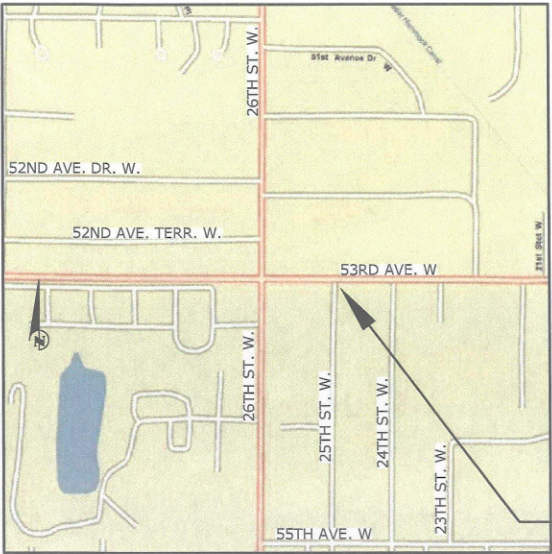


COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | S:\P\W\Engineering\Shore\W\Eng Design\PROJ\27A Rehab\DWG\27A Muffin 100% dwg.Cover Tabloid, 12/13/2012 11:02 AM Cara Boyer, 11: ANSI full bleed B (17.00 x 11.00 inches)



MANATEE COUNTY, FLORIDA
LIFT STATION UPGRADES
MASTER LIFT STATION 27A, RTU 138
REHAB / COMMUNOTOR REPLACEMENT
404- 6060782

MAY 2012

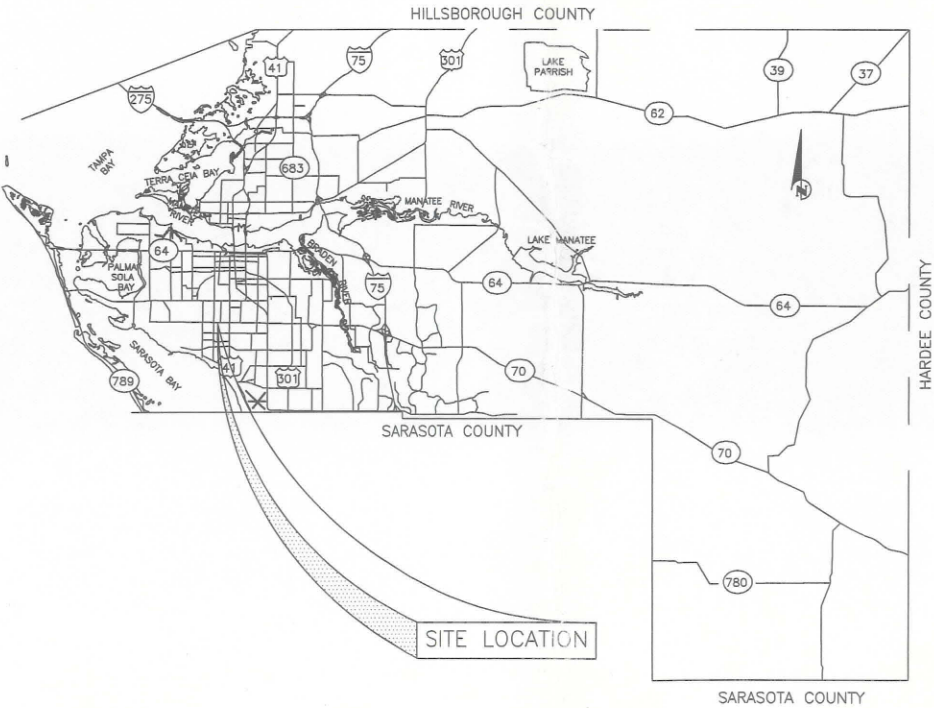


2484 53RD AVE. WEST. BRADENTON

VICINITY MAP
N.T.S.

PROJECT DESCRIPTION

REPLACE EXISTING COMMUNOTOR, BAR SCREEN, FIBERGLASS DECKING AND STOP GATES, CONTROL PANEL AND ACCESS HATCH. REPAIR, REHAB EXISTING WETWELL WITH SPRAY LINER. INSTALL EXPLOSION PROOF LIGHTS.



