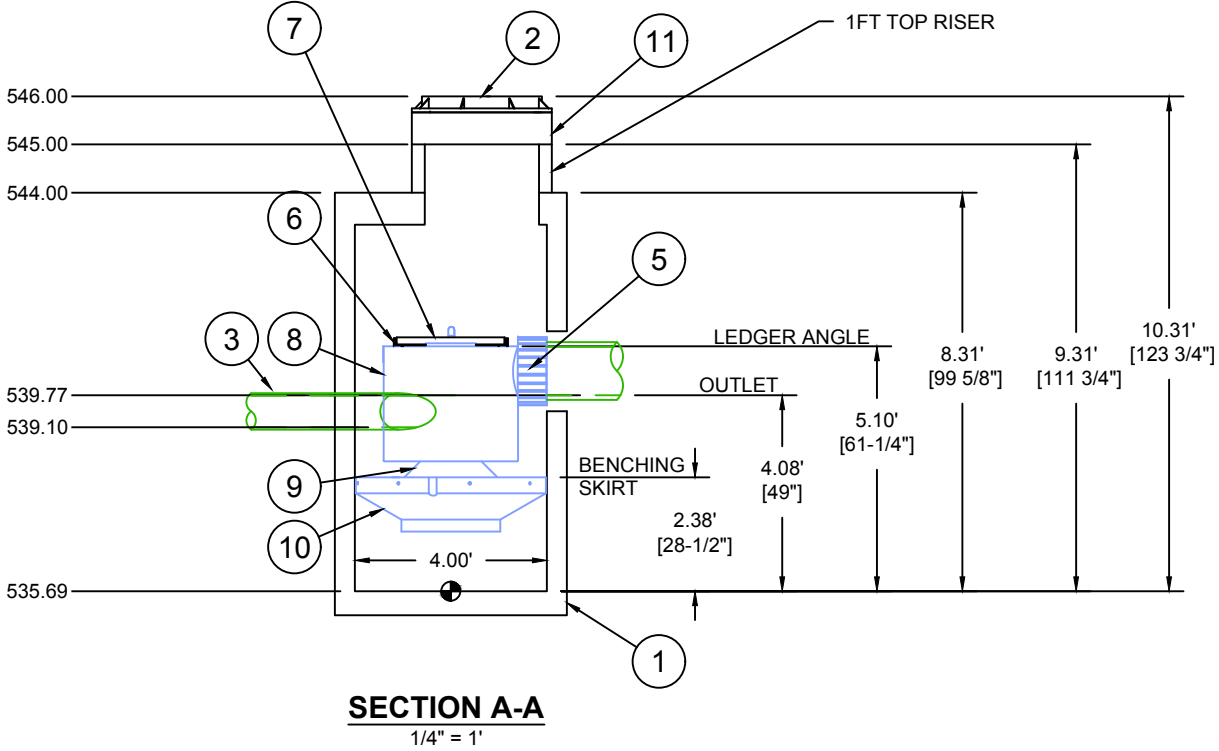


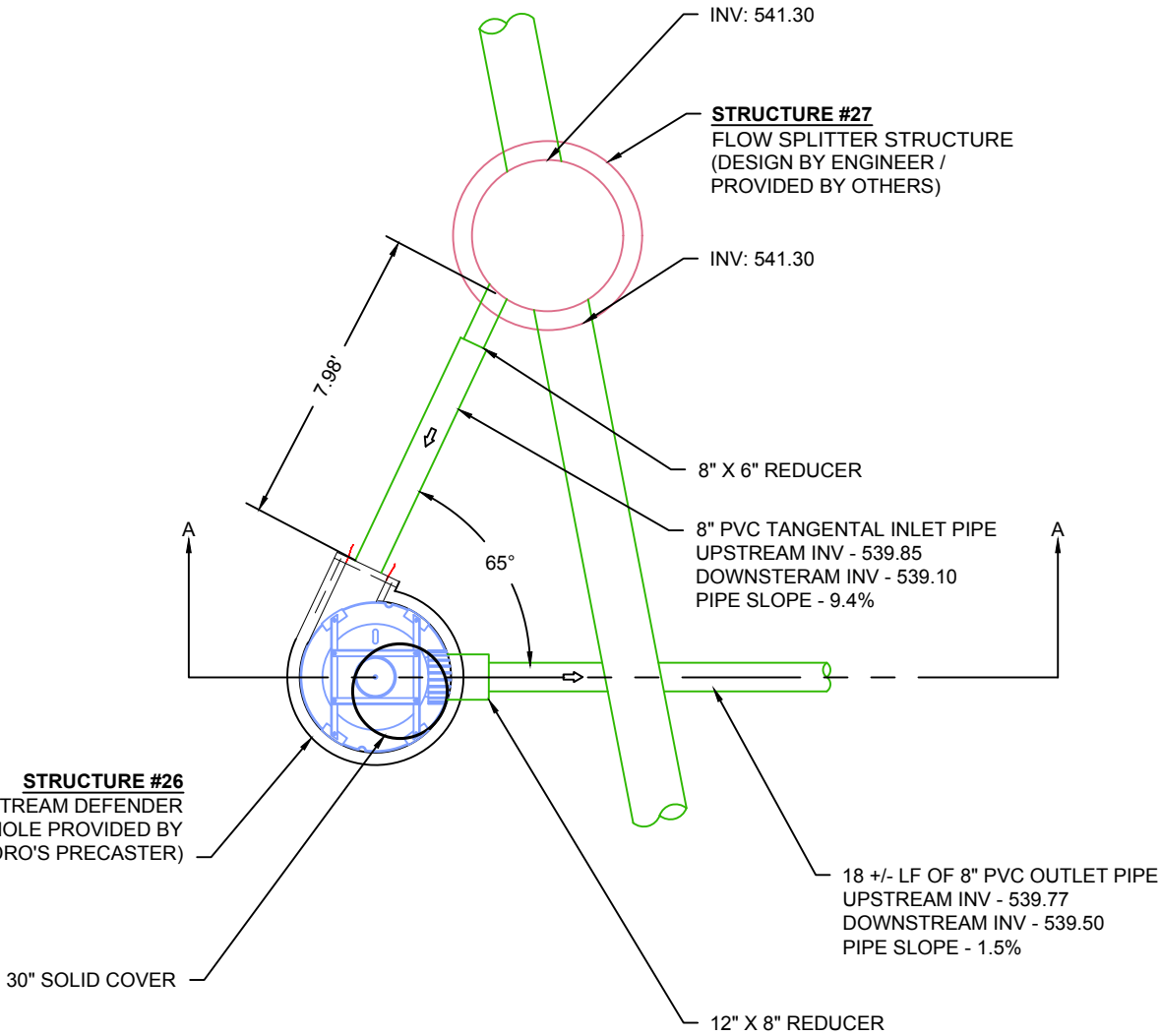
PARTS LIST: 4' DOWNSTREAM DEFENDER			
ITEM	SIZE (IN)	MATERIAL	DESCRIPTION
1	48	CONCRETE	I.D. PRECAST MANHOLE
2	30	-	FRAME & COVER
3	8	PVC	INLET PIPE (BY OTHERS)
4	12/8	PVC	OUTLET PIPE (BY OTHERS)
5	12	-	PIPE COUPLING (BY OTHERS)
6	-	-	LEDGER ANGLE
7	-	-	SUPPORT FRAME
8	-	-	DIP PLATE
9	-	-	CENTER SHAFT & CONE
10	-	-	BENCHING SKIRT
11	-	-	MATERIALS & LABOR TO ACHIEVE FINAL GRADE (BY OTHERS)



- CAPACITIES
- PEAK TREATMENT FLOW: 3.0 CFS (85 L/S)
 - SEDIMENT STORAGE CAPACITY: 0.70 YD³ (0.54 m³)
 - OIL STORAGE CAPACITY: 70 GALLONS (265 LITERS)

- ADDITIONAL DESIGN INFORMATION
- THE OUTLET PIPE STUB IS A ROTO-MOLDED PRODUCT WITH AN I.D. OF 12" THAT CANNOT BE MODIFIED. TO AVOID THE USE OF A REDUCER OR EXPANDER ON THE OUTLET A 12" OUTLET PIPE SHOULD BE USED IF POSSIBLE.
 - ONLY SMALLER INLET PIPES MAY BE USED. THE INLET PIPE INVERT SHOULD BE PLACED ONE INLET PIPE DIAMETER BELOW THE OUTLET PIPE INVERT. THE I.D. OF THE INLET PIPE SHOULD BE PLACED TANGENT TO THE I.D. OF THE MANHOLE. HEADLOSS AT 3.0 CFS WITH A 12" INLET: 8" (203 mm). HEADLOSS WILL INCREASE WITH SMALLER INLET PIPES.
