



May 23, 2022

Ms. Cindy Mulkey
Office of Siting Coordination
Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399

**Re: Cape Canaveral Energy Center– PPSA No. PA08-53
Post-Certification Amendment
Attachment of Manatee Exclusion Grates**

Dear Ms. Mulkey:

Florida Power & Light Company (FPL) is requesting a post-certification amendment to the Site Certification for FPL's Cape Canaveral Energy Center (CCEC), pursuant to rule 62-17.205(1)(A) F.A.C. The purpose of this amendment is to obtain approval to attach manatee grates to the eastern power plant water intake wells, similar to the grates that were installed on the western intake wells in 2020. An existing debris barrier on the exterior of the east intake will be removed in order to facilitate the installation of the manatee exclusion grates. The site location and location of the east intake wells can be found in Attachment A. To reduce the risk of manatees entering the intake wells, the grates have been designed with bars spaced less than eight inches apart. The exclusion grate building plans are included in Attachment B.

As previously provided to the U.S. Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FWC), the velocity just in front of the proposed manatee grates/bars would be 2.2 ft/sec – which is exactly the same as it is now through the wall opening which conveys flow into the intake wells. As the water moves through the bars, the velocity would increase to 3.0 ft/sec. Once the water is in the wells, the velocity is 1.3 ft/sec, which is what the velocity is currently in the wells.

Per the Conditions of Certification and the Manatee Protection Plan, the work will occur outside of manatee season (November 15 to March 31) and FPL will adhere to the Standard Manatee Conditions for In-Water Work (revision 2011) for all in-water work. At least one person shall be designated as a manatee observer when in-water work is being performed pursuant to the Conditions of Certification for the CCEC. All existing Conditions of Certification will be followed for the installation of this exclusion grates. FPL plans to have this work complete prior to the start of the upcoming manatee season. CCEC will also update their operating procedures for inspection of the eastern wells prior to operating the intake rake system. The operators will not only inspect the wells but also the exclusion grates prior to operating the system.

Thank you for your attention to and consideration of FPL's request to amend the Site Certification for CCEC. If you have any questions regarding this submittal, please do not hesitate to contact me at 561-691-7041.

Sincerely,
Florida Power & Light Company

A handwritten signature in blue ink, appearing to read "Beth Flah".

Beth Flah, P.E.
Environmental Services

cc (via email): Michelle Pasawicz, FWC

Attachment A

Site Location Map

Cape Canaveral Energy Center

Legend



2022 East Intake Manatee Exclusion Grate



Certified Area

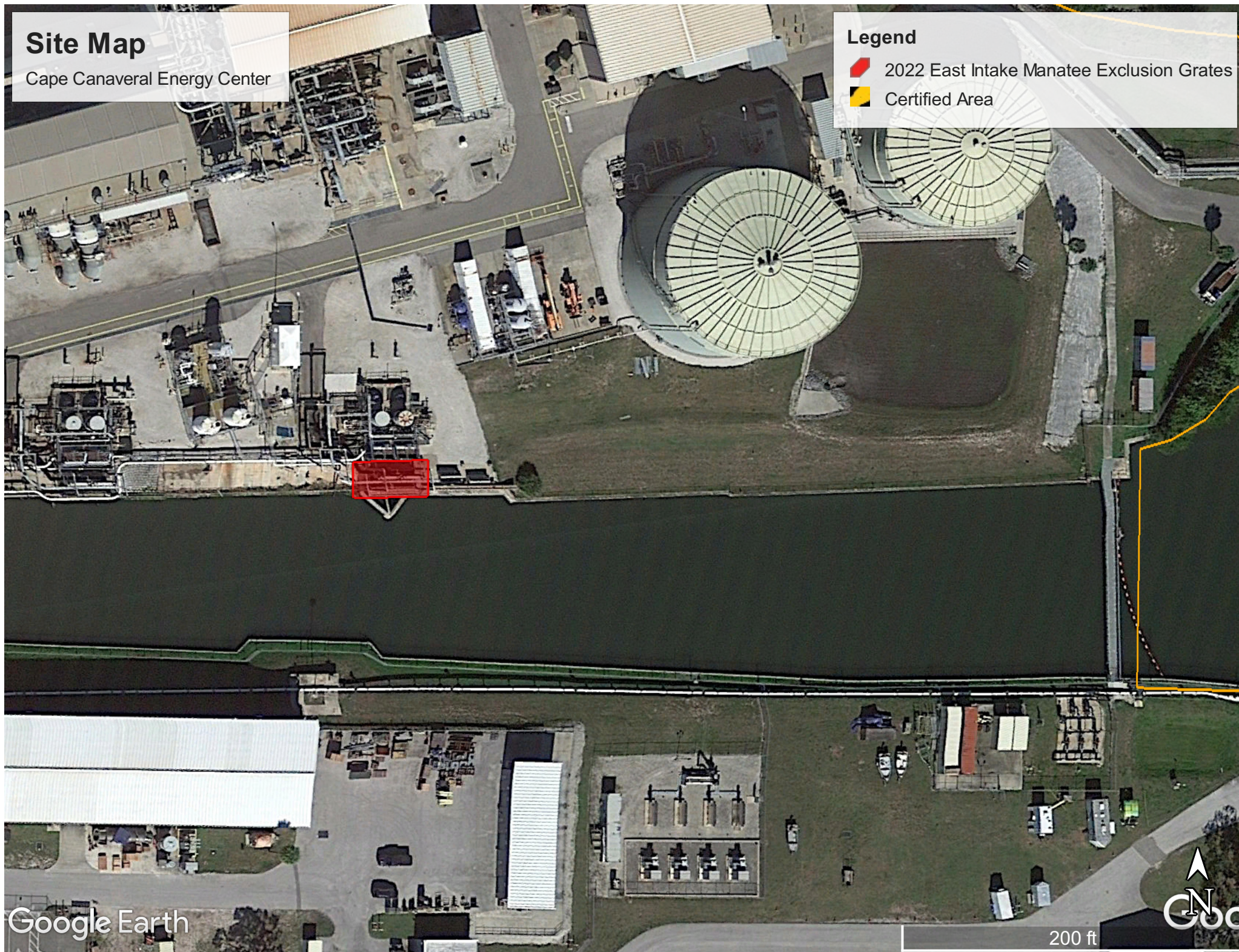


Site Map

Cape Canaveral Energy Center

Legend

-  2022 East Intake Manatee Exclusion Grates
-  Certified Area



Attachment B

GENERAL NOTES:

