



A COM

Technical Presentation and Virtual Site Tour of Puerto Nuevo Flood Control Project



Miércoles, 16 de septiembre de 2020

TOPICS

A. TECHNICAL PRESENTATION

- PROJECT DATA
- CONTRACT DESCRIPTION
- DRAWINGS
- QUALITY CONTROL
- SAFETY

B. VIRTUAL SITE TOUR



PROJECT DATA

- Owner: US Army Corp of Engineers
- Contractor: Del Valle Group
- Project: Puerto Nuevo Flood Control Project 2D Walls
- **Contract amount: \$21,510,101.00**
- Notice to Proceed: 11 Mar 2017
- Original Duration: 1302 calendar days
- Revised Duration: 1529 calendar days
- Revised Completion date: 18 May 2021



PROJECT TEAM

- **Contractor:** Del Valle Group
- **Drilling Subcontractor:** JPI Construction
- **Concrete Supplier:** PROMIX
- **Geotechnical Engineer:** Baiges & Associates
- **Testing Laboratory:** Jaca & Sierra
- **Rebar Fabricator:** LM Rebar



CONTRACT DESCRIPTION

1.2 WORK COVERED BY CONTRACT DOCUMENTS

1.2.1 Project Description

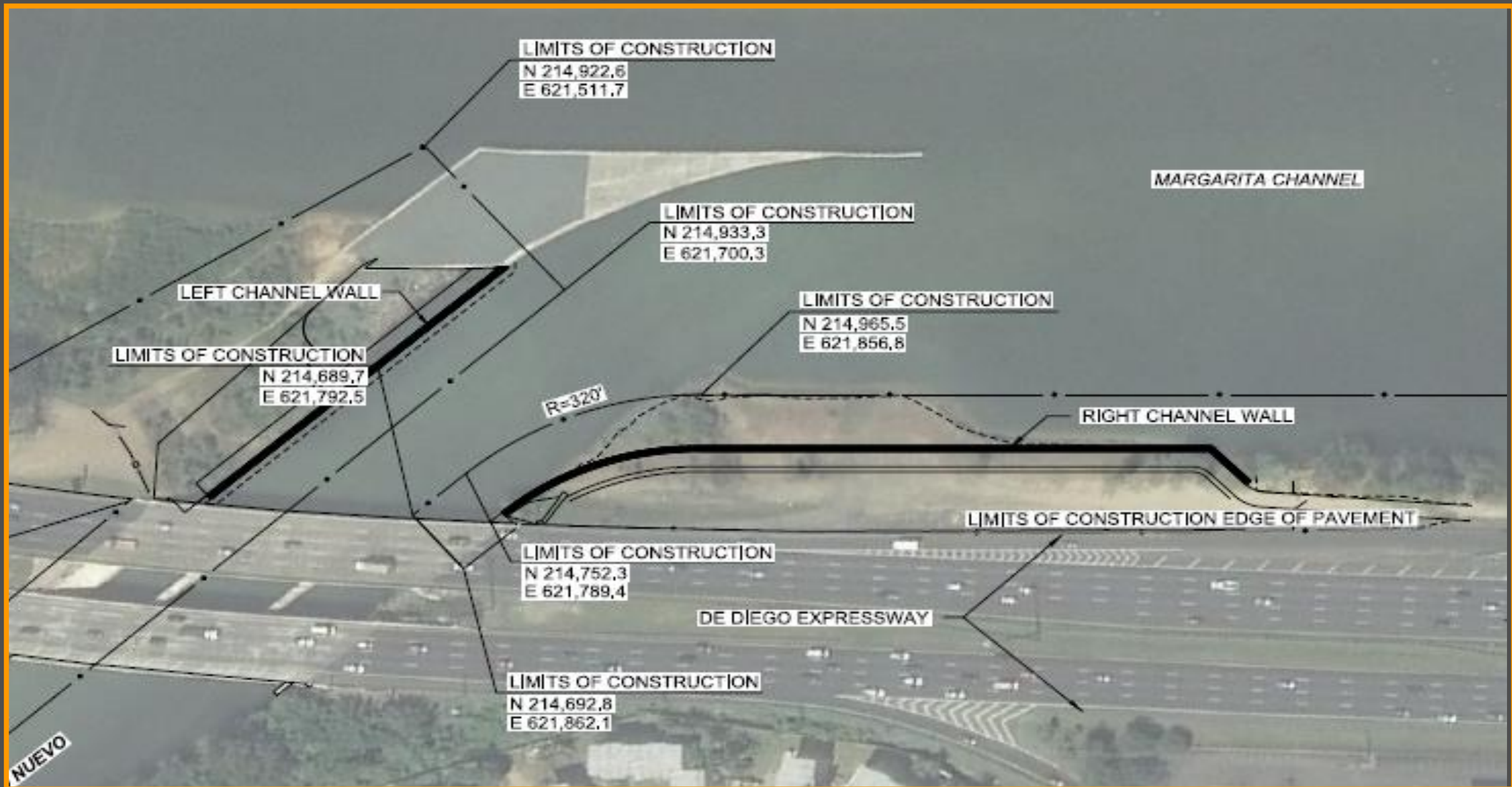
Contract 2D Walls include the construction of right and left channel walls on Rio Puerto Nuevo ("rio" is Spanish for "river"). The left wall on the west side of the channel will be constructed between the Confluence Wall of Margarita Channel Improvements and the west abutment wall of De Diego Bridge (State Road PR-22). The left wall will be approximately 350-feet-long. The right wall will be constructed on the east side of the channel from the east abutment channel wall of De Diego Bridge to the Margarita Channel. The right wall will be approximately 700-feet-long. The walls will consist of parapets, cap beam, and cantilever tangent 5-foot-diameter drilled shafts with temporary casing. The drilled shafts will be tied together with a cap beam. A concrete parapet will be constructed at the top the cap beam. The drilled shafts will be approximately 90-foot-long. The work will also include installation of rip-rap on the De Diego Bridge-West Channel Wall and Contract 2D-Right Wall, installation of a flume and culvert, site work grading, temporary sheet pile, access roads at both sides of the channel, clearing and grubbing, and offsite disposal. It is expected that installation of the tangent walls will be performed from the land side. Work is divided into a base and options per available funds for award (see Section 00010A LINE ITEMS AND PRICING SCHEDULE and the drawings).