CONFINED
SPACE ENTRY
PERMIT
REQUIRED



LIFT STATION UPGRADES
MASTER LIFT STATION 27A
COVER SHEET

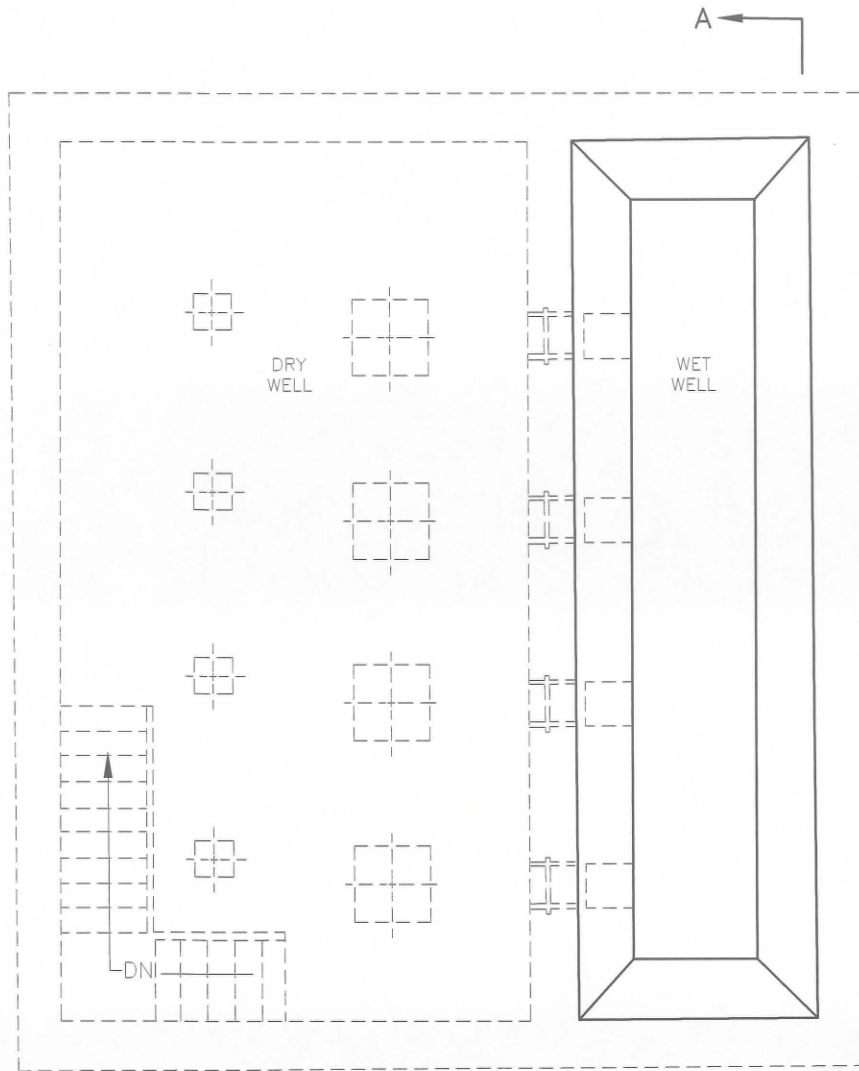
NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	PLAN VIEWS
3.	SECTION VIEWS
4.	WETWELL FRAMING
5.	STAIRWAY PLAN
6.	DETAILS

MASTER LIFT STATION 27A	
ITEM	VALUE
RTU	138
STREET ADDRESS	2484 53RD AVE. W.
CITY	BRADENTON
SEC./TWN./RGE	15/35S/17E
DESIGN FLOW	2950 GPM @ 58' TDH
COMMUNOTOR ACCESS HATCH DIMENSIONS *	30" X 31"
INFLUENT CHANNEL DIMENSIONS *	4' DEEP X 3' WIDE

* CONTRACTOR SHOULD FIELD VERIFY ALL DIMENSIONS

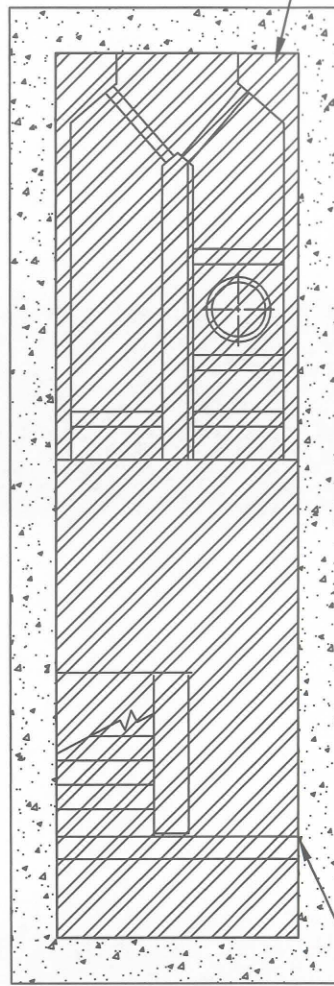
NO.	DATE	BY	REVISION DESCRIPTION
1.	12/13/12	WRT	REVISION FOR CLARIFICATION
PROJECT #	404- 6060782		
SURVEY #			
SEC./TWN./RGE	15/35S/17E		
SCALE	NTS		
	BY	DATE	
SURVEYED			
DESIGNED	WRT	02/21/12	
DRAWN	JEA	02/21/12	
CHECKED	WRT	02/21/12	
SIGNATURES & DATE			
SHEET 1 OF 6			

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PMD\Engineering\Share\Util Eng Design\PROJ\27A Rehab\WWS\27A Master Lift Station\27A Master Lift Station.dwg 12/13/2012 11:02 AM Core Boyer 1:1, ANSI full bleed B (17.00 x 11.00 inches)