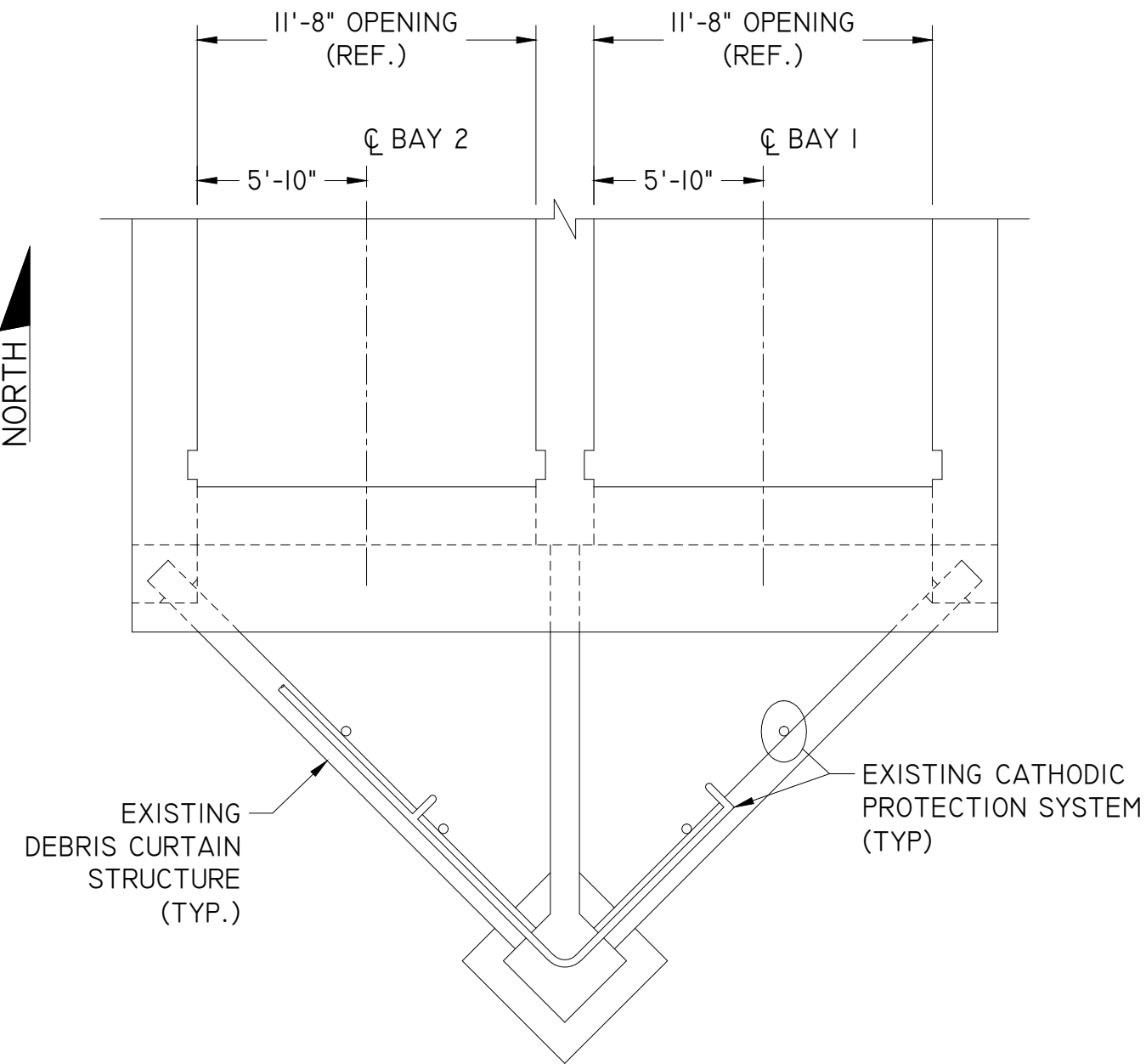
- 1. COORDINATE ALL WORK WITH OPERATIONS AND MAINTENANCE PERSONNEL. WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE APPLICABLE FPL PROCEDURES, SPECIFICATIONS AND STANDARDS.
- 2. INSTALLATION OF MANATEE EXCLUSION DEVICE SHALL BE PERFORMED ONE AT A TIME PER INTAKE BAY WITH ASSOCIATED CIRCULATING WATER PUMP OFF.
- 3. FINAL LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED FOR PROPER FIT PRIOR TO FABRICATION AND INSTALLATION.
- 4. ANCHORAGES SHALL CONSIST OF 3/4" DIAMETER THREADED RODS, ASTM F593 TYPE 316L STAINLESS STEEL SET WITH HILTI HIT-RE 500 V3 EPOXY. INSTALLATION OF ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 5. CONTRACTOR SHALL MAP OUT THE EMBEDDED REINFORCING STEEL PRIOR TO DRILLING. NO REINFORCING SHALL BE CUT.
- 6. HOLES DRILLED IN CONCRETE THAT ARE NOT USED SHALL BE FILLED WITH SPLASH ZONE A-788 IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 7. DAMAGED CONCRETE SHALL BE REPAIRED IN ACCORDANCE WITH FPL CONCRETE REPAIR SPECIFICATION, C-2.0401.
- 8. AREAS WHERE CONCRETE HAS BEEN CUT/REMOVED AND REINFORCING STEEL REMAINS EXPOSED SHALL BE TREATED/COVERED WITH DUROMAR SAR-UW. DUROMAR MATERIAL SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO MINIMUM THICKNESS OF 125 MILS TO PROTECT CONCRETE AND REINFORCING STEEL FROM DEGRADATION.

LEGEND:

