
Project	OCEAN GATEWAY PARKING GARAGE	Report No.	5
Location	PORTLAND, MAINE	Period From	18 June 2007
		To	22 June 2007
Client	RIVERWALK, LLC.	Page	1 of 5
Contractor	LEDGEWOOD CONSTRUCTION (CM) SHAW BROTHERS CONSTRUCTION (EARTHWORK) G. DONALDSON CONSTRUCTION (PILE DRIVING)	File No.	30322-030

I. CONTRACTOR'S ACTIVITIES:**Monday June 18, 2007 (60 degrees, clear at 0700)**

1. G. Donaldson delivered and unloaded seven HP14x102 steel piles with driving shoes to the site using a Terex TR450 crane.
2. Completed installation of 14 HP 14x102 steel production piles at column lines G-2.8, E-1.9/2.1, D-1.9/2.1 and C-1.9/2.1 using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 1). See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.
3. Began installation of four HP 14x102 steel production piles (Pile Nos. 73, 75, 90 and 94) using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer. The piles did not achieve the axial design capacity after end of initial driving (i.e., piles were not long enough). Excavation around the piles and/or splicing will be required in order to complete pile installation.
4. Pile No. 70 encountered an obstruction which caused the pile to deflect approximately 5 ft to the northwest. The pile was removed to evaluate the obstruction. Throughout the day, at pile number 70 the hole collapsed and expanded to approximately 10 ft by 8 ft with a water level of 1 ft below the existing ground surface. It was suspected that an underground tank was encountered due to the oil sheen observed in the water (see photographs).
5. Re-drove Pile No. 43 using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 1). See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.
6. Shaw Bros. excavated along the grade beam locations between column lines G-1 to G-1.9/2.1 and H-1 to H-1.9/2.1 using a Cat 320CL excavator with a smooth bladed bucket. The excavated soils were hauled off site (see Figure 2).
7. Shaw Bros. placed approximately 1 ft of granular fill along the grade beam at column lines G-1 to G-1.9/2.1. The granular fill was imported to the site from Shaw Bros. Dayton Pit and was placed in 1 ft loose lifts and compacted with three passes using a self propelled vibratory plate compactor (see Figure 2).
8. Shaw Bros. placed approximately 2 to 6 inches of stone at pile cap locations G-1.9/2.1 and H-1.9/2.1.
9. Shaw Bros. excavated to subgrade elevation at pile caps G.4-2.3, G.4-2.7, and G.4-3 using a Cat 320CL excavator and hauled the excavated soils off site.
10. Donaldson cutoff of piles at design cutoff elevations at column line F-1.9/2.1 and Pile No. 92.
11. Ledgewood mobilized Clean Harbors with a vac truck to the site to pump out the water at the obstruction location near Pile No. 70. Upon completion of dewatering a steel tank along with a brick catch basin was observed (see photographs).

Tuesday June 19, 2007 (65 degrees, clear at 00630)

1. Shaw Bros. excavated around Pile Nos. 73, 75, 90, and 94 using a Cat 320C excavator to allow driving of these piles to be completed.
2. G. Donaldson completed installation of four HP 14x102 steel production piles (Pile Nos. 73, 75, 90, and 94) using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 1). See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.
3. G. Donaldson spliced Pile Nos. 116 and 164 using a Champion (mechanical) splice.
4. A representative from ELINE inspection services arrived onsite to inspect the Champion splice and welds for Pile Nos. 116 and 164. The welds were approved.
5. Completed installation of two HP 14x102 steel production piles (Pile Nos. 116 and 164) after splicing using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 1). See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.

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6. G. Donaldson cutoff piles at column line H-2.7, H-2.9, H-2.3, G.4-2.3, G.4-2.7, G.4-3 and Pile No. 141A. The piles located within pile caps H-2.7, H-2.9, H-2.3 and Pile No. 141A were not cutoff to final elevation, additional cutoff is required.
7. Shaw Bros. placed fill soils temporarily on top of piles at column line G.4-2.3, G.4-2.7, and G.4-3 to allow excavation equipment to prepare for the deep excavation at the elevator pit.
8. G. Donaldson delivered and unloaded seven HP14x102 steel piles with driving shoes to the site using a Terex TR450 crane.

Wednesday June 20, 2007 (60 degrees, sunny at 0630)

1. G. Donaldson delivered and unloaded five 40 ft long HP14x102 steel piles to the site using a Terex TR450 crane. Matt Lackey (G. Donaldson) informed Haley & Aldrich that the piles were from Donaldson's shop and are intended to be used for splicing.
2. G. Donaldson prepared and spliced Pile Nos. 97, 98, 99, 100, 117, 118, 119, and 120 using a Champion (mechanical) splice.
3. G. Donaldson began installing the whaler and deadman anchor system for the sheet pile wall located at the elevator pit near column line H, generally between column lines 2.1 to 3.1. G. Donaldson welded the 40 ft long whaler section 5 ft below the top of the sheet pile wall. Donaldson installed five 1-in. diameter, R61 grade-75, all threaded tie back rods through the whaler, sheet pile wall and concrete jersey barriers used as deadmen anchors. G. Donaldson informed Haley & Aldrich that tomorrow (June 21) they would weld shims to the whaler so that the sheet pile wall would be in complete contact with the whaler and would also tension the anchor (see sketch of whaler and tie back dimensions, Figure 2 and photographs).
4. G. Donaldson delivered and unloaded seven HP14x102 steel piles with driving shoes to the site using a Terex TR450 crane.
5. Shaw Bros. did not conduct any earthwork activities today.

Thursday June 21, 2007 (60 degrees, clear at 0630)

1. G. Donaldson completed the whaler and deadman installation for the sheet pile wall as described above. Placed two 11-in. by 11-in. by ¾-in. thick steel plates at each end of the deadman anchor and threaded a 1-in. diameter nut to tension the tie rod (see photographs).
2. G. Donaldson delivered and unloaded eleven 40 ft long HP12x53 steel piles to the site using a Terex TR450 crane. Mr. Lackey informed Haley & Aldrich that these piles are intended to be used for splicing.
3. Donaldson delivered and unloaded six HP14x102 steel piles with driving shoes to the site using a Terex TR450 crane.
4. G. Donaldson prepared Pile Nos. 77, 78, 79, 80, 81, 82, 96, 101, 115, 152, 153, 154, 155, 156, 157, 158, 160, 161, 162, and 163 for splicing.
5. Shaw Bros. placed and compacted 4 ft of onsite fill soils over the dead man and tie backs for the sheet pile wall using a Cat D5C Dozer. The fill soils generally consisted of silty SAND with gravel and were placed in loose 1.5 ft thick lifts. Each lift was compacted with three passes of a self propelled vibratory plate compactor.
6. Shaw Bros. began excavating soils in front of the sheet pile wall between column H-2.3 and H-2.7 using a CAT 320C excavator. The excavator hit the northern most tie back, breaking off the bolt and tie back at the face of the whaler.
7. Shaw Bros. and G. Donaldson repaired the broken tie back by excavating down to the dead man, loosening the nut to allow the tie back to be pulled past the whaler. Donaldson re-attached the nut to the tie back at the face of the whaler. Shaw Bros. backfilled the excavated area as described under Item No. 5, above.

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8. After completion of tie back repair Shaw Bros. continued excavating in front of the sheet pile wall to approximately El. 17.5. at column H-2.3 and a portion of column H-2.7. The excavated soils were loaded into dump trucks and hauled offsite.
9. Shaw Bros. surveyed elevations of the tie backs and surface of fill placed above the tie backs.
10. Shaw Bros. installed a temporary sump, approximately 3 ft x 4 ft x 4 ft deep between column H-2.3 and H-2.7 along the sheet pile wall. Shaw Bros. used a pump to dewater the excavation, pumping the water into a FRAC tank located north of the excavation.

Friday June 22, 2007 (60 degrees, clear at 0645)

1. G. Donaldson spliced Pile Nos. 77, 78, 79, 80, 81, 82, 96, 98, 100, 101, 115 and 120 using a Champion (mechanical) splice.
2. Shaw Bros. completed excavating and dewatering in front of the sheet pile wall at and between column H-2.3 and H-2.7 to El. 17.5 using a CAT 320C excavator.
3. Shaw Bros. placed approximately 3 to 6 inches of crushed stone at column H-2.3 and H-2.7.
4. Shaw excavated at pile caps H-2.9, G.4-2.3 and G.4-3 and placed approximately 3 inches of crushed stone using a Cat 320CL excavator.
5. Clean Harbors arrived onsite to remove the underground tank encountered on Monday, 18 June. Clean Harbors and Shaw Bros. completely removed the underground tank using a CAT 320C excavator. Upon completion of the tank removal the excavation dimensions were approximately 20 ft x 20 ft x 9 ft deep. Clean Harbors dewatered the excavation and tank using a vac truck and hauled the water offsite. The excavated soils were temporarily stockpiled onsite and covered with poly (see Figure 2 and photographs).
6. During a portion of the excavation at the underground tank location a representative from Maine DEP was onsite.
7. Shaw Bros. backfilled and compacted the underground tank grave using a CAT 320 C excavator outfitted with a vibratory plate compactor. Prior to backfilling Shaw Bros. excavated an additional 0.5 to 1 ft of saturated marine clay soils. Imported granular fill and onsite soils were placed in 12 to 18-in. thick lifts (loose measure) and compacted with three passes of a self propelled vibratory plate compactor as specified below in Section II, Friday, June 22, Item No. 4.

II. FIELD REPRESENTATIVE'S ACTIVITIES:**General**

1. Haley & Aldrich Field Representative performed full-time monitoring of construction activities from Monday, June 18 through Friday, June 22 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 completion of the project or earlier, if requested.
4. Monitored the installation of steel production piles on 18 and 19 June shown on the attached Summary of Steel H-Pile Installation sheets and documented above. Field Representative judged that all the piles installed during this time period were installed to the required driving criteria.

Monday June 18, 2007

1. Field Representative observed and recorded pile installations noted above.
2. Field Representative observed Shaw Bros. excavation of the grade beam and pile cap locations as noted above. The materials observed at the subgrade elevation consisted of FILL materials, a poorly-grade SAND with silt and gravel, and silty SAND with gravel.

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3. Field Representative observed Shaw Bros. placement and compaction of the granular fill as described above.

Tuesday June 19, 2007

1. Field Representative observed and recorded pile installations noted above.
2. Field Representative observed and recorded the pile cutoffs noted above.
3. Bob Parsons (Ledgewood) inquired if Haley & Aldrich was inspecting the welds for the pile splicing. Field Representative contacted Wayne Chadbourne (Haley & Aldrich) to discuss. Mr. Chadbourne indicated that Rich Libardoni (Intercontinental) was coordinating the welding inspections. Field Representative informed Mr. Parsons and reiterated that all of the welds would need to be inspected prior to re-driving.
4. Mr. Parsons informed Field Representative that a representative of Maine DEP may be onsite to observe the underground tank encountered on Monday. Maine DEP representatives did not arrive onsite today.

Wednesday June 20, 2007

1. Field Representative observed and recorded the pile installations noted above, including splicing and cutoffs.
2. Field Representative documented G. Donaldson's installation of the whaler and tie back system for the sheet pile wall located at the elevator pit in the northeast corner of the garage.

