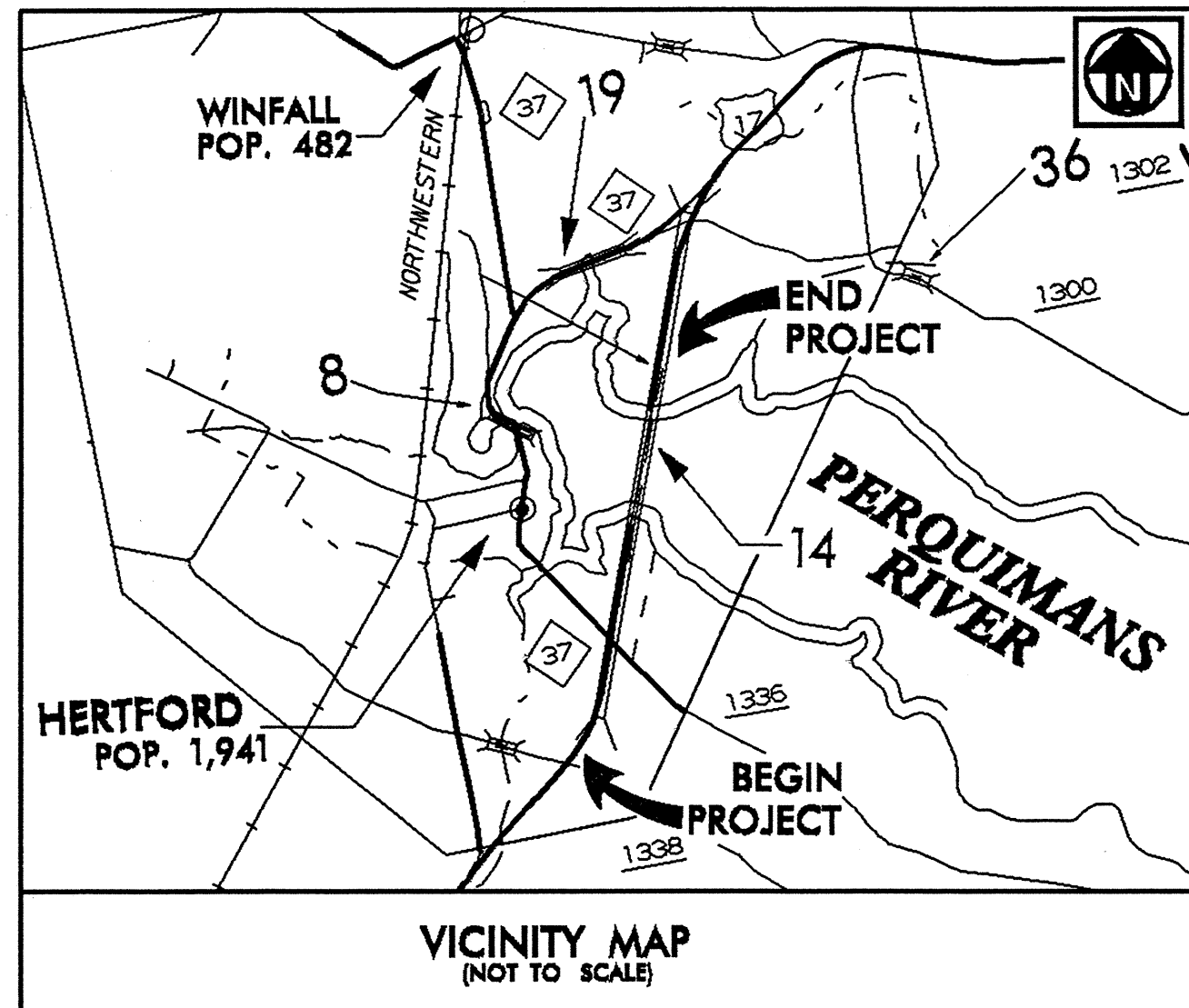


TIP PROJECT: B-5019

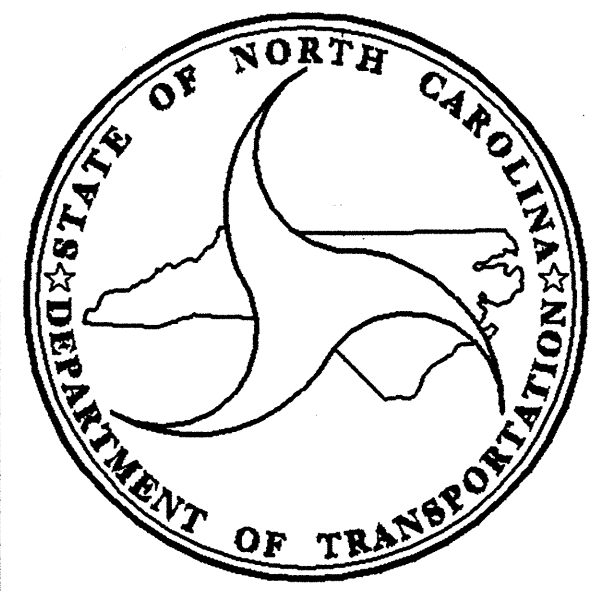
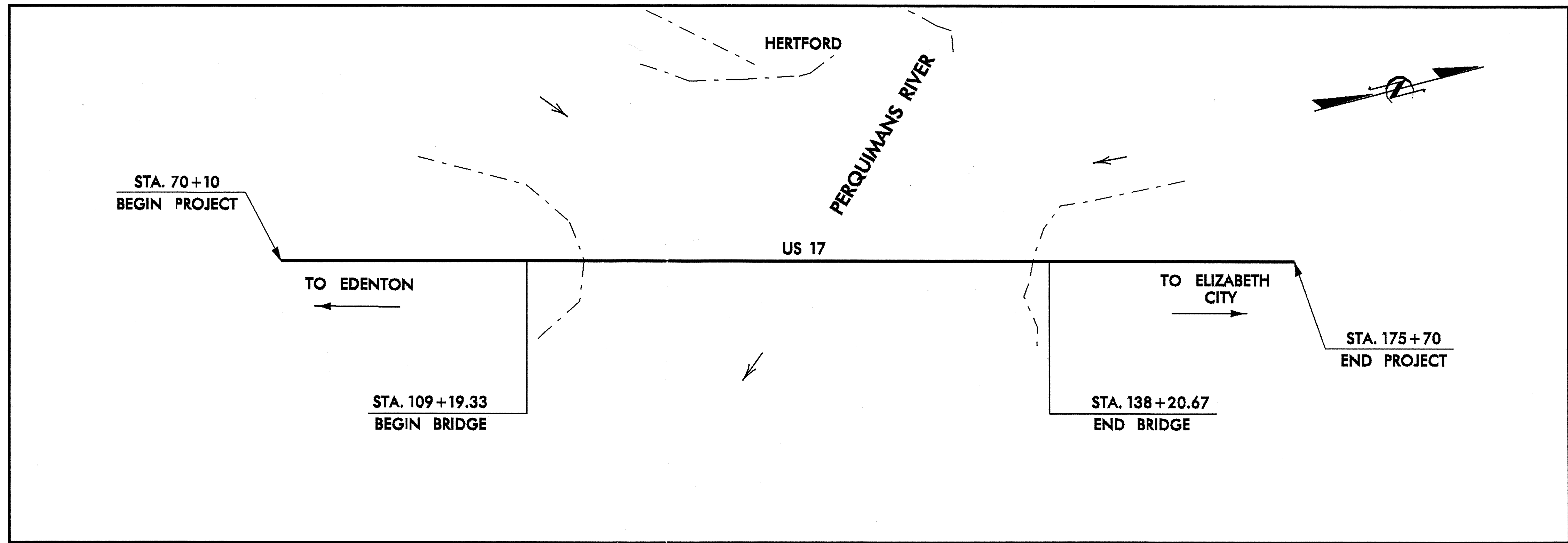
CONTRACT: C202133

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5019	1	18
STATE PROJECT NO.	P.A.P.O.B. NO.	DESCRIPTION	
41827.1.1	BRNHS-0017(73)	P.E.	
41827.3.1	BRNHS-0017(73)	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PERQUIMANS COUNTY



LOCATION: US 17 BRIDGE NO. 14 OVER PERQUIMANS RIVER
TYPE OF WORK: BRIDGE DECK REPAIR WITH LATEX MODIFIED CONCRETE,
REPAIR OF CONCRETE END DIAPHRAGMS



DESIGN DATA

ADT 2003 = 6500

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT = 1.550 MILE
LENGTH STRUCTURE TIP PROJECT = 0.550 MILE
TOTAL LENGTH TIP PROJECT = 2.100 MILE

Prepared in the Office of:
BRIDGE MANAGEMENT UNIT
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

LETTING DATE:
AUGUST 19, 2008

DAN HOLDERMAN, PE
STATE BRIDGE
MANAGEMENT ENGINEER

MIKE SUMMERS
BRIDGE MANAGEMENT
PROJECT MANAGER

NC DOT CONTACT:

JOHN YANNACCONE, PE
DESIGN ENGINEER

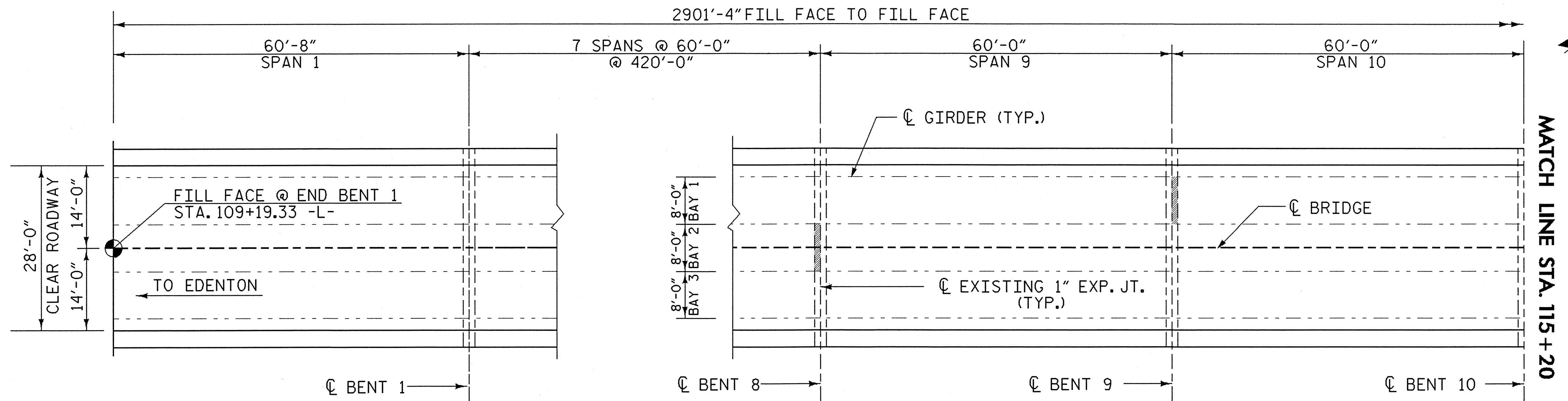
SHEET NO. 1 OF 18

WBS # 41827

PERQUIMANS

NOTES

1. FOR TYPICAL DIAPHRAGM REPAIR DETAILS, SEE SHEET NO. 9.
2. FOR LATEX MODIFIED CONCRETE OVERLAY AND EXPANSION JOINT DETAILS, SEE SHEET NO. 8.