▲A# A#▲
 NUMBER INDICATES SHEET NUMBER
 WHERE SECTION IS SHOWN
 LETTER DENOTES SECTION IDENTIFICATION

 STRUCTURE TO BE DEMOLISHED/REMOVED

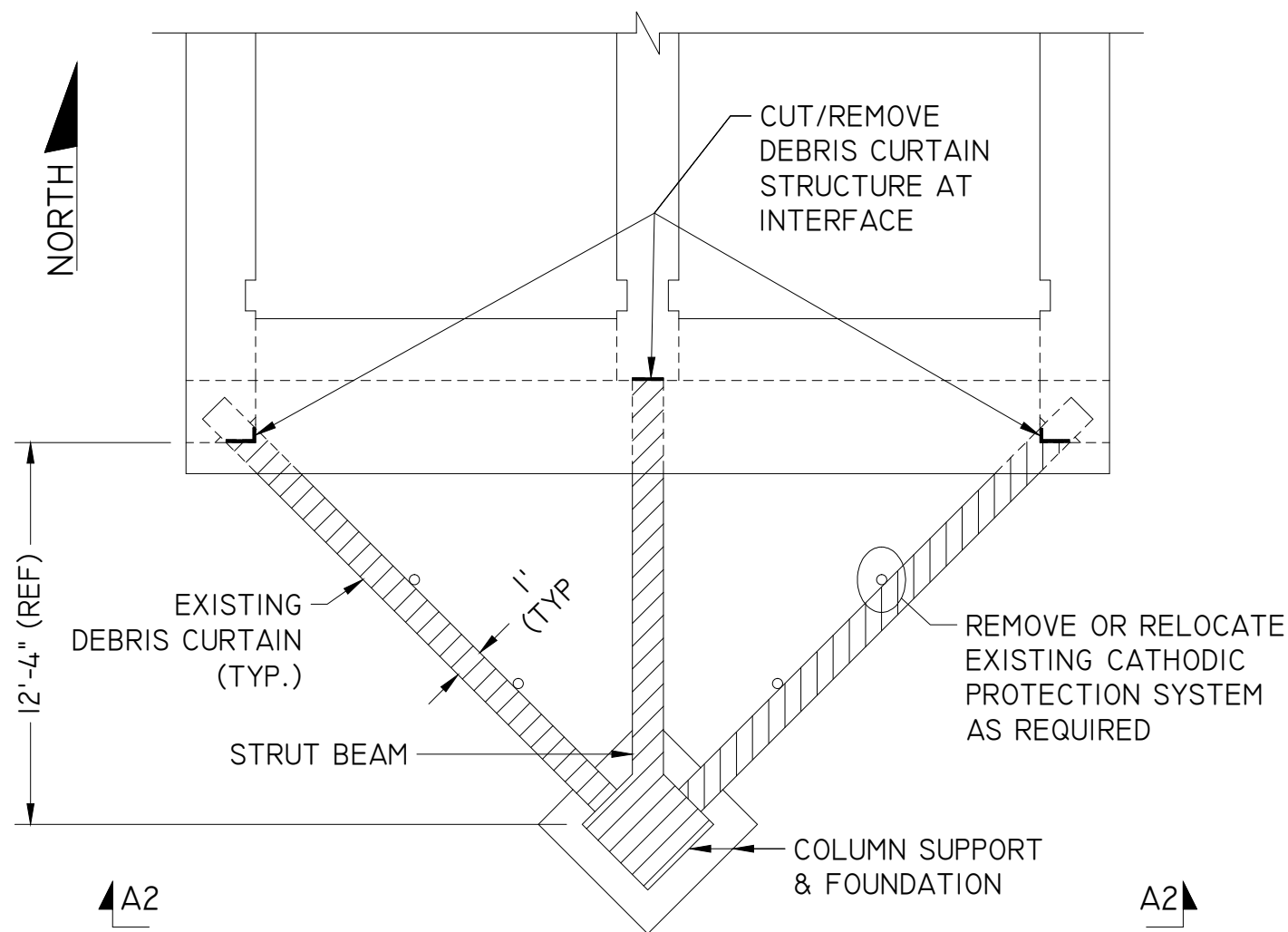
 CONCRETE AREA TO BE REPAIRED



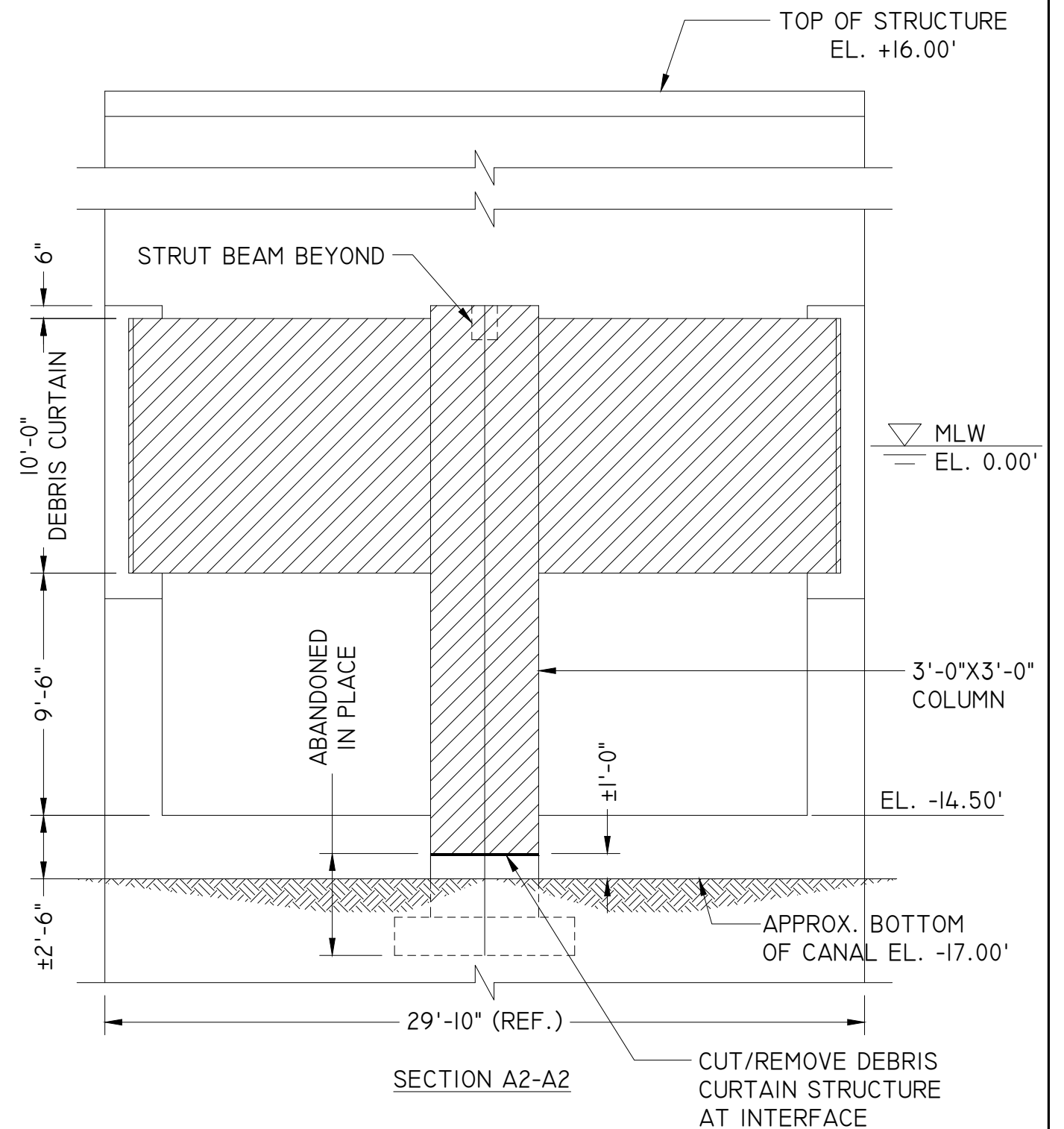
PARTIAL PLAN VIEW - EAST (OLD UNIT 1) INTAKE STRUCTURE @ EL. +16.00'
REF. DWG. 4058-C-69-G & 4058-C-123-G-0

-	-	-	-	-	-	-	-	-
0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	

 FPL	SYSTEM	DISCIPLINE	PLANT/UNIT		
	N/A	CIVIL	CAPE CANAVERAL		
	TYPE	UNIT	TITLE		
	—	3	EAST INTAKE STRUCTURE MANATEE EXCLUDER DEVICES GENERAL NOTES		
	DRAWING SIZE	SCALE			
	B(11"X17")	N/A			
DRAWING NUMBER			SHEET	REV	
CCEC-684337			1 OF 5	0	