CRITICAL CONSTRUCTION ELEMENTS

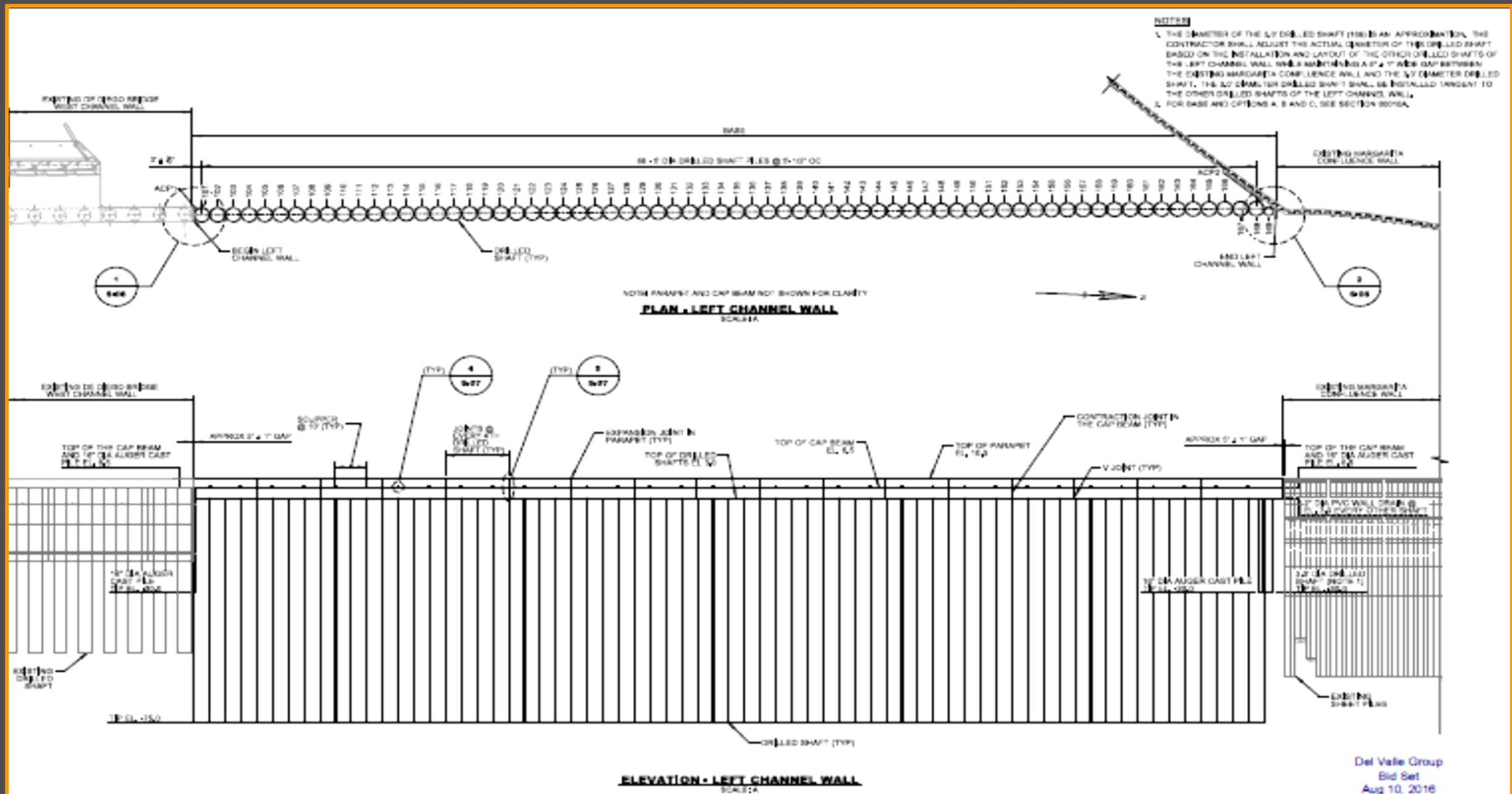
- 47,475 sf - TEMPORARY SHEET PILE
- 205 ea - DRILLED SHAFTS 5 FT DIAMETER – 90 FT LONG
- 675 lf - REINFORCED CONCRETE CAP BEAM
- REINFORCING STEEL #18 REBAR WITH MECHANICAL COUPLER



