

IMBRIUM PRODUCTS/JELLYFISH FILTER DRAWINGS & DETAILS/STANDARD DETAILS/JELLYFISH FILTER - ONLINE/JELLYFISH FILTER JF6 - ONLINE.DWG 7/17/2024 1:41 PM

DRAWING NOT TO BE USED FOR CONSTRUCTION

- GENERAL NOTES:**
- ALL DIMENSIONS INDICATED ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SPECIFIED.
 - JELLYFISH STRUCTURE INLET AND OUTLET PIPE SIZE AND ORIENTATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 - UNLESS OTHERWISE NOTED, BYPASS INFRASTRUCTURE, SUCH AS ALL UPSTREAM DIVERSION STRUCTURES, CONNECTING STRUCTURES, OR PIPE CONDUITS CONNECTING TO COMPLETE THE JELLYFISH SYSTEM SHALL BE PROVIDED AND ADDRESSED SEPARATELY.
 - DRAWING FOR INFORMATION PURPOSES ONLY. REFER TO ENGINEER'S SITE/UTILITY PLAN FOR STRUCTURE ORIENTATION.
 - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECTS BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

- JELLYFISH STRUCTURE & DESIGN NOTES:**
- 762 MM Ø (30") MAINTENANCE ACCESS WALL TO BE USED FOR CLEANOUT AND ACCESS BELOW CARTRIDGE DECK.
 - CASTINGS OR DOORS OF THE JELLYFISH MANHOLE STRUCTURE TO EXTEND TO DESIGN FINISH GRADE. DEPTHS IN EXCESS OF 3.65 M (12') MAY REQUIRE THE DESIGN AND INSTALLATION OF INTERMEDIATE SAFETY GRATES OR OTHER STRUCTURAL ELEMENTS.
 - CASTINGS AND GRADE RINGS, OR DOORS AND DOOR RISERS, OR BOTH, SHALL BE GROUTED FOR WATERTIGHTNESS. STRUCTURE SHALL MEET AASHTO HS-20, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE IMBRIUM LOGO.
 - ALL STRUCTURAL SECTIONS AND PARTS TO MEET OR EXCEED ASTM C-443, ASTM C-4097 CORRESPONDING TO AASHTO SPECIFICATIONS, AND ANY OTHER SITE OR LOCAL STANDARDS.
 - CONCRETE RISER SECTIONS FROM BOTTOM TO TOP WILL BE ADDED AS REQUIRED INCLUDING TRANSITION PIECES TO SMALLER DIAMETER RISERS FOR SURFACE ACCESSES WHERE WARRANTED BY SERVICING DEPTH.
 - IF MINIMUM DEPTH FROM TOP OF CARTRIDGE DECK TO BOTTOM OF STRUCTURAL TOP SLAB CANNOT BE ACHIEVED DUE TO PIPING INVERT ELEVATIONS OR OTHER SITE CONSTRAINTS, ALTERNATIVE HATCH CONFIGURATIONS MAY BE AVAILABLE. HATCH DOORS SHOULD BE SIZED TO PROVIDE FULL ACCESS ABOVE THE CARTRIDGES TO ACCOMMODATE MAINTENANCE.
 - STEPS TO BE APPROXIMATELY 330 MM (13") APART AND DIMENSIONS MUST MEET LOCAL STANDARDS. STEPS MUST BE INSTALLED AFTER CARTRIDGE DECK IS IN PLACE.
 - CONFIGURATION OF INLET AND OUTLET PIPE CAN VARY TO MEET SITE'S NEEDS.
 - IT IS THE RESPONSIBILITY OF OTHERS TO PROPERLY PROTECT THE TREATMENT DEVICE, AND KEEP THE DEVICE OFFLINE DURING CONSTRUCTION. FILTER CARTRIDGES SHALL NOT BE INSTALLED UNTIL THE PROJECT SITE IS CLEAN AND FREE OF DEBRIS. BY OTHERS, THE PROJECT SITE INCLUDES ANY SURFACE THAT CONTRIBUTES STORM DRAINAGE TO THE TREATMENT DEVICE. CARTRIDGES SHALL BE FURNISHED NEW, AT THE TIME OF FINAL ACCEPTANCE.
 - THIS DRAWING MUST BE VIEWED IN CONJUNCTION WITH THE STANDARD JELLYFISH SPECIFICATION, AND STORMWATER QUALITY FILTER TREATMENT JELLYFISH DOCUMENTS.