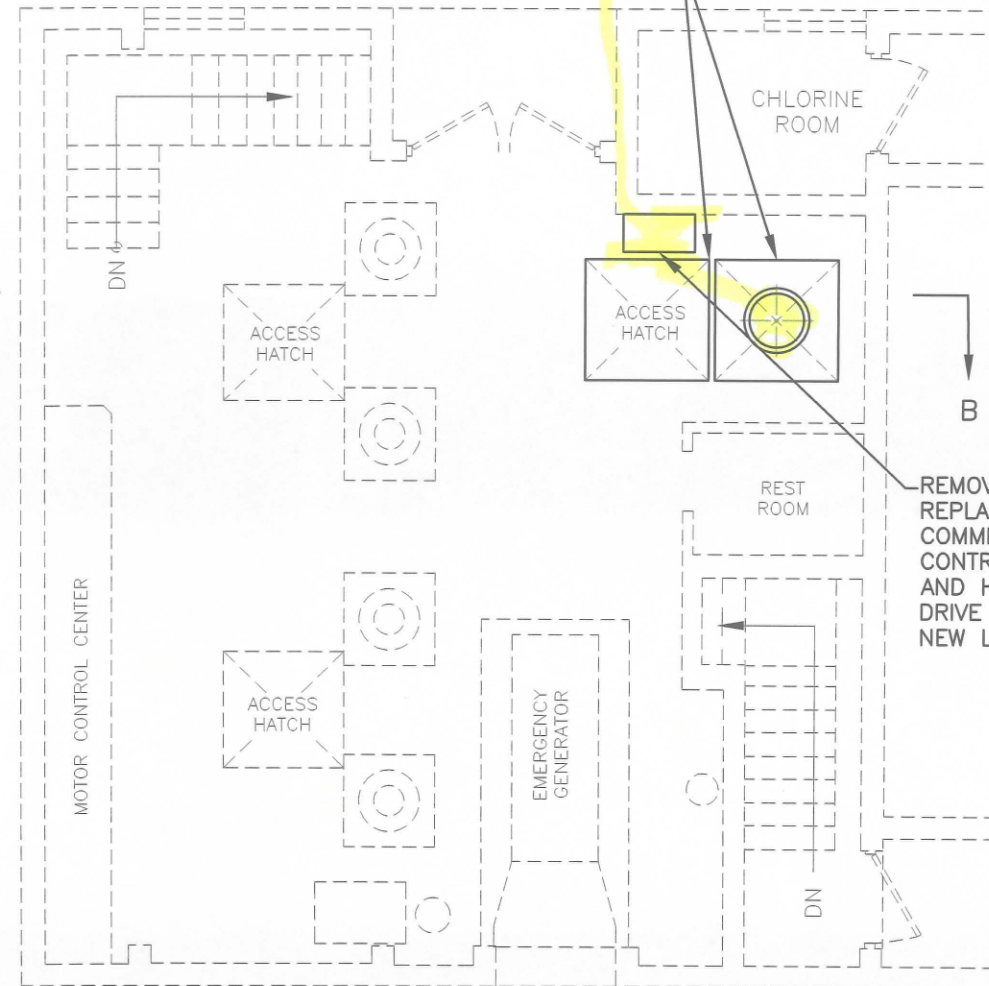
PUMP ROOM & WETWELL, PLAN VIEW

NTS



PLAN-WET WELL
INTERMEDIATE LEVEL

NTS



GROUND FLOOR, PLAN VIEW

NTS

GENERAL NOTES

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: SHERRI ROBINSON AND CAN BE REACHED AT (941) 708-7450; EXT. 7337
2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER.
3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
5. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.
8. BYPASS PUMPING TO BE FROM FLOW-THROUGH PLUG IN INFLUENT PIPE IN WET WELL AND ROUTED UP THROUGH EXISTING COMMUNUTOR HATCH IN ORDER TO AVOID ROAD OR LANE CLOSURE.

1. REMOVE EXISTING LINER MATERIAL ON WALLS, FLOORS, AND CEILING.
2. PRESSURE CLEAN AND REMOVE ALL DETERIORATED CONCRETE AS DIRECTED BY THE COUNTY INSPECTOR.
3. CLEAN AND COAT EXPOSED REINFORCING STEEL PRIOR TO PATCHING.
4. RESTORE CONCRETE TO ORIGINAL PROFILE.
5. AFTER RESTORATION INSTALL NEW SPRAY LINER.

PROPOSED
REMOVAL AND
REHAB AREA

REMOVE (2) EXISTING HATCHES, AND
REPLACE WITH RECESSED, GAS TIGHT,
HINGED STAINLESS STEEL ACCESS
HATCHES, FIELD VERIFY EXISTING
DIMENSIONS AND MAINTAIN FULL OPENING.