PLAN OF DECK

NOTES:

- SEE SPECIAL PROVISIONS FOR LATEX MODIFIED CONCRETE.
- SEE SPECIAL PROVISIONS FOR SURFACE PREPARATION.
- DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING DECK SCARIFICATION, SEE SPECIAL PROVISIONS.
- EXPANSION JOINTS SHALL BE COVERED WITH POLYETHYLENE SHEETING OR OTHER APPROVED MATERIAL AND GRAVEL AGGREGATE DAMS PRIOR TO BEGINNING CLASS I SURFACE PREPARATION, SEE SPECIAL PROVISIONS.
- SEE SPECIAL PROVISIONS FOR HYDRO-DEMOLITION.
- NCDOT WILL PROVIDE THE SITE FOR DISPOSAL OF THE TREATED RUN-OFF CAPTURED DURING THE HYDRO-DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR MUST COLLECT AND TREAT RUN-OFF WATER FROM THE HYDRO-DEMOLITION PROCESS, SEE SPECIAL PROVISIONS.
- THE PERQUIMANS RIVER MAY BE USED AS A WATER SOURCE FOR THIS PROJECT, SEE SPECIAL PROVISIONS.
- THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS III SURFACE PREPARATION ARE APPROXIMATE, THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK.

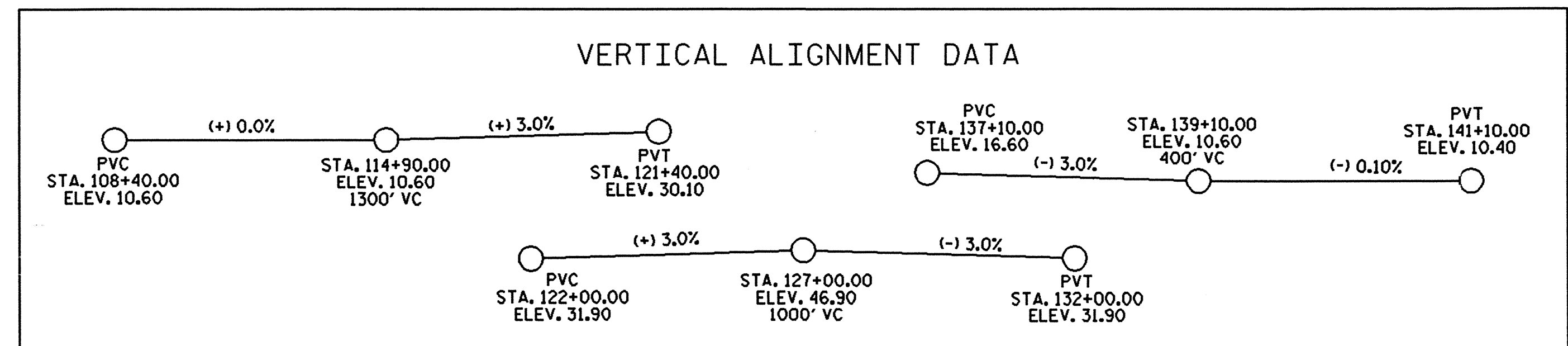
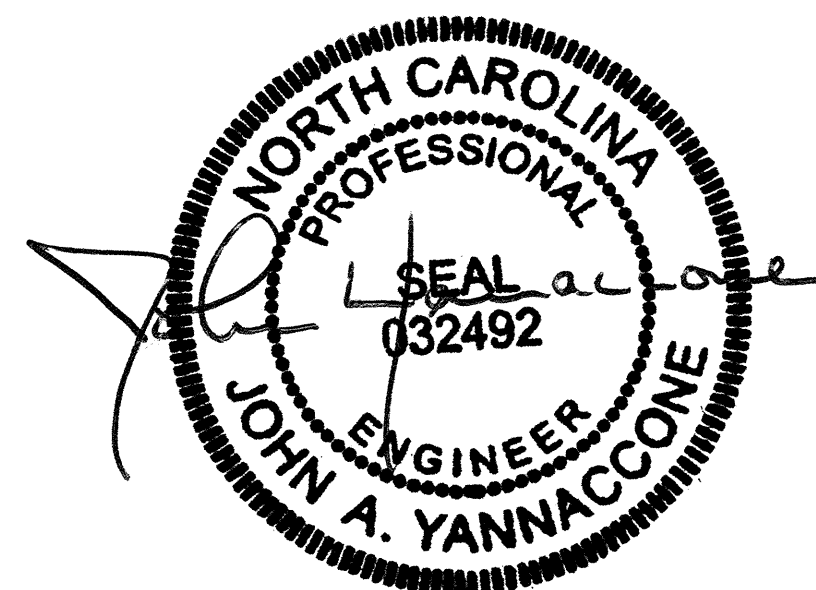


TABLE OF DRAWING SYMBOLS

	CONCRETE DIAPHRAGM REPAIR LOCATION.
	APPROXIMATE BOUNDARIES OF CLASS III SURFACE PREPARATION, SEE NOTES



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO. 14

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING FOR
 DECK REPAIR OF BRIDGE OVER
 PERQUIMANS RIVER
 ON US 17
 28' CLEAR ROADWAY - 90° SKEW

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			18

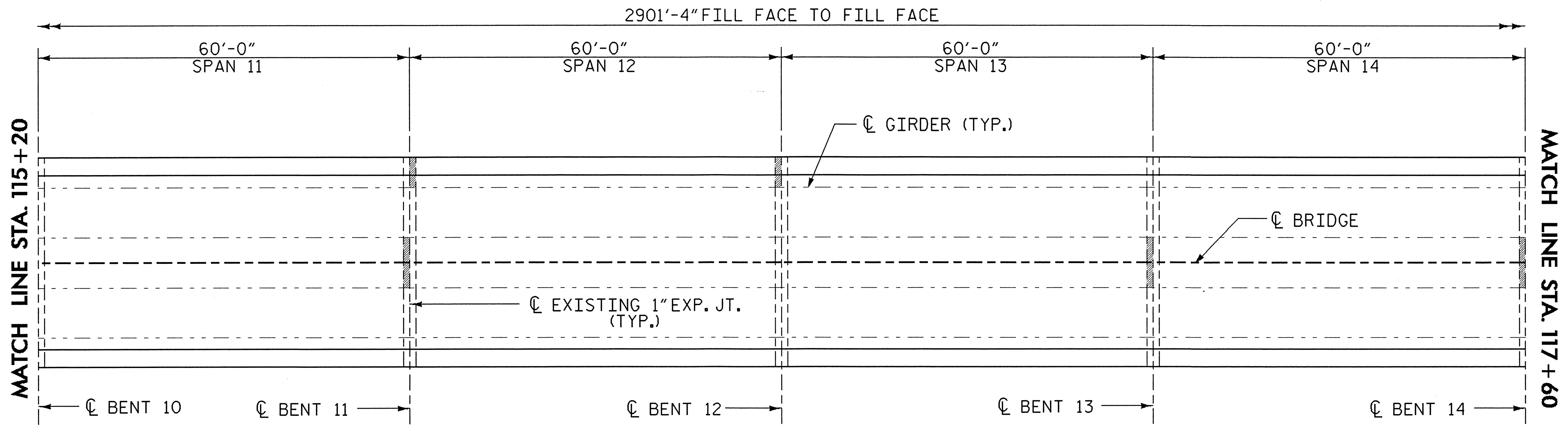
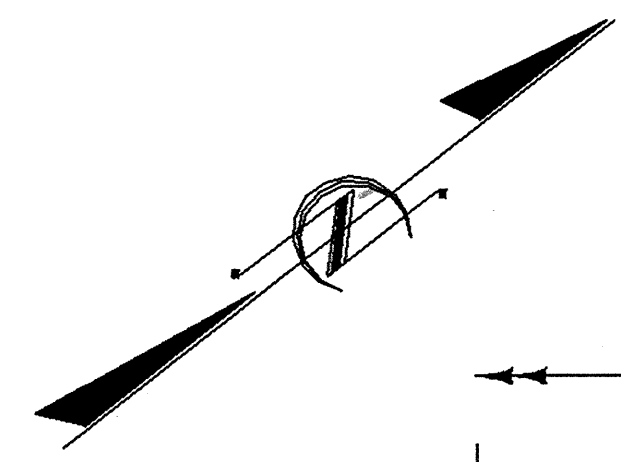
DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

WBS # 41827

PERQUIMANS

NOTES

1. FOR TABLE OF DRAWING SYMBOLS, SEE SHEET NO. 2.
2. FOR TYPICAL DIAPHRAGM REPAIR DETAILS, SEE SHEET NO. 9.
3. FOR LATEX MODIFIED CONCRETE OVERLAY AND EXPANSION JOINT DETAILS, SEE SHEET NO. 8.

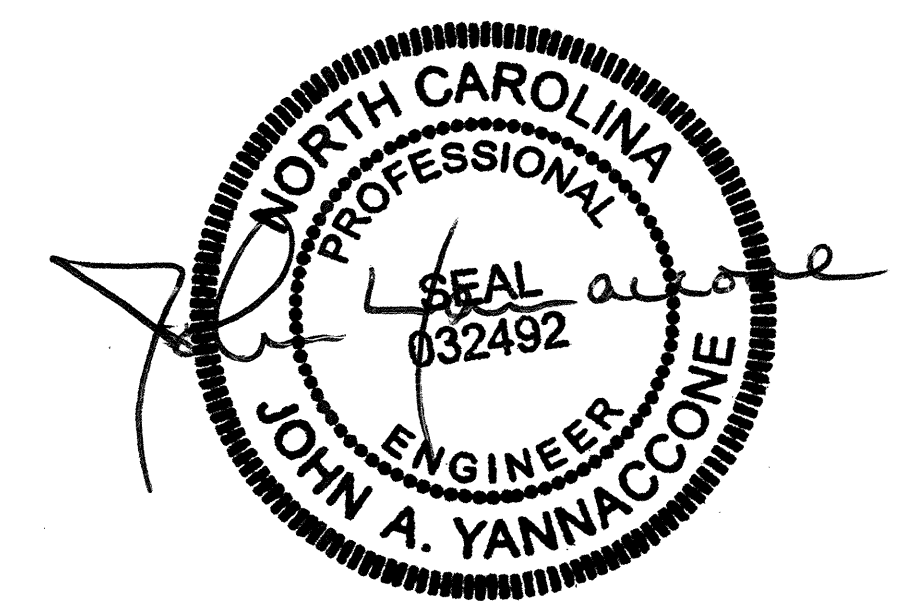


PLAN OF DECK

TOTAL BILL OF MATERIAL

DECK SCARIFICATION*	CLASS I SURFACE PREPARATION*	CLASS II SURFACE PREPARATION*	CLASS III SURFACE PREPARATION*	CLASS AA CONCRETE*	LATEX MODIFIED CONCRETE	GROVING BRIDGE FLOORS	EVAZOTE JOINT SEALS	EPOXY MORTAR REPAIRS
SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ. YDS.	CU. YDS.	CU. YDS.	SQ. FT	LUMP SUM	CU. FT.
9,010	2,000	445	100	40	470	72,035		75

* QUANTITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING FOR
 DECK REPAIR OF BRIDGE OVER
 PERQUIMANS RIVER
 ON US 17
 28' CLEAR ROADWAY - 90° SKEW

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	3
1			3			TOTAL SHEETS
2			4			18

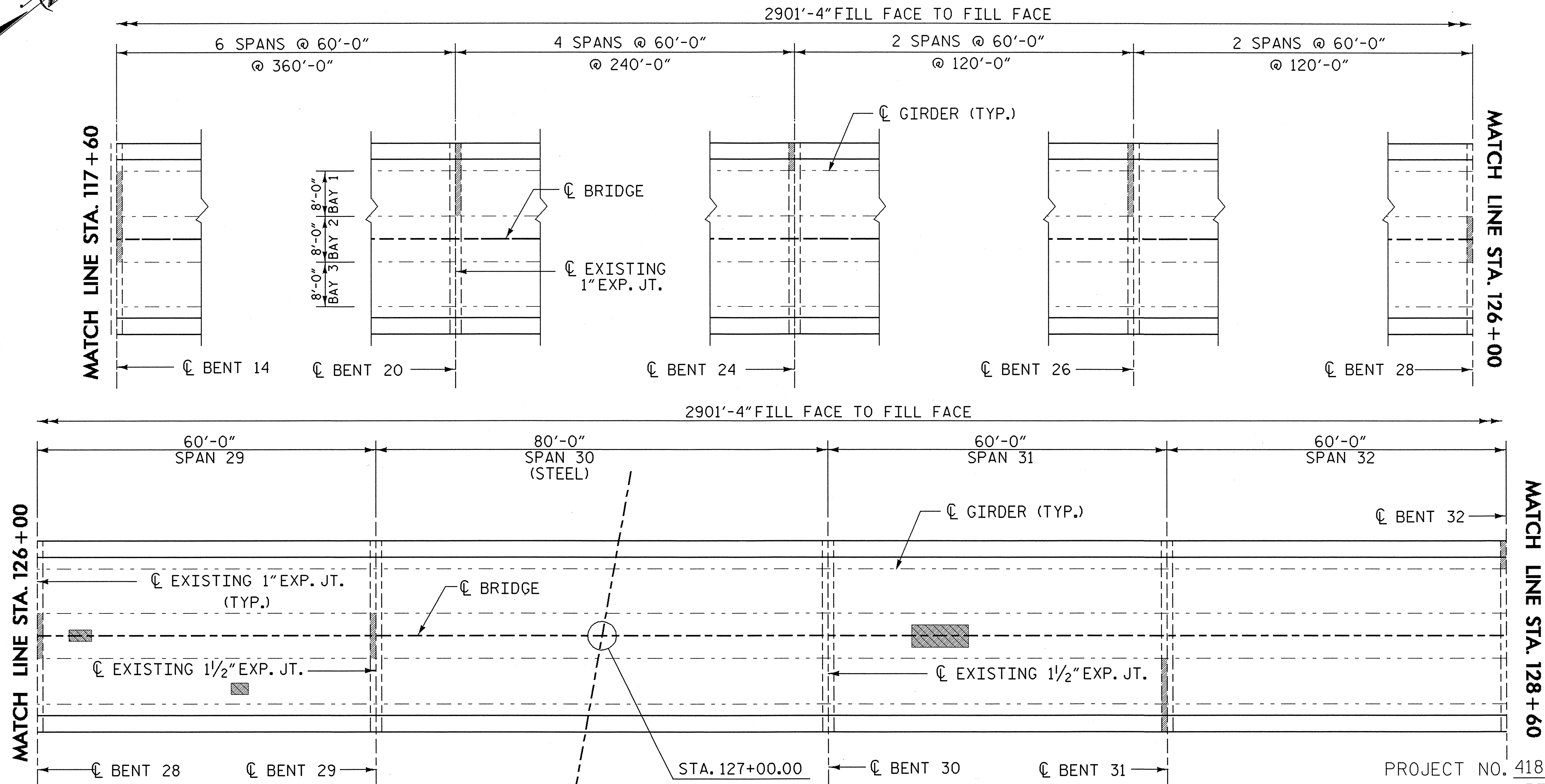
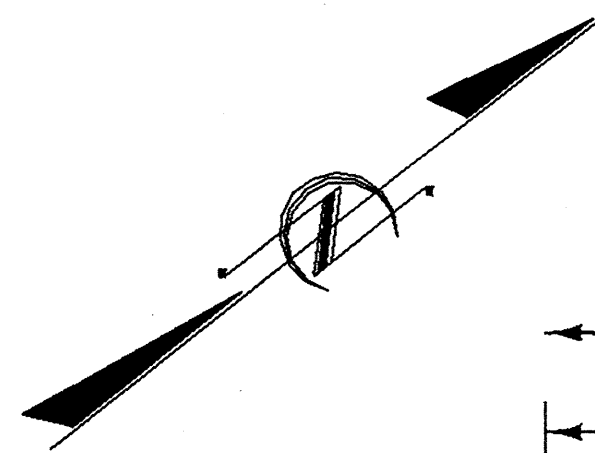
DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

WBS # 41827

PERQUIMANS

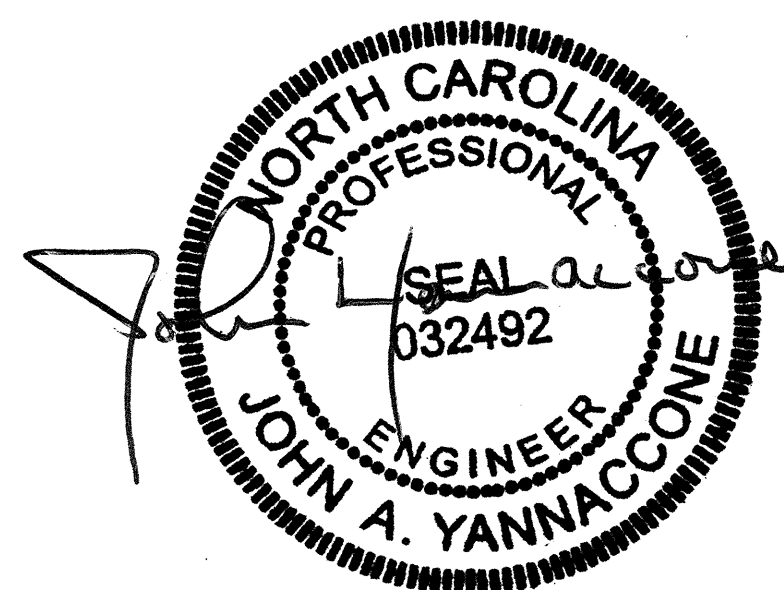
NOTES

1. FOR TABLE OF DRAWING SYMBOLS, SEE SHEET NO. 2.
2. FOR TYPICAL DIAPHRAGM REPAIR DETAILS, SEE SHEET NO. 9.
3. FOR LATEX MODIFIED CONCRETE OVERLAY AND EXPANSION JOINT DETAILS, SEE SHEET NO. 8.



PLAN OF DECK

PERQUIMANS RIVER



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. 4
GENERAL DRAWING FOR DECK REPAIR OF BRIDGE OVER PERQUIMANS RIVER ON US 17 28' CLEAR ROADWAY - 90° SKEW						
REVISIONS						TOTAL SHEETS 18
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

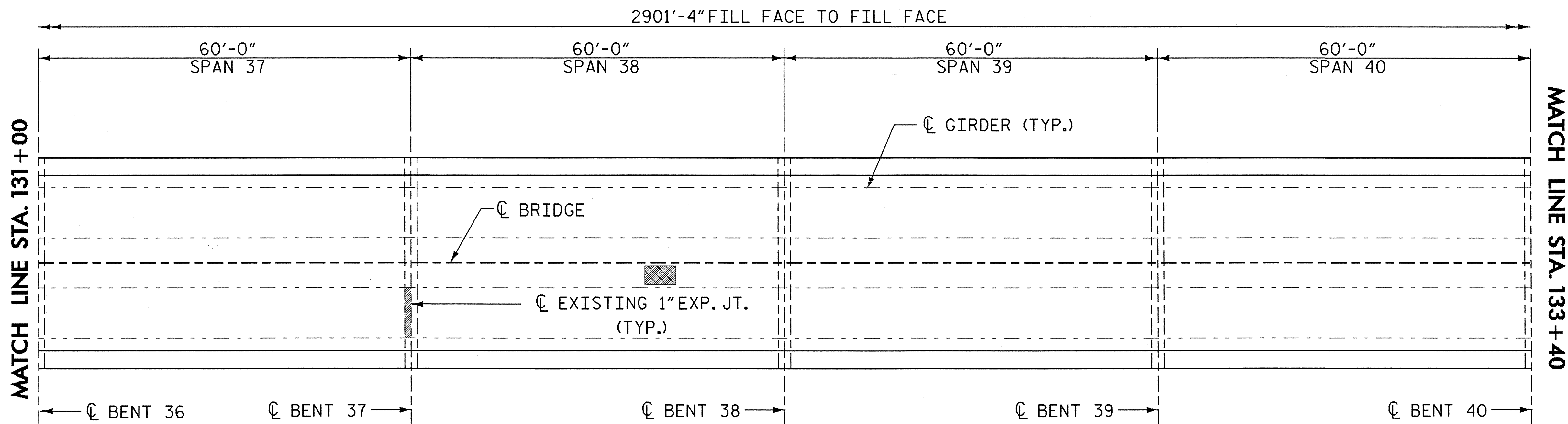
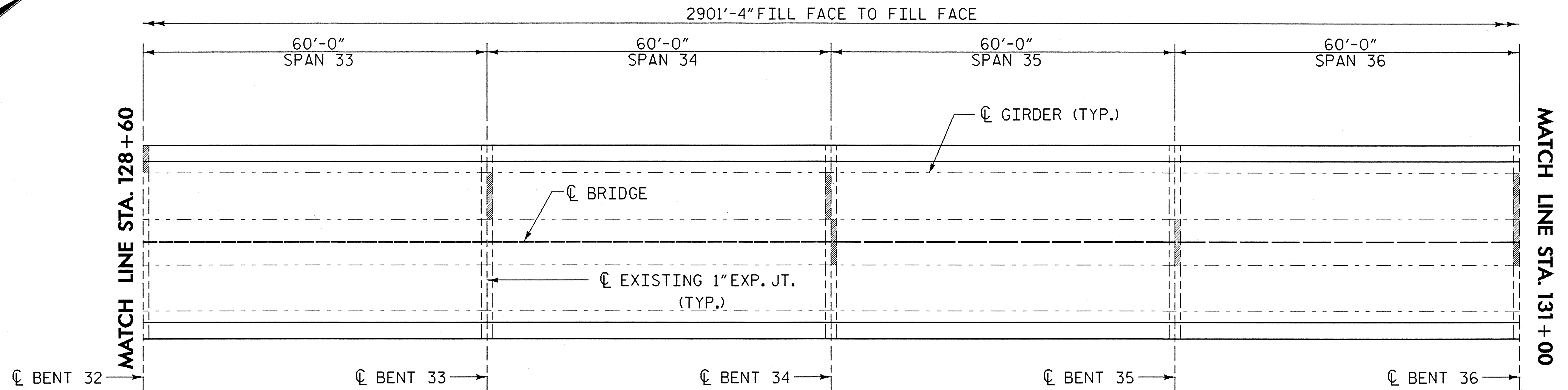
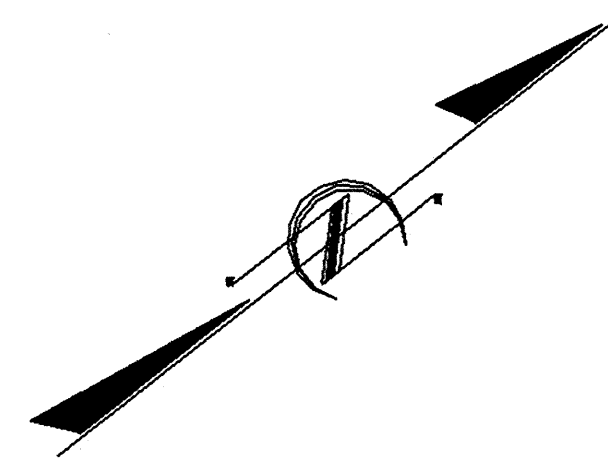
DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