DEMO PLAN OF INTAKE STRUCTURE DEBRIS CURTAIN



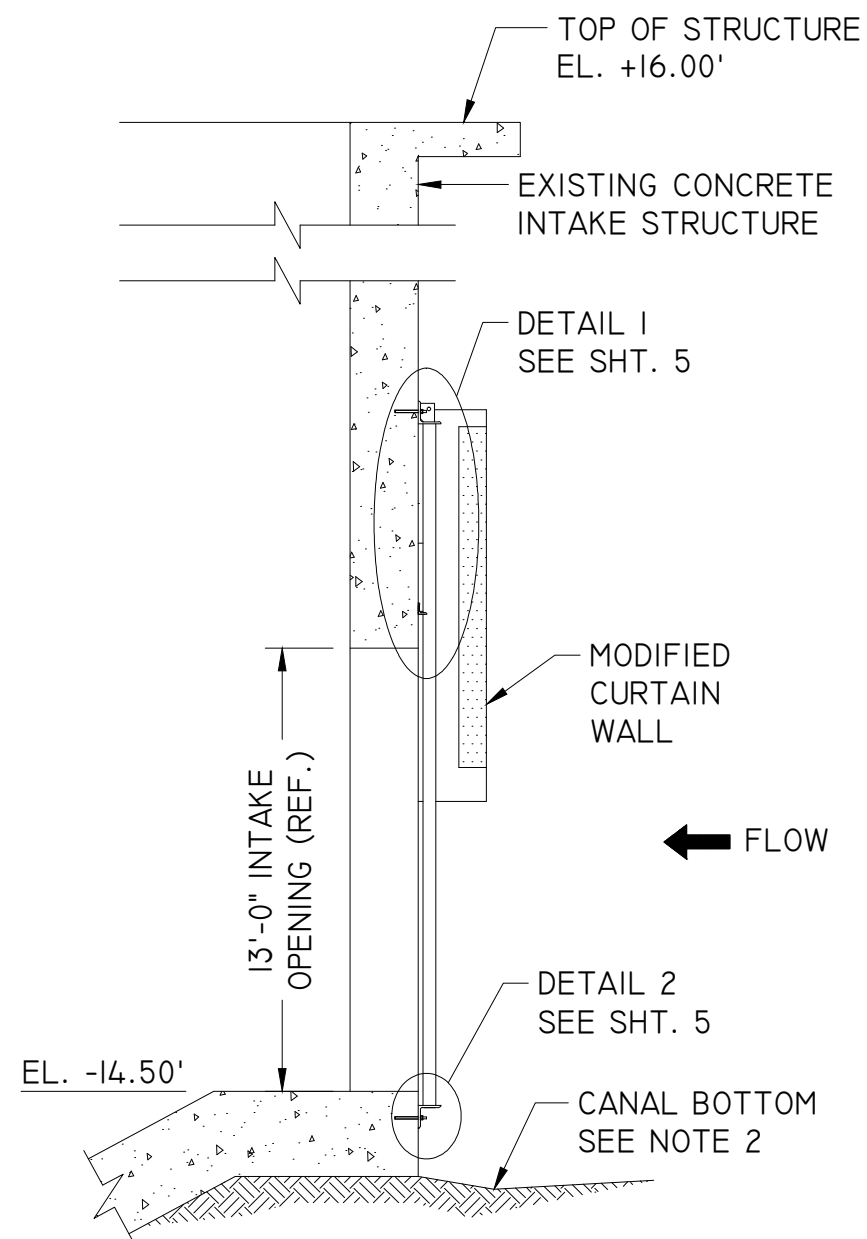
SECTION A2-A2

NOTES:
I. FOR GENERAL NOTES REFER TO SHEET I.

0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	



SYSTEM N/A	DISCIPLINE CIVIL	PLANT/UNIT CAPE CANAVERAL
TYPE -	UNIT 3	TITLE EAST INTAKE STRUCTURE MANATEE EXCLUDER DEVICES DETAILS
DRAWING SIZE B(11"X17")	SCALE N/A	
DRAWING NUMBER CCEC-684337	SHEET 2 OF 5	REV 0



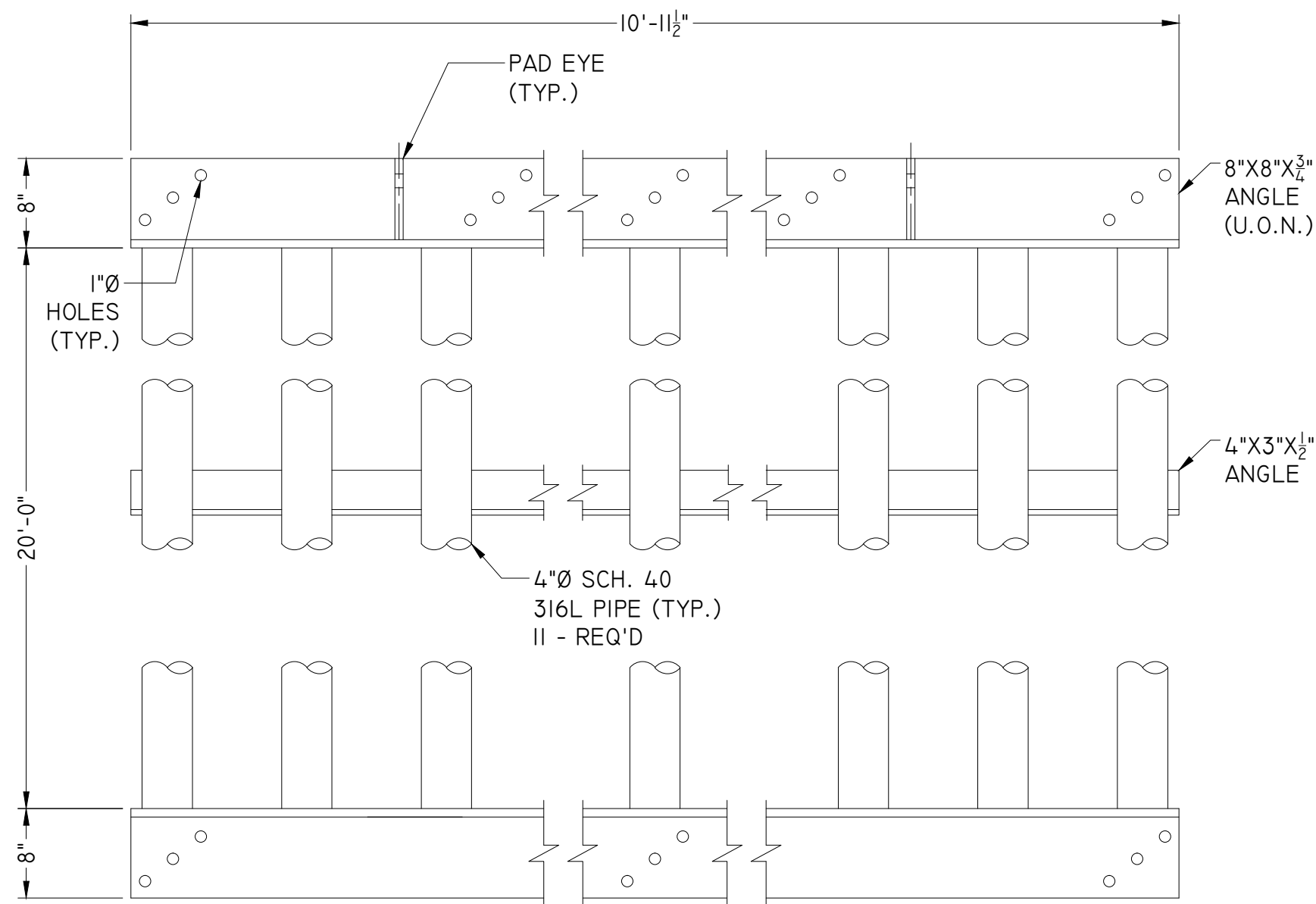
SECTION C4-C4
STRUT BEAM NOT SHOWN FOR CLARITY