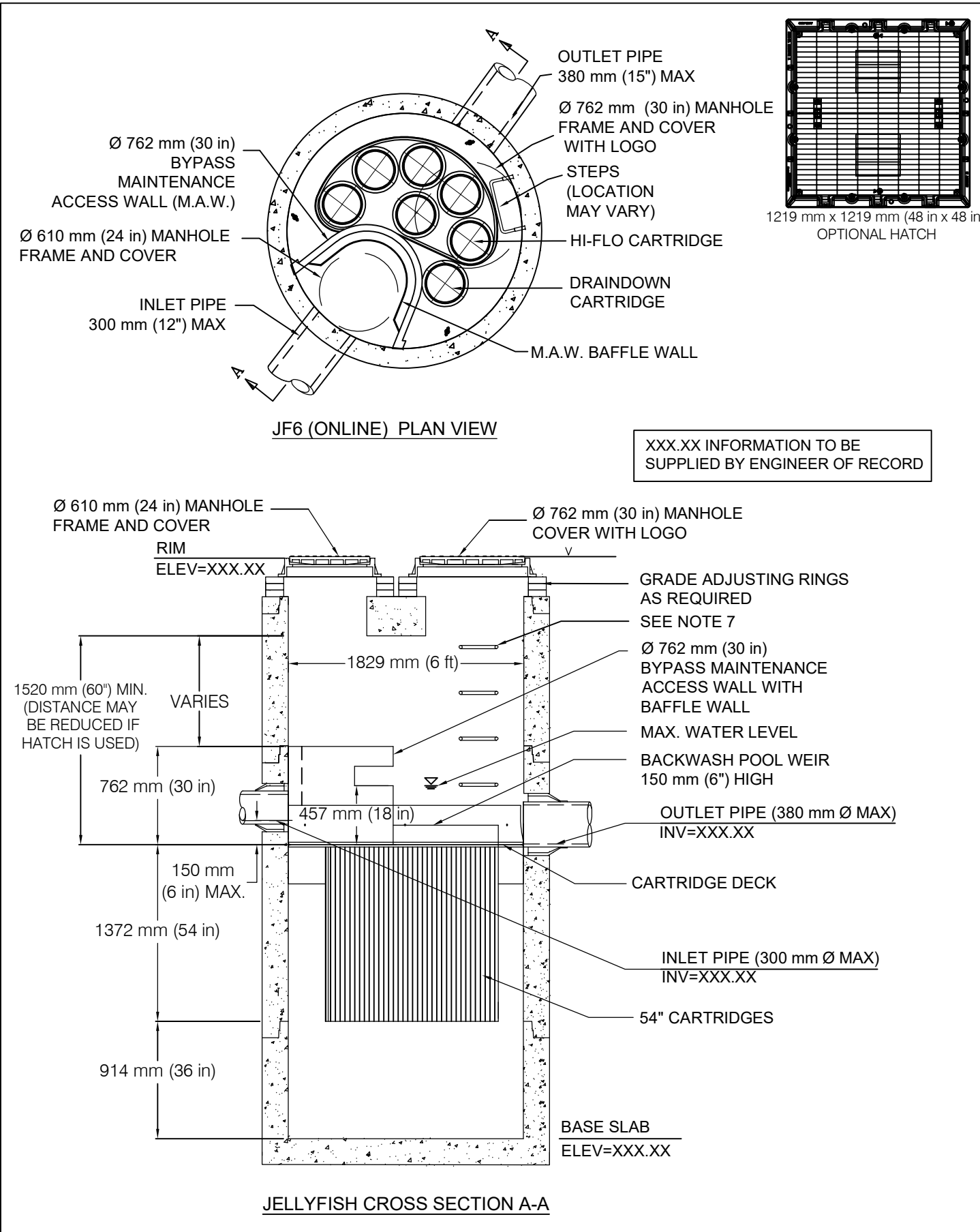
- PEAK DIVERSION JELLYFISH DESIGN NOTES:**
- STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS; WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE IMBRIUM LOGO.
 - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
 - INLET HGL NOT TO EXCEED 6" BELOW THE TOP OF THE M.A.W. DURING THE PEAK DESIGN STORM, OR 10-YEAR STORM (WHICHEVER IS GREATER).
 - INLET PIPE INVERT ELEVATION VARIES FROM 1" TO 6" MAXIMUM ABOVE THE OUTLET PIPE INVERT.
 - OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
 - THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
 - THE DIFFERENCE IN THE INLET AND OUTLET PIPE ELEVATIONS FOR RETROFIT INSTALLATIONS TO EXISTING STORM DRAIN PIPES SHALL BE EQUAL TO THE SLOPE OVER THE DIAMETER OF THE MANHOLE; NOT THE EXCEED 6" IN VERTICAL DIFFERENTIAL BETWEEN INLET AND OUTLET PIPES.

