

DRILLED SHAFT WALL CONSTRUCTION NOTES

1 GENERAL NOTES:

- 1.1.1 THE DRILLED SHAFT WALL HAS BEEN DESIGNED USING THE SOIL PARAMETERS, LOADS, AND METHODOLOGY CONTAINED IN THE AMEC "SOUTH GATE ROAD DESIGN BRIEF" DATED 1/24/08.
- 1.1.2 THE WALL SYSTEM IS DESIGNED ONLY FOR LOADS PROVIDED FOR IN THE DESIGN BRIEF.
- 1.1.3 PROVIDE POSITIVE DRAINAGE AWAY FROM WALL. THE WALL IS DESIGNED TO ACCOMMODATE MODERATE AMOUNTS OF SEEPAGE. DURING INSTALLATION OF DRILLED SHAFTS, MONITOR GROUNDWATER CONDITIONS AND REPORT EXCESS SEEPAGE INTO SHAFT EXCAVATIONS TO THE ENGINEER.
- 1.1.4 NOTIFY THE ENGINEER IF CONDITIONS ENCOUNTERED DURING CONSTRUCTION ARE DIFFERENT THAN ASSUMED.
- 1.1.5 DETAIL, FABRICATE, AND ERECT THE DRILLED SHAFT WALL IN CONFORMANCE WITH LATEST EDITION OF WEST VIRGINIA DIVISION OF HIGHWAYS, "STANDARD SPECIFICATIONS, ROADS AND BRIDGES" AND THE "SUPPLEMENTARY SPECIFICATIONS" INCLUDED IN THE PROJECT DOCUMENTS
- 1.1.6 THE UNDERGROUND UTILITIES SHOWN HEREON ARE TAKEN FROM UTILITY LOCATIONS AS MARKED IN THE FIELD AND MAPS FROM COORDINATING UTILITY COMPANIES AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS.
- 1.1.7 PERMITS
 - 1.1.7.1 THE CONTRACTOR MUST MEET ALL APPLICABLE PERMIT REQUIREMENTS. CONTRACTOR TO COORDINATE WITH THE OWNER REGARDING PERMIT APPLICATIONS, RESTRICTIONS AND COMPLIANCE. NO PERMITS ARE INCLUDED AS PART OF THESE CONSTRUCTION DOCUMENTS.
 - 1.1.7.2 THE GENERAL CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL

POLLUTION DISCHARGE ELIMINATION SYSTEMS (NPDES) GENERAL PERMIT AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

- 1.1.7.3 IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AND OBTAIN THE FLOODPLAIN DEVELOPMENT PERMIT.
- 1.1.7.4 IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO DETERMINE IF THE PROJECT REQUIRES AN "INDIVIDUAL" USACE SECTION 404 PERMIT OR IF PROJECT MEETS THE REQUIREMENTS OF THE "NATIONWIDE" USACE SECTION 404 PERMIT.

1.2 QUALITY CONTROL/QUALITY ASSURANCE (QA/QC)

- 1.2.1 OWNER SHALL PROVIDE INDEPENDENT FIRM FOR MONITORING QA/QC.
- 1.2.2 THE INDEPENDENT QA/QC FIRM WILL ESTABLISH A CONTROL SURVEY POINT AND BENCHMARK FOR THE CONTRACTOR TO WORK FROM.
- 1.2.3 THE INDEPENDENT FIRM WILL PROVIDE QA/QC FOR:
 - 1.2.3.1 DRILLED SHAFT HOLE INSPECTION
 - 1.2.3.2 CONCRETE STRENGTH & QUALITY
 - 1.2.3.3 STEEL BEAM PLACEMENT ACCURACY
 - 1.2.3.4 ROAD AGGREGATE DENSITY/COMPACTNESS
- 1.2.4 ALL OTHER QA/QC ITEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.3 DRILLED SHAFT WALL CONSTRUCTION PROCEDURE:

- 1.3.1 PRE-EXCAVATE TO TOP OF WALL GRADES AND PREPARE AREA FOR WALL LAYOUT. IDENTIFY PILE LOCATIONS AND ORIENTATIONS.
- 1.3.2 PRE-DRILL HOLES FOR SOLDIER PILES TO DEPTHS INDICATED IN THE DRILLED SHAFT SCHEDULE.

- 1.3.3 INSTALL PILES IN DRILL HOLE AND BACKFILL WITH CLASS B CONCRETE. FORM TOP PORTION OF DRILLED SHAFT AS REQUIRED (SCOUTUBE OR EQUIV.) TO EXTEND TO GRADE AND TO PROVIDE FLAT BEARING SURFACE FOR PRECAST CONCRETE LAGGING.
- 1.3.4 EXCAVATE BEHIND COMPLETED DRILLED SHAFTS AND INSTALL PRECAST CONCRETE LAGGING AND DRAINAGE FEATURE.
- 1.3.5 BACKFILL TO GRADE AND INSTALL GUARDRAIL TO LIMITS INDICATED.
- 1.3.6 GUARDRAIL TYPE SHALL BE CABLE GUARDRAIL SYSTEM. GUARDRAIL SHOWN IN DETAILS IS SIMPLY FOR SCHEMATIC PURPOSES ONLY.

1.4 MATERIAL SPECIFICATIONS:

- 1.4.1 PROVIDE STRUCTURAL STEEL CONFORMING TO ASTM A572, GR 50.
- 1.4.2 PROVIDE CONCRETE FOR DRILLED SHAFTS AND PRECAST CONCRETE LAGGING WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,000 PSI.
- 1.4.3 PROVIDE REINFORCING STEEL CONFORMING TO ASTM A615, GRADE 60 (DEFORMED).
- 1.4.4 BACKFILL MATERIAL FOR THE DRAINAGE FEATURE SHALL CONFORM TO SECTION 703.2.3 OF THE WVDOT STANDARD SPECIFICATIONS.
- 1.4.5 AGGREGATE BASE COURSE (ABC) FOR ROAD RESTORATION SHALL CONFORM TO SECTIONS 307 AND 704.6 OF THE WVDOT STANDARD SPECIFICATIONS, AS APPLICABLE. THE ABC PROVIDED SHALL BE CLASS 1.
- 1.4.6 ALL OTHER AREAS REQUIRING BACKFILL ON THE SITE SHALL CONFORM TO SECTIONS 207 AND 71.6 OF THE WVDOT STANDARD SPECIFICATIONS, AS APPLICABLE.



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