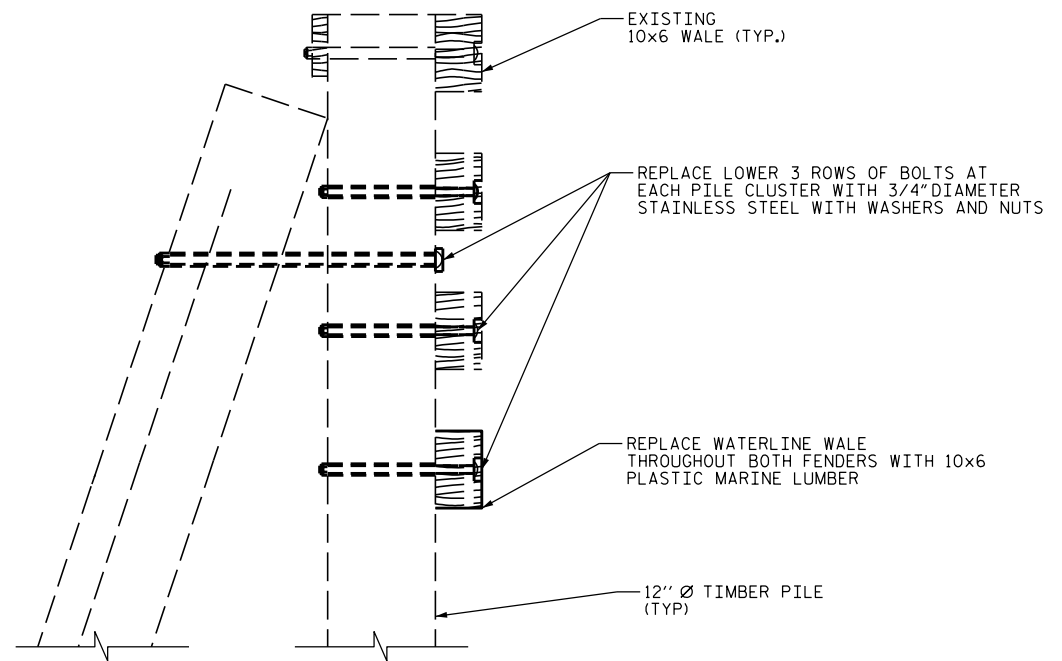


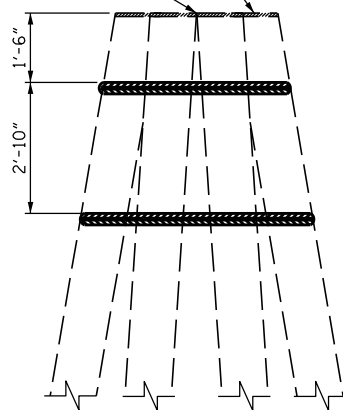
SECTION Y-Y
DETAIL OF TYPICAL 3-PILE CLUSTER



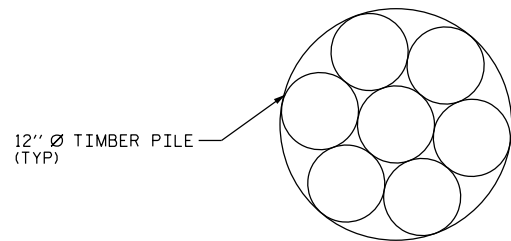
SECTION Y-Y
DETAIL OF TYPICAL 3-PILE CLUSTER
(WITHOUT WRAPS / WITHOUT WRAPS SHOWN)

TREAT EXISTING TOP OF
TIMBER WITH COPPER
NAPHTHENATE PILES PER
PROJECT SPECIAL PROVISIONS

REPLACE TIN
HATS IN KIND
(TIN NAILS)



ELEVATION OF DOLPHIN



PLAN OF EXIST. 7-PILE DOLPHIN

FENDER BILL OF MATERIALS						
REMOVAL/DISPOSAL OF EXISTING MATERIALS	10X6 PLASTIC MARINE LUMBER	PILE CLUSTER WRAPS	3/4" DIA. STAINLESS STEEL BOLTS (LENGTH TO FIT)	3/4" DIA. STAINLESS STEEL WASHERS	3/4" DIA. STAINLESS STEEL NUTS	COATING OF PILE TOPS & TIN HAT REPLACEMENT
LUMP SUM	LS (LF)	EACH	EACH	EACH	EACH	LUMP SUM
LUMP SUM	1 (512)	46	372	372	372	LUMP SUM

FENDER NOTES:

1. REPLACE WATERLINE WALES WITH PLASTIC LUMBER FENDER BOARDS PER CONTRACT DOCUMENTS.
2. ALL BOLTS, ANCHORS, WASHERS AND CLIPS TO BE 304 OR 316 STAINLESS STEEL.
3. WIRE ROPE SHALL BE 1/2" DIAMETER 6x19, 6x25, OR 6x37 CLASS IWRC TYPE 316 STAINLESS STEEL WIRE ROPE WITH A MINIMUM BREAKING STRENGTH OF 18,000 LBS.
4. WIRE ROPE SHALL BE PVC COATED WITH 90 DUROMETER (SHORE A HARDNESS) POLY-VINYL CHLORIDE COLORED BLACK.
5. USE STAINLESS STEEL PILE CLUSTER WRAP HARDWARE THAT FITS APPROVED WIRE ROPE SYSTEM.
6. SUBMIT ALL MATERIALS TO ENGINEER FOR APPROVAL.
7. CONTRACTOR TO FIELD VERIFY QUANTITIES WITH THE ENGINEER PRIOR TO ORDERING MATERIALS.
8. PROPOSED FENDER REPAIRS ARE BASED ON EXISTING PLANS AND CURSORY FIELD REVIEW. FIELD ADJUST AS NECESSARY TO FIT AS-BUILT CONDITIONS.
9. REPLACE ALL PILE CLUSTER WRAPS STILL INTACT. TYPICAL CONDITION IS 2 WRAP LOCATIONS PER PILE CLUSTER. EACH PILE WRAP LOCATION CONSISTS OF 3 WRAPS.
10. CUT TIMBER TO FIT. DIMENSIONS SHALL BE DETERMINED VIA EXISTING PLANS AND FIELD MEASUREMENTS. REMOVAL AND DISPOSAL OF ALL PORTIONS NECESSARY TO COMPLETE PROPOSED WORK WILL BE CONSIDERED INCIDENTAL TO PAY ITEMS FOR FENDER REPAIR.
11. COAT TOPS OF ALL TIMBER PILES WITH COPPER NAPHTHENATE (2% COPPER) PRESERVATIVE TREATMENT. REPLACE TIN HATS ONLY AT LOCATIONS WHERE TIN HATS EXIST AT TIME OF BID. SECURE TIN HATS WITH TIN NAILS.

DocuSigned by:
Samuel Cullum
19C97095C75A467...
SEAL
043571
ENGINEER
SAMUEL L. CULLUM
12/13/2016

PROJECT NO. B-5937
CURRITUCK/DARE COUNTY
STATION: BRIDGE NO. 16

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

FENDER REPAIR DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-281
2			4			TOTAL SHEETS

DRAWN BY : TSC DATE : 10-16
CHECKED BY : SLC DATE : -
DESIGN ENGINEER OF RECORD: SLC DATE : -

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED