

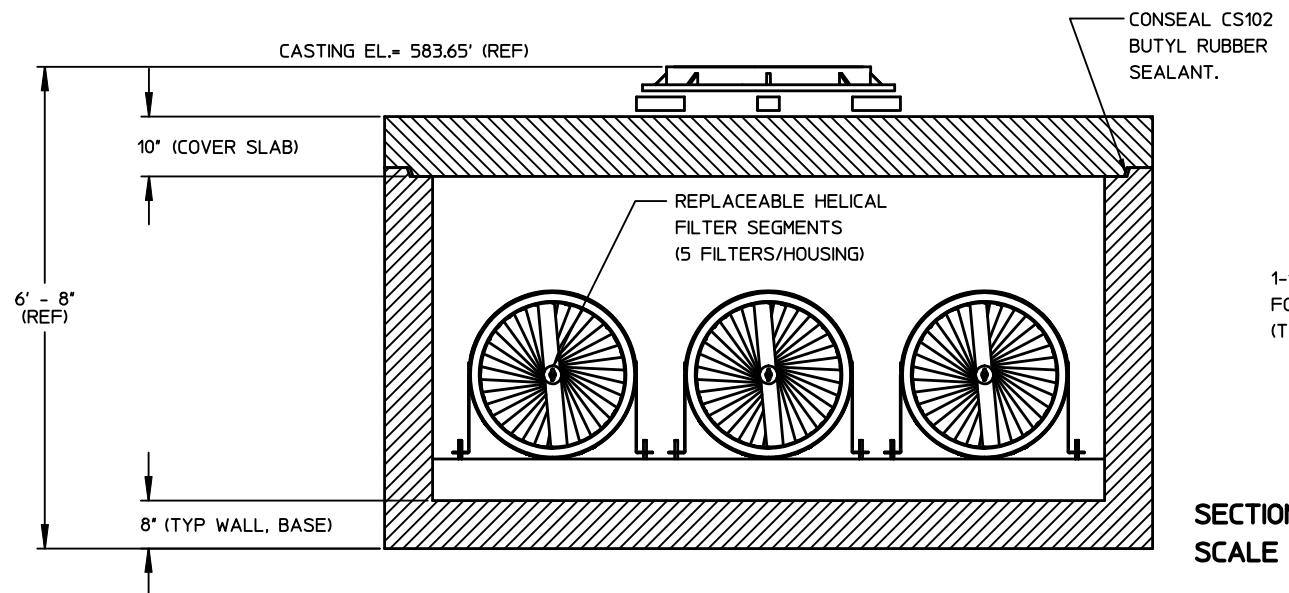
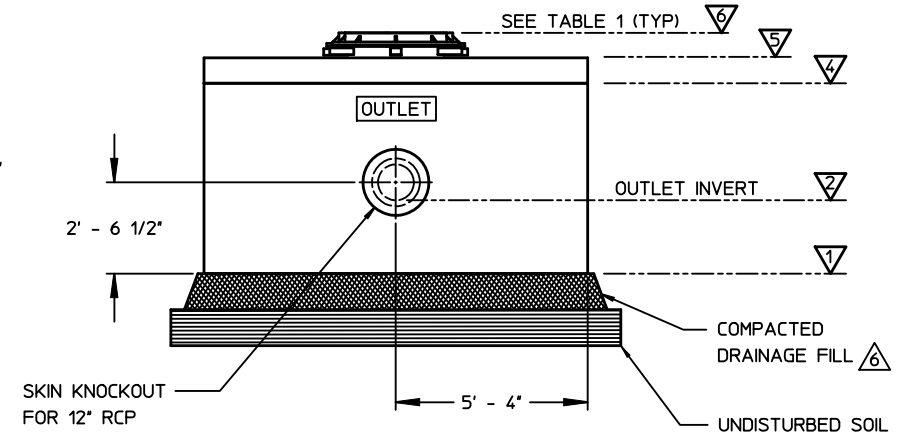
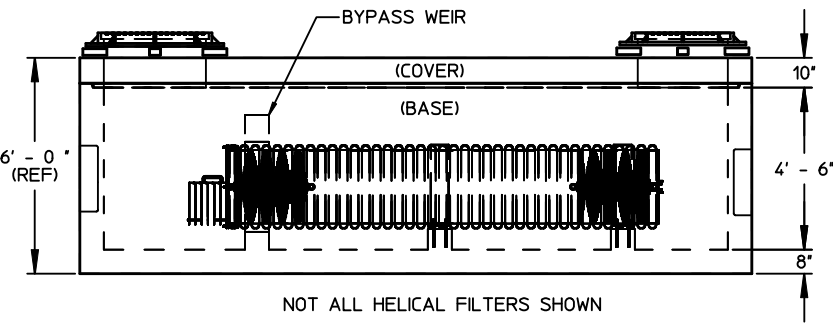
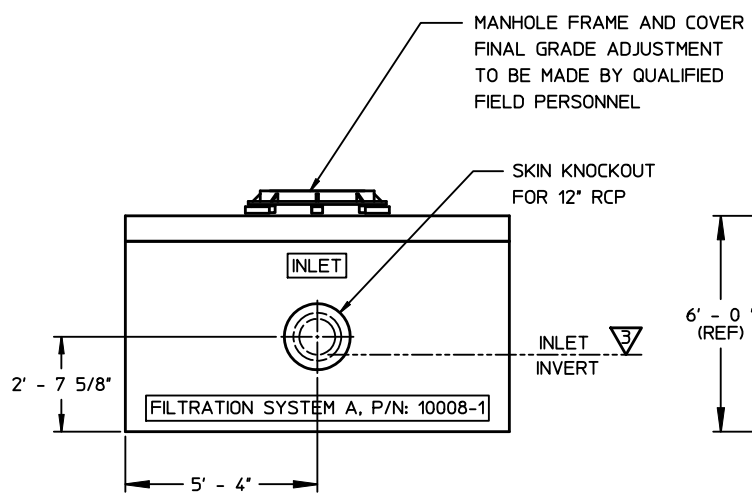
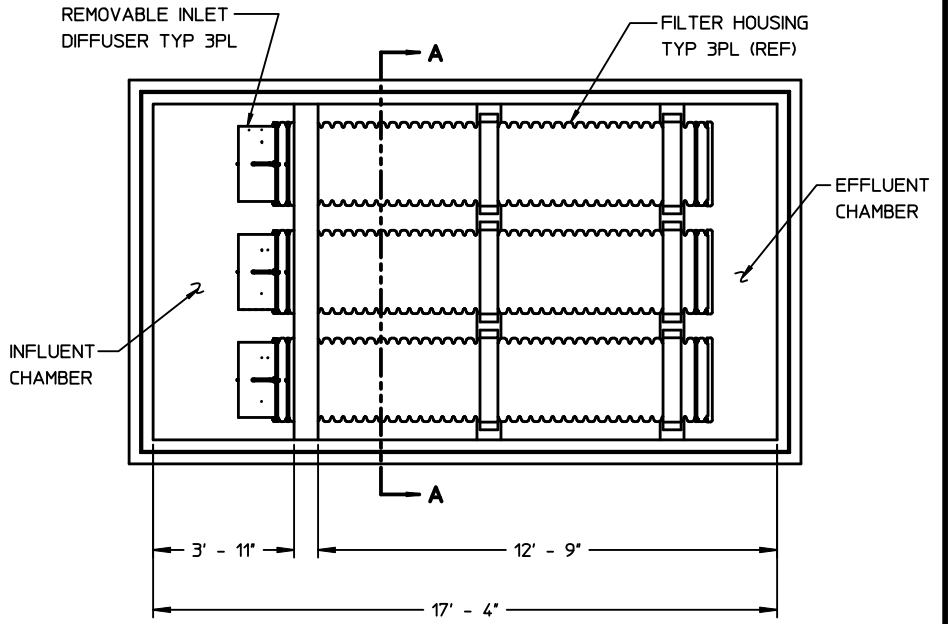
