

<b>Project</b>	OCEAN GATEWAY PARKING GARAGE	<b>Report No.</b>	3
<b>Location</b>	PORTLAND, MAINE	<b>Period From</b>	04 June 2007
		<b>To</b>	08 June 2007
<b>Client</b>	RIVERWALK, LLC.	<b>Page</b>	1 of 5
<b>Contractor</b>	LEDGEWOOD CONSTRUCTION (CM) SHAW BROTHERS CONSTRUCTION (EARTHWORK) G. DONALDSON CONSTRUCTION (PILE DRIVING)	<b>File No.</b>	30322-030

**I. CONTRACTOR'S ACTIVITIES:**

**Monday, June 4, 2007 (55 degrees, raining at 0600)**

1. Shaw Bros. began importing granular material to the site from their Dayton Pit. The material was temporarily stockpiled in the landscape area west of column line 1, adjacent to Middle Street (see Figure 1).
2. Shaw Bros. completed the installation of the subsurface stormwater detention structure within the limits of the entrance roadway off of Middle Street, west of column line 1. Began placing 1½-in. crushed stone over the structure, up to El. 23.5 (see Figure 1 and photographs).
3. Shaw Bros. conducted excavation for CB-1 with a CAT 320C excavator (see Figure 1). The area was excavated to approximately 1 ft below the proposed bearing level (El. 15±). The excavated soils consisted of granular fill (sand, gravel, cobbles, and concrete and brick fragments). Creosote coated timbers were encountered during excavation. An approximate 1 ft thick lift of 1½-in. crushed stone was placed on the exposed subgrade prior to setting the drainage structure.
4. Shaw Bros. tied in the PVC underdrain running beneath the subsurface stormwater detention structure to CB-1 (see Figure 1). The underdrain was backfilled with ¾-in. crushed stone.
5. Periodic delivery of steel sheeting for the support of excavation systems.
6. Periodic delivery of steel H-piles. The piles were stockpiled in the central portion of the site generally along column line 1.9/2.1, between column line B and column line D.
7. G. Donaldson completed the installation of sheeting for the support of excavation parallel to column line 1, adjacent to the Micucci property (see Figure 2 and photographs). The sheeting was installed using a Terex HC-133 service crane outfitted with an ICE 22 hydraulic vibratory driver/extractor. Steel sheets were approximately 25 ft long and were installed to a tip elevation of El. 2± (approximately 11 ft below the proposed bottom of excavation for the pile caps/grade beams).

**Tuesday, June 5, 2007 (70 degrees, cloudy at 0745)**

1. Shaw Bros. continued to import 1½-in. crushed stone from offsite. The material was temporarily stockpiled east of the subsurface stormwater detention structure (see Figure 1).
2. Periodic delivery of HDPE plastic drain pipe. The pipe was temporarily stored in the proposed landscaped area west of column line 1, adjacent to Middle Street (see Figure 1).
3. Delivery of 12 HP12x53 steel H-piles measuring approximately 60 ft in length. The steel H-piles were stockpiled in the central portion of the site, generally along column line 1.9/2.1, between column line B and column line D.
4. G. Donaldson marked 1 ft increments on all steel H-piles delivered to the site to date.
5. Owens & Haskell, Inc. surveyed and marked the proposed locations of the eight indicator piles.
6. G. Donaldson began installing steel sheeting adjacent to the northeast building corner, between column lines H-1.9/2.1 and H-2.3 (see Figure 2 and photographs). The sheeting was installed using a Terex HC-133 service crane outfitted with an ICE 22 hydraulic vibratory driver/extractor. Steel sheets were approximately 25 ft long.
7. Shaw Bros. completed backfilling subsurface stormwater detention structure within the limits of the entrance roadway off of Middle Street, west of column line 1, with 1½-in. crushed stone (see Figure 1 and photographs). The crushed stone was placed up to El. 24± and compacted with two passes of a self-propelled vibratory plate compactor prior to encapsulating with Mirafi 140N geosynthetic separation fabric.
8. Placed granular fill imported to the site from Shaw Bros. Dayton Pit on the south side of the entrance roadway off of Middle Street, west of column line 1, with a CAT 320C excavator and a CAT D3C bulldozer (see Figure 1). One 8 to 10-in. thick lift (loose measure) was placed and compacted with 2 passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.
9. Began placing aggregate subbase imported to the site from Shaw Bros. H-Pit on top of the subsurface stormwater detention structure, within the limits of the entrance roadway off of Middle Street, west of column line 1 with a

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CAT D3C bulldozer (see Figure 1). Material was spread in approximate 12-in. thick lifts (loose measure) up to El. 25 (approximate). Each lift was compacted with three passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.

**Wednesday, June 6, 2007 (65 degrees, clear at 0615)**

1. Shaw Bros. completed placing aggregate subbase on top of the subsurface stormwater detention structure, within the limits of the entrance roadway off of Middle Street, west of column line 1 with a CAT D3C bulldozer. The aggregate subbase consisted of granular material imported to the site from Shaw Bros. H-Pit. The material was placed and compacted as described under Item No. 9 on Tuesday, June 5.
2. Completed installation of five HP14x102 and two HP12x53 steel indicator piles using a Junttan PM30 piling rig outfitted with a Junttan HHK-9A hydraulic hammer. Indicator piles were driven with dynamic pile testing equipment attached. Dynamic pile testing was performed by Geosciences Testing and Research, Inc. (GTR) of North Chelmsford, Massachusetts. Indicator piles were installed at the locations shown in Figure 2. See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.
3. Indicator Pile No. 137 was driven without developing the required axial design capacity and was driven below the proposed pile cutoff elevation. Excavation around the pile and/or splicing will be required in order to complete pile installation. The pile will be used as a production pile and one additional indicator pile (Pile No. 118) will be driven on Thursday, June 7.

**Thursday, June 7, 2007 (55 degrees, clear at 0600)**

1. Shaw Bros. did not work today.
2. G. Donaldson re-struck two HP12x53 (Pile Nos. 20 and 141A) and two HP14x102 (Pile Nos. 86 and 151) steel indicator piles using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer. Indicator piles were re-struck with dynamic pile testing equipment attached. 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 one HP14x102 steel indicator pile using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 2). The pile did not achieve the axial design capacity after completion of initial driving (i.e., pile not long enough). Excavation around the pile and/or splicing will be required in order to complete pile installation. See the attached Daily Summary of Steel H-Pile Installation sheet for pile number and final driving data.
4. Completed installation of eight HP14x102 and eight HP12x53 steel production piles at column lines H-1.9/2.1, H-2.3, H-2.7 and H-2.9 using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 2). See the attached Daily Summary of Steel H-Pile Installation sheet for pile numbers and final driving data for the piles installed today.

**Friday, June 8, 2007 (65 degrees, clear at 0615)**

1. Shaw Bros did not work today.
2. Completed installation of 17 HP14x102 and three HP12x53 steel production piles at column lines E-1, F-1, G-1, H-1, G-3 and G.4-3 using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 2). 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 two HP 12x53 (Pile Nos. 45 and 1011) and one HP14x102 (Pile No. 28) steel production piles using a Junttan PM30 piling rig with a Junttan HHK-9A hydraulic hammer (see Figure 2). The piles did not

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achieve the axial design capacity after completion of initial driving (i.e., piles not long enough). Excavation around the pile and/or splicing will be required in order to complete pile installation.

## II. FIELD REPRESENTATIVE'S ACTIVITIES:

### General

1. Haley & Aldrich Field Representative performed full-time monitoring of construction activities from Monday, June 4 through Friday, June 8 and documented the activities noted above and shown on the attached figures.
2. Monitored the installation of steel indicator/production piles from Wednesday June 6 through Friday, June 8 shown on the attached Daily Summary of Steel H-Pile Installation sheets and documented above. Field Representative judged that all piles installed during this time period were installed to the required driving criteria.
3. Discussed activities daily with contractors (Ledgewood, Shaw Bros., and G. Donaldson).
4. 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.

### Monday, June 4, 2007

1. Field Representative collected two samples of granular material imported to the site from the Shaw Bros. Dayton Pit for gradation and modified proctor compaction tests. The samples were transported to R.W. Gillespie Associates (RWG) in Saco, Maine for analyses. Shaw Bros. proposed use of the material as granular fill per the project specifications. Results of the tests are provided in the attachment.

