

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

SECTION A-A

SECTION B-B

COMBINATION CURB INLET

NOTE:

- CAST IN PLACE CONCRETE TO BE 3000 PSI AND WEEP HOLE WITH GALVANIZED MESH. SCREEN ON MIN. 3 SIDES OF INLET.
- MANHOLE RIMS AND COVERS AS MANUFACTURED BY HERN IRON WORKS, COEUR D'ALENE, IDAHO. COVER PATTERN NO. 2312, RIM PATTERN NO. 2311 OR APPROVED EQUAL.

DATE: 2010
DRAWING NO. WL-601
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

PLAN

SECTION A-A

SECTION B-B

FRAME AND GRATE FOR GUTTER AND CURB INLET

NOTE:

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

DATE: 2010
DRAWING NO. WL-602B
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

GRATE

STORM

MANHOLE FRAME AND COVER

NOTE:

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

DATE: 2010
DRAWING NO. WL-605
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

POLLUTION/FLOW CONTROL MANHOLE

NOTE:

- ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
- DISTANCE FROM TOP OF OVERFLOW TO RIM SHALL BE BASED ON OVERFLOW CAPACITY CALCULUS BY DESIGN ENGINEER. ASSUME ORIFICE CONTROL.
- 7 1/2\"/>
- NO STEPS REQUIRED.

DATE: 2010
DRAWING NO. WL-607A
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

CLEANOUT/SHEAR GATE

NOTE:

- CLEANOUT/SHEAR GATE AND LIFT HANDLE SHALL BE ALUMINUM ALLOY PER ASTM B-209 OR 2010.
- LIFT HANDLE EITHER SOLID OR TUBING WITH ADJUSTABLE HOOK AS REQUIRED.
- NEOPRENE RUBBER GASKET REQUIRED BETWEEN RUBBER MOUNTING FLANGE AND GATE FLANGE.
- WELDING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
- ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8\"/>
- GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED RIMSE MOVEMENT STOP TAB, OR SOME OTHER DEVICE.

DATE: 2010
DRAWING NO. WL-607B
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

OUTLET HEADWALL (FOR OUTLET PIPES OF 10\"/>

NOTE:

- USE CONCRETE HAVING A 28 DAY DESIGN STRENGTH OF 3000 PSI.
- OUTLET WING WALL SHALL BE USED FOR ALL OUTFALL PIPES FROM 10\"/>
- THIS DETAIL REPRESENTS THE MINIMUM REQUIREMENT, THE NEED FOR ADDITIONAL STEEL, A FOOTING AND DRAINAGE BEHIND THE WALL SHALL BE INVESTIGATED BY THE DESIGN ENGINEER.
- FOR PIPES LARGER THAN 33\"/>
- CONCRETE REINFORCEMENT SHALL CONSIST OF:
 - ADDING A POLY-FIBER MESH TO THE CONCRETE MIX OR
 - USE (2) #4 BARS ABOVE AND BELOW PIPE AND #4 BARS AT 8\"/>

DATE: 2010
DRAWING NO. WL-613
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

STORM SEWER OUTFALL

D = PIPE DIAMETER
W = BOTTOM WIDTH OF CHANNEL
P = WETTED PERIMETER OF CHANNEL

DESIGN VELOCITY FT./SEC.	ROCK CLASSIFICATION BY WEIGHT
6 - 10	200 LBS.
10 - 12	1/4 TON
12 - 14	1/2 TON
14 - 16	1 TON
16 - 18	2 TON

SELECTION OF RIP RAP (SEE NOTE 1)

NOTE:

- DIMENSIONS FOR RIP RAP APPLY TO FLOWS
 - 2 CFS RIP RAP FOR FLOWS > 2 CFS MUST BE DESIGNED BY AN ENGINEER
 - CONCRETE (ONLY ALLOWED UPON APPROVAL OF THE CITY)
- TYPE OF RIP RAP
 - REGULAR QUARRY STONE CLASS 50-200
 - COBBLESTONE
 - CONCRETE (ONLY ALLOWED UPON APPROVAL OF THE CITY)
- PLACEMENT
 - MINIMUM DEPTH = 1 1/2 TIMES AVERAGE STONE SIZE.
 - ROCKS SHALL BE PLACED TO PROVIDE A MINIMUM OF VOIDS.
 - SURFACE ROCKS OR CONCRETE SHALL PROTRUDE AT LEAST 10 THEIR VERTICAL DIMENSION.
 - RIP RAP IS TO BE PLACED OVER A NATURAL BEDDING, OR IT MAY BE GROUTED OR PLACED OVER A GRAVEL BEDDING AS REQUIRED BY THE CITY.

DATE: 2010
DRAWING NO. WL-614
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

SURFACE WATER FACILITY SIGN

APPROVED FOR CONSTRUCTION BY CITY OF WEST LINN

DATE: 9-6-11 BY: *[Signature]* ENGINEERING

SPECIFICATIONS:

SIZE: 48" x 24"

MATERIAL: ALUMINUM (080" THICKNESS)

PAINT: FACE - 3 COATS OUTDOOR ENAMEL (SPRAYED)
BACK - 1 COAT OUTDOOR ENAMEL (SPRAYED)

LETTERING: SILK SCREEN ENAMEL WHERE POSSIBLE, OR HAND PAINTED ENAMELS

COLOR: BLACK AND WHITE. WHITE BACKGROUND, LETTERING AND BORDER IN BLACK

TYPE FACE: HELVETICA. SEE DIMENSIONS SHOWN ABOVE. OUTER BORDER 1/2" WIDTH BLACK

INSTALLATION: INSTALL ON TWO 8 FT. LONG 4" x 4" POSTS, PRESSURE TREATED, INSTALLED IN 3 FT. DEEP CONCRETE FILLED POST HOLES (8" MIN. DIA.)

DATE: 2010
DRAWING NO. WL-615
FILE NO.

REV	DATE	SUMMARY
1	8/5/11	Client/Agency Comments
2	8/30/11	Agency Comments

Project #: 9130 Drawn: CL

CITY OF WEST LINN
STANDARD PLANS
AND DETAILS
STORM DRAINAGE

Date: April 15, 2011