

CONSTRUCTION PLANS

FOR



PUNTA RASSA BOAT RAMP

IMPROVEMENTS

SECTION 09, TOWNSHIP 46 S., RANGE 23 E.

LEE COUNTY, FLORIDA

UTILITIES PROVIDING SERVICE:

WATER AND SEWER:

LEE COUNTY UTILITIES
1500 MONROE ST
FORT MYERS, FLORIDA 33901
PHONE: (239) 533-8181

TELEPHONE:

CENTURYLINK
1520 LEE STREET
FORT MYERS, FLORIDA 33901
PHONE: (239) 336-2030

CABLE:

CENTURYLINK
1520 LEE STREET
FORT MYERS, FLORIDA 33901
PHONE: (239) 336-2030

ELECTRIC:

LEE COUNTY ELECTRIC COOPERATIVE
4980 BAYLINE DRIVE
FORT MYERS, FLORIDA 33917
PHONE: (239) 656-2300
FAX: (239) 995-4287

GARBAGE COLLECTION:

WASTE MANAGEMENT
11990 STATE ROAD 82
FORT MYERS, FLORIDA 33913
PHONE: (239) 334-1224

FIRE CONTROL DISTRICT:

IONA-MCGREGOR FIRE DISTRICT
6061 SOUTH POINTE BOULEVARD
FORT MYERS, FLORIDA 33919
PHONE: (239) 433-0660
FAX: (239) 425-9301

GAS:

TECO PEOPLES GAS
5901 ENTERPRISE PKWY
FORT MYERS, FLORIDA 33905
PHONE: (877) 832-6747

OWNER / DEVELOPER

LEE COUNTY
PO BOX 398
FORT MYERS FL 33902
PHONE: (239) 533-2111

STRAP NUMBER

09-46-23-00-00002.0060

ZONING

AG-2 (LCO)

SITE ADDRESS

18700 MCGREGOR BLVD
FORT MYERS FL 33908

THIS IS TO CERTIFY THAT THESE PLANS AND THE ASSOCIATED CONSTRUCTION PROJECT ARE IN SUBSTANTIAL COMPLIANCE WITH THE LEE COUNTY LAND DEVELOPMENT CODE WITH THE EXCEPTION OF THE FOLLOWING DEVIATIONS WHICH HAVE BEEN APPROVED BY THE ASSISTANT COUNTY MANAGER.

DEVIATIONS: NONE

FLORIDA P.E. #: 82277

ENGINEER SIGNATURE

DATE

DEVELOPMENT ORDER APPROVED:
LEE COUNTY ADMINISTRATION

MARC MORA

DATE

ASSISTANT COUNTY MANAGER

NOTICE TO ALL
CONTRACTORS

IT'S THE LAW IN FLORIDA
2 BUSINESS DAYS BEFORE
YOU DIG
CALL SUNSHINE
1-800-432-4770

STATE, COUNTIES & CITIES
ARE "NOT" PART OF THE
ONE CALL SYSTEM THEY
MUST BE CALLED
INDIVIDUALLY.



JOHNSON
ENGINEERING

— An Apex Company —
REGISTERED PROFESSIONAL ENGINEER
FLORIDA LICENSE NO. 82277

TYLER M. SHARPE, PE

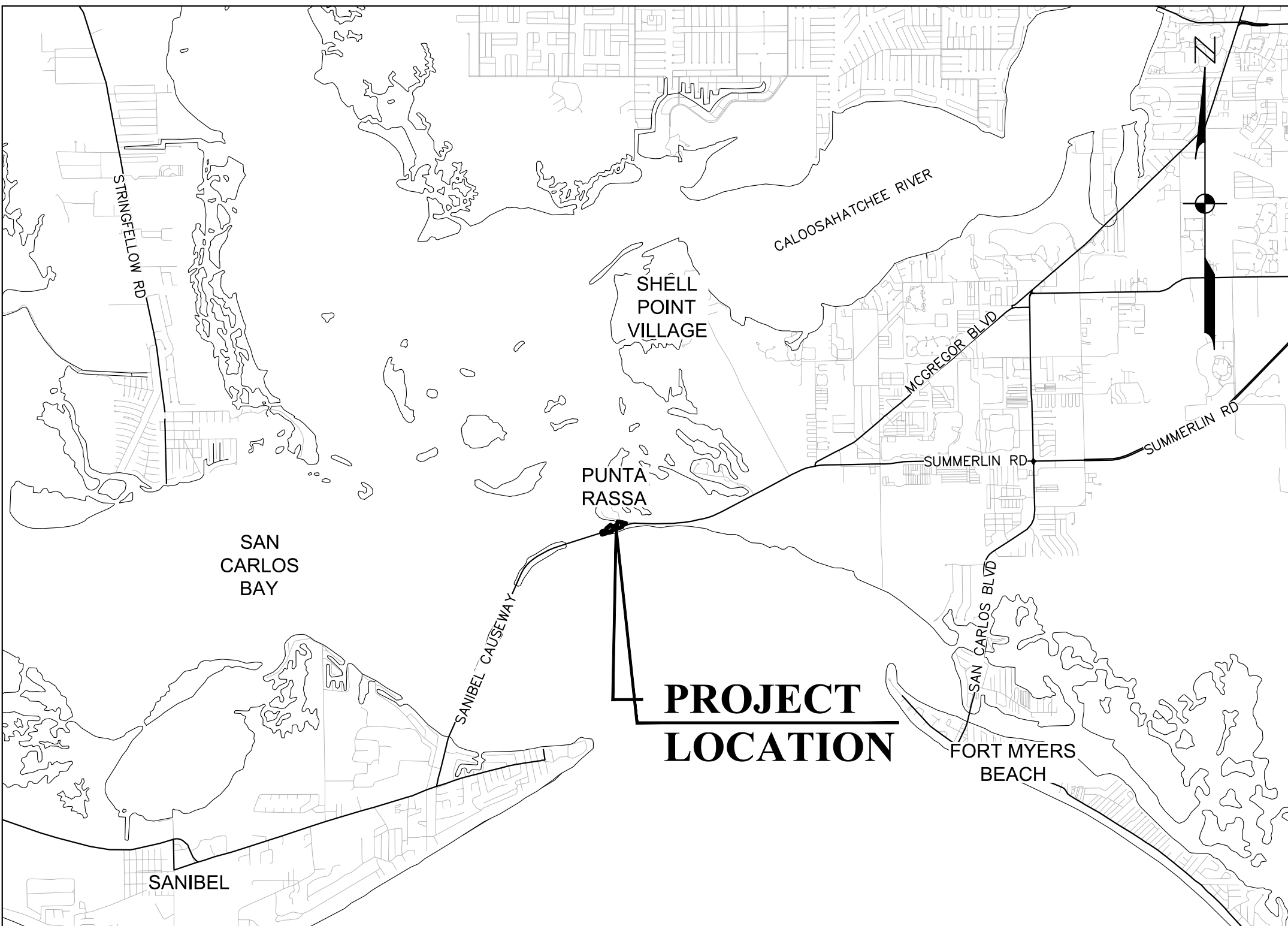
DATE

BID DOCUMENTS

SHEET NUMBER
C01

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LOCATION MAP

0 6,000 12,000
(INTENDED DISPLAY SCALE: 1"=6,000')

JANUARY 2025

ABBREVIATIONS

AC	ALTERNATE	ADRE	ALTERNATE
ALT	APPROXIMATE	ASB	ASBESTOS
ASB	BENCH MARK	BLDG	BUILDING
BOT	BOTTOM	CB	CATCH BASIN
CF	CUBIC FEET	CFM	CUBIC FEET PER MINUTE
CI	CAST IRON	CIP	CAST IRON PIPE
CJ	CONSTRUCTION JOINT	CMP	CORRUGATED METAL PIPE
CO	CLEANOUT	CV	CHECK VALVE
CF	CUBIC FOOT	CY	CUBIC YARD
CL	CENTER LINE	CLKG	CAULKING
CLF	CHAIN LINK FENCE	COL	COLUMN, COLOR
CONC	CONCRETE	CONST	CONSTRUCTION
CONT	CONTINUOUS	CONTR	CONTRACTOR
CTRS	CENTERS	CUP	CUP
CU	CUBIC INCH	DIA	DIAMETER
DIAG	DIAGONAL	DIM	DIMENSION
DIST	DISTANCE	DIP	DUCTILE IRON PIPE
DWG	DRAINAGE EASEMENT	DE	DRAINAGE EASEMENT
E	EAST	EL/ELEV	ELEVATION
EQUIP	EQUIPMENT	ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
EX	EXISTING	FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION	FM	FORCE MAIN
FDC	FIRE DEPARTMENT CONNECTION	FDN	FOUNDATION
FIN	FINISH	FRP	FIBERGLASS REINFORCED PLASTIC
FT	FEET	G	NATURAL GAS
GC	GENERAL CONTRACTOR	GI	GALVANIZED IRON
GPM	GALLONS PER MINUTE	GV	GATE VALVE
GA	GAUGE	GAL	GALLON
CALV	CALV	GR	GRADE
HDPE	HIGH DENSITY POLYETHYLENE	HOR	HORIZONTAL
HYD	HYDRANT	ID	INSIDE DIAMETER
IDD	IONA DRAINAGE DISTRICT	INV	INVERT
IRR	IRRIGATION	LAE	LAKE ACCESS EASEMENT
LCUE	LEE COUNTY UTILITY EASEMENT	LF	LINEAL FEET
LME	LAKE MAINTENANCE EASEMENT	LMT	LAKE MAINTENANCE TRACT
MCD	MILLION GALLONS PER DAY	MH	MANHOLE
MJ	MECHANICAL JOINT	MAX	MAXIMUM
MECH	MECHANICAL	MES	METERED END SECTION
MFR	MANUFACTURER	MIN	MINIMUM
MISC	MISCELLANEOUS	N	NORTH
NE	NORTHEAST	NW	NORTHWEST
NPW	NON POTABLE WATER	NTS	NOT TO SCALE
NUM/#	NUMBER	NOM	NOMINAL
NG	NATURAL GAS	OCW	ON CENTERS
OD	OUTSIDE DIAMETER	OD	OUTSIDE DIAMETER
PCF	POUNDS PER CUBIC FOOT	PSF	POUNDS PER SQUARE FOOT
PV	PLUG VALVE	PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE	POLY	POLYETHYLENE
PAVT	PAVEMENT	PC	POINT OF CURVATURE
POLY	POLYETHYLENE	PCL	PROPOSED GRADE LINE
PLBG	PLUMBING	PLWD	PLYWOOD
PW	POTABLE WATER	PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT	PVI	POINT OF VERTICAL INTERSECTION
QUAN	QUANTITY	R	RADIUS
RD	ROAD	RC	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED	ROW	RIGHT OF WAY
RU	REUSE LINE	R/W	RIGHT OF WAY
S	SOUTH	SE	SOUTHEAST
SE	SOUTHWEST	SS	SANITARY SEWER
SAN	SANITARY	SCH	SCHEDULE
SECT	SECTION	SEW	SEWER
SH	SHEET	SPEC	SPECIFICATION
SO	SQUARE	ST	STREET
STA	STATION	STL	STEEL
STD	STANDARD	SUR	SURFACE
SYM	SYMMETRICAL	TOE	TOE OF SLOPE
TOE	TOE OF SLOPE	TOB	TOP OF BANK
THK	THICK	TEL	TELEPHONE
TEMP	TEMPERATURE	TRANS	TRANSFORMER
TYP	TYPICAL	UE	UTILITY EASEMENT
VERT	VERTICAL	W	WATER
WM	WATER MAIN	W/O	WITHOUT
WO	WOOD	WT	WEIGHT
WV	WATER VALVE	WH	WALL HYDRANT

SYMBOLS

	GATE VALVE		IRRIGATION SERVICE (DOUBLE)
	TEE ASSEMBLY		IRRIGATION SERVICE (SINGLE)
	REDUCER		SEWER SERVICE (DOUBLE)
	BLOW OFF		SEWER SERVICE (SINGLE)
	FIRE HYDRANT		WATER SERVICE (DOUBLE)
	FIRE HYDRANT ASSEMBLY W/ GATE VALVE		WATER SERVICE (SINGLE)
	MITERED END SECTION		HEADWALL
	MANHOLE W/ NUMBER		DRAINAGE INLET (SEE PLAN FOR TYPES)
	PLUG VALVE		THROAT INLET
			FLARED END SECTION

HATCH PATTERNS

	WETLAND		EXISTING LAKE TO BE FILLED
	UPLAND BUFFER		PROPOSED LAKE
	UPLAND PRESERVE		LITTORAL SHELF AREA
	INDIGENOUS AREA		COMPENSATING LITTORAL PLANTING AREA
	NATURAL AREA		RIPRAP / GRAVEL
	FILTER MARSH		BRICK PAVERS
	EXISTING LAKE		

NOTE:
HATCH PATTERNS ARE FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL HATCH PATTERNS ON DRAWING MAY VARY IN SCALE & ANGLE

LINETYPES

	EXISTING	PROPOSED
RIGHT-OF-WAY LINE	---	---
CENTER LINE	---	---
LAKE MAINTENANCE EASEMENT	---	---
PUBLIC UTILITY EASEMENT	---	---
DRAINAGE EASEMENT	---	---
WETLAND BOUNDARY	---	---
FORCE MAIN	---	---
SANITARY SEWER	---	---
WATER MAIN	---	---
IRRIGATION MAIN	---	---
RE-USE MAIN	---	---
PERIMETER BERM	---	---
FENCE LINE	---	---
SILT FENCE	---	---
BULKHEAD	---	---
STRUCTURAL BUFFER	---	---

GENERAL NOTES:

- ELEVATIONS REFERENCE TO NAVD 1988. CONVERSION TO NGVD 1929 IS: NAVD 1988 + 1.17 = NGVD 1929.
- THE GENERAL NOTES MUST BE PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN AND MUST BE REFERRED TO BY THE CONTRACTOR. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL THE GENERAL NOTES AND ALL OF THE PLANS SPECIFICATION NOTES.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS INCLUDED WITHIN THE PLAN SET AND SHOULD NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND START OF SITE WORK.
- JOHNSON ENGINEERING, INC. IS NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY, JOB SITE SUPERVISION, OR ANYTHING RELATED TO THE SAME. JOHNSON ENGINEERING, INC. IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS (LATEST EDITION), LEE COUNTY DEVELOPMENT STANDARDS AND SPECIFICATIONS AND LEE COUNTY UTILITIES REQUIREMENTS.
- CONTRACTOR SHALL RETAIN, ON THE WORK SITE, COPIES OF ANY PERMITS NECESSARY FOR CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED DEWATERING PERMITS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED TREE REMOVAL PERMITS.
- THE SITE CONTRACTOR SHALL BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT IF ONE WAS PREPARED. THE CONTRACTOR SHALL COMPLY WITH ALL THE SITE PREPARATION AND OTHER SITE RELATED ITEMS, RECOMMENDATIONS AND PROCEDURES.
- CONTRACTOR TO VERIFY ENGINEER'S BUILDING FOOTPRINT SIZE MATCHES ARCHITECTS BUILDING SIZE BEFORE BEGINNING CONSTRUCTION.
- THIS PROJECT WILL NOT ADVERSELY IMPACT ANY SURFACE WATER OR GROUNDWATER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS ADJACENT TO THE PROJECT. ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 102-100 THRU 102-670, OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), (LATEST EDITION).
- CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ENGINEER AND OWNER WRITTEN APPROVAL FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
- EXISTING OFF-SITE DRAINAGE PATTERNS SHALL BE MAINTAINED DURING CONSTRUCTION.
- ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE OWNER/ENGINEER WITHOUT DELAY.
- THE LOCATION OF EXISTING UTILITIES, PAVEMENT, VEGETATION, AND MISCELLANEOUS IMPROVEMENTS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- CONTRACTOR SHALL NOTIFY THE LEE COUNTY DIVISION OF DEVELOPMENT REVIEW A MINIMUM OF 72 HOURS PRIOR TO ALL REQUIRED INSPECTIONS.
- CONTRACTOR TO PROVIDE SILT FENCE AND OTHER APPROPRIATE MEASURES TO AFFECT THE FILTRATION OF SURFACE WATER FLOWS AND TO PROVIDE EROSION PROTECTION DURING CONSTRUCTION ACTIVITIES. PROTECTION IS TO BE MAINTAINED DURING THE CONSTRUCTION PERIOD UNTIL DISTURBED SOILS HAVE BEEN STABILIZED WITH GRASS OR SUITABLE EROSION PROTECTION TREATMENT.
- DURING CONSTRUCTION, GRATE INLET AND JUNCTION BOX OPENINGS SHALL BE COVERED WITH FILTER FABRIC (MIRAFI 140N OR APPROVED EQUAL) TO PREVENT DEBRIS AND FILL FROM FALLING INTO THE INLET.
- CONTRACTOR SHALL USE DESIGNATED CONSTRUCTION ENTRANCES FOR EMPLOYEES AND DELIVERY OF MATERIALS.
- CONTRACTOR SHALL CLEAR ALL EXCAVATION AND FILL AREAS AS SHOWN ON THE PLANS. ACTUAL LIMITS OF CLEARING MAYBE ADJUSTED IN THE FIELD BY OWNER OR ENGINEER.
- CONTRACTOR SHALL REMOVE ALL MUCK AND OTHER UNSUITABLE MATERIAL FROM FILL AREAS PRIOR TO PLACEMENT OF FILL. ALL MUCK AND OTHER UNSUITABLE MATERIAL EXCAVATED FROM LAKES OR REMOVED FROM FILL AREAS SHALL BE STOCKPILED AT THE PROPOSED PROJECT AS DETERMINED BY THE OWNER.
- ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATION.
- CONTRACTOR SHALL PROMPTLY REPORT ALL FIELD CHANGES TO THE ENGINEER.
- HORIZONTAL LOCATIONS OF INLETS AND STORM DRAINS MAY BE FIELD ADJUSTED TO PRESERVE EXISTING VEGETATION WITH PERMISSION OF ENGINEER. IN ADDITION, SITE GRADES MAY BE ADJUSTED IN FIELD BY ENGINEER.
- HORIZONTAL LOCATION OF STORM DRAINAGE HEADWALLS ARE SUBJECT TO MODIFICATION IN THE FIELD BY ENGINEER TO PRESERVE EXISTING VEGETATION.
- THE CONTRACTOR IS REQUIRED TO ADJUST ALL VALVE BOXES, MANHOLE RIMS, GRATES, ETC. AS NECESSARY TO MATCH PROPOSED GRADES.
- EXISTING FACILITIES SHALL BE RESTORED TO A CONDITION EQUIVALENT TO THAT WHICH EXISTED PRIOR TO COMMENCING CONSTRUCTION, AT NO ADDITIONAL COST TO OWNER.
- ALL UNPAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE SODED UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SOD ALL CUL-DE-SAC AND MEDIAN ISLANDS.
- ALL CONCRETE SIDEWALKS SHALL HAVE CONTROL JOINTS CUT ON 5-FOOT CENTERS AND EXPANSION JOINTS PLACED ON 60-FOOT CENTERS, CHANGES IN DIRECTION, AND ABUTTING SEPARATE POURS.
- THE CONTRACTOR SHALL ACCURATELY PLOT THE LOCATIONS AND DEPTHS OF ALL IMPROVEMENTS INSTALLED ON A FINAL SET OF RECORDED DRAWINGS WHICH SHALL BE DELIVERED TO THE ENGINEER.
- THE CONTRACTOR SHALL ASSURE COMPLIANCE WITH ANY OSHA, EPA, AND/OR OTHER FEDERAL OR STATE OF FLORIDA RULES, REGULATIONS OR OTHER REQUIREMENTS, AS EACH MAY APPLY.

SITE DEMOLITION:

- ANY SITE DEMOLITION IS BASED ON AVAILABLE INFORMATION PROVIDED TO ENGINEER AND MAY NOT COVER ALL ASPECTS OF THE PROJECT. INCLUDING BUT NOT LIMITED TO IRRIGATION LINES/SERVICES AND ELECTRICAL SERVICES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COVER ALL EXISTING INFRASTRUCTURE TO BE REMOVED IN THEIR DEMOLITION BUDGET.

EXISTING UTILITY NOTE:

- CONTRACTOR TO CONTACT "SUNSHINE 811" FOR LOCATES TWO BUSINESS DAYS BEFORE YOU DIG, 1-800-432-4770. STATE, COUNTIES, AND CITIES ARE NOT PART OF THE ONE CALL SYSTEM, THEY MUST BE CALLED INDIVIDUALLY.

SIGNING AND PAVEMENT

MARKING NOTES:

- ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD PLANS (LATEST EDITION), THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), (LATEST EDITION) AND THE CURRENT LEE COUNTY DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
- MATCH EXISTING PAVEMENT MARKINGS AT EXISTING ROADS.
- TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD PLANS INDEX 102-100 THRU 102-670 (LATEST EDITION), OR THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), (LATEST EDITION).
- CONTRACTOR SHALL SET ROADWAY GROUND MOUNT SIGNS AT PROPER DEFLECTION ANGLE TO THE ROADWAY IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX NUMBER 700-101.
- SEE FDOT INDEX NUMBERS 711-001 AND 706-001 FOR ADDITIONAL SIGNING AND MARKING DETAILS.
- ALL STOP SIGN LOCATIONS SHALL INCLUDE A 24"PAINTED WHITE STOP BAR. AS AN ALTERNATIVE, ROADS WITH BRICK SURFACES MAY UTILIZE CONTRASTING COLOR PAVERS IN LIEU OF PAINT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL BLUE/BLUE REFLECTIVE PAVEMENT MARKERS AT THE CENTER OF THE TRAFFIC LANE NEAREST ALL PROPOSED FIRE HYDRANTS.

LEE COUNTY UTILITIES

STANDARD DETAIL NOTES:

- ALL REFERENCES TO LEE COUNTY UTILITIES (LCU) STANDARD DETAILS ARE FROM THE (LATEST EDITION) LEE COUNTY UTILITIES DESIGN MANUAL. THESE STANDARD DETAILS WERE PREPARED BY OR AT THE DIRECTION OF LCU AND WERE FURNISHED TO JOHNSON ENGINEERING, INC.
- THE DESIGN STANDARDS REFERENCED WITHIN THIS PLAN SET HAVE BEEN INCORPORATED HEREIN VERBATIM AS SET FORTH WITHIN THE ABOVE REFERENCED LCU OPERATION AND MAINTENANCE MANUAL.

LEE COUNTY UTILITIES

STANDARD PLAN NOTES:

- ALL WORK SHALL CONFORM TO LATEST REVISION OF THE LCU DESIGN MANUAL WHICH IS AVAILABLE ON OUR WEB-PAGE VIA THE FOLLOWING LINK: [HTTPS://WWW.LEE.GOV/UTILITIES/DESIGN-MANUAL](https://www.lee.gov/utilities/design-manual)
- THE CONTRACTOR SHALL COMPLY WITH ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS.
- ANY QUANTITIES SHOWN ON PLANS ARE NOT VERIFIED BY LCU.
- ALL CONSTRUCTION PERFORMED MUST BE DONE BY A CONTRACTOR PROPERLY LICENSED IN THE STATE OF FLORIDA.
- A PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE WORK MAY BEGIN. REQUIRED ATTENDEES INCLUDE BUT ARE NOT LIMITED TO; THE ENGINEER OF RECORD OR HIS DESIGNEE, THE UNDERGROUND CONTRACTOR AND THE LCU INSPECTOR ASSIGNED TO THE PROJECT. LCU IS TO BE NOTIFIED A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING.
- ONE COPY OF THE LCU APPROVED/STAMPED CONSTRUCTION PLANS MUST BE MAINTAINED BY THE CONTRACTOR AT THE SITE AT ALL TIMES.
- ANY AND ALL WORK AND MATERIALS INSTALLED BY THE CONTRACTOR THAT ARE INTENDED FOR OWNERSHIP AND MAINTENANCE BY LCU, WHICH DO NOT CONFORM TO LCU SPECIFICATIONS AND WHICH DO NOT HAVE PRIOR LCU WRITTEN APPROVAL, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- ANY WORK PERFORMED ON INFRASTRUCTURE INTENDED FOR OWNERSHIP AND MAINTENANCE BY LCU WITHOUT THE KNOWLEDGE OF LCU IS SUBJECT TO RE-EXCAVATION, REMOVAL AND REPLACEMENT OF SAME TO BE DONE AT THE CONTRACTOR'S EXPENSE.
- LCU INSPECTION STAFF IS TO BE PRESENT FOR ALL HOT TAPS, PRESSURE TESTS, LIFT STATION START-UPS, AND FOR ANY OTHER NECESSARY INSPECTION. THE CONTRACTOR IS TO PROVIDE A MINIMUM OF TWO (2) WORKING DAYS' NOTICE PRIOR TO SCHEDULING ANY OF THE ABOVE WITH THE EXCEPTION OF THE LIFT STATION START-UP WHICH REQUIRES A MINIMUM OF TWO-WEEK'S NOTICE.
- THE CONTRACTOR IS TO UNCOVER ALL EXISTING LCU UTILITY INFRASTRUCTURE TO VERIFY HORIZONTAL LOCATION, VERTICAL LOCATION, PIPE DIAMETER, AND PIPE MATERIAL PRIOR TO SCHEDULING THE CONNECTION WITH LCU.
- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. LCU WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM THESE PLANS.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM OF AT LEAST TWO (2) WORKING DAYS' NOTICE TO THE INDIVIDUAL UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND LCU IMMEDIATELY TO REPORT ANY CONFLICT WITH LCU UTILITIES/STRUCTURES ARISING DURING CONSTRUCTION OF ANY FACILITIES SHOWN ON THESE DRAWINGS.
- ALL FRAMES, COVERS, VALVE BOXES, METER BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION. ALL VALVE PADS SHALL BE POURED IN PLACE. NO PRE-CAST VALVE PADS WILL BE ACCEPTED.
- LCU REQUIRES 30"MINIMUM OF COVER FOR ALL UNDERGROUND PIPING EXCEPT UNDERPAVEMENT, WHICH REQUIRES 36"MINIMUM COVER. IF LCU REQUIRED COVER CANNOT BE MAINTAINED, ALTERNATE METHODS OF CONSTRUCTION OR PIPE PROTECTION MUST BE APPROVED BY LCU AND THE ENGINEER, AT NO ADDITIONAL COST TO THE COUNTY. IF STATE AGENCIES REQUIRE ADDITIONAL COVER, MEETING THE REQUIREMENTS SHALL BE DONE AT NO ADDITIONAL COST TO THE COUNTY.
- LCU REQUIRES THERE TO BE A MINIMUM OF TEN (10) FEET HORIZONTAL AND 18"VERTICAL SEPARATION BETWEEN POTABLE WATER & SANITARY SEWER MAINS. LCU ALSO REQUIRES MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION BETWEEN OTHER PUBLIC AND/OR PRIVATE UTILITIES, STRUCTURE(S), BUILDING(S), WALL(S), FOUNTAIN(S), FENCE(S) AND LCU INFRASTRUCTURE UNLESS SPECIFICALLY APPROVED BY LCU.
- LCU REQUIRES THERE TO BE A MINIMUM OF FIVE (5) FEET HORIZONTAL SEPARATION AND 18"VERTICAL SEPARATION BETWEEN LCU INFRASTRUCTURE AND DRAINAGE INFRASTRUCTURE, MITERED END SECTIONS, INLETS, ETC. LCU ALSO REQUIRES MINIMUM OF FIVE (5) FEET HORIZONTAL SEPARATION BETWEEN LCU INFRASTRUCTURE AND ALL NEW LIGHT POLE FOUNDATIONS.
- THE TRUNK OF PALM TREES SHALL BE A MINIMUM OF FIVE (5) FEET AND THE TRUNK OF SHADE TREES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXISTING OR PROPOSED LCU OWNED AND MAINTAINED PIPE/INFRASTRUCTURE.
- AS THE WORK PROGRESSES THE CONTRACTOR SHALL PROVIDE FOR ALL CHANGES AND DEVIATIONS FROM THE LCU STAMPED/APPROVED CONSTRUCTION PLANS TO BE RECORDED. THE EXACT LOCATION OF ALL CHANGES IN VERTICAL AND HORIZONTAL ALIGNMENT SHALL BE RECORDED WITH X, Y, AND Z COORDINATES WITH RESPECT TO THE NAVD 1988 STATE PLANE FLORIDA WEST COORDINATE SYSTEM, AS WELL AS ANY OTHER RECORD INFORMATION REQUIRED BY THE LCU DESIGN MANUAL.