### Tuesday, June 5, 2007

1. Field Representative collected one sample of granular material imported to the site from the Shaw Bros. H-Pit in Gorham, Maine for gradation and modified proctor compaction tests. The sample was transported to R.W. Gillespie Associates (RWG) in Saco, Maine for analyses. Shaw Bros. proposed use of the material as aggregate subbase per the project specifications. Results of the tests are provided in the attachment.
2. Field Representative spoke with John Fairweather (Shaw Bros.) regarding the placement of imported granular material from Shaw Bros. H-Pit as aggregate subbase over the top of the subsurface stormwater detention structure and within the limits of the entrance roadway off of Middle Street, west of column line 1. Mr. Fairweather indicated that the subbase material will be placed and compacted and that the aggregate base material will not be placed until a later date. Mr. Fairweather indicated that once the aggregate subbase material is placed and compacted the area will be used for storage and parking.
3. Field Representative observed the placement of compacted aggregate subbase over the top of the subsurface stormwater detention structure and within the limits of the entrance roadway off of Middle Street, west of column line 1. Aggregate subbase material consisted of imported material from Shaw Bros. H-Pit. Field Representative did not measure in-place density of the compacted lifts of aggregate subbase due to the planned continued use as storage/parking area.
4. Field Representative measured the diameter of the auger proposed to be used by G. Donaldson to pre-auger for piles to be installed along Fore Street. The auger measured approximately 17-in. in diameter.
5. Field Representative spoke with Sarah Lynch (Simon Design Engineering) regarding proposed pile cutoff elevations. Mrs. Lynch indicated that all piles should be cutoff 6-in. above the bottom of pile cap/grade beam elevation.
6. Field Representative spoke with Bob Parsons (Ledgewood) and Matt Lackey (G. Donaldson) regarding the alternate pile locations. Field Representative asked Mr. Lackey which pile type (HP14x102 or HP12x53) they

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were going to be installing at the alternate locations. Mr. Lackey confirmed that G. Donaldson would be installing HP12x53 pile at each of the alternate locations.

**Wednesday, June 6, 2007**

1. Field Representative spoke with Jim Weaver (Haley & Aldrich) relative to re-striking select indicator piles on Thursday, June 7. Field Representative and Mr. Weaver concluded that the following indicator piles should be re-struck: 20, 86, 141A and 151. Field Representative informed Mr. Lackey (G. Donaldson) and Mr. Chernauskas (GTR) which indicator piles would be re-struck.
2. Field Representative spoke with Mr. Weaver and Mr. Chernauskas regarding developing pile driving criteria for the production piles based on the results of the indicator pile test program prior to GTR finalizing their report in order to expedite production pile installation. Pile driving criteria will be discussed and agreed upon after completion of the re-strike on Thursday, June 7.
3. Field Representative spoke with Mr. Parsons and Mr. Weaver regarding indicator pile no. 137 not achieving capacity at the end of initial driving. Mr. Parsons indicated that he did not want to wait for the pile to be spliced in order to continue driving as an indicator pile. Field Representative spoke with Wayne Chadbourne (Haley & Aldrich) regarding the issue. Mr. Chadbourne suggested that pile no. 137 be used as a production pile and that an additional indicator pile be driven in the pile group located at column C-3 (Pile No. 118). Field Representative informed Mr. Parsons and Mr. Lackey that one additional indicator pile would need to be driven. Mr. Weaver spoke with Mr. Parsons and indicated that if the additional indicator pile was also driven without achieving capacity and required splicing, the indicator pile test program would be abandoned and production pile driving would begin.
4. Field Representative called and left a message with Alan Simon (Simon Design Engineering) regarding the potential to have pile splices within the upper 10 ft (approximate) of the pile and any potential problems there may be.
5. Field Representative called and spoke with Rich Libardoni (Intercontinental) regarding the need for a pile splice weld inspector. Field Representative explained that based on the indicator pile test program, pile splicing would likely be needed along Fore Street and in the southeast building corner. Mr. Libardoni indicated that he had someone under contract as of today and that he would prefer to have as much work as possible for the individual to do when on site in order to minimize costs. Mr. Libardoni explained the contact information would be sent via email to the project team.

**Thursday, June 7, 2007**

1. Field Representative, Mr. Weaver and Mr. Chernauskas spoke regarding the proposed pile driving criteria developed from the indicator pile test program to be used for the production pile driving. The following driving criterion was agreed upon: 1) HP14x102 piles will be driven at an energy equal to 40,000 ft-lbs and a hammer stroke of 2.5 ft. An average of 9 blows/in. over the final 6-in. of driving will be required in order to achieve the minimum ultimate axial pile capacity. 2) HP12x53 piles will be driven at an energy equal to 25,000 ft-lbs. and a hammer stroke of 1.5 ft. An average of 8 blows/in. over the final 6-in. of driving will be required in order to achieve the minimum ultimate axial pile capacity. Field Representative informed Mr. Lackey (G. Donaldson) of this information.
2. Field Representative and Mr. Weaver evaluated the PDA results of the restruck piles. Field Representative and Mr. Weaver concluded that minimal pile relaxation was measured at the beginning of re-driving but the PDA measured no loss of pile capacity. Pile No. 86 drove at a lower penetration resistance at re-strike as compared to end of initial driving (4 blows/in. vs. 8 blows/in.).

**WEEKLY FIELD REPORT**

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**ATTACHMENTS:**

1. Site Plan (Figure 1)
2. Foundation Plan (Figure 2)
3. Daily Summary of Pile Installation (6 Pages)
4. Laboratory Test Results (6 pages)
5. Summary Photographs (3 pages)

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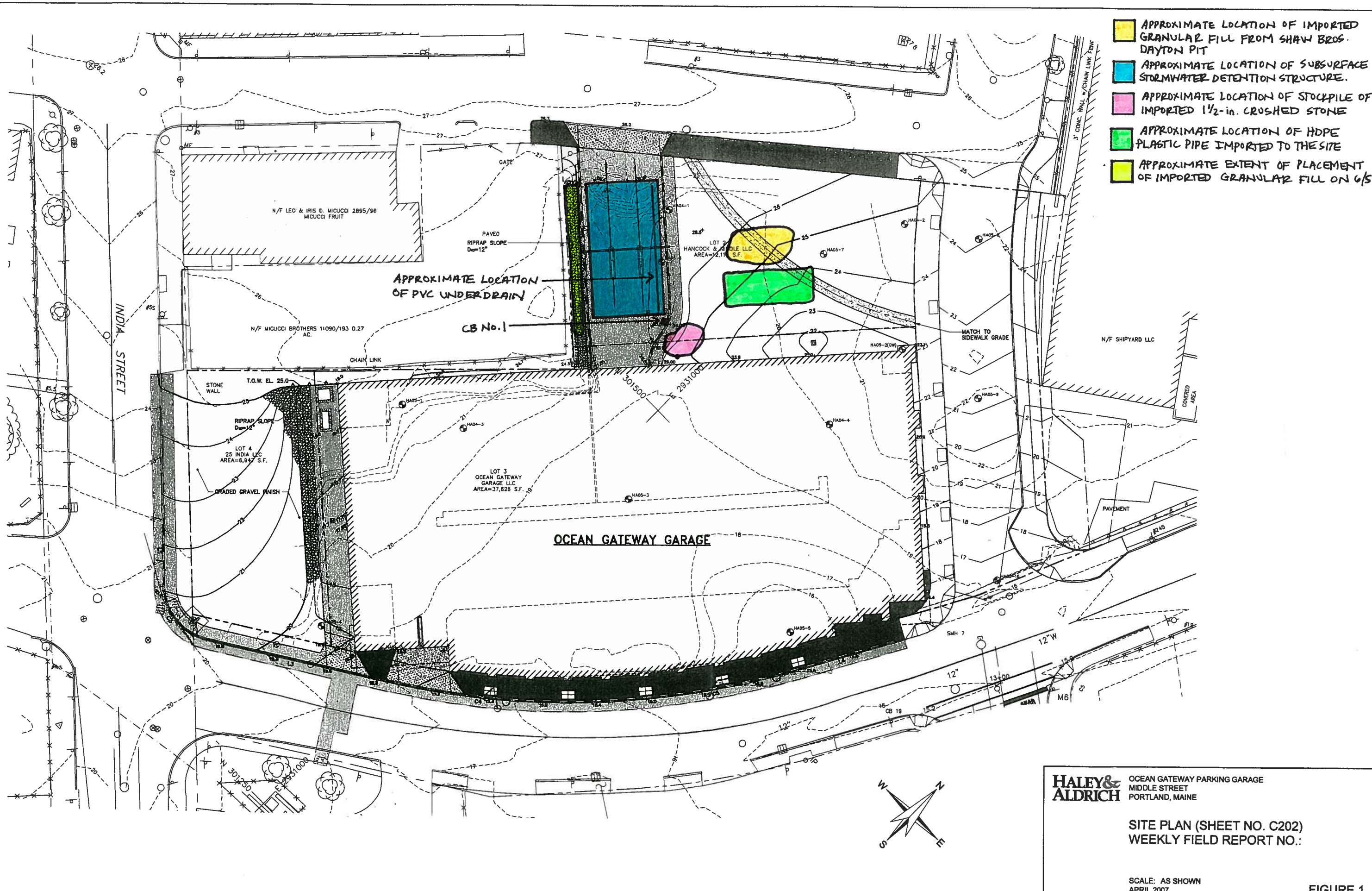
<u>Field Representative(s)</u>	<u>Total Weekly Time</u>
B. Steinert	44.75

**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)

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Reports\WFR03 2007 0609\2007 0609 bcs WFR3.doc

  
Haley & Aldrich, Inc.

