HALEY & ALDRICH

WEEKLY FIELD REPORT

Project	OCEAN GATEWAY PARKING GARAGE	**Report No.**	10
Location	PORTLAND, MAINE	**Period From**	23 July 2007
		To	27 July 2007
Client	RIVERWALK, LLC.	**Page**	1 of 3
Contractor	LEDGEWOOD CONSTRUCTION (CM) SHAW BROTHERS CONSTRUCTION (EARTHWORK) G. DONALDSON CONSTRUCTION (PILE DRIVING)	**File No.**	30322-030

I. CONTRACTOR'S ACTIVITIES:

Monday, July 23, 2007 (70 degrees, cloudy at 0800)

1. G. Donaldson cutoff piles at design elevations at the following column locations: B-1.9/2.1, B-2.8, B-3, B-3.1, C-1.9/2.1, C-2.8 and C-3.
2. Shaw Bros. conducted excavations for pile caps located at the following column locations: B-2.8, B-3, B-3.1, C-3 and C-3.1 with a CAT 320C excavator (see Figure 1). The areas were excavated approximately 3-in. below the proposed bottom of pile cap level. The excavated soils consisted of fill and naturally deposited marine clay. The soil was loaded into dump trucks and hauled off site. A 3-in. thick lift of 1½-in. crushed stone was placed on the exposed marine clay subgrade in order to minimize disturbance to subgrade soils during placement of concrete forms and reinforcing steel.
3. Shaw Bros. excavated for the grade beam connecting pile caps located column locations C-1.9/2.1 and C-2.8 with a CAT 320C excavator (see Figure 1). The areas were excavated approximately 3-in. below the proposed bottom of grade beam level. The excavated material consisted of in-situ fill material and/or naturally deposited marine clay. A portion of an existing brick foundation wall was removed from the north side of the excavation. All excavated material was loaded into dump trucks and hauled off site. An approximate 3-in. thick lift of 1½-in. crushed stone or granular fill imported to the site from Shaw Bros. Dayton Pit was placed on the exposed subgrade in order to minimize disturbance during placement of concrete forms and reinforcing steel.

Tuesday, July 24, 2007 (65 degrees, raining at 0630)

1. Shaw Bros. placed granular fill against pile caps/grade beams in the areas shown on Figure 1 (see photographs). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit. The material was spread in one approximate 12-in. thick (loose measure) lifts with a CAT 320C excavator and/or hand tools. Each lift was compacted with 4 to 5 passes of a self propelled vibratory plate compactor.
2. CCB (Concrete) drove equipment over previously prepared marine clay subgrade east of the pile cap located at column line B-1 (see Figure 1). Two, approximately 2 to 3 ft deep wheel ruts were created (see photographs).

Wednesday, July 25, 2007 (70 degrees, sunny at 0615)

1. Shaw Bros. installed the section of underslab drain bound by column lines E, H, 1.9/2.1 and 3 (see Figure 1 and photographs). The underslab drain consisted of a 4-in. diameter perforated HDPE plastic pipe and was installed with the perforations oriented down. The pipe was embedded in 4-in. of ¾-in. crushed stone and was entirely wrapped in geosynthetic separation fabric. The pipe was installed at the invert elevations shown on the plans (see Field Rep. Activities, Item Nos. 2 through 5 on Tuesday). The pipe was backfilled with granular fill imported to the site from Shaw Bros. Dayton Pit.

Thursday, July 26, 2007

1. Field Representative not on site.

Friday, July 27, 2007

1. Field Representative not on site.

II. FIELD REPRESENTATIVE'S ACTIVITIES:

General

1. Haley & Aldrich Field Representative performed full-time monitoring of construction activities from Monday, July 23 through Friday, July 27 and documented the activities noted above and shown on the attached figures.
2. Discussed activities daily with contractors (Ledgewood, Shaw Bros., and G. Donaldson).
3. Took digital photographs of construction activities. Select photographs are provided in the attachment, additional photographs can be provided under separate transmittal upon request.