NOTICE TO ALL CONTRACTORS

IT'S THE LAW IN FLORIDA
2 BUSINESS DAYS BEFORE
YOU DIG
CALL SUNSHINE
1-800-432-4770

STATE, COUNTIES & CITIES
ARE "NOT" PART OF THE
ONE CALL SYSTEM.THEY
MUST BE CALLED
INDIVIDUALLY.



BID DOCUMENTS

JOHNSON
ENGINEERING

An Apex Company

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2122 JOHNSON STREET
FORT MYERS, FLORIDA 33901
PHONE: (239) 334-0046
E.R. #642 & L.B. #642

WEC

reference in engineering

WEBER ENGINEERING
CORPORATION
201 WEST MARION AVE SUITE 1306
PUNTA GORDA, FLORIDA 33950
PHONE: (941) 505-1700

ATLC
ENGINEERING
SOLUTIONS

TLC ENGINEERING SOLUTIONS
255 S ORANGE AVE, SUITE 1600
ORLANDO, FL 32801
PHONE: (407) 841-9080

TYLER R. SHAFER, PE
License No. 82277
NO. 82277
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Lee County
Southwest Florida

PUNTA RASSA BOAT
RAMP IMPROVEMENTS
LEE COUNTY, FLORIDA

REVISIONS	DATE				
DESCRIPTION					
NO.					
DATE:	JANUARY 2025				
PROJECT NO.	20247063-000				
FILE NO.	09-46-23				
SCALE:	AS SHOWN				

GENERAL NOTES & ABBREVIATIONS

SHEET NUMBER

C02

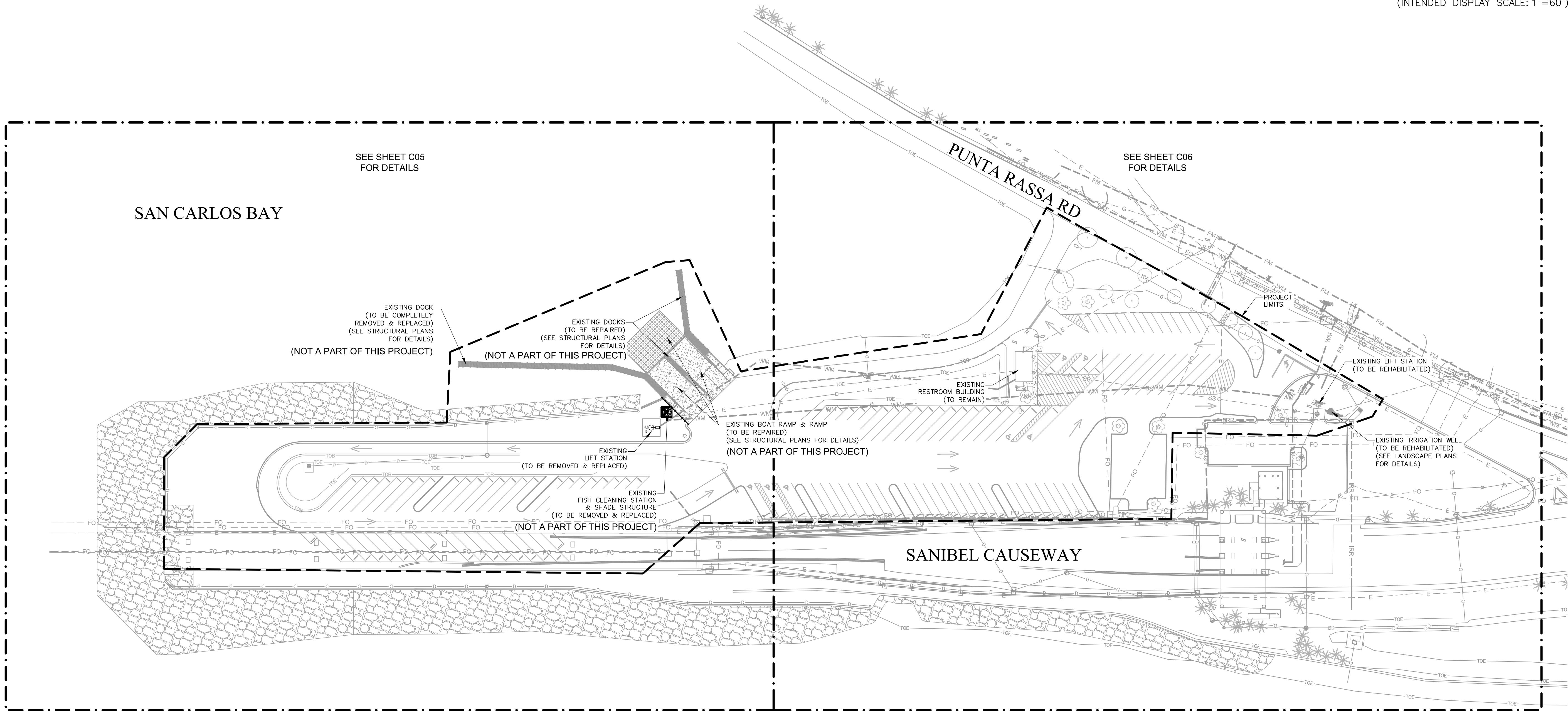
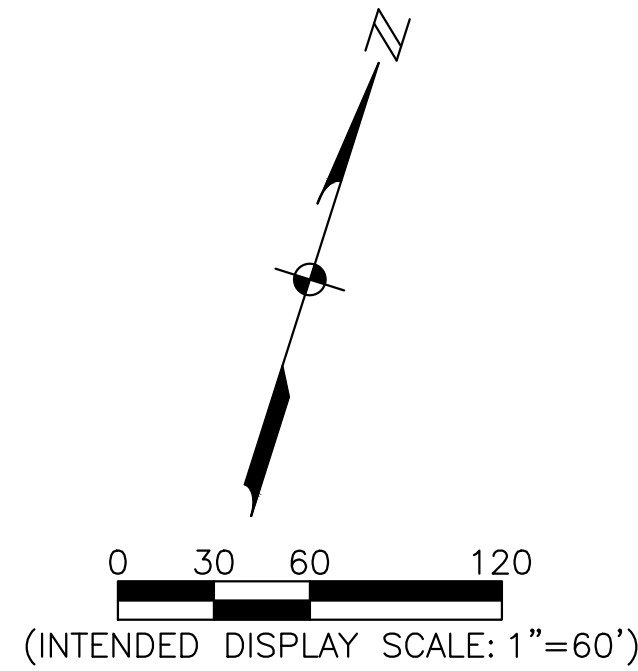
REVISIONS	DESCRIPTION	DATE
NO.		

DATE: JANUARY 2025
PROJECT NO. 20247063-000
FILE NO. 09-46-23
SCALE: AS SHOWN

MASTER SITE,
SIGNING &
MARKING PLAN

SHEET NUMBER

C04



- NOTES:
- THIS PROJECT ONLY CONSISTS OF THE RECONSTRUCTION & REHABILITATION OF THE UNDERGROUND UTILITIES, LIFT STATION REHABILITATIONS & SIGNING/MARKING.
 - ELECTRICAL, PHOTOMETRICS, LANDSCAPING, IRRIGATION, DOCKS & FISH CLEANING STATION/SHADE STRUCTURE ARE A PART OF ANOTHER PROJECT.
 - ALL SEA WALL, CANAL DREDGING, PARKING LOT RECONSTRUCTION & DRAINAGE WORK PERFORMED UNDER SEPARATE PROJECT.

BID DOCUMENTS

SAN CARLOS BAY

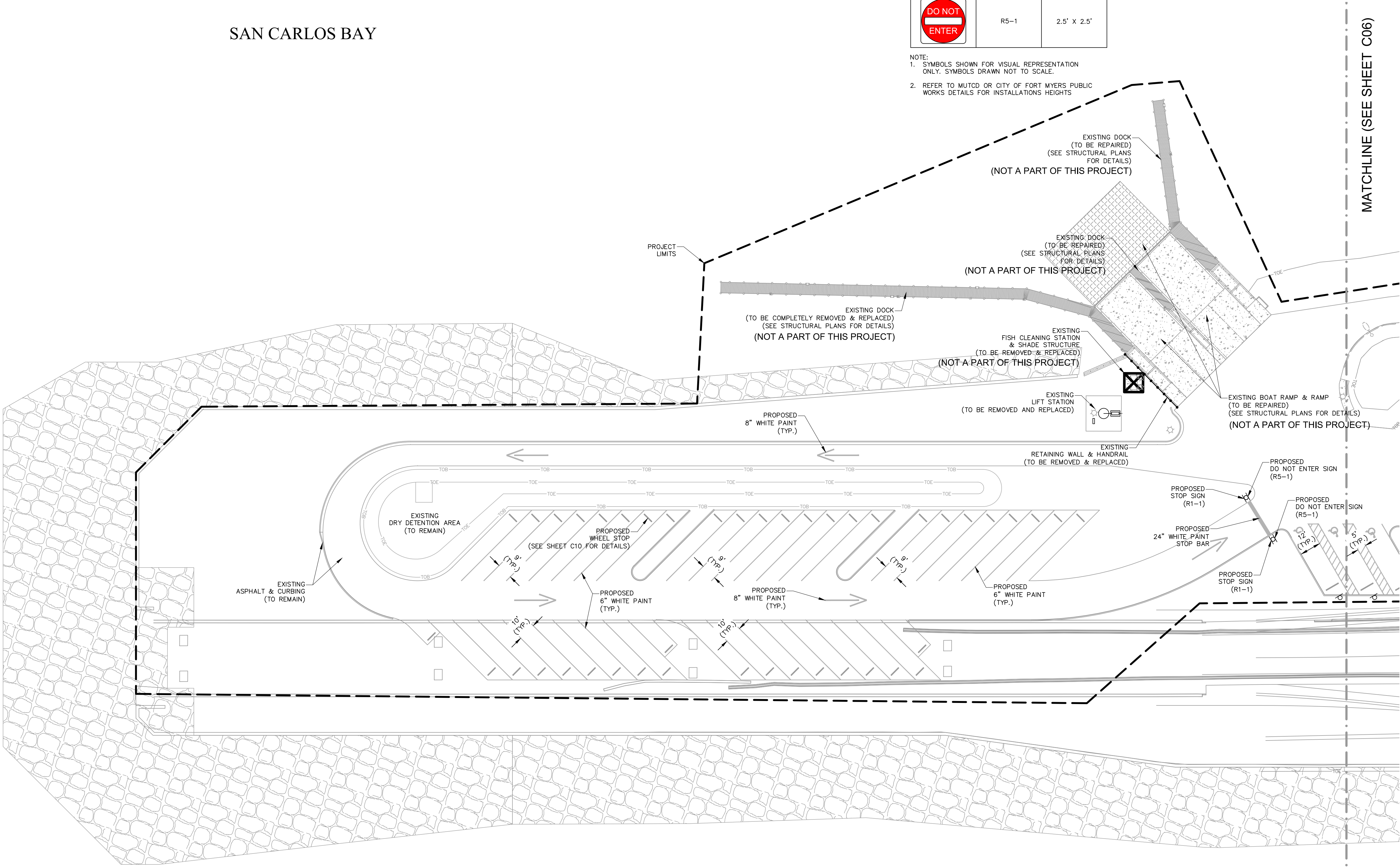
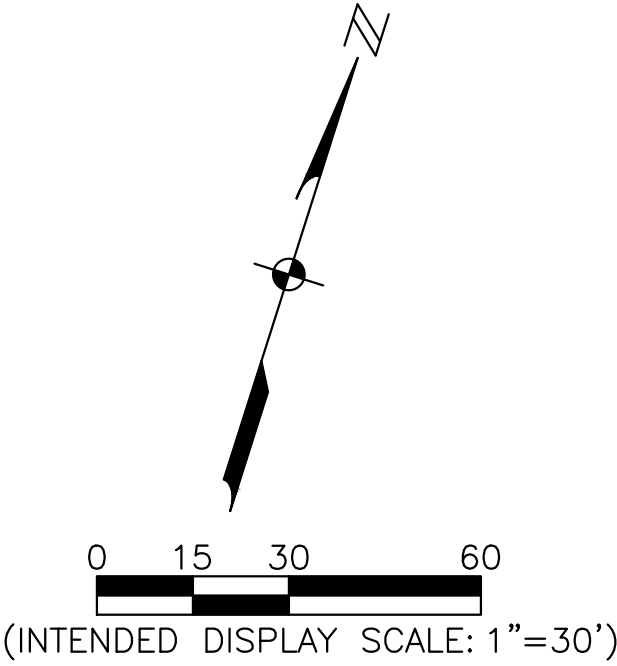
GULF OF MEXICO

BID DOCUMENTS

- NOTES:
- THIS PROJECT ONLY CONSISTS OF THE RECONSTRUCTION & REHABILITATION OF THE UNDERGROUND UTILITIES, LIFT STATION REHABILITATIONS & SIGNING/MARKING.
 - ELECTRICAL, PHOTOMETRICS, LANDSCAPING, IRRIGATION, DOCKS & FISH CLEANING STATION/SHADE STRUCTURE ARE A PART OF ANOTHER PROJECT.
 - ALL SEA WALL, CANAL DREDGING, PARKING LOT RECONSTRUCTION & DRAINAGE WORK PERFORMED UNDER SEPARATE PROJECT.