S:\30322\2007\_0124 - CURRENT RES. FIG 2\2007\_0322\_BCS\_COMMONPLANS.DWG



- APPROXIMATE LOCATION OF IMPORTED GRANULAR FILL FROM SHAW BROS. DAYTON PIT
- APPROXIMATE LOCATION OF SUBSURFACE STORMWATER DETENTION STRUCTURE.
- APPROXIMATE LOCATION OF STOCKPILE OF IMPORTED 1 1/2-in. CRUSHED STONE
- APPROXIMATE LOCATION OF HDPE PLASTIC PIPE IMPORTED TO THE SITE
- APPROXIMATE EXTENT OF PLACEMENT OF IMPORTED GRANULAR FILL ON G/S

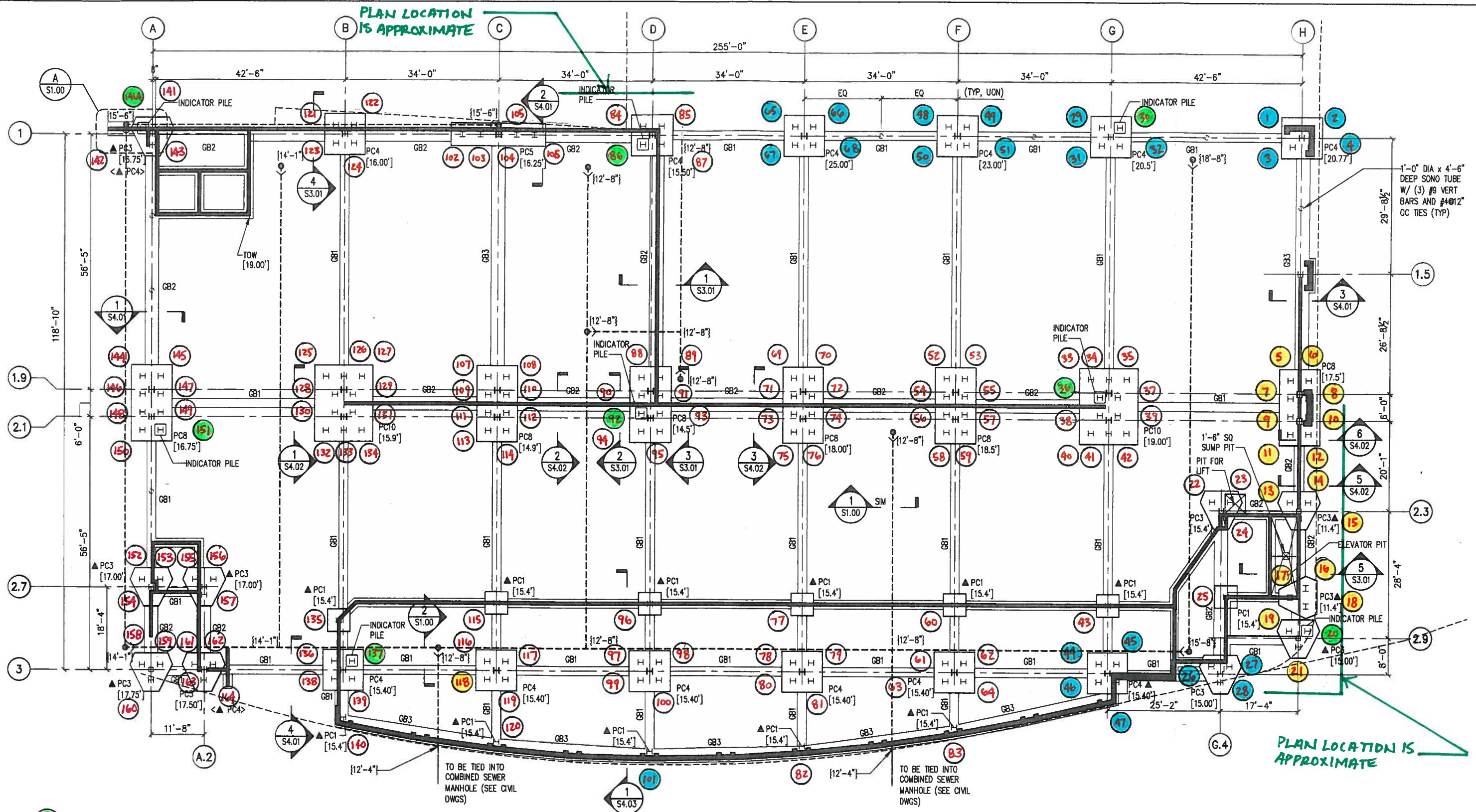
**HALEY & ALDRICH** OCEAN GATEWAY PARKING GARAGE  
 MIDDLE STREET  
 PORTLAND, MAINE

SITE PLAN (SHEET NO. C202)  
 WEEKLY FIELD REPORT NO.:

SCALE: AS SHOWN  
 APRIL 2007

FIGURE 1

S:\30322\2007\_0124 - CURRENT RES. FIG 2\2007\_0322\_BCS\_COMMONPLANS.DWG



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



- INDICATES PILE DRIVEN ON 6/6/07
- INDICATES PILE DRIVEN ON 6/7/07
- INDICATES PILE DRIVEN ON 6/8/07

— APPROXIMATE LOCATION AND EXTENT OF SHEETING INSTALLED FOR THE SUPPORT OF EXCAVATION SYSTEM.

**HALEY & ALDRICH** OCEAN GATEWAY PARKING GARAGE  
MIDDLE STREET  
PORTLAND, MAINE

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

SCALE: AS SHOWN  
APRIL 2007

FIGURE 2

**DAILY SUMMARY  
END BEARING PILE INSTALLATION**

<b>PROJECT</b>	OCEAN GATEWAY PARKING GARAGE	<b>H&amp;A FILE NO.</b>	30322-030
<b>LOCATION</b>	PORTLAND, MAINE	<b>PROJECT MGR</b>	W. CHADBOURNE
<b>CLIENT</b>	RIVERWALK, LLC.	<b>FIELD REP</b>	B. STEINERT
<b>GEN. CONTRACTOR</b>	LEDGEWOOD CONSTRUCTION	<b>DATE</b>	6/6/2007
<b>PILE CONTRACTOR</b>	G. DONALDSON CONSTRUCTION	<b>WFR NO.</b>	3

<b>PILES:</b>	<b>HAMMER:</b>		
Type <u>STEEL H-PILE</u>	Type <u>Juntan HHK 9A</u>	Blows per min.	<u>40-100</u>
Size <u>HP 12x53</u>	Cushion <u>Monocast MC 904P</u>	Ram Weight (lbs)	<u>19,800</u>
Design Capacity <u>90</u> tons	Rated Energy <u>25,000</u> ft-lbs	Fall (in)	<u>18</u>

Pile No.	Pile Length	Elevation			Pay Length (ft)	Blows Per Inch						Ave.*	Remarks
		Top	Cut-off	Tip		Final 6 in.							
20	65.50	24.08	11.92	-41.42	53.3	2	3	3	3	3	7	4	Indicator Pile, restruck on 6/7
141A	65.60	38.77	13.73	-26.83	40.6	12	12	12<0.5"					Indicator Pile, refusal, restruck on 6/7

Total Length of Piles Driven Today:	93.90
Total Length of Piles Driven Previously:	0.00
Total Length of Piles Driven To Date:	93.90

\*Required Minimum: 8 avg. (per Contractor's WEAP)

**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

**Additional remarks:**

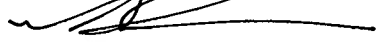
All piles driven with steel driving shoe.

Pile No. 20 was only driven to an average penetration resistance of 4 blows/in. due to miscommunication between Field Rep. and Mr. Chernauskas. Pile will be redriven/restruck on 6/7.