Monday, July 23, 2007

1. Field Representative measure pile cutoff lengths for piles located at columns listed under Item No. 2 on Monday.
2. Field Representative spoke with Bob Parsons (Ledgewood) regarding the measurement of survey points on the support of excavation system west of column line 1. Field Representative suggested to Mr. Parsons that measurement of the points should be done this week.
3. Field Representative observed the removal of a portion of an existing brick foundation wall from the excavation for the grade beam connecting pile cap C-1.9/2.1 and C-2.8. Field Representative confirmed that all unsuitable material was removed from the excavation prior to placement of the granular fill protective layer.

Tuesday, July 24, 2007

1. Field Representative observed placement of compacted granular fill in the areas shown on Figure 1. Fill material consisted of imported granular soil from Shaw Bros. Dayton Pit. Field Representative used a Humboldt 5001EZ nuclear density gauge to monitor relative compaction during fill placement. The granular fill appeared stable under the compactive effort of a self propelled vibratory plate compactor. In-situ density tests indicated the fill material met the minimum compaction specifications (see Table 1, test nos. 44-59 for results and Figure 1 for density test locations).
2. Field Representative spoke with John Fairweather (Shaw Bros.) regarding the section of underslab drain between column lines G, H, 1.9/2.1 and 3. Mr. Fairweather inquired whether the drain could be run at invert El. 12.67 starting at column line 1.9/2.1 and run flat to column line 3. Lowering the invert elevation of the underslab drain in this area would allow the pipe to run beneath (rather than through) interior walls. Field Representative told Mr. Fairweather he would check with Wayne Chadbourne (Haley & Aldrich) and get back to him.
3. Field Representative spoke with Mr. Chadbourne regarding the change in invert elevation of the section of underslab drain described above. Mr. Chadbourne informed Field Representative that the change in invert elevation would be acceptable as long as it still provided positive drainage in the desired direction (towards Fore Street). Mr. Chadbourne instructed Field Representative to confirm this prior to giving approval to Shaw Bros.
4. Field Representative reviewed laboratory test results on granular fill imported to the site from Shaw Bros. Dayton Pit. The results of the lab testing show that the granular fill has a low percentage of fines (ranging from 1.8 to 2.3 percent) and is free-draining.
5. Field Representative informed Mr. Fairweather that the change in invert elevation of the section of underslab drain described above would be acceptable as long as the imported granular fill from Shaw Bros. Dayton Pit be used to backfill above the underslab drain up to the bottom of the pavement section. Mr. Fairweather confirmed that this material would be used as fill in this location. Field Representative also informed Bob Parsons (Ledgewood) and requested Mr. Parsons submit a request for information (RFI) to document the change in underslab drain pipe elevation.
6. Field Representative spoke with Bob Parsons (Ledgewood) and John Fairweather (Shaw Bros.) regarding the wheel ruts that were created by CCB equipment traffic. Field Representative informed Mr. Parsons and Mr.

Fairweather that the disturbed marine clay will have to be overexcavated and replaced with granular fill prior to additional fill placement.

Wednesday, July 25, 2007

1. Field Representative spoke with Steve Pitts (Ledgewood) regarding the change of the invert elevation for the section of underslab drain described under Item No. 2, above. Field Representative asked Mr. Pitts to issue a request for information (RFI) on the change so that Haley & Aldrich can officially respond to the request. Field Representative informed Mr. Pitts that verbal authorization to proceed with change was by Haley & Aldrich to Bob Parsons (Ledgewood) and John Fairweather (Shaw Bros.)
2. Field Representative inspected the installation of the section of underslab drain described under Item No. 2 on Tuesday. Field Representative judged that the underslab drain was installed as shown on the construction drawings.
3. Field Representative attended bi-weekly site meeting with the following parties: Ledgewood, Intercontinental, Woodard & Curran and Scott Simons Architects. Field Representative asked Steve Pitts (Ledgewood) whether he had received the additional information from G. Donaldson on the design of the support of excavation system west of column line 1. The additional information was requested by Haley & Aldrich through the submittal process. Mr. Pitts indicated that he had not received the information yet. Field Representative also reminded Mr. Pitts and Mr. Parsons that measurement of the survey points on the support of excavation system should be done this week.