NOTES:

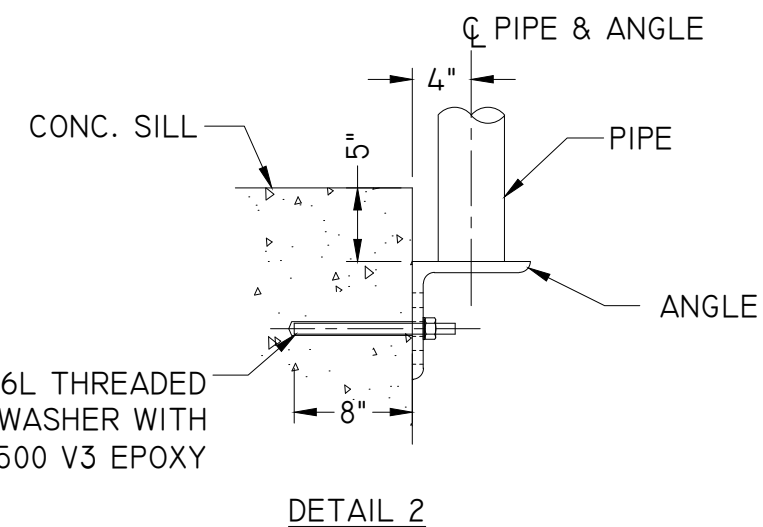
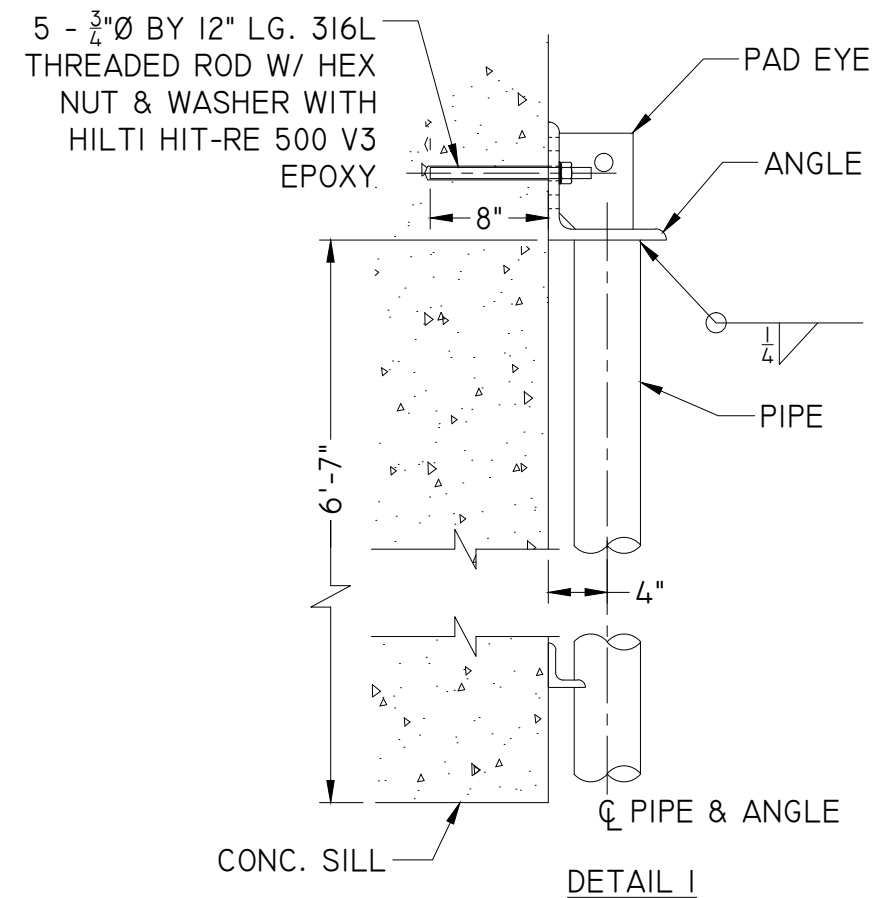
1. FOR GENERAL NOTES REFER TO SHEET 1.
2. CONCRETE FACE BELOW INTAKE OPENING SHALL BE UNCOVERED AS REQUIRED PRIOR TO INSTALLATION OF MOUNTING ANGLES.

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0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	

	SYSTEM	N/A	DISCIPLINE	CIVIL	PLANT/UNIT CAPE CANAVERAL			
	TYPE	-	UNIT	3	TITLE EAST INTAKE STRUCTURE MANATEE EXCLUDER DEVICES DETAILS			
	DRAWING SIZE	B(11"X17")	SCALE	N/A				
	DRAWING NUMBER CCEC-684337					SHEET 4 OF 5	REV 0	