SYMBOL	NAME	DIMENSIONS
	R1-1	2.5' X 2.5'
	FTP-20-04	1' X 1.5'
	FTP-22-04	1' X 0.5'
	R5-1	2.5' X 2.5'

- NOTE:
- SYMBOLS SHOWN FOR VISUAL REPRESENTATION ONLY. SYMBOLS DRAWN NOT TO SCALE.
 - REFER TO MUTCD OR CITY OF FORT MYERS PUBLIC WORKS DETAILS FOR INSTALLATIONS HEIGHTS



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SITE, SIGNING &
MARKING PLAN

SHEET NUMBER

C05

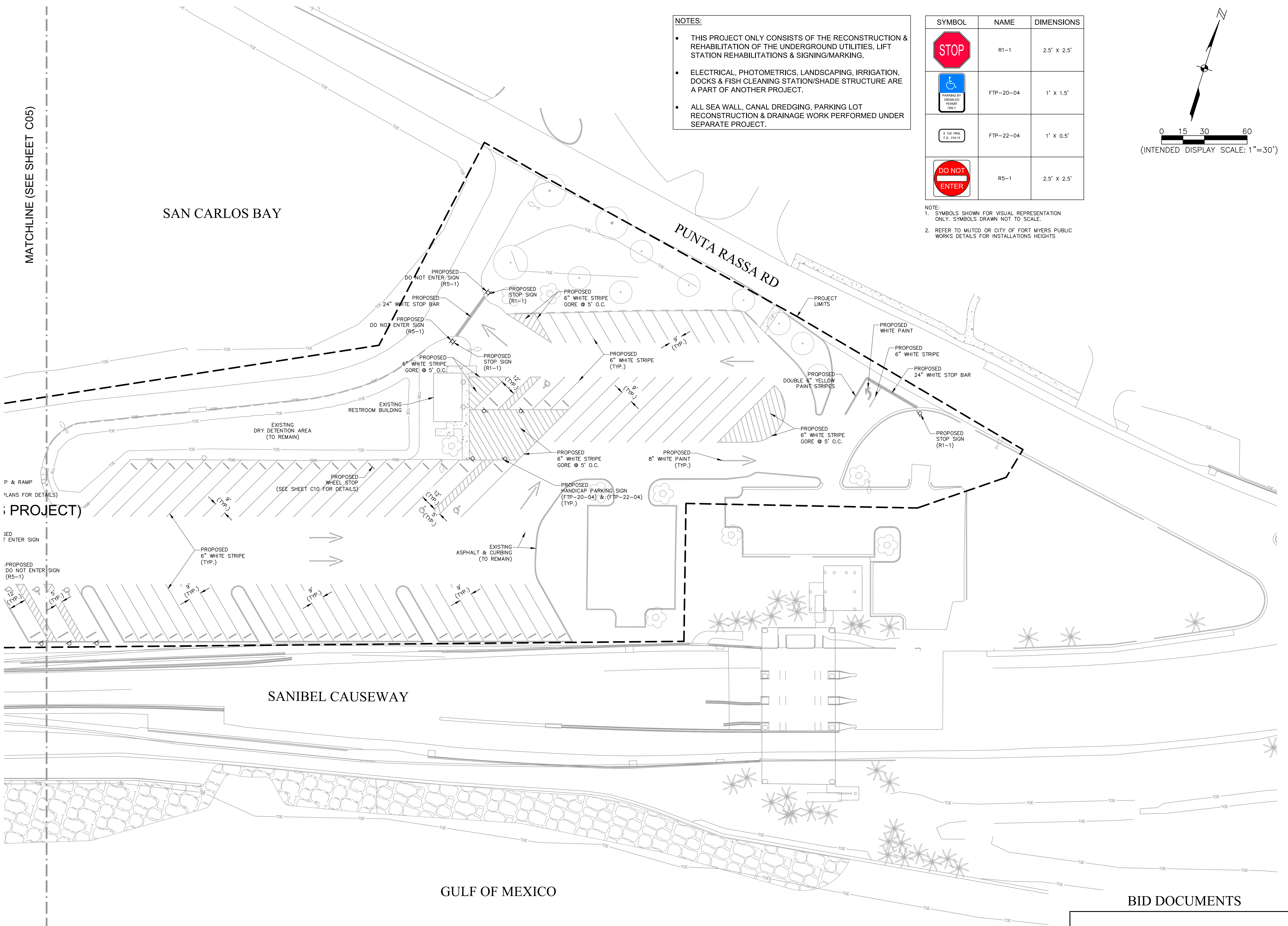
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FILE:	AS SHOWN

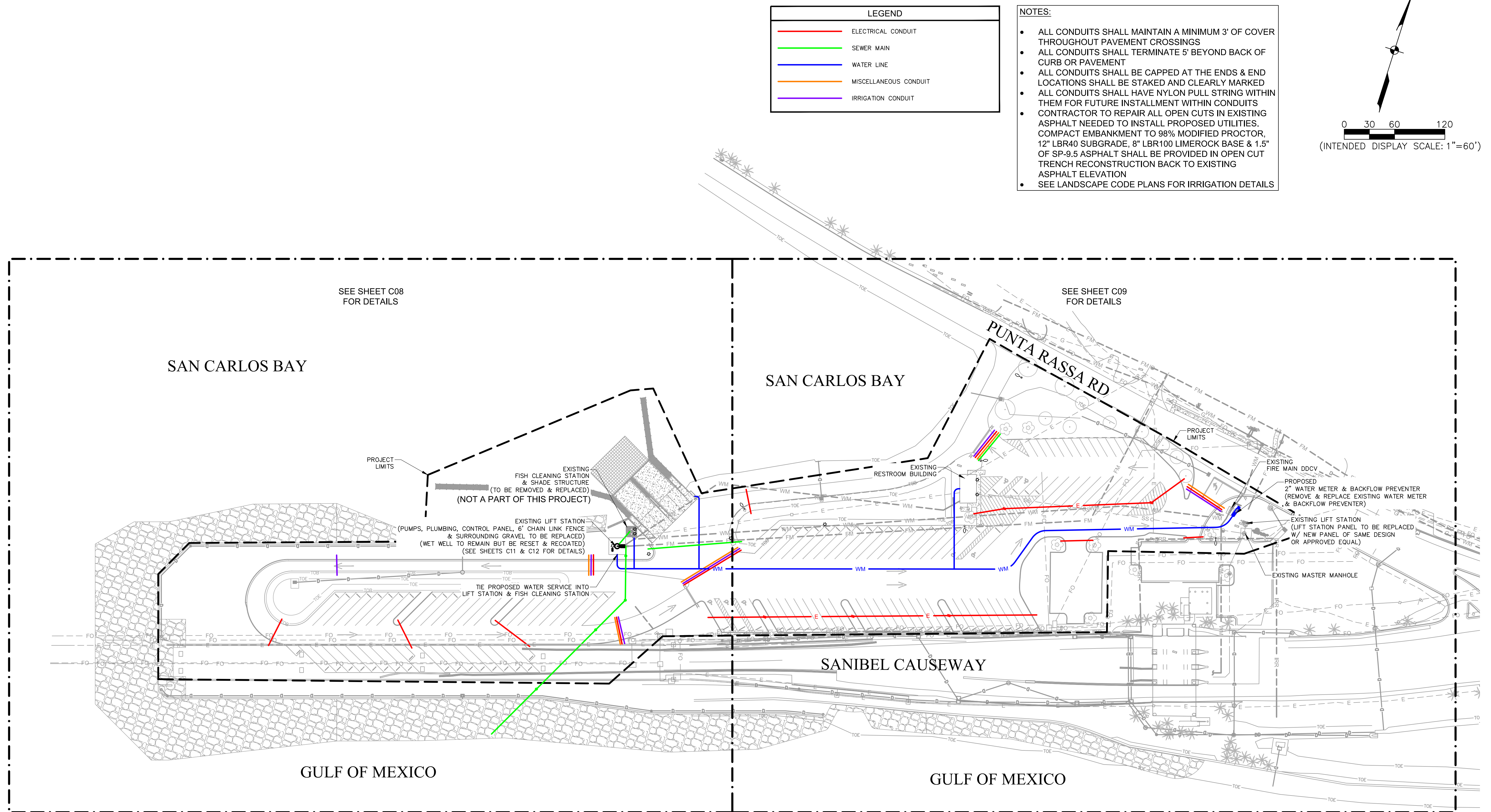
TE, SIGNING & MARKING PLAN

SHEET NUMBER

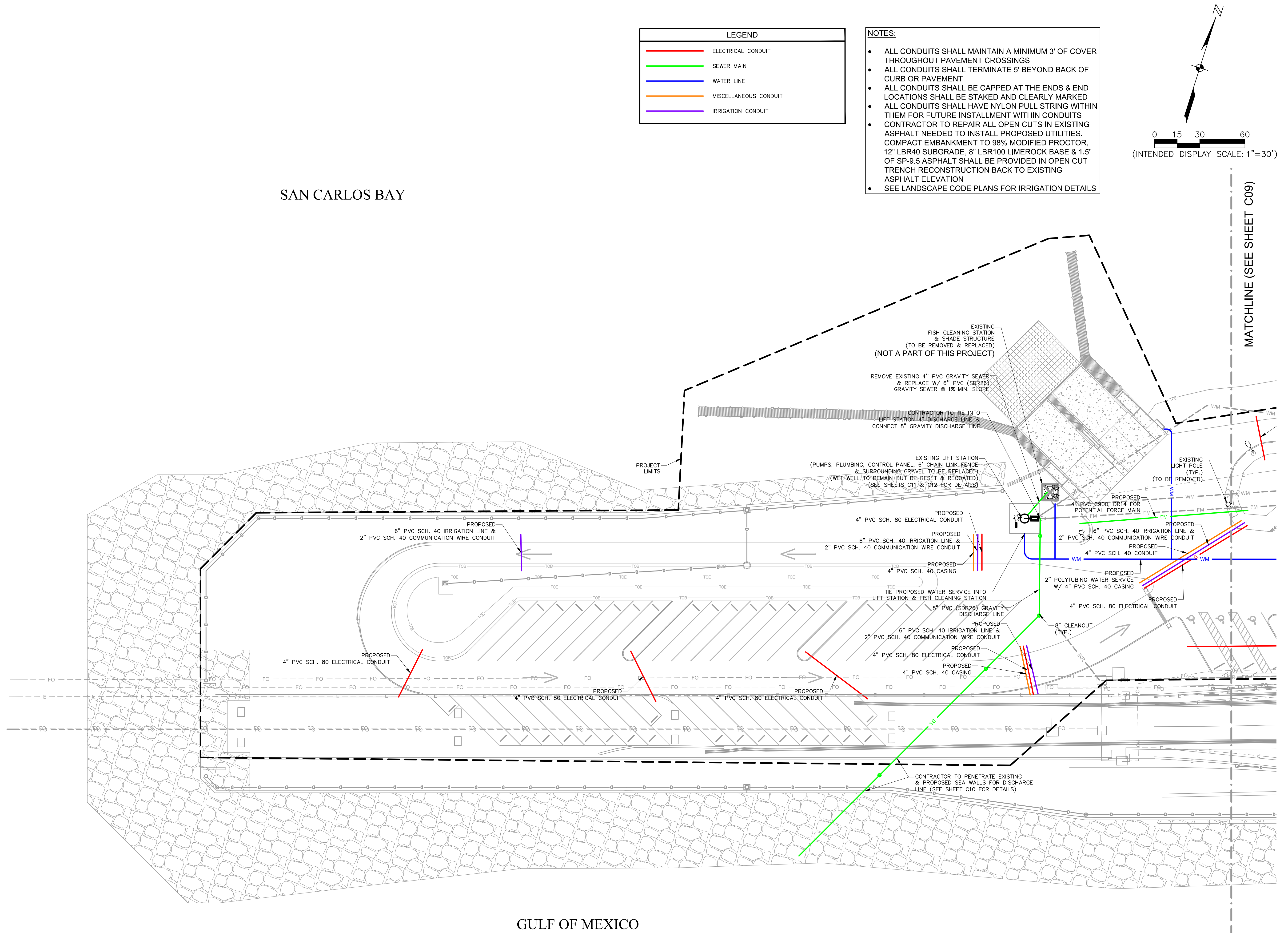
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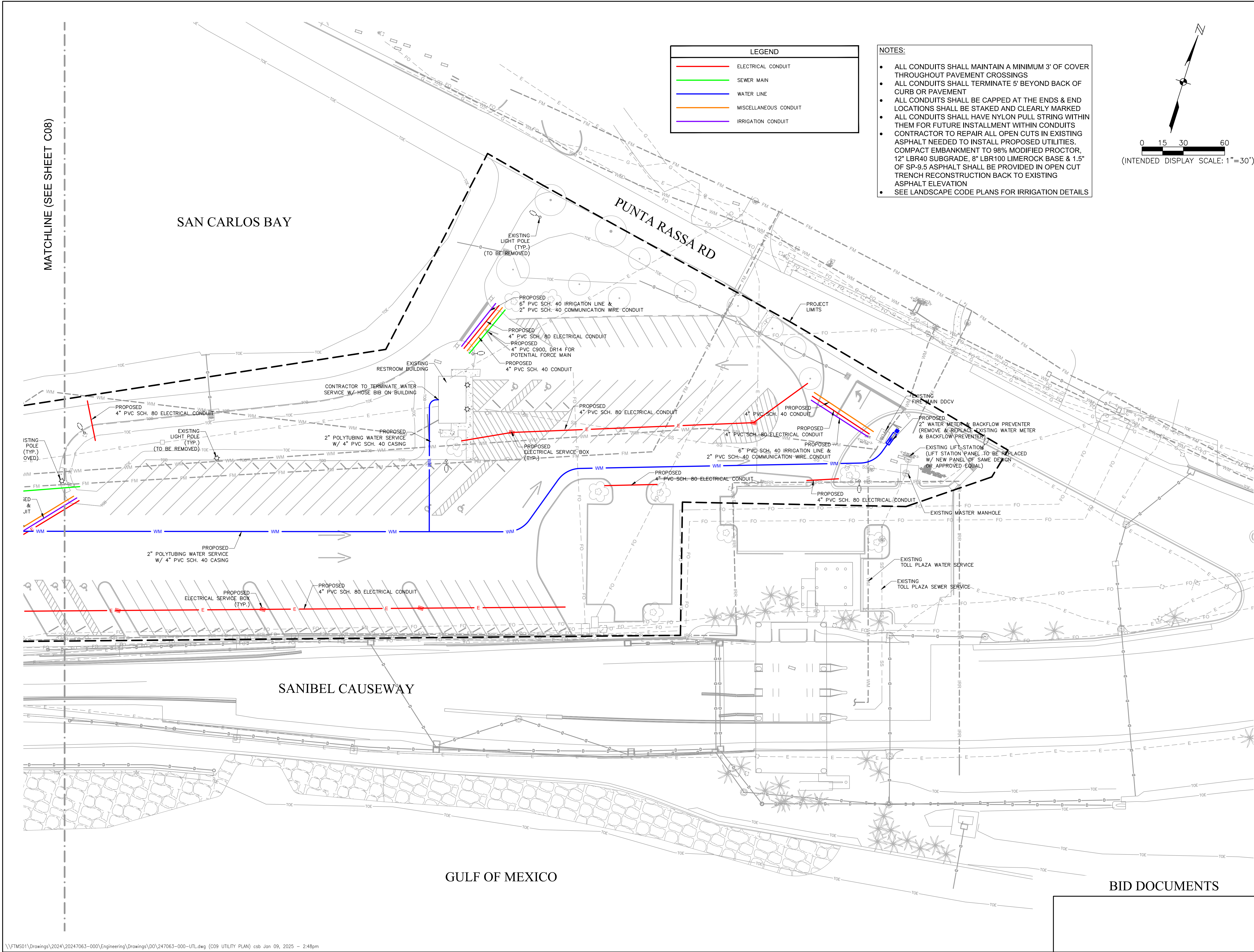


