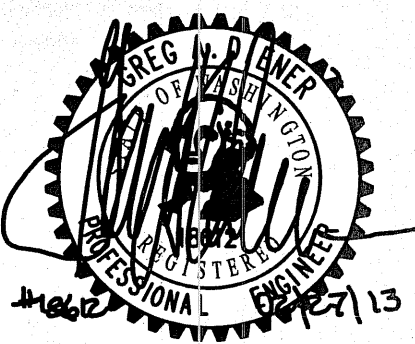


PORTION OF THE SW 1/4 OF THE NW 1/4 OF SEC. 33, TWN. 24N., RGE. 5E., W.M.

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CITY OF NEWCASTLE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN HEREON. THE CITY RESERVES THE RIGHT TO MAKE REVISIONS, ADDITIONS, DELETIONS, OR MODIFICATIONS SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION. THE CITY, BY APPROVING THESE DRAWINGS, ASSUMES NO LIABILITY IN REGARDS TO THEIR ACCURACY OR OMISSIONS.



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LAWRENCE PARK  
CITY OF NEWCASTLE

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CITY OF NEWCASTLE

FOR: PAUL G. EBENSTENER  
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PHONE: (425) 635-3938

PROJECT NO.: 12025

DRAWN BY: ENM

ISSUE DATE: 02-27-13

SHEET REV.:

DETENTION TANK AND STORMFILTER MANHOLE DETAILS

C13  
SHEET 13 OF 15

GENERAL NOTES

- 1) STORMFILTER BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3318.
- 2) FILTER CARTRIDGE(S) TO BE SIPHON-ACTUATED AND SELF-CLEANING. STANDARD DETAIL SHOWS MAXIMUM NUMBER OF CARTRIDGES. ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
- 3) PRECAST MANHOLE STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
- 4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
- 5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT CONTECH STORMWATER SOLUTIONS. MINIMUM ANGLE BETWEEN INLET AND OUTLET IS 45°.
- 6) INLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST MANHOLE STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. EIGHT INCH DIAMETER OUTLET SECTION MAY BE SEPARATED FROM OUTLET STUB AT MOLDED-IN CUT LINE TO ACCOMMODATE A 12 INCH OUTLET PIPE. CONNECTION TO DOWNSTREAM PIPING TO BE MADE USING A FLEXIBLE COUPLING OR ECCENTRIC REDUCER, AS REQUIRED. COUPLING BY FENCO OR EQUAL AND PROVIDED BY CONTRACTOR.
- 7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT CONTECH STORMWATER SOLUTIONS FOR OTHER OPTIONS.
- 8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET AROUND THE PERIMETER OF THE STRUCTURE.
- 9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.

PRECAST MANHOLE STORMFILTER DATA

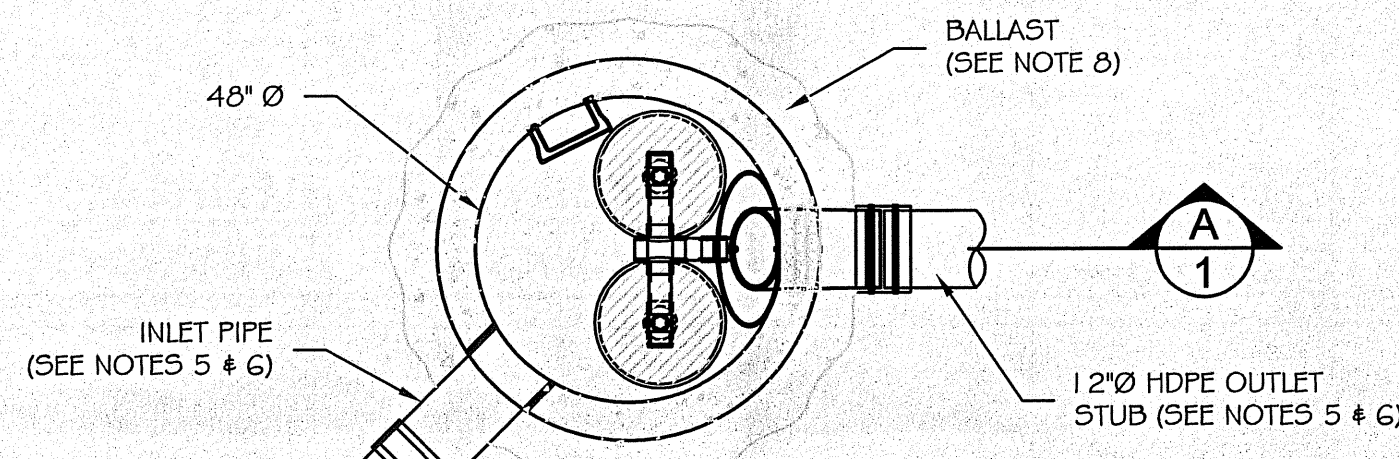
STRUCTURE ID	SF#1
WATER QUALITY FLOW RATE (cfs)	0.021
PEAK FLOW RATE (<1 cfs)	0.795
RETURN PERIOD OF PEAK FLOW (yrs)	1.00
# OF CARTRIDGES REQUIRED	2
CARTRIDGE FLOW RATE (1.5 or 7.5 gpm)	7.5
MEDIA TYPE (CSF, PERLITE, ZPG)	ZPG
RIM ELEVATION	332.50'

