

GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT CONSTRUCTION PLAN SET

PREPARED FOR:
CITY OF NAPLES

SHEET INDEX

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2. EXISTING CONDITIONS
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PUBLISHED TIDAL INFORMATION

TIDAL DATUMS IN NAPLES, GULF OF MEXICO
ARE BASED ON FLORIDA 872 5110
TIME PERIOD = 1/1983-12/1986; 1/1989-12/2001
TIDAL EPOCH = 1983-2001
CONTROL TIDE STATION = NAPLES, GULF OF
MEXICO (872 5110)

ELEVATIONS OF TIDAL DATUMS ARE REFERENCED IN
NAVD 1988.
MEAN HIGHER HIGH WATER (MHHW) = +0.58 FT NAVD88
MEAN HIGH WATER (MHW) = +0.33 FT NAVD88
MEAN LOW WATER (MLW) = -1.68 FT NAVD88
MEAN LOWER LOW WATER (MLLW) = -2.29 FT NAVD88

NOTES

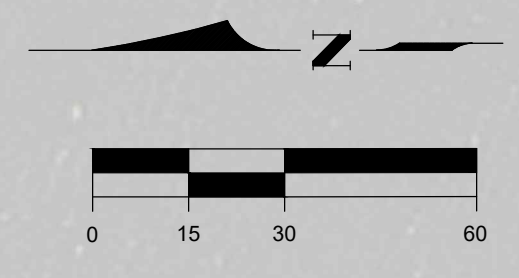
1. SURVEY COMPLETED BY COASTAL ENGINEERING CONSULTANTS, INC. 9/22/2021.
2. AERIAL PHOTOGRAPHY OBTAINED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION, DATED 2020.
3. INFORMATION SHOWN HEREON REFLECTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATES SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
4. ELEVATIONS SHOWN HEREON ARE IN FEET AND TENTHS AND REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988). REFERENCE BENCHMARK: R-47, N: 680581.00, E: 388553.80, EL. = 11.90 FT NAVD.
5. ANY PUBLIC LAND PROPERTY CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED BY THE CONTRACTOR. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. ANY SURVEY MONUMENT DESTROYED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY A REGISTERED SURVEYOR & MAPPER AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL NOT DISTURB AREAS BEYOND DESIGNATED WORK AREA. CONTRACTOR SHALL NOT WORK OUTSIDE OF RIGHT OF WAY LINE OR EASEMENTS.
7. PRIOR TO EXCAVATION CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES, IRRIGATION AND DRAINS.
8. UTILIZE SYNTHETIC BALES, TEMPORARY BERMING, SOD SEED, AND MULCH TO CONTROL EROSION AS REQUIRED OR DIRECTED BY THE OWNER OR ENGINEER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION AND CONTROL OF ANY EROSION, SEDIMENTATION OR SURFACE WATER TURBIDITY CAUSED BY HIS ACTIVITY.
10. DURING CONSTRUCTION, EXISTING 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.
11. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DEVIATION IN PLAN INFORMATION SHALL BE REPORTED TO THE ENGINEER AND OWNER'S REPRESENTATIVE IMMEDIATELY.
12. CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER AND OWNER FOR ANY DEVIATION IN PLANS AND/OR SPECIFICATIONS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS ADJACENT TO THE PROJECT. ALL TRAFFIC MAINTENANCE CONTROL SHALL BE IN ACCORDANCE WITH FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS. TRAFFIC CONTROL OPERATION PROCEDURES SHALL BE SUBMITTED TO OWNER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
14. CONTRACTOR SHALL CLEAR ALL EXCAVATION AND FILL AREAS. ACTUAL LIMITS OF CLEARING SHALL BE DETERMINED IN THE FIELD BY OWNER OR ENGINEER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS AND DEBRIS (INCLUDING EXISTING STRUCTURES) NOT REQUIRED TO REMAIN IN THE PROPOSED CONSTRUCTION AREA, WHERE SO DEPICTED BY THE OWNER'S REPRESENTATIVE. TREES AND VEGETATION WITHIN THE CLEARING LIMITS SHALL BE PROTECTED, LEFT STANDING, AND TRIMMED TO PREVENT DAMAGE TO LIMBS AND ROOTS DURING CONSTRUCTION.



<p>COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING</p> <p>PHONE: (239) 643-2324 FAX: (239) 643-1143 www.coastal-engineering.com E-Mail: info@cecinc.com</p>	<p>CITY OF NAPLES</p> <p>GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT COVER SHEET</p>	<p>DATE: 2/15/2022 SCALE: AS NOTED</p> <p>DRAWN: GVT F.B.</p> <p>CHECKED: MAK PG.</p> <p>SEC: TWP: RING.</p> <p>ACAD NO. 21265-C.dwg</p> <p>REF. NO. 21,265</p>
<p>CLIENT: CITY OF NAPLES</p> <p>TITLE: GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT COVER SHEET</p>		<p>NO. DATE BY</p> <p>21,265</p>
<p>COASTAL ENGINEERING CONSULTANTS INC. Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FLORIDA 34135</p>		<p>REVISION DESCRIPTION</p>
<p>SHEET 1</p> <p>FILE NO.: 21265-C-01</p>		

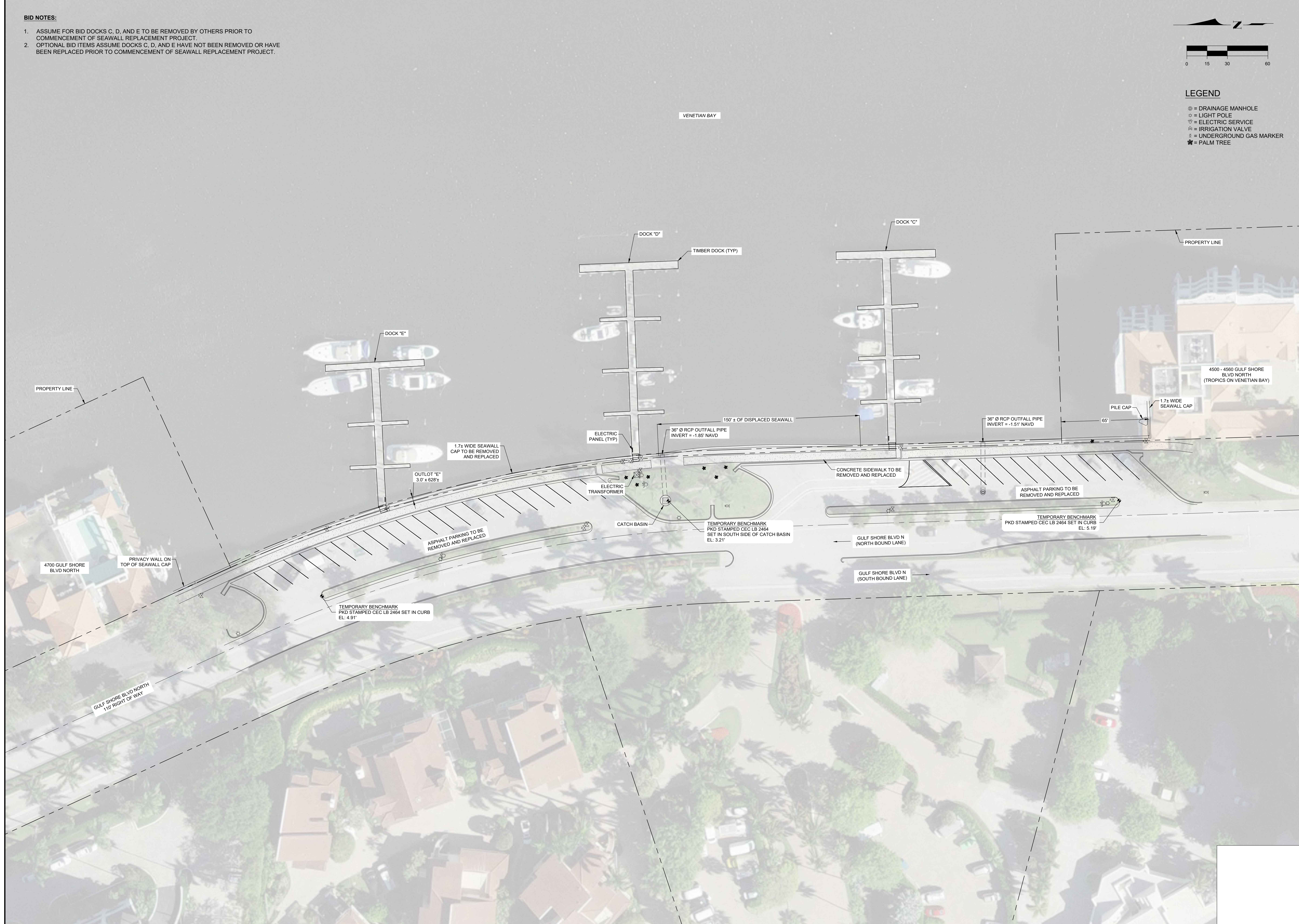
BID NOTES:

1. ASSUME FOR BID DOCKS C, D, AND E TO BE REMOVED BY OTHERS PRIOR TO COMMENCEMENT OF SEAWALL REPLACEMENT PROJECT.
2. OPTIONAL BID ITEMS ASSUME DOCKS C, D, AND E HAVE NOT BEEN REMOVED OR HAVE BEEN REPLACED PRIOR TO COMMENCEMENT OF SEAWALL REPLACEMENT PROJECT.



LEGEND

- ⊙ = DRAINAGE MANHOLE
- ⊛ = LIGHT POLE
- ⊚ = ELECTRIC SERVICE
- ⊗ = IRRIGATION VALVE
- ⊞ = UNDERGROUND GAS MARKER
- ★ = PALM TREE



<p>CITY OF NAPLES</p> <p>GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT EXISTING CONDITIONS</p> <p>CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING</p> <p>PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalmarineengineering.com E-Mail: info@cecinc.com</p>	<p>DATE: 2/15/2022 SCALE: AS NOTED</p> <p>DRAWN: GVT F.B.</p> <p>CHECKED: MAK PG.</p> <p>SEC. TWP. RING.</p> <p>ACAD NO. 21265-C.dwg</p> <p>REF. NO. 21,265</p> <p>NO. DATE BY</p> <p>REVISION DESCRIPTION</p>
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OPTIONAL BID ITEMS:

THE VENETIAN BAY YACHT CLUB IS UNDER CONTRACT TO REPLACE DOCKS C, D, AND E. TIMING OF THIS PROJECT COMBINED WITH OTHER FACTORS NECESSITATES INCLUDING OPTIONAL BID ITEMS.

DOCKS: IF EXISTING DOCKS HAVE NOT BEEN REMOVED OR HAVE BEEN REPLACED PRIOR TO THE SEAWALL REPLACEMENT PROJECT CONTRACTOR SHALL REMOVE LANDWARD SPAN(S) AT EACH DOCK AS REQUIRED TO ACCESS SEAWALL PROJECT. OPTION MAY NOT BE REQUIRED IF DOCKS ARE REMOVED BY OTHERS PRIOR TO PROJECT COMMENCEMENT.

FPL TRANSFORMER FEED: EXISTING CONDUIT FEEDING POWER TO TRANSFORMER AT STATION 3+80 IS LOCATED IMMEDIATELY BEHIND SEAWALL. FPL SHALL DISCONNECT POWER. NEW CONDUIT AND PULL BOX SHALL BE SUPPLIED BY FPL AND INSTALLED BY CONTRACTOR FROM APPROXIMATE STATION 0+00 TO 3+80. CABLES SHALL BE PULLED AND CONNECTED BY OTHERS AFTER COMPLETION OF SEAWALL PROJECT. OPTION MAY NOT BE USED IF FPL ELECTS TO USE ALTERNATE FEED. CONTRACTOR RESPONSIBLE FOR PICK-UP OF FPL SUPPLIED MATERIAL AT THE GOLDEN GATE SERVICE CENTER, 4105 15TH AVENUE SW, NAPLES, FL 34116.

DOCK ELECTRIC SERVICE: CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUITS SERVICING DOCKS PER SHEET 6. CONDUITS SHALL PENETRATE SEAWALL PANELS AT CENTERLINE OF EACH DOCK. CABLES SHALL BE PULLED AND CONNECTED BY OTHERS AFTER COMPLETION OF SEAWALL PROJECT. OPTION MAY NOT BE USED AT THE DISCRETION OF CITY AND DOCK OWNER.

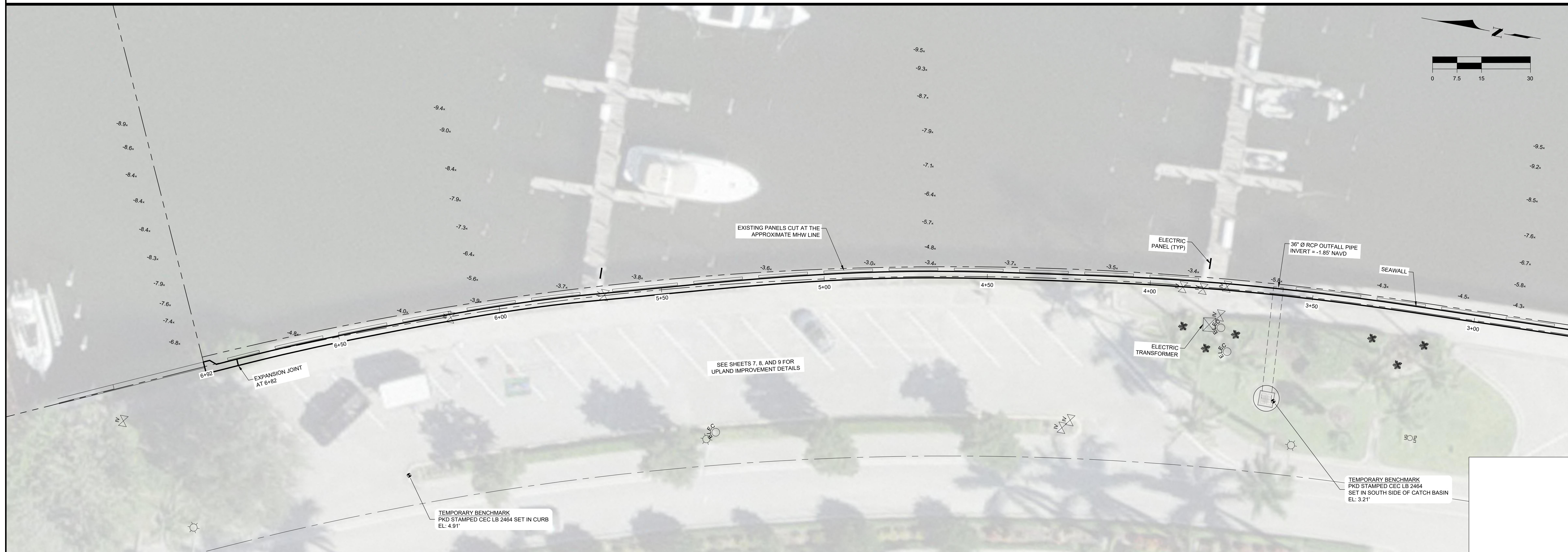
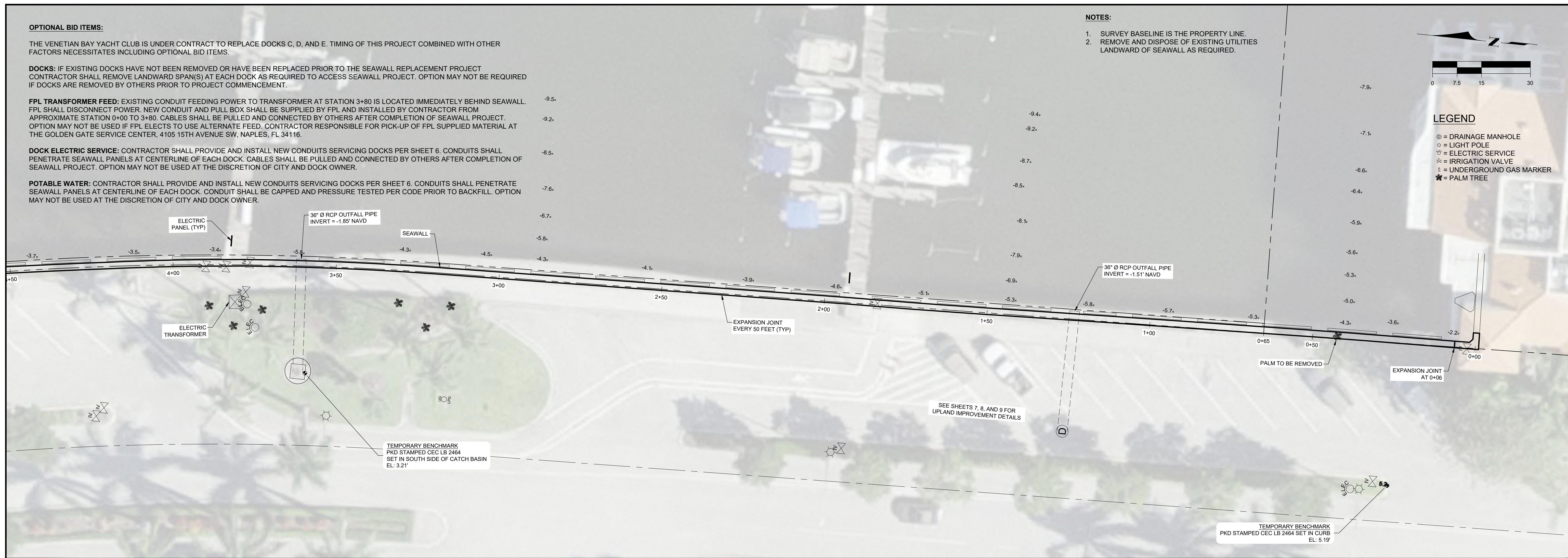
POTABLE WATER: CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUITS SERVICING DOCKS PER SHEET 6. CONDUITS SHALL PENETRATE SEAWALL PANELS AT CENTERLINE OF EACH DOCK. CONDUIT SHALL BE CAPPED AND PRESSURE TESTED PER CODE PRIOR TO BACKFILL. OPTION MAY NOT BE USED AT THE DISCRETION OF CITY AND DOCK OWNER.