Thursday June 21, 2007

1. Field Representative observed and recorded pile splicing preparation as noted above.
2. Field Representative documented G. Donaldson's installation of the whaler and tie back system for the sheet pile wall located at the elevator pit in the northeast corner of the garage.
3. Field Representative observed the excavation in front of the sheet pile wall at column H-2.3 and H-2.7. Noted approximately 1 ft of water within the excavation. Informed Shaw Bros. that the subgrade materials for pile cap H-2.3 and H-2.7 would be inspected upon completion of dewatering.
4. Mr. Chadbourne relayed the cutoff survey elevations for the piles at column F-1.9/2.1. Reviewed and calculated the final cut off elevations for the piles and determined that all the piles at this location had the required 6-in. (min.) embedment into the pile cap.

Friday June 22, 2007

1. Field Representative observed and recorded the pile installations noted above, including splicing and cutoffs.
2. Field Representative observed the excavation at column H-2.3 and H-2.7. The subgrade soils were observed to be naturally deposited marine clay.
3. Field Representative observed the excavation at column H-2.9, G.4-2.3 and G.4-3. The subgrade soils were observed to be in-situ fill soils consisting of silty sand with gravel.
4. Field Representative informed Shaw Bros. and Mr. Parsons that the materials used for backfilling within the limits of the tank excavation should be granular fill to a minimum of 5 ft beyond the outside of the pile cap (in plan) and onsite soils could be used beyond this limit.
5. Field Representative observed/inspected soil encountered below the underground storage tank. A minimal thickness of in-situ fill soils were encountered overlying naturally deposited marine clay. The marine clay exposed in the bottom of the excavation was saturated.
6. Field Representative observed backfilling and compaction of granular fill within the limits of the tank excavation.
7. Mr. Parsons inquired about what type of backfill material could be used around the pile caps and grade beams after the placement of the concrete. Field Representative spoke with Mr. Chadbourne to discuss. Mr. Chadbourne indicated that backfill material could be onsite soils if it met the following criteria: 1) free of organic

WEEKLY FIELD REPORT

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material and construction debris, 2) free of materials greater than 3-in. in diameter, 3) be well-graded with low fines content and 4) be able to be properly compacted in 8 to 12-in. thick lifts. In addition the onsite soils would need to be evaluated on a case by case basis to determine if the materials are suitable as fill. Field Representative informed Mr. Parsons of the above information.

ATTACHMENTS:

1. Foundation Plan - (Figure 1)
2. Daily Summary of End Bearing Pile Installation (3 pages)
3. Sketch of SOE at Elevator Pit (1 page)
4. Photograph Summary (5 pages)