CHLORINE
ROOM

ACCESS
HATCH

REST
ROOM

EMERGENCY
GENERATOR

WET WELL/COMMUNUTOR
ENTRANCE

REMOVE AND
REPLACE EXISTING
COMMUNUTOR
CONTROL PANEL
AND HYDRAULIC
DRIVE SYSTEM IN
NEW LOCATION

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES



1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES
MASTER LIFT STATION 27A
PLAN VIEWS

REVISION DESCRIPTION	DATE	BY
REVISION FOR CLARIFICATION	12/13/12	WRT
NO.	1.	
PROJECT #	404- 6060782	
SURVEY #		
SEC./TWN./RGE	15/35S/17E	
SCALE	NTS	
SURVEYED	11/11/11	
DESIGNED	WRT	02/21/12
DRAWN	JEK	02/21/12
CHECKED	WRT	02/21/12
Signature & Date		
SHEET 2 OF 6		

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | SA: PWD_Engineering_Shaun Vili Eng Design (PROD) - SAN SWR Proj - US Upgrade (LS 27A Rehab) (VMS 27A Muffin 1006.dwg, 3 SECTIONS, 12/13/2012 11:02 AM Cara Boyer, 1:1, ANSI full bleed B (17.00 x 11.00 inches)

REMOVE AND REPLACE EXISTING
COMMUNOTOR CONTROL PANEL
AND HYDRAULIC DRIVE SYSTEM
IN NEW LOCATION

INSTALL 3 NEW EXPLOSION
PROOF LED LIGHTS (TYP)

MECHANICAL ROTARY CORE
BORE (DRILL) FOR NEW
GAS-TIGHT PENETRATION FOR
WIRING FROM CONTROL PANEL
TO COMMUNOTOR. INSTALL
WIRING PER MANUFACTURERS
RECOMMENDATION. PATCH
EXISTING HYDRAULIC LINE
HOLES.

REPLACE ALL FIBERGLASS DECK
GRATE. REPAIR OR REPLACE
SEAT CHANNEL IF REQUIRED.

FLOW
24" INFLUENT LINE
LINER. BOND PIPE CURED
IN PLACE TO NEW
WETWELL SPRAY LINER

REPLACE EX. STOP PLATES
AND GUIDE CHANNELS.
CONTRACTOR TO VERIFY
SIZE
DETAIL SHEET 5/6

REMOVE EXISTING HATCHES,
AND REPLACE WITH RECESSED,
GAS TIGHT, STAINLESS STEEL
ACCESS HATCHES, FIELD VERIFY
DIMENSIONS.

CENTERED OVER LIFTGATE

REPLACE EXISTING HYDRAULIC
DRIVE COMMUNOTOR WITH NEW
DIRECT DRIVE COMMUNOTOR.
(FIELD VERIFY CHANNEL WIDTH
AND DEPTH)

REPLACE BAR SCREEN
SEE DETAIL SHEET 6/6

REPLACE (2)
LEVEL CONTROL WEIRS
P 12"x 3/8" x 3'-10" LG.
STAINLESS STEEL W/ SLOTTED
BOLT HOLES

ENSURE EX. DRAIN
FUNCTIONS PROPERLY

TOP LEVEL
EL. 21.00

INTERMEDIATE LEVEL
EL. 7.45

BOTTOM LEVEL
EL. -2.66

COMMUNOTOR NOTES:

1. ELECTRICAL LINE NEEDS TO BE ROUTED FROM THE NEW CONTROL BOX TO THE NEW COMMUNOTOR. CURRENT LINES ARE ROUTED THRU THE EX. HATCH, THIS WILL NO LONGER BE ACCEPTABLE. SEE NOTE ABOVE.
2. NEW COMMUNOTOR TO BE MODEL CMD3210-XDS2.0 CHANNEL MONSTER™ SYSTEM. INSTALLATION INCLUDES CMA1101 316 SS CHANNEL MOUNT FRAME ASSEMBLY WITH OVERFLOW BAR RACK, PC2200 MOTOR CONTROLLER IN NEW NEMA 4X 316 STAINLESS STEEL PANEL BOX, IEC STARTER WITH OVERCURRENT PROTECTION & JAM SENSING.
3. THE CONTRACTOR IS TO PROVIDE A COMPLETE AND OPERATIONAL UNIT, INCLUDING ALL LABOR, ASSOCIATED PARTS, FITTINGS, AND 3 O&M MANUALS.
4. BRIDGE CRANE HEIGHT LIMITATION IS 70 INCHES.

SECTION A-A NTS

1. REMOVE EXISTING LINER MATERIAL ON WALLS, FLOORS, AND CEILING.
2. PRESSURE CLEAN AND REMOVE ALL DETERIORATED CONCRETE AS DIRECTED BY THE COUNTY.
3. CLEAN AND COAT EXPOSED REINFORCING STEEL PRIOR TO PATCHING.
4. RESTORE CONCRETE TO ORIGINAL PROFILE.
5. AFTER RESTORATION INSTALL NEW SPRAY LINER.

EPCON CERAMIC 6" EPOXY
AND 3/4" STAINLESS STEEL
THRD. ROD ANCHORS WITH
7" EMBEDMENT IN CONCRETE (TYP)

EX. WETWELL OR
CONCRETE WALL
W/ LINER

3"x3"x 1/4" STAINLESS
STEEL ANGLE

DETAIL "F"

SS BEAM SUPPORT

NTS

SECTION B-B NTS

6"x"S" SHAPE 316
STAINLESS STEEL BEAM

(2) STAINLESS STEEL U-BOLT
CENTERED OVER LIFT GATE (TYP)

