STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

April 14, 2026

Addendum No. 3

Contract No.: DA00645

TIP #: FF-0001A

WBS Element: 50801.3.2, 16.71001

NCDOT Hatteras/Ocracoke Passenger Ferry Dock Replacements in Dare and Hyde Counties

To Whom It May Concern:

Reference is made to the proposal and plans previously furnished for this project.

Please find attached the revised plan sheets for the project. These updates incorporate the modifications detailed in **Addendum 1**, with each specific change clearly marked as **Revision A** on the respective sheets.

Please replace the previous versions in your records with the following updated sheets:

Plan Set_Sheet No.	**Plan Set_Sheet No.**
Hatteras_G-002	Ocracoke_G-002
Hatteras_M-503	Ocracoke_M-102
Hatteras_M-504	Ocracoke_M-301
	Ocracoke_M-503
	Ocracoke_M-504

https://connect.ncdot.gov/letting/Pages/Letting-List.aspx?let_type=1&let_status=Advertised

Sincerely,

DocuSigned by:
Mark S. Winslow
37ED002D8DDF4B4...

Mark S. Winslow
Division Contract Engineer

Cc: R. K. Sawyer, PE
D. B. Otts, PE
C. D. Peele
M. B. Gill, PE
C. A. Spear, PE
B. N. Braswell, PE
J. E. Dixon

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION ONE
113 AIRPORT DRIVE, SUITE 100
EDENTON, NC 27932

Telephone: (252) 482-1850
Fax: (252) 482-8722
Customer Service: 1-877-368-4968

Location:
113 AIRPORT DRIVE, SUITE 100
EDENTON, NC 27932

Website: www.ncdot.gov

04/08/26

GENERAL NOTES:

GENERAL CONSTRUCTION

1. CONTRACTOR SHALL VERIFY ALL INFORMATION PROVIDED HEREIN WITH TECHNICAL SPECIFICATIONS AND OTHER DOCUMENTS AND SHALL NOTIFY ENGINEER, OF ANY CONFLICTS, IN WRITING, BEFORE WORK IS INITIATED.
2. ALL DIMENSIONS AND DETAILS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION.
3. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF OSHA AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.
4. THE CONTRACTOR SHALL MAINTAIN MARINE AND LAND TRAFFIC IN ACCORDANCE WITH AND SUBJECT TO ALL MARINE, COAST GUARD, AND NCDOT REQUIREMENTS DURING THE ENTIRETY OF PROJECT. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO ENGINEER, NCDOT FERRIES, AND COAST GUARD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BID ANY AND ALL COSTS ASSOCIATED WITH TRAFFIC MAINTENANCE INCLUDING BUT NOT LIMITED TO DAILY COMMUNICATIONS WITH COAST GUARD, ISSUANCE OF ADVISORIES OF LANE CLOSURES, AND MOVING IN AND OUT OF NAVIGATION CHANNELS AS REQUIRED TO ALLOW PASSAGE OF MARINE VESSELS.
5. CONSTRUCTION ACTIVITIES SHALL BE PLANNED AND COORDINATED FREQUENTLY WITH NCDOT AND THE EOR TO ALLOW FERRY TERMINAL OPERATIONS TO CONTINUE DURING CONSTRUCTION. ANY CONSTRUCTION ACTIVITY THAT MAY PREVENT FERRY TERMINAL OPERATIONS FROM BEING PERFORMED SHALL BE NOTIFIED WITH AMPLE ADVANCE NOTICE TO NCDOT AND THE EOR FOR COORDINATION WITH THE FERRIES.
6. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL DAMAGE. THE CONTRACTOR SHALL ALSO PROTECT HIS WORK, ADJACENT PROPERTY, AND THE PUBLIC. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
7. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE LOCAL ENVIRONMENTAL PROTECTION STANDARDS, PERMITTING LAWS, AND REGULATIONS.
8. ALL APPLICABLE SAFETY REGULATIONS SHALL BE STRICTLY FOLLOWED. METHODS OF DEMOLITION, CONSTRUCTION, AND INSTALLATION OF STRUCTURAL MATERIAL ARE THE CONTRACTOR'S RESPONSIBILITY.
9. LIMITED STAGING AREA WILL BE PROVIDED ON-SITE FOR CONTRACTOR'S USE. CONTRACTOR SHALL CONFIRM THE EXTENT AND LOCATION OF STAGING AREAS WITH NCDOT, PRIOR TO MOBILIZATION EXCEPT THAT WHICH SHALL BE PERFORMED OFF SHORE, SHALL BE CONDUCTED FROM BARGES, WORK BOATS, OR OTHER TEMPORARY PLATFORMS PROVIDED BY THE CONTRACTOR. CONTRACTOR SHALL RESPECT THE LIMITATIONS OF THE PROJECT SITE FOR STORING MATERIAL. CONTRACTOR SHALL COORDINATE WORK IN SUCH A WAY AS TO LIMIT THE NEED FOR STORED MATERIALS OR SHALL BE RESPONSIBLE FOR ALL ARRANGEMENTS AND COSTS FOR OBTAINING LAYDOWN AREA OR BARGES AS MAY BE REQUIRED.
10. UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE DISTURBING ACTIVITIES. ANY UTILITY LINES LOCATED IN THE PROJECT AREA SHALL BE PROTECTED UNLESS SPECIFICALLY CALLED OUT TO BE DEMOLISHED.
11. CONTRACTOR IS RESPONSIBLE TO REVIEW SITE CONDITIONS TO DEVELOP AN APPROPRIATE WORK PLAN FOR MOBILIZING AND CONDUCTING WORK AT THE SITE.
12. CONTRACTOR SHALL VERIFY LAYOUT AND DIMENSIONS OF THE EXISTING PIERS PRIOR TO COMMENCING THE CONSTRUCTION.
13. CARE MUST BE TAKEN SO AS TO NOT DAMAGE THE EXISTING PIERS AND OTHER STRUCTURES, FROM CONSTRUCTION LOADING, OR OTHERWISE. IF ANY DAMAGE IS OBSERVED ON THE EXISTING STRUCTURES DURING THE EXECUTION OF CONSTRUCTION WORK, ALL WORK AT SUCH LOCATION SHALL CEASE AND THE NCDOT SHALL BE CONTACTED TO REVIEW SUCH DAMAGES PRIOR TO WORK RESUMPTION.
14. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO EXISTING STRUCTURES THAT RESULT FROM CONSTRUCTION ACTIVITIES AT NO COST TO THE COUNTY AND STATE.

SUBMITTALS

1. CONTRACTOR SHALL PROVIDE TO THE ENGINEER ALL SUBMITTALS (SHOP DRAWINGS, SAMPLES, MATERIAL CERTIFICATIONS, ETC) REQUIRED BY THE TECHNICAL SPECIFICATIONS FOR REVIEW PRIOR TO PURCHASE OR FABRICATION.

ENVIRONMENTAL PERMITS

1. CONTRACTOR SHALL IMPLEMENT AND ABIDE BY ALL REGULATORY ENVIRONMENTAL REQUIREMENTS AS SPECIFIED IN THE ENVIRONMENTAL PERMITS SECURED BY NCDOT FOR THE PROJECT. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLY WITH ALL REGULATORY PERMIT REQUIREMENTS.
2. CONTRACTOR SHALL ENSURE THAT TEMPORARY MEASURES AND REGULATORY MITIGATION REQUIREMENTS ARE IMPLEMENTED PRIOR TO INITIATING ANY CONSTRUCTION.

CONSTRUCTION LOADS

1. CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SHORING, BRACING, AND GUYING OF ALL COMPONENTS AS REQUIRED FOR SAFETY AND STRUCTURAL INTEGRITY THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH SOUND PRACTICE.

CODES AND STANDARDS

1. ALL METHODS AND MATERIALS SHALL CONFORM TO LOCAL BUILDING CODES AS AMENDED AND ADOPTED BY THE LOCAL COUNTY AND STATE AUTHORITIES.
2. REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE, UNLESS NOTED OTHERWISE IN THESE DOCUMENTS.
3. AMERICANS WITH DISABILITIES ACT, ADA STANDARDS FOR ACCESSIBLE DESIGN, 2010
4. AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE /SEI 7-16, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
5. ALL WORK SHALL CONFORM TO THE NCDOT STANDARD SPECIFICATIONS FOR ROAD AND STRUCTURES.

WATER LEVELS

WATER LEVELS DEFINED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY AND DO NOT INDICATE CONDITIONS DURING CONSTRUCTION. WATER LEVELS LISTED BELOW ARE REFERENCED TO NAVD88 DATUM AND WERE SOURCED FROM NOAA'S TIDE STATION 8654467, USCG HATTERAS, NC.

DATUM:	NAVD88
MEAN HIGHER HIGH WATER (MHHW)	+0.26'
MEAN TIDE LEVEL	+0.53'
MEAN LOWER LOW WATER (MLLW)	-0.39'

SURVEY INFORMATION:

1. TOPOGRAPHIC AND BATHYMETRIC SURVEY WAS PROVIDED BY NCDOT, FILE NAME: Hatteras Passenger_LS_SSG_210628_dtl.dgn
2. THE ELEVATIONS SHOWN ON THIS MAP ARE ACCURATE FOR THE DATE OF THAT SURVEY ONLY AND SHOULD NOT BE DEPENDED ON FOR ACCURACY AFTER THE DATE.

GEOTECHNICAL:

1. GEOTECHNICAL RECOMMENDATIONS WERE DEVELOPED BASED STRUCTURE SUBSURFACE INVESTIGATION CONDUCTED BY CATLIN ENGINEERS AND SCIENTISTS AND DATED SEPTEMBER 2017 AND THE TECHNICAL MEMORANDUM PREPARED BY THE EASTERN REGIONAL OFFICE GEOTECHNICAL ENGINEERING UNIT DATED FEBRUARY 13, 2018.

DESIGN CRITERIA:

1. DEAD LOAD CONSISTS OF THE SELF-WEIGHT OF THE STRUCTURE AND ALL PERMANENT ATTACHMENTS, INCLUDING MARINA ACCESSORIES (CLEATS, DOCK BOXES, LIGHTS, ETC.), UTILITIES (POTABLE WATER, FIREWATER, AND ELECTRIC/COMMUNICATIONS) AND FENDERING SYSTEMS.