WBS # 41827

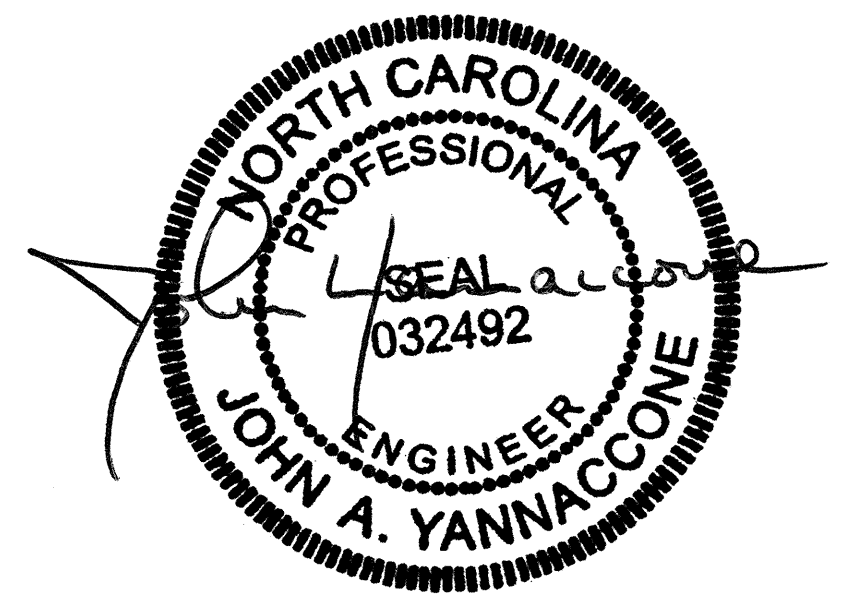
PERQUIMANS

NOTES

1. FOR TABLE OF DRAWING SYMBOLS, SEE SHEET NO. 2.
2. FOR TYPICAL DIAPHRAGM REPAIR DETAILS, SEE SHEET NO. 9.
3. FOR LATEX MODIFIED CONCRETE OVERLAY AND EXPANSION JOINT DETAILS, SEE SHEET NO. 8.



PLAN OF DECK



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING FOR
 DECK REPAIR OF BRIDGE OVER
 PERQUIMANS RIVER
 ON US 17
 28' CLEAR ROADWAY - 90° SKEW

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5
1			3			TOTAL SHEETS
2			4			18

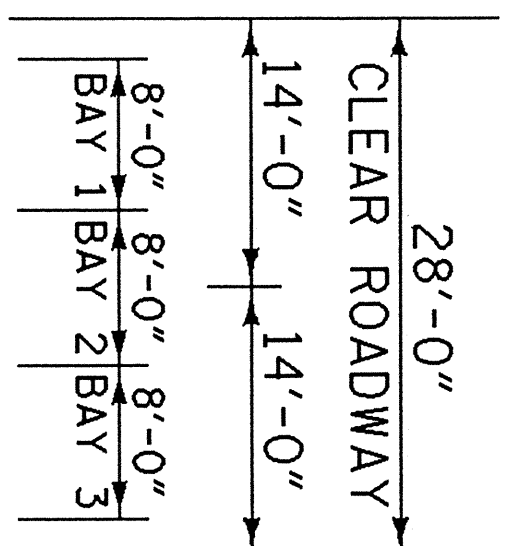
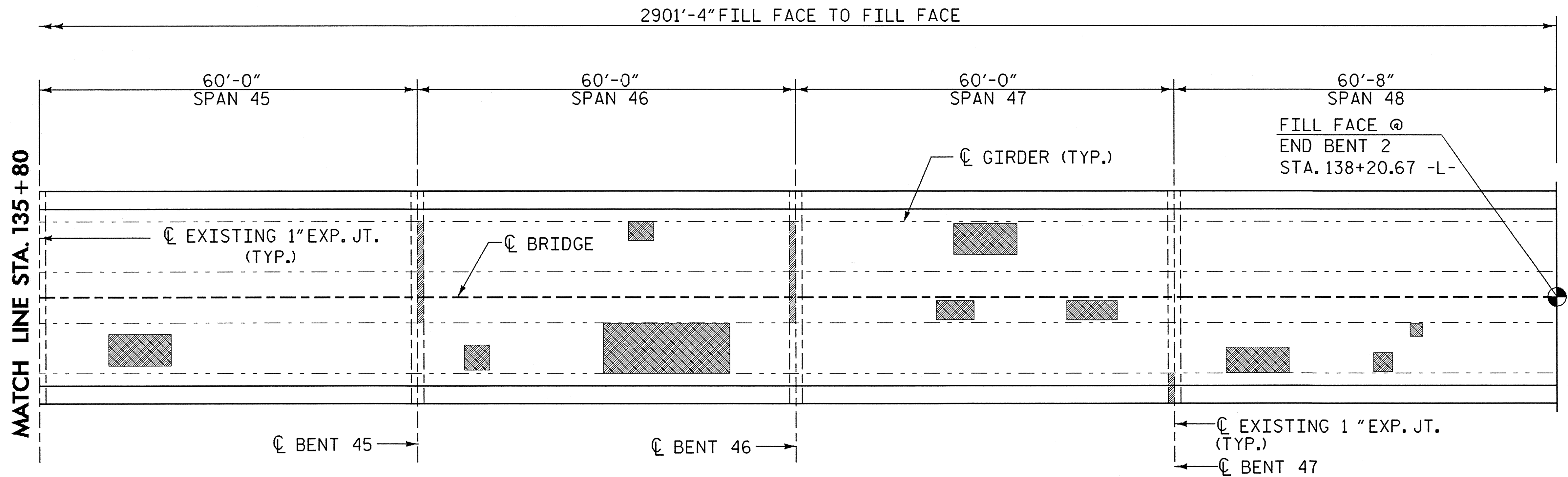
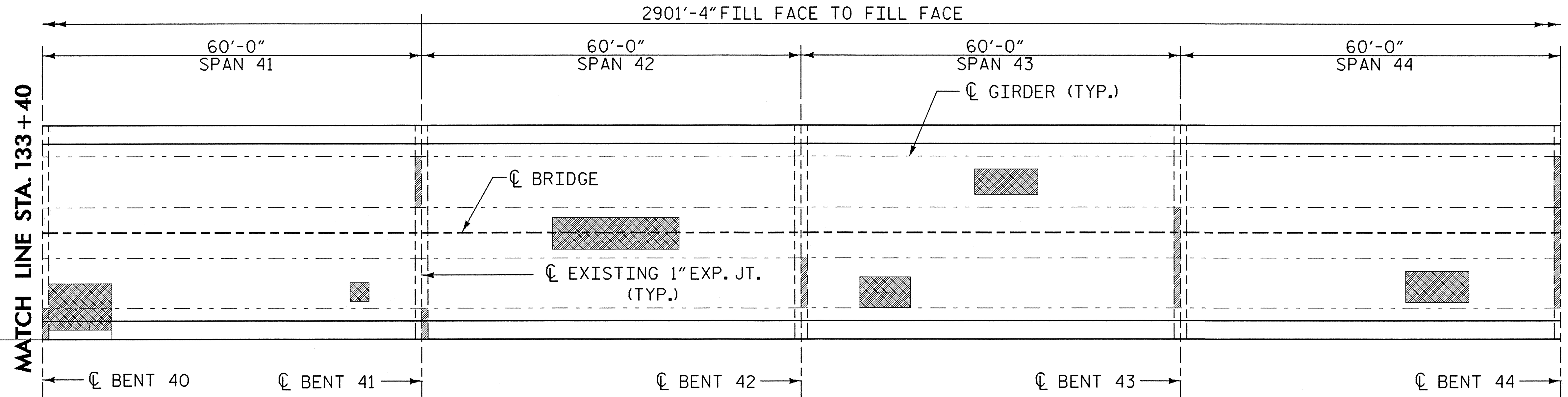
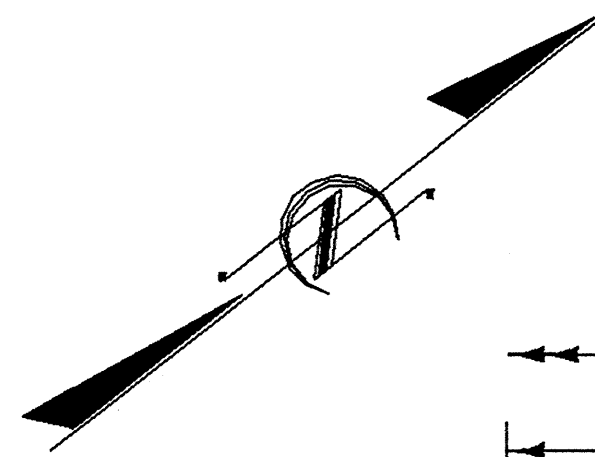
DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

WBS # 41827

PERQUIMANS

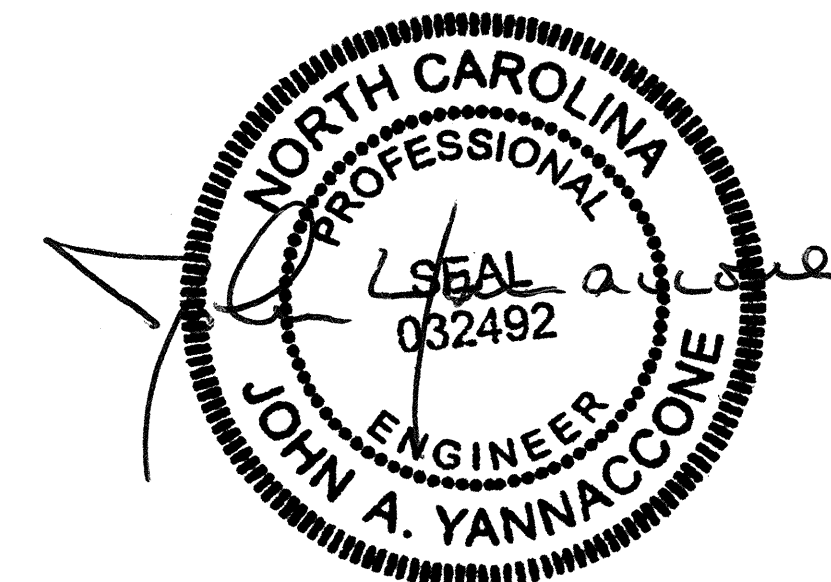
NOTES

1. FOR TABLE OF DRAWING SYMBOLS, SEE SHEET NO. 2.
2. FOR TYPICAL DIAPHRAGM REPAIR DETAILS, SEE SHEET NO. 9.
3. FOR LATEX MODIFIED CONCRETE OVERLAY AND EXPANSION JOINT DETAILS, SEE SHEET NO. 8.



PLAN OF DECK

PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14



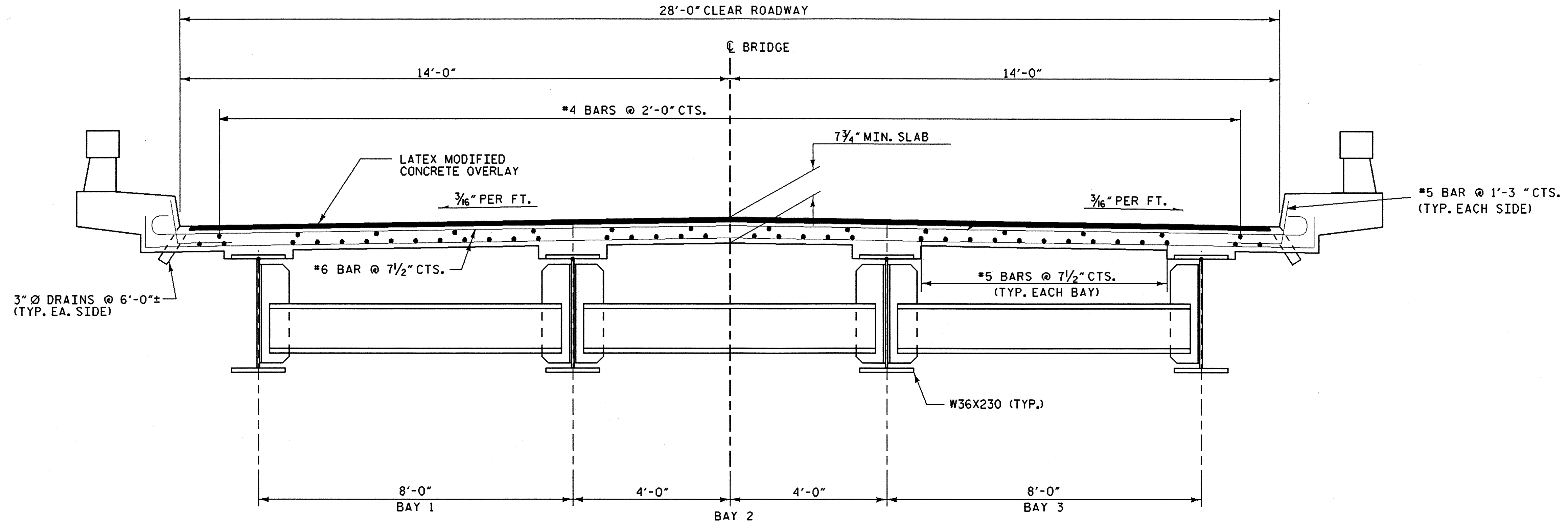
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING FOR
 DECK REPAIR OF BRIDGE OVER
 PERQUIMANS RIVER
 ON US 17
 28' CLEAR ROADWAY - 90° SKEW

REVISIONS						HEET NO.
NO.	BY	DATE	NO.	BY	DATE	6
1			3			TOTAL SHEETS
2			4			18

DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

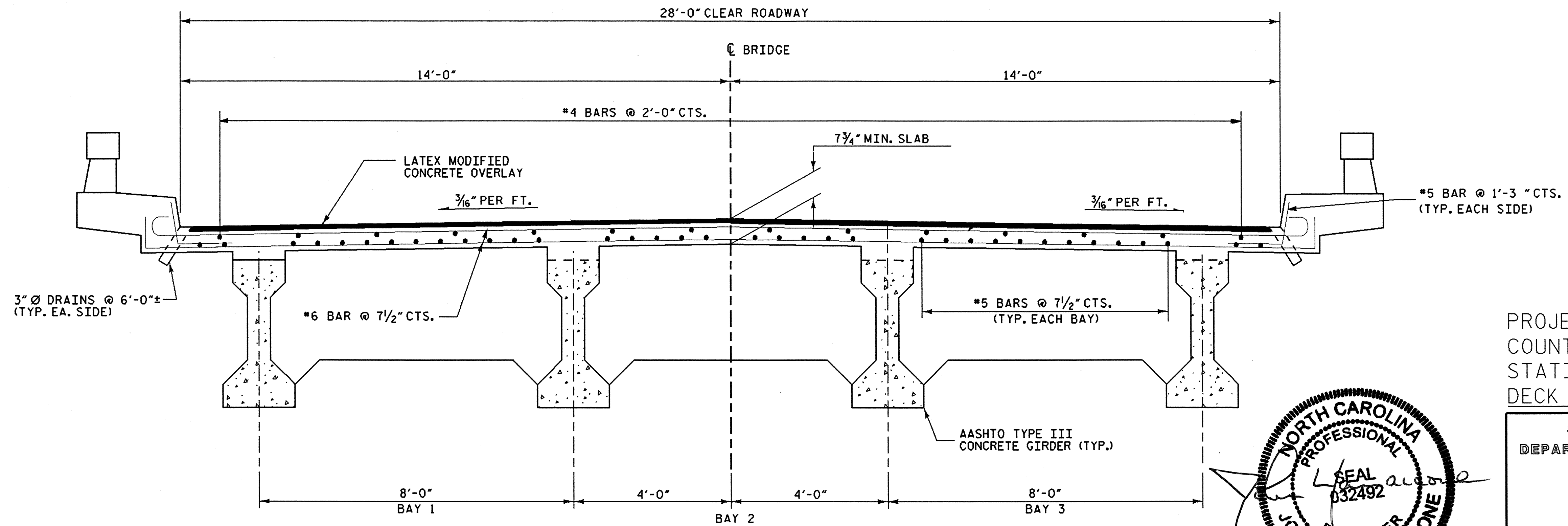
WBS # 41827

PERQUIMANS



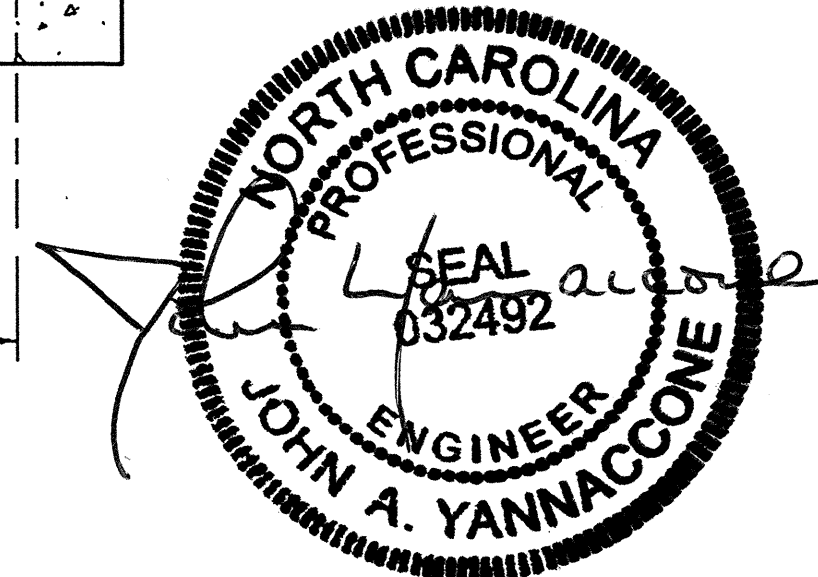
TYPICAL SECTION

(SPAN 30)



TYPICAL SECTION

(SPANS 1 THRU 29 AND SPANS 31 THRU 48)



