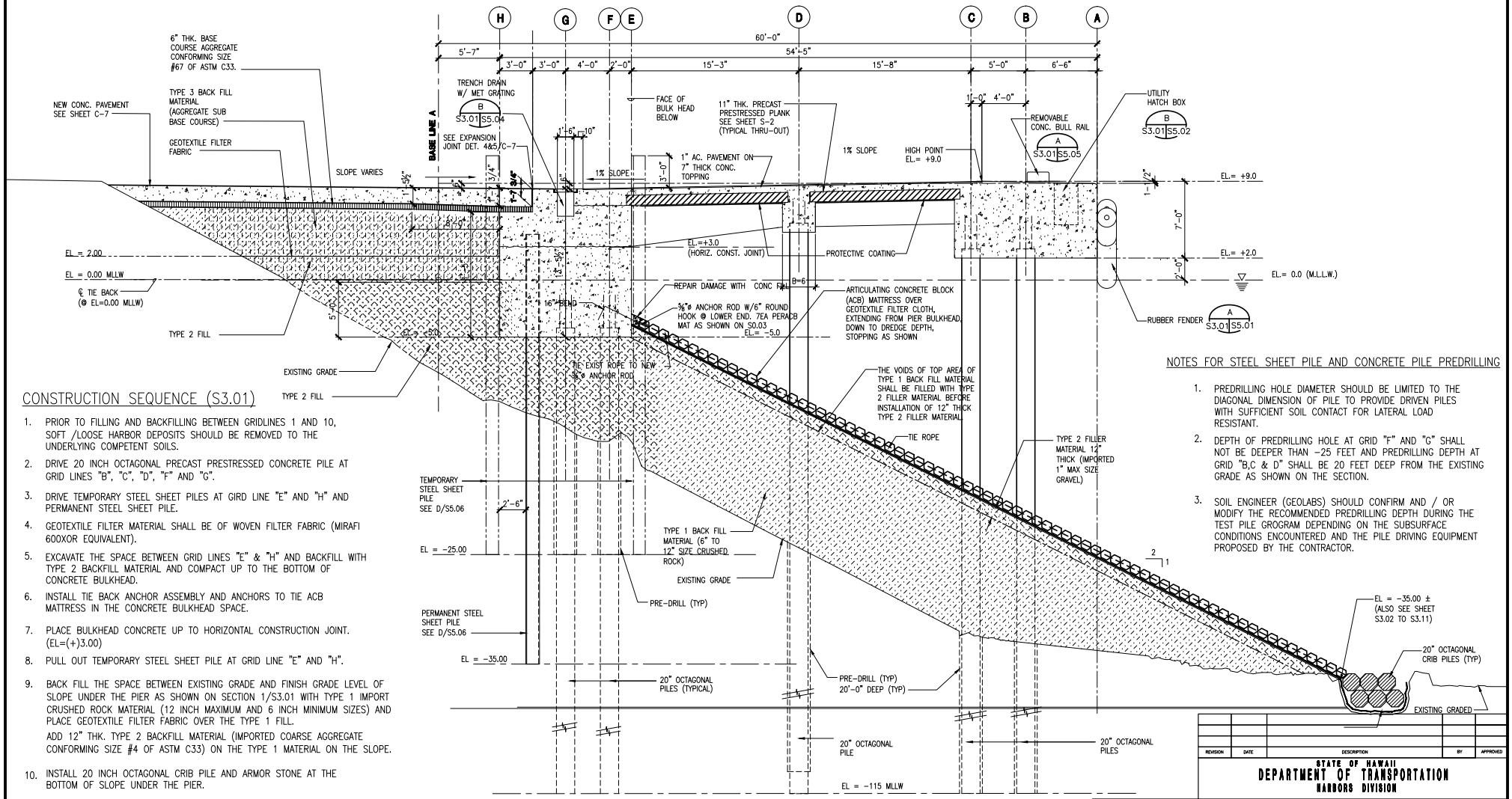

CONSTRUCTION SEQUENCE (S3.01)