MATERIAL WEIGHTS	
MATERIAL	UNIT WEIGHT
SELF-WEIGHT OF NORMAL WEIGHT CONCRETE:	150 LB/FT3
SELF-WEIGHT OF STRUCTURAL STEEL:	490 LB/FT3
TIMBER (TREATED):	60 LB/FT3
ALUMINUM ALLOYS:	175 LB/FT3
DD300 FENDERS:	60 LB/LF
COMPOSITE WOOD DECK:	28 LB/FT3

FIXED LANDING AREAS (LIVE LOAD):

- CONCENTRATED: 650 LBS
- UNIFORM: 100 PSF

BOARDING RAMP/ GANGWAY (LIVE LOAD):

- UNIFORM: 50 PSF
- DEFLECTION: MAXIMUM L/240 (DEAD + LIVE)

FERRY DOCK OPERATION PARTICULARS:

DESIGN VESSEL:

VESSEL TYPE:	FERRY
CAPACITY:	125 PASSENGERS
LOA:	92 FEET
BEAM:	27 FEET
IMPACT SPEED:	0.6 KNOTS
FREEBOARD (LADEN):	7.0 FEET
FREEBOARD (LIGHT):	7.5 FEET
MIN. DRAFT:	4.0 FEET
MAX. DRAFT:	4.5 FEET

DESIGN COASTAL CONDITIONS:

THE FOLLOWING COASTAL CONDITIONALS HAVE BEEN USED TO DETERMINE THE WAVE LOADS USED IN THE DESIGN OF THE FIXED DOCK AND FENDER PILES. DESIGN STORM EVENT FOR VACANT CONDITION - NO VESSEL MOORED

WIND SPEED:	85 KNOTS (98 MPH)
SIGNIFICANT WAVE HEIGHT:	4.32 FEET
CURRENT:	<2.0 KNOTS
WATER SURFACE ELEVATION:	3.1 FEET (NAVD88)
Tp	2.7 SEC

DESIGN STORM EVENT FOR OPERATIONAL LIMITS - MOORING (5-YR TROPICAL STORM EVENT)

WIND SPEED:	35 KNOTS (40 MPH)
SIGNIFICANT WAVE HEIGHT:	2.15 FEET
CURRENT:	<2.0 KNOTS
Tp:	4.0 SEC

THE FOLLOWING PARAMETERS WERE USED IN THE DESIGN OF THE FENDER SYSTEM. BERTHING ANALYSIS AND DESIGN PARAMETERS:

MAXIMUM BERTHING VELOCITY:	1 FT/S
MAXIMUM BERTHING ANGLE:	10 DEGREES
DISPLACEMENT ESTIMATED:	201.9 TONNES
ECCENTRICITY FACTOR (CE) ¼ POINT:	0.40
VIRTUAL MASS FACTOR:	1.50
NORMAL BERTHING HULL PRESSURE:	<4.2 KSF

WIND LOADS (ON STRUCTURE):

1. WIND LOADS ARE IN ACCORDANCE WITH ASCE 7-16.
2. BASIC WIND SPEED IS 141 MPH FOR DESIGN CATEGORY II.

MATERIALS:

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL MISCELLANEOUS STEEL SHAPES AND PLATES SHALL CONFORM TO STAINLESS STEEL TYPE 316 ASTM A36.
2. ALL FASTENERS AND CONNECTORS INCLUDING BOLTS, NUTS, WASHERS, LAG SCREWS, SCREWS PLATES, AND ANGLES SHALL BE TYPE 316 STAINLESS STEEL.
3. ALL MISCELLANEOUS STEEL SHALL RECEIVE A PROTECTIVE PAINT COATING EQUAL TO THE COATING SPECIFIED FOR THE STEEL FENDER PILES.

ALUMINUM BOARDING RAMPS:

1. THE ENGINEER OF RECORD DELEGATES THE RESPONSIBILITY FOR THE DESIGN OF THE ALUMINUM BOARDING RAMPS TO A SPECIALTY ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. ALL BOARDING RAMPS SUBMITTALS INCLUDING BUT NOT LIMITED TO DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. ALL SHOP DRAWING SUBMITTALS SHALL BE SIGNED, SEALED AND DATED BY THE SPECIALTY ENGINEER.
2. ALUMINUM BOARDING RAMPS SHALL BE PREFABRICATED FROM ALUMINUM MEETING THE FOLLOWING REQUIREMENTS:
   A. THE DESIGN SHALL CONFORM TO IBC CODE AND ALUMINUM DESIGN MANUAL REQUIREMENTS AND TECHNICAL SPECIFICATION SECTION 05 51 36.
   B. THE ALUMINUM BOARDING RAMP FABRICATION SHALL CONFORM TO ALUMINUM ALLOY 6061-T6 OR 6063-T6 AND WELDING SHALL BE IN ACCORDANCE WITH AWS D1.2.
   C. GRATING, HANDRAILS, AND TRANSITION PLATES SHALL BE ADA COMPLIANT.
3. LOCATIONS, LENGTHS, AND CLEARANCES INDICATED IN THE DRAWINGS ARE APPROXIMATE.
4. FINAL BOARDING RAMP LENGTHS, CLEARANCES, AND CONNECTIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE DESIGN AND FABRICATION.

WOOD FIXED DOCK:

1. ALL LUMBER SHALL BE MANUFACTURED AND GRADED IN ACCORDANCE WITH THE CURRENT EDITION OF THE STANDARD GRADING RULES FOR SOUTHERN PINE TIMBER, OF THE SOUTHERN PINE INSPECTION BUREAU. THE REQUIREMENTS OF NO. 1 DENSE SHALL APPLY. ALL LUMBER AND TIMBER SHALL CONFORM TO GRADE NO. 1 DENSE OR SELECT STRUCTURAL (SEL STR.) AS APPLICABLE AND SHALL BEAR THE GRADE MARK OF AN ALSC-ACCREDITED AGENCY.
2. TIMBER AND LUMBER SHALL BE SOUTHERN PINE AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
   A. PILES - ROUND TIMBER WITH A MINIMUM TIP CIRCUMFERENCE OF 38" (12" DIAMETER) IN ACCORDANCE WITH ASTM D25 . PILES SHALL BE SOUTHERN PINE, GRADED IN ACCORDANCE WITH SPIB RULES AS NO.1 DENSE OR SEL STR., AND KILN-DRIED TO MC-19 OR LESS. LENGTH SHALL BE IN ACCORDANCE WITH THE PILE SCHEDULE.
   B. DIAGONAL BRACING - MARINE GRADE NO. 1. BRACING SHALL BE SOUTHERN PINE, GRADED NI ACCORDANCE WITH SPIB RULES AND KILN-DRIED TO MC19 OR LESS.
   C. SPLIT PILE CAPS, JOISTS AND HAND RAILS - NO. 1 DENSE SOUTHERN PINE. MATERIAL SHALL BE GRADED IN ACCORDANCE WITH SPIB RULES AND KILN-DRIED TO MC-19 OR LESS.
   D. DECKING - 2"X6" COMPOSITE WOOD DECK EQUAL OR SIMILAR TO WEARDECK COMPOSITE DECKING.

TIMBER TREATMENT:

1. ALL LUMBER AND TIMBER MATERIALS SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AASHTO M 133, AND AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARD U1 AND THE FOLLOWING USE CATEGORIES DESIGNATIONS: 5B. PROVIDE A MINIMUM RETENTION OF 2.5 POUNDS PER CUBIC FOOT.
   A. PILES - USE CATEGORY 5B, PRESSURE TREATED USING CHROMATE COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 2.5 POUNDS PER CUBIC FEET.
   B. DIAGONAL BRACING - USE CATEGORY 5B, PRESSURE TREATED USING CHROMATE COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 2.5 POUNDS PER CUBIC FEET.
   C. SPLIT PILE CAPS AND JOISTS - USE CATEGORY 4B, PRESSURE TREATED USING CHROMATE COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 0.60 POUNDS PER CUBIC FEET.
2. INSPECTION OF PRESERVATIVE-TREATED MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH AWPA M2 BY AN INSPECTION AGENCY LISTED ON THE DEPARTMENT'S PRE-APPROVED PRODUCER/SUPPLIER LIST. EACH PIECE SHALL BEAR THE QUALITY MARK OF AN ALSC-ACCREDITED AGENCY IN ACCORDANCE WITH AWPA M6.
3. PROVIDE TYPE 4 CERTIFIED TEST REPORTS AND TYPE 6 SUPPLIER CERTIFICATIONS IN ACCORDANCE WITH ARTICLE 106-3, INCLUDING CHAIN-OF-CUSTODY DOCUMENTATION.

STEEL PILES

1. STEEL PILES SHALL CONFORM TO ASTM A252 GRADE 3, WITH MINIMUM YIELD STRENGTH OF 50 KSI.
2. PIPE PILING SPLICES SHALL BE FABRICATED WITH FULL PENETRATION WELDS ACCORDING TO DETAIL ON DRAWINGS.
3. PILES SHALL MEET THE MARINE COATING REQUIREMENTS LISTED IN THE SPECIAL PROVISIONS.
4. PILES SHALL BE COATED FROM CUTOFF ELEVATION TO -17'-0" MLLW.

A

TREATED TIMBER PILES

1. ALL TIMBER PILES SHALL BE IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES SECTION 1084 AS MODIFIED BY SP10 R82 PILES.
2. TIMBER PILES SHALL CONFORM TO ASTM D25. TIMBER PILES SHALL BE SOUTHERN PINE, GRADED IN ACCORDANCE WITH SPIB RULES AS NO.1 DENSE OR SEL STR, AND SHALL MEET SUMMERWOOD REQUIREMENTS OF SP10 R82.
3. THE TREATING OF SOUTHERN YELLOW PINE SHALL BE IN CONFORMANCE WITH NCDOT STANDARD SPECIFICATIONS ROADS AND BRIDGES SECTION 1082 STRUCTURAL TIMBER AND LUMBER AND SECTION 1084 PILES.
4. TIMBER SHALL BE NO.1 DENSE OR SELECT STRUCTURAL AND SHALL BEAR THE MARK OF AN ALSC-ACCREDITED AGENCY.

FENDERS

1. FENDERS SHALL BE EXTRUSION TYPE DD300 SECTION FENDERS BY TRELLEBORG OR APPROVED EQUAL, WITH A MINIMUM ENERGY ABSORPTION CAPACITY OF 12.9 kNm/m AND MAXIMUM REACTION OF 230 kN/m, COMPLETE WITH ANCHORING MECHANISM TO INSTALL ON THE FENDER PILES AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL SUBMIT MANUFACTURER'S PRODUCT LITERATURES AND SHOP DRAWINGS TO THE COUNTY FOR REVIEW AND APPROVAL.

MOORING

1. CLEATS: ALL CLEATS SHALL BE CONNECTED TO THE FENDER PILES TO MOOR THE VESSEL WITHIN OPERATIONAL WIND SPEED LIMITS AS SPECIFIED IN THE FERRY DOCK OPERATIONS PARTICULARS.

PILE INSTALLATION

1. PILES SHALL BE INSTALLED TO ACHIEVE THE SPECIFIED PILE TIP ELEVATIONS. CONTRACTOR IS RESPONSIBLE FOR THE SELECTION OF THE APPROPRIATE PILE HAMMER OR DRILL TO ACHIEVE THE PILE TIP ELEVATION. CONTRACTOR SHALL BE FAMILIAR WITH THE PROJECT SITE CONDITIONS AND SHALL REVIEW THE SUPPLIED GEOTECHNICAL DATA.
2. PILES HITTING OBSTACLES, MISALIGNED PILES AND PILES THAT HAVE NOT ACHIEVED MINIMUM PENETRATION SHALL BE PULLED BY THE CONTRACTOR AND REINSTALLED AT NO ADDITIONAL COST.
3. THE CONTRACTOR SHALL BE RESPONSIBLE OF MONITORING ADJACENT STRUCTURES FOR VIBRATION, MOVEMENT, OR DAMAGES DURING THE PILE INSTALLATION OPERATIONS. IF MOVEMENT OR DAMAGES TO THE STRUCTURES ARE DETECTED, THE PILE INSTALLATION SHALL BE HALTED IMMEDIATELY. PHOTOS OF THE STRUCTURES SHALL BE TAKEN BEFORE AND AFTER THE PILE DRIVING OPERATION BY CONTRACTOR.

CONCRETE

1. CONCRETE SHALL BE CLASS AA WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI AND A MAXIMUM WATER CEMENT RATIO OF 0.426.
2. ALL CONCRETE WORK SHALL CONFORM TO ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND COMMENTARY".
3. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES AND CORNERS UNLESS OTHERWISE NOTED.
4. REINFORCING BARS SHALL CONFORM TO ASTM 615, GRADE 60, UNLESS OTHERWISE NOTED.
5. CONCRETE COVER OVER REINFORCEMENT AND TIES, UNLESS OTHERWISE NOTED, SHALL BE AS FOLLOWS:
   A. CAST AGAINST EARTH 3"
   B. EXPOSED TO WEATHER 2"
6. DEVELOPMENT AND SPLICE LENGTH FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI AND THE "REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH" TABLE INCLUDED IN THIS SET OF DRAWINGS.
7. ALL DEVELOPMENT AND SPLICE LENGTHS SHALL BE CATEGORY 1 UNLESS OTHERWISE NOTED ON DRAWINGS.
8. ALL REINFORCING BARS WITH HOOKS SHALL BE PROVIDED WITH ACI STANDARD HOOKS UNLESS OTHERWISE NOTED. STANDARD HOOKS SHALL BE IN ACCORDANCE WITH "STANDARD HOOK FOR DEVELOPMENT TABLE" INCLUDED IN THIS SET OF DRAWINGS.
9. BENDING OF REBAR SHALL BE IN ACCORDANCE WITH ACI AND "MINIMUM INSIDE BEND DIAMETERS AND STANDARD HOOK GEOMETRY FOR STIRRUPS, TIES AND HOOKS TABLE" INCLUDED IN THIS SET OF DRAWINGS.
10. ALL FORMWORK, FINISHES AND CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00

STANDARD ABBREVIATIONS:

BOT	BOTTOM
T.O	TOP OF
B.O	BOTTOM OF
M.L.L.W	MEAN LOWER LOW WATER
M.H.H.W	MEAN HIGHER HIGH WATER
EL.	ELEVATION
CL	CENTER LINE
PL	PLATE
EA.	EACH
TYP	TYPICAL
'	FEET
"	INCHES
STA	STATION
PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER
MIN	MINIMUM
MAX	MAXIMUM
DL	DEAD LOAD
LL	LIVE LOAD
ULL	UNIFORM LIVE LOAD
CLL	CONCENTRATED LIVE LOAD

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:50:14-04'00'

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	DARE COUNTY
Entered By	VICTOR PADILLA	Division	FERRY DIVISION
Project Engineer	KRISTOPHER PAGAN	Plan Date	01/14/26
Project Manager	ALLISON THORBURN		

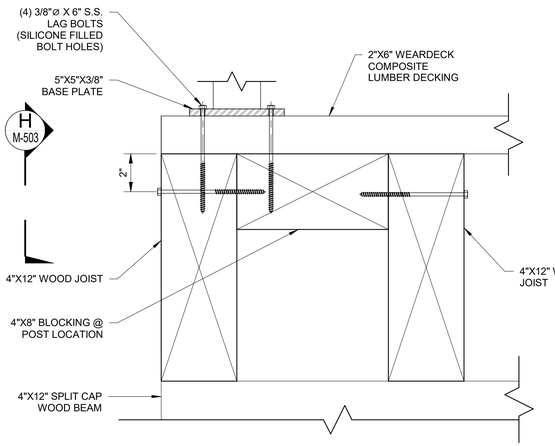
Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

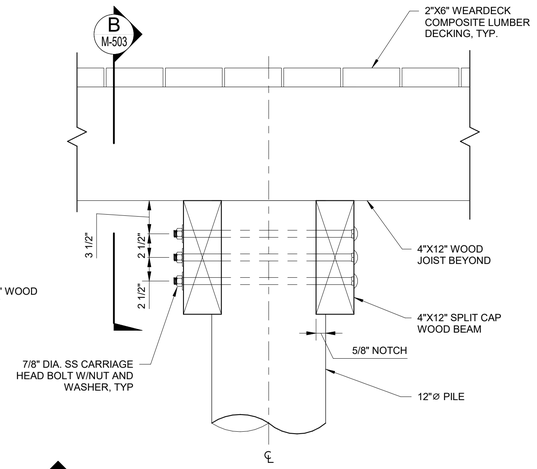
NCDOT HATTERAS FERRY DOCK REPLACEMENT

G-002 MARINE GENERAL NOTES (1 OF 2)

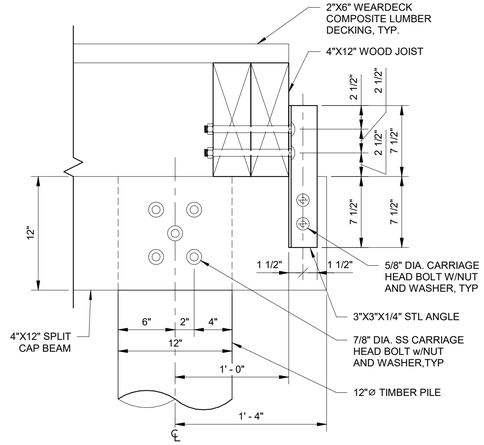
ANSI D (34"x22")

04/08/26

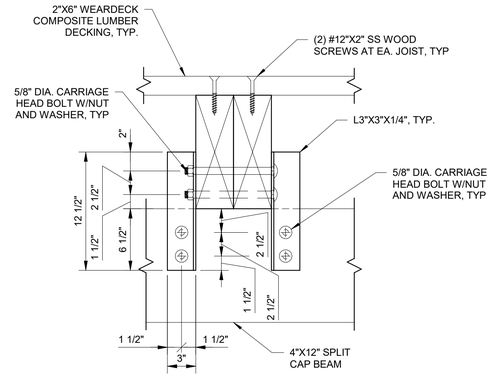




A M-502 SPLIT CAP BEAM CONNECTION - SECTION
1" = 0'-8"



B M-502 SPLIT CAP BEAM CONNECTION SIDE VIEW
1" = 0'-8"



C M-502 JOIST LAP SPLICE TO BEAM CONNECTION
1" = 0'-8"

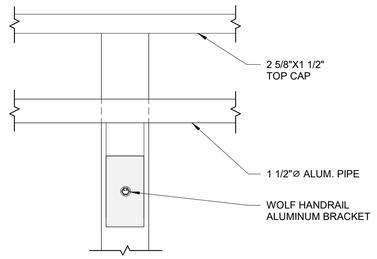
1 M-503 TYPICAL DETAIL
1" = 0'-4"

D JOIST TO BEAM CONNECTION
1" = 0'-8"

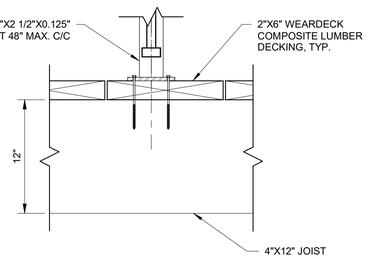
E M-502 SCAB SPLICE - SECTION
1" = 0'-8"

F M-502 LAP SPLICE - SECTION
1" = 0'-8"

I M-502 TYPICAL RAILING - SECTION
1" = 0'-8"



G M-503 TYPICAL HANDRAIL CONNECTION - SECTION
1" = 0'-4"



H M-503 GUARD RAILING POST CONNECTION - SECTION
1" = 0'-8"

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:51:04-04'00'

SHEET 15 OF 26

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE
0 0' 0' 1'
SCALE: 1" = 0'-4"
0 0' 1' 1'
SCALE: 1" = 0'-8"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	DARE COUNTY
Entered By	VICTOR PADILLA	Division	FERRY DIVISION
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26
Project Manager	ALLISON THORBURN		

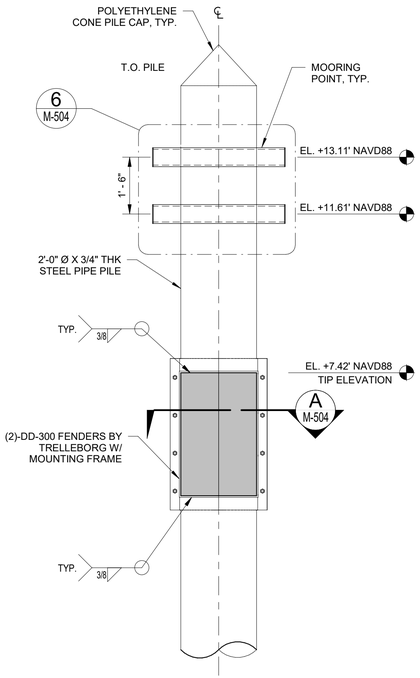
Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

NCDOT HATTERAS FERRY DOCK REPLACEMENT

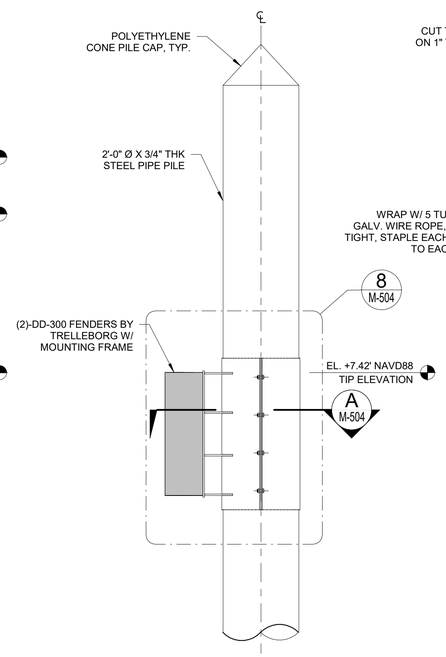
M-503 MISCELLANEOUS DETAILS (3 OF 5)

ANSI D (34"x22")

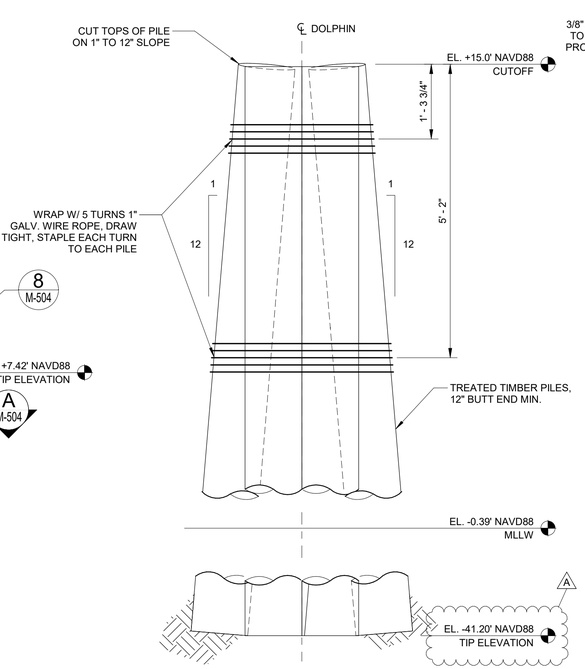
04/08/26



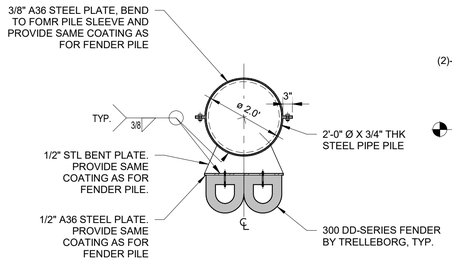
1 FENDER PILE FRONT - VIEW
1" = 2'-0"



2 FENDER PILE LATERAL - VIEW
1" = 2'-0"



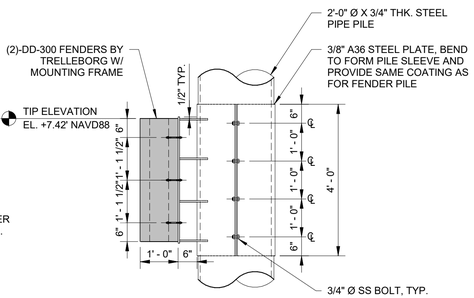
3 4 PILES DOLPHIN - ELEVATION
1" = 1'-4"



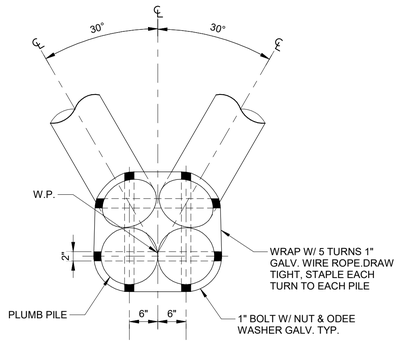
NOTE:

FENDER FRAME SHALL BE COATED ON BOTH SIDES AND PRIOR TO INSTALLATION

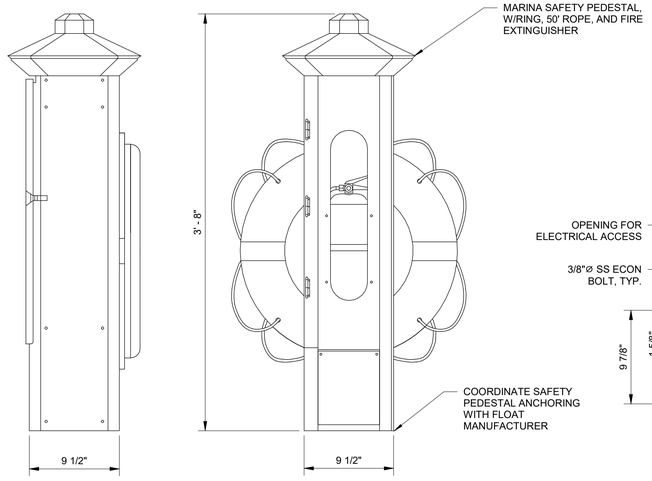
A M-504 FENDER FRAME - SECTION
1" = 2'-0"



8 M-504 FENDER FRAME - DETAIL
1/2" = 1'-0"



4 4 PILES DOLPHIN - PLAN
1" = 1'-4"

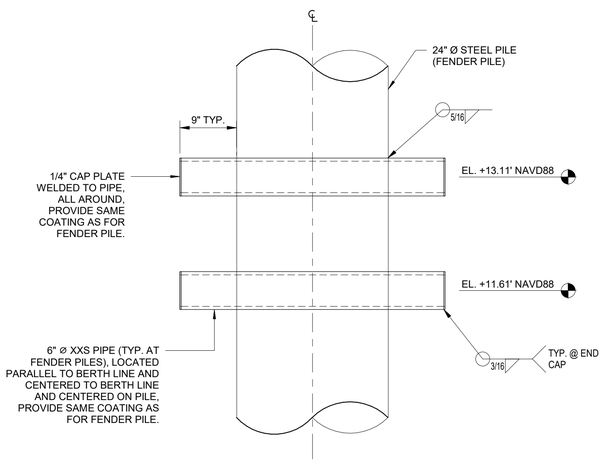


SIDE VIEW

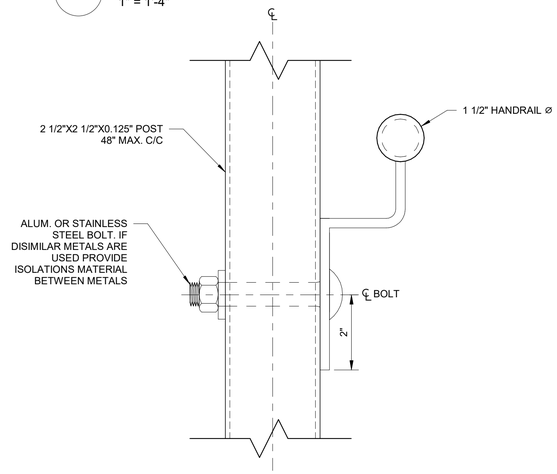
FRONT VIEW

BASE PLATE

5 SAFETY PEDESTAL - DETAIL
1" = 0'-8"



6 M-504 FENDER PILE MOORING - DETAIL
1" = 1'-0"



7 M-503 HAND RAIL - DETAIL
1" = 0'-2"

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:51:48-04'00'

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE
0 0' 1' 1'
SCALE: 1" = 0'-8"
0 1' 1' 2'
SCALE: 1" = 1'-0"
0 1' 1' 3'
SCALE: 1" = 1'-4"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	DARE COUNTY		
Entered By	VICTOR PADILLA	Division	FERRY DIVISION		
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26		
Project Manager	ALLISON THORBURN				

Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

NCDOT HATTERAS FERRY DOCK REPLACEMENT

M-504 MISCELLANEOUS DETAILS (4 OF 5)

ANSI D (34"x22")

04/08/26

GENERAL NOTES:

GENERAL CONSTRUCTION

1. CONTRACTOR SHALL VERIFY ALL INFORMATION PROVIDED HEREIN WITH TECHNICAL SPECIFICATIONS AND OTHER DOCUMENTS AND SHALL NOTIFY ENGINEER, OF ANY CONFLICTS, IN WRITING, BEFORE WORK IS INITIATED.
2. ALL DIMENSIONS AND DETAILS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION.
3. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF OSHA AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL CODES, STANDARDS, REGULATIONS AND LAWS.
4. THE CONTRACTOR SHALL MAINTAIN MARINE AND LAND TRAFFIC IN ACCORDANCE WITH AND SUBJECT TO ALL MARINE, COAST GUARD, AND NCDOT REQUIREMENTS DURING THE ENTIRETY OF PROJECT. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO ENGINEER, NCDOT FERRIES, AND COAST GUARD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INCLUDE IN THE BID ANY AND ALL COSTS ASSOCIATED WITH TRAFFIC MAINTENANCE INCLUDING BUT NOT LIMITED TO DAILY COMMUNICATIONS WITH COAST GUARD, ISSUANCE OF ADVISORIES OF LANE CLOSURES, AND MOVING IN AND OUT OF NAVIGATION CHANNELS AS REQUIRED TO ALLOW PASSAGE OF MARINE VESSELS.
5. CONSTRUCTION ACTIVITIES SHALL BE PLANNED AND COORDINATED FREQUENTLY WITH NCDOT AND THE EOR TO ALLOW FERRY TERMINAL OPERATIONS TO CONTINUE DURING CONSTRUCTION. ANY CONSTRUCTION ACTIVITY THAT MAY PREVENT FERRY TERMINAL OPERATIONS FROM BEING PERFORMED SHALL BE NOTIFIED WITH AMPLE ADVANCE NOTICE TO NCDOT AND THE EOR FOR COORDINATION WITH THE FERRIES.
6. THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL DAMAGE. THE CONTRACTOR SHALL ALSO PROTECT HIS WORK, ADJACENT PROPERTY, AND THE PUBLIC. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
7. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE LOCAL ENVIRONMENTAL PROTECTION STANDARDS, PERMITTING LAWS, AND REGULATIONS.
8. ALL APPLICABLE SAFETY REGULATIONS SHALL BE STRICTLY FOLLOWED. METHODS OF DEMOLITION, CONSTRUCTION, AND INSTALLATION OF STRUCTURAL MATERIAL ARE THE CONTRACTOR'S RESPONSIBILITY.
9. LIMITED STAGING AREA WILL BE PROVIDED ON-SITE FOR CONTRACTOR'S USE. CONTRACTOR SHALL CONFIRM THE EXTENT AND LOCATION OF STAGING AREAS WITH NCDOT, PRIOR TO MOBILIZATION EXCEPT THAT WHICH SHALL BE PERFORMED OFF SHORE, SHALL BE CONDUCTED FROM BARGES, WORK BOATS, OR OTHER TEMPORARY PLATFORMS PROVIDED BY THE CONTRACTOR. CONTRACTOR SHALL RESPECT THE LIMITATIONS OF THE PROJECT SITE FOR STORING MATERIAL. CONTRACTOR SHALL COORDINATE WORK IN SUCH A WAY AS TO LIMIT THE NEED FOR STORED MATERIALS OR SHALL BE RESPONSIBLE FOR ALL ARRANGEMENTS AND COSTS FOR OBTAINING LAYDOWN AREA OR BARGES AS MAY BE REQUIRED.
10. UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE DISTURBING ACTIVITIES. ANY UTILITY LINES LOCATED IN THE PROJECT AREA SHALL BE PROTECTED UNLESS SPECIFICALLY CALLED OUT TO BE DEMOLISHED.
11. CONTRACTOR IS RESPONSIBLE TO REVIEW SITE CONDITIONS TO DEVELOP AN APPROPRIATE WORK PLAN FOR MOBILIZING AND CONDUCTING WORK AT THE SITE.
12. CONTRACTOR SHALL VERIFY LAYOUT AND DIMENSIONS OF THE EXISTING PIERS PRIOR TO COMMENCING THE CONSTRUCTION.
13. CARE MUST BE TAKEN SO AS TO NOT DAMAGE THE EXISTING PIERS AND OTHER STRUCTURES, FROM CONSTRUCTION LOADING, OR OTHERWISE. IF ANY DAMAGE IS OBSERVED ON THE EXISTING STRUCTURES DURING THE EXECUTION OF CONSTRUCTION WORK, ALL WORK AT SUCH LOCATION SHALL CEASE AND THE NCDOT SHALL BE CONTACTED TO REVIEW SUCH DAMAGES PRIOR TO WORK RESUMPTION.
14. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO EXISTING STRUCTURES THAT RESULT FROM CONSTRUCTION ACTIVITIES AT NO COST TO THE COUNTY AND STATE.

SUBMITTALS

1. CONTRACTOR SHALL PROVIDE TO THE ENGINEER ALL SUBMITTALS (SHOP DRAWINGS, SAMPLES, MATERIAL CERTIFICATIONS, ETC) REQUIRED BY THE TECHNICAL SPECIFICATIONS FOR REVIEW PRIOR TO PURCHASE OR FABRICATION.

ENVIRONMENTAL PERMITS

1. CONTRACTOR SHALL IMPLEMENT AND ABIDE BY ALL REGULATORY ENVIRONMENTAL REQUIREMENTS AS SPECIFIED IN THE ENVIRONMENTAL PERMITS SECURED BY NCDOT FOR THE PROJECT. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLY WITH ALL REGULATORY PERMIT REQUIREMENTS.
2. CONTRACTOR SHALL ENSURE THAT TEMPORARY MEASURES AND REGULATORY MITIGATION REQUIREMENTS ARE IMPLEMENTED PRIOR TO INITIATING ANY CONSTRUCTION.

CONSTRUCTION LOADS

1. CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SHORING, BRACING, AND GUYING OF ALL COMPONENTS AS REQUIRED FOR SAFETY AND STRUCTURAL INTEGRITY THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH SOUND PRACTICE.

CODES AND STANDARDS

1. ALL METHODS AND MATERIALS SHALL CONFORM TO LOCAL BUILDING CODES AS AMENDED AND ADOPTED BY THE LOCAL COUNTY AND STATE AUTHORITIES.
2. REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE, UNLESS NOTED OTHERWISE IN THESE DOCUMENTS.
3. AMERICANS WITH DISABILITIES ACT, ADA STANDARDS FOR ACCESSIBLE DESIGN, 2010
4. AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE /SEI 7-16, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
5. ALL WORK SHALL CONFORM TO THE NCDOT STANDARD SPECIFICATIONS FOR ROAD AND STRUCTURES.

WATER LEVELS

WATER LEVELS DEFINED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY AND DO NOT INDICATE CONDITIONS DURING CONSTRUCTION. WATER LEVELS LISTED BELOW ARE REFERENCED TO NAVD88 DATUM AND WERE SOURCED FROM NOAA'S TIDE STATION 8654467, USCG HATTERAS, NC.

