAX (541) 440-9392
iemail@ieengineering.com

Project Name:
CASCADE COURT
SEWER SEPARATION PROJECT

Title:
SANITARY SEWER PIPE DETAILS

DES	EDR	PROJECT NO.	149-199
DWG	ANV	DATE:	JULY 15, 2016
CHK	EDR	SCALE:	---
APP	EDR	SHEET:	5 OF 6

Z:\DBS\0149-City of Roseburg\149-199 Cascade Court Improvements (see 151-24)\CADD\CONSTRUCTION\149-199_C.dwg
Jul 15, 2016 EricR

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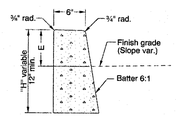
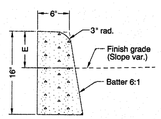
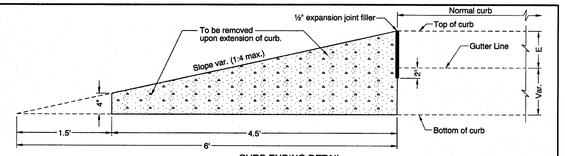


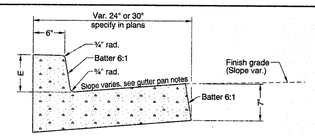
O.D.O.T. & City of Portland Standard "H"=16"
STANDARD CURB



MOUNTABLE CURB

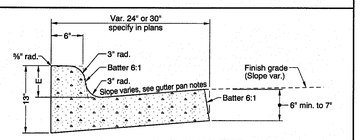


CURB ENDING DETAIL

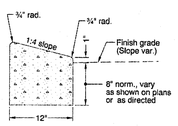


CURB AND GUTTER

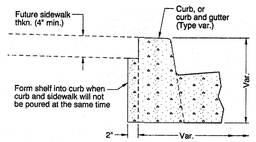
GUTTER PAN NOTES:
Slope 8.3% normal.
Use 5.0% slope for gutter width greater than 24".
Slope 4.0% at ramps. Vary slope as reqd. for drainage.
Vary where shown on plans, and allowed by jurisdiction.



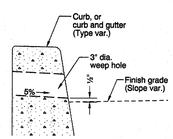
MOUNTABLE CURB AND GUTTER



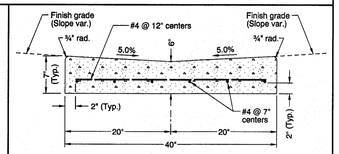
LOW PROFILE
MOUNTABLE CURB



MODIFICATION FOR KEYWAY
(Where shown on plans)



WEEP HOLE DETAIL
(Where shown on plans, and allowed by jurisdiction)



VALLEY GUTTER

GENERAL NOTES FOR ALL DETAILS:

1. Curb exposure "E" = 6" to 9", as measured vertically from flowline to highest point on curb. Vary as shown on plans or as directed. O.D.O.T standard "E"=7".
2. Const. expansion joints at 200' maximum spacing, and at points of tangency, and at ends of each driveways.
3. Const. contraction joints at 15' maximum spacing, and at ends of each inlet and ramp.
4. Transitions shall be used to connect curbs of different exposures "E". ("E" Is the total vertical dimension of those curb surfaces having a slope of 1:1 or steeper). Minimum desirable transition length shall be 20' for each 1' difference in "E".
5. Tops of all curbs shall slope toward the roadway at 1.5% max. (Max. 2.0% finished surface slope), unless otherwise shown, or as directed.
6. Dimensions are nominal, vary to conform with curb machine approved by the engineer.
7. Dimensions adjacent to radii are measured to the point of intersection of curb surfaces.
8. For sidewalk details, and monolithic curb & sidewalk, see Std. Drg. RD720.
9. For drainage curbs, see Std. Drg. RD701.
10. For sidewalk ramp details, see Std. Drg. RD755.

CALC. BOOK NO. N/A
BASELINE REPORT DATE 15-JAN-2016

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

CURBS

2015

DATE	REVISION DESCRIPTION
04-2015	ADDED NOTE
07-2015	REVISED NOTE
01-2016	REVISED NOTES

rd700.dgn 15-JAN-2016

RD700

Effective Date: June 1, 2016 - November 30, 2016 1/6 RD700

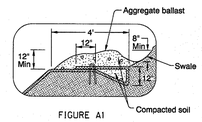


FIGURE A1

TOP OF BANK ANCHOR TRENCH, H>3' AND TERMINAL SLOPE

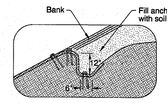


FIGURE A2

TOP OF BANK ANCHOR TRENCH, H<3'

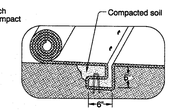


FIGURE A3

CHANNEL CHECK SLOT

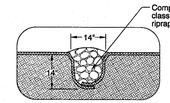


FIGURE A4

CHANNEL CHECK SLOT WITH ROCK BACKFILL

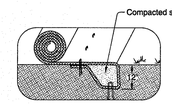
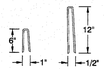
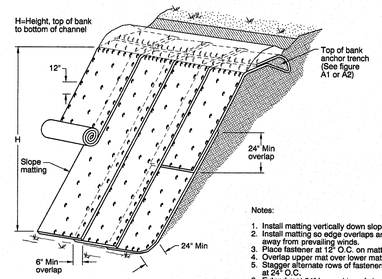


FIGURE A5

INITIAL CHANNEL ANCHOR TRENCH



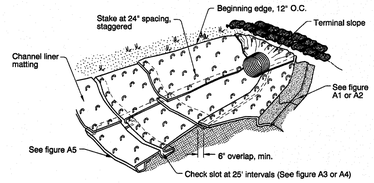
STAPLES



SLOPE ISOMETRIC VIEW

Notes:

1. Install matting vertically down slope
2. Install matting so edge overlaps are shingled away from prevailing winds.
3. Place fastener at 12" O.C. on matting edges
4. Overlap upper mat over lower mat, and fasten.
5. Stagger alternate rows of fasteners placed at 24" O.C.
6. Extend mat 24" beyond toe of slope; Fold mat back under 4" and fasten.



CHANNEL ISOMETRIC VIEW

Notes:

1. Install channel liner matting, in the direction of water flow. Anchor upstream end of mat with check slot for culvert outfalls, place mat under pipe 12" minimum upstream from pipe outlet.
2. Construct check slots across channel bottom at 25' spacing and at the end of each mat (Fig. A3 or A4).
3. Overlap side channel liner matting edges 6" over the center channel liner matting and fasten edges 12" O.C. Continue overlap and stapling pattern for each additional side channel liner mat.
4. Lap upstream matting end 12" over beginning edge of downstream matting. Fasten 12" O.C.
5. Anchor top edge of side channel matting in trench and fasten 12" O.C. (Fig. A2).
6. Fasten matting interior at 24" O.C. with staggered spacing.
7. Construct initial anchor trench at downstream end of matting and terminal slope anchor at upstream end.

CALC. BOOK NO. N/A
BASELINE REPORT DATE 01-JAN-2013

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NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

SLOPE AND CHANNEL MATTING

2015

DATE	REVISION DESCRIPTION

rd1055.dgn 03-03-2015

RD1055

Effective Date: June 1, 2016 - November 30, 2016 2/6 RD1055

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FAX (541) 440-9392
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REGISTERED PROFESSIONAL ENGINEER 72679PE OREGON NOVEMBER 13, 2007 EDRK D. RANGER
EXPIRES: 12/31/2016

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DES	EDR	PROJECT NO. 149-199
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APP	EDR	SHEET: 6 OF 6

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