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO. 14

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTIONS

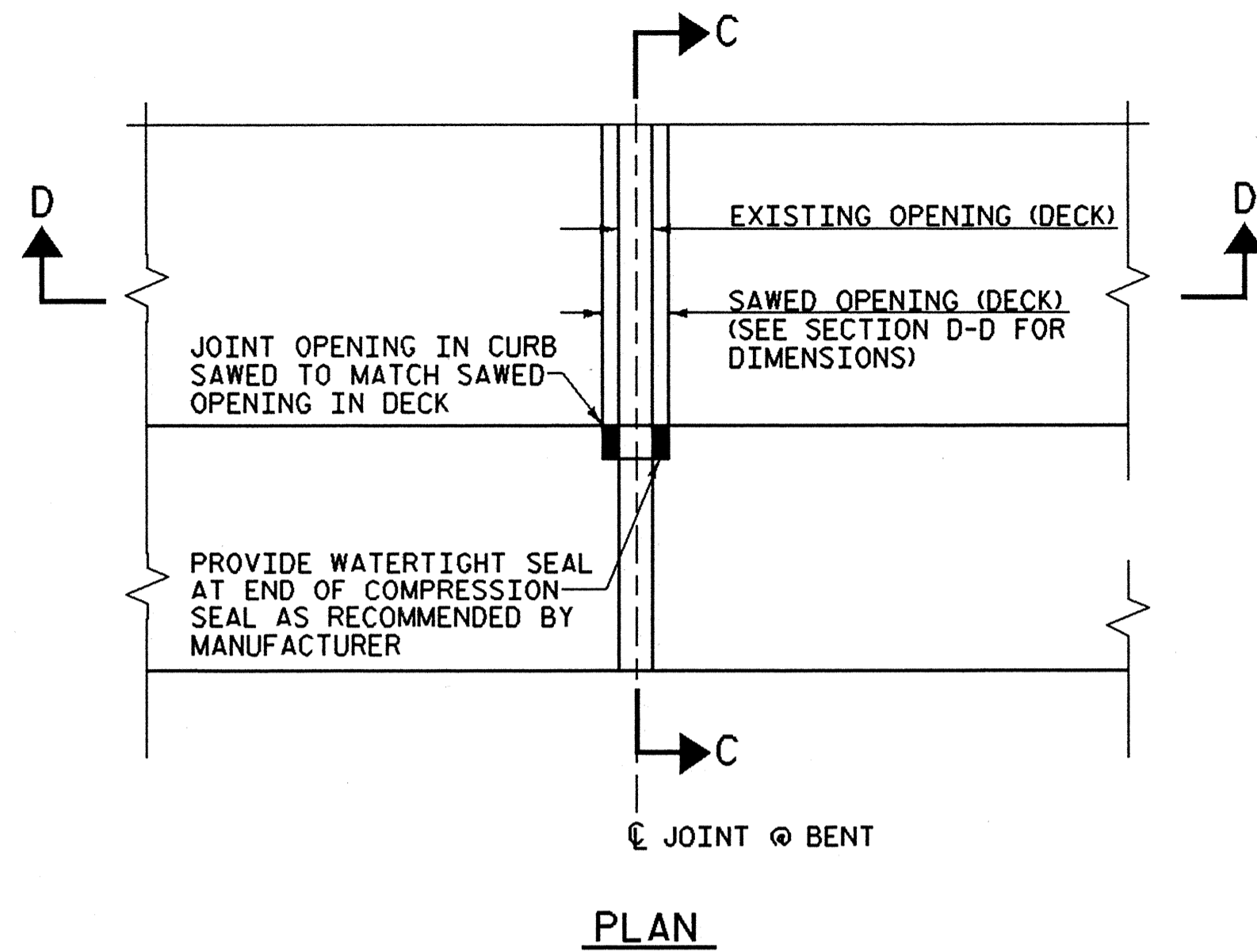
28' CLEAR ROADWAY - 90° SKEW

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	7
1			3			TOTAL SHEETS
2			4			18

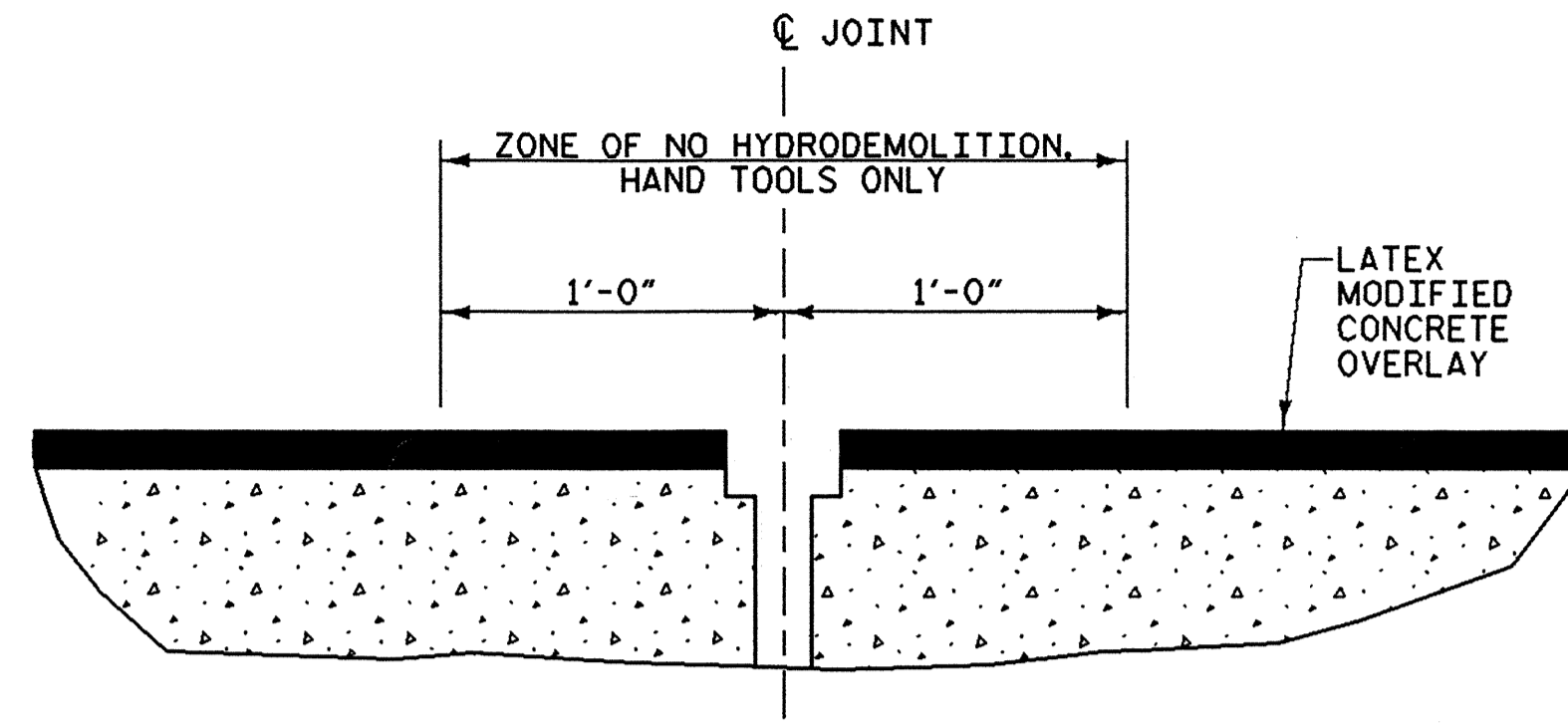
DRAWN BY: MJW DATE: 03 /08
 CHECKED BY: JAY DATE: 03 /08

WBS # 41827

PERQUIMANS



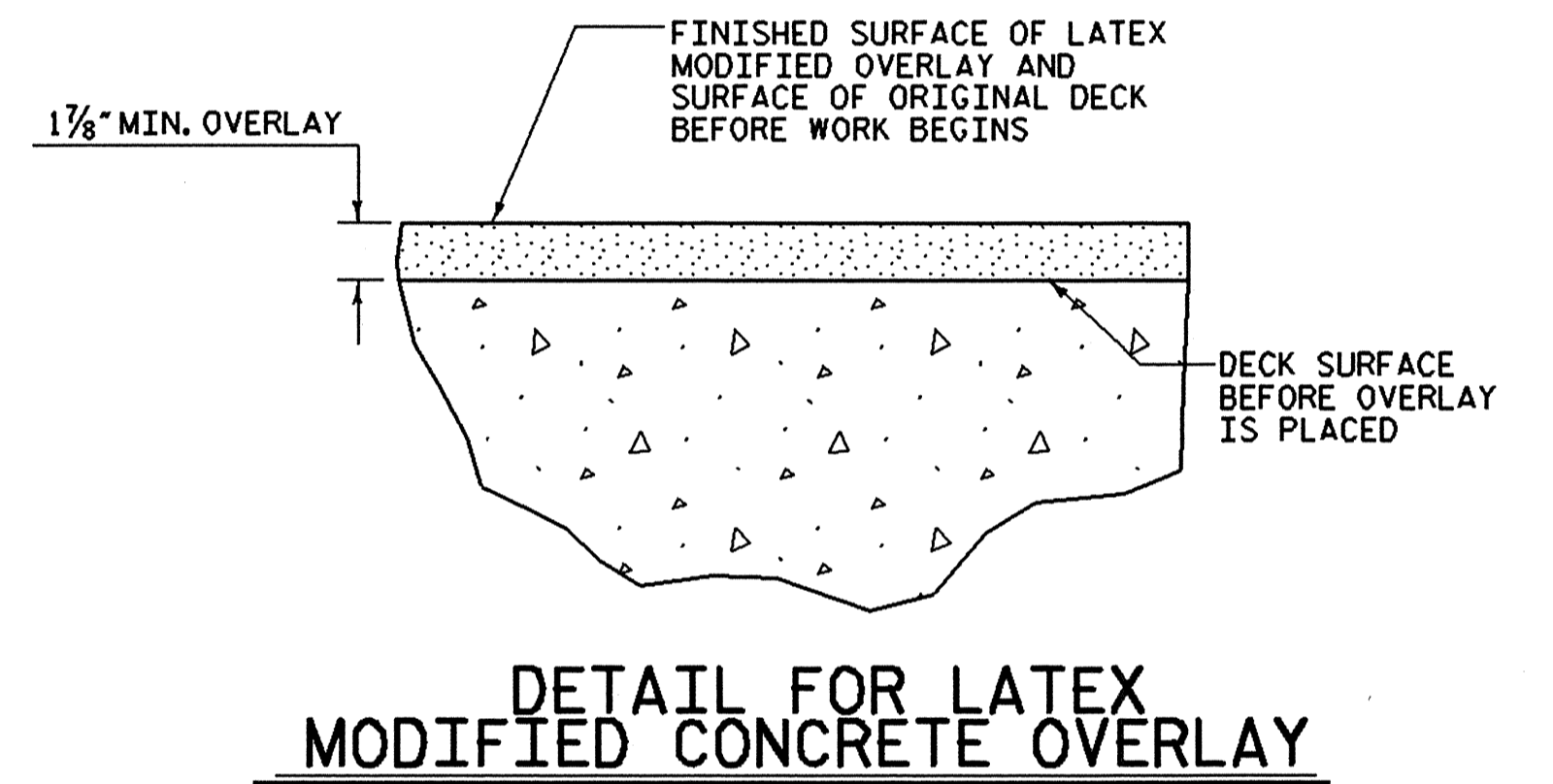
PLAN



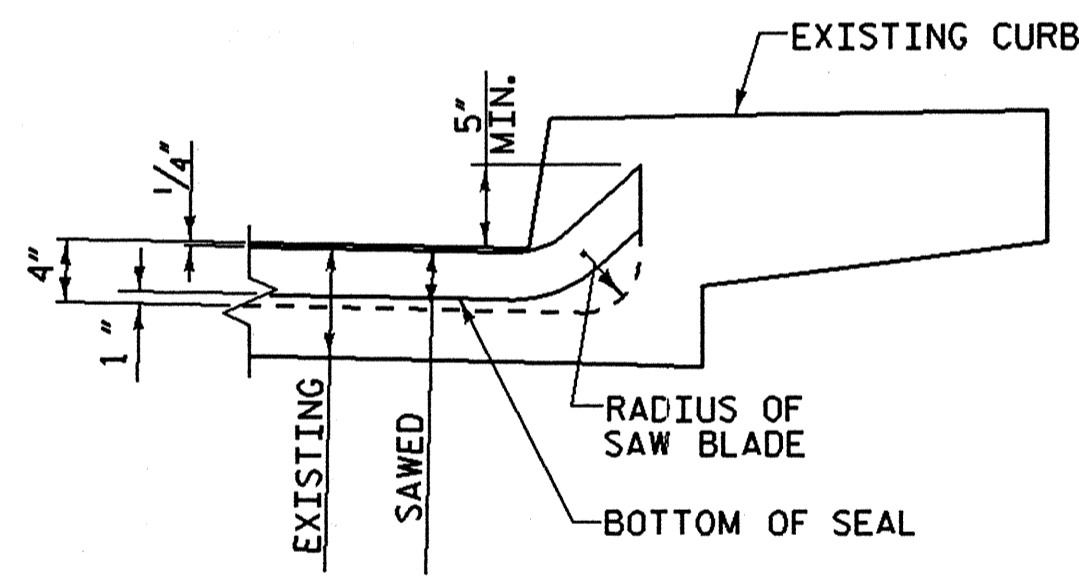
SECTION AT EXPANSION JOINTS
(AT EXISTING 1' & 1/2" JOINTS)