REPAIR AND OR REPLACE ALL
DELAMINATED FIBERGLASS
HANDRAIL, STRUCTURES, AND
STAIR TREADS AS REQUIRED

SEAT CHANNELS
SEE DETAIL "C"
SHEET 4 OF 6

REPLACE BAR
SCREEN (1 TYP.)
SEE DETAILS SHEET 6 OF 6

6"x"S" SHAPE 316
STAINLESS STEEL BEAM
TO SUPPORT GATES
SEE DETAIL "F"
SHEET 3/6

MANATEE COUNTY GOVERNMENT
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

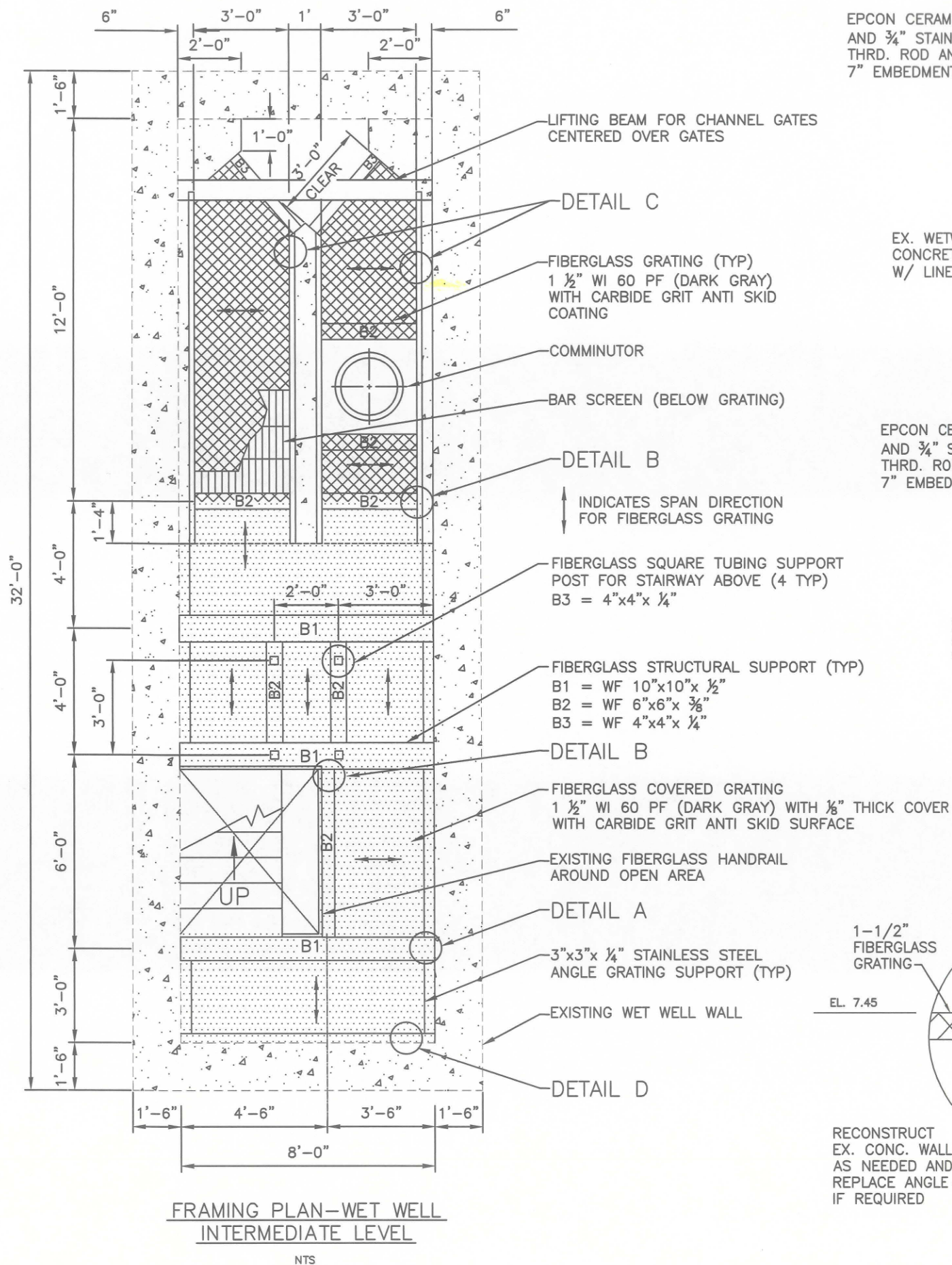


1022 26th Avenue East
Bradenton, FL 34208

LIFT STATION UPGRADES MASTER LIFT STATION 27A SECTIONS

REVISION	DESCRIPTION	BY	DATE
1.	REVISE FOR CLARIFICATION	WRT	12/13/12
NO.			
PROJECT #	404- 6060782		
SURVEY #	-----		
SEC./TWN./RGE	15/35S/17E		
SCALE	NTS		
SURVEYED.		BY	DATE
DESIGNED	WRT		02/21/12
DRAWN	JEK		02/21/12
CHECKED	WRT		02/21/12
Signature & Date 12/13/12			
SHEET 3 OF 6			

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | S:\P\W\Engineering\Shore\U\U Eng Design\PROJ\27A Rehab\DWG\27A Master Lift Station Upgrade\LS 27A Upgrade\LS 27A Upgrade.dwg, 12/13/2012 7:35 AM Cara Boyer, 1:1, ANSI full bleed B (17.00 x 11.00 inches)