Thursday, July 26, 2007

1. Field Representative not on site.

Friday, July 27, 2007

1. Field Representative not on site.

ATTACHMENTS:
1. Foundation Plan (Figure 1)
2. Weekly Summary of Field Unit Weight Test (1 page)
3. Photograph Summary (2 page)

Field Representative(s)	**Total Weekly Time**
B. Steinert	41.25

Distribution: Drew Swenson, Riverwalk, LLC. (email)
Rich Libardoni, Intercontinental Real Estate Co. (email and hardcopy)
Stephen Fraser, Scott Simons Architects (email)
Steve Pitts & Bob Parsons, Ledgewood Construction (email)
Alan Simon, Simon Design Engineering, LLC. (email)

Haley & Aldrich, Inc.

APPROXIMATE LOCATION OF DISTURBED MARINE CLAY SUB GRADE

BACKFILLED ON 7/24

SLOPED FROM GRADE BEAM DOWN TO EL. 15'-8" WEST OF INTERIOR WALL

RUN FLAT

EL. 15'-8"

SECTION OF UNDERSLAB DRAIN INSTALLED ON 7/25/07

BACKFILLED ON 7/24

TO BE TIED INTO COMBINED SEWER MANHOLE (SEE CIVIL DWGS)

TO BE TIED INTO COMBINED SEWER MANHOLE (SEE CIVIL DWGS)

1'-0" DIA x 4'-6" DEEP SONO TUBE W/ (3) #9 VERT BARS AND #4@12" OC TIES (TYP)

1'-6" SQ SUMP PIT

PIT FOR LIFT

ELEVATOR PIT

INDICATOR PILE

APPROXIMATE EXTENT OF GRANULAR BACKFILL PLACED ON 7/24/07

●55 DESIGNATION AND APPROXIMATE LOCATION OF IN-SITU DENSITY TEST

7/23 EXTENT OF EXCAVATION ON DATE SPECIFIED

PLAN NORTH →

FOUNDATION PLAN
3/32"=1'-0"

HALEY & ALDRICH

OCEAN GATEWAY PARKING GARAGE
MIDDLE STREET
PORTLAND, MAINE

FOUNDATION PLAN (SHEET NO. S1.00)
WEEKLY FIELD REPORT NO.: 10

SCALE: AS SHOWN
APRIL 2007

FIGURE 1

S:\130322\2007_0124 - CURRENT RES. FIG 2\2007_0322_BCS_COMMONPLANS.DWG

HALEY & ALDRICH

WEEKLY SUMMARY
FIELD UNIT WEIGHT TEST

PROJECT	OCEAN GATEWAY PARKING GARAGE	**H&A FILE NO.**	30322-030
LOCATION	PORTLAND, MAINE	**PROJECT MGR.**	W. CHADBOURNE
CLIENT	RIVERWALK, LLC.	**FIELD REP**	B. STEINERT
GEN. CONTRACTOR	LEDGEWOOD CONSTRUCTION	**DATE**	07/28/07
SUBCONTRACTOR	SHAW BROTHERS CONSTRUCTION	**WFR NUMBER**	10

Gage:
Make: Humboldt Scientific, Inc. Model 5001 EZ122 Serial Number: 3289 Calibration Date: 04/05/06

Test No.	Location	Elevation (ft)	Depth Of Test (in)	Maximum Dry Unit Weight[(a)] (pcf)	Optimum Moisture Content (%)	In-place Dry Unit Weight (pcf)	In-place Moisture Content (%)	Compaction		Remarks
								Actual (%)	Required (%)	
44	see Figure 2	16.5	12	121.6	7.9	121.5	7.2	100%	95%	7/24/2007
45	see Figure 2	16.5	12	121.6	7.9	116.4	3.8	96%	95%	7/24/2007
46	see Figure 2	16.0	12	121.6	7.9	113.8	4.7	94%	95%	7/24/2007, recompact
47	see Figure 2	16.0	12	121.6	7.9	115.0	3.8	95%	95%	7/24/2007
48	see Figure 2	17.0	12	121.6	7.9	125.2	5.0	103%	95%	7/24/2007
49	see Figure 2	17.0	12	121.6	7.9	118.1	4.0	97%	95%	7/24/2007
50	see Figure 2	18.0	12	121.6	7.9	116.7	5.4	96%	95%	7/24/2007
51	see Figure 2	18.0	12	121.6	7.9	115.1	4.6	95%	95%	7/24/2007
52	see Figure 2	17.5	12	121.6	7.9	114.8	4.9	94%	95%	7/24/2007, recompact
53	see Figure 2	18.0	12	121.6	7.9	115.6	5.3	95%	95%	7/24/2007
54	see Figure 2	17.5	12	121.6	7.9	116.7	4.1	96%	95%	7/24/2007
55	see Figure 2	16.5	12	121.6	7.9	118.7	3.8	98%	95%	7/24/2007
56	see Figure 2	18.0	12	121.6	7.9	115.9	3.0	95%	95%	7/24/2007
57	see Figure 2	18.0	12	121.6	7.9	116.1	3.4	95%	95%	7/24/2007
58	see Figure 2	18.5	12	121.6	7.9	116.1	3.8	95%	95%	7/24/2007
59	see Figure 2	16.0	12	121.6	7.9	117.8	3.5	97%	95%	7/24/2007