DATUM:	NAVD88
MEAN HIGHER HIGH WATER (MHHW)	+0.26'
MEAN TIDE LEVEL	+0.53'
MEAN LOWER LOW WATER (MLLW)	-0.39'

SURVEY INFORMATION:

1. TOPOGRAPHIC AND BATHYMETRIC SURVEY WAS PROVIDED BY NCDOT, FILE NAME: Silver Lake Passenger_LS_SSG_210628_dtl.dgn
2. THE ELEVATIONS SHOWN ON THIS MAP ARE ACCURATE FOR THE DATE OF THAT SURVEY ONLY AND SHOULD NOT BE DEPENDED ON FOR ACCURACY AFTER THE DATE.

GEOTECHNICAL:

1. GEOTECHNICAL RECOMMENDATIONS WERE DEVELOPED BASED STRUCTURE SUBSURFACE INVESTIGATION CONDUCTED BY CATLIN ENGINEERS AND SCIENTISTS AND DATED SEPTEMBER 2017 AND THE TECHNICAL MEMORANDUM PREPARED BY THE EASTERN REGIONAL OFFICE GEOTECHNICAL ENGINEERING UNIT DATED FEBRUARY 13, 2018.

DESIGN CRITERIA:

1. DEAD LOAD CONSISTS OF THE SELF-WEIGHT OF THE STRUCTURE AND ALL PERMANENT ATTACHMENTS, INCLUDING MARINA ACCESSORIES (CLEATS, DOCK BOXES, LIGHTS, ETC.), UTILITIES (POTABLE WATER, FIREWATER, AND ELECTRIC/COMMUNICATIONS) AND FENDERING SYSTEMS.

MATERIAL WEIGHTS	
MATERIAL	UNIT WEIGHT
SELF-WEIGHT OF NORMAL WEIGHT CONCRETE:	150 LB/FT3
SELF-WEIGHT OF STRUCTURAL STEEL:	490 LB/FT3
TIMBER (TREATED):	60 LB/FT3
ALUMINUM ALLOYS:	175 LB/FT3
DD300 FENDERS:	60 LB/LF
COMPOSITE WOOD DECK:	28 LB/FT3

FIXED LANDING AREAS (LIVE LOAD):

- CONCENTRATED: 650 LBS
- UNIFORM: 100 PSF

WALKWAY/GANGWAY (LIVE LOAD):

- UNIFORM: 100 PSF
- DEFLECTION: MAXIMUM L/240 (DEAD + LIVE)

SAFETY LADDERS:

- THE MINIMUM DESIGN LIVE LOAD ON A FIXED LADDER WITH RUNGS SHALL BE A SINGLE CONCENTRATED LOAD OF 300 LB AT ANY POINT TO PRODUCE THE MAXIMUM LOAD EFFECT ON THE ELEMENT BEING CONSIDERED. THE NUMBER AND POSITION OF ADDITIONAL CONCENTRATED LIVE LOAD UNITS SHALL BE A MINIMUM OF 1 UNIT OF 300 LB FOR EVERY 10 FT OF LADDER HEIGHT.
- WHERE RAILS OF FIXED LADDERS EXTEND ABOVE PLATFORM AT THE TOP OF THE LADDER, EACH SIDE RAIL EXTENSION SHALL BE DESIGNED TO RESIST A SINGLE CONCENTRATED LIVE LOAD OF 100 LBS IN ANY DIRECTION AT ANY HEIGHT UP TO THE TOP OF THE SIDE RAIL EXTENSION.

FERRY DOCK OPERATION PARTICULARS:

DESIGN VESSEL:

VESSEL TYPE:	FERRY
CAPACITY:	125 PASSENGERS
LOA:	92 FEET
BEAM:	27 FEET
IMPACT SPEED:	0.6 KNOTS
FREEBOARD (LADEN):	7.0 FEET
FREEBOARD (LIGHT):	7.5 FEET
MIN. DRAFT:	4.0 FEET
MAX. DRAFT:	4.5 FEET

DESIGN COASTAL CONDITIONS:

THE FOLLOWING COASTAL CONDITIONALS HAVE BEEN USED TO DETERMINE THE WAVE LOADS USED IN THE DESIGN OF THE FIXED DOCK AND FENDER PILES. DESIGN STORM EVENT FOR VACANT CONDITION - NO VESSEL MOORED

WIND SPEED:	85 KNOTS (98 MPH)
SIGNIFICANT WAVE HEIGHT:	4.32 FEET
CURRENT:	<2.0 KNOTS
WATER SURFACE ELEVATION:	3.1 FEET (NAVD88)
Tp	2.7 SEC

DESIGN STORM EVENT FOR OPERATIONAL LIMITS - MOORING (5-YR TROPICAL STORM EVENT)

WIND SPEED:	35 KNOTS (40 MPH)
SIGNIFICANT WAVE HEIGHT:	2.15 FEET
CURRENT:	<2.0 KNOTS
Tp:	4.0 SEC

THE FOLLOWING PARAMETERS WERE USED IN THE DESIGN OF THE FENDER SYSTEM. BERTHING ANALYSIS AND DESIGN PARAMETERS:

MAXIMUM BERTHING VELOCITY:	1 FT/S
MAXIMUM BERTHING ANGLE:	10 DEGREES
DISPLACEMENT ESTIMATED:	201.9 TONNES
ECCENTRICITY FACTOR (CE) ¼ POINT:	0.40
VIRTUAL MASS FACTOR:	1.50
NORMAL BERTHING HULL PRESSURE:	<4.2 KSF

WIND LOADS (ON STRUCTURE):

1. WIND LOADS ARE IN ACCORDANCE WITH ASCE 7-16.
2. BASIC WIND SPEED IS 140 MPH FOR DESIGN CATEGORY II.

MATERIALS:

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL MISCELLANEOUS STEEL SHAPES AND PLATES SHALL CONFORM TO STAINLESS STEEL TYPE 316 ASTM A36.
2. ALL FASTENERS AND CONNECTORS INCLUDING BOLTS, NUTS, WASHERS, LAG SCREWS, SCREWS PLATES, AND ANGLES SHALL BE TYPE 316 STAINLESS STEEL.
3. ALL MISCELLANEOUS STEEL SHALL RECEIVE A PROTECTIVE PAINT COATING EQUAL TO THE COATING SPECIFIED FOR THE STEEL FENDER PILES.

ALUMINUM BOARDING RAMPS:

1. THE ENGINEER OF RECORD DELEGATES THE RESPONSIBILITY FOR THE DESIGN OF THE ALUMINUM BOARDING RAMPS TO A SPECIALTY ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. ALL BOARDING RAMPS SUBMITTALS INCLUDING BUT NOT LIMITED TO DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER OR RECORD FOR REVIEW. ALL SHOP DRAWING SUBMITTALS SHALL BE SIGNED, SEALED AND DATED BY THE SPECIALTY ENGINEER.
2. ALUMINUM BOARDING RAMPS SHALL BE PREFABRICATED FROM ALUMINUM MEETING THE FOLLOWING REQUIREMENTS:
   A. THE DESIGN SHALL CONFORM TO IBC CODE AND ALUMINUM DESIGN MANUAL REQUIREMENTS AND TECHNICAL SPECIFICATION SECTION 05 51 36.
   B. THE ALUMINUM BOARDING RAMP FABRICATION SHALL CONFORM TO ALUMINUM ALLOY 6061-T6 OR 6063-T6 AND WELDING SHALL BE IN ACCORDANCE WITH AWS D1.2.
   C. GRATING, HANDRAILS, AND TRANSITION PLATES SHALL BE ADA COMPLIANT.
3. LOCATIONS, LENGTHS, AND CLEARANCES INDICATED IN THE DRAWINGS ARE APPROXIMATE.
4. FINAL BOARDING RAMP LENGTHS, CLEARANCES, AND CONNECTIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE DESIGN AND FABRICATION.

WOOD FIXED DOCK:

1. ALL LUMBER SHALL BE MANUFACTURED AND GRADED IN ACCORDANCE WITH THE CURRENT EDITION OF THE STANDARD GRADING RULES FOR SOUTHERN PINE TIMBER, OF THE SOUTHERN PINE INSPECTION BUREAU. THE REQUIREMENTS OF NO. 1 DENSE SHALL APPLY. ALL LUMBER AND TIMBER SHALL CONFORM TO GRADE NO. 1 DENSE OR SELECT STRUCTURAL (SEL STR.) AS APPLICABLE AND SHALL BEAR THE GRADE MARK OF AN ALSC-ACCREDITED AGENCY.
2. TIMBER AND LUMBER SHALL BE SOUTHERN PINE AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
   A. PILES - ROUND TIMBER WITH A MINIMUM TIP CIRCUMFERENCE OF 38" IN ACCORDANCE WITH ASTM D25 . PILES SHALL BE SOUTHERN PINE, GRADED IN ACCORDANCE WITH SPIB RULES AS NO.1 DENSE OR SEL STR., AND KILN-DRIED TO MC-19 OR LESS. LENGTH SHALL BE IN ACCORDANCE WITH THE PILE SCHEDULE.
   B. DIAGONAL BRACING - MARINE GRADE NO. 1. BRACING SHALL BE SOUTHERN PINE, GRADED IN ACCORDANCE WITH SPIB RULES AND KILN-DRIED TO MC19 OR LESS.
   C. SPLIT PILE CAPS, JOISTS AND HAND RAILS - NO. 1 DENSE SOUTHERN PINE . MATERIAL SHALL BE GRADED IN ACCORDANCE WITH SPIB RULES AND KILN-DRIED TO MC-19 OR LESS.
   D. DECKING - 2"X6" COMPOSITE WOOD DECK EQUAL OR SIMILAR TO WEARDECK COMPOSITE DECKING.

TIMBER TREATMENT:

1. ALL LUMBER AND TIMBER MATERIALS SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AASHTO M 133, AND AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARD U1 AND THE FOLLOWING USE CATEGORIES DESIGNATIONS: 5B. PROVIDE A MINIMUM RETENTION OF 2.5 POUNDS PER CUBIC FOOT.
   A. PILES - USE CATEGORY 5B, PRESSURE TREATED USING CHROMATED COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 2.5 POUNDS PER CUBIC FEET.
   B. DIAGONAL BRACING - USE CATEGORY 5B, PRESSURE TREATED USING CHROMATED COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 2.5 POUNDS PER CUBIC FEET.
   C. SPLIT PILE CAPS AND JOISTS - USE CATEGORY 4B, PRESSURE TREATED USING CHROMATED COPPER ARSENATE (CCA) WITH A MINIMUM RETENTION REQUIREMENT OF 0.60 POUNDS PER CUBIC FEET.
2. INSPECTION OF PRESERVATIVE-TREATED MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH AWPA M2 BY AN INSPECTION AGENCY LISTED ON THE DEPARTMENT'S PRE-APPROVED PRODUCER/SUPPLIER LIST. EACH PIECE SHALL BEAR THE QUALITY MARK OF AN ALSC-ACCREDITED AGENCY IN ACCORDANCE WITH AWPA M6.
3. PROVIDE TYPE 4 CERTIFIED TEST REPORTS AND TYPE 6 SUPPLIER CERTIFICATIONS IN ACCORDANCE WITH ARTICLE 106-3, INCLUDING CHAIN-OF-CUSTODY DOCUMENTATION.

STEEL PILES

1. STEEL PILES SHALL CONFORM TO ASTM A252 GRADE 3, WITH MINIMUM YIELD STRENGTH OF 50 KSI.
2. PIPE PILING SPLICES SHALL BE FABRICATED WITH FULL PENETRATION WELDS ACCORDING TO DETAIL ON DRAWINGS.
3. PILES SHALL MEET THE MARINE COATING REQUIREMENTS LISTED IN THE SPECIAL PROVISIONS.
4. PILES SHALL BE COATED FROM CUTOFF ELEVATION TO -15'-0" MLLW.