EPCON CERAMIC 6" EPOXY
AND 3/4" STAINLESS STEEL
THRD. ROD ANCHORS WITH
7" EMBEDMENT IN CONCRETE (TYP)

EX. WETWELL OR
CONCRETE WALL
W/ LINER

DETAIL "A"
B1 CONNECTIONS
NTS

EPCON CERAMIC 6" EPOXY
AND 3/4" STAINLESS STEEL
THRD. ROD ANCHORS WITH
7" EMBEDMENT IN CONCRETE (TYP)

EX. WETWELL OR
CONCRETE WALL
W/ LINER

DETAIL "B"
B2, B3 & SQUARE TUBING CONNECTIONS
NTS

EPCON CERAMIC 6" EPOXY
AND 3/4" STAINLESS STEEL
THRD. ROD ANCHORS WITH
7" EMBEDMENT IN CONCRETE (TYP)

1-1/2" FIBERGLASS
GRATING
EL. 7.45
1-1/4" CL.
1-1/2" (TYP)
6"
1 1/2" x 1 1/2" x 1/4"
FIBERGLASS
EMBEDDED ANGLE
RECONSTRUCT
EX. CONC. WALL
AS NEEDED AND
REPLACE ANGLE
IF REQUIRED

DETAIL "C"
NTS

EX. WETWELL OR
CONCRETE WALL
W/ LINER

3"x3"x 1/4" STAINLESS
STEEL ANGLE

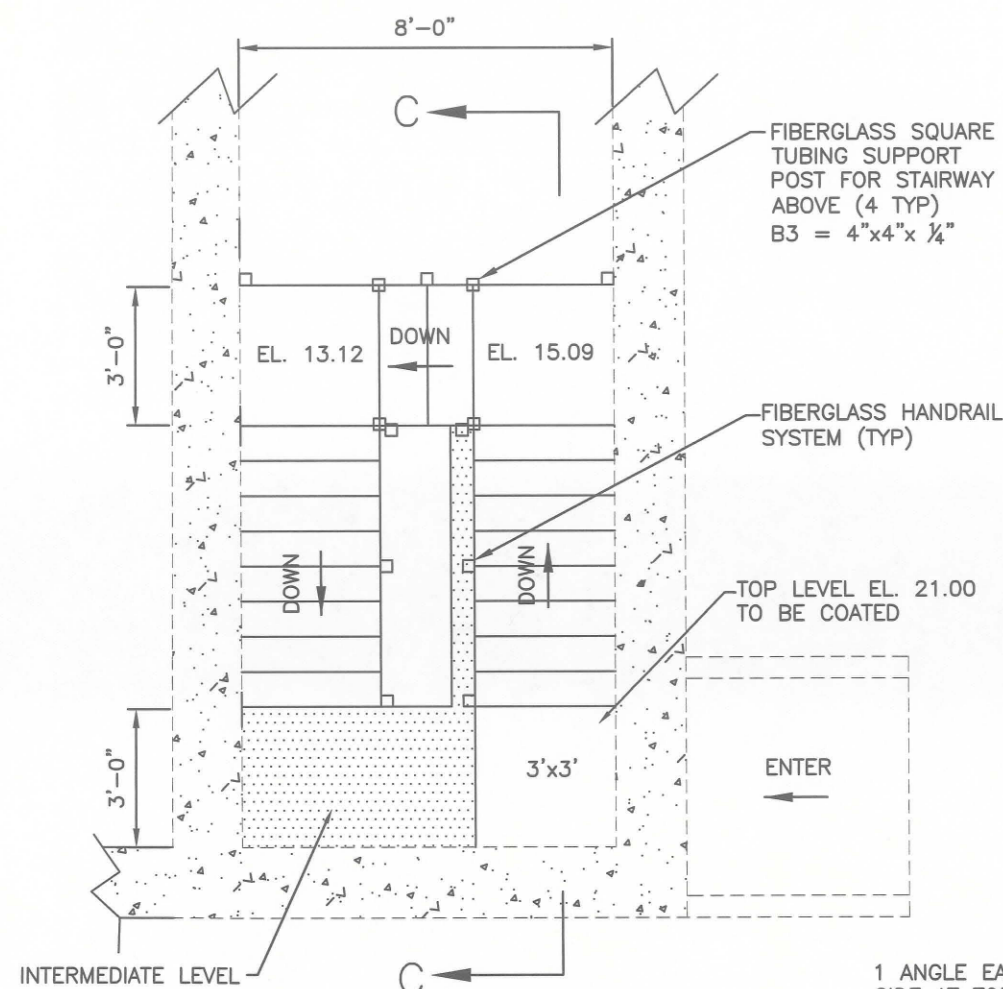
DETAIL "D"
GRATING SUPPORT