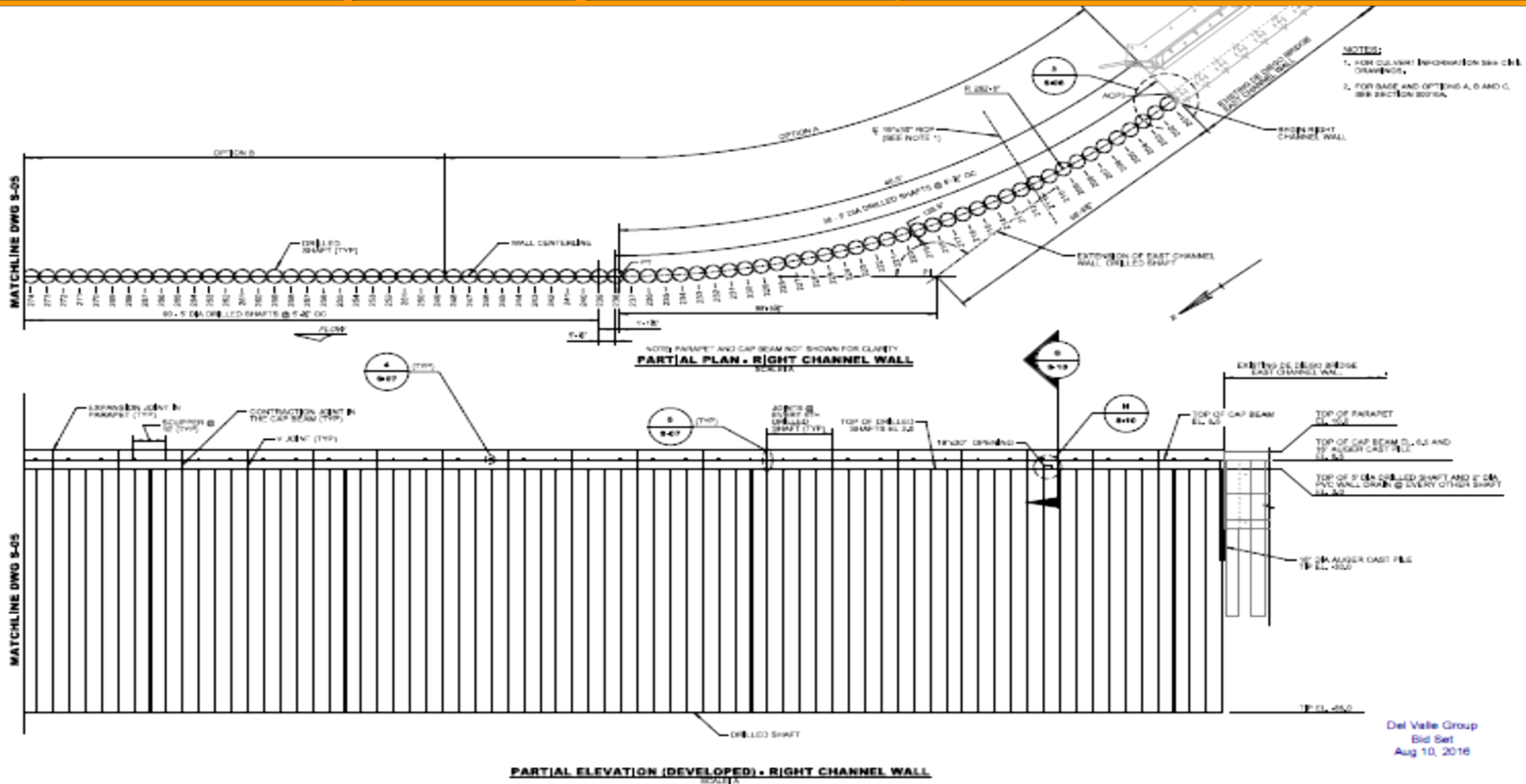
PROJECT LAYOUT



LEFT WALL LAYOUT

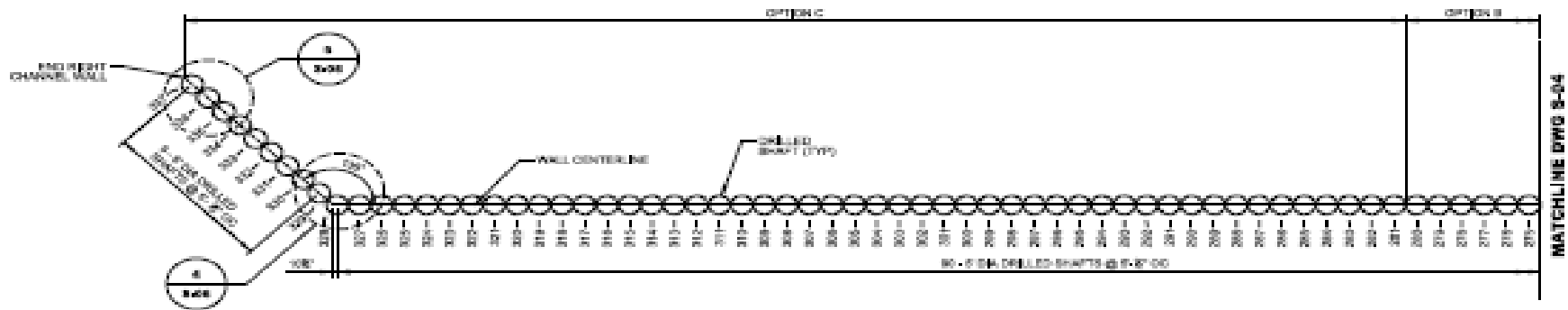


Layout Right Wall Option A & B



Del Valle Group