NOTES:

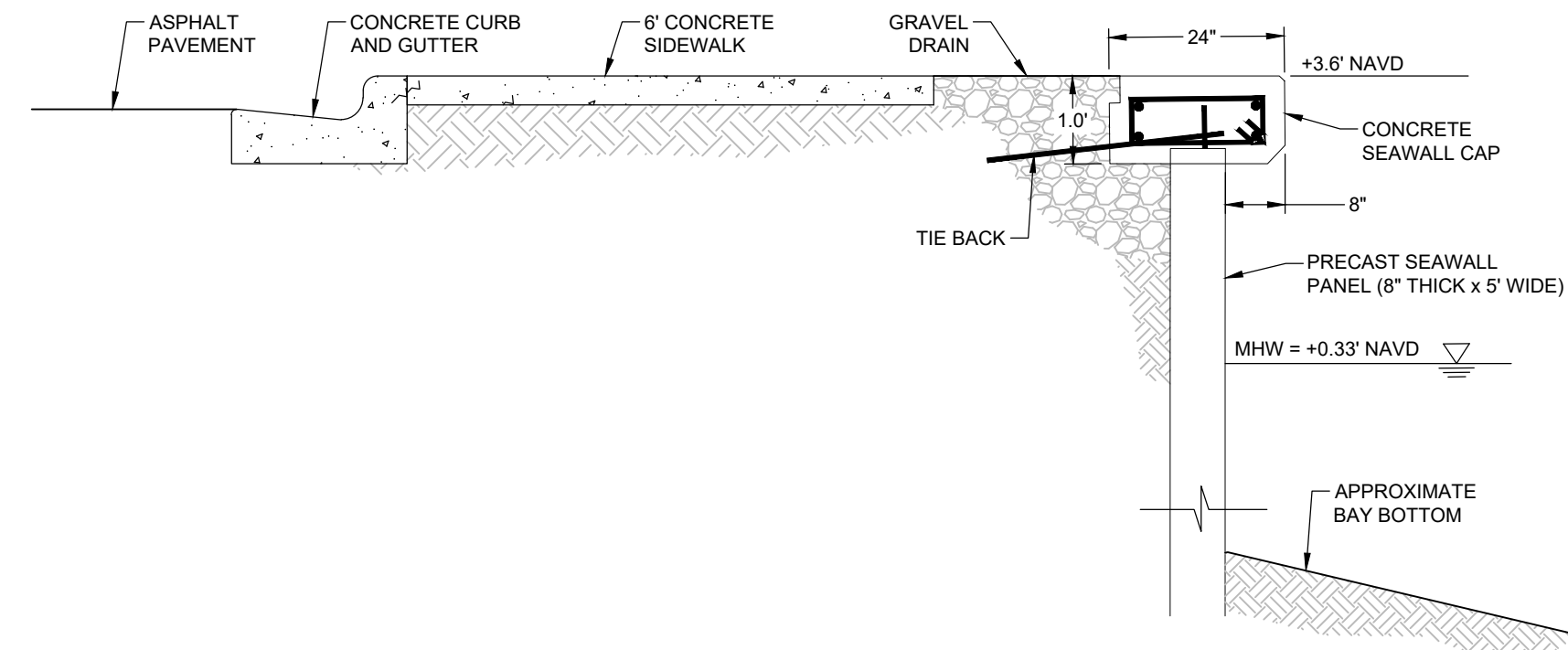
1. SURVEY BASELINE IS THE PROPERTY LINE.
2. REMOVE AND DISPOSE OF EXISTING UTILITIES LANDWARD OF SEAWALL AS REQUIRED.

LEGEND

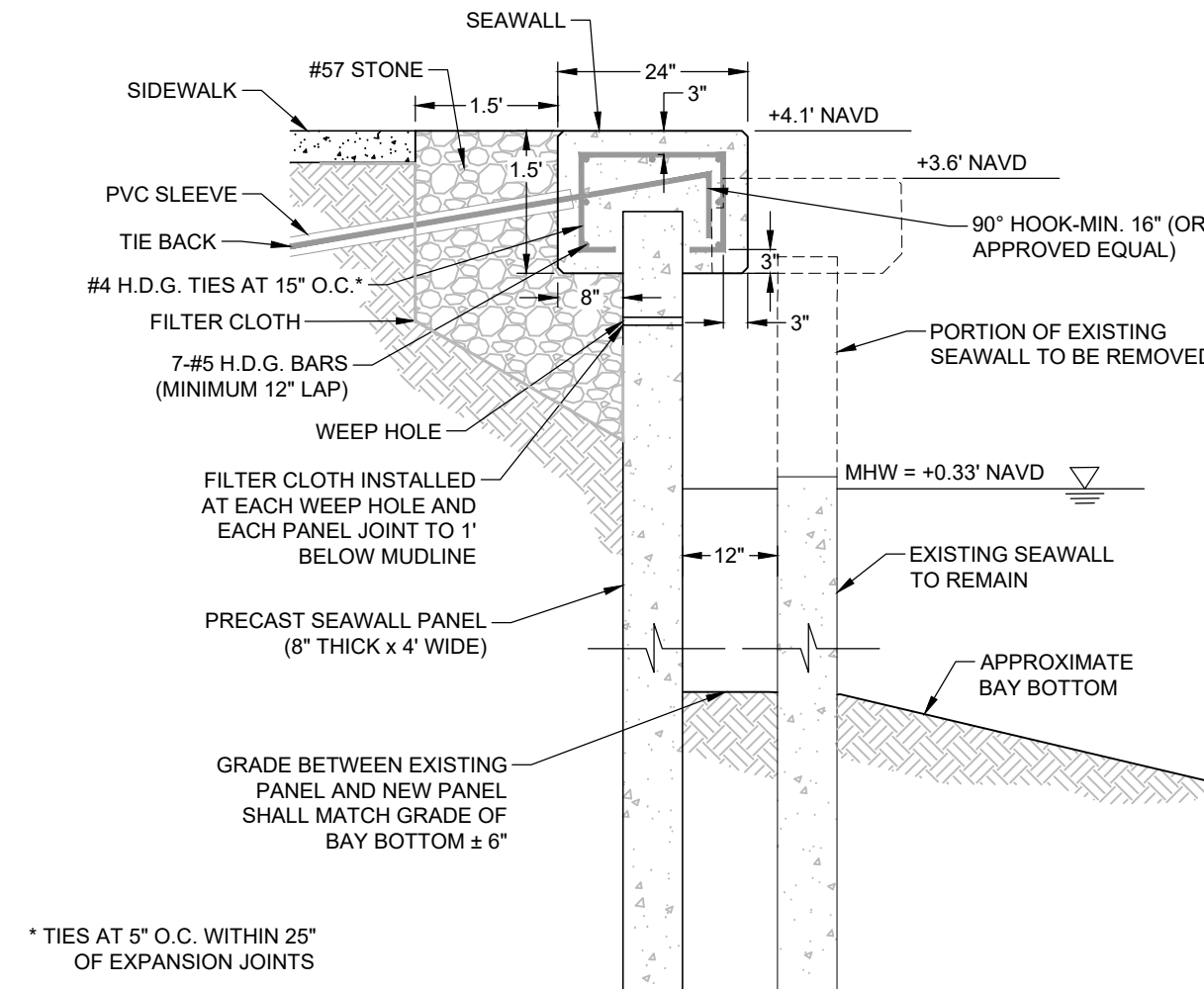
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GULF SHORE BOULEVARD NORTH					
OUTLOT "E" SEAWALL REPLACEMENT					
PLAN VIEW					
CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING					
TITLE:					
PHONE: (239)643-2324					
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COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING					
INC.					
Serving Florida Since 1977					
28421 BONITA CROSSINGS BLVD.					
BONITA SPRINGS, FLORIDA 34135					
SHEET 3					
FILE NO.: 21265-C-03					



TYPICAL EXISTING SEAWALL SECTION
SCALE: 1" = 2'

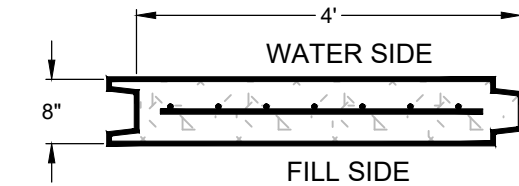


* TIES AT 5' O.C. WITHIN 25' OF EXPANSION JOINTS

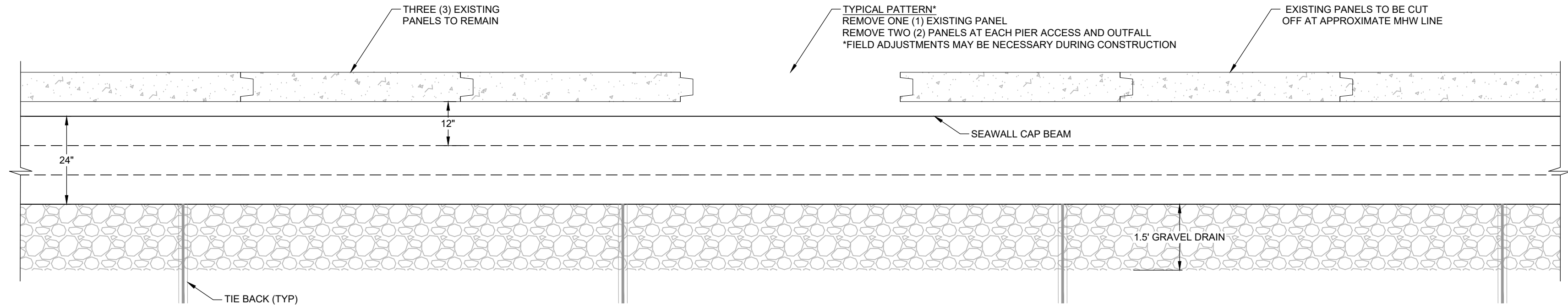
SEAWALL REPLACEMENT SECTION
SCALE: 1" = 2'

GRAVEL DRAIN NOTES

1. FILTER CLOTH SHALL BE WINFAB 2199 OR APPROVED EQUIVALENT.
2. PLACE A MINIMUM OF 12 INCHES OF FILTER CLOTH UNDER SIDEWALK SLAB.
3. TERMINATE FILTER CLOTH AT SEAWALL PANEL. DO NOT PLACE CLOTH VERTICALLY AGAINST BACKSIDE OF PANEL.
4. CLOTH SHALL HAVE A MINIMUM OVERLAP OF 3 FT AT SEAMS.
5. SLIT FILTER CLOTH FOR TIE RODS ABOVE RODS. OVERLAP WITH 3 FT WIDE SECTION OF CLOTH CENTERED OVER SLIT AND A MINIMUM OF 12 INCHES UNDER SIDEWALK SLAB.
6. SEE SHEET 6 FOR UTILITY CONDUIT INSTALLATION DETAILS.

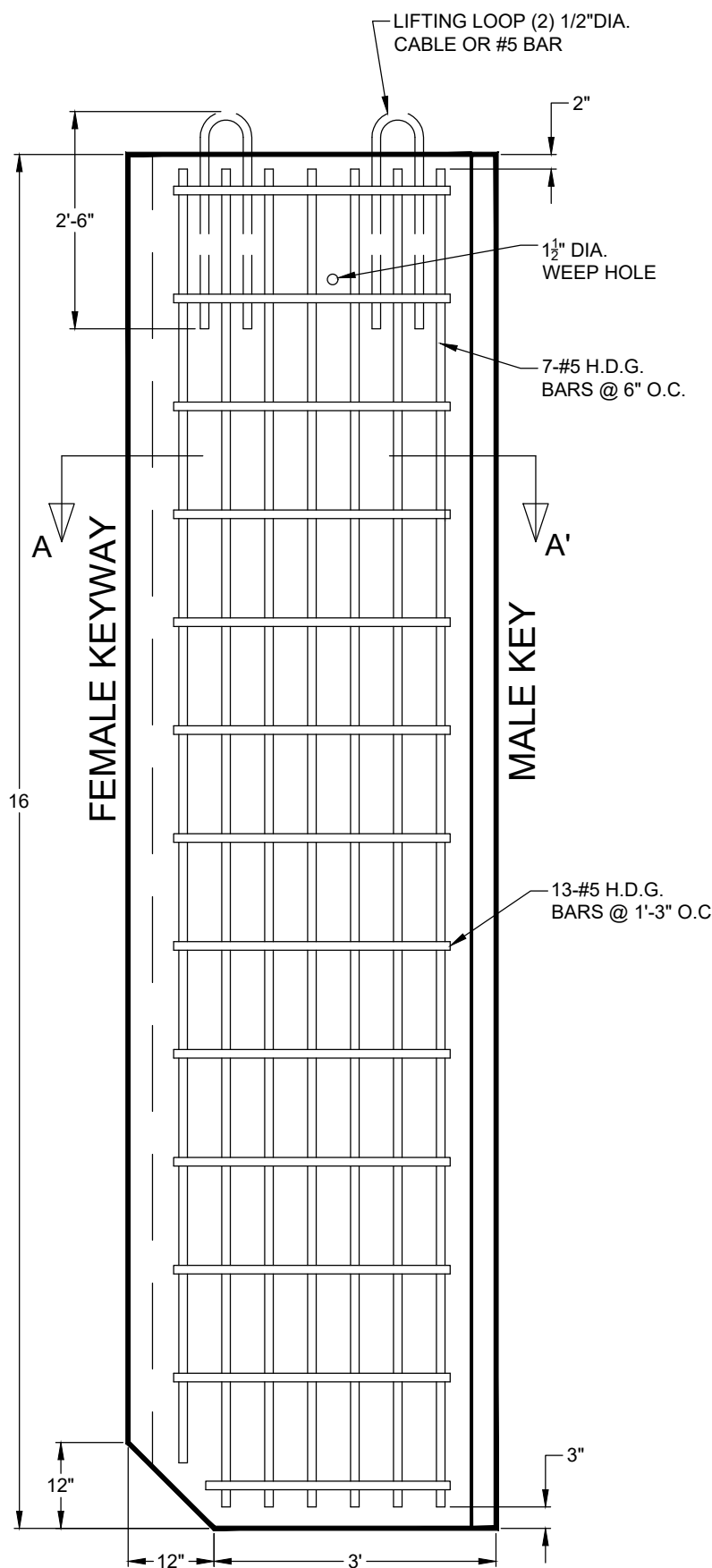


SECTION A - A'

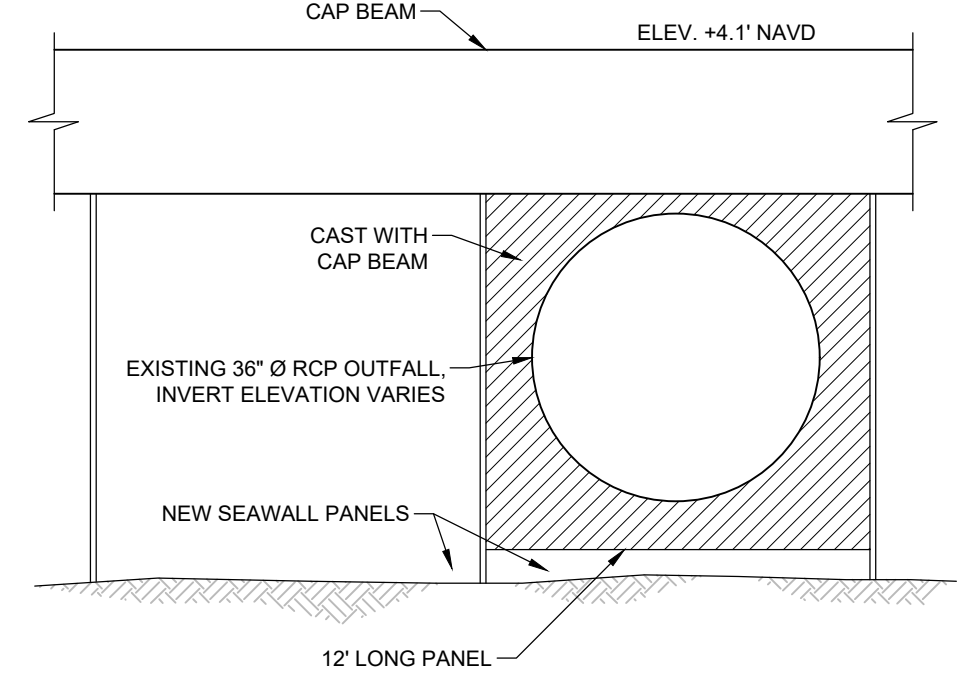


TYPICAL OUTLET "E" SEAWALL REPLACEMENT PLAN VIEW
SCALE: 1" = 2'

- NOTES**
1. SEAWALL BETWEEN STATION 2+00 AND 3+80 HAS FAILED. PANELS ARE NOT IN PROPER ALIGNMENT.
 2. PANELS SHALL BE REALIGNED, PLUMBED, AND CUT OFF AT APPROXIMATE MHW LINE.