<u>Field Representative(s)</u>	<u>Total Weekly Time</u>
W. Armstrong	50.50

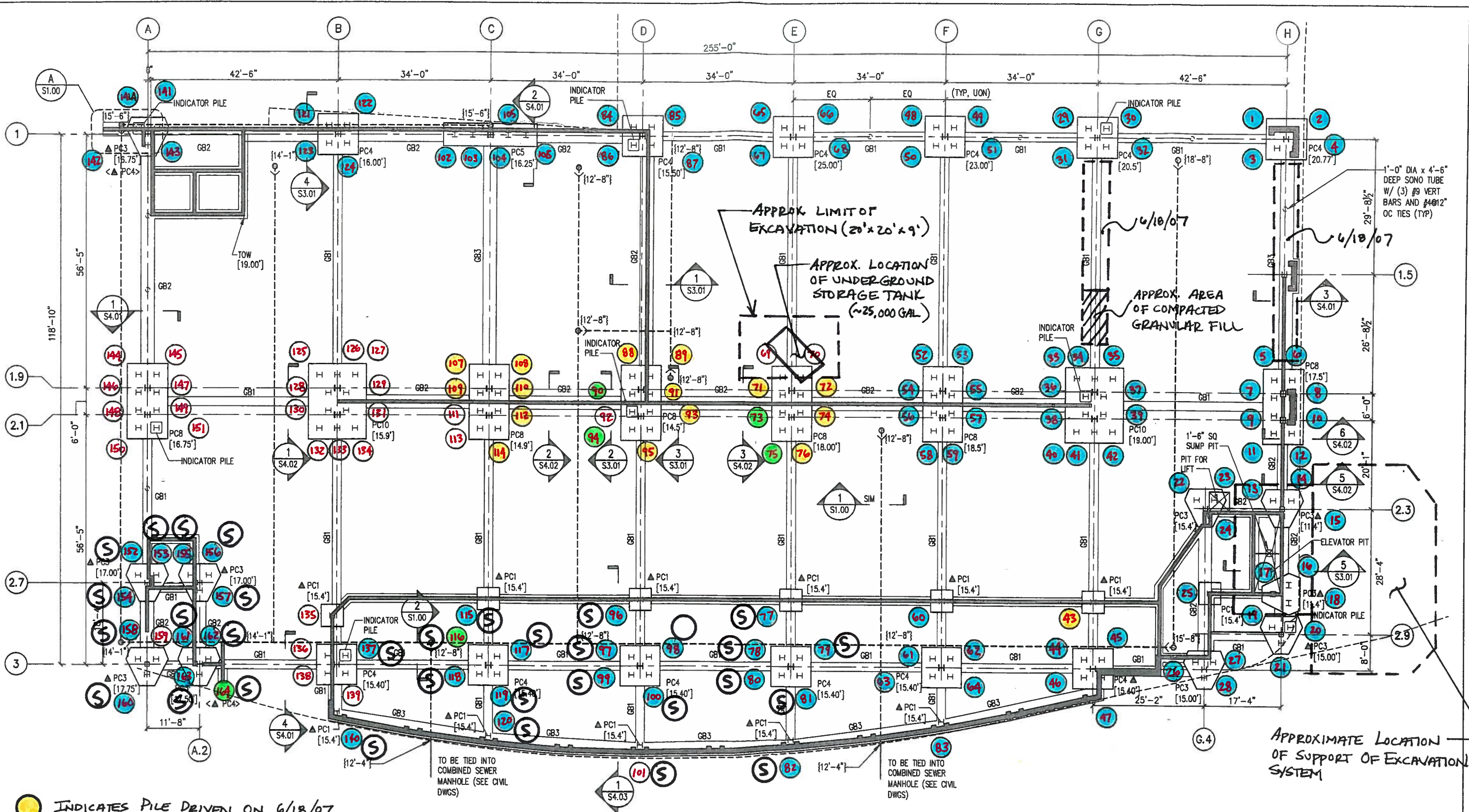
Distribution: Drew Swenson, Riverwalk, LLC. (email)
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Stephen Fraser, Scott Simons Architects (email)
Steve Pitts & Bob Parsons, Ledgewood Construction (email)
Alan Simon, Simon Design Engineering, LLC. (email)

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Reports\WFR05 2007 0623\2007 0628 wca WFR5.doc



Haley & Aldrich, Inc.

S:\30322\2007_0124 - CURRENT RES. FIG 2\2007_0322_BCS_COMMONPLANS.DWG



- INDICATES PILE DRIVEN ON 6/18/07
- INDICATES PILE DRIVEN ON 6/19/07
- INDICATES PREVIOUSLY DRIVEN PILE
- S INDICATES PILE WAS SPLICED OR REQUIRES SPLICE
- APPROXIMATE LIMIT OF EXCAVATION

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.: 45

SCALE: AS SHOWN
APRIL 2007

FIGURE 1

Client RIVER WALK, LLC.