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DATE: JANUARY 2025	
PROJECT NO. 20247063-000	
FILE NO.	09-46-23
SCALE:	AS SHOWN



BID DOCUMENTS

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JOHNSON
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NO. 82277
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Lee County
Southwest Florida

PUNTA RASSA BOAT
RAMP IMPROVEMENTS
LEE COUNTY, FLORIDA

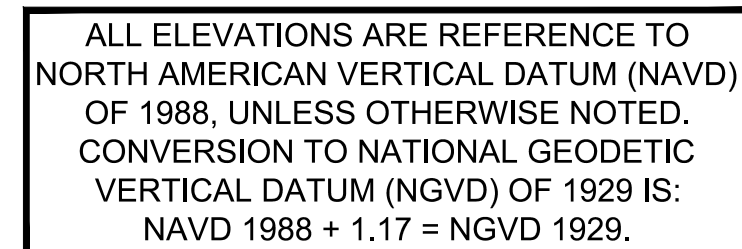
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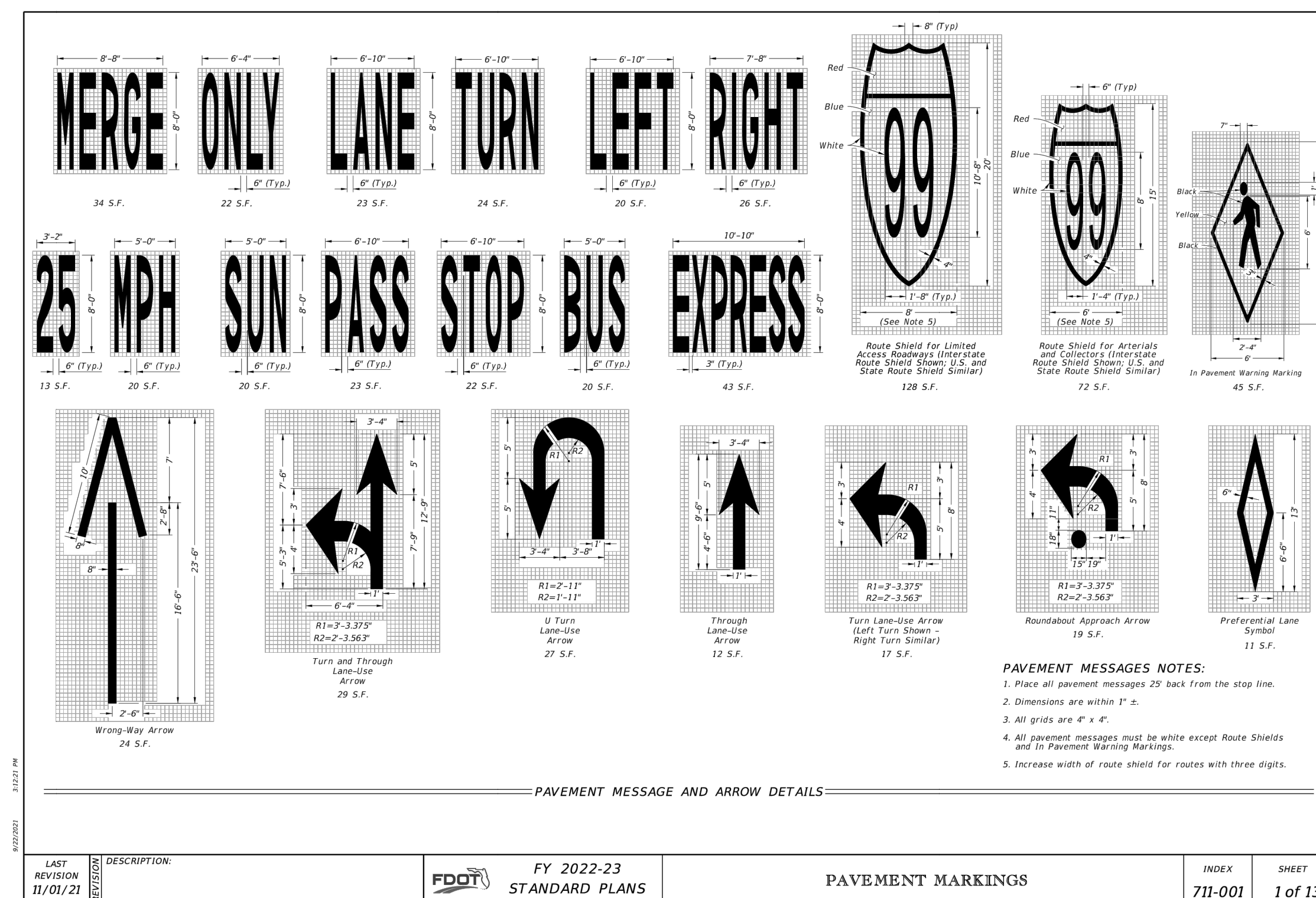
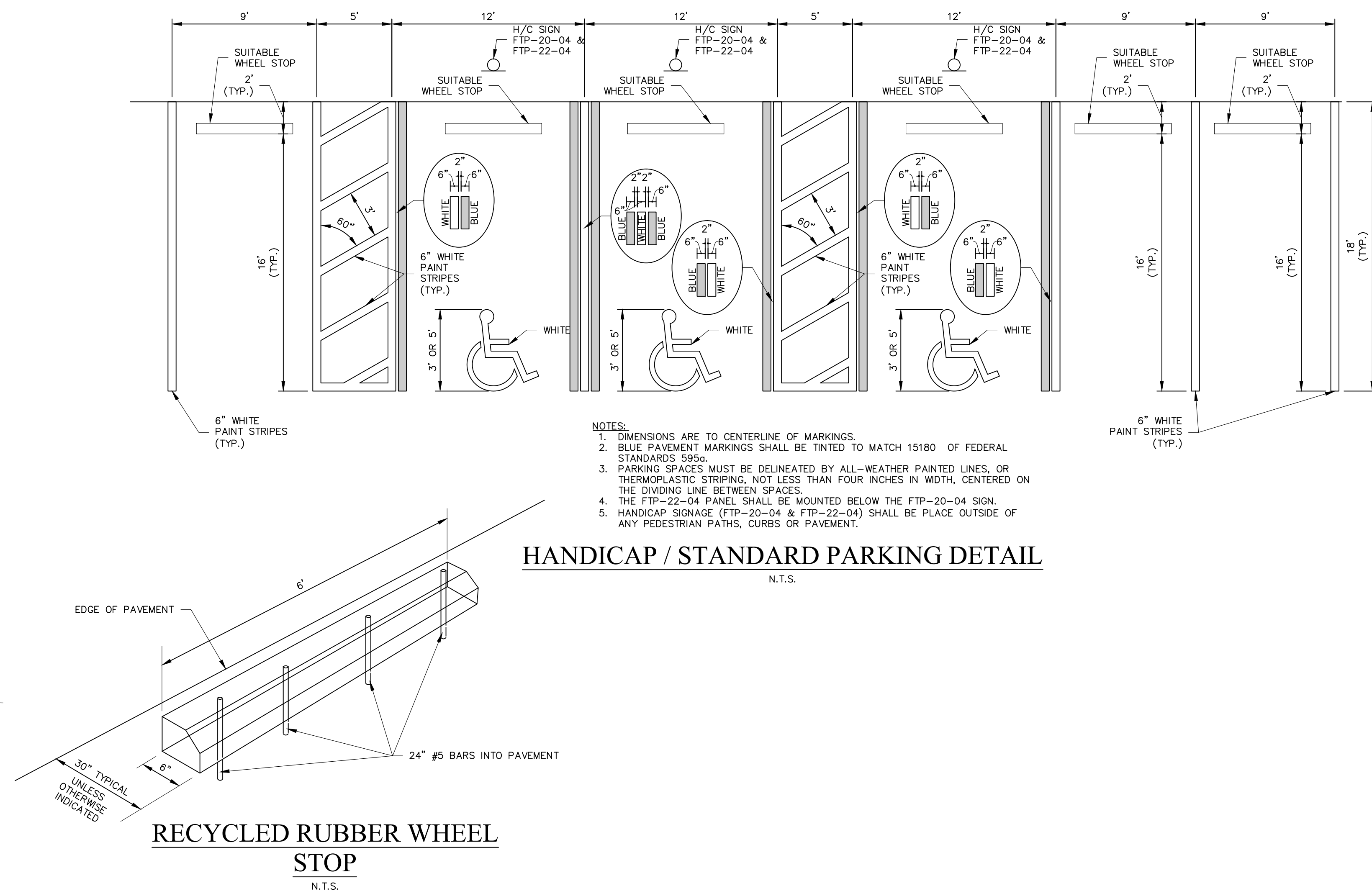
UTILITY PLAN

SHEET NUMBER
C09

\\FTMS01\Drawings\2024\20247063-000\Engineering\Drawings\DO\247063-000-UTL.dwg (C09 UTILITY PLAN) csb Jan 09, 2025 - 2:48pm



SEAWALL PENETRATION DETAIL



THIS DRAWING CONTAINS DETAILS DESIGNED BY, STANDARD TO, AND FURNISHED BY
FLORIDA DEPARTMENT OF TRANSPORTATION
 SAID DETAILS WERE NOT DESIGNED BY JOHNSON ENGINEERING.