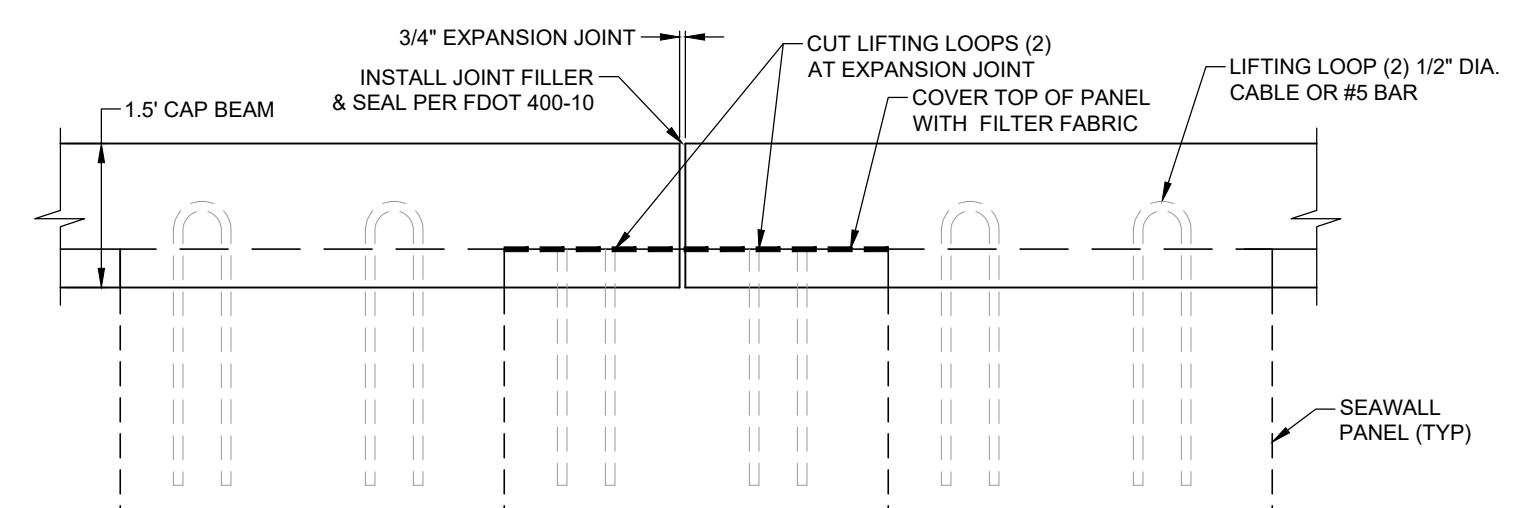
SEAWALL PANEL ELEVATION
SCALE: 1" = 2'



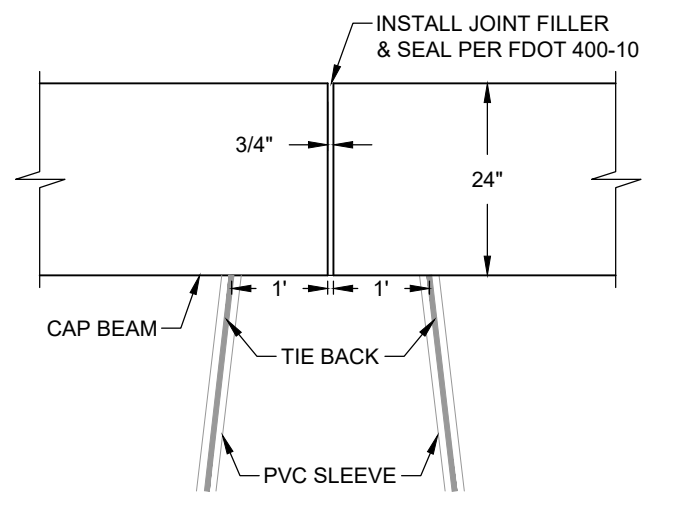
STORMWATER OUTFALL DETAIL
SCALE: 1" = 2'

STORMWATER OUTFALL PENETRATION NOTES

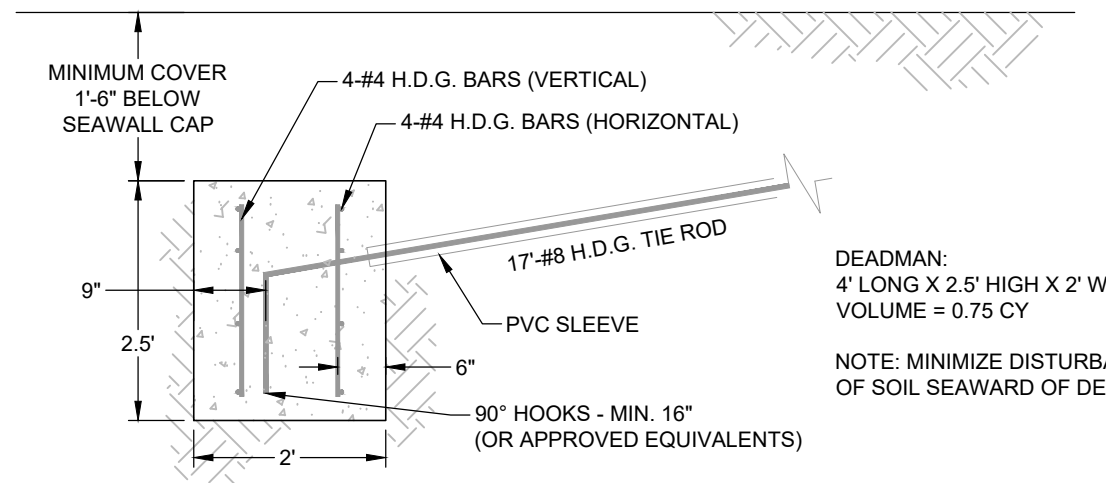
1. FIELD VERIFY TOP OF PIPE ELEVATION AT ALIGNMENT OF SEAWALL EXTENSION.
2. EXCAVATE AND REMOVE TERMINAL SECTIONS OF PIPE BACK TO SECOND JOINT FROM SEAWALL.
3. INSTALL NEW PANELS IN PROPOSED ALIGNMENT.
4. CUT NOTCH IN NEW PANEL(S) TO ACCOMMODATE VERTICAL AND HORIZONTAL ALIGNMENT OF PIPE. PROVIDE 6-INCH MINIMUM CLEARANCE BETWEEN PIPE AND PANEL CUT OUT.
5. REPLACE LAST TWO (2) PIPE SECTIONS AT SEAWALL PENETRATION. EXTEND END OF PIPE A MINIMUM OF 6 INCHES BEYOND OUTBOARD FACE OF SEAWALL PANEL. CLEAN AND LUBRICATE SPIGOT AND BELL ENDS OF ADJOINING PIPES PRIOR TO INSTALLING NEW JOINT GASKET. INSTALL NEW GASKET TO ENSURE TIGHT SEAL BETWEEN NEW TERMINAL PIPES AND EXISTING PIPE.
6. INSTALL CONCRETE JACKET AROUND NEW PIPE AND EXISTING PIPE JOINTS IN ACCORDANCE WITH FDOT INDEX 450-301.
7. ENSURE EXTERIOR SURFACE OF PIPE IS CLEAN AT SEAWALL PENETRATION.
8. APPLY SIKA LIQUIDWELD BONDING AGENT (OR APPROVED EQUIVALENT) TO EXISTING CONCRETE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS ON ALL SURFACES REQUIRING BONDING TO NEW CONCRETE.
9. CONSTRUCT FORMWORK AROUND PIPE TO RE-CAST CUT OUT IN PANEL. CUT OUT SHALL BE POURED SIMULTANEOUSLY WITH CAP BEAM.
10. ENGINEER TO INSPECT PRIOR TO BACKFILLING AND POURING OF CONCRETE.



EXPANSION JOINT ELEVATION VIEW
SCALE: 1" = 2'



EXPANSION JOINT PLAN VIEW
SCALE: 1" = 2'



DEADMAN DETAIL
SCALE: 1" = 2'

OPTIONAL HELICAL ANCHOR TIE BACK SYSTEM

1 1/2" DIAMETER MID STRENGTH PISA HELICAL ANCHOR (OR APPROVED EQUAL) HOT DIPPED GALV. FINISH MINIMUM INSTALLATION TORQUE SHALL BE 2,400 FT. LBS. USE 1" DIAMETER HDG ALL THREAD.

- NOTES**
1. HELICAL ANCHORS MAY BE USED IN LIEU OF CONCRETE DEADMEN AS NECESSARY.
 2. TIE BACK SPACING SHALL BE ON 8-FOOT CENTERS, UNLESS NOTED OTHERWISE.
 3. HELICAL ANCHORS SHALL PENETRATE A MINIMUM OF 7 FEET INTO UNDISTURBED SOIL.
 4. HELICAL ANCHORS SHALL EXTEND A MINIMUM OF 18 FEET LANDWARD OF CAP BEAM.
 5. EXISTING TIE BACKS MAY BE CUT AND LEFT IN PLACE.
 6. NEW TIE BACKS TO BE LOCATED BETWEEN EXISTING.

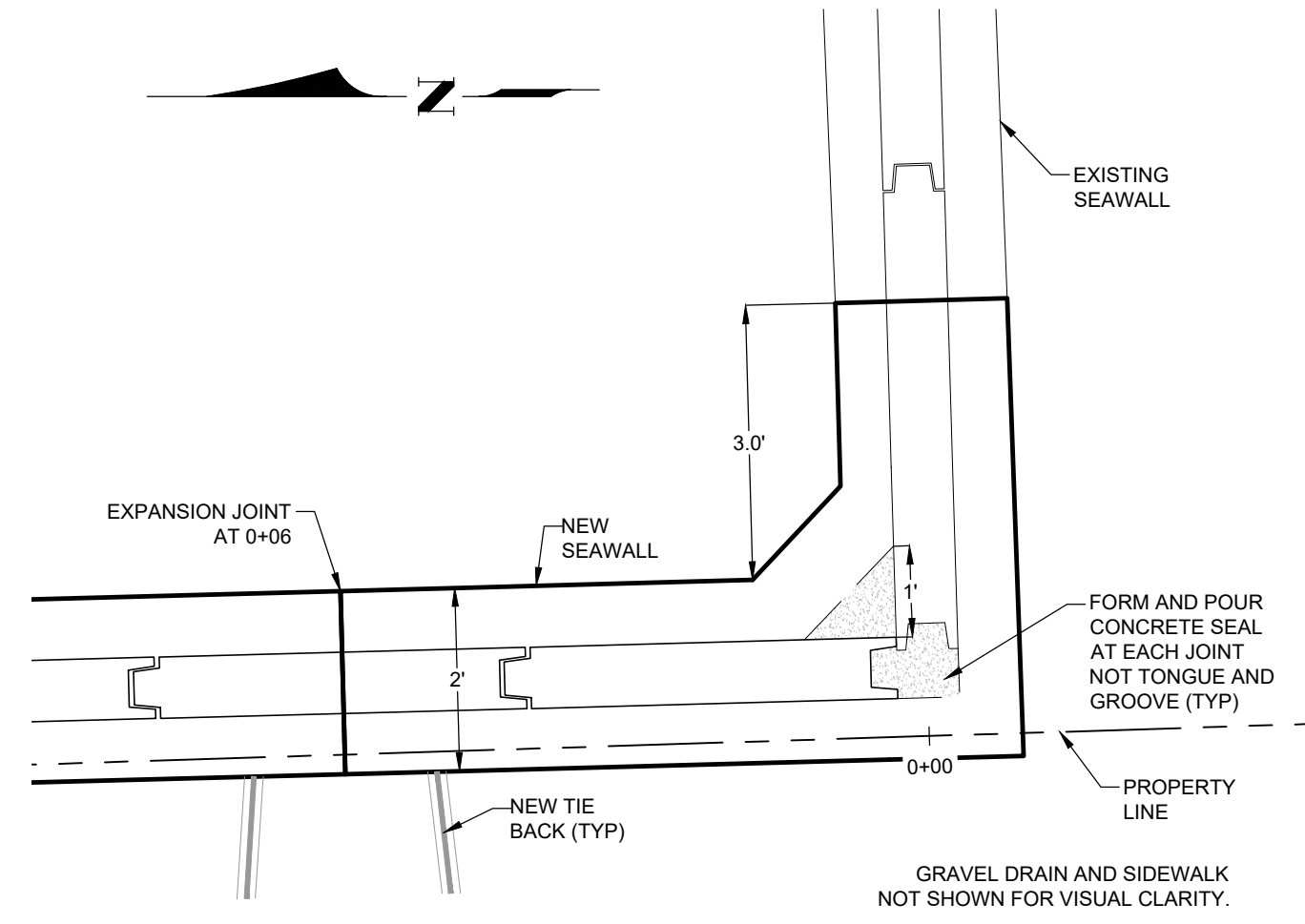
CITY OF NAPLES
 GULF SHORE BOULEVARD NORTH
 OUTLOT "E" SEAWALL REPLACEMENT
 SEAWALL DETAILS