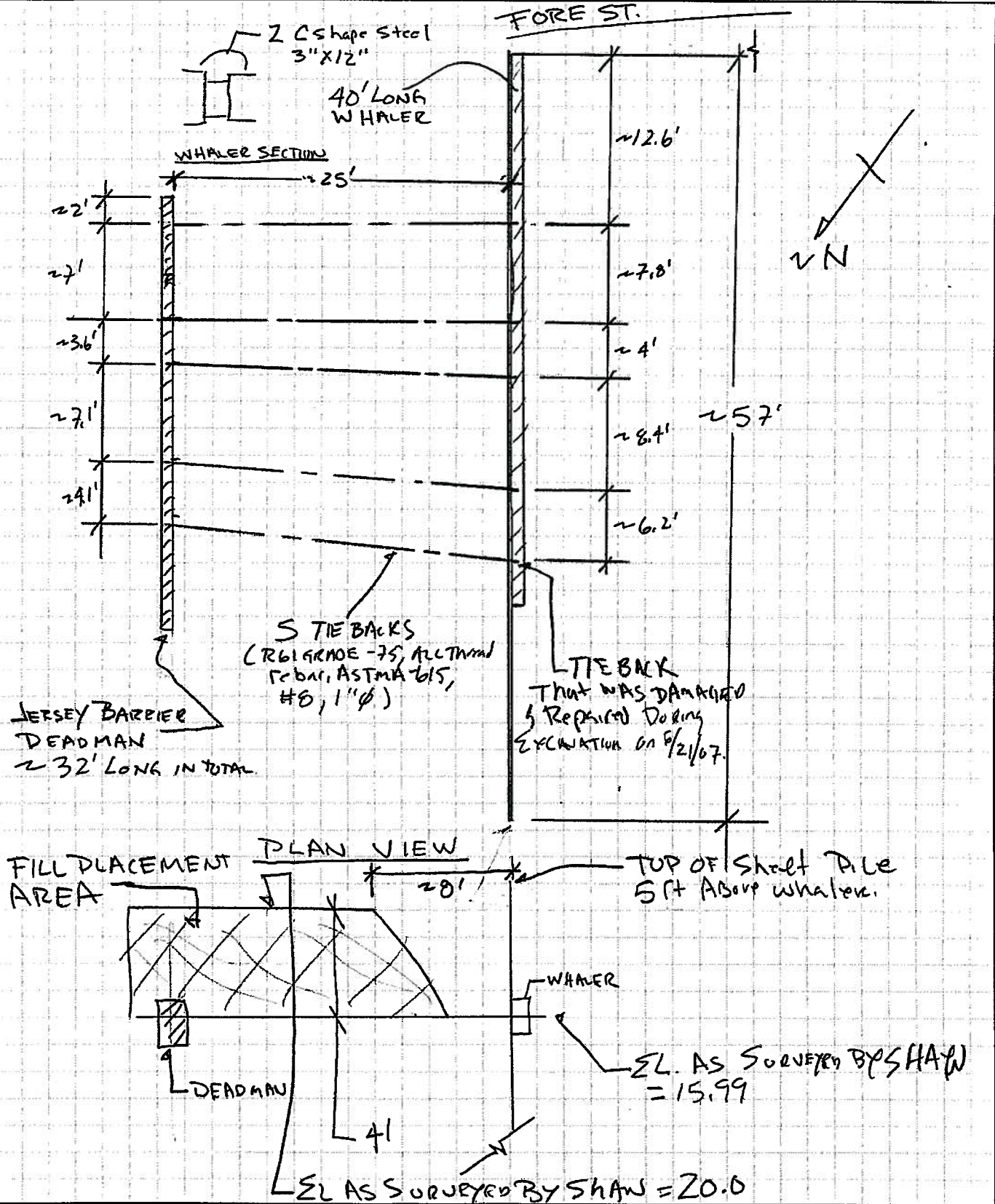
Date WFR#5

Project OCEAN GATEWAY PARKING GARAGE

Computed By WCA

Subject SKETCH OF WHALER & TIE BACKS

Checked By



DAILY SUMMARY END BEARING PILE INSTALLATION

PROJECT	OCEAN GATEWAY PARKING GARAGE	H&A FILE NO.	30322-030
LOCATION	PORTLAND, MAINE	PROJECT MGR	W. CHADBOURNE
CLIENT	RIVERWALK, LLC.	FIELD REP	W. ARMSTRONG
GEN. CONTRACTOR	LEDGEWOOD CONSTRUCTION	DATE	6/18/2007
PILE CONTRACTOR	G. DONALDSON CONSTRUCTION	WFR NO.	5