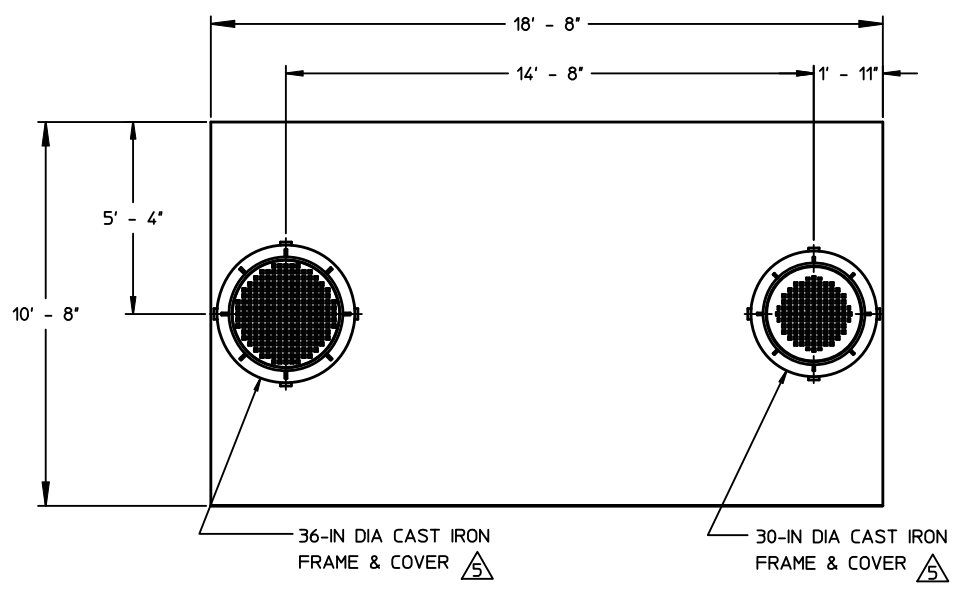
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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
D	ECH10008-1-000D	3/7/2013	