Bid Set
Aug 10, 2016

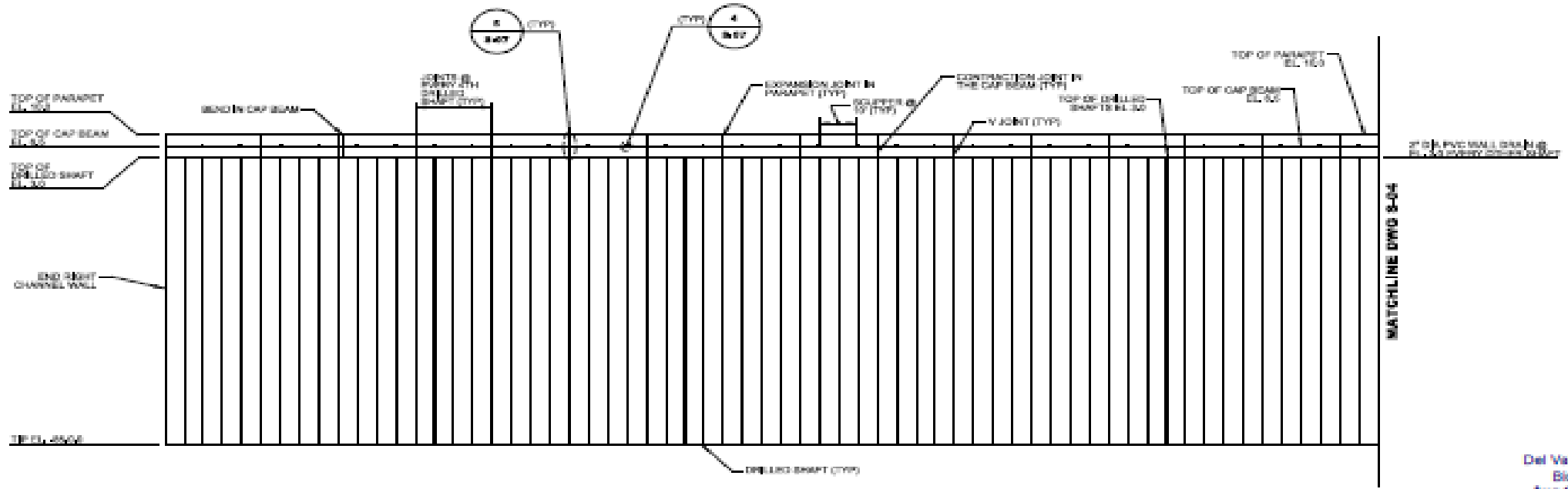
Layout Right Wall Option C



NOTES
 1. FOR CASE AND OPTIONS A, B AND C, SEE SECTION 8000A.