**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:	<u>2</u>
Previous total Number of Piles:	<u>0</u>
Total Number of Piles To Date:	<u>2</u>

  
Registered Engineer



# 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	B. STEINERT
GEN. CONTRACTOR	LEDGEWOOD CONSTRUCTION	DATE	6/6/2007
PILE CONTRACTOR	G. DONALDSON CONSTRUCTION	WFR NO.	3

**PILES:**

Type STEEL H-PILE  
Size HP 14x102  
Design Capacity 170 tons

**HAMMER:**

Type Junttan 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.*			
30	60.50	30.61	17.50	-29.89	47.4	7	11	10<0.5"				Indicator Pile, refusal	
36	60.00	19.10	14.66	-40.90	55.6	2	1	2	2	3	12	Indicator Pile, refusal	
86	60.50	19.50	12.52	-41.00	53.5	8	8	10	9	8	8	9	Indicator Pile, restruct on 6/7
92	60.50	20.42	10.85	-40.08	50.9	15<0.5"							Indicator Pile, refusal
137													see add. remarks, final driving on 6/27
151	60.54	23.62	13.16	-36.92	50.1	2	2	5	10<0.5"				Indicator Pile, refusal, restruct on 6/7, see add. Remarks

Total Length of Piles Driven Today: 257.5  
Total Length of Piles Driven Previously: 93.9  
Total Length of Piles Driven To Date: 351.4

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

**Additional remarks:**

Pile No. 137 did not achieve capacity at the end of initial driving.

Excavation around the pile or splicing is required to continue driving.

All piles driven with steel driving shoe.

**Remarks:**

- Rejected
- Added due to mislocated pile
- Added due to broken pile
- Added due to design change
- Deleted due to design change
- Broken
- Test Pile

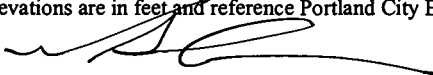
**Notes:**

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

Total Number of Piles Driven Today: 5

Previous total Number of Piles: 2

Total Number of Piles To Date: 7

  
Registered Engineer

**DAILY SUMMARY  
END BEARING PILE INSTALLATION**

<b>PROJECT</b>	OCEAN GATEWAY PARKING GARAGE	<b>H&amp;A FILE NO.</b>	30322-030
<b>LOCATION</b>	PORTLAND, MAINE	<b>PROJECT MGR</b>	W. CHADBOURNE
<b>CLIENT</b>	RIVERWALK, LLC.	<b>FIELD REP</b>	B. STEINERT
<b>GEN. CONTRACTOR</b>	LEDGEWOOD CONSTRUCTION	<b>DATE</b>	6/7/2007
<b>PILE CONTRACTOR</b>	G. DONALDSON CONSTRUCTION	<b>WFR NO.</b>	3

<b>PILES:</b>	<b>HAMMER:</b>		
Type <u>STEEL H-PILE</u>	Type <u>Junttan HHK 9A</u>	Blows per min.	<u>40-100</u>
Size <u>HP 12x53</u>	Cushion <u>Monocast MC 904P</u>	Ram Weight (lbs)	<u>19,800</u>
Design Capacity <u>90 tons</u>	Rated Energy <u>25,000</u> ft-lbs	Fall (in)	<u>18</u>

Pile No.	Pile Length	Elevation			Pay Length (ft)	Blows Per Inch							Remarks
		Top	Cut-off	Tip		Final 6 in.						Ave.*	
13	60.50	26.59	7.92	-33.91	41.8	5	8	8	10	12	10<0.5"		refusal
14	60.63	27.87	7.87	-32.76	40.6	2	2	2	2	10	10<0.5"		refusal
15	60.50	25.63	7.92	-34.87	42.8	2	2	3	4	7	14/0"		refusal
16	60.58	20.63	7.92	-39.95	47.9	7	7	8	8	8	8	8	
17	60.58	20.37	7.91	-40.21	48.1	6	6	7	8	8	10<0.5"		refusal
18	60.63	21.29	7.91	-39.34	47.3	3	3	3	6	16	10/0"		refusal
19	60.58	19.57	11.99	-41.01	53.0	6	6	8	8	8	10<0.5"		refusal
20	65.50	24.08	11.92	-41.42		6	7	8	8	15	10	9	Indic. pile, restrike; initial driving 6/6
21	60.54	19.59	12.01	-40.95	53.0	2	8	6	10	11	10<0.5"		refusal
141A	65.60	32.47	13.73	-33.13		10<0.5							Indic. pile, restrike; initial driving 6/6

Total Length of Piles Driven Today:	374.5
Total Length of Piles Driven Previously:	351.4
Total Length of Piles Driven To Date:	725.9

\*Required Minimum: 8 avg. (per Contractor's WEAP)

**Additional remarks:**

All piles driven with steel driving shoe.

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**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: 8

Previous total Number of Piles: 7

Total Number of Piles To Date: 15

  
 \_\_\_\_\_  
 Registered Engineer

# DAILY SUMMARY END BEARING PILE INSTALLATION

<b>PROJECT</b>	OCEAN GATEWAY PARKING GARAGE	<b>H&amp;A FILE NO.</b>	30322-030
<b>LOCATION</b>	PORTLAND, MAINE	<b>PROJECT MGR</b>	W. CHADBOURNE
<b>CLIENT</b>	RIVERWALK, LLC.	<b>FIELD REP</b>	B. STEINERT
<b>GEN. CONTRACTOR</b>	LEDGEWOOD CONSTRUCTION	<b>DATE</b>	6/7/2007
<b>PILE CONTRACTOR</b>	G. DONALDSON CONSTRUCTION	<b>WFR NO.</b>	3

<b>PILES:</b>	<b>HAMMER:</b>	
Type <u>STEEL H-PILE</u>	Type <u>Junttan HHK 9A</u>	Blows per min. <u>40-100</u>
Size <u>HP 14x102</u>	Cushion <u>Monocast MC 904P</u>	Ram Weight (lbs) <u>19,800</u>
Design Capacity <u>170</u> tons	Rated Energy <u>79,801</u> ft-lbs	Fall (in) <u>30</u>

Pile No.	Pile Length	Elevation			Pay Length (ft)	Blows Per Inch							Remarks
		Top	Cut-off	Tip		Final 6 in.						Ave.*	
5	60.63	33.65	15.00	-26.98	42.0	3	5	4	8	10	10<0.5"	refusal	
6	60.63	34.33	15.00	-26.30	41.3	3	7	8	11	12	10<0.5"	refusal	
7	60.63	33.27	15.00	-27.36	42.4	3	3	5	10	11	10<0.5"	refusal	
8	60.63	34.51	15.00	-26.12	41.1	4	6	8	11	12	10<0.5"	refusal	
9	60.63	32.14	15.00	-28.49	43.5	4	4	4	8	13	10<0.5"	refusal	
10	60.63	32.02	15.00	-28.61	43.6	4	5	6	10	10	10<0.5"	refusal	
11	60.63	28.80	15.00	-31.83	46.8	4	5	9	10	15	10<0.5"	refusal	
12	60.63	29.92	15.00	-30.71	45.7	5	7	8	9	22/1.5"		refusal	
86	60.50	19.50	12.52	-41.00		3	4	6	5	7	7	5	Indicator Pile, restrike; see add. remarks
118													see add. remarks, final driving on 6/26
151	60.54	23.62	13.00	-36.92		13/0"							indicator pile, restrike, refusal

Total Length of Piles Driven Today:	346.4
Total Length of Piles Driven Previously:	725.9
Total Length of Piles Driven To Date:	1072.3

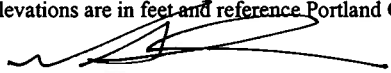
\*Required Minimum: 9 avg. (per Contractor's WEAP)

- 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

**Additional remarks:**  
Pile No. 118 did not achieve capacity at the end of initial driving.  
Excavation around the pile or splicing is required in order to continue driving.  
All piles driven with steel driving shoe.  
Pile No. 86 drove at reduced resistance during restrike as compared to at the end of initial driving, but PDA measured minimal loss of capacity.