NOTES:

- 1.0 WEIGHT ESTIMATE:
- 1.1 COVER: 25,000-LB
- 1.2 BASE W/ FILTERS: 49,000-LB
- 2.0 MATERIALS MEET OR EXCEED REQUIREMENTS:
- 2.1 VAULT:
 - 2.1.1 REINFORCEMENT STEEL: REBAR, ASTM A-615 GRADE 60
 - 2.1.2 CEMENT: ASTM C-150 SPECIFICATIONS
 - CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 5000 PSI (MIN)
- 2.2 ACCESS MANHOLES: ASTM-A-48, CLASS 35B GRAY IRON OR ASTM A536, GRADE 80-55-06 DUCTILE IRON.
- 2.3 FILTER HOUSING: ADS N-12, CORRUGATED (SMOOTH ID) PIPE ASSEMBLY
- 2.4 HELICAL FILTER ELEMENTS: CRS WIRE FRAME W/TREATED T20 FOAM COVER.
- 3.0 CONCRETE STRUCTURE DESIGN LOADINGS:
 - 3.1 AASHTO HS-20 LOAD RATING.
 - 3.2 SOIL WEIGHT = 120 PCF
 - 3.3 DEPTH OF OVERBURDEN: NONE
 - 3.4 EQUIVALENT FLUID PRESSURE = 40 PCF
 - 3.5 LATERAL LIVE LOAD SURCHARGE PER SPECS.
- 4.0 PERFORMANCE CHARACTERISTICS (REF):
 - 4.1 FILTERED FLOW RATE: 7.0 CFS (3141 GPM)
 - 4.2 BYPASS FLOW RATE: 15 CFS (6732 GPM)
- 5.0 EAST JORDAN IRON WORKS (EJIW) #1581 & EJIW #1480 CASTINGS ARE RATED FOR REPEATED VEHICULAR TRAFFIC AND CONFORM TO AASHTO M306 STANDARDS. FINAL MANHOLE OR ACCESS HATCH INSTALLATION, AND ADJUSTMENT TO GRADE, SHALL BE PERFORMED BY QUALIFIED PERSONNEL.
- 6.0 EXCAVATION, DEWATERING, DRAINAGE FILL, AND BACK FILL OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND LOCAL REGULATIONS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUB-BASE AND BACKFILL DEPTH ARE SITE SPECIFIC AND SHALL BE SPECIFIED BY THE ENGINEER OF RECORD.
- 7.0 THE CONTRACTOR SHALL VERIFY THAT THE UNIT IS VERTICALLY AND HORIZONTALLY PLUMB AND STABLE, WITH MINIMUM VOIDS AND MINIMUM UN-COMPACTED SOIL AFTER BACK FILL OPERATION.
- 8.0 CONNECT EXISTING DRAIN LINE TO STORMSAFE INLET AND OUTLET PORTS WITH APPROVED NON-SHRINKING GROUT-FILL IN ACCORDANCE WITH GROUT MANUFACTURERS INSTRUCTIONS. ALL GROUT-FILL MATERIALS SHALL BE SUPPLIED BY THE CONTRACTOR. THE STORMSAFE "INLET" AND "OUTLET" PORTS ARE CLEARLY LABELED WITH BLACK PAINT. INLET AND OUTLET DRAIN LINES ARE TO BE ALIGNED FLUSH WITH RESPECT TO THE INTERIOR VAULT WALLS.
- 9.0 MAINTENANCE AND HELICAL FILTER REPLACEMENT INSTRUCTIONS ARE PROVIDED SEPARATELY BY FABCO AND ARE SITE SPECIFIC.
- 10.0 HELICAL FILTER REPLACEMENT (IN GENERAL):
 - FOR BEST PERFORMANCE REPLACE HELICAL FILTERS IAW FABCO RECOMMENDATIONS. HIGH CONTAMINANT LOCATIONS MAY REQUIRE MORE FREQUENT FILTER REPLACEMENT. REMOVE ANY DEBRIS OR HEAVY SEDIMENT FROM THE INFLUENT CHAMBER. REMOVE THE INLET DIFFUSER AND SLIDE EACH HELICAL FILTER SEGMENT OUT OF THE FILTER HOUSINGS. INSERT THE REPLACEMENT HELICAL FILTERS. EACH HOUSING REQUIRES FIVE (5) HELICAL FILTER SEGMENTS. FIFTEEN (15) SEGMENTS TOTAL. DISPOSE OF USED FILTER MEDIA IN ACCORDANCE WITH LOCAL REGULATION.