A

TREATED TIMBER PILES

1. ALL TIMBER PILES SHALL BE IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES SECTION 1084 AS MODIFIED BY SP10 R82.
2. TIMBER PILES SHALL CONFORM TO ASTM D25. TIMBER PILES SHALL BE SOUTHERN PINE, GRADED IN ACCORDANCE WITH SPIB RULES AS NO.1 DENSE OR SEL STR, AND SHALL MEET SUMMERWOOD REQUIREMENTS OF SP10 R82.
3. THE TREATING OF SOUTHERN YELLOW PINE SHALL BE IN CONFORMANCE WITH NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES SPECIFICATION SECTION 1082 STRUCTURAL TIMBER AND LUMBER AND SECTION 1084 PILES.
4. TIMBER SHALL BE NO.1 DENSE OR SELECT STRUCTURAL AND SHALL BEAR THE MARK OF AN ALSC-ACCREDITED AGENCY.

FENDERS

1. FENDERS SHALL BE EXTRUSION TYPE DD300 SECTION FENDERS BY TRELLEBORG OR APPROVED EQUAL, WITH A MINIMUM ENERGY ABSORPTION CAPACITY OF 12.9 kNm/m AND MAXIMUM REACTION OF 230 kN/m, COMPLETE WITH ANCHORING MECHANISM TO INSTALL ON THE FENDER PILES AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL SUBMIT MANUFACTURER'S PRODUCT LITERATURES AND SHOP DRAWINGS TO THE COUNTY FOR REVIEW AND APPROVAL.

MOORING

1. CLEATS: ALL CLEATS SHALL BE CONNECTED TO THE FENDER PILES TO MOOR THE VESSEL WITHIN OPERATIONAL WIND SPEED LIMITS AS SPECIFIED IN THE FERRY DOCK OPERATIONS PARTICULARS.

PILE INSTALLATION

1. PILES SHALL BE INSTALLED TO ACHIEVE THE SPECIFIED PILE TIP ELEVATIONS. CONTRACTOR IS RESPONSIBLE FOR THE SELECTION OF THE APPROPRIATE PILE HAMMER OR DRILL TO ACHIEVE THE PILE TIP ELEVATION. CONTRACTOR SHALL BE FAMILIAR WITH THE PROJECT SITE CONDITIONS AND SHALL REVIEW THE SUPPLIED GEOTECHNICAL DATA.
2. PILES HITTING OBSTACLES, MISALIGNED PILES AND PILES THAT HAVE NOT ACHIEVED MINIMUM PENETRATION SHALL BE PULLED BY THE CONTRACTOR AND REINSTALLED AT NO ADDITIONAL COST.
3. THE CONTRACTOR SHALL BE RESPONSIBLE OF MONITORING ADJACENT STRUCTURES FOR VIBRATION, MOVEMENT, OR DAMAGES DURING THE PILE INSTALLATION OPERATIONS. IF MOVEMENT OR DAMAGES TO THE STRUCTURES ARE DETECTED, THE PILE INSTALLATION SHALL BE HALTED IMMEDIATELY. PHOTOS OF THE STRUCTURES SHALL BE TAKEN BEFORE AND AFTER THE PILE DRIVING OPERATION BY CONTRACTOR.

CONCRETE

1. CONCRETE SHALL BE CLASS AA WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI AND A MAXIMUM WATER CEMENT RATIO OF 0.426.
2. ALL CONCRETE WORK SHALL CONFORM TO ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND COMMENTARY".
3. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES AND CORNERS UNLESS OTHERWISE NOTED.
4. REINFORCING BARS SHALL CONFORM TO ASTM 615, GRADE 60, UNLESS OTHERWISE NOTED.
5. CONCRETE COVER OVER REINFORCEMENT AND TIES, UNLESS OTHERWISE NOTED, SHALL BE AS FOLLOWS:
   A. CAST AGAINST EARTH 3"
   B. EXPOSED TO WEATHER 2"
6. DEVELOPMENT AND SPLICE LENGTH FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI AND THE "REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH" TABLE INCLUDED IN THIS SET OF DRAWINGS.
7. ALL DEVELOPMENT AND SPLICE LENGTHS SHALL BE CATEGORY 1 UNLESS OTHERWISE NOTED ON DRAWINGS.
8. ALL REINFORCING BARS WITH HOOKS SHALL BE PROVIDED WITH ACI STANDARD HOOKS UNLESS OTHERWISE NOTED. STANDARD HOOKS SHALL BE IN ACCORDANCE WITH "STANDARD HOOK FOR DEVELOPMENT TABLE" INCLUDED IN THIS SET OF DRAWINGS.
9. BENDING OF REBAR SHALL BE IN ACCORDANCE WITH ACI AND "MINIMUM INSIDE BEND DIAMETERS AND STANDARD HOOK GEOMETRY FOR STIRRUPS, TIES AND HOOKS TABLE" INCLUDED IN THIS SET OF DRAWINGS.
10. ALL FORMWORK, FINISHES AND CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00

STANDARD ABBREVIATIONS:

BOT	BOTTOM
T.O	TOP OF
B.O	BOTTOM OF
M.L.L.W	MEAN LOWER LOW WATER
M.H.H.W	MEAN HIGHER HIGH WATER
EL.	ELEVATION
CL	CENTER LINE
PL	PLATE
EA.	EACH
TYP	TYPICAL
'	FEET
"	INCHES
STA	STATION
PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER
MIN	MINIMUM
MAX	MAXIMUM
DL	DEAD LOAD
LL	LIVE LOAD
ULL	UNIFORM LIVE LOAD
CLL	CONCENTRATED LIVE LOAD

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:52:55-04'00'

SHEET 2 OF 22

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE

PROJECT ENGINEER

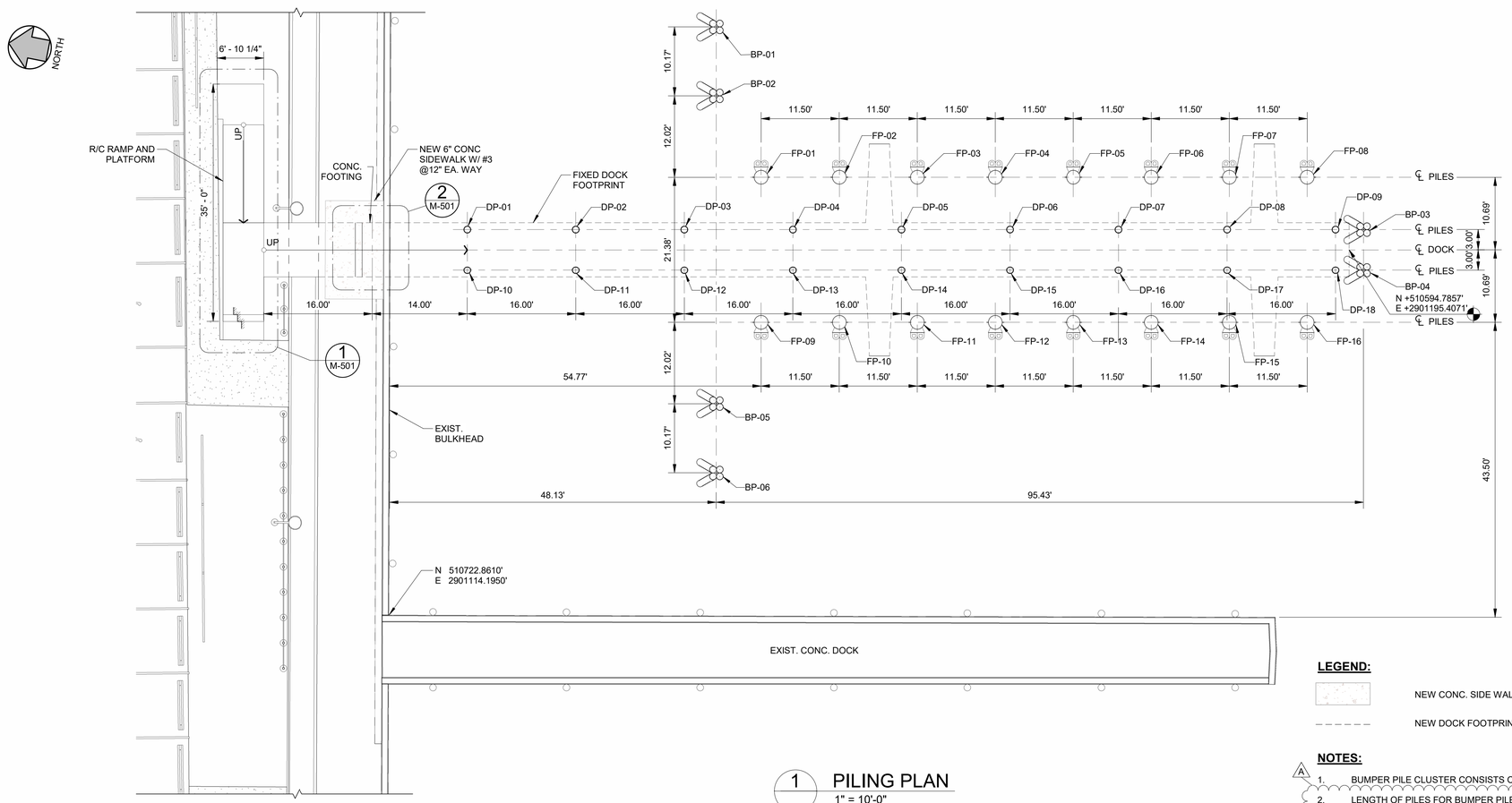
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	HYDE COUNTY		
Entered By	VICTOR PADILLA	Division	FERRY DIVISION		
Project Engineer	KRISTOPHER PAGAN	Plan Date	01/14/26		
Project Manager	ALLISON THORBURN				
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP
Rev.	Date	Drawn	Description	Ch'k'd	App'd

NCDOT PASSENGER FERRY DOCK REPLACEMENT - OCRACOKE ISLAND

G-002 MARINE GENERAL NOTES (1 OF 2)

ANSI D (34"x22")



LEGEND:

NEW CONC. SIDE WALK

NEW DOCK FOOTPRINT

NOTES:

A
1. BUMPER PILE CLUSTER CONSISTS OF 2 PLUMB PILES AND 2 BATTER PILES. SEE DETAIL IN SHEET M-504.
2. LENGTH OF PILES FOR BUMPER PILES IS 64.00' FOR PLUMB PILES AND 64.22' FOR BATTER PILES.

