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PROJ. REFERENCE NO.	SHEET NO.
BP14-R014	TMP-02A

PLANS PREPARED FOR THE NCDOT BY:
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TEMPORARY SHORING NOTES

Shoring Location No. 1

1. FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

2. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

3. DESIGN TEMPORARY SHORING FROM -L- STATION 11+89, 3.5′ LT TO STATION 12+08, 3.5′ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

   ABOVE ELEVATION 1938 FT:
   UNIT WEIGHT (γ) = 120 LB/CF
   FRICTION ANGLE (ϕ) = 30 DEGREES
   COHESION (c) = 0 LB/SF

   BELOW ELEVATION 1938 FT:
   UNIT WEIGHT (γ) = 140 LB/CF
   FRICTION ANGLE (ϕ) = 38 DEGREES
   COHESION (c) = 0 LB/SF

4. DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 11+89, 3.5′ LT TO STATION 12+08, 3.5′ LT MAY NOT PENETRATE BELOW ELEVATION 1938 FT DUE TO WEATHERED OR HARD ROCK.

5. AT THE CONTRACTOR′S OPTION, USE STANDARD SHORING FOR TEMPORARY SHORING FROM -L- STATION 11+89, 3.5′ LT TO STATION 12+08, 3.5′ LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

6. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L- STATION 11+89, 3.5′ LT TO STATION 12+08, 3.5′ LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

Shoring Location No. 2

1. FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

2. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

3. DESIGN TEMPORARY SHORING FROM -L- STATION 12+82, 3.5′ LT TO STATION 13+01, 3.5′ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

   ABOVE ELEVATION 1937 FT:
   UNIT WEIGHT (γ) = 120 LB/CF
   FRICTION ANGLE (ϕ) = 30 DEGREES
   COHESION (c) = 0 LB/SF
   GROUNDWATER ELEVATION = 1945 FT

   BELOW ELEVATION 1937 FT:
   UNIT WEIGHT (γ) = 140 LB/CF
   FRICTION ANGLE (ϕ) = 38 DEGREES
   COHESION (c) = 0 LB/SF

4. DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 12+82, 3.5′ LT TO STATION 13+01, 3.5′ LT MAY NOT PENETRATE BELOW ELEVATION 1937 FT DUE TO WEATHERED OR HARD ROCK.

5. AT THE CONTRACTOR*S OPTION, USE STANDARD SHORING FOR TEMPORARY SHORING FROM -L- STATION 12+82, 3.5′ LT TO STATION 13+01, 3.5′ LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

6. IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -L- STATION 12+82, 3.5′ LT TO STATION 13+01, 3.5′ LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

Shoring Location No. 3

1. FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

2. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

3. DESIGN TEMPORARY SHORING FROM -L- STATION 11+90, 1.5′ LT TO STATION 12+00, 1.5′ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

   ABOVE ELEVATION 1938 FT:
   UNIT WEIGHT (γ) = 120 LB/CF
   FRICTION ANGLE (ϕ) = 30 DEGREES
   COHESION (c) = 0 LB/SF

   BELOW ELEVATION 1938 FT:
   UNIT WEIGHT (γ) = 140 LB/CF
   FRICTION ANGLE (ϕ) = 38 DEGREES
   COHESION (c) = 0 LB/SF

4. DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 11+90, 1.5′ LT TO STATION 12+00, 1.5′ LT MAY NOT PENETRATE BELOW ELEVATION 1938 FT DUE TO WEATHERED OR HARD ROCK.

5. AT THE CONTRACTOR′S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STATION 11+90, 1.5′ LT TO STATION 12+00, 1.5′ LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

6. WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

Shoring Location No. 4

1. FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

2. BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

3. DESIGN TEMPORARY SHORING FROM -L- STATION 12+92, 1.5′ LT TO STATION 13+02, 1.5′ LT FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

   ABOVE ELEVATION 1937 FT:
   UNIT WEIGHT (γ) = 120 LB/CF
   FRICTION ANGLE (ϕ) = 30 DEGREES
   COHESION (c) = 0 LB/SF
   GROUNDWATER ELEVATION = 1945 FT

   BELOW ELEVATION 1937 FT:
   UNIT WEIGHT (γ) = 140 LB/CF
   FRICTION ANGLE (ϕ) = 38 DEGREES
   COHESION (c) = 0 LB/SF

4. DRIVEN PILING FOR TEMPORARY SHORING FROM -L- STATION 12+92, 1.5′ LT TO STATION 13+02, 1.5′ LT MAY NOT PENETRATE BELOW ELEVATION 1937 FT DUE TO WEATHERED OR HARD ROCK.

5. AT THE CONTRACTOR′S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STATION 12+92, 1.5′ LT TO STATION 13+02, 1.5′ LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

6. WHEN BACKFILL FOR BRIDGE APPROACH FILLS OVERLAPS WITH THE REINFORCED ZONE OF TEMPORARY WALLS, USE SHORING BACKFILL OR BACKFILL MATERIAL REQUIRED FOR BRIDGE APPROACH FILLS, WHICHEVER IS BETTER, IN THE REINFORCED ZONE OF TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM FALCON ENGINEERING. THE DOCUMENT WAS SUBMITTED TO WSP ON MAY 13, 2026 AND SEALED BY A PROFESSIONAL ENGINEER, STEPHEN CROCKETT, PE, LICENSE # 48207

APPROVED: Signed by: David W Bissette 3E618B0D49A5400...
DATE: 7/22/2026

NORTH CAROLINA PROFESSIONAL SEAL 030864 ENGINEER DAVID W. BISSETTE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TEMPORARY SHORING NOTES

7/17/2026
J:\I88360C - 2015 W Divisions Planning & Design On-Call\I88360C Group 3 Bridges\TBP_R166_86052\Traffic\TrafficControl\TCP\200_020_I4BP_R014_TC_TMP_02A.dgn
User:USDBI9925