NTS

NOTE:
ALL FIBERGLASS STRUCTURAL
SUPPORTS, GRATING, AND STAIRWAY
SYSTEMS SHALL BE DESIGNED TO
100 LB./S.F LIVE LOAD

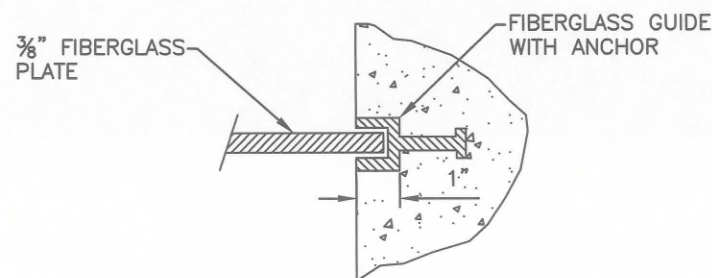


LIFT STATION UPGRADES
MASTER LIFT STATION 27A
WET WELL FRAMING

NO.	DATE	BY	REVISION DESCRIPTION
1.	12/13/12	WRT	REVISION FOR CLARIFICATION
PROJECT #	404- 60607B2		
SURVEY #			
SEC./TWN./RGE	15/35S/17E		
SCALE	NTS		
SURVEYED	BY	DATE	
DESIGNED	WRT	02/21/12	
DRAWN	JEA	02/21/12	
CHECKED	WRT	02/21/12	
Signature & Date			
SHEET 4 OF 6			



STAIRWAY PLAN



STOP PLATE GUIDE DETAIL

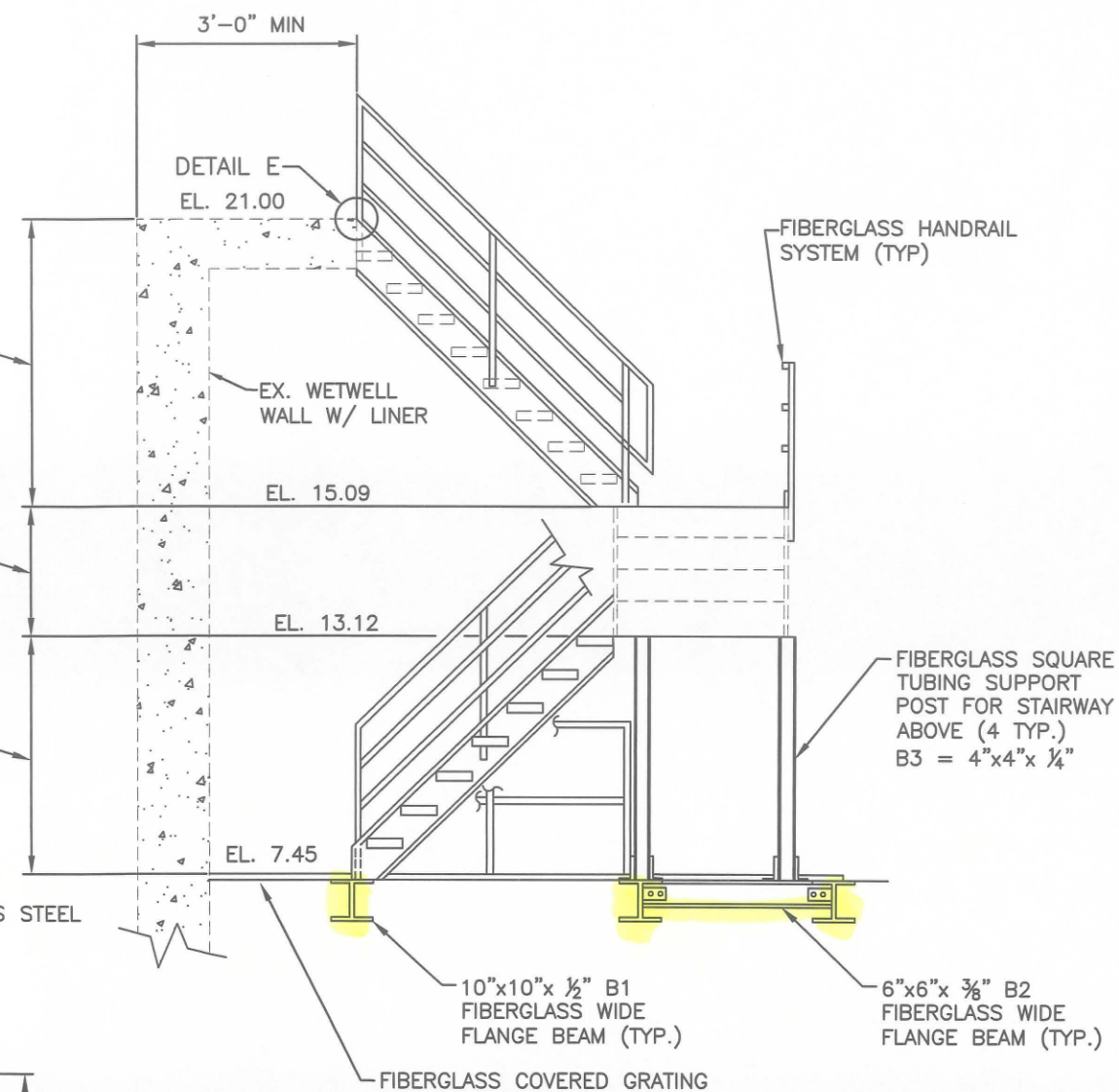
FIBERGLASS STAIRWAY NOTES:

1. STRUCTURE DETAILS SHOWN FOR CLARITY.
2. ONLY MINOR REPAIRS TO FIBERGLASS STRUCTURES ANTICIPATED
3. ACTUAL REPAIRS REQUIRED WILL BE DETERMINED AFTER EXPOSURE, CLEANING, AND INSPECTIONS.