1 PILING PLAN
1" = 10'-0"

PILE SCHEDULE (ELEVATIONS REFERENCED TO NAVD88)

PILE ID	DESCRIPTION	TYPE	DIA (in.)	TIP EL. (ft.)	CUTOFF EL (ft.)	LENGTH (ft.)	NORTHING	EASTING
FP-01	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,681.8434	2,901,188.5100
FP-09	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,677.5522	2,901,167.5447
FP-10	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,666.2875	2,901,169.8583
FP-11	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,655.0171	2,901,172.1459
FP-12	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,643.7521	2,901,174.4588
FP-13	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,632.4846	2,901,176.7666
FP-14	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,621.2212	2,901,179.0800
FP-15	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,609.9547	2,901,181.3860
FP-16	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,598.6860	2,901,183.6870
FP-02	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,670.5756	2,901,190.8084
FP-03	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,659.3127	2,901,1931329
FP-04	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,648.0449	2,901,195.4320
FP-05	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,636.7767	2,901,197.7368
FP-06	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,625.5102	2,901,200.0348
FP-07	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,614.2437	2,901,202.3408
FP-08	FENDER PILE	STEEL PIPE PILE	24	-71.50'	+15.00'	86.50'	510,602.9772	2,901,204.6523
DP-01	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,722.7469	2,901,172.2784
DP-02	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,707.0719	2,901,175.4867
DP-03	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,691.3968	2,901,178.6951
DP-04	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,675.7218	2,901,181.9035

PILE SCHEDULE (ELEVATIONS REFERENCED TO NAVD88)

PILE ID	DESCRIPTION	TYPE	DIA (in.)	TIP EL. (ft.)	CUTOFF EL (ft.)	LENGTH (ft.)	NORTHING	EASTING
DP-05	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,660.0469	2,901,185.1126
DP-06	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,644.3732	2,901,188.3272
DP-07	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,628.6966	2,901,191.5278
DP-08	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,613.0216	2,901,194.7361
DP-09	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,597.3465	2,901,197.9445
DP-10	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,721.5440	2,901,166.4014
DP-11	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,705.8690	2,901,169.6098
DP-12	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,690.1939	2,901,172.8181
DP-13	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,674.5189	2,901,176.0265
DP-14	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,658.8440	2,901,179.2356
DP-15	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,643.1687	2,901,182.4423
DP-16	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02'	510,627.4944	2,901,185.6544
DP-17	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02' A	510,611.8194	2,901,188.8627
DP-18	FIXED DOCK PILE	TIMBER PILE	12	-49.00'	+6.02'	55.02' A	510,596.1444	2,901,192.0711
BP-01	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,692.7991	2,901208.9042
BP-02	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,690.7598	2,901,198.9407
BP-03	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,593.3124	2,901,198.7671
BP-05	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,681.6534	2,901,154.4496
BP-06	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,679.6141	2,901,144.4861
BP-04	BUMPER PILE	(4) - 12" DIA TIMBER PILE[1]	12	-49.00'	+15.00'	64.00'[2]	510,592.1108	2,901,192.8966

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:54:32-04'00'

SHEET 6 OF 22

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE
0 5' 10' 20'
SCALE: 1" = 10'-0"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044825 KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	HYDE COUNTY
Entered By	VICTOR PADILLA	Division	FERRY DIVISION
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26
Project Manager	ALLISON THORBURN		

Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

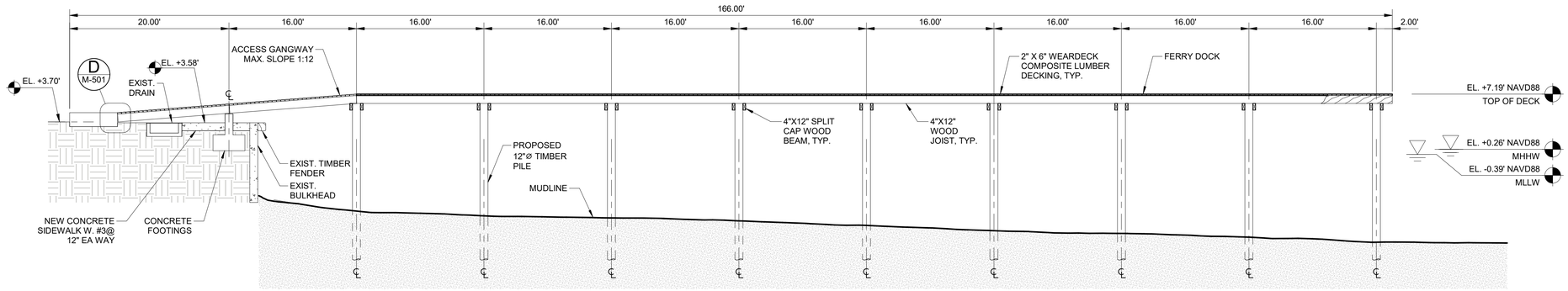
NCDOT PASSENGER FERRY DOCK REPLACEMENT - OCRACOKE ISLAND

M-102 FOUNDATION AND PILE LAYOUT PLAN

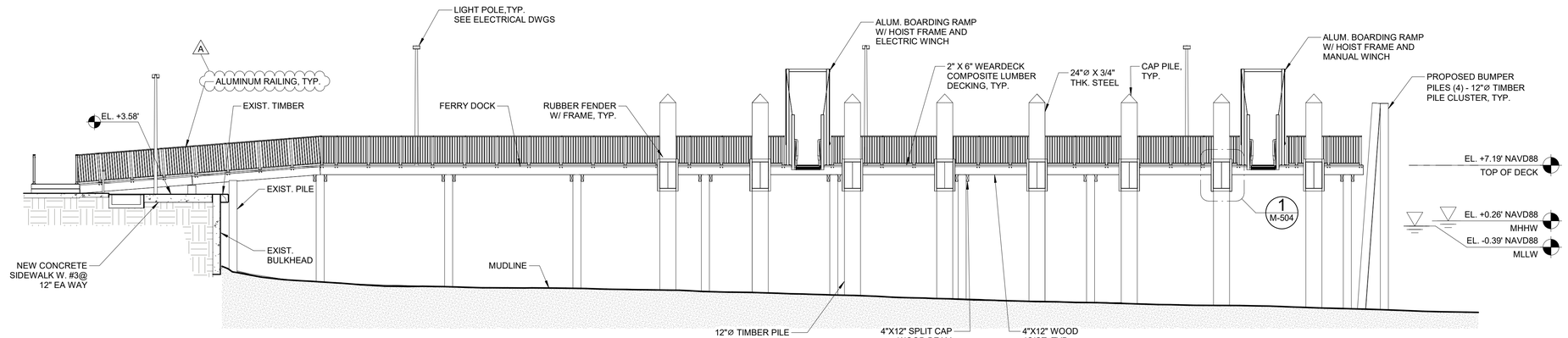
04/08/26

ANSI D (34"x22")

04/08/26



A E-901 **LONGITUDINAL - SECTION**
1" = 8'-0"



1 E-901 **ELEVATION**
1" = 8'-0"

LEGEND

INDICATES EXISTING CONCRETE

INDICATES NEW CONCRETE

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:55:13-04'00'

SHEET 8 OF 22

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE
0 4' 8' 16'
SCALE: 1" = 8'-0"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 KRISTOPHER PHERNANDO PAGAN-CRUZ ENGINEER

Designed By	JAVIER QUIROS	County	HYDE COUNTY		
Entered By	VICTOR PADILLA	Division	FERRY DIVISION		
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26		
Project Manager	ALLISON THORBURN				

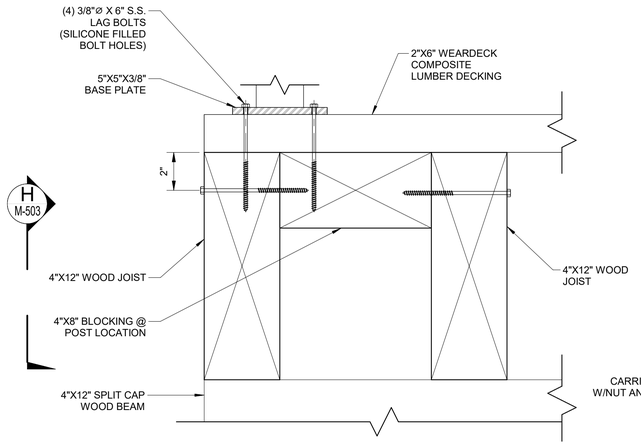
Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

NCDOT PASSENGER FERRY DOCK REPLACEMENT - OCRACOKE ISLAND

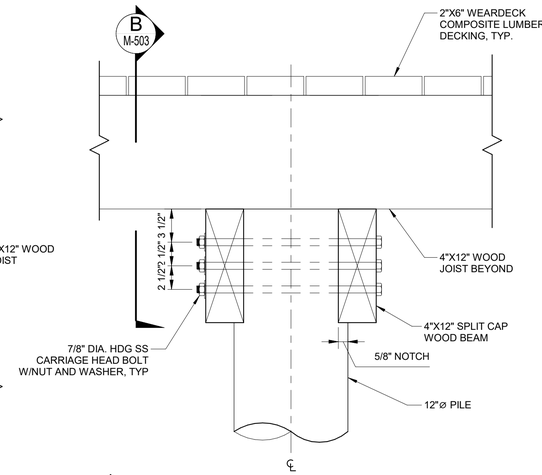
M-301 LONGITUDINAL SECTION & ELEVATION

ANSI D (34"X22")

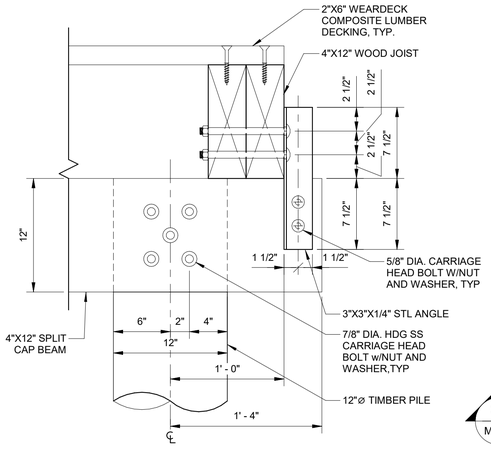
04/08/26



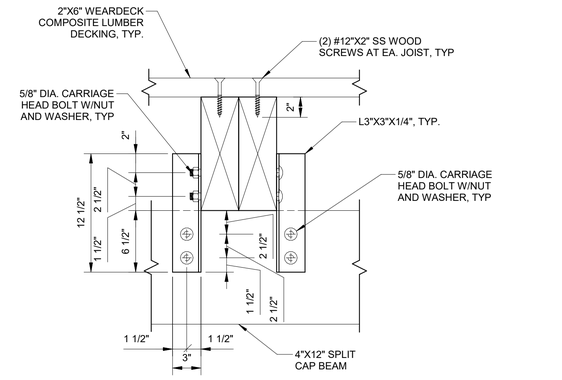
1 M-503 TYPICAL - DETAIL
1" = 0'-4"



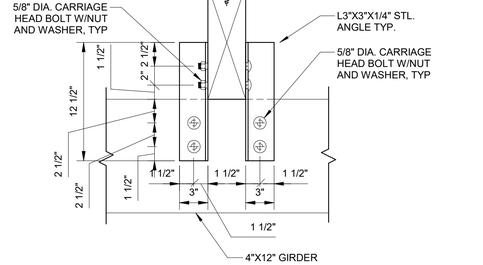
A M-502 GIRDER CONNECTION - SECTION
1" = 0'-8"



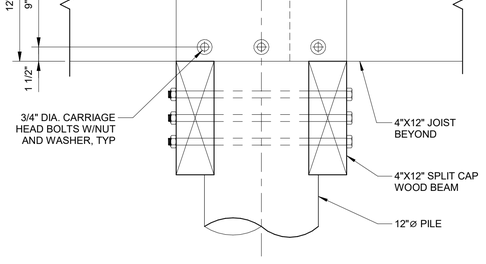
B M-502 GIRDER CONNECTION SIDE - VIEW
1" = 0'-8"



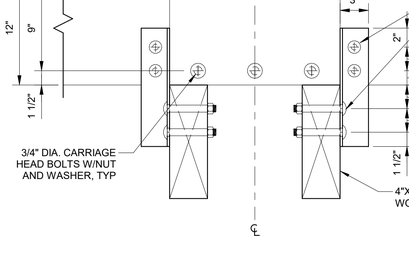
C M-502 JOIST SPLICE TO BEAM CONNECTION - SECTION
1" = 0'-8"



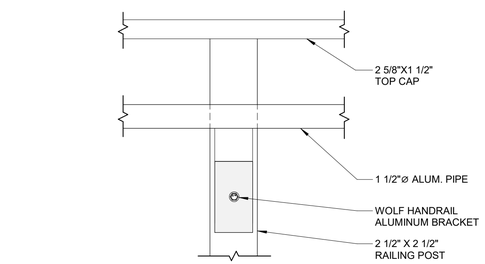
D M-502 JOIST TO BEAM CONNECTION - SECTION
1" = 0'-8"