BID DOCUMENTS

PUNTA RASSA BOAT
RAMP IMPROVEMENTS
LEE COUNTY, FLORIDA

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NO.	DATE

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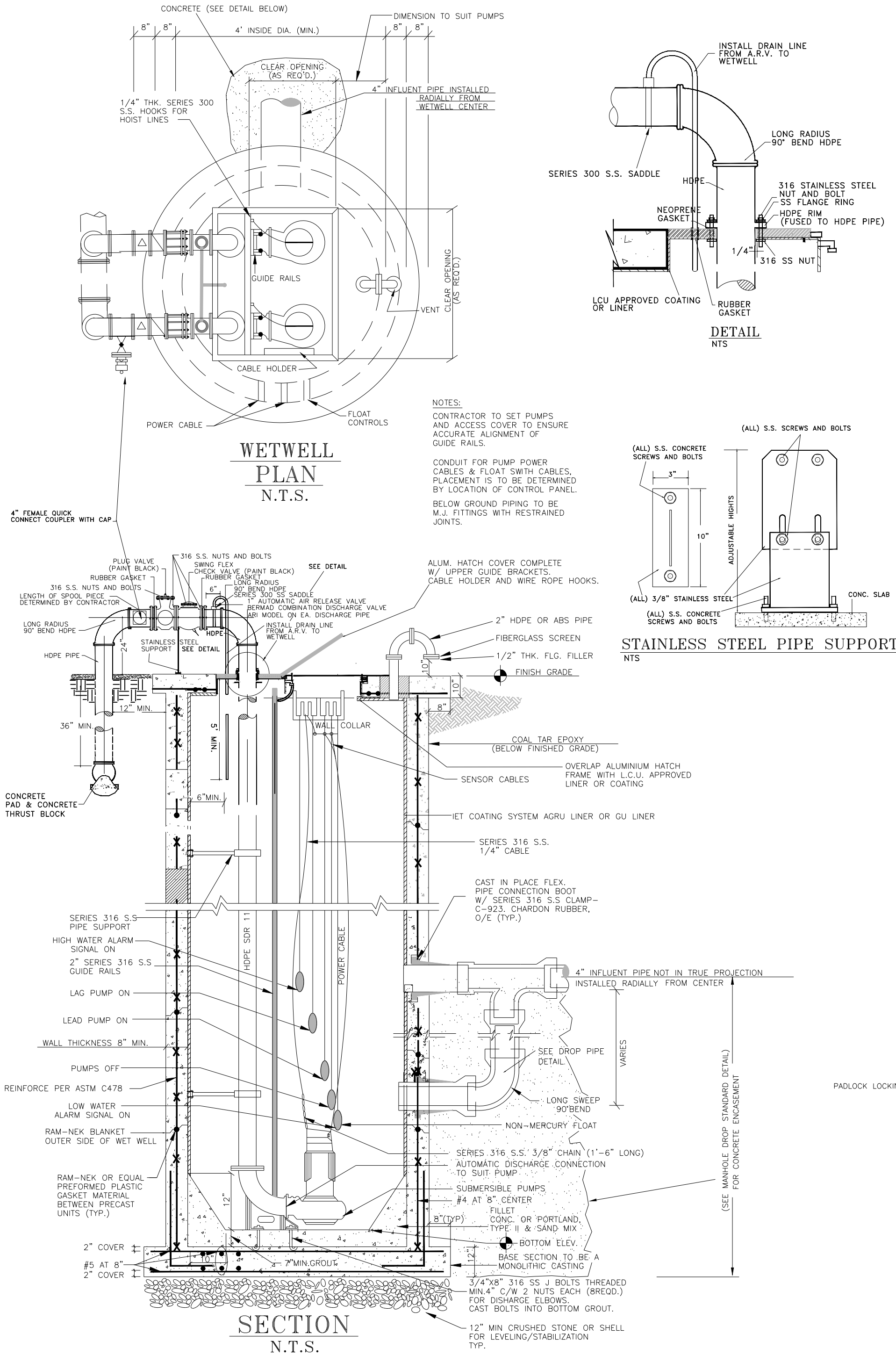
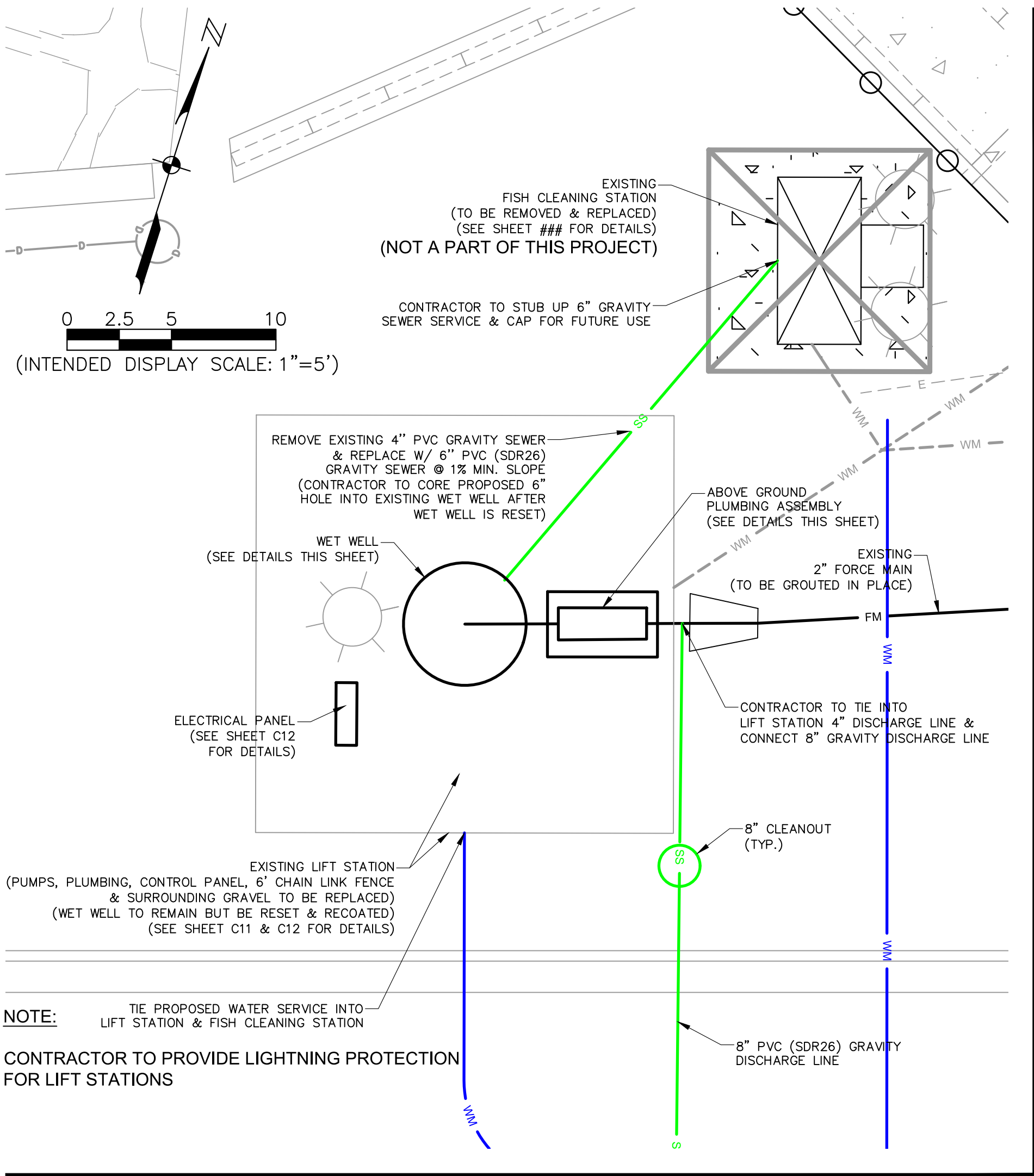
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TYPICAL SECTIONS & DETAILS

SHEET NUMBER

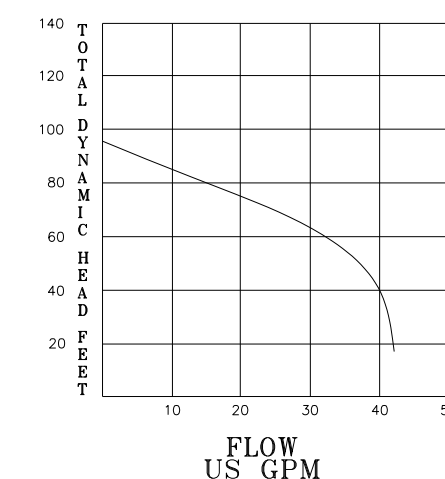
C10



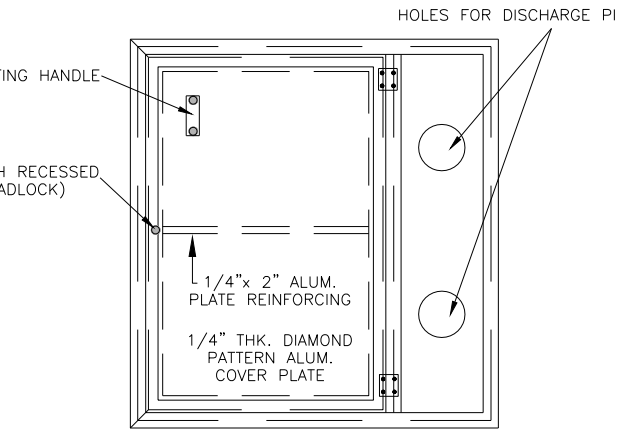
NUMBER OF PUMPS	# 1	# 2
PUMP MANUFACTURER	ABS	ABS
PUMP MODEL NUMBER	516-20	516-20
IMPELLER NUMBER	4 1/2"	4 1/2"
TYPE OF PUMP	GRINDER	GRINDER
DESIGN CAPACITY PER PUMP	25	25
TOTAL DYNAMIC HEAD	76	76
SHUT-OFF HEAD	92	92
DESIGN SPEED	3450	3450
MIN. HORSEPOWER PER PUMP	2.1	2.1
VOLTS	230	230
PHASE POWER	3	3
PUMP DISCHARGE SIZE	1 1/4"	1 1/4"
DIAMETER RISER PIPE	4	4
PUMP ON ELEVATION	-2.20	-1.70
HIGH WATER ALARM	-1.20	-1.20
PUMP OFF ELEVATION	-4.20	-4.20
DIAMETER PIPE AFTER RISER	4	4
DIAMETER WETWELL (O.D.)	4.0	4.0
TOP OF WETWELL ELEVATION	4.63	4.63
BOTTOM OF WETWELL ELEVATION	-6.20	-6.20
INFLUENT GRAVITY PIPE ELEVATION	-0.70	-0.70

BASIS OF DESIGN			
	ADF (gpm)	PHF (gpm)	EDU (11 EDU=250 gpd)
EXISTING	-	-	-
INTERM	-	-	-
FUTURE	7	24.5	40

PUMP CURVE



NOTES:
1. MATERIAL: ALUMINUM
2. LOADING: 300 LBS. PER SQ. FT.
3. 304 STAINLESS STEEL BOLTS



WETWELL ACCESS HATCH
N.T.S.

100 YEAR FLOOD ELEVATION = 16.83
25 YEAR FLOOD ELEVATION = N/A

NOTES:

- SERIES 316 STAINLESS STEEL SHALL BE USED IN THE WETWELL AND VALVE ASSEMBLY FOR FLANGE BOLTS, BRACKETS, GUIDE RAILS AND OTHER HARDWARE. CONTROL PANEL STRUCTURE SHALL BE NEMA 4X 304 STAINLESS STEEL HARDWARE.
- EXTERIOR COATING SHALL BE KOPPERS, O/E, 300 M COAL TAR EPOXY HAVE 34-35% EPOXY RESIN BY WEIGHT. THE FIRST COAT SHALL BE RED AND THINNED AND THE TOP COAT(S) SHALL BE BLACK. TOTAL DRY FILM THICKNESS SHALL BE 18 MILS MIN. CURE TIME: 12 TO 24 HOURS. APPLICATION BY SPRAY OR BRUSH (ROLLERS NOT ACCEPTED) TOUCH UP DISTURBED AREAS IN FIELD.
- THE CONTRACTOR SHALL FURNISH MASTER SERIES 2001 PADLOCKS WITH TWO (2) KEYS FOR FENCE GATES, PUMP CONTROL PANEL, INTERFACE PANEL ACCESS HATCHES, AND DISCONNECT SWITCH.
- ALL CONCRETE SHALL BE TYPE II CEMENT.
- CONTRACTOR HAS THE OPTION OF USING A CAST IN-PLACE OR PRECAST STRUCTURE. PROVIDE SHOP DRAWINGS FOR ENGINEER REVIEW. STRUCTURES SHALL BE LIMITED TO 8'-0" MAX SECTIONS OF 12" DIA REINFORCED CONCRETE PIPE IN ACCORDANCE WITH ASTM C-478. WALL THICKNESS, ASTM C-76, WALL B. WHENEVER POSSIBLE, NO OPENING SHALL BE WITHIN 12" OF THE END OF ANY SECTION.
- SEE PUMPING STATION DATA TABLES FOR DATA ON SPECIFIC ELEVATIONS AND DIAMETERS.
- DISTANCE BETWEEN PUMPS SHALL BE SET BY MANUFACTURER'S RECOMMENDATIONS OR THE DISTANCE BETWEEN DISCHARGE PIPING, WHICHEVER IS GREATER.
- DISCHARGE PIPE SHALL BE PARALLEL TO EACH OTHER.
- ALARMS TO NON-LATCHING. ALARMS TO CLEAR AUTOMATICALLY AFTER ALARM CONDITION TERMINATED.
- DURING INSTALLATION, THE CONTRACTOR SHALL MAINTAIN THE GROUND WATER ELEVATION BELOW THE BOTTOM OF THE WETWELL UNTIL FULLY BACKFILLED AND COMPACTED.
- ALARM LIGHT TO BE 40 WATT INCAND. WITH RED GLOBE AND PROTECTIVE CAGE AROUND GLOBE.
- SERVICE KEY SWITCH SHALL BE DPDT KEY SWITCH, OSLO MODEL KI-201-5151N1 WITH KEY 0004, OR APPROVED EQUIVALENT.
- INSTALLATION OF COVER, PUMP ANCHOR BOLTS, GUIDE RAILS, ETC. MUST BE COORDINATED WITH THE DETAILS AND SPECIFICATIONS AS RECOMMENDED BY THE MANUFACTURER.
- THE ELECTRIC SERVICE WIRING TO THE PUMP STATION CONTROL PANEL SHALL BE SIZED BY THE ELECTRICAL CONTRACTOR TO PROVIDE A VOLTAGE DROP NOT GREATER THAN 5% OF THE LINE VOLTAGE FROM POWER COMPANY WHEN ALL PUMPS ARE AT MAXIMUM START UP LOAD.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE FINAL LOCATIONS OF TRANSFORMER AND ELECTRICAL SERVICE CONDUIT.
- PAINT ALL ABOVE GROUND PLUMBING, CHECK VALVES, KAMLOCK BY-PASS VALVES, BLACK.
- THE CONTRACTOR SHALL PROVIDE COMPLETE ELECTRICAL SERVICE, COST OF POWER SERVICE MUST BE INCLUDED IN THE CONSTRUCTION COST.
- IF A BUBBLER OR ULTRASONIC PUMP LEVEL CONTROL SYSTEM IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE LEVEL CONTROL SYSTEM SUPPLIER FOR THE REQUIREMENTS AND INSTALLATION NEEDS.
- 3/4" x 8" 316 S.S. J BOLTS THREADED MIN. 4" C/W 2 NUTS EACH, FOR DISCHARGE ELBOWS. CAST BOLTS INTO BOTTOM GROUT.
- CONTRACTOR SHALL ENSURE THAT, WETWELL IS LEAK FREE PRIOR TO APPLICATION OF THE LINER OR COATING SYSTEM. THE FOLLOWING LINER OR COATING SYSTEM ARE ACCEPTABLE:
- IET COATING SYSTEM
- GU LINER
- AGRU LINER
- IF THE "IET" COATING SYSTEM IS SELECTED, ALL INTERIOR SURFACES OF WETWELL SHALL BE LINED WITH AN "IET" GAS IMPERVIOUS SYSTEM FROM TOP TO BOTTOM. WORK SHALL BE PERFORMED BY A "IET" LICENSED APPLICATOR. WET WELL SHALL BE CLEANED AND COATED ACCORDING TO "IET" MANUFACTURER SPECIFICATIONS. WORK INCLUDES BUT IS NOT LIMITED TO:
A. CLEAN AND REMOVE LOOSE MATERIAL WITH PRESSURE WASHING AT 5,000 PSI.
B. VACUUM CLEAN BOTTOM OF STATION.
C. ABRASIVE BLAST CONCRETE WITH BLACK BEAUTY STEEL SLAG TO REMOVE ANY LOOSE OR CORROSION BYPRODUCTS.
D. CLEAN AND REMOVE DUST MATERIAL WITH PRESSURE WASHING FOR MAXIMUM ADHESION.
E. BLOW DRY CONCRETE AT 250 CFM WITH 120 PSI.
F. CHECK FOR WATER LEAKS. REPAIR LEAKS WITH AVANTI MULTI GROUT, AV-202 OR EQUAL.
G. APPLY "IET" COATING AT THREE (3) DIFFERENT INTERVAL COATINGS. TOTAL THICKNESS SHALL BE 125 MILS.
H. IET COATING SHALL BE APPLIED IN ENTIRE WETWELL, WALLS AND BOTTOM.
I. OVERLAP "IET" COAT ONTO INSIDE OF ALUMINUM HATCH FRAME
J. PROVIDE A FIVE (5) YEAR UNLIMITED WARRANTY ON ALL WORKMANSHIP AND "IET" PRODUCT FOR CORROSION PROTECTION OF THE STRUCTURE.
K. IF A LINER SYSTEM IS SELECTED, INSTALL PER MANUFACTURER'S RECOMMENDATION, AND PROVIDE A FIVE (5) YEAR UNLIMITED WARRANTY ON ALL WORKMANSHIP, AND PRODUCT FOR CORROSION PROTECTION OF THE STRUCTURE.
L. THE TOP OF WET WELL SLAB ELEVATION SHALL MEET THE 100 YR FLOOD PLAIN ELEVATION IF AVAILABLE OR THE HIGHEST SITE ELEVATIONS PLUS 2 FEET, WHICHEVER IS HIGHER.
- WETWELL ACCESS HATCH INTRUSION SWITCH SHALL BE STERLING INDUSTRIAL CONTROLS PART NO. HTS-50 OR LATEST CORROSION RESISTANT PART UPGRADE.
- PROVIDE APPROPRIATELY SIZED TRANSFORMER TO STEP DOWN VOLTAGE TO 120V TO PROVIDE A MINIMUM OF 20 AMP CIRCUIT IN THE RECEPTACLE.
- ALL PLUG VALVES MUST HAVE INTERNAL 2 PART EPOXY COATING TO A MIN. OF 20 MILS.
- 4 FT. DIAMETER WETWELL IS ALLOWED FOR GRINDER PUMP STATION.