PIPE DATA:	I.E.	ORIENTATION	MATERIAL	DIAMETER
INLET PIPE #1	320.76'	225°	LCPE	12"
INLET PIPE #2	XXX.XX'	XX°	XXX	XX"
OUTLET STUB	318.46'	0°	LCPE	12"

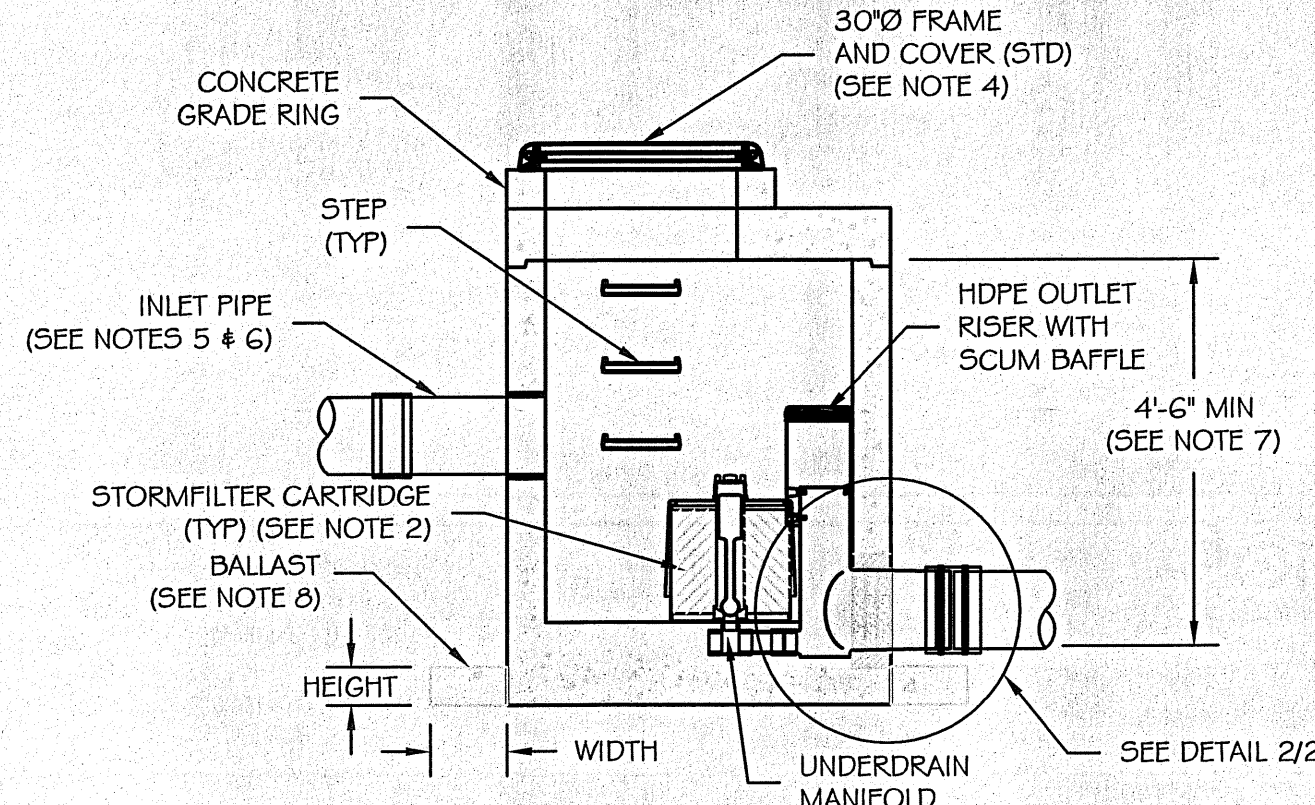
ECCENTRIC REDUCER (BY CONTRACTOR)	YES/NO	SIZE
ANTI-FLOTATION BALLAST <td>NO</td> <td>XX" x XX"</td>	NO	XX" x XX"
		WIDTH HEIGHT
		12" 12"