NOTES:

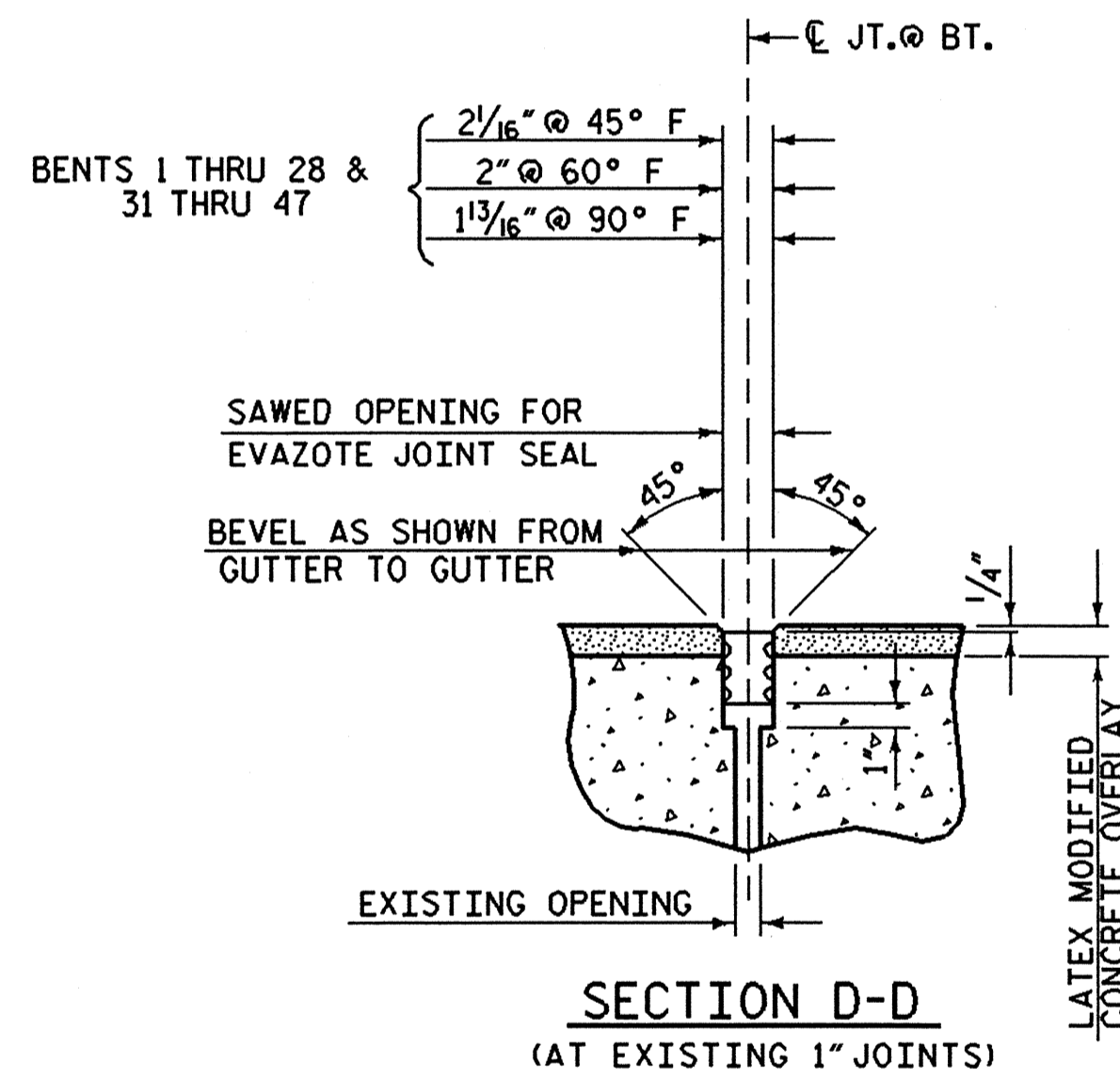
ALL JOINTS SHALL BE REPLACED WITH AN EVAZOTE SEAL.
 FOR EVAZOTE JOINT SEAL, SEE SPECIAL PROVISIONS.
 THE INSTALLED EVAZOTE JOINT SEALS SHALL BE WATERTIGHT.
 OPENINGS ARE BASED ON A NOMINAL UNCOMPRESSED SEAL WIDTH OF 2 1/2". (BENTS 1 THRU 28 & 31 THRU 47) AND 3 1/8" (BENT 29 & 30).
 THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINT FOR THE EVAZOTE JOINT SEAL IN LIEU OF SAWING THE JOINT.



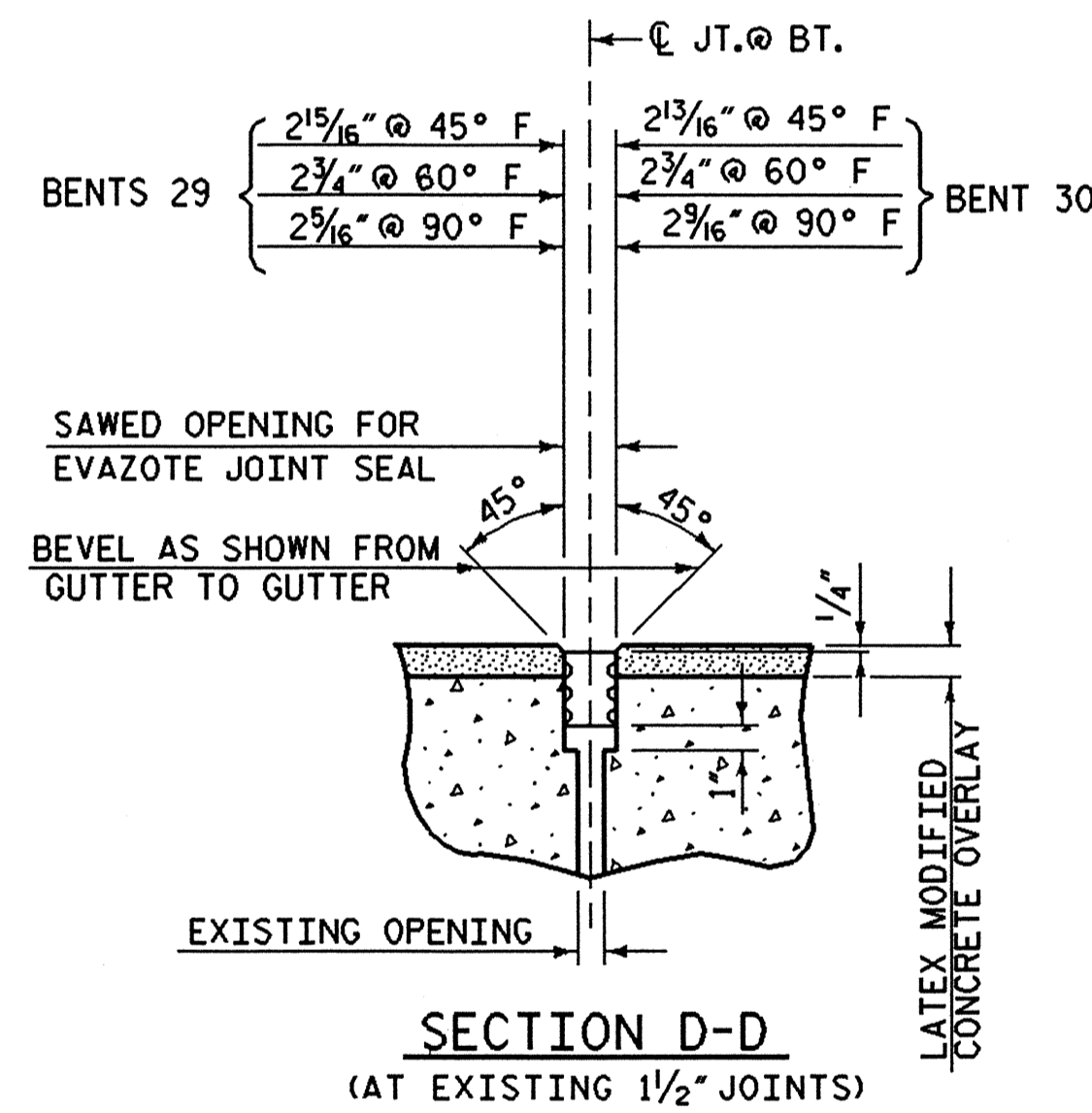
DETAIL FOR LATEX MODIFIED CONCRETE OVERLAY



SECTION C-C

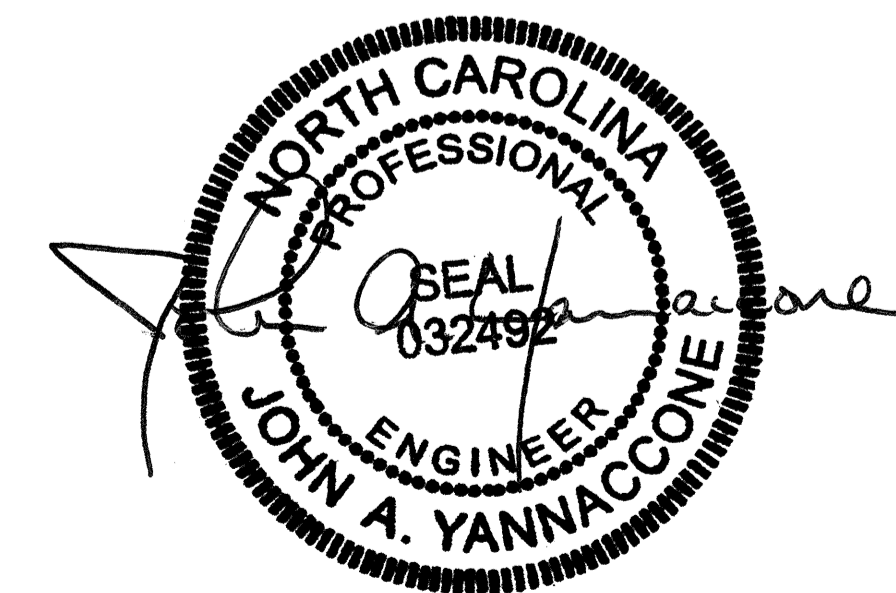


SECTION D-D
(AT EXISTING 1" JOINTS)