- 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:	8
Previous total Number of Piles:	15
Total Number of Piles To Date:	23

  
 \_\_\_\_\_  
 Registered Engineer

## DAILY SUMMARY END BEARING PILE INSTALLATION

<b>PROJECT</b>	OCEAN GATEWAY PARKING GARAGE	<b>H&amp;A FILE NO.</b>	30322-030
<b>LOCATION</b>	PORTLAND, MAINE	<b>PROJECT MGR</b>	W. CHADBOURNE
<b>CLIENT</b>	RIVERWALK, LLC.	<b>FIELD REP</b>	B. STEINERT
<b>GEN. CONTRACTOR</b>	LEDGEWOOD CONSTRUCTION	<b>DATE</b>	6/8/2007
<b>PILE CONTRACTOR</b>	G. DONALDSON CONSTRUCTION	<b>WFR NO.</b>	3

<b>PILES:</b>	<b>HAMMER:</b>	
Type <u>STEEL H-PILE</u>	Type <u>Junttan HHK 9A</u>	Blows per min. <u>40-100</u>
Size <u>HP 12x53</u>	Cushion <u>Monocast MC 904P</u>	Ram Weight (lbs) <u>19,800</u>
Design Capacity <u>90</u> tons	Rated Energy <u>25,000</u> ft-lbs	Fall (in) <u>18</u>

Pile No.	Pile Length	Elevation			Pay Length (ft)	Blows Per Inch						Ave.*	Remarks
		Top	Cut-off	Tip		Final 6 in.							
44	60.50	17.28	12.40	-43.22	55.6	6	6	9	9	10	10<0.5"		refusal
45													see add. remarks, final driving on 6/12
46	60.50	17.22	12.38	-43.28	55.7	3	2	2	3	10	10<0.5"		refusal
47	65.54	22.34	12.39	-43.20	55.6	3	10	10<0.5"					refusal
101													see add. remarks, final driving on 6/26

Total Length of Piles Driven Today:	166.9
Total Length of Piles Driven Previously:	1072.3
Total Length of Piles Driven To Date:	1239.2

\*Required Minimum: 8 avg. (per Contractor's WEAP)

**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

**Additional remarks:**

Pile Nos. 45 and 101 did not achieve capacity at the end of initial driving. Excavation around the piles or splicing is required to continue driving.

All piles driven with steel driving shoe.

**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: 3  
 Previous total Number of Piles: 23  
 Total Number of Piles To Date: 26

\_\_\_\_\_  
 Registered Engineer

# DAILY SUMMARY END BEARING PILE INSTALLATION

<b>PROJECT</b>	OCEAN GATEWAY PARKING GARAGE	<b>H&amp;A FILE NO.</b>	30322-030
<b>LOCATION</b>	PORTLAND, MAINE	<b>PROJECT MGR</b>	W. CHADBOURNE
<b>CLIENT</b>	RIVERWALK, LLC.	<b>FIELD REP</b>	B. STEINERT
<b>GEN. CONTRACTOR</b>	LEDGEWOOD CONSTRUCTION	<b>DATE</b>	6/8/2007
<b>PILE CONTRACTOR</b>	G. DONALDSON CONSTRUCTION	<b>WFR NO.</b>	3

**PILES:**

Type STEEL H-PILE  
 Size HP 14x102  
 Design Capacity 170 tons

**HAMMER:**

Type Junttan 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.*
						6	7	8	9	10	11	12		
1	60.67	45.50	17.80	-15.17	33.0	6	7	6	6	10	10<0.5"	refusal		
2	60.67	44.65	17.80	-16.02	33.8	4	3	3	8	10	10<0.5"	refusal		
3	60.67	38.85	17.80	-21.82	39.6	4	5	5	6	9	10<0.5"	refusal		
4	60.58	48.80	17.80	-11.78	29.6	5	5	12	10	18	10<0.5"	refusal		
26	60.67	17.55	11.97	-43.12	55.1	6	8	10	14	10	10<0.5"	refusal		
27	60.75	17.60	12.02	-43.15	55.2	6	8	10	9	10	10	9		
28												see add. Remarks; final driving on 6/12		
29	60.63	27.08	17.50	-33.55	51.1	5	7	11	11	12	10<0.5"	refusal		
31	60.60	27.75	17.50	-32.85	50.4	8	11	10	11	14	10<0.5"	refusal		
32	60.60	28.75	17.50	-31.85	49.4	5	5	5	14	13	12<0.5"	refusal		
48	60.54	23.35	20.00	-37.19	57.2	3	4	4	7	13	10<0.5"	refusal		
49	60.63	23.33	20.00	-37.30	57.3	7	10	10	9	10	10	9		
50	60.63	24.55	19.90	-36.08	56.0	2	5	6	11	12	10<0.5"	refusal		
51	61.17	23.95	20.00	-37.22	57.2	3	5	7	11	15	10<0.5"	refusal		
65	61.17	26.96	21.30	-34.21	55.5	5	7	9	14	10<0.5"	refusal			
66	61.13	26.90	21.30	-34.23	55.5	5	7	8	11	14	10<0.5"	refusal		
67	61.13	27.00	21.30	-34.13	55.4	15	15	14	15	10<0.5"	refusal			
68	61.13	26.46	21.30	-34.67	56.0	6	8	8	8	12	10	9		

Total Length of Piles Driven Today:	847.1
Total Length of Piles Driven Previously:	1239.2
Total Length of Piles Driven To Date:	2086.3

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

**Additional remarks:**

All piles driven with steel driving shoe.

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Pile No. 28 did not achieve capacity at the end of initial driving.  
 Excavation around pile and/or splicing will be required to complete driving.

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**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

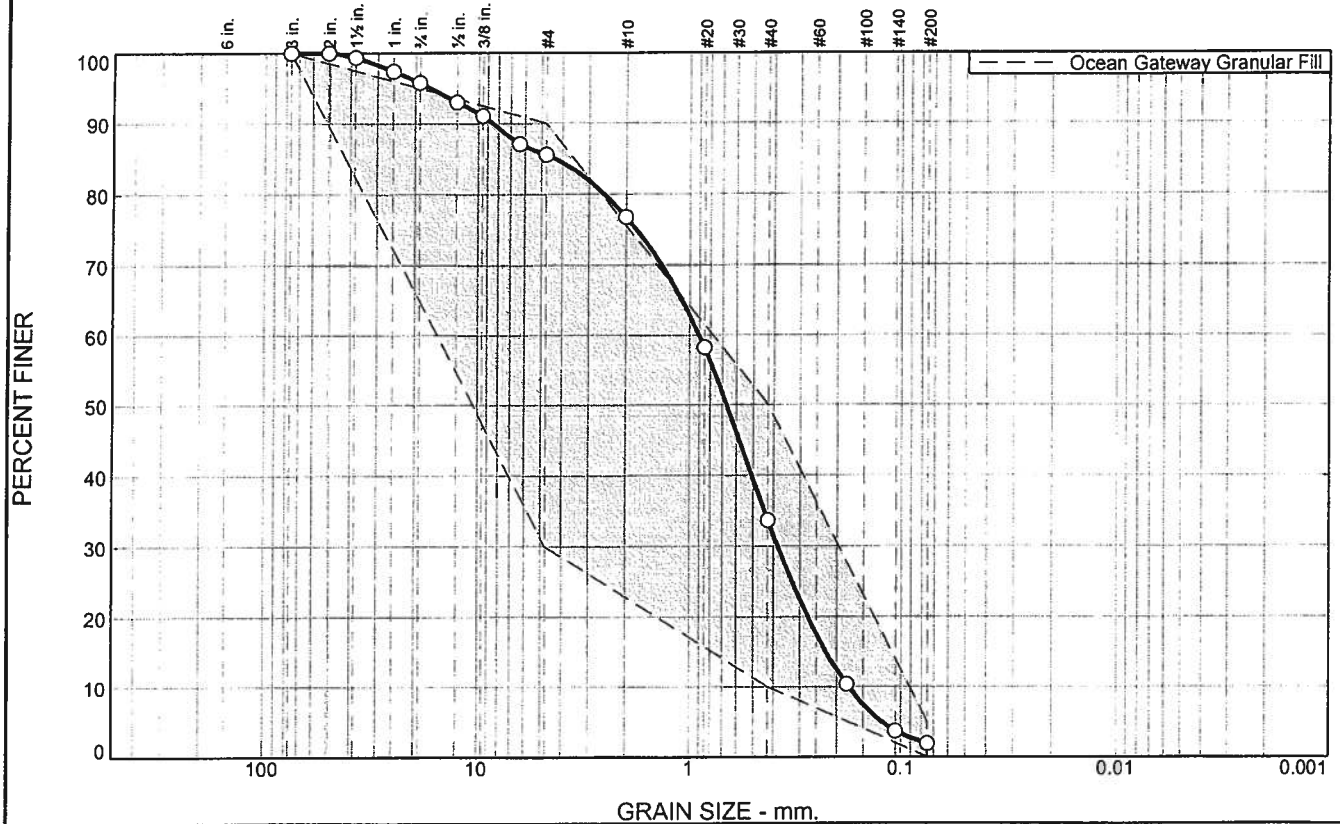
**Notes:**

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: 17  
 Previous total Number of Piles: 26  
 Total Number of Piles To Date: 43