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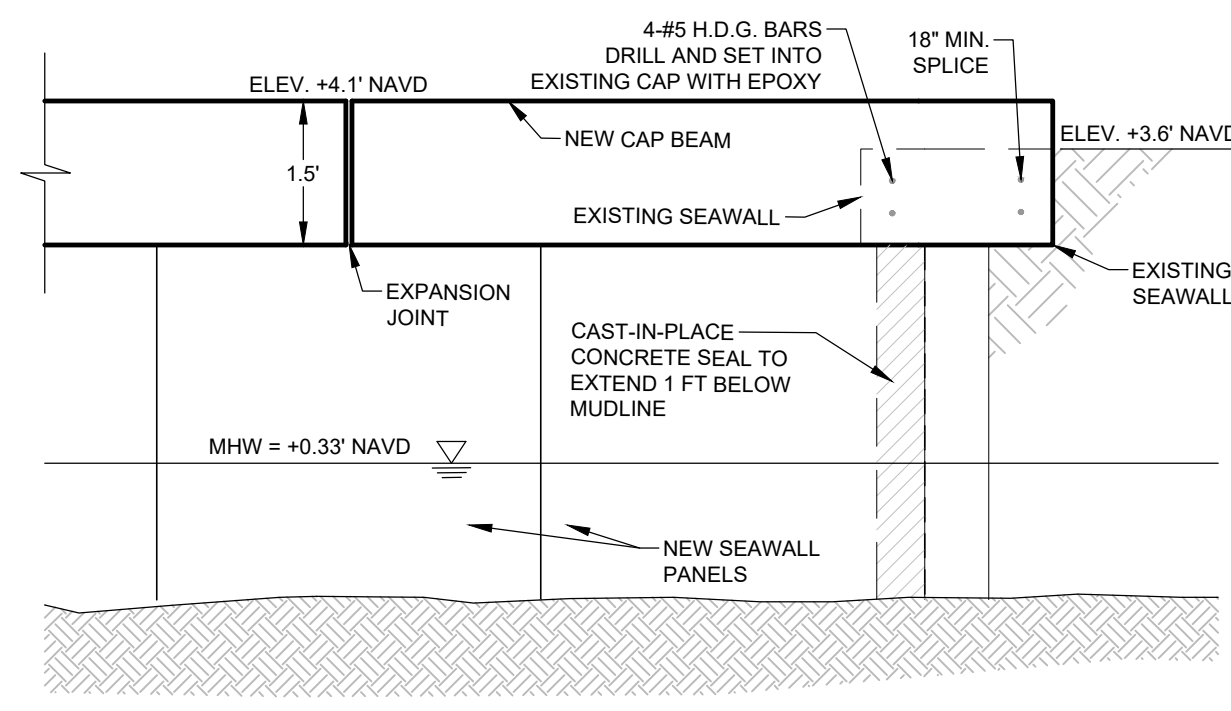
COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING
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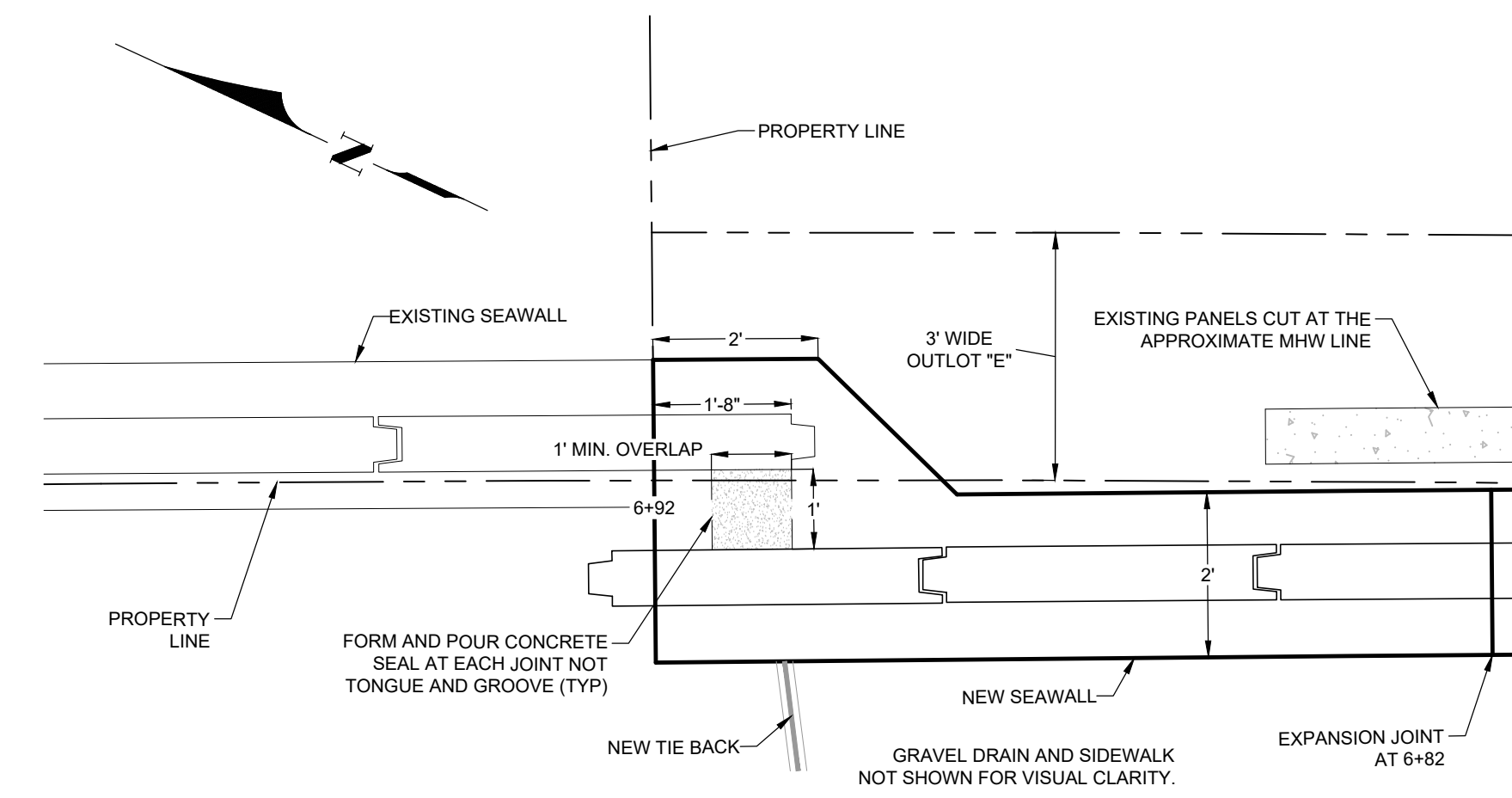
SHEET 4
 FILE NO.: 21265-C-04



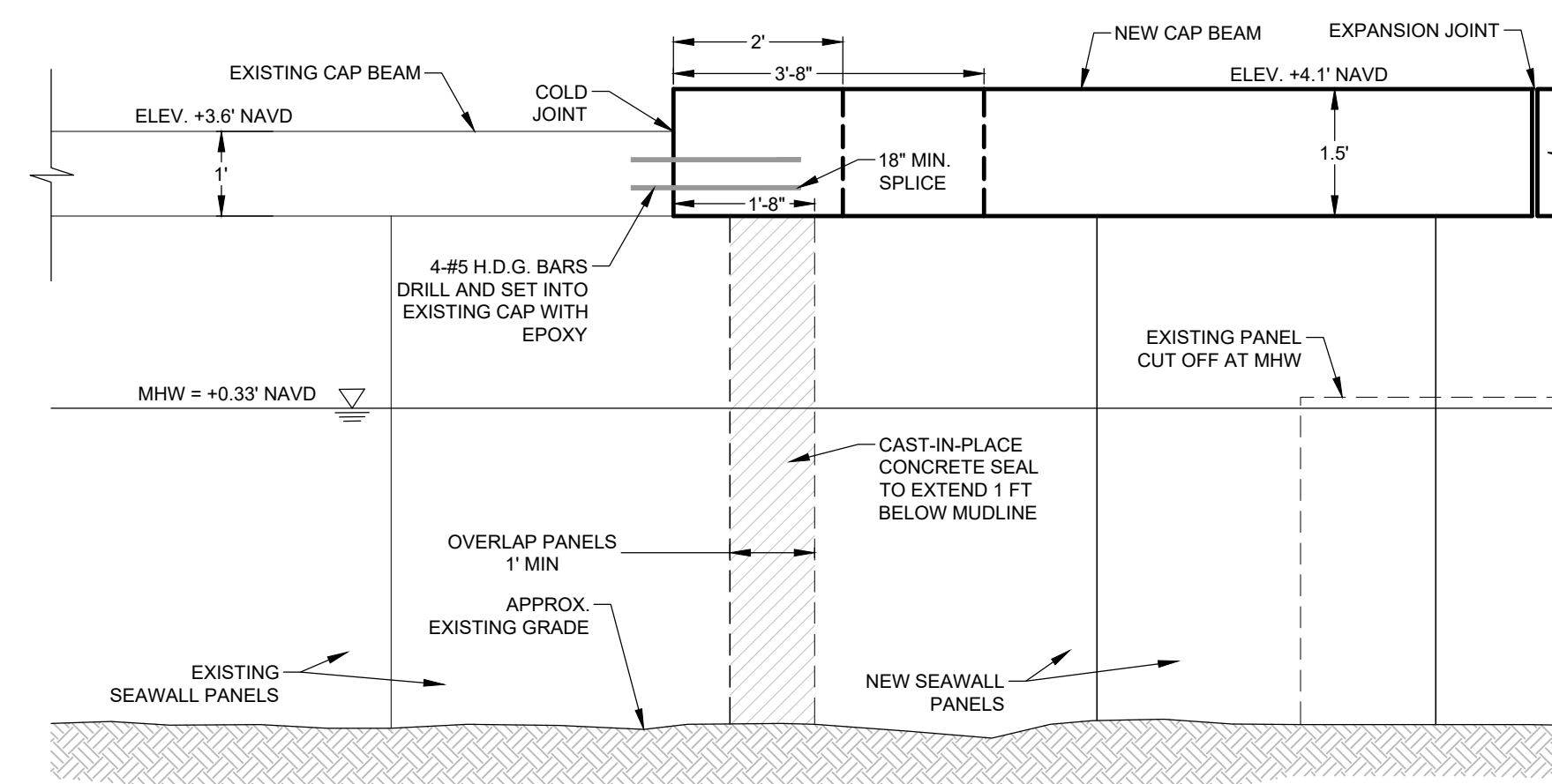
SEAWALL TRANSITION AT STATION 0+00 - PLAN VIEW
SCALE: 1" = 2'



SEAWALL TRANSITION AT STATION 0+00 - ELEVATION VIEW
SCALE: 1" = 2'



SEAWALL TRANSITION AT STATION 6+92 - PLAN VIEW
SCALE: 1" = 2'

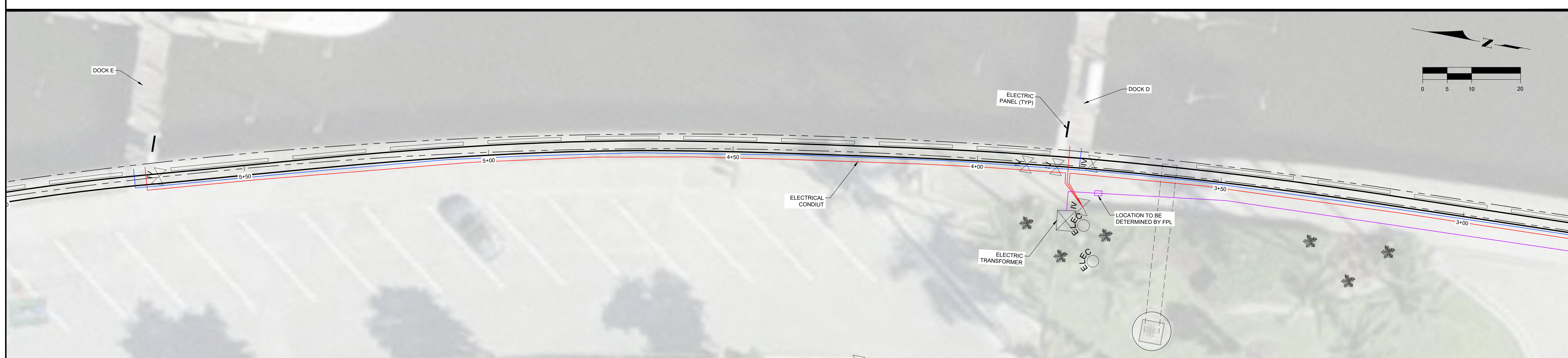


SEAWALL TRANSITION AT STATION 6+92 - ELEVATION VIEW
SCALE: 1" = 2'