NOTES/SPECIAL REQUIREMENTS:

PIPE ORIENTATION KEY:



MANHOLE STORMFILTER - PLAN VIEW 1/1



MANHOLE STORMFILTER - SECTION VIEW A/1

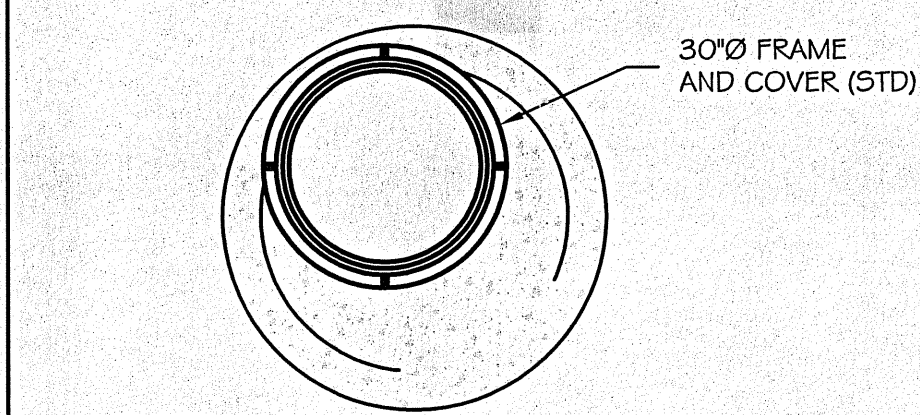
THE STORMWATER MANAGEMENT StormFilter®  
U.S. PATENT No. 5,322,629,  
No. 5,707,527, No. 6,027,639  
No. 6,649,048, No. 5,624,576,  
AND OTHER U.S. AND FOREIGN  
PATENTS PENDING

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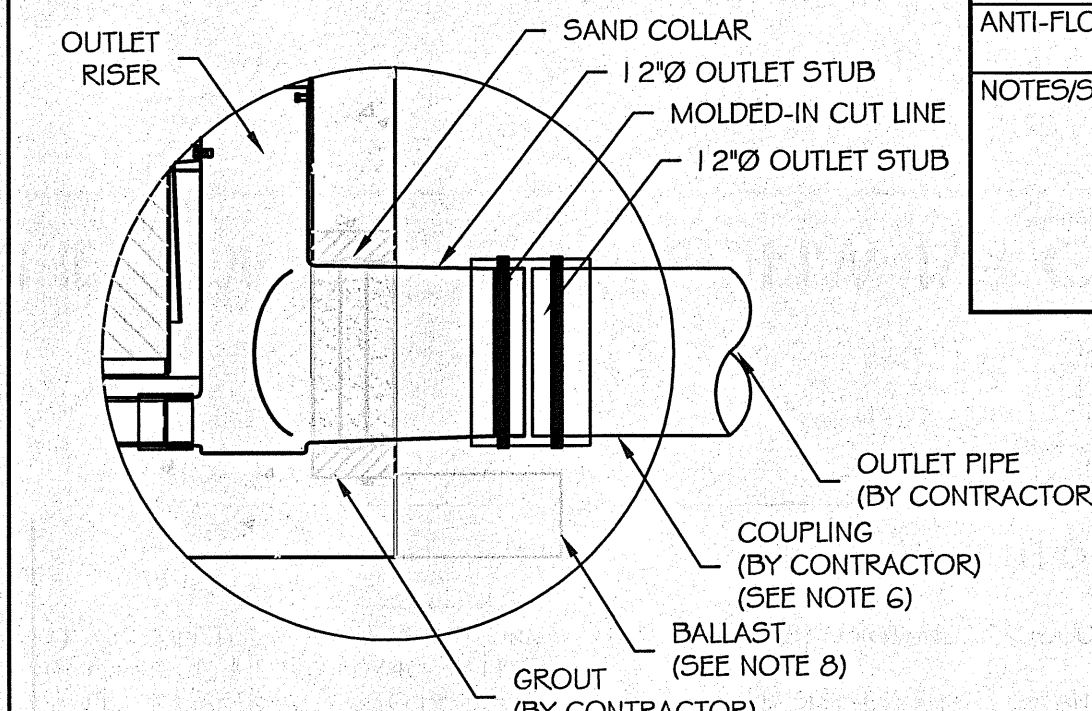
**CONTECH STORMWATER SOLUTIONS**

