PROJ. REFERENCE NO. SHEET NO. TMP-2TS8 I-5987A

### NOTES FOR TEMPORARY SHORING NO. A2-25

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 -L- 454+74±, 4 FT LT, TO STATION -L-455+47±, 4 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND **GROUNDWATER ELEVATION:** 

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 163 FT ±

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -L- 454+74±, 4 FT LT, TO STATION -L-455+47±, 4 FT LT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 454+74±, 4 FT LT, TO STATION -L-455+47±, 4 FT LT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

### NOTES FOR TEMPORARY SHORING NO. A2-26

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- 454+74±, 9 FT LT, TO STATION -L- 455+47±, 9 FT LT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 163 FT ±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -L- 454+74±, 9 FT LT, TO STATION -L- 455+47±, 9 FT LT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -L- 454+74±, 9 FT LT, TO STATION -L-455+47±, 9 FT LT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

# NOTES FOR TEMPORARY SHORING NO. A2-27

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 -Y3- 23+15±, 27 FT RT, TO STATION -Y3- 27+00±, 27 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 165 FT ±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 23+15±, 27 FT RT, TO STATION -Y3- 27+00±, 27 FT RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y3- 23+15±, 27 FT RT, TO STATION -Y3-27+00±, 27 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

### NOTES FOR TEMPORARY SHORING NO. A2-28

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 -Y3- 24+45±, 19.5 FT RT, TO STATION -Y3- 25+27±, 19.5 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER RLEVATION:

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 159 FT ±

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -Y3- 24+45±, 19.5 FT RT, TO STATION  $-Y3-25+27\pm$ , 19.5 FT RT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 24+45±, 19.5 FT RT, TO STATION -Y3- 25+27±, 19.5 FT RT. SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

# NOTES FOR TEMPORARY SHORING NO. A2-29

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 -Y3- 30+29±, 22 FT RT, TO STATION -Y3- 37+66±, 27 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 156 FT ±

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -Y3- 30+29±, 22 FT RT, TO STATION  $-Y3-37+66\pm$ , 27 FT RT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 30+29±, 22 FT RT, TO STATION -Y3- 37+66±, 27 FT RT. SEE GEOTECHNICAL STANDARD DETAIL 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.

# NOTES FOR TEMPORARY SHORING NO. A2-30

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 -Y3- 28+04±, 27 FT RT, TO STATION -Y3- 28+52±, 27 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT ( $\gamma$ ) = 120 PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 165 FT ±

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 28+04±, 27 FT RT, TO STATION -Y3- 28+52±, 27 FT RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y3- 28+04±. 27 FT RT. TO STATION -Y3- 28+52±, 27 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

# NOTES FOR TEMPORARY SHORING NO. A2-31

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 -Y3- 28+04±, 22 FT RT, TO STATION -Y3- 28+52±, 22 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

> UNIT WEIGHT  $(\gamma) = 120$  PCF FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 156 FT  $\pm$

DO NOT USE CANTILEVER, BRACED AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION -Y3- 28+04±, 22 FT RT, TO STATION  $-Y3-28+52\pm$ , 22 FT RT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 28+04±, 22 FT RT, TO STATION -Y3- 28+52±, 22 FT RT. SEE GEOTECHNICAL STANDARD DETAIL 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.

# NOTES FOR TEMPORARY SHORING NO. A2-32

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.

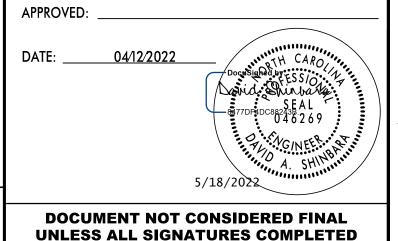
DESIGN TEMPORARY SHORING FROM -Y3- 30+29±, 27 FT RT, TO STATION -Y3- 31+27±, 27 FT RT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

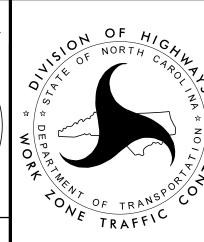
> UNIT WEIGHT  $(\gamma) = 120 \text{ PCF}$ FRICTION ANGLE ( $\phi$ ) = 30 DEGREES COHESION (c) = 0 PSFGROUNDWATER ELEVATION = 165 FT  $\pm$

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION -Y3- 30+92±, 27 FT RT, TO STATION -Y3- 31+27±, 27 FT RT.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION -Y3- 30+92±. 27 FT RT. TO STATION -Y3-31+27±, 27 FT RT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO DIVISION 6 ON FEBRUARY 22, 2022, AND SEALED BY A PROFESSIONAL ENGINEER, THEIN TUN ZAN, LICENSE #030943.





TEMPORARY SHORING NOTES

A. MORTON THOMAS AND ASSOCIATES, INC. 6131 FALLS OF NEUSE ROAD, SUITE 101 • RALEIGH, NC 27609 (919) 855-9989 • NC LICENSE NO. F-1049 WWW.AMTENGINEERING.COM