PILES:

Type STEEL H-PILE
 Size HP 14X102
 Design Capacity 170 tons

HAMMER:

Type JUNHAN HHK 9A
 Cushion Monocast MC 904P
 Rated Energy 79,801 ft-lbs

Blows per min. 40-100
 Ram Weight (lbs) 19,800
 Fall (in) 30

Pile No.	Pile Length	Elevation			Pay Length (ft)	Blows Per Inch							Remarks
		Top	Cut-off	Tip		Final 6 in.				Ave.*			
71	60.50	17.87	14.28	-42.63	56.9	20	15<0.5"						refusal
72	60.50	17.86	14.23	-42.64	56.9	20<0.5"							refusal
73													see add. remarks, final driving on 6/19
74	60.50	21.42	14.26	-39.08	53.3	11	9	9	10	10	12	10	
75													see add. remarks, final driving on 6/19
76	60.50	19.53	14.26	-40.97	55.2	5	10	15	15	20	13<0.5"		refusal
88	60.75	20.39	10.82	-40.36	51.2	1	2	2	21	20	10<0.5"		refusal
89	60.50	19.57	10.78	-40.93	51.7	10	9	11	9	11	11	10	
90													see add. remarks, final driving on 6/19
91	60.75	19.43	10.76	-41.32	52.1	9	9	10	14	13	17	12	
93	60.75	20.05	10.75	-40.70	51.5	9	13	11	10<0.5"				refusal
94													see add. remarks, final driving on 6/19
95	60.75	19.45	10.79	-41.30	52.1	5	6	6	6	12	10<0.5"		refusal
107	60.50	27.76	11.14	-32.74	43.9	10	13	10<0.5"					refusal
108	60.50	26.57	11.17	-33.93	45.1	10	10<0.5"						refusal
109	60.50	25.90	11.15	-34.60	45.8	10	16	10<0.5"					refusal
110	60.50	25.72	11.14	-34.78	45.9	15<0.5"							refusal
112	60.50	23.92	11.12	-36.58	47.7	6	5	8	10	15	10<0.5"		refusal
114	60.75	24.13	11.16	-36.62	47.8	10	12	10<0.5"					refusal

Total Length of Piles Driven Today:	757.0
Total Length of Piles Driven Previously:	4440.2
Total Length of Piles Driven To Date:	5197.2

*Required Minimum: 9 avg. (per Contractor's WEAP)

Additional remarks:

Piles listed above did not achieve capacity at the end of initial driving. Excavation or pile splice is required to continue driving.

All piles driven with steel driving shoe.

Remarks:

- a. Rejected
- b. Added due to mislocated pile
- c. Added due to broken pile
- d. Added due to design change
- e. Deleted due to design change
- f. Broken
- g. Test Pile

Notes:

1. Pay lengths indicated are preliminary and are based on proposed cut-off elevations and as-built elevation data provided by Owen Haskell, Inc.
2. Elevations are in feet and reference Portland City Base datum.

Total Number of Piles Driven Today: 15

Previous total Number of Piles: 88

Total Number of Piles To Date: 103



 Registered Engineer



Photograph 1. Suspected underground storage tank near pile cap E-1.9/2.1 (6/18/07).



Photograph 2 Suspected underground storage tank near pile cap E-1.9/2.1 (6/18/07).



Photograph 3. Typical pile splice with champion connection (6/19/07).



Photograph 4. Whaler installation along sheet pile wall at the elevator pit (6/21/07).



Photograph 5. Tie Back installation at whaler (6/21/07).



Photograph 6. Tie Back installation at dead man (6/21/07).



Photograph 7. Tie Backs along sheet pile (6/20/07).



Photograph 8. Fill placed above tie backs and dead man (6/21/07).



Photograph 9. Excavation at pile caps H-2.3, H-2.7, and H-2.9 (6/22/07).



Photograph 10. Excavation at underground tank (6/22/07).