ABBREVIATIONS.

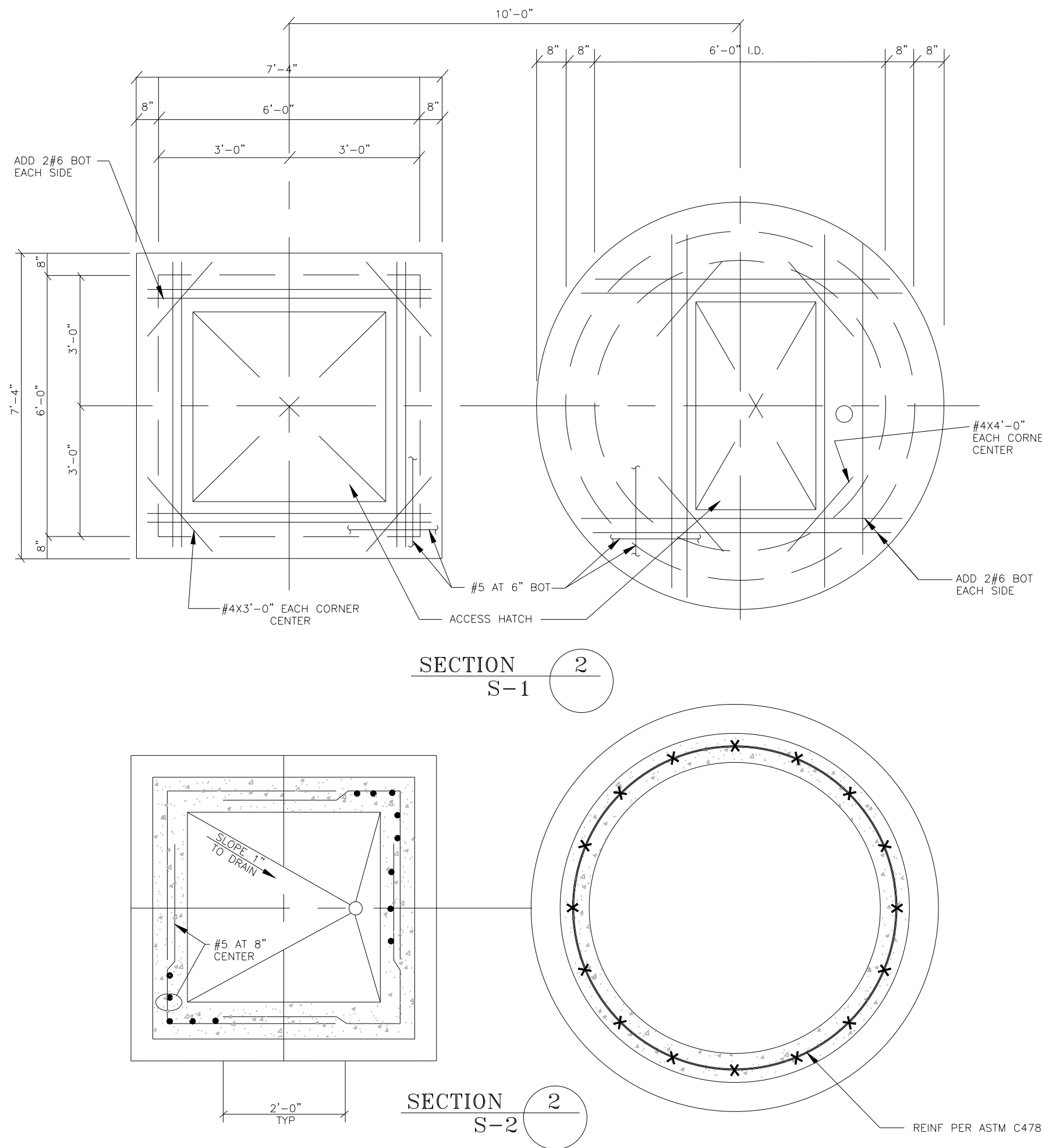
ABS	ACRYLONITRILE BUTADIENE STYRENE	PICV	PINCH CHECK VALVE
BACV	BALL CHECK VALVE	PV	PLUG VALVE
DI	DUCTILE IRON	PVC	POLYVINYL CHLORIDE
HFAC	HARNESSED FLANGED ADAPTOR COUPLING	SS	STAINLESS STEEL

BID DOCUMENTS

ALL ELEVATIONS ARE REFERENCE TO
NORTH AMERICAN VERTICAL DATUM (NAVD)
OF 1988, UNLESS OTHERWISE NOTED.
CONVERSION TO NATIONAL GEODETIC
VERTICAL DATUM (NGVD) OF 1929 IS:
NAVD 1988 + 1.17 = NGVD 1929.

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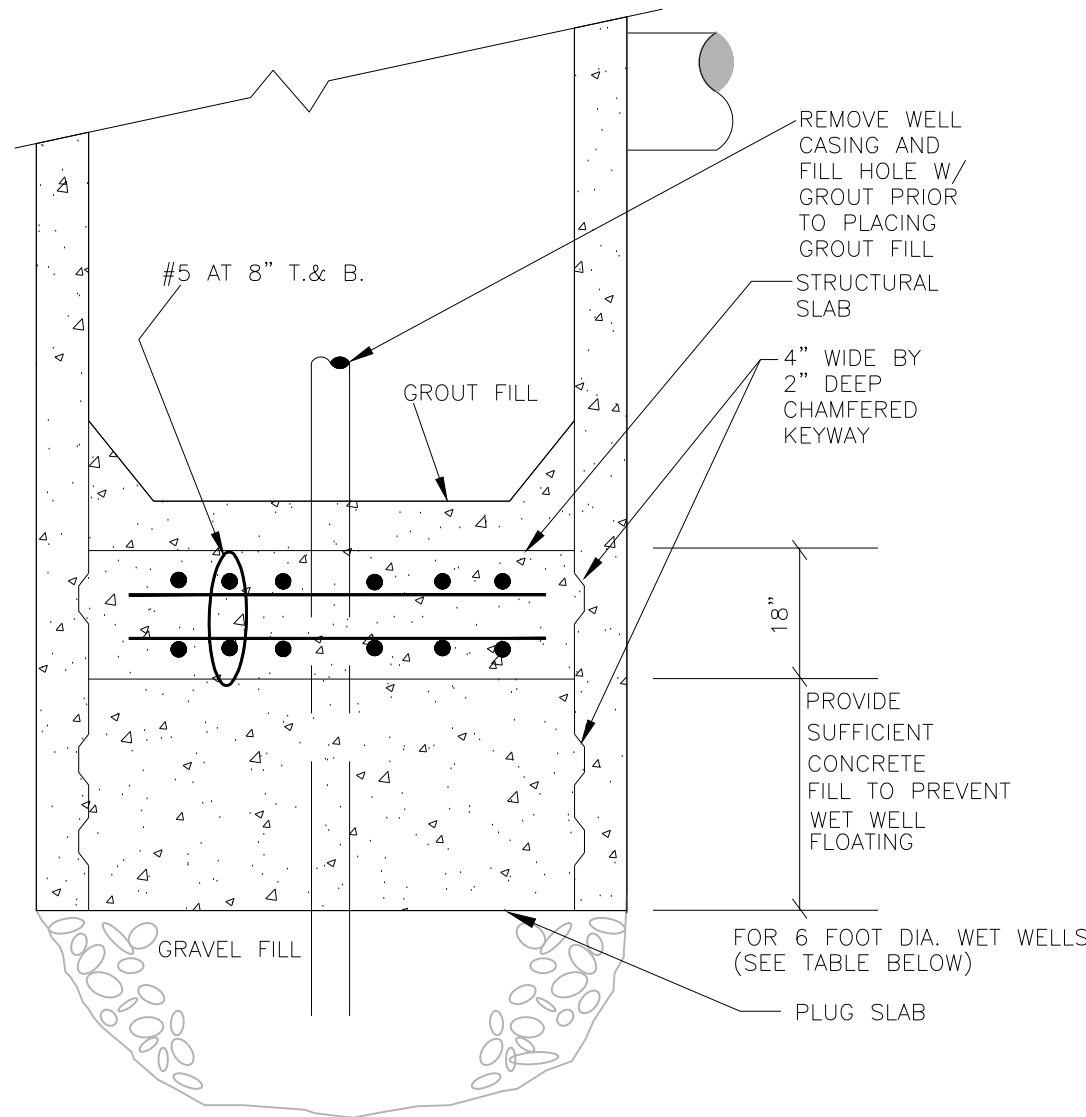


CAST IN PLACE CONCRETE
ALL MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI-308R AND ACI-318 REQUIREMENTS. CONCRETE: 28-DAY COMPREHENSIVE STRENGTH-4000 PSI, CEMENT-TYPE II AIR-ENTRAINING WATER REDUCING ADMIXTURES-PER SPECIFICATIONS.

PRE-CAST CONCRETE
MATERIALS AND METHODS OF CONSTRUCTION SHALL BE PER SPECIFICATIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR PRE-CAST ELEMENTS FOR ENGINEER'S REVIEW.

REINFORCEMENT
REINFORCEMENT SHALL CONFORM TO ASTM A615-GRADE 60 REQUIREMENTS. ALL ACCESSORIES SHALL BE IN CONFORMANCE WITH ACI-315 REQUIREMENTS. THE CONTRACTOR SHALL PREPARE DETAILED PLACEMENT DRAWINGS AND SCHEDULES IN CONFORMANCE WITH ACI-315 REQUIREMENTS, FOR ENGINEER'S REVIEW.