FLOOR

NOTE: PARAPET AND CAP BEAM NOT SHOWN FOR CLARITY
PARTIAL PLAN - RIGHT CHANNEL WALL
 SCALE: A



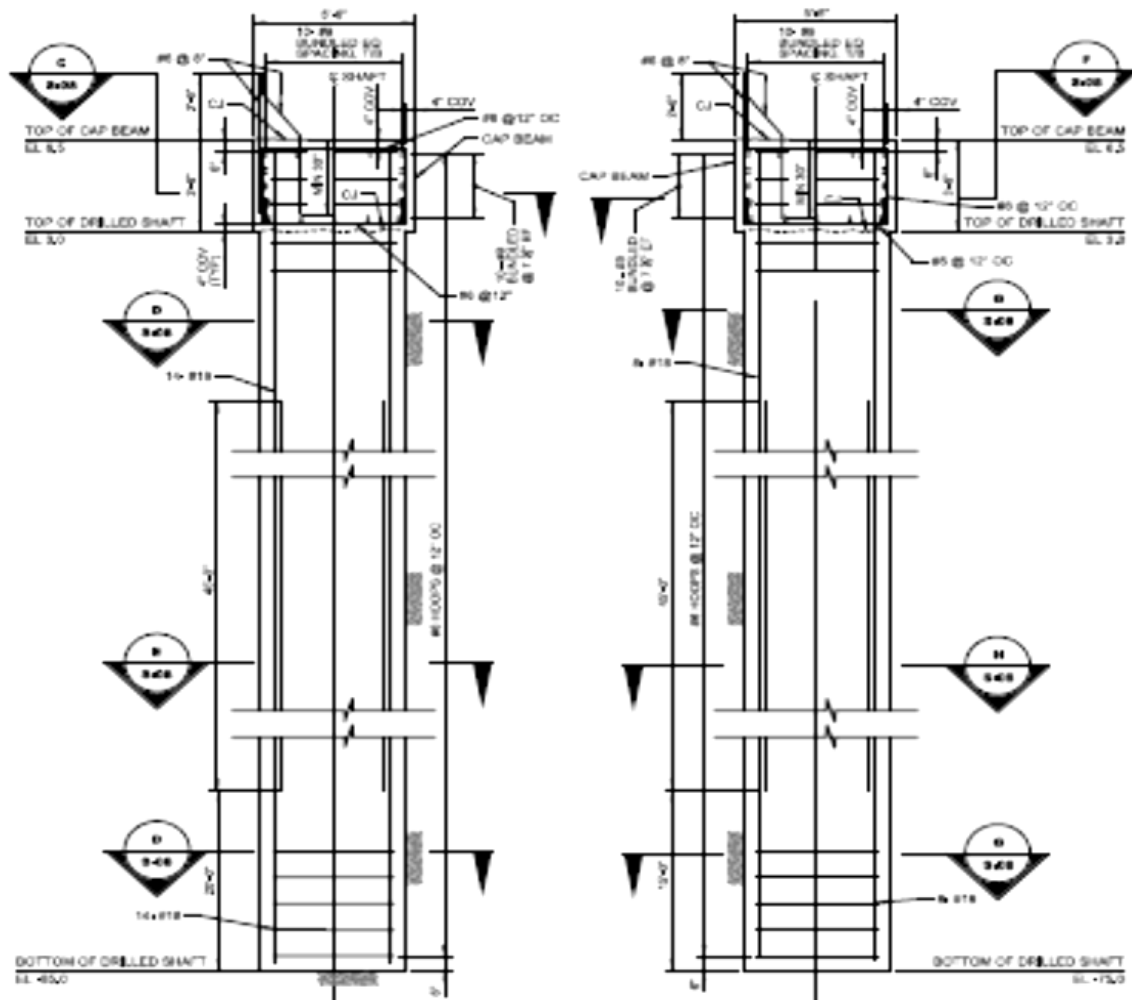
PARTIAL ELEVATION (DEVELOPED) - RIGHT CHANNEL WALL
 SCALE: A

Del Valle Group
 Bid Set
 Aug 10, 2018

GRAPHIC SCALES



Drilled Shafts Structural Detail

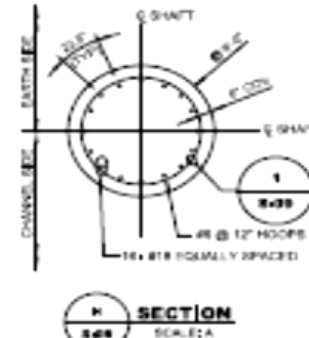
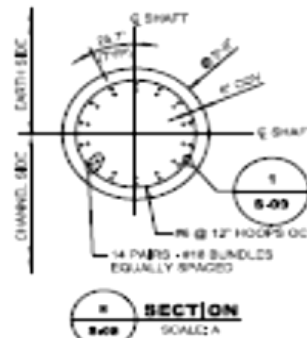
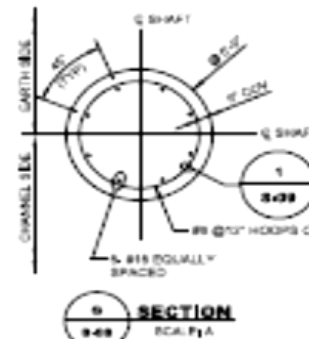
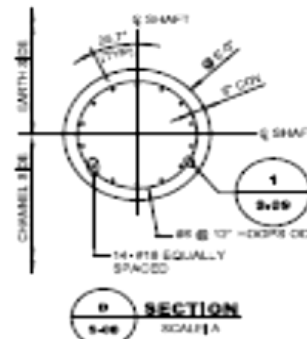