SECTION D-D
(AT EXISTING 1 1/2" JOINTS)

EVAZOTE JOINT SEAL DETAILS



PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14

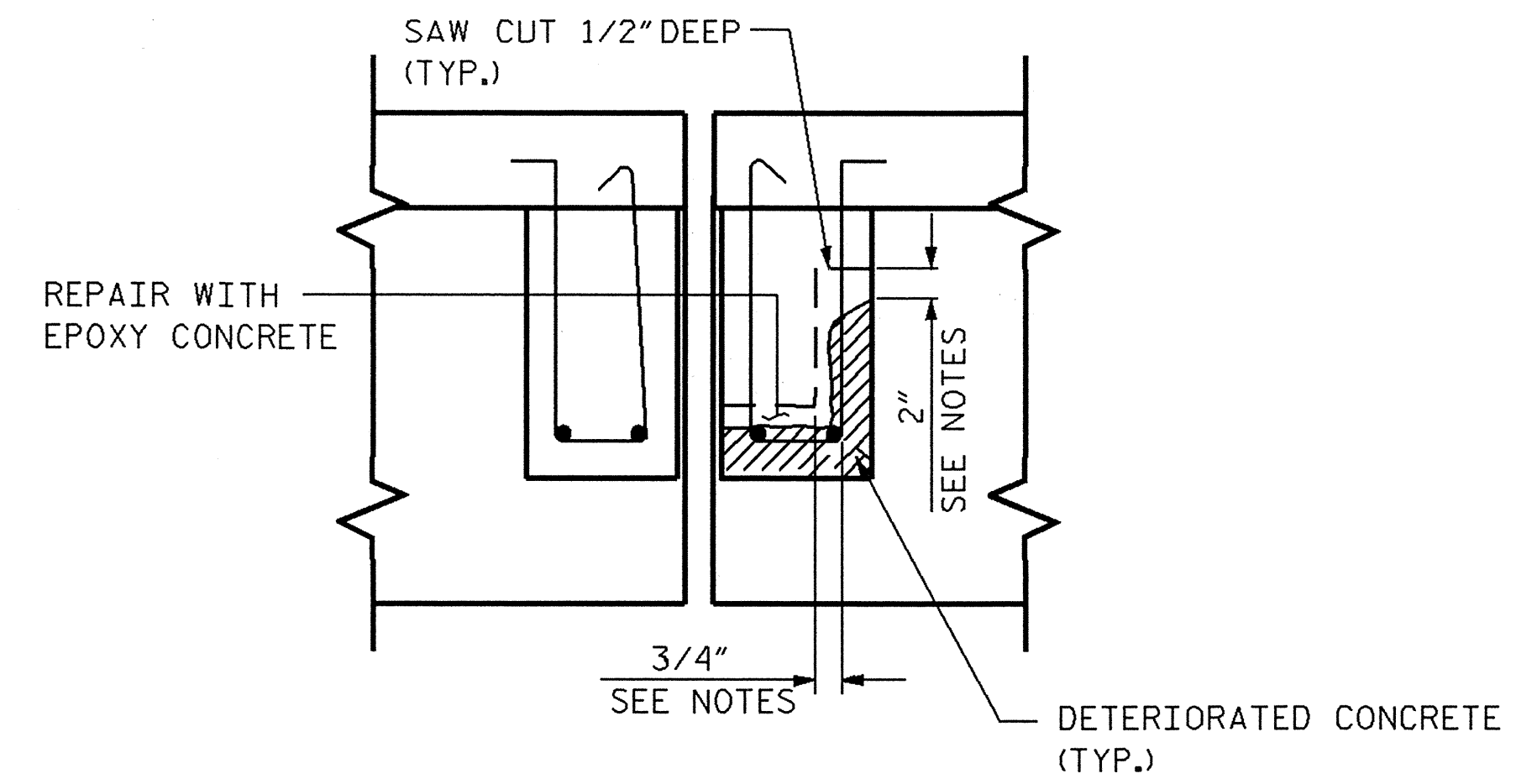
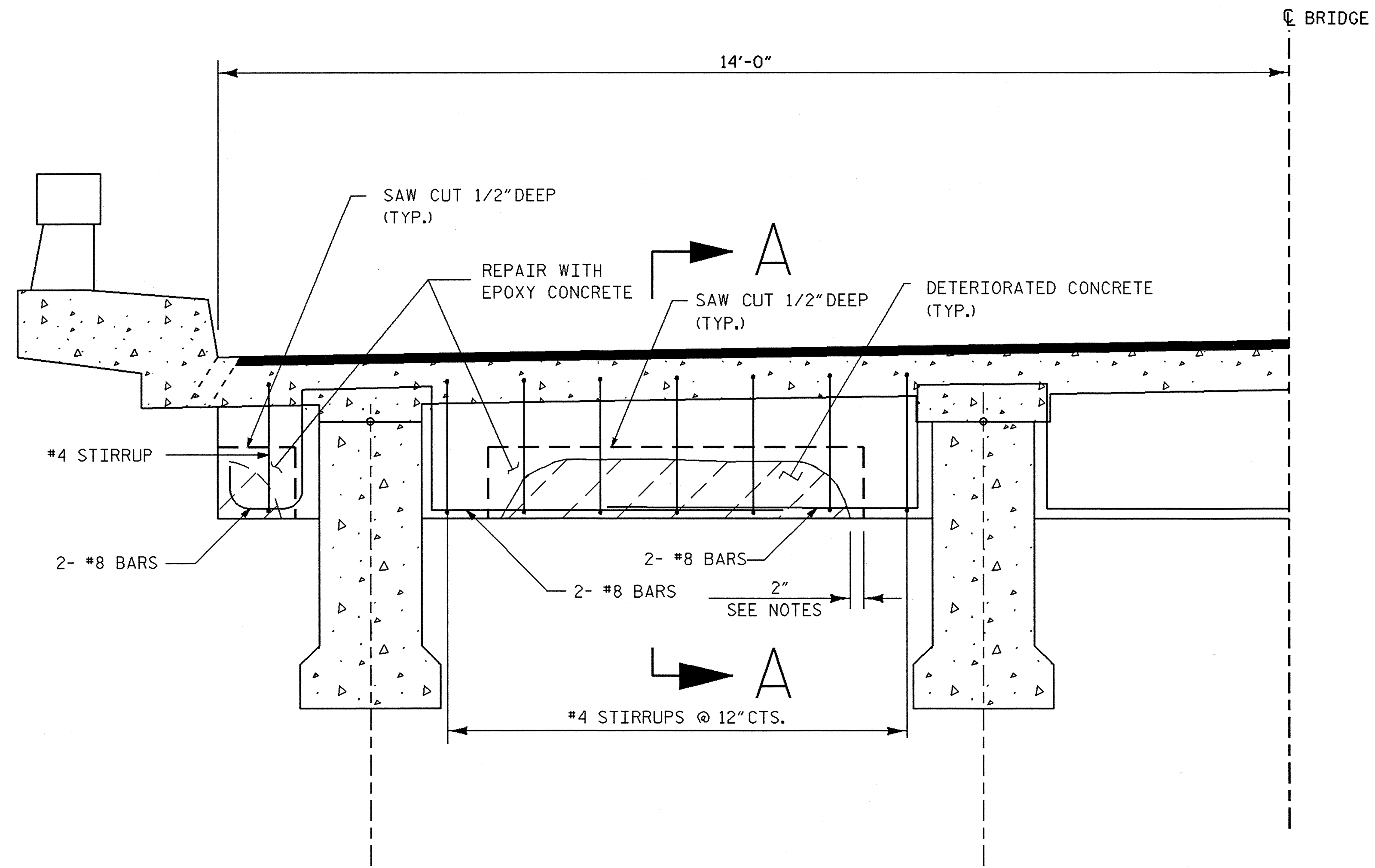
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
OVERLAY AND JOINT DETAILS					
28' CLEAR ROADWAY - 90° SKEW					
REVISORS					SHEET NO.
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
					TOTAL SHEETS
					8
					18

DRAWN BY: MJW
 CHECKED BY: JAY

WBS # 41827
 PERQUIMANS

NOTES:

1. REMOVE DETERIORATED CONCRETE TO SOUND CONCRETE AND AT LEAST 3/4" BEYOND FIRST LAYER OF REINFORCING STEEL.
2. MAINTAIN 2" (MIN.) BETWEEN SAW CUT LINE AND DETERIORATED CONCRETE.

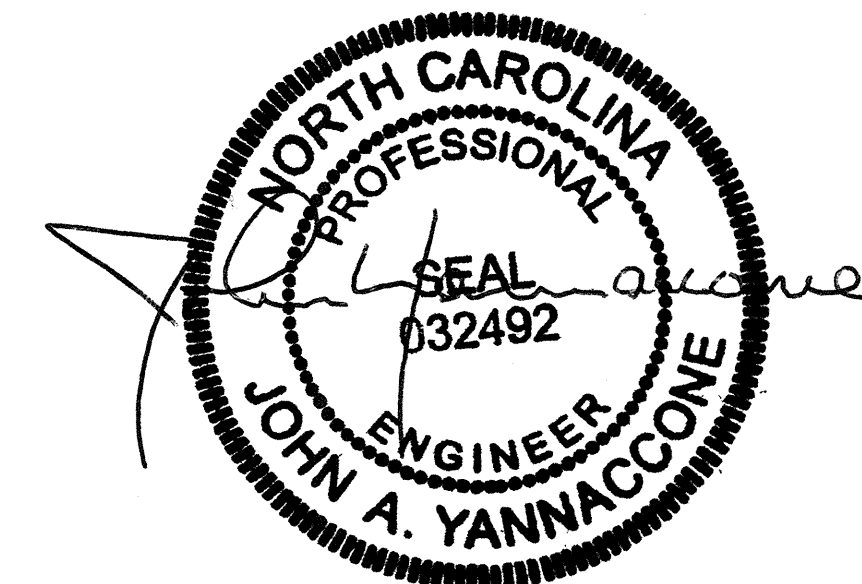


SECTION A-A

TYPICAL SECTION AT BENTS

(TYPICAL EXTERIOR AND INTERIOR BAY SHOWN)

PROJECT NO. 41827 (B-5019)
 COUNTY: PERQUIMANS
 STATION: 127+00
 DECK REPAIR BRIDGE NO.14



STATE OF NORTH CAROLINA						SHEET NO. 9
DEPARTMENT OF TRANSPORTATION RALEIGH						
TYPICAL DIAPHRAGM REPAIR DETAILS						TOTAL SHEETS 18
28' CLEAR ROADWAY - 90° SKEW						
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

DRAWN BY: MJW DATE: 03/08
 CHECKED BY: JAY DATE: 03/08