EXCLUDER DEVICE DETAILS
SEE NOTES 2, 3, & 4

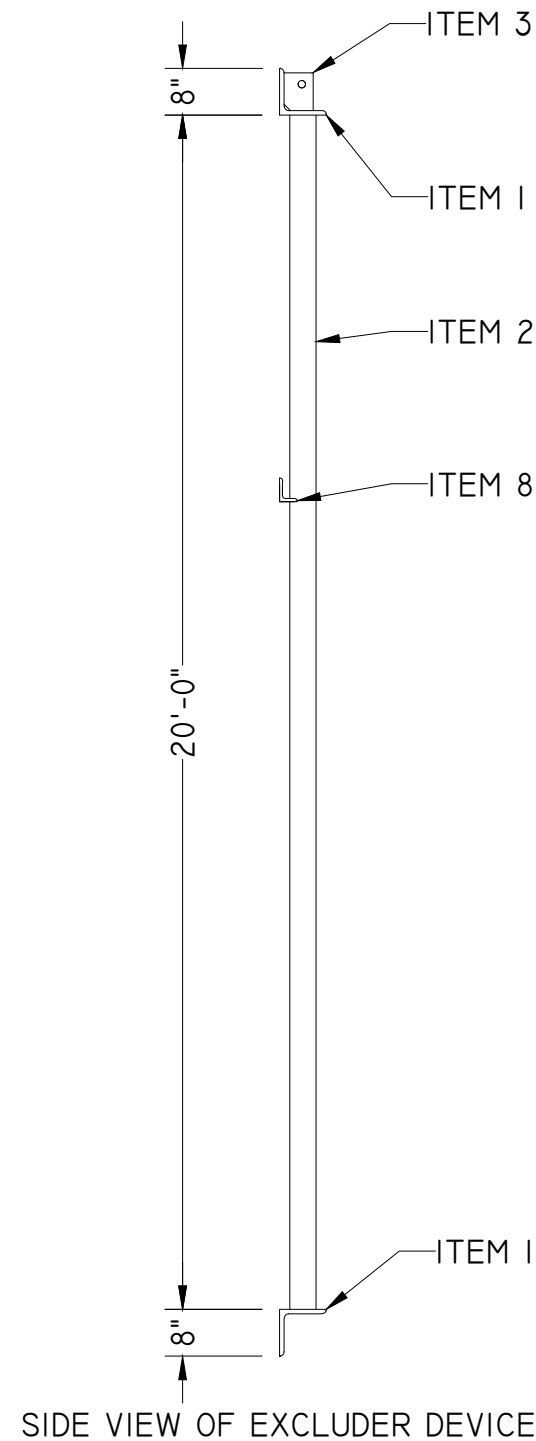
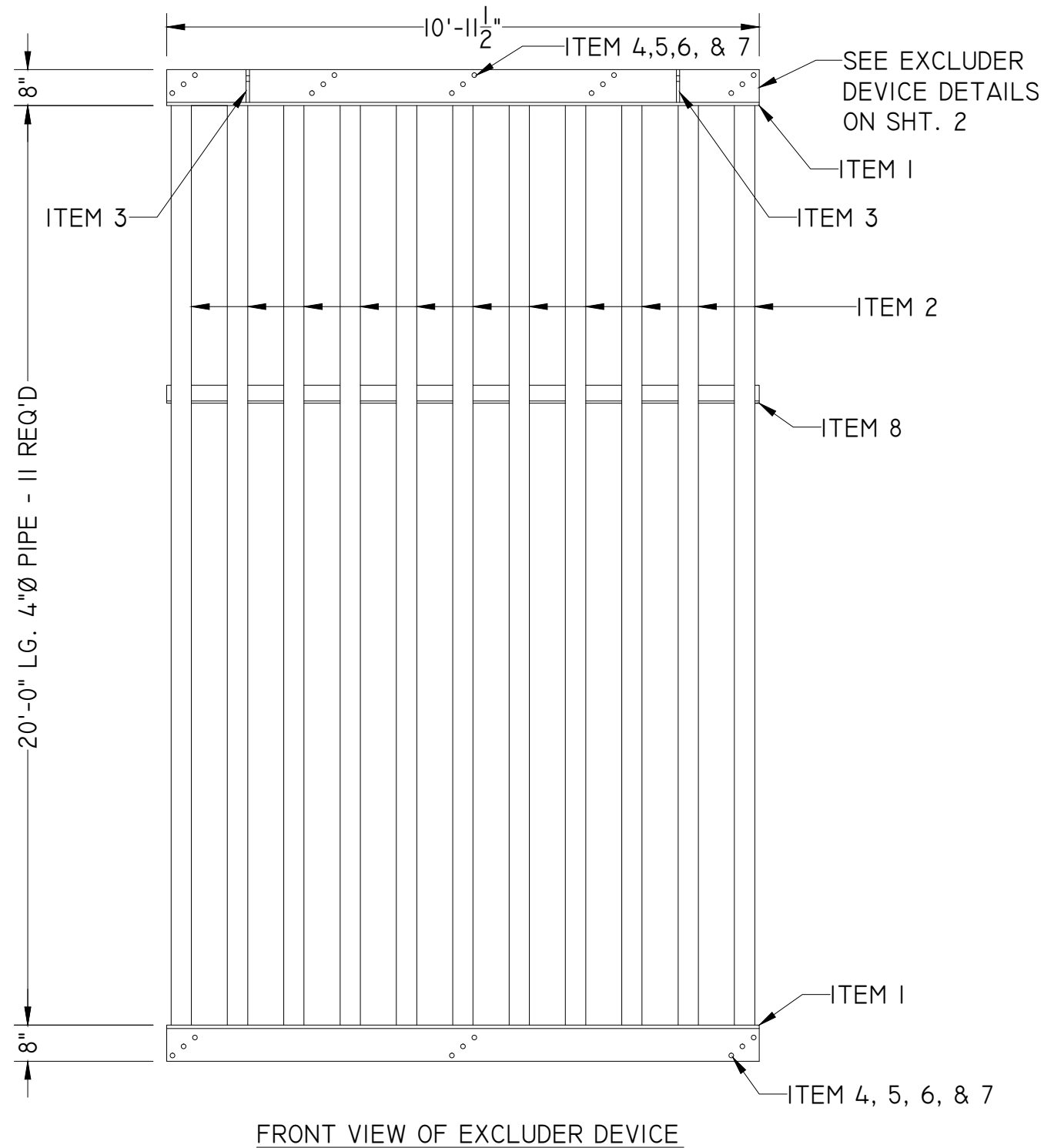
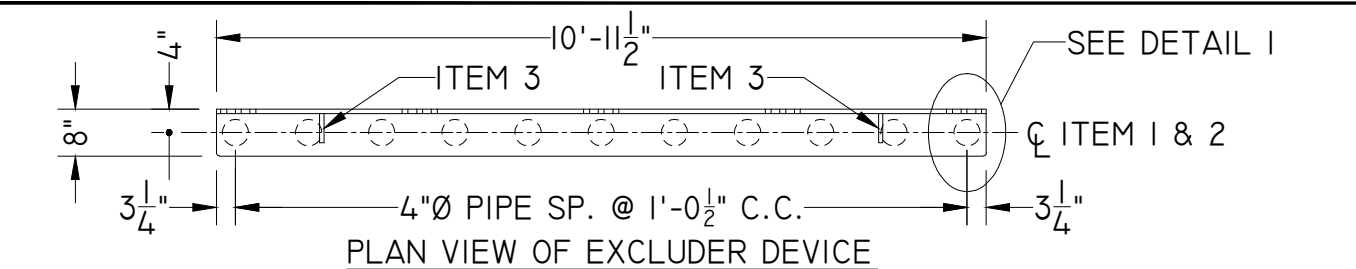


NOTES:

- FOR GENERAL NOTES SEE SHEET 1.
- CONTRACTOR SHALL SELECT WHICH HOLES TO INSTALL THE ANCHOR RODS BASED ON THE LOCATED REINFORCEMENT TO AVOID DRILLING INTO EMBEDDED REINFORCING STEEL.
- CONTRACTOR SHALL INSTALL FIVE (5) ANCHORS FOR THE TOP ANGLE SUPPORT AND THREE (3) ANCHORS FOR THE BOTTOM ANGLE SUPPORT.
- FOR EXCLUDER FABRICATION DETAILS REFER TO DRAWING CCEC-684337-SD SHEETS 1 THROUGH 3.