 - SEDIMENT SHALL BE STORED IN A ZONE THAT IS ISOLATED FROM THE MAIN FLOW PATH AND PROTECTED FROM RE-ENTRAINMENT BY THE BENCHING SKIRT.

HIL REF #: 16-13458



NOTES:
ENGINEER TO CONFIRM ALL INVERTS ARE FROM THE SAME REFERENCE DATUM AND THAT THE HEIGHT AND ELEVATIONS OF THE DOWNSTREAM DEFENDER STRUCTURE WILL SUIT THE SITE.

WEBSTER UNIVERSITY ST. LOUIS, MO		DATE: 03-04-16	DRAWN: DHC	PROJECT #: 135631	CHECKED: BL
DESCRIPTION	CHK	DRW	REV	STORMWATER SOLUTIONS 94 HUTCHINS DR. PORTLAND, ME 04102-1930 (207) 756-6200 WWW.HYDRO-INT.COM Hydro International THE DOWNSTREAM DEFENDER® AND FIRST DEFENSE® ARE DESIGNED, MANUFACTURED AND ASSEMBLED BY HYDRO INTERNATIONAL, INC. TRADEMARKS ARE THE PROPERTY OF HYDRO INTERNATIONAL, INC.	
ADD INLET REDUCER	JLM	JLM	04/27/16		
CHANGES PER HIL	DAF	DAF	4/29/2016		
4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473 4DS ADVANCED DRAINAGE SYSTEMS, INC.		AS NOTED		SHEET 2 OF 2	

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.