PRECAST 48" MANHOLE STORMFILTER  
PLAN AND SECTION VIEWS  
STANDARD DETAIL

DATE: 09/26/05 SCALE: NONE FILE NAME: MHSF3-48PC-DTL DRAWN: MJW CHECKED: ARG



MANHOLE STORMFILTER - TOP VIEW 1/2



MANHOLE STORMFILTER - OUTLET DETAIL 2/2

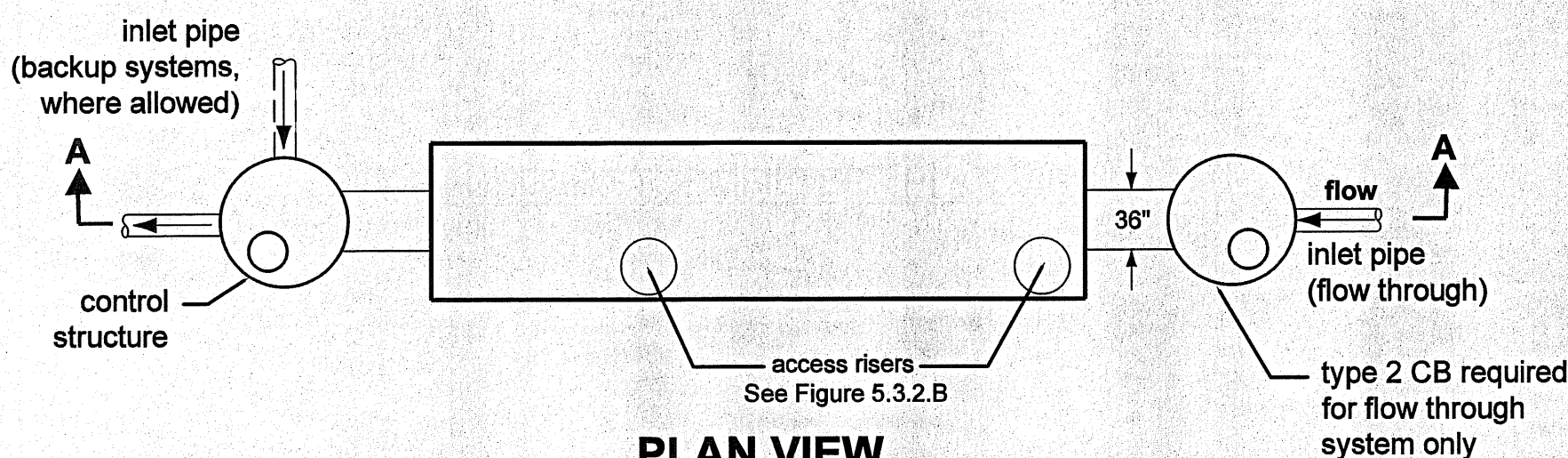
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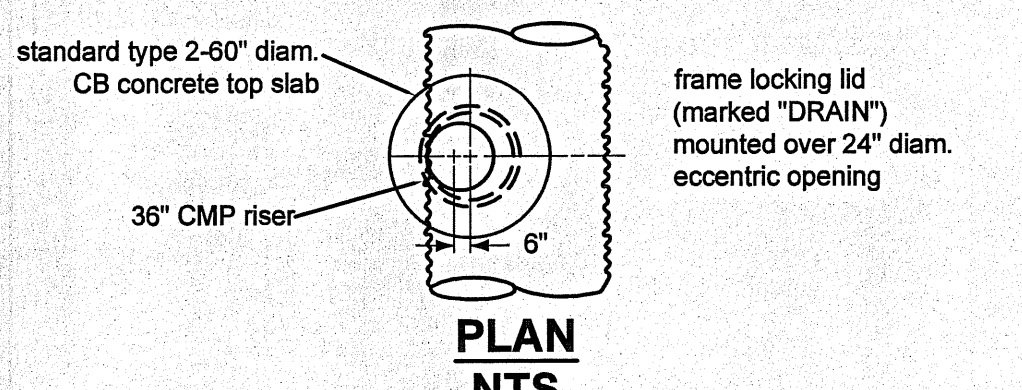
**CONTECH STORMWATER SOLUTIONS**