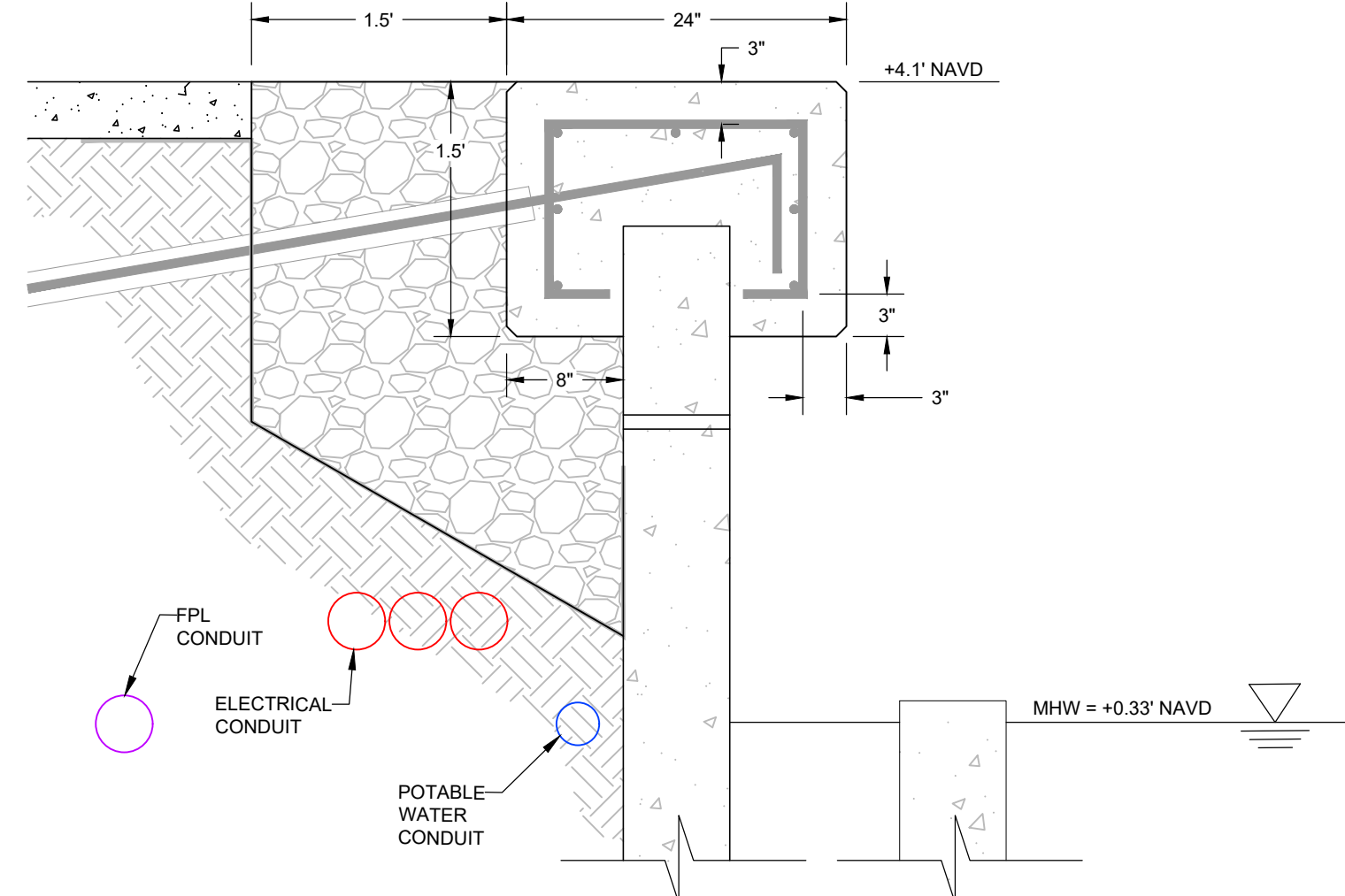
SEAWALL NOTES

- PRIOR TO EXCAVATION CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES, IRRIGATION AND DRAINS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF EXISTING SHORELINES, STRUCTURES AND FILL DURING CONSTRUCTION.
- CONTRACTOR SHALL DEMOLISH, REMOVE, AND DISPOSE OF IN AN APPROVED OFF SITE DISPOSAL AREA THE EXISTING SEAWALL PANELS, ASPHALT AND ALL OTHER CONSTRUCTION DEBRIS WITHIN THE LIMITS OF SEAWALL CAP TO BE REPAIRED/REPLACED.
- NEW SEAWALL PANELS SHALL BE INSTALLED PLUMB WITH A MAXIMUM TOLERANCE OF 1/4" HORIZONTAL PER VERTICAL FOOT.
- MINIMUM CONCRETE COVERAGE OVER STEEL REINFORCING TO BE 3 INCHES.
- CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI AND MEET ASTM C-94. PORTLAND CEMENT SHALL BE TYPE II WITH FLY ASH AND A MINIMUM OF 50 LBS OF MICROSILICA. MINIMUM CEMENT CONTENT SHALL BE 700 POUNDS PER CUBIC YARD WITH A MAXIMUM WATER-CEMENT RATION OF 0.44. SLUMP RANGE: 5 INCHES ± 1 INCH. AIR ENTRAINMENT: 4 PERCENT BY VOLUME. MIX DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- MIXING: MINIMUM 70 AND MAXIMUM 270 REVOLUTIONS OF MIXING DRUM. NONAGITATING EQUIPMENT IS NOT ALLOWED. CONCRETE SHALL BE PLACED WITHIN 1 1/2 HOURS AFTER THE CEMENT HAS BEEN ADDED TO MIX.
- APPLY SIKA LIQUIDWELD BONDING AGENT (OR APPROVED EQUIVALENT) TO EXISTING CONCRETE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS ON ALL SURFACES REQUIRING BONDING TO NEW CONCRETE.
- DO NOT PLACE CONCRETE IN A FORM UNTIL FORM HAS BEEN INSPECTED AND APPROVED BY OWNER AND ENGINEER. ALTHOUGH OWNER AND ENGINEER INSPECTS AND APPROVES FORMS, CONTRACTOR IS RESPONSIBLE FOR OBTAINING SATISFACTORY CONCRETE SURFACES, FREE FROM WARPING, BULGING, OR OTHER OBJECTIONABLE DEFECTS.
- CONTRACTOR IS RESPONSIBLE FOR ALL RISKS CONNECTED WITH PLACING AND CURING OF CONCRETE. ALTHOUGH ENGINEER MAY GIVE PERMISSION TO PLACE CONCRETE, CONTRACTOR IS RESPONSIBLE FOR SATISFACTORY RESULTS. SHOULD CONCRETE THE CONTRACTOR PLACES PROVE UNSATISFACTORY, THE CONTRACTOR SHALL REMOVE, DISPOSE OF, AND REPLACE CONCRETE AT NO EXPENSE TO OWNER. CONSOLIDATE CONCRETE BY CONTINUOUS WORKING WITH A SUITABLE TOOL IN AN ACCEPTABLE MANNER, OR BY VIBRATING. WHEN NOT USING VIBRATORS, THOROUGHLY WORK AND COMPACT ALL THIN-SECTION WORK WITH A STEEL SLICING ROD. SPADE ALL FACES, AND FLUSH MORTAR TO SURFACE BY CONTINUOUS WORKING WITH A CONCRETE SPADING IMPLEMENT.
- REMOVE FORMS FROM CAP BEAM AFTER CONCRETE HAS OBTAINED 70% OF SPECIFIED 28-DAY STRENGTH OR APPROVAL IS OBTAINED IN WRITING FROM ENGINEER.
- TRANSITIONS BETWEEN FINISHED CONCRETE CAP BEAM SECTIONS SHALL BE SMOOTH AND CONTINUOUS.
- CAP BEAM EXPANSION JOINTS SHALL BE CONSTRUCTED AT A MINIMUM SPACING OF 50 FEET. FORM EXPANSION JOINT NEAR CENTER OF SEAWALL PANELS. NO JOINTS SHALL BE CONSTRUCTED WITHIN 6 FEET OF A CORNER. EACH JOINT SHALL HAVE DOUBLE TIEBACKS INSTALLED.
- SEAWALL PANELS AT EACH EXPANSION JOINT SHALL HAVE LIFTING LOOPS CUT OFF FLUSH. PLACE FILTER FABRIC OVER TOP OF 4' WIDE PANEL AT EACH EXPANSION JOINT.
- ALL REINFORCING SHALL BE HOT DIPPED GALVANIZED ASTM A615 GRADE 60.
- MINIMUM REINFORCING STEEL LAP SPLICE SHALL BE 24"
- STEEL REINFORCING SHALL BE ANCHORED INTO CONCRETE CAP BEAM USING HILTI HIT-RE 100 ADHESIVE ANCHORING SYSTEM IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- TIE BACK SPACING SHALL BE 10 FT O.C., UNLESS NOTED OTHERWISE.
- ALL STEEL COMPONENTS OF TIEBACK SYSTEM SHALL BE HOT DIP GALVANIZED.
- FILTER CLOTH SHALL BE INSTALLED AT EACH EXISTING AND NEW SEAWALL PANEL JOINT AND WEEP HOLE.
- ADDITIONAL CUBIC YARDS OF CLEAN BACKFILL MATERIAL REQUIRED TO ACHIEVE DESIGN ELEVATIONS LANDWARD OF SEAWALL. SHALL BE IMPORTED CLEAN FILL MATERIAL CONSISTING OF FINE GRAINED QUARTZ SAND TO ACHIEVE FINAL GRADES AND TOLERANCES AS SPECIFIED ON CONSTRUCTION PLANS. MATERIAL SHALL BE FREE FROM DIRT, CLAY BALLS, MUCK, ROOTS, AND ORGANIC MATTER AND CONTAIN LESS THAN 15 PERCENT BY WEIGHT PASSING NO. 200 SIEVE.
- IRRIGATION AND SOD IMPACTED DURING CONSTRUCTION SHALL BE RESTORED TO EQUAL OR BETTER CONDITION.
- FILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO A DENSITY OF AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T 99.

COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING PHONE: (239)643-2324 FAX: (239)643-1143 www.coastal-engineering.com E-Mail: info@cecivil.com	CLIENT: CITY OF NAPLES	DATE: 2/15/2022 DRAWN: GVT CHECKED: MAK SEC. TWP. ACAD NO. 21265-C.dwg REF. NO. 21,265	SCALE: AS NOTED F.B. PG. NO.	REVISION DESCRIPTION BY DATE
	TITLE: GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT SEAWALL DETAILS			



UTILITY QUANTITY AND SIZES SHALL BE PROVIDED BY THA.



TYPICAL CONDUIT INSTALLATION DETAIL
SCALE: 1" = 2'

PLUMBING NOTES:

- POTABLE WATER SERVICE TO BE SHUT-OFF BY OTHERS.
- TEMPORARILY CAP SUPPLY LINE DURING SEAWALL CONSTRUCTION.
- PIPE MATERIAL AND SIZE TO BE PROVIDED BY THA.
- WATER LINES SHALL PENETRATE SEAWALL AT THE BASE OF EACH DOCK. TERMINATE AND CAP LINES A MINIMUM OF 3 FEET FROM FACE OF SEAWALL PANEL.
- REPLACEMENT VALVE TO PROVIDED BY THA.
- CONTRACTOR SHALL INSTALL THREE (3) BALL VALVES. LOCATION TO BE DETERMINED IN FIELD.
- CONTRACTOR SHALL CAP TERMINAL ENDS AND PRESSURE TEST IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS PRIOR TO BACKFILLING.
- ALL CONDUIT SHALL BE TRENCHED PER APPLICABLE BUILDING CODES.
- CONTRACTOR SHALL SUPPLY APPROPRIATE SIZED POLYMER CONCRETE VALVE BOX IN ACCORDANCE WITH APPLICABLE BUILDING CODES. INSTALL FLUSH WITH GRAVEL FINISHED GRADE.
- ALL UTILITY PENETRATIONS THROUGH SEAWALL PANELS SHALL BE SEALED ON THE LANDWARD AND WATERWARD SIDE OF PANELS.

ELECTRICAL NOTES:

- CITY SHALL COORDINATE WITH DOCK OWNER TO TERMINATE ELECTRICAL POWER TO DOCKS.
- CONTRACTOR SHALL INSTALL CONDUIT FROM POWER METER TO CENTER LINE OF EACH DOCK.
- CONDUIT MATERIAL AND SIZE TO BE PROVIDED BY THA.
- CONDUIT SHALL PENETRATE SEAWALL AT THE BASE OF EACH DOCK. TERMINATE AND CAP CONDUIT A MINIMUM OF 2 FEET FROM FACE OF SEAWALL PANEL.
- ELECTRICAL SERVICE TO BE RESTORED BY OTHERS.
- ALL CONDUIT SHALL BE TRENCHED PER APPLICABLE BUILDING CODES.
- CONTRACTOR SHALL SUPPLY APPROPRIATE SIZED POLYMER CONCRETE JUNCTION BOX IN ACCORDANCE WITH APPLICABLE BUILDING CODES. INSTALL FLUSH WITH FINISHED GRADE.
- ALL UTILITY PENETRATIONS THROUGH SEAWALL PANELS SHALL BE SEALED ON THE LANDWARD AND WATERWARD SIDE OF PANELS.
- CODES AND STANDARDS: ALL ELECTRICAL WORK SHALL BE IN STRICT COMPLIANCE WITH OSHA REQUIREMENTS, THE 2020 NATIONAL ELECTRICAL CODE, THE LOCAL COUNTY ELECTRICAL CODE, NFPA 303 AND POWER COMPANY STANDARDS. ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS, AND SHALL BEAR THE UNDERWRITER'S LABEL FOR ITS INTENDED USE.
- UTILITY PERMITS, FEES AND NOTICES: SECURE AND PAY FOR ALL REQUIRED BY THE WORK. PROVIDE FINAL INSPECTION CERTIFICATE(S) AS APPLICABLE.
- WORKMANSHIP SHALL MEET N.E.C.A. GUIDELINES.
- IF, THROUGH ERRORS OR OMISSIONS, THE INTENT OF THE OWNER OR ENGINEER WITH REGARD TO ANY DETAIL IS NOT CLEAR, OR IS CAPABLE OF MORE THAN ONE INTERPRETATION, SUCH MATTERS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE SUBMISSION OF BIDS, AND THE ENGINEER SHALL MAKE CORRECTION OR EXPLANATION IN WRITING. OTHERWISE, NO EXTRA CHARGE WILL BE ALLOWED FOR WORK OR MATERIAL WHICH OWNER WILL REQUIRE, PROVIDED THAT IT COMES WITHIN A REASONABLE INTERPRETATION OF DRAWINGS AND SPECIFICATIONS.
- PLANS AND SPECIFICATIONS ARE INTENDED AS A GENERAL DESCRIPTION OF WORK TO BE PERFORMED. ALL ITEMS NOT SPECIFICALLY MENTIONED OR SHOWN, BUT NECESSARY FOR COMPLETION OF THE INSTALLATION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH PLANS BEFORE SUBMITTING HIS FINAL BID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO FAMILIARIZE HIMSELF WITH PLANS OR SITE.
- ALL EXISTING CONDUCTORS, CONDUIT AND FIXTURES SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR UNLESS DIRECTED OTHERWISE BY CITY.
- IF APPLICABLE, CONTRACTOR SHALL INSPECT ALL EXISTING COMPONENTS AND FIXTURES ON DOCKS PRIOR TO REMOVAL OF FIRST SPAN OF DOCK. ANY DEFICIENCY FOUND SHALL BE REPORTED TO CITY IN WRITING.

UTILITY SERVICE		
DOCK	ELECTRICAL	PLUMBING
C	(3) 2" PVC	(1) 1.5" HDPE
D	(3) 2" PVC	(1) 1.5" HDPE
E	(3) 2" PVC	(1) 1.5" HDPE

DATE: 2/15/2022 SCALE: AS NOTED
 DRAWN: GVT F.B.
 CHECKED: MAK PG.
 SEC. TWP. RNG.
 ACAD NO. 21265-C.dwg
 REF. NO. 21,265

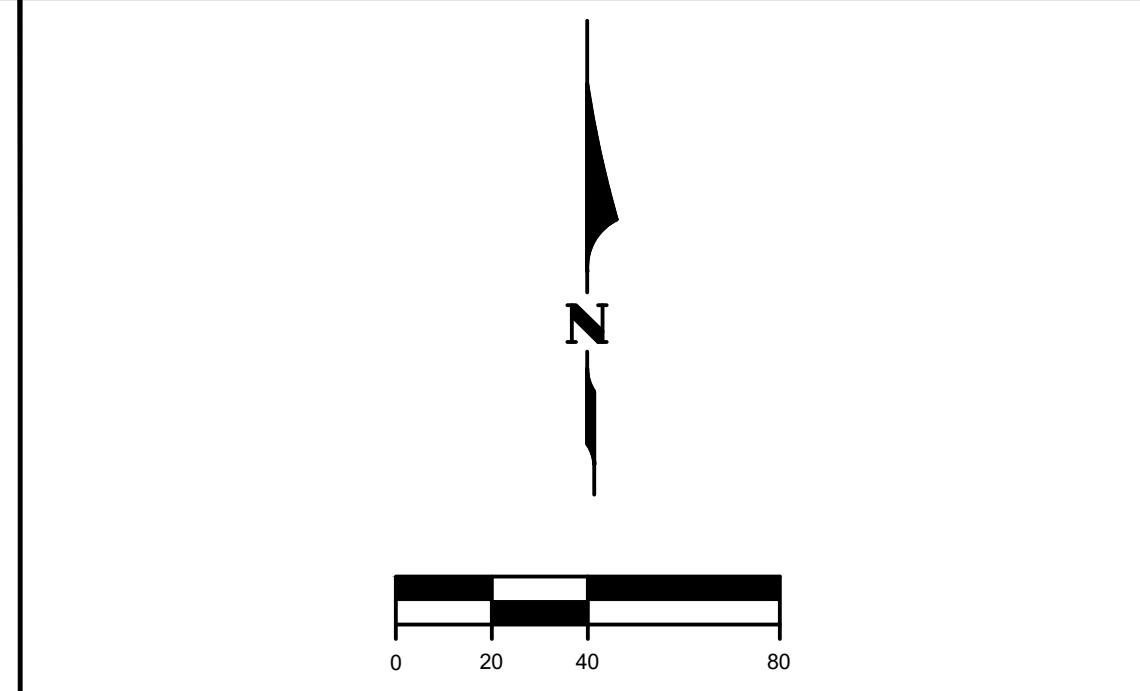
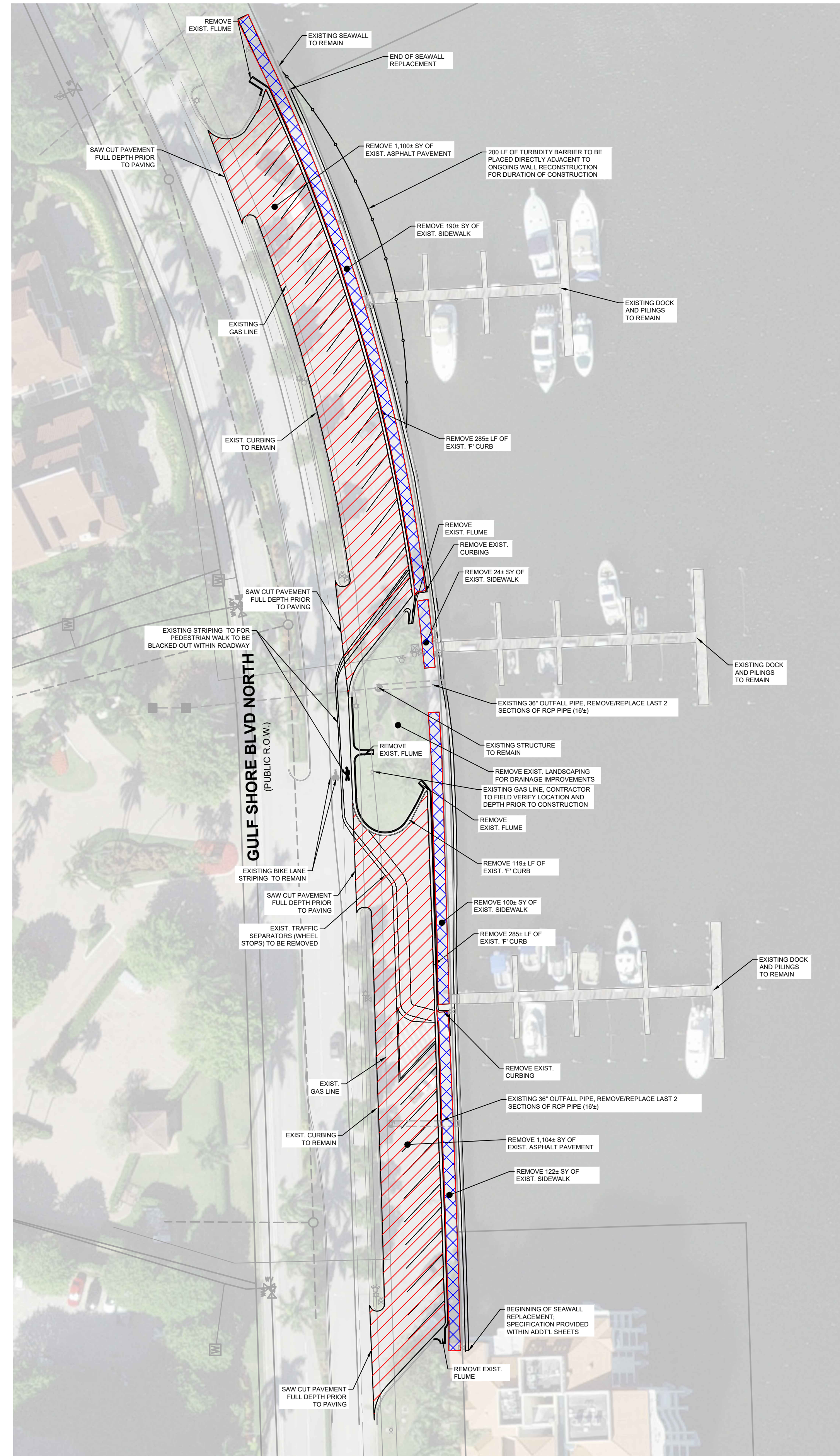
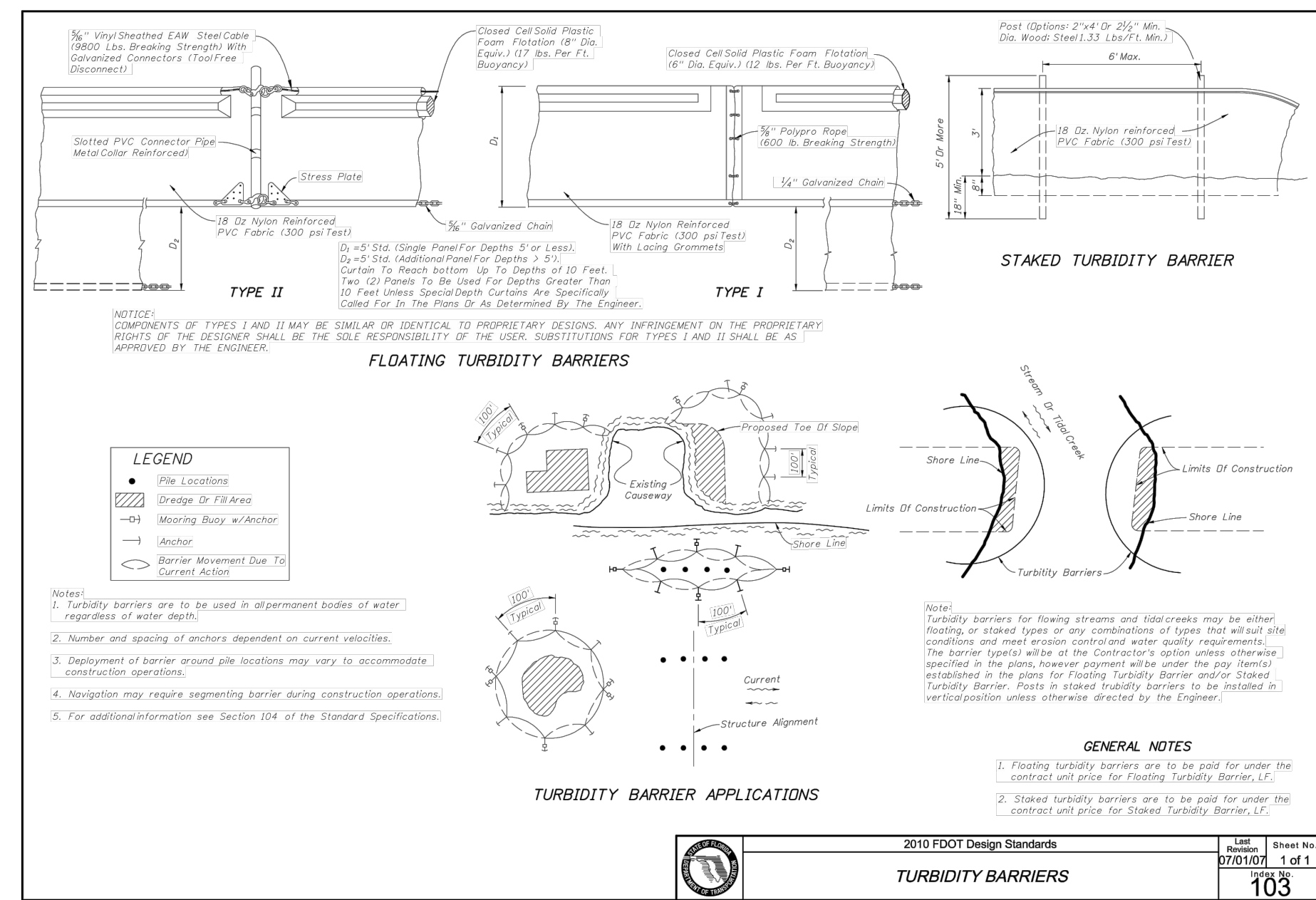
CITY OF NAPLES
 GULF SHORE BOULEVARD NORTH
 OUTLOT "E" SEAWALL REPLACEMENT
 YACHT CLUB PIER UTILITIES

CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING
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 www.coastalmarineengineering.com
 E-Mail: info@cecinc.com

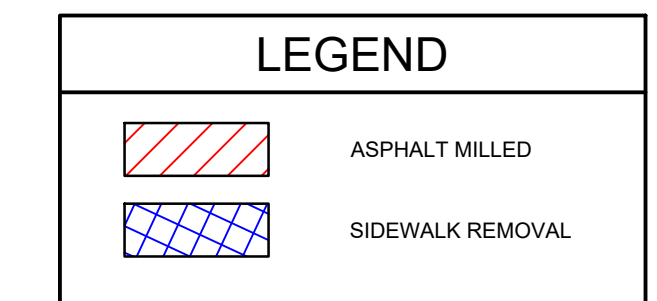
COASTAL ENGINEERING CONSULTANTS INC.
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 BONITA SPRINGS, FLORIDA 34135

SHEET 6
 FILE NO.: 21265-C-06



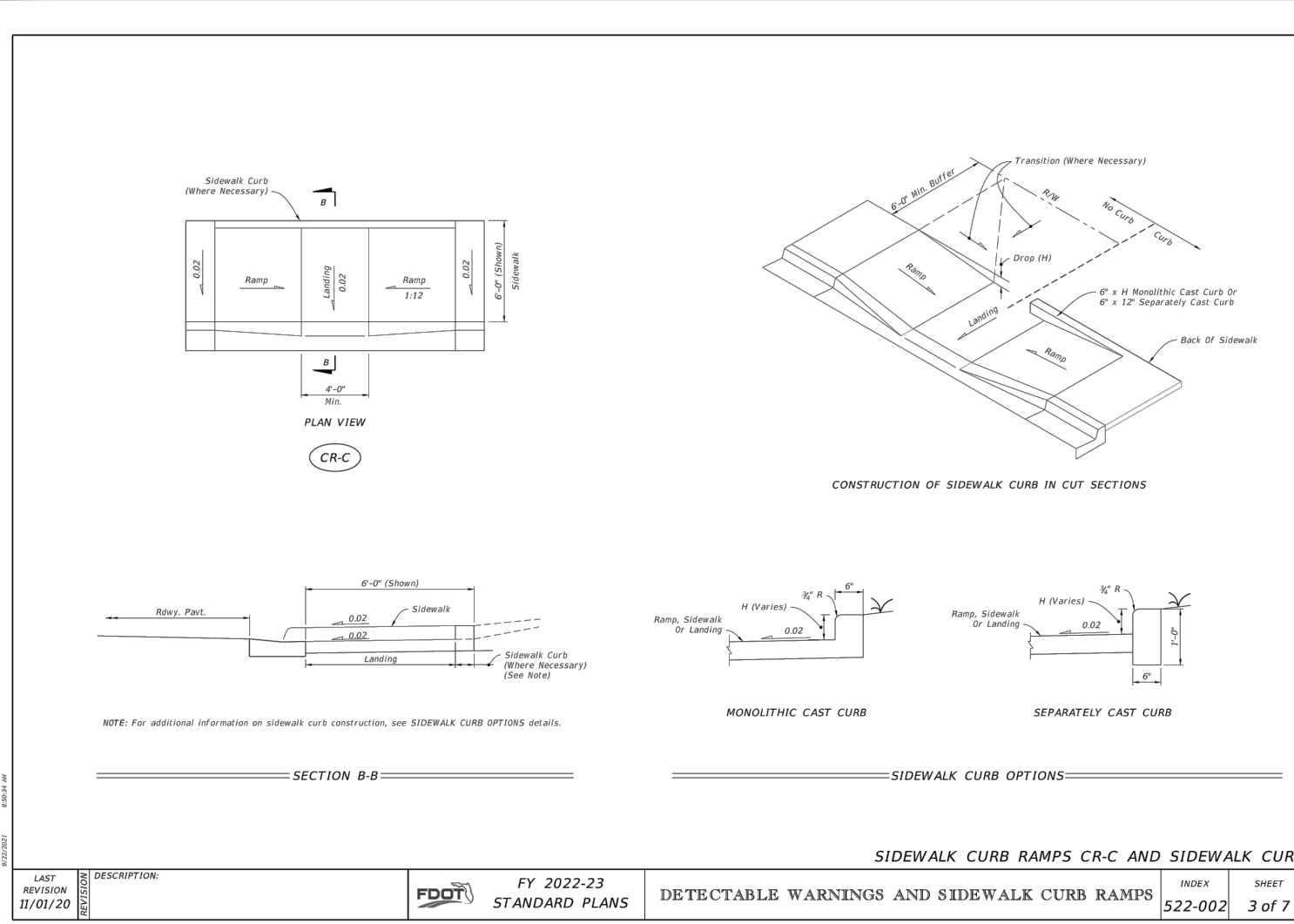
CLEARING NOTES

- PRIOR TO COMMENCEMENT OF CONSTRUCTION APPROPRIATE EROSION CONTROL DEVICES SHALL BE INSTALLED TO CONTROL AND REDUCE SOIL EROSION AND SEDIMENT TRANSPORT TO OFF-SITE AREAS. THE CONTRACTOR SHALL MAINTAIN THESE DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL THE SURROUNDING AREAS ARE ESTABLISHED.
- THESE BEST MANAGEMENT PRACTICES (BMP) ARE TYPICAL OF REQUIREMENTS FOR SOIL EROSION CONTROL. PER DIVISION 3 OF THE COLLIER COUNTY LAND DEVELOPMENT CODE, THEY MAY NOT CONSTITUTE COMPLETE REQUIREMENTS FOR COMPLIANCE WITH REGULATORY AGENCIES AND SPECIFIC PERMIT CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. ACCORDINGLY, THE CONTRACTOR IS ALSO RESPONSIBLE FOR CREATING, IMPLEMENTING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PLAN AS PER THE REQUIREMENTS OF THE NPDES GENERAL PERMIT.
- THIS PLAN IS A CONCEPT, PREPARED TO DEMONSTRATE ONE APPROACH TO PROVIDING EROSION CONTROL FOR THE PROJECT, AS REQUIRED BY COLLIER COUNTY FOR PERMITTING PURPOSES. SITE GENERAL CONTRACTOR MAY PROVIDE AN ALTERNATIVE PLAN AT THE TIME OF NPDES PERMITTING, AND PRIOR TO CONSTRUCTION.

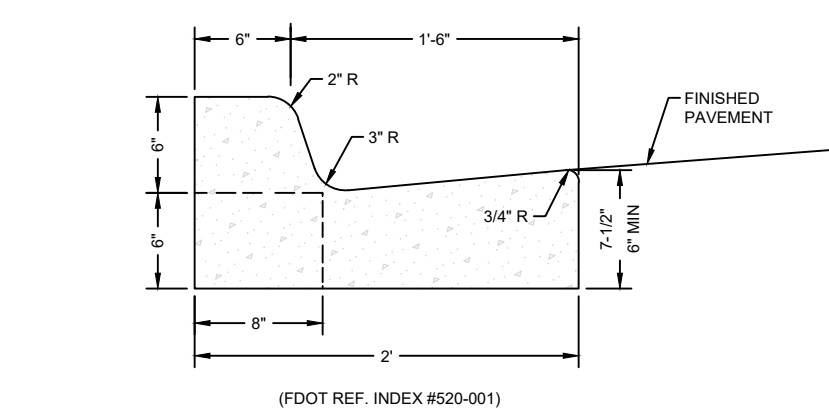


DATE: 2/15/2022		SCALE: AS NOTED	DATE: 21.265	NO. 0
DRAWN: GVT	CHECKED: MAK	ACAD NO. 21265-C.dwg	DATE: 21.265	NO. 0
SEC. TWP.	RNG.	REF. NO.	BY	REVISION DESCRIPTION
CITY OF NAPLES				
GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT EXISTING CONDITIONS AND REMOVALS				
CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING		PHONE: (239)643-2324 FAX: (239)643-1143 www.cemse.com E-Mail: info@cemse.com		
CONTRACTOR: COASTAL ENGINEERING CONSULTANTS INC.		Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FLORIDA 34135		
SHEET 7		FILE NO.: 21265-C-07		

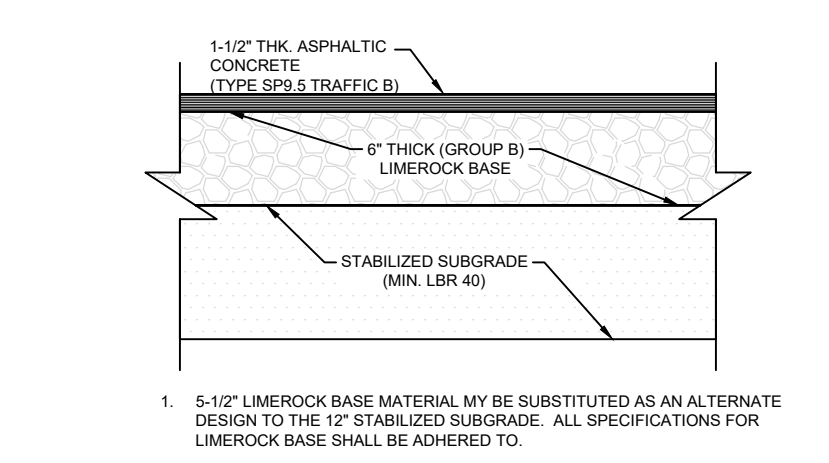
SEAL



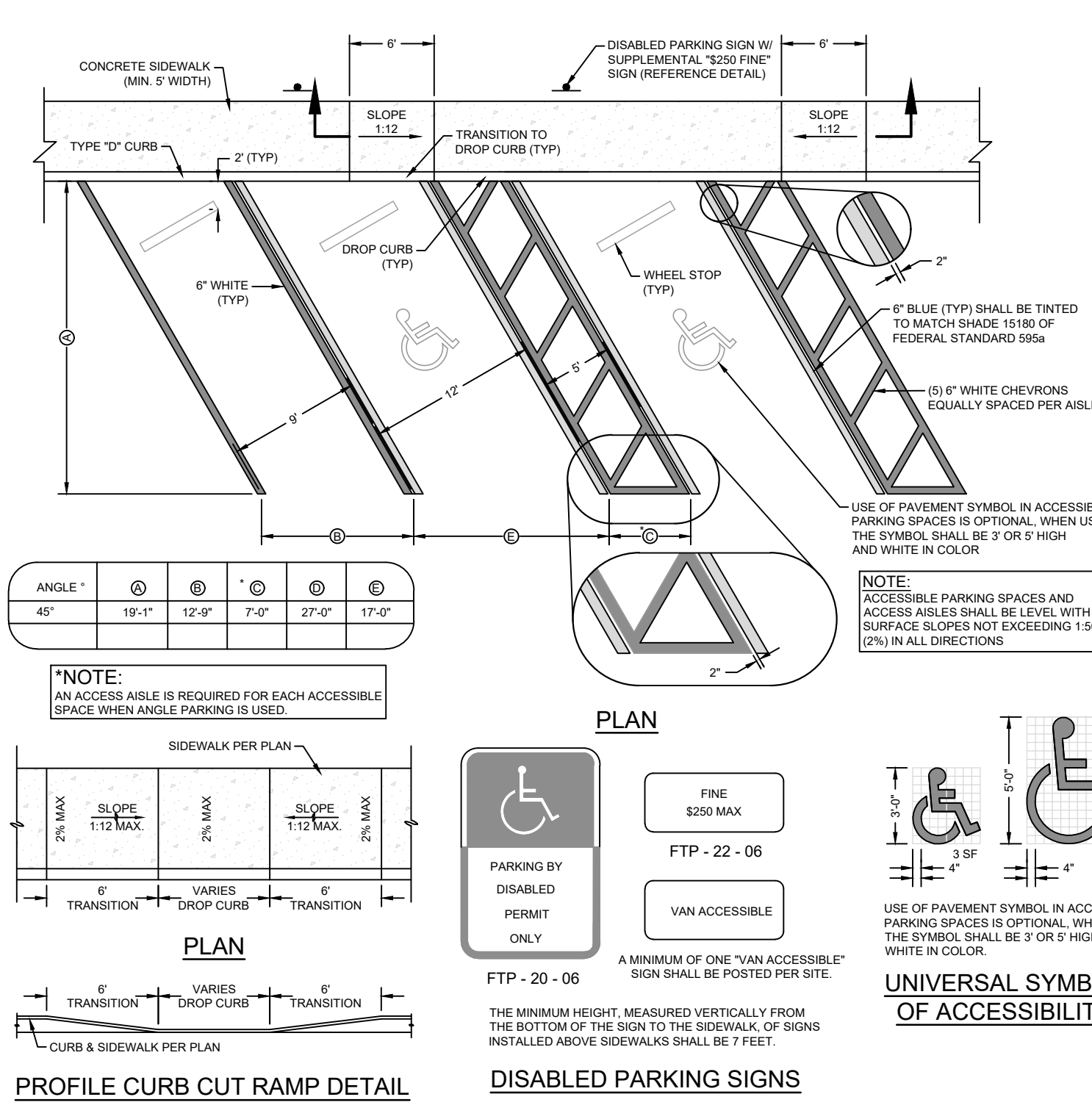
CURB RAMP DETAIL
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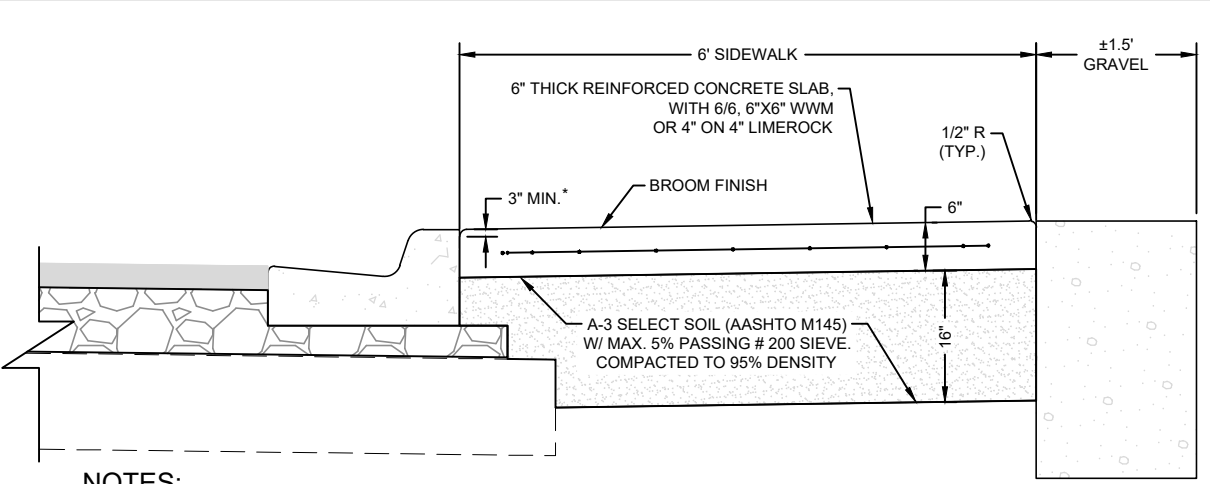
FOOT TYPE "F" CURB AND GUTTER DETAIL
N.T.S.