1. PRIOR TO FILLING AND BACKFILLING BETWEEN GRIDLINES 1 AND 10, SOFT /LOOSE HARBOR DEPOSITS SHOULD BE REMOVED TO THE UNDERLYING COMPETENT SOILS.
2. DRIVE 20 INCH OCTAGONAL PRECAST PRESTRESSED CONCRETE PILE AT GRID LINES "B", "C", "D", "F" AND "G".
3. DRIVE TEMPORARY STEEL SHEET PILES AT GIRD LINE "E" AND "H" AND PERMANENT STEEL SHEET PILE.
4. GEOTEXTILE FILTER MATERIAL SHALL BE OF WOVEN FILTER FABRIC (MIRAFI 600XOR EQUIVALENT).
5. EXCAVATE THE SPACE BETWEEN GRID LINES "E" & "H" AND BACKFILL WITH TYPE 2 BACKFILL MATERIAL AND COMPACT UP TO THE BOTTOM OF CONCRETE BULKHEAD.
6. INSTALL TIE BACK ANCHOR ASSEMBLY AND ANCHORS TO TIE ACB MATTRESS IN THE CONCRETE BULKHEAD SPACE.
7. PLACE BULKHEAD CONCRETE UP TO HORIZONTAL CONSTRUCTION JOINT. (EL=(+)3.00)
8. PULL OUT TEMPORARY STEEL SHEET PILE AT GRID LINE "E" AND "H".
9. BACK FILL THE SPACE BETWEEN EXISTING GRADE AND FINISH GRADE LEVEL OF SLOPE UNDER THE PIER AS SHOWN ON SECTION 1/S3.01 WITH TYPE 1 IMPORT CRUSHED ROCK MATERIAL (12 INCH MAXIMUM AND 6 INCH MINIMUM SIZES) AND PLACE GEOTEXTILE FILTER FABRIC OVER THE TYPE 1 FILL.
   ADD 12" THK. TYPE 2 BACKFILL MATERIAL (IMPORTED COARSE AGGREGATE CONFORMING SIZE #4 OF ASTM C33) ON THE TYPE 1 MATERIAL ON THE SLOPE.
10. INSTALL 20 INCH OCTAGONAL CRIB PILE AND ARMOR STONE AT THE BOTTOM OF SLOPE UNDER THE PIER.
11. INSTALL ACB MATTRESS AND TIE TO CONCRETE BULKHEAD.
12. PLACE BACKFILL MATERIAL TYPE 2 UP TO EL = 0.00 AND CONSTRUCT TIE BACK SYSTEM INCLUDING 5' X 12' CONCRETE ANCHOR WALL AND TIE ROD ASSEMBLY.
13. PLACE BACKFILL MATERIAL TYPE 2 BETWEEN EL = +0.00 AND EL = +2.00
14. FINISH PIER DECK CONSTRUCTION.
15. INSTALL GEOTEXTILE FILTER FABRIC AT EL = 2.00 AND PLACE TYPE 3 BACK FILL MATERIAL UP TO UNDER THE 6" BASE COURSE AGGREGATE LAYER. TYPE 3 BACK FILL MATERIAL REQUIRES COMPACTION.
16. FINISH BACKFILL AND CONSTRUCT CONCRETE PAVEMENT.

NOTES FOR STEEL SHEET PILE AND CONCRETE PILE PREDRILLING

1. PREDRILLING HOLE DIAMETER SHOULD BE LIMITED TO THE DIAGONAL DIMENSION OF PILE TO PROVIDE DRIVEN PILES WITH SUFFICIENT SOIL CONTACT FOR LATERAL LOAD RESISTANT.
2. DEPTH OF PREDRILLING HOLE AT GRID "F" AND "G" SHALL NOT BE DEEPER THAN -25 FEET AND PREDRILLING DEPTH AT GRID "B,C & D" SHALL BE 20 FEET DEEP FROM THE EXISTING GRADE AS SHOWN ON THE SECTION.
3. SOIL ENGINEER (GEOLABS) SHOULD CONFIRM AND / OR MODIFY THE RECOMMENDED PREDRILLING DEPTH DURING THE TEST PILE GROGRAM DEPENDING ON THE SUBSURFACE CONDITIONS ENCOUNTERED AND THE PILE DRIVING EQUIPMENT PROPOSED BY THE CONTRACTOR.

1 / S3.01 S3.01 **TYPICAL CROSS SECTION - A (GRID LINE 1 TO GRID LINE 10)**

SC: 1/4"= 1'-0"

GRAPHIC SCALE:

4 3 2 1 0 4

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

REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION

JOB TITLE
CONSTRUCTION OF PIER 4
PIER 4 INTER-ISLAND CARGO TERMINAL
HILO HARBOR

SHEET TITLE
TYPICAL CROSS SECTION - A (GRID LINE 1 TO GRID LINE 10)

JONG NAMGUNG — LICENSED PROFESSIONAL ENGINEER — No. 3513-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 4/30/2014 EXP. DATE

SUBMITTED BY: SECTION HEAD
RECOMMENDED BY: ENGINEERING PROGRAM MANAGER

DESIGNED BY: JN
DRAWN BY: FM
CHECKED BY: JN
DATE: FEB 2013
SCALE:

APPROVED BY: HARBORS ADMINISTRATOR

JOB NUMBER **HMP 60901**

SHEET **S3.01**

30 OF 73 SHTS