NOTE:
PARAMPET NOT SHOWN FOR CLARITY

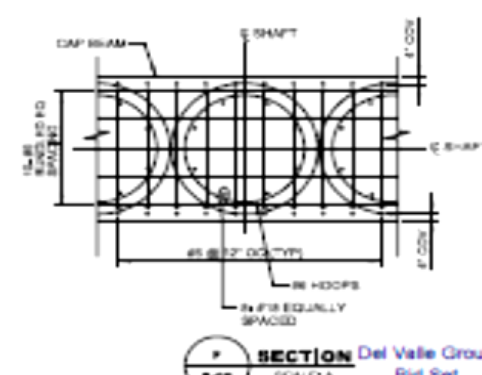
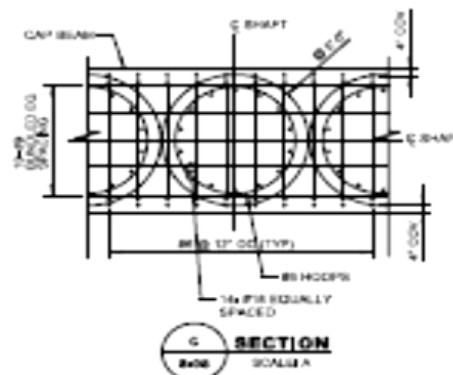
A SECTION
SCALE: 1/4" = 1'-0"

NOTE:
PARAMPET NOT SHOWN FOR CLARITY

B SECTION
SCALE: 1/4" = 1'-0"



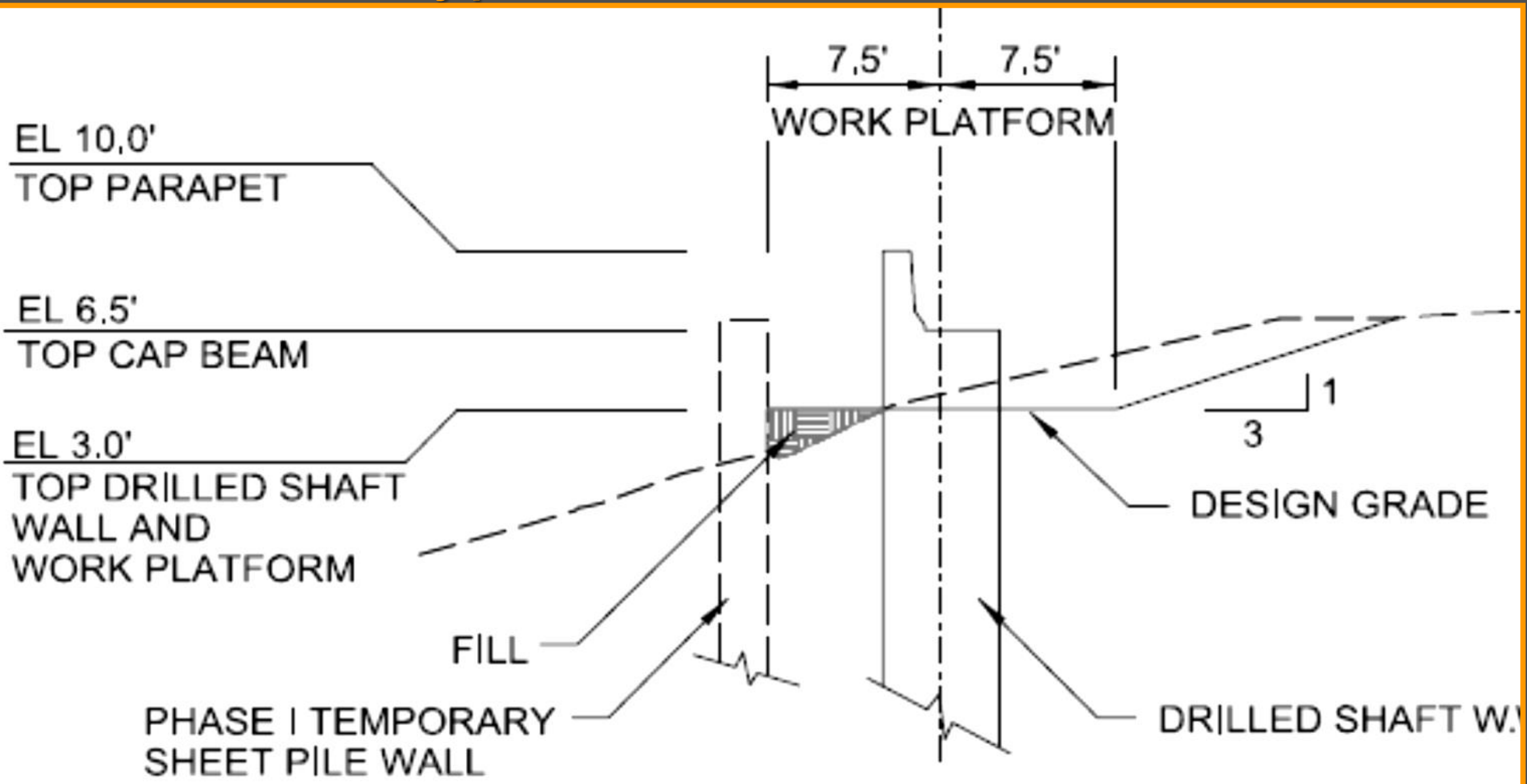
(CSL TUBES NOT SHOWN)