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0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	

	SYSTEM	DISCIPLINE	PLANT/UNIT	
	N/A	CIVIL	CAPE CANAVERAL	
	TYPE	UNIT	TITLE	
	-	3	EAST INTAKE STRUCTURE MANATEE EXCLUDER DEVICES DETAILS	
	DRAWING SIZE	SCALE		
	B(11"X17")	N/A		
	DRAWING NUMBER	CCEC-684337		
		SHEET	5 OF 5	REV
				0

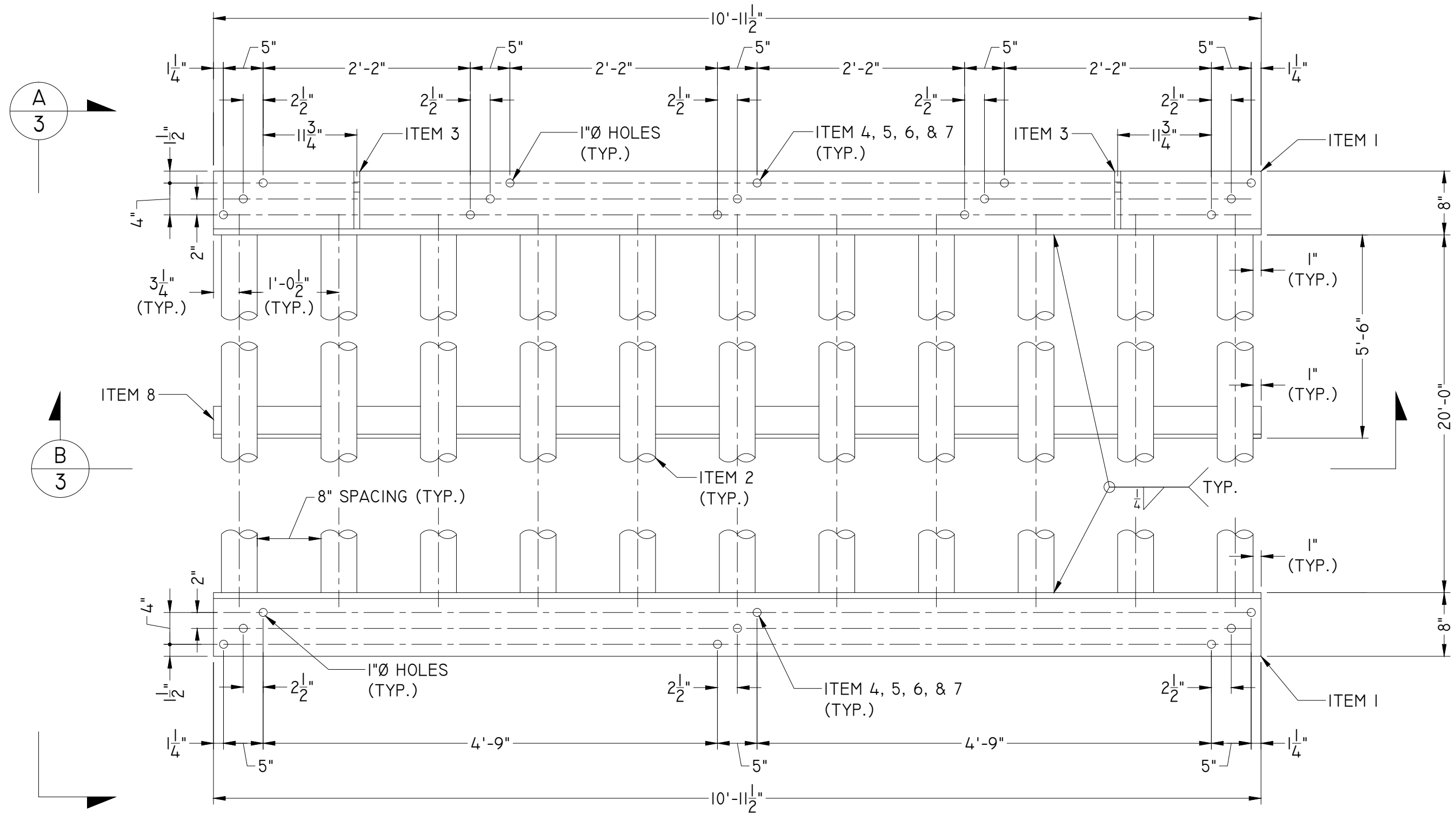


NOTES:

1. ALL STEEL PIPES, ANGLES, THREADED RODS, FASTENERS AND PLATES SHALL BE 316L STAINLESS STEEL U.O.N.
2. WELDING SHALL BE IN ACCORDANCE WITH AWS STRUCTURAL WELDING CODE DI.6. WELDING REQUIREMENTS SHALL COMPLY WITH THE AISC MANUAL OF STEEL CONSTRUCTION.
3. FOR BILL OF MATERIALS SEE SHEET 3.

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0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	

 FPL	SYSTEM	N/A	DISCIPLINE	CIVIL	PLANT/UNIT				CAPE CANAVERAL	
	TYPE	-	UNIT	3	TITLE				EAST INTAKE STRUCTURE MANATEE EXCLUDER DEVICES FABRICATION DETAILS	
	DRAWING SIZE	B(11"X17")	SCALE	N/A						
	DRAWING NUMBER	CCEC-684337-SD						SHEET	1 OF 3	REV 0



NOTES:
1. FOR BILL OF MATERIALS SEE SHEET 3.

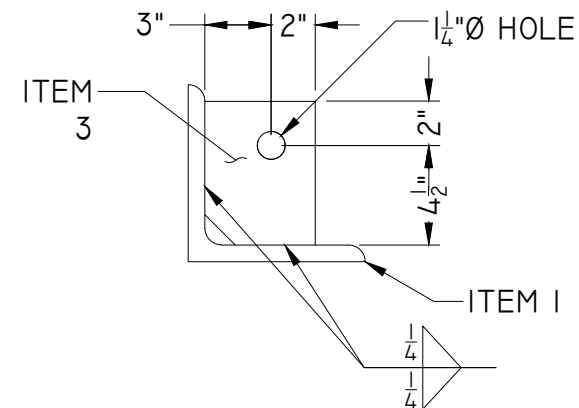
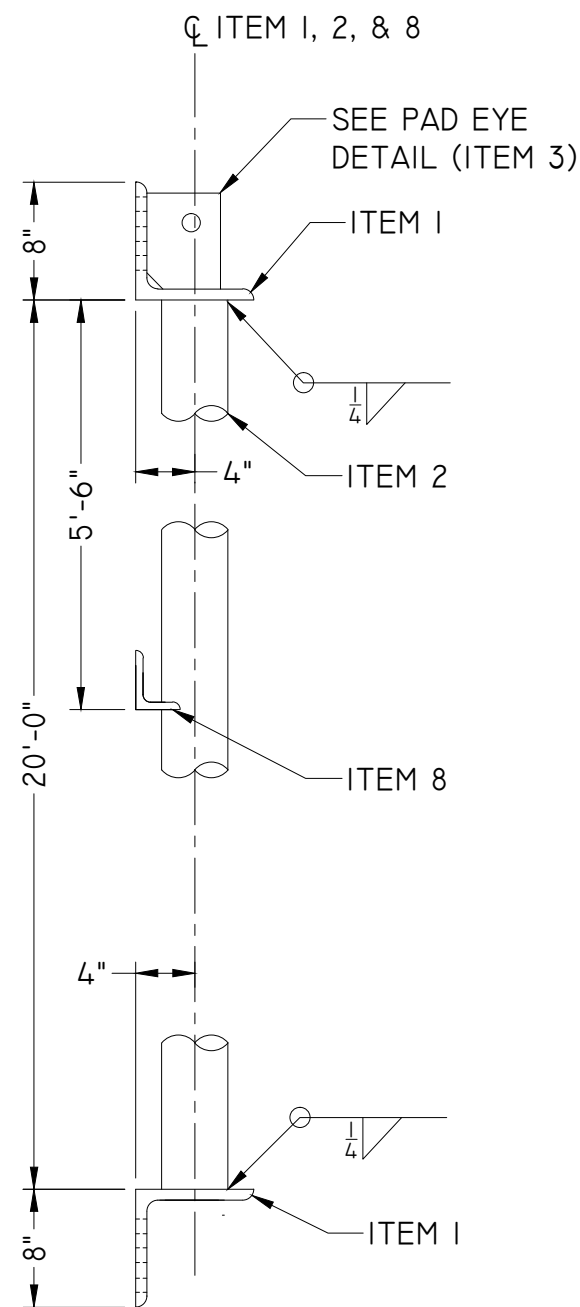
EXCLUDER DEVICE
2 - REQUIRED