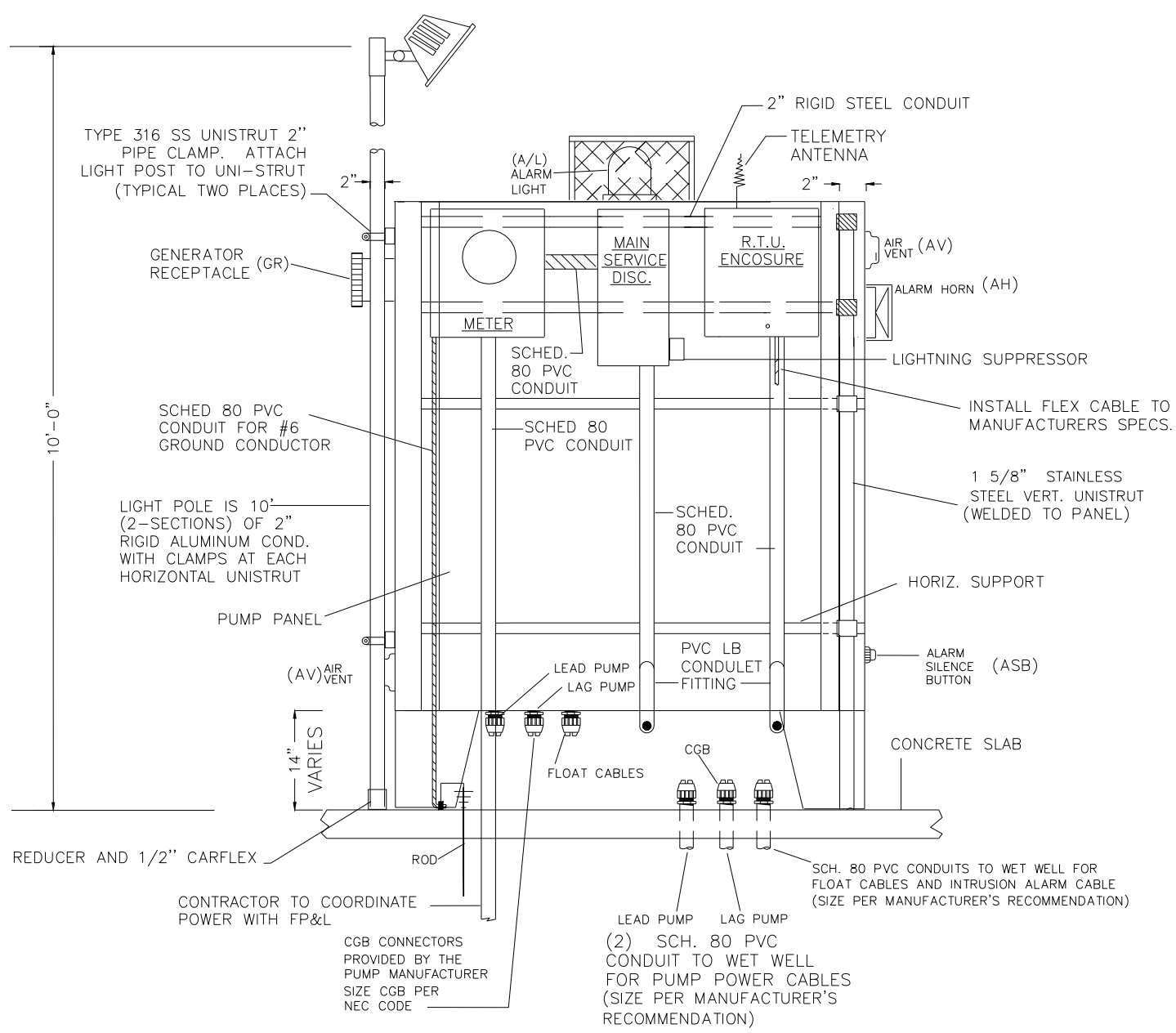
FOUNDATION Dewatering/FLOATATION
FOUNDATION Dewatering SHALL BE MAINTAINED UNTIL FOUNDATION EXCAVATION IS TOTALLY BACKFILLED. CONTRACTOR SHALL PROTECT THE STRUCTURE AGAINST FLOATATION, UNTIL THE STRUCTURE IS PUT INTO SERVICE.



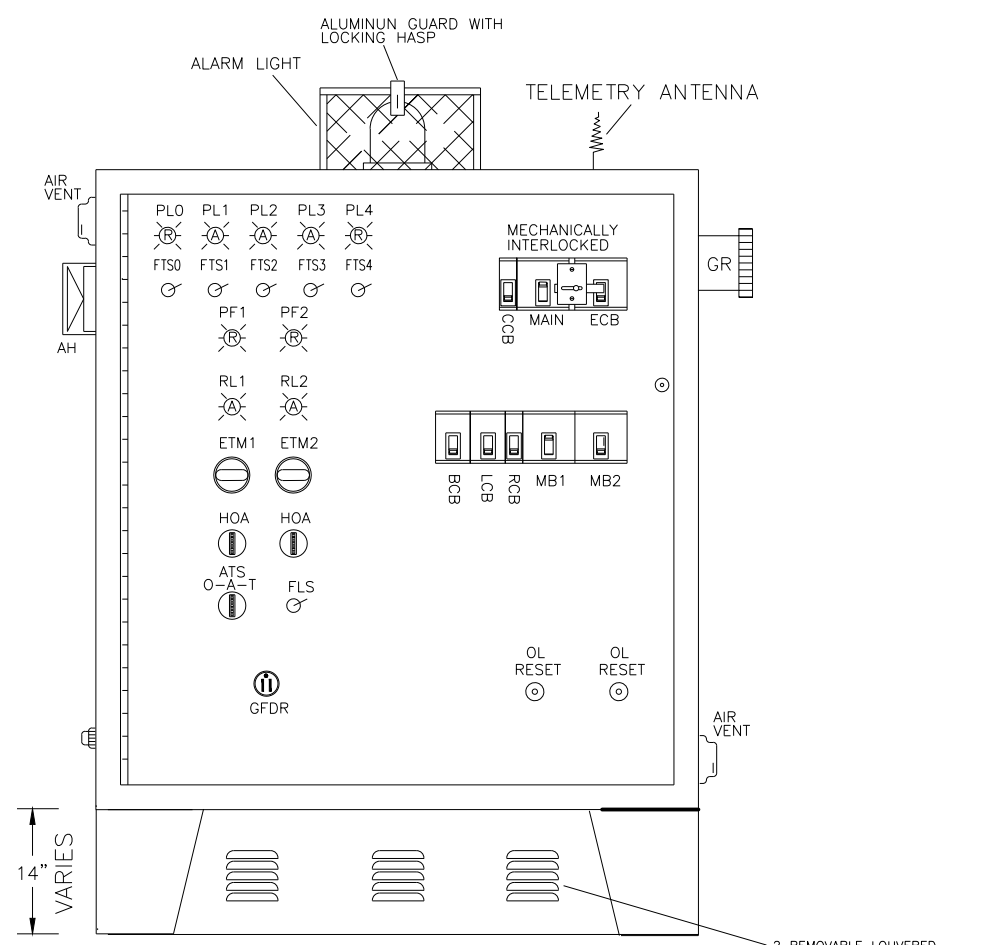
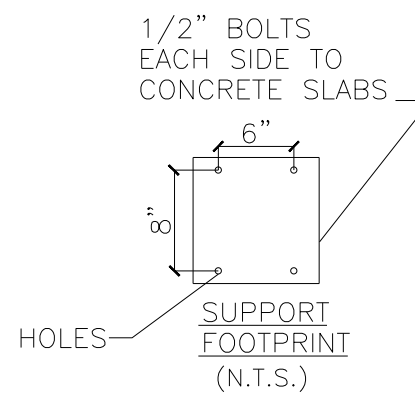
BASE SLAB CONSTRUCTION
NTS

6'-0" I.D. PUMP STATION				
DEPTH OF P.S.	0' TO 12'	13' TO 18'	19' TO 22'	23' TO 26'
PLUG SLAB "T"	12"	24"	30"	36"

DEPTH OF P.S. REFERS TO TOP OF PUMP STATION SLABS TO STRUCTURAL SLAB BOTTOM OF WETWELL

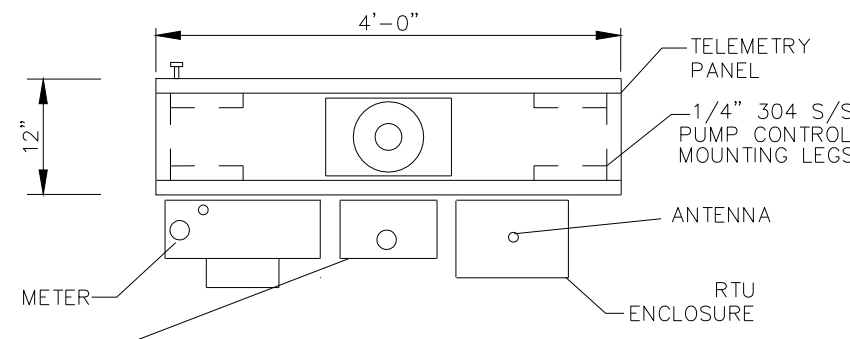


EQUIPMENT ELEVATION
(N.T.S.) **BACK VIEW**

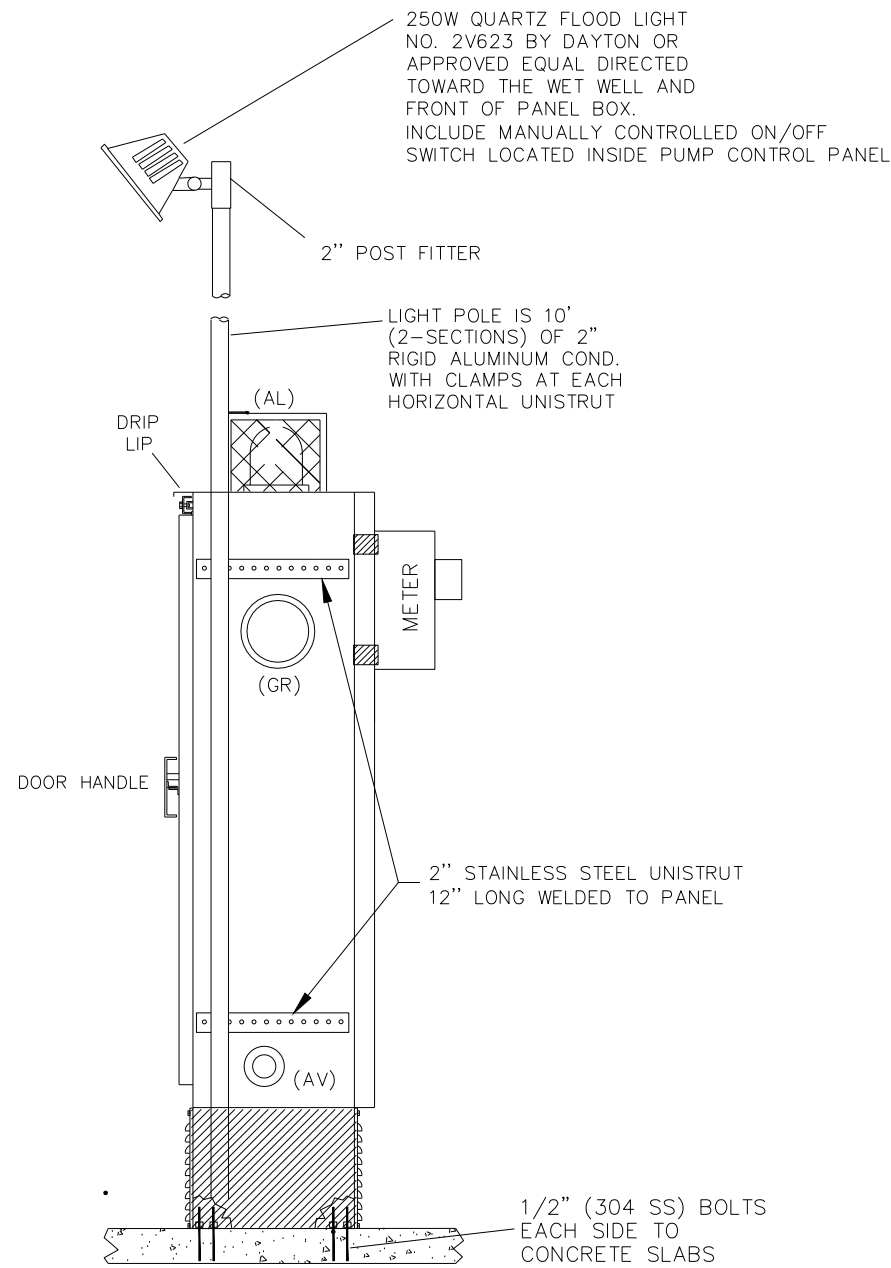
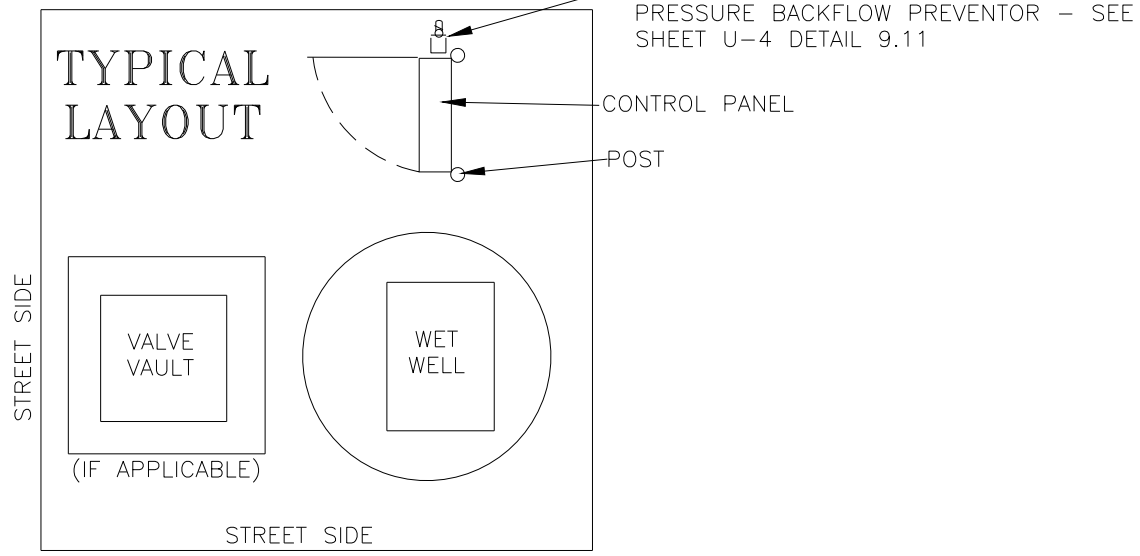


NOTE:
1) DOOR REMOVED TO SHOW DEADFRONT LAYOUT
2) NEMA TYPE 4X S.S. ENCL WITH CONT. HINGE
3) ALL HARDWARE TYPE 304 S.S.
4) OUTER DOOR CANNOT CLOSE WITHOUT DEADFRONT KEY REMOVAL
5) TYPICAL ACTUAL LAYOUT MAY VARY WITH HORSEPOWER
6) CROUSE-HINDS TYPE "CGB" WATER TIGHT CONNECTOR WITH NEOPRENE GLAND TO MATCH CABLES FURNISHED WITH PUMPS AND FLOATS
7) 14 AWG WIRE

SERVICE ENTRANCE AND INTERFACE BOX
(N.T.S.) **FRONT VIEW**



PLAN VIEW
NTS



CONTROL PANEL ELEVATION
(N.T.S.) **SIDE VIEW**

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FISH CLEANING STATION LIFT STATION DETAILS

SHEET NUMBER

C12

BID DOCUMENTS