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED)
 - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
 - CARTRIDGE INSTALLATION, BY IMBRIUM, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT IMBRIUM TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

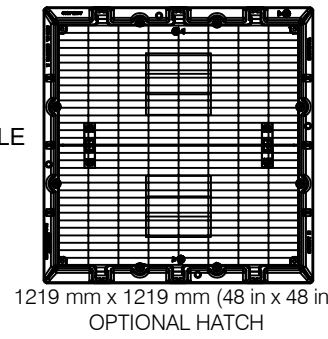
PEAK DIVERSION JELLYFISH RECOMMENDED PIPE DIAMETERS			
MODEL DIAMETER (m)	MINIMUM INLET PIPE DIAMETER (mm)	MINIMUM INLET PIPE DIAMETER (mm)	MAXIMUM INLET PIPE DIAMETER (mm)
1.2	62	150	300
1.8	59	200	300
2.4	52	250	375
3.0	48	300	450
3.6	40	300	450

CONTACT IMBRIUM SYSTEMS FOR ALTERNATE PIPE DIAMETERS

FOR SITE SPECIFIC DRAWINGS PLEASE CONTACT YOUR LOCAL JELLYFISH FILTER REPRESENTATIVE. SITE SPECIFIC DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME. SOME FIELD REVISIONS TO THE SYSTEM LOCATION OR CONNECTION PIPING MAY BE NECESSARY BASED ON AVAILABLE SPACE OR SITE CONFIGURATION REVISIONS. ELEVATIONS SHOULD BE MAINTAINED EXCEPT WHERE NOTED ON BYPASS STRUCTURE.



XXX.XX INFORMATION TO BE SUPPLIED BY ENGINEER OF RECORD



JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN. Ø1829 mm (72") MANHOLE JELLYFISH PEAK TREATMENT CAPACITY IS 32.8 L/s (1.16 CFS), AND MAXIMUM BYPASS CAPACITY IS 113.3 L/s (4.00 CFS). IF THE SITE CONDITIONS EXCEED TOTAL CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED. TREATMENT FLOW RATE IS BASED ON 457 MM (18") OF HEAD PRESSURE.

CARTRIDGE SELECTION	54"	90"	113.3	182	104
CARTRIDGE DEPTH	40"	76"	63"	273	164
OUTLET INVERT TO STRUCTURE BASE SLAB	54"	90"	113.3	182	104
FLOW RATE HIGH-FLO / DRAINDOWN (L/s) (per cart)	5.09 / 2.55	3.68 / 1.84	2.55 / 1.27	16.4	9.06
SEDIMENT CAPACITY HIGH-FLO / DRAINDOWN (kg) (per cart)	57 / 28	42 / 21	28 / 14	137.9	122.4
MAX. CARTS HIGH-FLO/DRAINDOWN	6 / 1				
MAX. BYPASS (L/s)	113.3				
MAX. SEDIMENT CAPACITY (kg)	370				
MAX. TREATMENT (L/s)	32.8				
MAX. TREATMENT AND BYPASS (L/s) (PEAK CAPACITY)	146.1				

SITE SPECIFIC DATA REQUIREMENTS					
JELLYFISH MODEL	*				
STRUCTURE ID	*				
WATER QUALITY FLOW RATE (L/s)	*				
BYPASS FLOW RATE (L/s)	*				
PEAK FLOW RATE (L/s)	*				
RETURN PERIOD OF PEAK FLOW (yrs)	*				
# OF CARTRIDGES REQUIRED (HF / DD)	*				
CARTRIDGE SIZE (inches)	*				
MAX BYPASS DESIGN CAPACITY (L/s)	113.3				
PIPE DATA:	I.E.	MAT'L	DIA	SLOPE %	HGL
INLET #1	*	*	*	*	*
INLET #2	*	*	*	*	*
OUTLET	*	*	*	*	*

* PER ENGINEER OF RECORD

JF6 ONLINE
Scale = 1:50

MARK	DATE	REVISION DESCRIPTION
0	4/15/2015	INITIAL RELEASE

DESIGNED: BSF

CHECKED: BW

PROJECT #: #####

SHEET: 1 OF 2

DRAWN: BSF

APPROVED: SP

BY: BSF

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