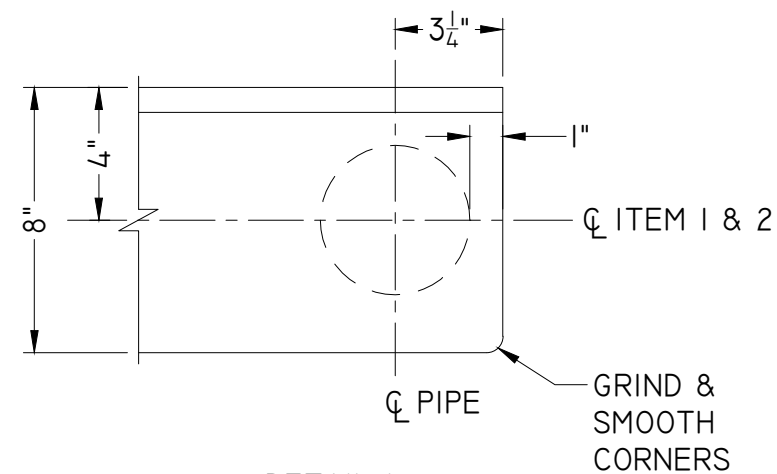
FPL

SYSTEM N/A	DISCIPLINE CIVIL	PLANT/UNIT CAPE CANAVERAL	
TYPE -	UNIT 3	TITLE INTAKE STRUCTURE MANATEE EXCLUDER DEVICES FABRICATION DETAILS	
DRAWING SIZE B(11"X17")	SCALE N/A		
DRAWING NUMBER CCEC-684337-SD		SHEET 2 OF 3	REV 0

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0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG		



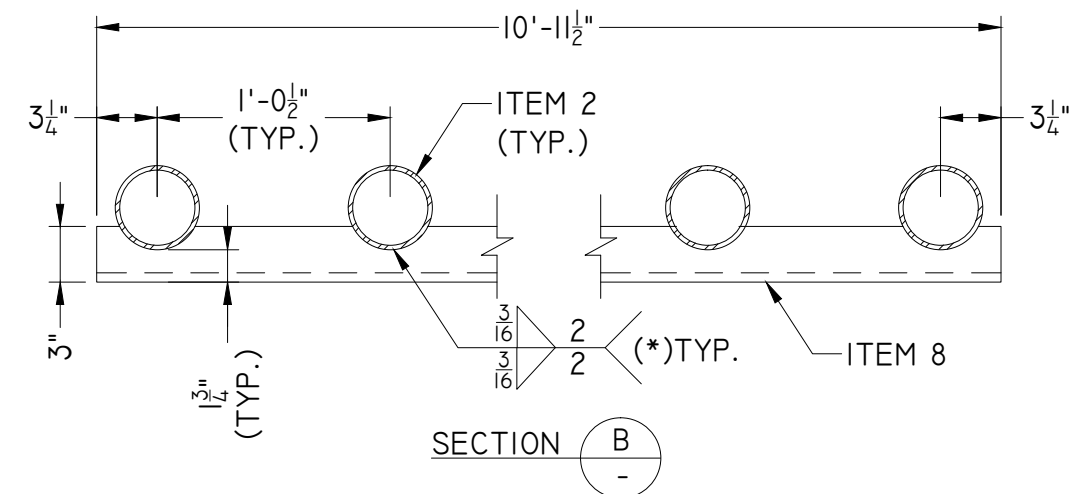
PAD EYE DETAIL - ITEM 3
TO BE INSTALLED ON TOP ANGLE SUPPORT ONLY



DETAIL 1
TOP ANGLE SHOWN, BOTTOM ANGLE SIMILAR

SECTION A

BILL OF MATERIALS				
ITEM #	QTY	UNITS	DISCRIPTION	
1	4	EA	8"X8"X $\frac{3}{4}$ " ANGLE BY 10'-11 $\frac{1}{2}$ " LONG, 316L SS	
2	22	EA	4"Ø PIPE SCH. 40, BY 20'-0" LONG, 316L SS	
3	4	EA	$\frac{3}{4}$ "X6 $\frac{1}{2}$ "X5" FLAT STOCK, 316L SS	
4	16	EA	$\frac{3}{4}$ "Ø BY 12" LONG THREADED ROD, 316L SS, ASTM F593H	
5	16	EA	$\frac{3}{4}$ " WASHER 316L SS	
6	16	EA	$\frac{3}{4}$ " NUT 316L SS, ASTM F594	
7	AS REQ'D	EA	HILTI HIT-RE 500 V3 INJECTABLE ADHESIVE	
8	2	EA	4"X3"X $\frac{1}{2}$ " ANGLE BY 10'-11 $\frac{1}{2}$ " LONG, 316L SS	



(*) SEAL ALL AROUND REMAINDER OF JOINT

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0	4/21/22	ISSUED FOR USE	VMA	JRC	-	-	-	-
REV	DATE	REVISION DESCRIPTION	BY	CH	COR	APR	ORG	

	SYSTEM	DISCIPLINE	PLANT/UNIT	
	N/A	CIVIL	CAPE CANAVERAL	
	TYPE	UNIT	TITLE	
	-	3	INTAKE STRUCTURE MANATEE EXCLUDER DEVICES FABRICATION DETAILS	
DRAWING SIZE		SCALE		
B(11"X17")		N/A		
DRAWING NUMBER			SHEET	REV
CCEC-684337-SD			3 OF 3	0