PRECAST 48" MANHOLE STORMFILTER  
TOP AND SECTION VIEWS, NOTES AND DATA  
STANDARD DETAIL

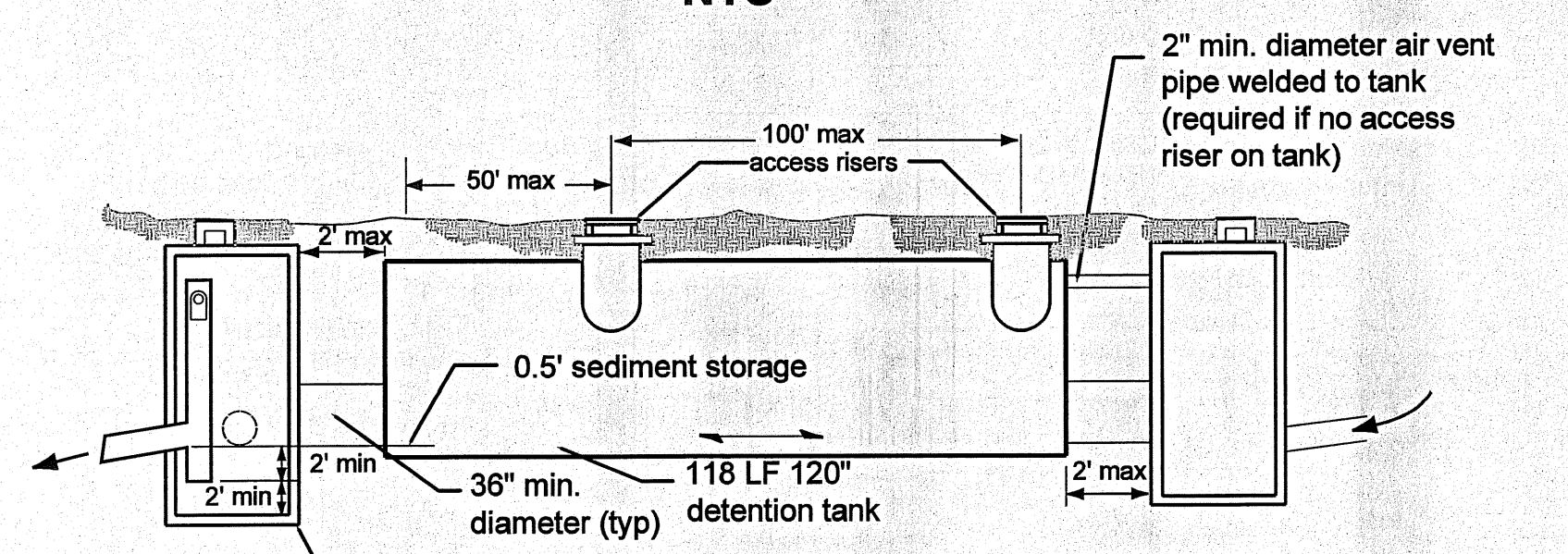
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PLAN VIEW NTS

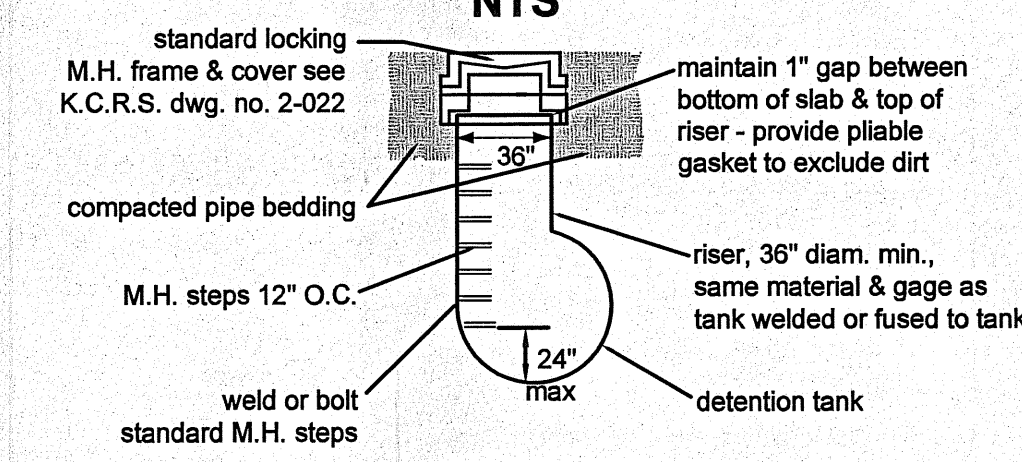


PLAN NTS



SECTION A-A NTS  
DETENTION TANK NTS

NOTE:  
All metal parts corrosion resistant.  
Steel parts galvanized and asphalt coated (Treatment 1 or better)



SECTION NTS

- NOTES:
1. Use adjusting blocks as required to bring frame to guide.
  2. All materials to be aluminum or galvanized and asphalt coated (Treatment 1 or better).
  3. Must be located for access by maintenance vehicles.
  4. May substitute WSDOT special Type IV manhole (RCP only).

DETENTION TANK ACCESS RISER NTS