  
 Registered Engineer

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.2	10.2	8.8	43.1	31.8	1.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0	100.0 - 100.0	
2"	100.0		
1 1/2"	99.3		
1"	97.4		
3/4"	95.8		
1/2"	93.0		
3/8"	91.1		
1/4"	87.1		
#4	85.6	30.0 - 90.0	
#10	76.8		
#20	58.3		
#40	33.7	10.0 - 50.0	
#80	10.4		
#140	3.7		
#200	1.9	0.0 - 5.0	

**Soil Description**

Granular Fill - poorly graded sand

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 4.3056      D<sub>60</sub>= 0.9002      D<sub>50</sub>= 0.6654  
 D<sub>30</sub>= 0.3818      D<sub>15</sub>= 0.2249      D<sub>10</sub>= 0.1762  
 C<sub>u</sub>= 5.11              C<sub>c</sub>= 0.92

**Classification**

USCS= SP                      AASHTO=

**Remarks**

Moisture content: 5.4%

\* Ocean Gateway Granular Fill

Sample No.: S-1  
Location:

Source of Sample: Shaw Bros. - Dayton Pit

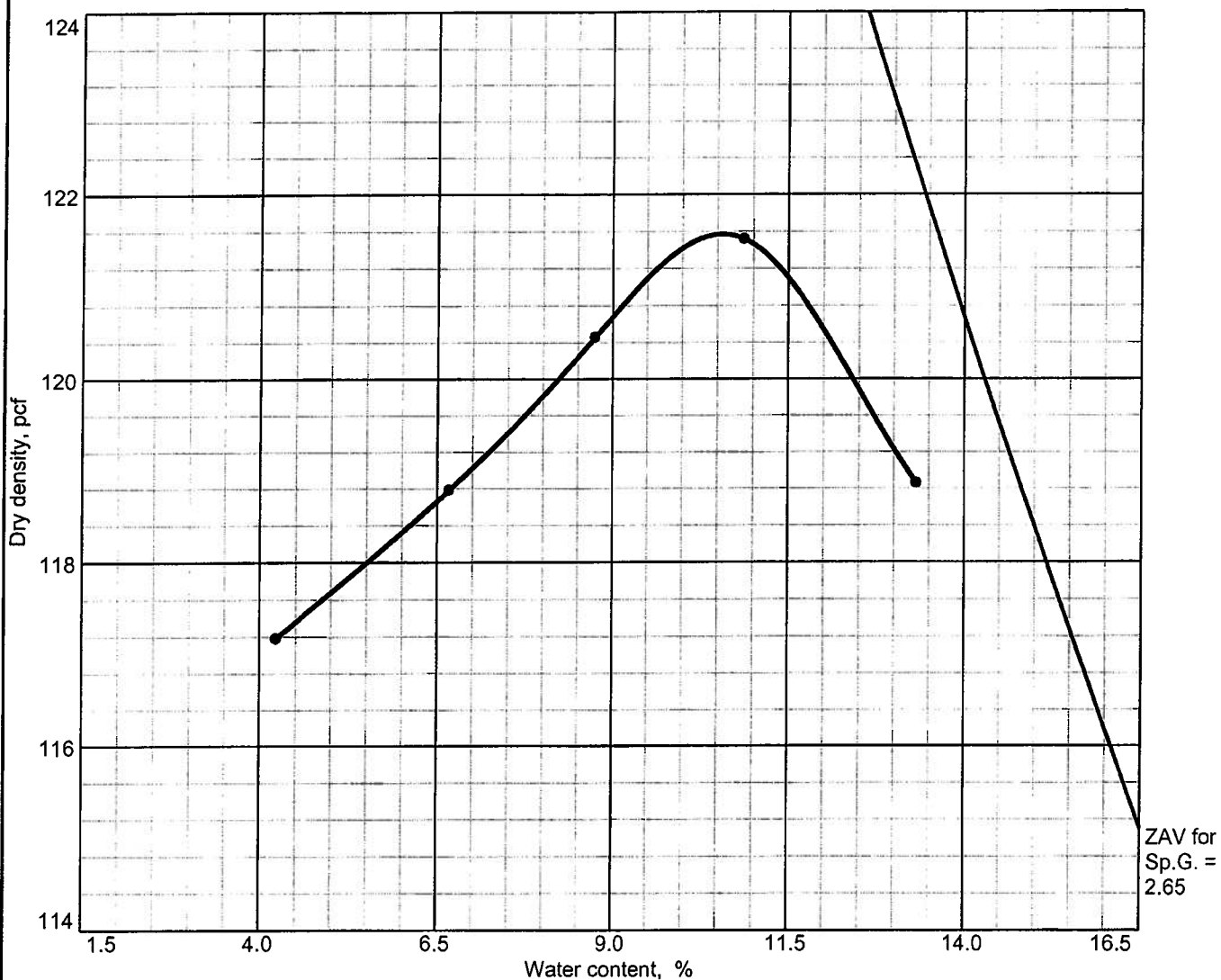
Date: 6/11/07  
Elev./Depth:

<b>R.W. Gillespie &amp; Associates, Inc.</b> Saco, Maine	Client: Haley & Aldrich, Inc. Project: Ocean Gateway Parking Garage Project No: 956-06                      Figure 9420
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Tested By: JTR/DCH

Checked By: MTG *[Signature]*

# Moisture-Density Test Report

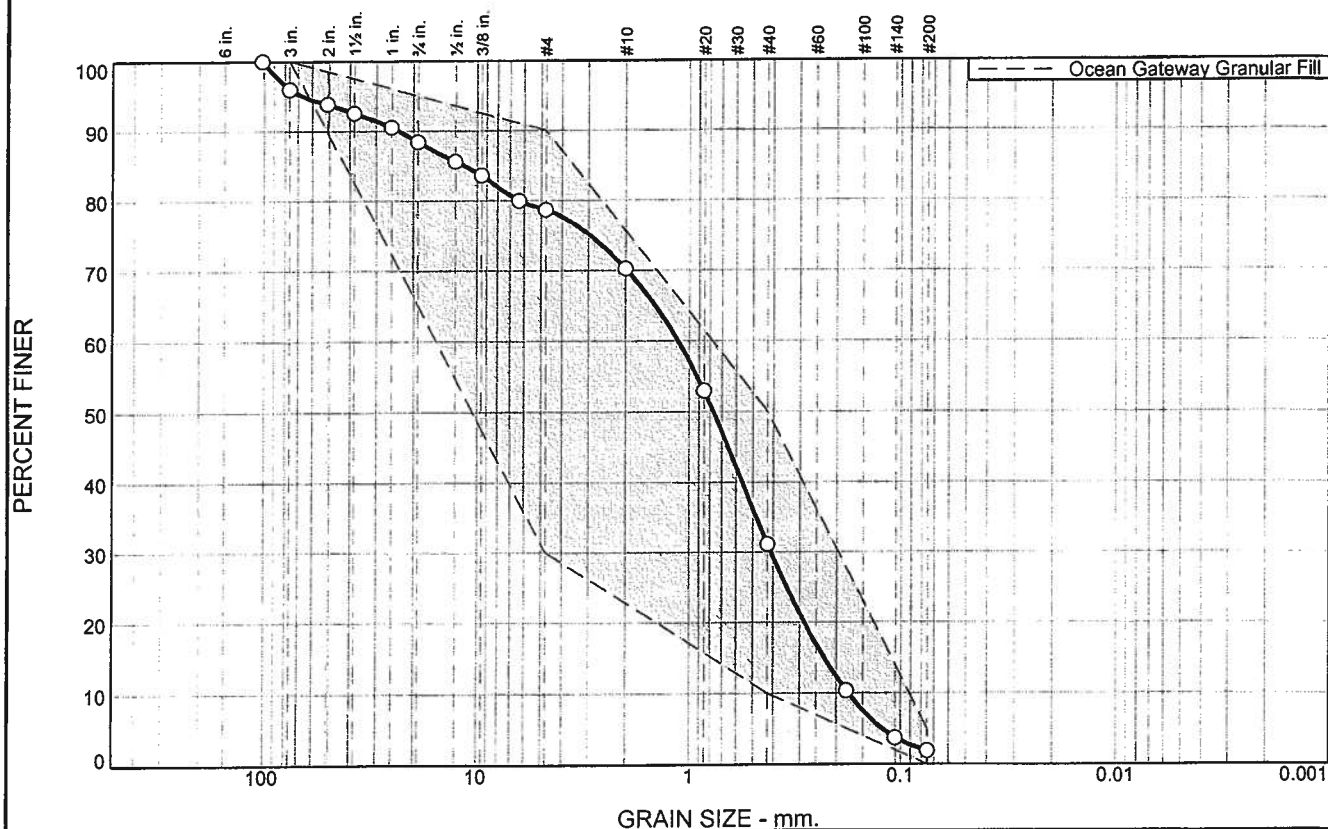


Test specification: ASTM D 1557-91 Procedure A Modified  
 Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
	SP		5.4%				14.4	1.9

ROCK CORRECTED TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 121.6 pcf Optimum moisture = 10.6 %	Granular Fill
<b>Project No.</b> 956-06 <b>Client:</b> Haley & Aldrich, Inc. <b>Project:</b> Ocean Gateway Parking Garage  ● <b>Source:</b> Shaw Bros. - Dayton Pit <b>Sample No.:</b> S-1	<b>Remarks:</b> Tested by: JTR   <div style="text-align: right;"><i>MTB</i></div>
<b>R.W. Gillespie &amp; Associates, Inc.</b> <b>Saco, Maine</b>	

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
4.0	7.6	9.7	8.4	39.2	29.2	1.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
4"	100.0	100.0 - 100.0	X
3"	96.0		
2"	93.9		
1 1/2"	92.5		
1"	90.5	30.0 - 90.0	
3/4"	88.4		
1/2"	85.6		
3/8"	83.6		
1/4"	80.0		
#4	78.7		
#10	70.3		
#20	53.0		
#40	31.1		
#80	10.3		
#140	3.7	0.0 - 5.0	
#200	1.9		

**Soil Description**

Granular Fill - poorly graded sand with gravel

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 11.4989                      D<sub>60</sub>= 1.1249                      D<sub>50</sub>= 0.7664  
D<sub>30</sub>= 0.4095                      D<sub>15</sub>= 0.2294                      D<sub>10</sub>= 0.1766  
C<sub>u</sub>= 6.37                              C<sub>c</sub>= 0.84

**Classification**

USCS= SP                      AASHTO=

**Remarks**

Moisture content: 5.5%

\* Ocean Gateway Granular Fill

Sample No.: S-2  
Location:

Source of Sample: Shaw Bros. - Dayton Pit

Date: 6/11/07  
Elev./Depth:

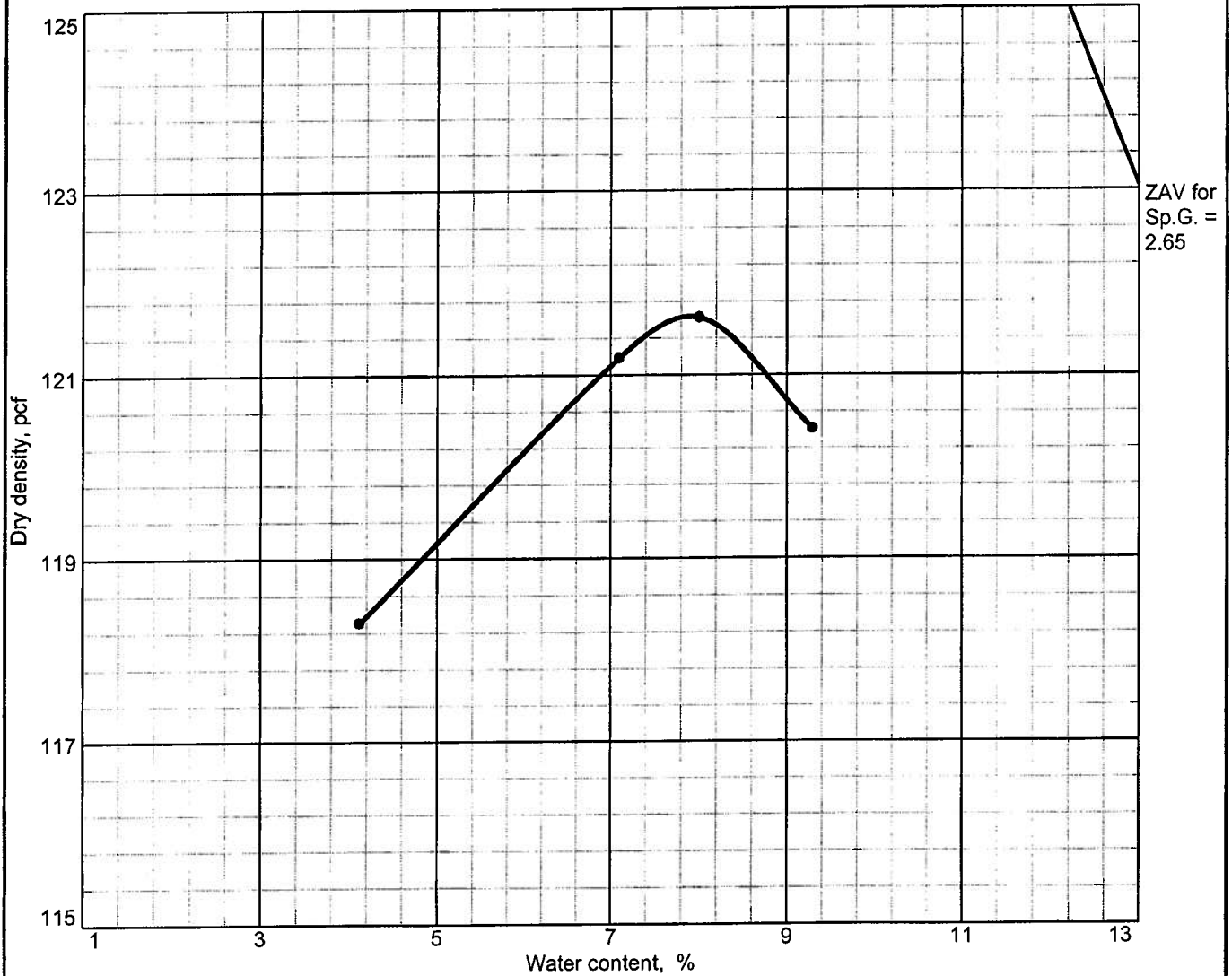
<b>R.W. Gillespie &amp; Associates, Inc. Saco, Maine</b>	Client: Haley & Aldrich, Inc. Project: Ocean Gateway Parking Garage Project No: 956-06	Figure 9421
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Tested By: JTR/DCH

Checked By: MTG *MTG*




# Moisture-Density Test Report



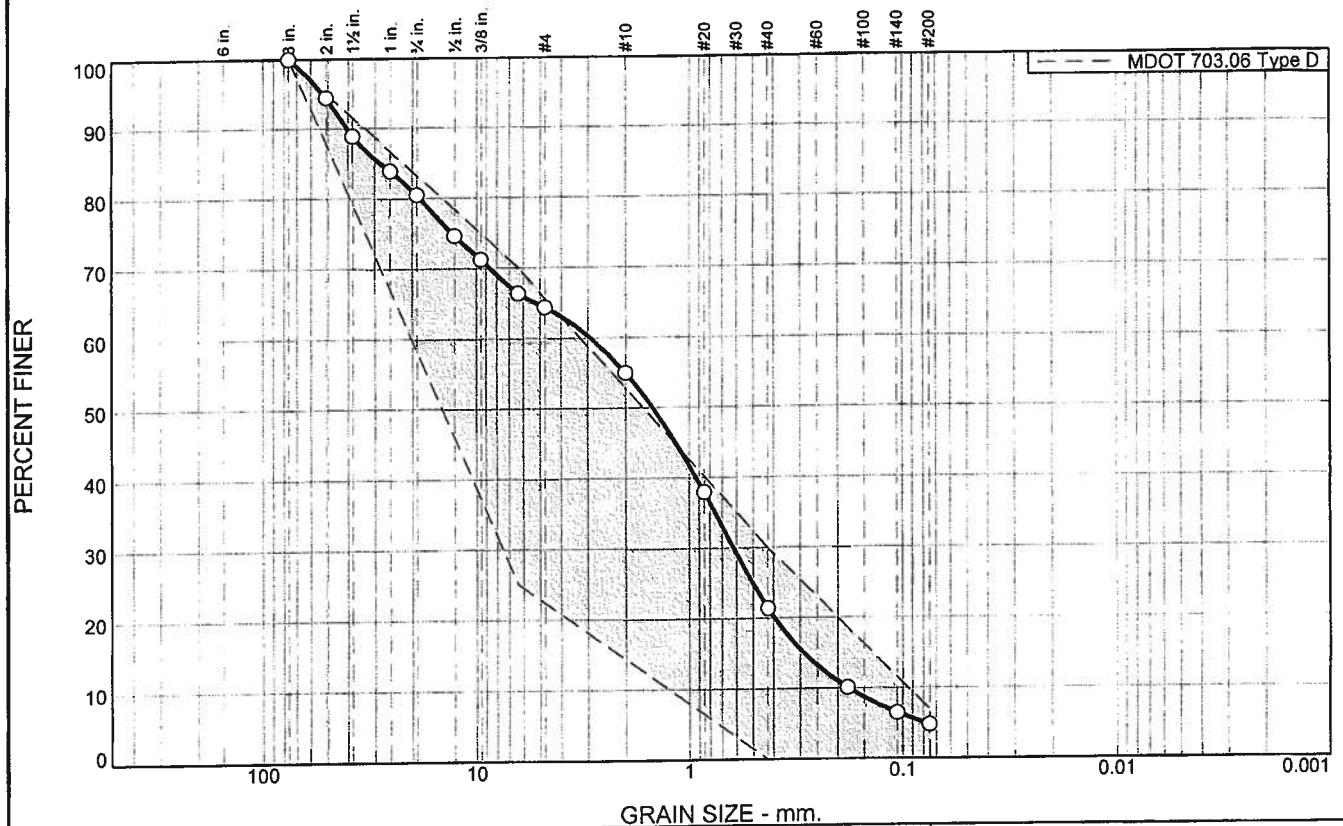
Test specification: ASTM D 1557-91 Procedure B Modified  
 Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
	SP		5.5%				16.4	1.9

