

THE NCDOT GEOTECHNICAL UNIT RECOMMENDS THE FOLLOWING NOTES ON PLANS FOR THE PROPOSED SHORING LOCATIONS:

SHORING LOCATION NO. 1

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 95.0 +/- FT RIGHT, TO STATION -L- 21+20 +/-, 100.0 +/- FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 272.0 +/- FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 95.0 +/- FT RIGHT, TO STATION -L- 21+20 +/-, 100.0 +/- FT RIGHT MAY NOT PENETRATE BELOW ELEVATION 268 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 95.0 +/- FT RIGHT, TO STATION -L- 21+20 +/-, 100.0 +/- FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 95.0 +/- FT RIGHT, TO STATION -L- 21+20 +/-, 100.0 +/- FT RIGHT. SEE STANDARD DETAIL NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

SHORING LOCATION NO. 2

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 21+00 +/-, 13.0 +/- FT RIGHT, TO STATION -L- 21+75 +/-, 15.0 +/- FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 270.0 +/- FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 21+00 +/-, 13.0 +/- FT RIGHT, TO STATION -L- 21+75 +/-, 15.0 +/- FT RIGHT MAY NOT PENETRATE BELOW ELEVATION 265 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS, OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 21+00 +/-, 13.0 +/- FT RIGHT, TO STATION -L- 21+75 +/-, 15.0 +/- FT RIGHT.

SHORING LOCATION NO. 3

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 7.0 +/- FT RIGHT, TO STATION -L- 21+50 +/-, 7.0 +/- FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 270.0 +/- FT

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 7.0 +/- FT RIGHT, TO STATION -L- 21+50 +/-, 7.0 +/- FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 19+50 +/-, 7.0 +/- FT RIGHT, TO STATION -L- 21+50 +/-, 7.0 +/- FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

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.

SHORING LOCATION NO. 4

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 22+45 +/-, 14.0 +/- FT RIGHT, TO STATION -L- 23+20 +/-, 13.0 +/- FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 268.0 +/- FT

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION -L- 22+45 +/-, 14.0 FT RIGHT, TO STATION -L- 23+20 +/-, 13.0 +/- FT RIGHT, MAY NOT PENETRATE BELOW ELEVATION 262 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS, OR WEATHERED OR HARD ROCK.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 22+45 +/-, 14.0 +/- FT RIGHT, TO STATION -L- 23+20 +/-, 13.0 FT RIGHT.

SHORING LOCATION NO. 5

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 22+67 +/-, 10.0 +/- FT RIGHT, TO STATION -L- 24+00 +/-, 10.0 +/- FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 268.0 +/- FT

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 22+67 +/-, 10.0 +/- FT RIGHT, TO STATION -L- 24+00 +/-, 10.0 +/- FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 22+67 +/-, 10.0 +/- FT RIGHT, TO STATION -L- 24+00 +/-, 10.0 +/- FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

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.

SHORING LOCATION NO. 6

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

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

DESIGN TEMPORARY SHORING FROM STATION -L- 23+15 +/-, 115.0 +/- FT LEFT, TO STATION -L- 24+00 +/-, 95.0 +/- FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (φ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 268.0 +/- FT

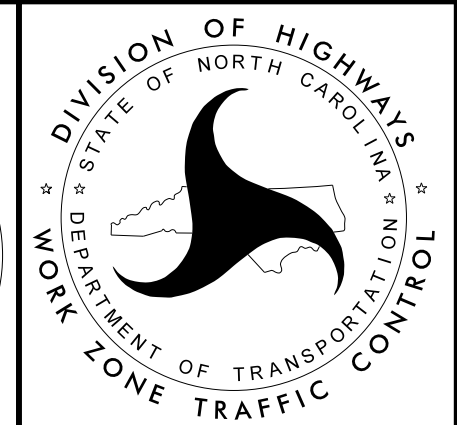
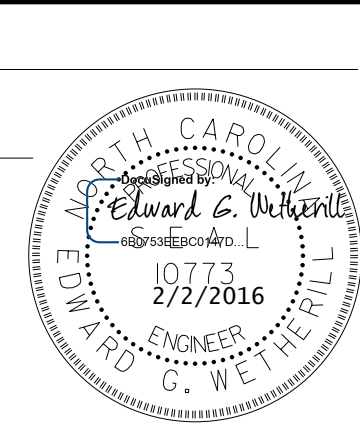
DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 23+15 +/-, 115.0 +/- FT LEFT, TO STATION -L- 24+00 +/-, 95.0 +/- FT LEFT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 23+15 +/-, 115.0 +/- FT LEFT, TO STATION -L- 24+00 +/-, 95.0 +/- FT LEFT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE NCDOT GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO NCDOT/WZTC ON DECEMBER 22, 2015 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN T. ZAN, P.E., LICENSE NO. 030943.

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

APPROVED: _____
 DATE: _____
 SEAL



TEMPORARY SHORING NOTES

2/1/2016
 P:\2014\B-5121-B-5317\TrafficControl\Top\Current TMP Files\LANE'S CURRENT\Peace S\B5121B5317_Tc_TMP_Peace.psh02A.dgn
 User:skennedy