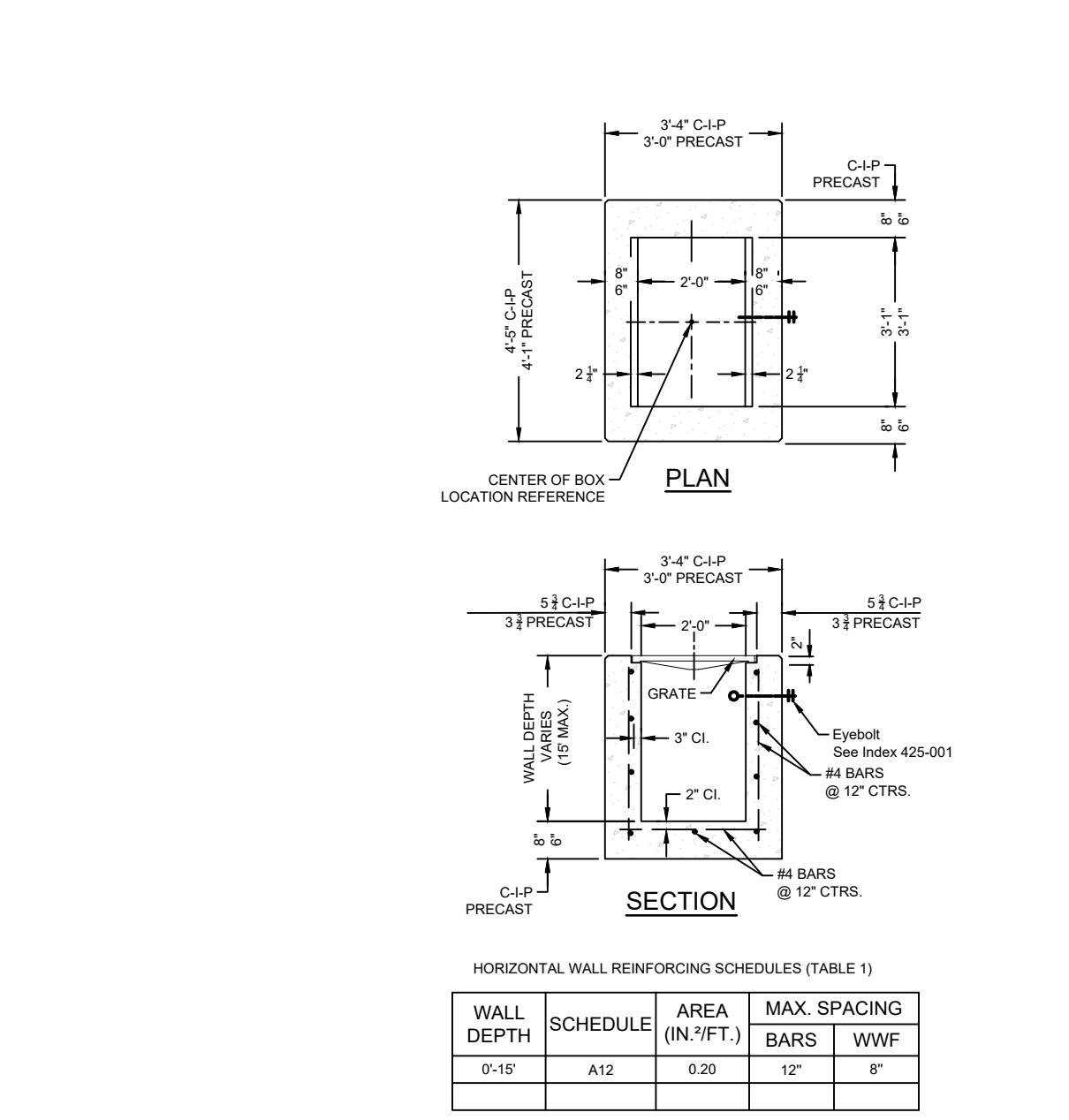
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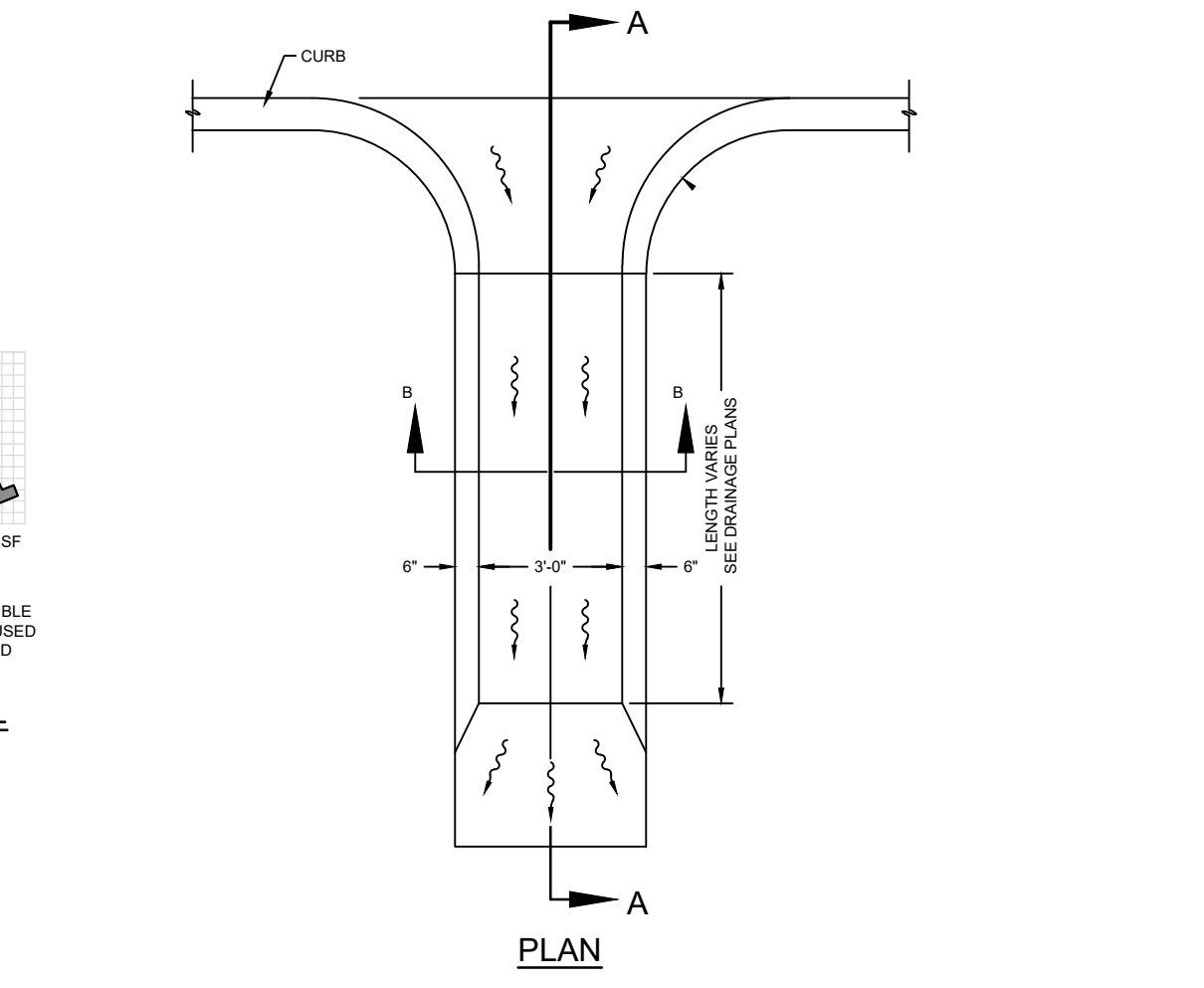
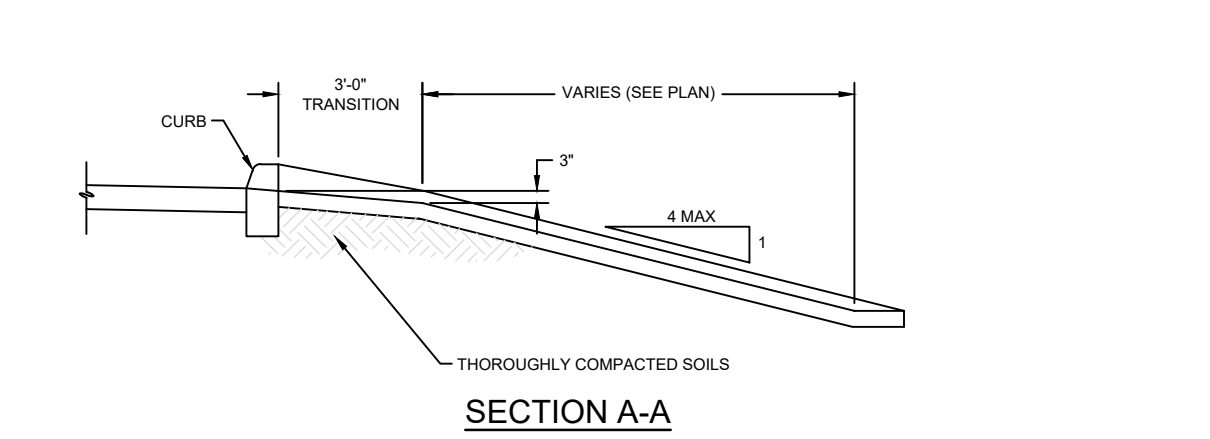
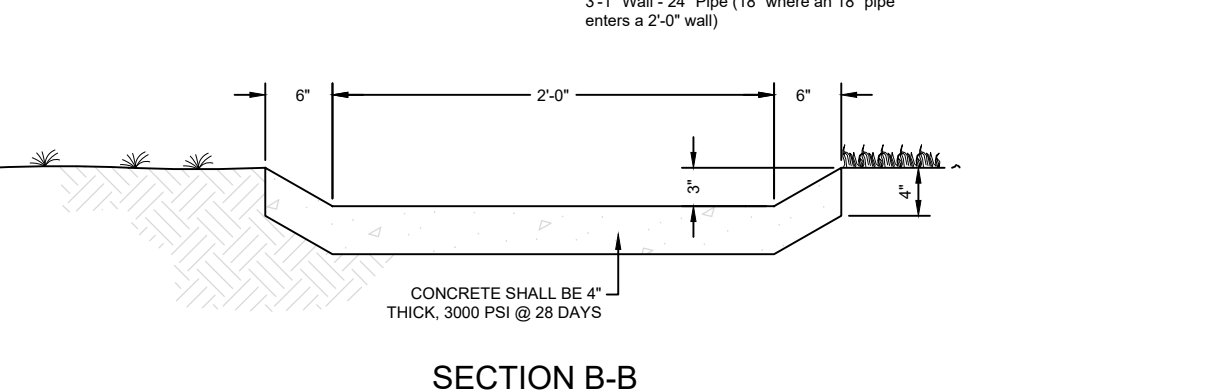
TYPICAL ANGLE PARKING SPACE DETAIL
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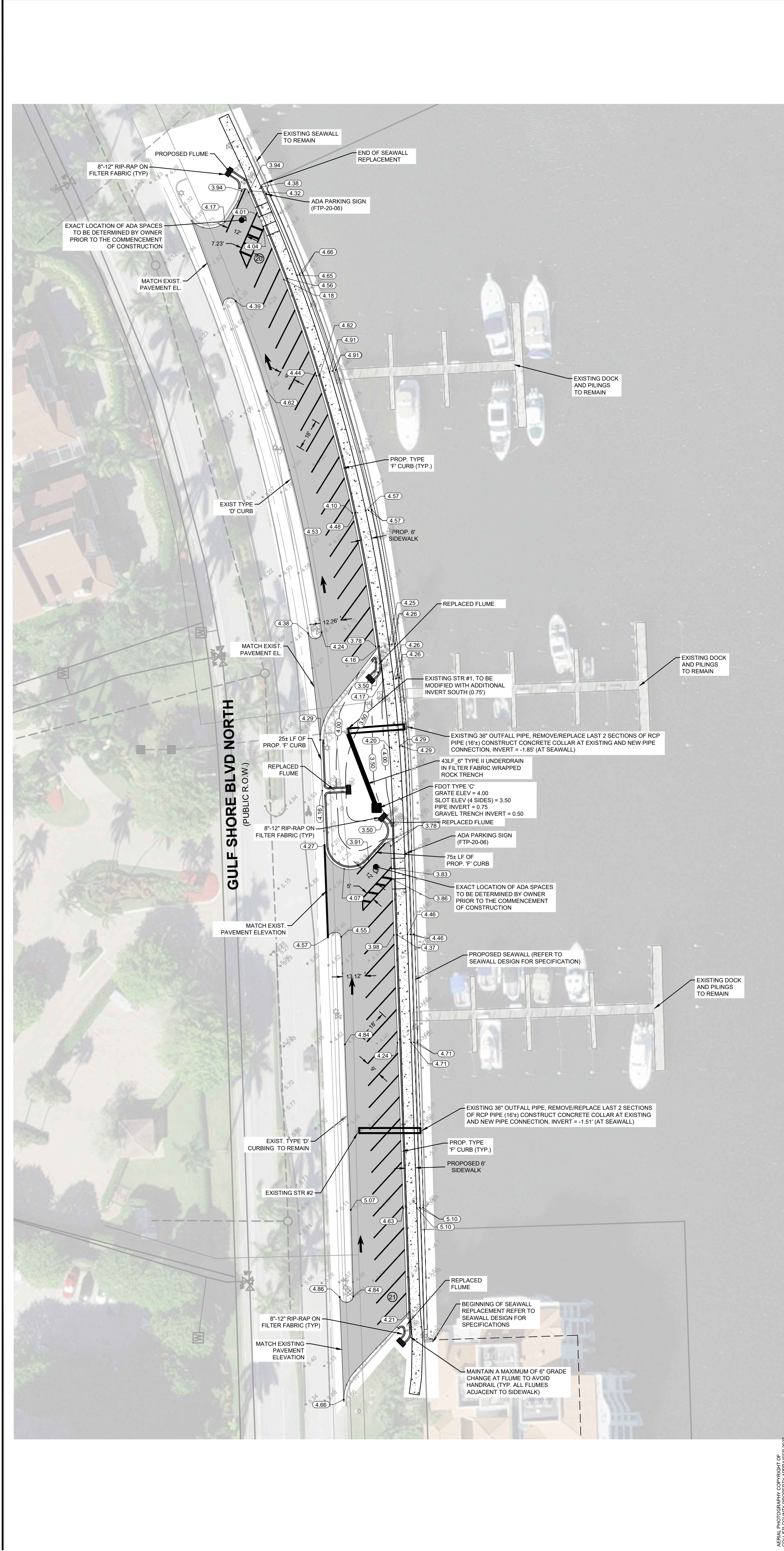
TYPICAL CONCRETE SIDEWALK DETAIL
N.T.S.



DITCH BOTTOM INLET TYPE "C"



CONCRETE FLUME DETAIL
N.T.S.