NOTES:

- FOR WALL ALIGNMENT, SEE DWG 5-02.
- FOR WALL ELEVATION, SEE DWG 5-03, 5-04, AND 5-05.
- FOR CAP BEAM DETAILS, SEE DWG 5-06 AND 5-07.
- CSL TUBES EQUALLY SPACED SHALL BE INSTALLED IN EVERY 8" DRILLED SHAFT INCLUDING THE DEBRIST DEMONSTRATION SHAFT.
- MECHANICAL CONNECTIONS SHALL BE USED FOR ALL #11 BARS OR CSL.
- THE MECHANICAL CONNECTIONS SHALL DEVELOP IN TENSION AND COMPRESSION AT LEAST 80 PERCENT OF SPECIFIED ULTIMATE TENSILE STRENGTH OF THE BARS.
- ALL DRILLED SHAFTS SHALL BE INSTALLED UNDER A TEMPORARY CASING FROM SL 3.0 TO A MINIMUM SL 5.0.

Typical Cross Section



Quality Control

SECTION 01 45 04

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 QUALITY CONTROL SYSTEM (QCS)

Contractor shall use Government-furnished "Quality Control System (QCS)" software. There is no separate payment for using QCS. Include all costs in pricing work. Download Quality Control System software, user manual, and updates from web site <http://rms.usace.army.mil>. Software and hardware requirements and download instructions are indicated in the QCS Manual on this web site. Upon download, provide "QCS Site ID" number to Contracting Officer (Area Office RMS Administrator). QCS is used to share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

QCS/RMS data file imports and exports are how all payments, schedule changes, transmittal tracking, submittal review, quality control reporting, requests for information (RFI), punch list items, and warranty management are processed.

Quality Testing

- DRILLED SHAFTS – MINI SID VERIFICATION
- DRILLED SHAFTS - EXCAVATION LOG
- DRILLED SHAFTS – CROSS HOLE SONIC LOGGING CSL
- DRILLED SHAFTS – CONCRETE VOLUME BACK CALCULATION
- CONCRETE – AIR ENTRAINING, SLUMP, STRENGTH
- ENVIRONMENTAL – VIBRATION MONITORING
- ENVIRONMENTAL – TURBIDITY TESTING
- ENVIRONMENTAL – BOA/MANATEE MONITORING



Safety Compliance

- Safety and Health Requirements Manual EM 385 -1-1 USACE
- Crane Certification for Operators
- COVID 19 Safety Protocols



REINFORCING STEEL FABRICATION AREA



Río Puerto Nuevo Project
Contract-2D Walls
San Juan, PR
August 31, 2020



LEFT WALL WORK PROGRESS

Río Puerto Nuevo Project
Contract 2D Walls
San Juan, PR
August 31, 2020



Río Puerto Nuevo Project
Contract 2D Walls
San Juan, PR
August 31, 2020

RIGHT WALL WORK PROGRESS

Virtual Site Tour

VIDEO CLIPS

- Pile Layout Survey
- Template Installation
- Drilling Operation
- Temporary Casing Installation
- Polymer Use
- Airlift process
- Mini Sid Testing
- Reinforcing Steel Cage Fabrication & Installation
- Concrete Placing
- Temporary Casing Removal
- Quality Control





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