MATERIALS PROVIDED BY FABCO		
QTY	DESCRIPTION	INSTALLED BY
1	COVER, VAULT	FABCO
1	BASE, VAULT	FABCO
3	FILTER HOUSING	FABCO
3	INLET DIFFUSER	FABCO
15	HELICAL FILTER	FABCO
1	36" MANHOLE	CONTRACTOR
1	30" MANHOLE	CONTRACTOR
1	JOINT SEALANT	CONTRACTOR



SECTION A
SCALE 1:16

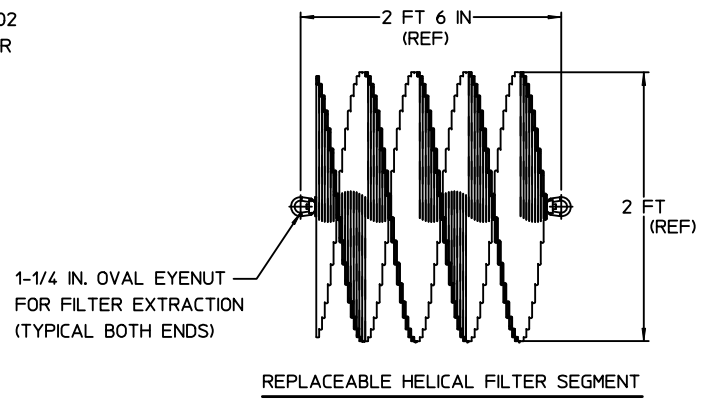
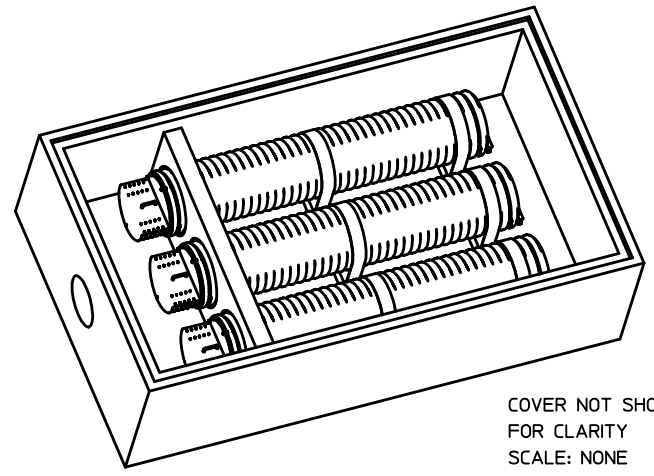


TABLE 1

INSTALLED ELEVATIONS	
REF No.	ELEVATION (FT)
▽1	576.96
▽2	579.00
▽3	579.10
▽4	582.25
▽5	582.96
▽6	583.65



COVER NOT SHOWN
FOR CLARITY
SCALE: NONE

NO	QTY	PART NUMBER	DESCRIPTION	REMARKS
BILL OF MATERIALS				
UNLESS OTHERWISE SPECIFIED		TOLERANCES:		
REMOVE ALL BURRS		DEC .00 ± .01		
BREAK SHARP EDGES .002 - .020		DEC .000 ± .005		
FILLETS .020 MAX		FRAC 1 ± .1%		
DIMENSIONS ARE IN INCHES AND		ANGLE ± 2°		
INCLUDE GENERALLY APPLIED		Ra FINISH		
OR PLATED FINISHES		DO NOT SCALE THIS DRAWING		
MATERIAL	SEE NOTES			
MODEL LINK	10008-1_Assy5			
CUSTOMER	CITY OF TRAVERSE CITY			
	MICHIGAN, USA			
APPROVALS		DATE		
DWN JPETERS		10/5/12		
CHR S.GORNEAU		10/5/12		
ENGR JPETERS		10/5/12		
APVD				
FABCO INDUSTRIES, INC. 66 CENTRAL AVENUE FARMINGDALE, NY 11735 WWW.FABCO-INDUSTRIES.COM				
TITLE STORMSAFE 24" HELIX STORMWATER TREATMENT VAULT FILTRATION SYSTEM 'A'				
SIZE	CAGE CODE	DWG NO	REV	
D	1P8A4	10008-1-000	D	
SCALE 1/32" = 1"			SHEET 1 OF 1	