ROAD SIGNS

(R1-1) 30"x30" (EXPRESSWAY) 30"x30" (MIN) 24"x24" (MAX) 48"x48" MUTCD SEC. 2B.04

(R6-1) 30"x30" (EXPRESSWAY) 30"x30" (FREEWAY) 48"x48" MUTCD SEC. 2B.34

NOTES

1. ALL PAVEMENT STRIPING TO BE PAINT PER FOOT SPECIFICATIONS

DATE	SCALE	AS NOTED	NO.	REVISION DESCRIPTION
2/15/2022	AS NOTED		21.265	

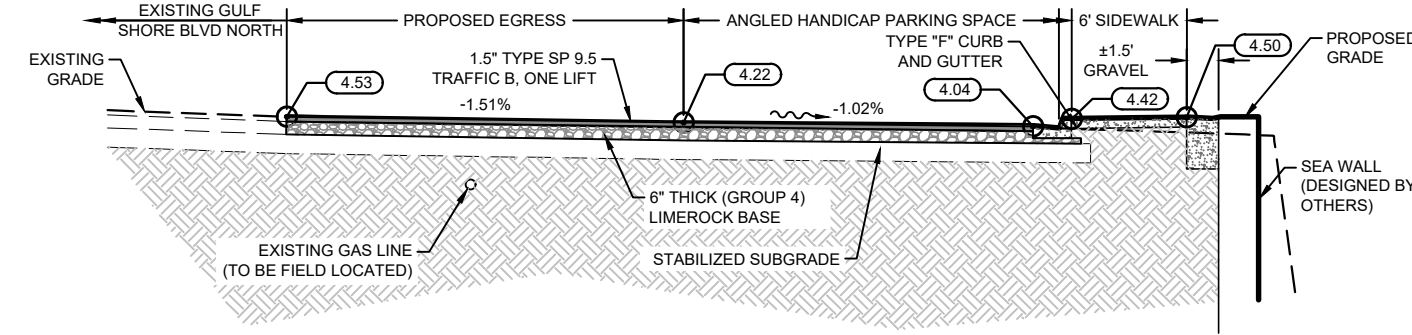
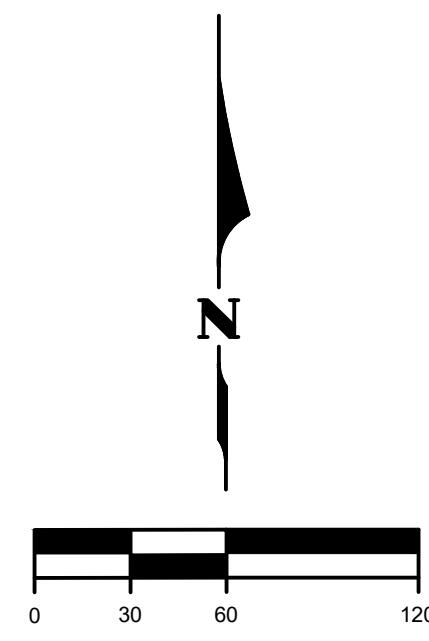
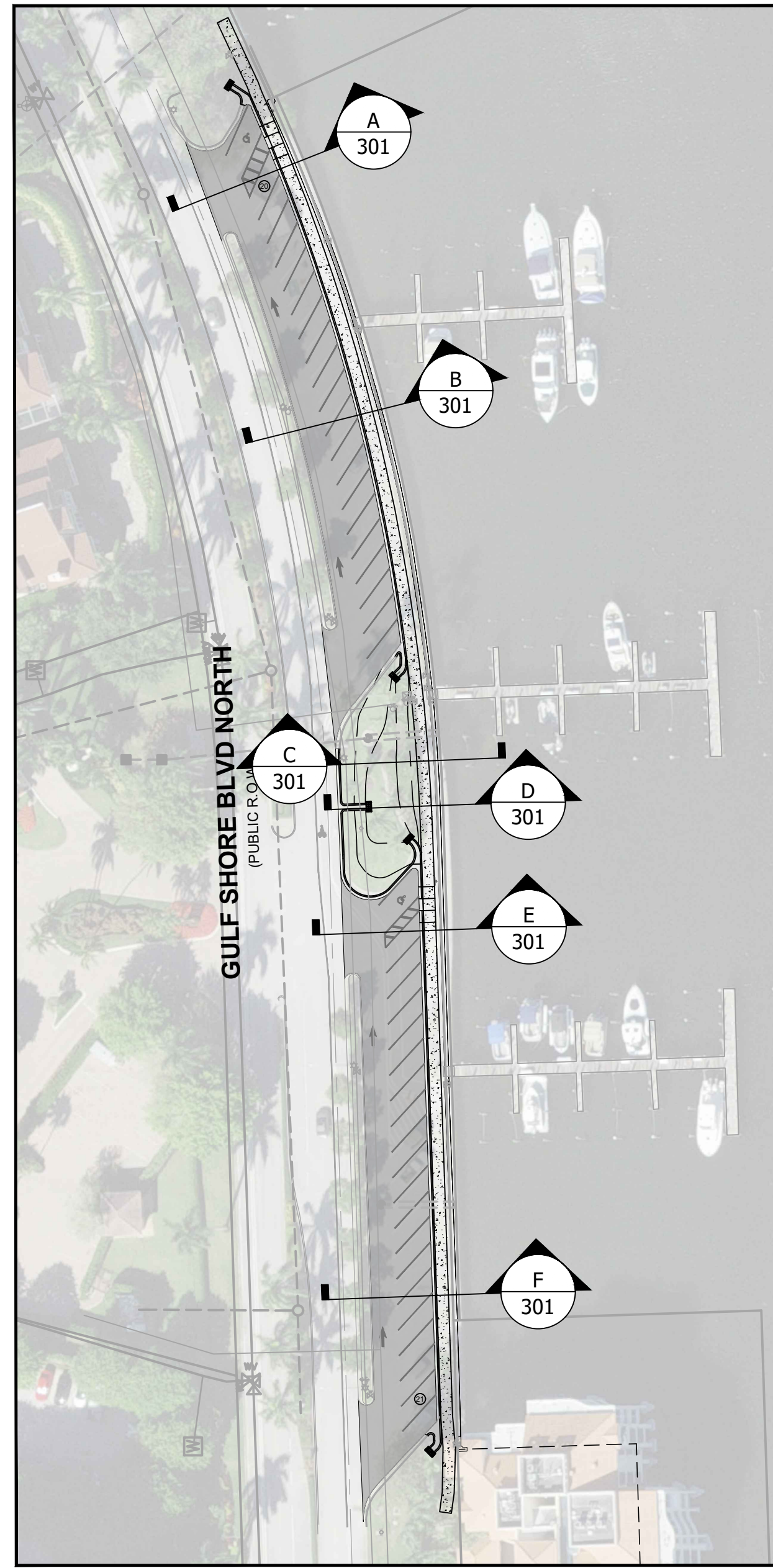
CLIENT	TITLE
CITY OF NAPLES	GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT PAVING, GRADING, AND DRAINAGE

COASTAL ENGINEERING CONSULTANTS INC.
 ENVIRONMENTAL SERVICES SURVEY AND MAPPING

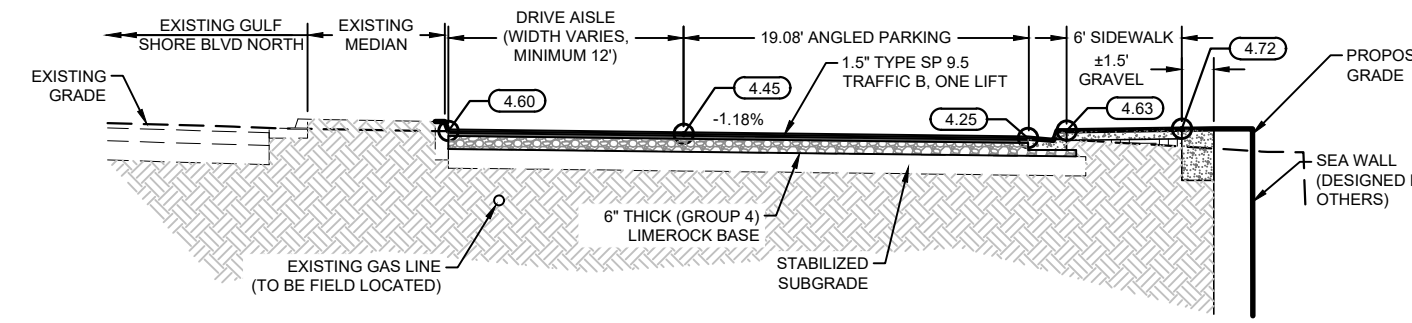
PENINSULA ENGINEERING INC.
 CIVIL ENGINEERING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL CONSULTING · LAND PLANNING · SITE PLANNING · CONSTRUCTION MANAGEMENT · OWNER REPRESENTATIVE

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 FAX: (239) 643-1143
 www.coastalengineering.com
 E-Mail: info@ceait.com

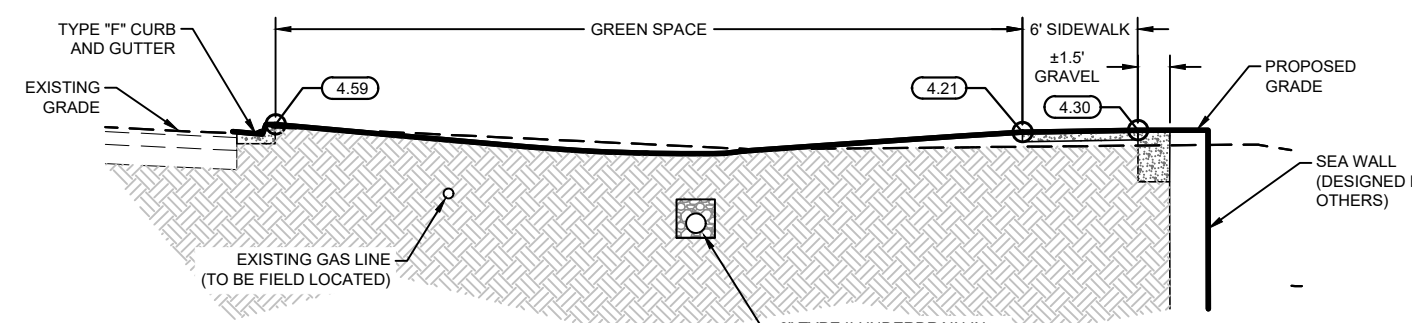
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 BONITA SPRINGS, FLORIDA 34135



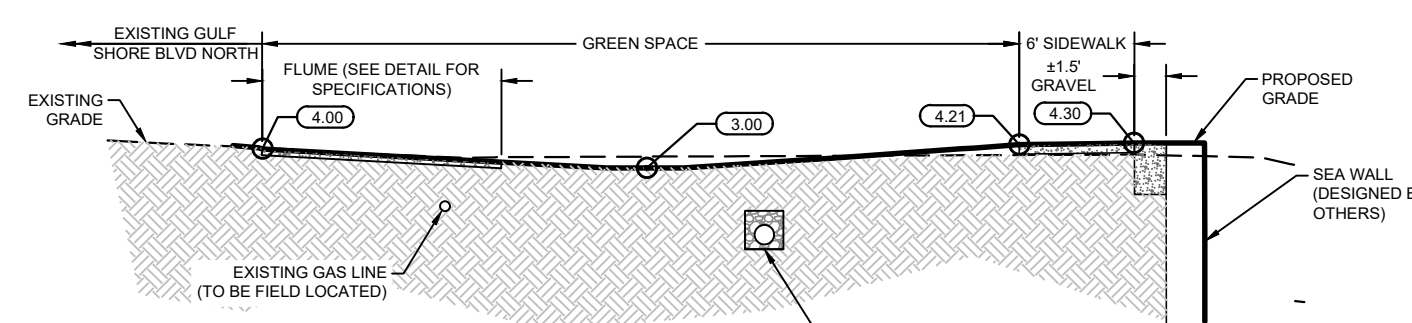
A SECTION
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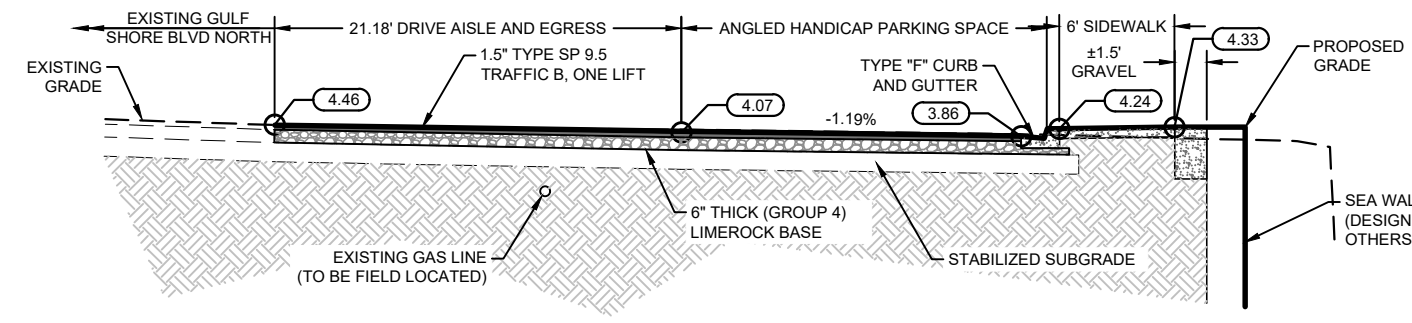
B SECTION
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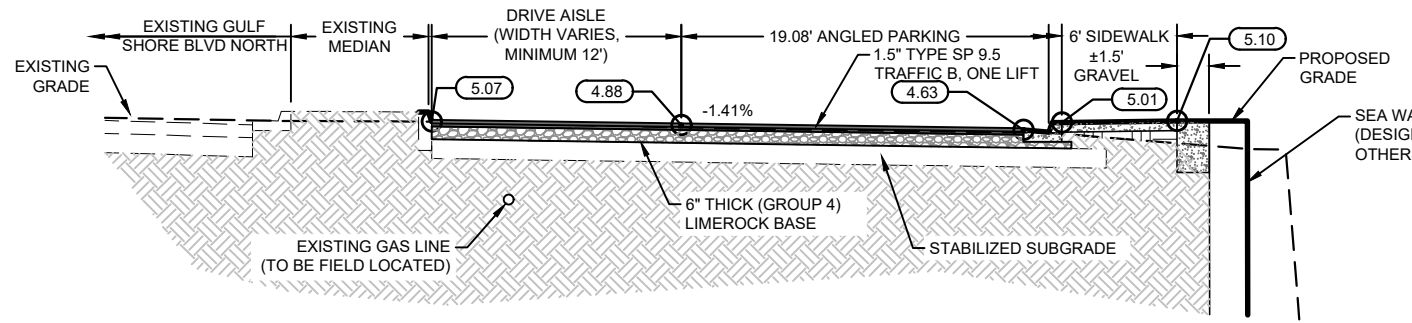
C SECTION
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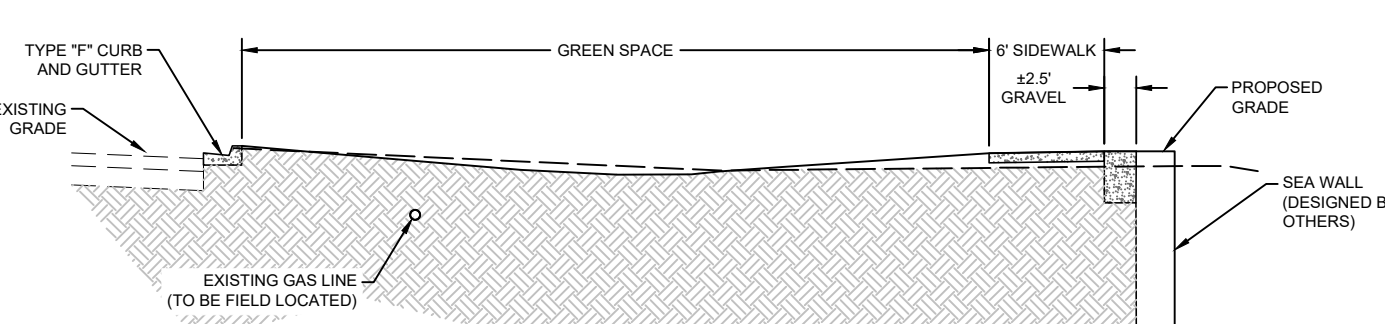
D SECTION
Scale: 1" = 10'



E SECTION
Scale: 1" = 10'



F SECTION
Scale: 1" = 10'



TYPICAL SECTION THROUGH TROPICS PROPERTY
Scale: 1" = 10'

NOTES

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CHECKED: MAK		ACAD NO. 21265-C.dwg	SEC. TWP. RING.		NO. 21,265
CLIENT: CITY OF NAPLES		TITLE: GULF SHORE BOULEVARD NORTH OUTLOT "E" SEAWALL REPLACEMENT CROSS SECTIONS	BY:		DATE:
CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING		PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@ceaitl.com		REVISION DESCRIPTION	
CLIENT: COASTAL ENGINEERING CONSULTANTS INC.		Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FLORIDA 34135		REVISION DESCRIPTION	
CLIENT: COASTAL ENGINEERING CONSULTANTS INC.		CIVIL ENGINEERING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL CONSULTING · LAND PLANNING · SITE PLANNING · CONSTRUCTION MANAGEMENT · OWNER REPRESENTATIVE		REVISION DESCRIPTION	
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