ROCK CORRECTED TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 121.6 pcf Optimum moisture = 7.9 %	Granular Fill - poorly graded sand with gravel
<b>Project No.</b> 956-06 <b>Client:</b> Haley & Aldrich, Inc. <b>Project:</b> Ocean Gateway Parking Garage  <b>Source:</b> Shaw Bros. - Dayton Pit <b>Sample No.:</b> S-2 <b>R.W. Gillespie &amp; Associates, Inc.</b> <b>Saco, Maine</b>	<b>Remarks:</b> Tested by: JTR

  
**Figure 9421**

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	19.5	16.1	9.3	33.7	16.6	4.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0	100.0 - 100.0	
2"	94.5		
1 1/2"	89.0		
1"	83.9		
3/4"	80.5		
1/2"	74.6		
3/8"	71.3	25.0 - 70.0	
1/4"	66.4		
#4	64.4		
#10	55.1		
#20	38.0		
#40	21.4	0.0 - 30.0	
#80	10.1		
#140	6.5		
#200	4.8	0.0 - 7.0	

**Soil Description**  
Subbase Gravel - poorly graded sand with gravel

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 28.1428      D<sub>60</sub>= 2.8901              D<sub>50</sub>= 1.4878  
 D<sub>30</sub>= 0.6175        D<sub>15</sub>= 0.2877              D<sub>10</sub>= 0.1775  
 C<sub>u</sub>= 16.29            C<sub>c</sub>= 0.74

**Classification**  
 USCS= SP                      AASHTO=

**Remarks**  
 Moisture content: 3.5%

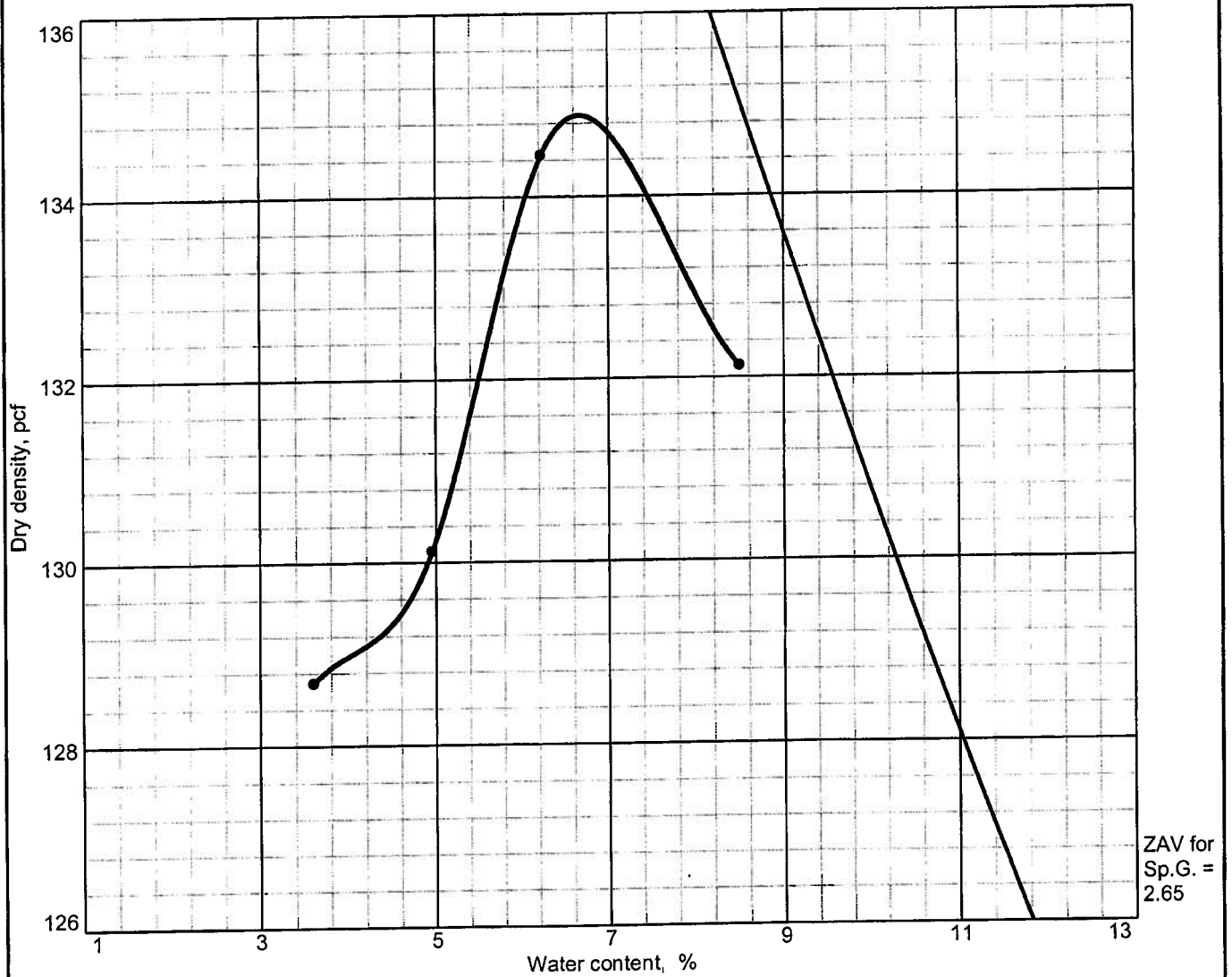
\* MDOT 703.06 Type D

Sample No.: 9423                      Source of Sample: Shaw Bros. - H Pit                      Date: 6/11/07  
 Location: Stockpile                      Elev./Depth:

<b>R.W. Gillespie &amp; Associates, Inc. Saco, Maine</b>	Client: Haley & Aldrich, Inc. Project: Ocean Gateway Parking Garage Project No: 956-06	Lab # 9423
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Tested By: DCH                      Checked By: MTG *MSL*

# Moisture-Density Test Report



Test specification: ASTM D 1557-91 Procedure C Modified  
 Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
	SP		3.5%				19.5	4.8

ROCK CORRECTED TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 134.9 pcf Optimum moisture = 6.7 %	Subbase Gravel
<b>Project No.</b> 956-06 <b>Client:</b> Haley & Aldrich, Inc. <b>Project:</b> Ocean Gateway Parking Garage  ● <b>Source:</b> Shaw Bros. - H Pit <b>Sample No.:</b> 9423 <b>R.W. Gillespie &amp; Associates, Inc.</b> <b>Saco, Maine</b>	<b>Remarks:</b> Tested by: JTR  <div style="text-align: right;"><i>MTB</i></div>
	<b>Figure</b> 9423



*Photograph 1. Installed subsurface stormwater detention structure beneath the entrance roadway off of Middle Street, west of column line 1, looking east (6/4/07).*



*Photograph 2. End of sheeting installed for the support of excavation system parallel to column line 1 north of column line D, looking west (6/4/07).*



*Photograph 3. Installing steel sheeting for the support of excavation system in the northeast building corner, along column line H, looking east (6/5/07).*



*Photograph 4. Subsurface stormwater detention structure backfilled with 1½-in. crushed stone and partially wrapped with geosynthetic fabric, looking southeast (6/5/07).*



*Photograph 5. Spreading a lift of aggregate subbase over the top of the subsurface stormwater detention structure and within the limits of the entrance roadway off of Middle Street, looking south (6/6/07).*



*Photograph 6. The Junttan PM30 piling rig outfitted with a Junttan HHK-9A hydraulic hammer used to install indicator and production piles.*