

PANDA EXPRESS

NASHVILLE, TENNESSEE

CAST-IN-PLACE CONCRETE RETAINING WALL

NOVEMBER 16, 2018

NOTES FOR THE CONSTRUCTION OF THE CAST-IN-PLACE CONCRETE RETAINING WALL

- ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE STANDARD 318-11 AND IBC 2012.
- SOIL BEARING CAPACITY SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
- BACKFILL AROUND THE CAST-IN-PLACE CONCRETE RETAINING WALL SHALL BE PLACED IN 8" LIFTS AT 95% STANDARD PROCTOR COMPACTION.
- ALL STEEL SHALL BE ASTM A615 GRADE 60 REINFORCEMENT.
- UNLESS OTHERWISE NOTED, ALL REINFORCING LAP SPLICES SHALL BE PER ACI STANDARDS CLASS B SPLICES.
- PRIOR TO PLACING CONCRETE, ALL REINFORCING STEEL SHALL BE FREE OF RUST SCALE OR ANY FOREIGN MATERIAL.
- CONCRETE TO BE 3000 PSI WITH SLUMP OF 4 TO 6 INCHES.
- VERTICAL CONTROL JOINTS SHALL BE MADE WITH CAMFER EDGES AT 25 FT. (MIN.) INTERVALS ALONG WALL LENGTH.
- TEMPORARY SAFETY FENCE SHALL BE INSTALLED MEETING CURRENT OSHA STANDARDS UNTIL PERMANENT FENCE (DESIGNED BY OTHERS) IS INSTALLED.
- ALL EXCAVATIONS MADE FOR THE WALL CONSTRUCTION SHALL BE APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER AND MEET OSHA STANDARDS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL GIVE CONSTRUCTION VERIFICATION ENGINEER 48 HOURS NOTICE PRIOR TO POURING ANY CONCRETE. ALL REINFORCING STEEL SHALL BE INSPECTED BY THE CONSTRUCTION VERIFICATION ENGINEER PRIOR TO POURING CONCRETE.

- FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
- EXCAVATION FOR FOOTING SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUB GRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
- ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
- NO EXCAVATION SHALL BE CLOSER THAN A 2:1 (2 HORIZONTAL TO 1 VERTICAL) ZONE OF INFLUENCE EXTENDING OUTWARD FROM THE CAST-IN-PLACE FOOTING. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS A NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
- ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
- THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE FOR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CIVIL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- BRACE WALLS DURING BACKFILLING OR USE HAND OPERATED EQUIPMENT WITHIN 5' BEHIND WALLS.
- FACTORS OF SAFETY:
 F.S. OF SLIDING = 1.5
 F.S. OF OVERTURNING = 1.5
 F.S. OF BEARING CAPACITY = 2.0
 F.S. OF GLOBAL STABILITY = 1.3

- THE CAST-IN-PLACE CONCRETE RETAINING WALL IS BASED ON THE FOLLOWING PARAMETERS:
 EFFECTIVE FRICTION ANGLE = 24°
 COEFFICIENT OF FRICTION = 0.35
 UNIT WEIGHT OF SOIL = 120 PCF
 BEARING CAPACITY OF SOIL = 2,000 PSF
 SURCHARGE = 250 PSF
 HYDROSTATIC LOAD = BOTTOM OF WALL ELEVATION
- THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF MATERIALS WHICH ARE PROPRIETARY. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS OR CHANGE IN STRUCTURE GEOMETRY WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED, IN WHOLE OR IN PART, NOR DISCLOSED TO OTHERS WITHOUT THE CONSENT OF ENGINEERED EARTH SOLUTIONS, LLC. THIS DRAWING, DESIGN NOTES, AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY ENGINEERED EARTH SOLUTIONS, LLC. FROM INFORMATION PROVIDED BY OTHERS. FINAL DETERMINATION OF THE SUITABILITY OF ANY INFORMATION CONTAINED HEREIN IS THE RESPONSIBILITY OF THE USER.
- CONSTRUCTION VERIFICATION OF THE WALL INSTALLATION BY AN ENGINEER IS REQUIRED AND MUST BE PROVIDED BY A KNOWLEDGEABLE GEOTECHNICAL ENGINEER FAMILIAR WITH CAST-IN-PLACE STRUCTURES. EES CAN PERFORM THIS VERIFICATION AS REQUESTED BUT MUST INCLUDE DAILY SITE VISITS.
- FAILURE OF QUALITY ASSURANCE TESTING AND INSPECTION TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS NOTED, NOR SHALL IT OBLIGATE THE OWNER'S REPRESENTATIVE FOR FINAL ACCEPTANCE.
- GEOTECHNICAL REPORT BY TERRACON CONSULTANTS, INC. DATED 08/16/2018 WAS PROVIDED FOR USE. BORINGS WERE INCLUDED WHICH INDICATE GENERAL SOIL TYPES. THE OWNER OR OWNER'S REPRESENTATIVE HAS PROVIDED SPECIFIC SOIL PARAMETERS FOR THE PROPOSED EARTH STRUCTURE. IN PREPARATION OF THE DESIGN, THESE SOIL PARAMETERS WERE USED. CONSTRUCTION VERIFICATION OF THE ABOVE SOIL CONDITIONS IS IMPERATIVE PRIOR TO AND DURING CONSTRUCTION. FAILURE TO VALIDATE THESE SOIL PARAMETERS CAN RESULT IN STRUCTURE FAILURE.
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NOTE: THE CIVIL SITE DESIGNER SHALL APPROVE PRIOR TO CONSTRUCTION THE DETAILED LAYOUT FOR THE RETAINING WALL(S) AS SHOWN IN THESE SHOP DRAWINGS. DESIGN AND COORDINATION OF SURFACE DRAINAGE, STORM STRUCTURES, UTILITIES, FENCES, CURBS, GUARDRAILS AND OTHER NEW AND EXISTING IMPROVEMENTS IN THE RETAINING WALL AREA REMAINS THE SOLE RESPONSIBILITY OF THE CIVIL SITE DESIGNER.

THE WALL INSTALLER IS RESPONSIBLE FOR PROVIDING DRAINAGE AS SHOWN ON THE CONSTRUCTION DRAWINGS. FAILURE TO FOLLOW THESE DRAWINGS IN THEIR ENTIRETY WILL INVALIDATE THE DESIGN.

REVISION/ISSUE

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