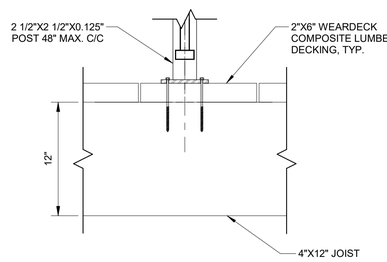
E M-502 SCAB SPLICE - SECTION
1" = 0'-8"



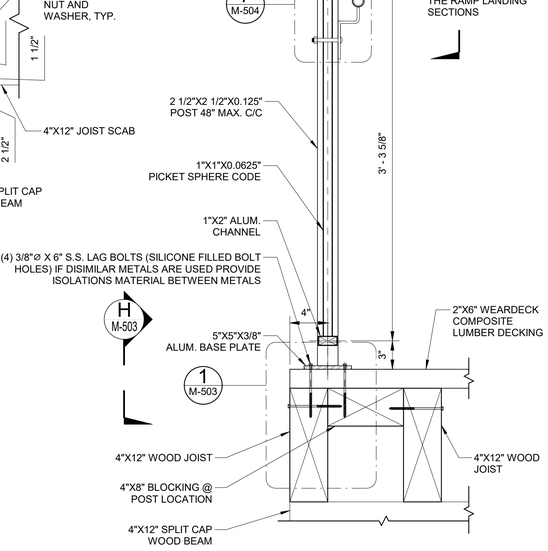
F M-502 LAP SPLICE - SECTION
1" = 0'-8"



G M-503 TYPICAL HANDRAIL CONNECTION - SECTION
1" = 0'-4"



H M-503 GUARD RAILING POST CONNECTION - SECTION
1" = 0'-8"



I M-502 TYPICAL RAILING - SECTION
1" = 0'-8"

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:56:06-04'00'

SHEET 13 OF 22

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE
0 0' 0' 1'
SCALE: 1" = 0'-4"
0 0' 1' 1'
SCALE: 1" = 0'-8"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	HYDE COUNTY		
Entered By	VICTOR PADILLA	Division	FERRY DIVISION		
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26		
Project Manager	ALLISON THORBURN				

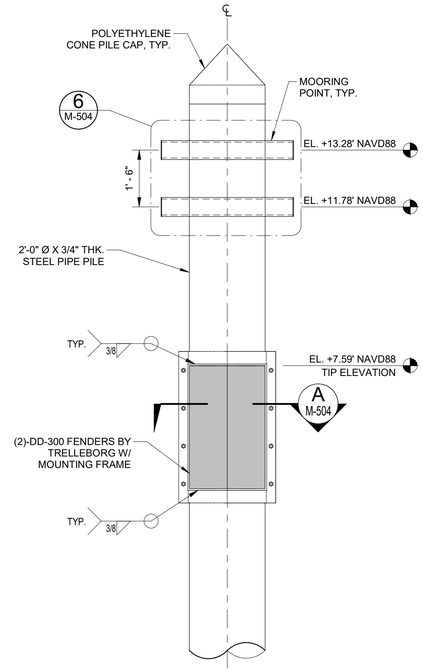
Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

NCDOT PASSENGER FERRY DOCK REPLACEMENT - OCRACOKE ISLAND

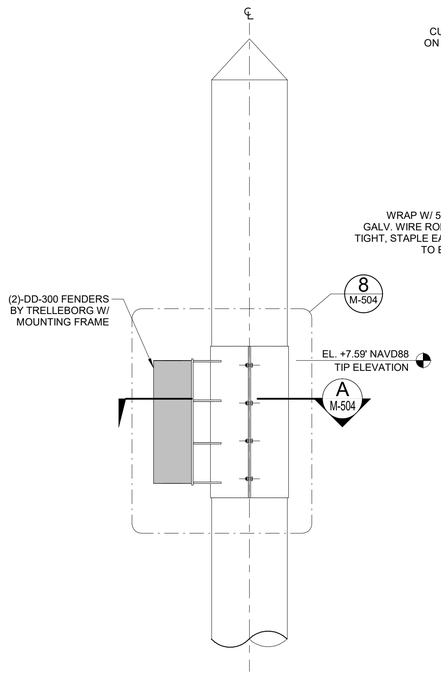
M-503 MISCELLANEOUS DETAILS (3 OF 5)

ANSI D (34"X22")

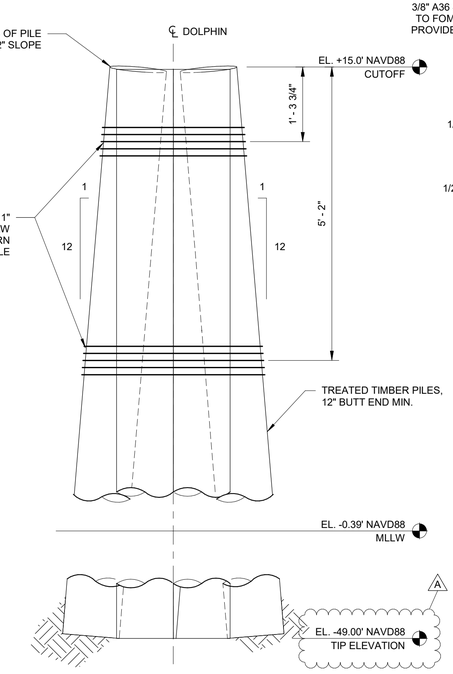
04/08/26



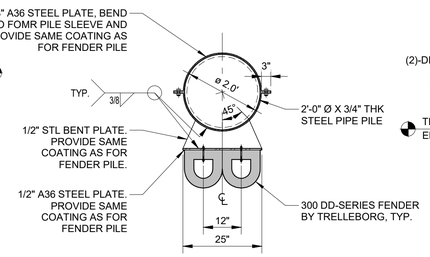
1 M-301 FENDER PILE FRONT - VIEW
1" = 2'-0"



2 FENDER PILE LATERAL - VIEW
1" = 2'-0"



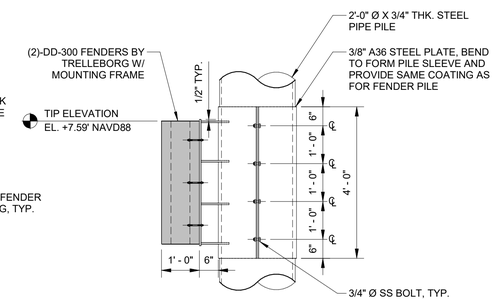
3 4 PILES DOLPHIN - ELEVATION
1" = 1'-4"



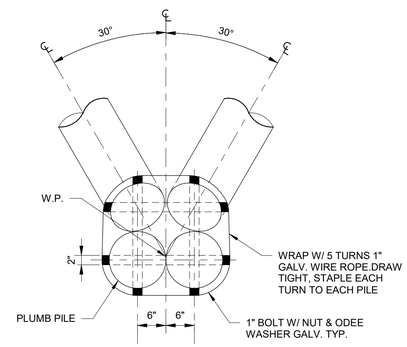
NOTE:

FENDER FRAME SHALL BE COATED ON BOTH SIDES AND PRIOR TO INSTALLATION

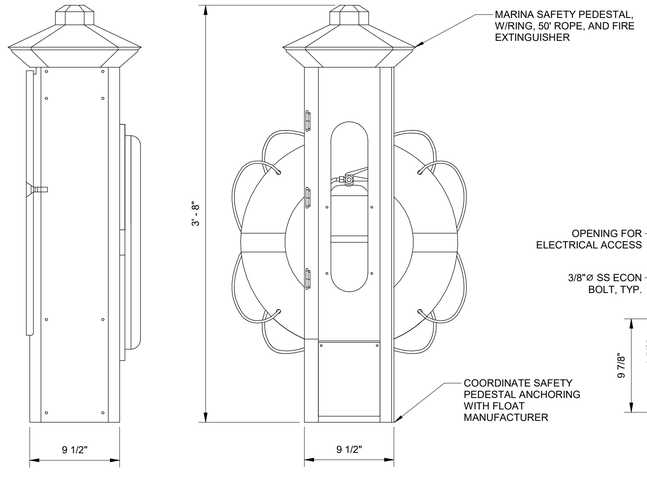
A M-504 FENDER FRAME - SECTION
1" = 2'-0"



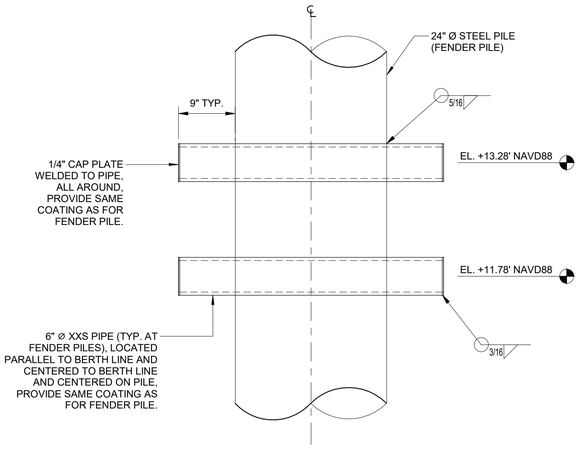
8 M-504 FENDER FRAME - DETAIL
1/2" = 1'-0"



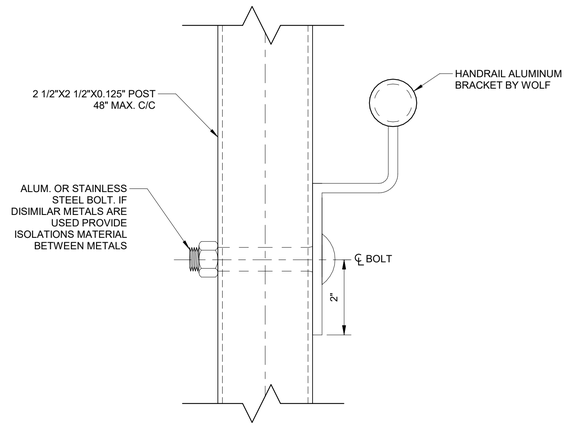
4 4 PILES DOLPHIN - PLAN
1" = 1'-4"



5 SAFETY PEDESTAL - DETAIL
1" = 0'-8"



6 M-504 FENDER PILE MOORING - DETAIL
1" = 1'-0"



7 M-503 HAND RAIL - DETAIL
1" = 0'-2"

Digitally signed by Kristopher P Pagan-Cruz
Date: 2026.04.13 15:57:13-04'00'

MOTT MACDONALD
930 Main Campus Drive,
Suite 200
Raleigh, NC 27606
License No. F-0669
T +1 (919) 552 2253
F +1 (919) 552 2254
www.mottmacamericas.com

GRAPHIC SCALE

0 0' 1' 1'
SCALE: 1" = 0'-8"
0 1' 1' 2'
SCALE: 1" = 1'-0"
0 1' 1' 3'
SCALE: 1" = 1'-4"

PROJECT ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044825 ENGINEER KRISTOPHER PHERNANDO PAGAN-CRUZ

Designed By	JAVIER QUIROS	County	HYDE COUNTY
Entered By	VICTOR PADILLA	Division	FERRY DIVISION
Project Engineer	KRISTOPHER PAGAN	Plan Date	1-14-26
Project Manager	ALLISON THORBURN		

Rev.	Date	Drawn	Description	Ch'k'd	App'd
A	04/08/26	VP	BID CLARIFICATIONS	JQ	KP

NCDOT PASSENGER FERRY DOCK REPLACEMENT - OCRACOKE ISLAND

M-504 MISCELLANEOUS DETAILS (4 OF 5)

ANSI D (34"x22")