9-RISERS @ $7 \frac{7}{8}" = 5'-10 \frac{7}{8}"$
8-TREADS @ $9" = 6'-0"$

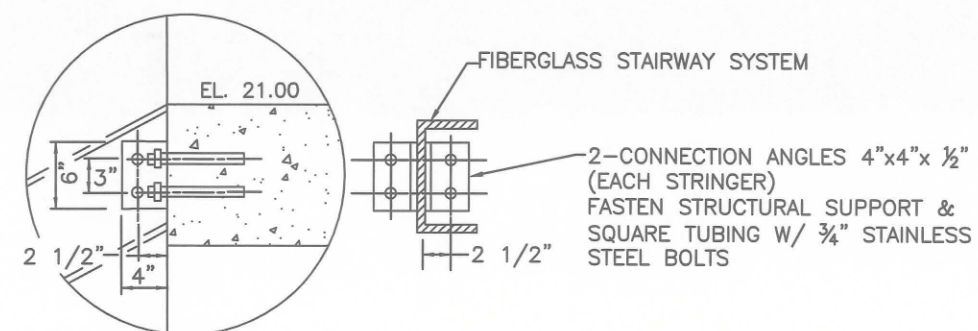
3-RISERS @ $7 \frac{7}{8}" = 1'-11 \frac{5}{8}"$
2-TREADS @ $9" = 1'-6"$

8-RISERS @ $8\frac{1}{2}" = 5'-8"$
7-TREADS @ $9" = 5'-3"$

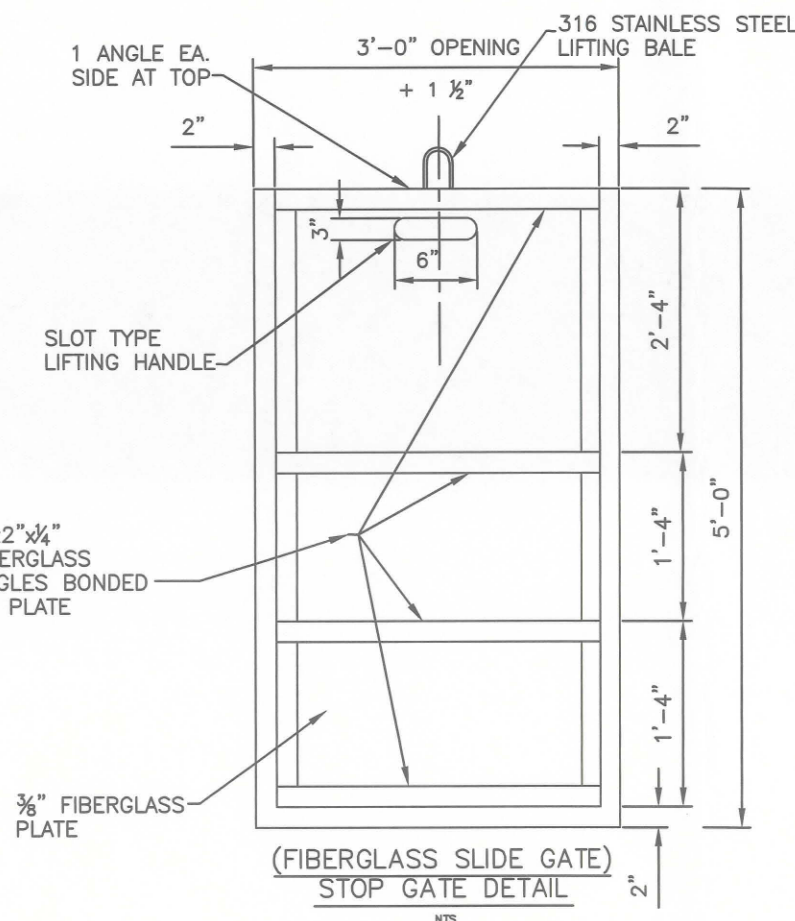


SECTION C-C

NTS



DETAIL "E"
STAIRWAY CONNECTIONS



(FIBERGLASS SLIDE GATE)
STOP GATE DETAIL

[illegible]

Signature & Date

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT 15:00 Engineering - Shared Unit Eng Design\PROJ\27A Master Lift Station\27A Master Lift Station.dwg 12/13/2012 11:02 AM Core Buyer, 11, ANSI full bleed B (17.00 x 11.00 inches)

LIFT STATION UPGRADES
MASTER LIFT STATION 27A
DETAILS

NO.	REVISION DESCRIPTION	BY	DATE
1.	REVISION FOR CLARIFICATION	WRT	12/13/12
PROJECT #	404- 6060782		
SURVEY #			
SEC./TWN./RGE	15/35S/17E		
SCALE	NTS		
	BY	DATE	
SURVEYED			
DESIGNED	WRT	02/21/12	
DRAWN	JEA	02/21/12	
CHECKED	WRT	02/21/12	