Additional Remarks:
(a) Maximum dry unit weight represents the laboratory test value corrected for +3/4 material (ASTM ☑ D1557 ☐ D698)

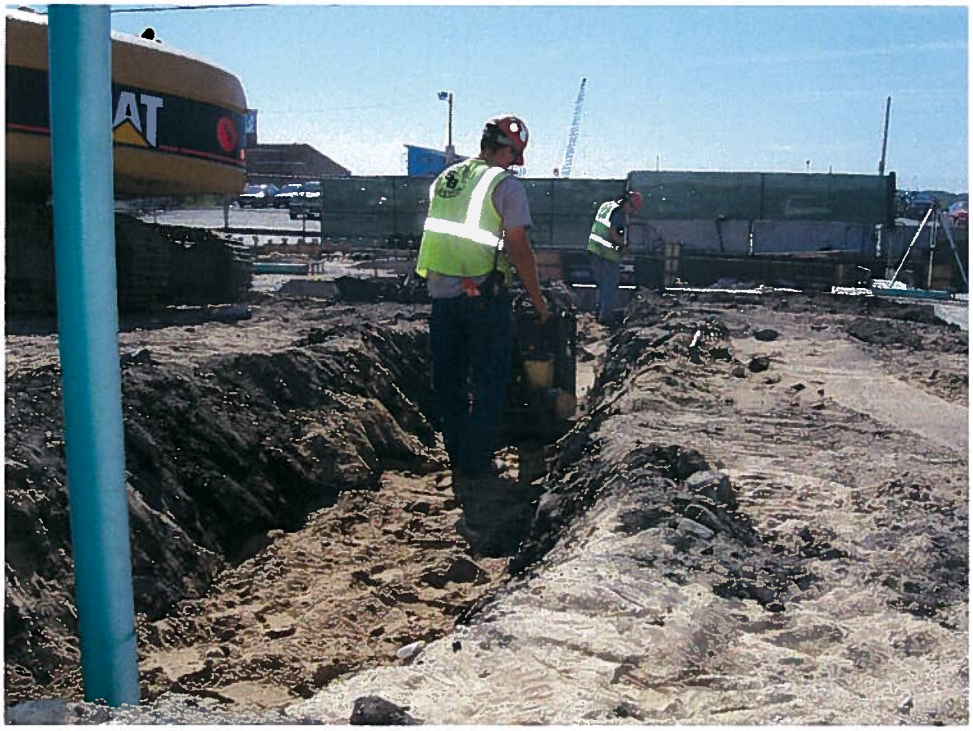
Haley & Aldrich, Inc.

Form 4005

Photograph 1. Disturbed marine clay subgrade east of pile cap located at column line B-1. Disturbance caused by construction vehicle traffic, looking west (7/24/07).

Photograph 2. Compacting granular backfill against pile caps/grade beams with a self-propelled vibratory plate compactor, looking south (7/24/07).

Photograph 3. Installation of the underslab drain running west to east between column lines G and H, looking east (7/25/07).



Photograph 4. Compacting granular fill above a section of underslab drain with a self-propelled vibratory plate compactor, looking east (7/25/07).