

## Field Report



Project No.: 05439    Date: 7/6/07  
Project Name: University Credit Union  
Location: Brighton & Taft, Portland, ME  
Weather Conditions: Cloudy, 70s  
Meeting With: Chip

STI Present: Ken Recker

I visited the site at the request of Adam Gilsdorf to observe bearing conditions for footings. At the time of my visit, the Earthwork Contractor, Leavitt Earthworks Company, Inc., excavated for footings to the proposed bearing level. Design indicates that for bearing on sound bedrock, footings may bear at a minimum 2 feet below lowest ground surface exposed to freezing temperatures. The bearing surfaces were excavated to at least 2 feet below lowest ground surface exposed to freezing temperatures. Bearing surfaces generally consisted of from 2 inches to 6 inches of loose, fractured bedrock and soil overlying sound bedrock. I met with Chip, the project superintendent, and indicated that in general, the bearing surfaces were acceptable provided the loose, fractured bedrock and soil (frost susceptible material) were removed from the sound bedrock surface prior to constructing footings.

### DISTRIBUTION:

Joseph Gervais, University Credit Union  
Adam Gilsdorf, Brand Partners  
Roger Domingo, SW Cole Engineering, Inc.

Copies To: \_\_\_\_\_

Signed: *Ken Recker, P.E.*

# Report of Field Density

## ASTM D2922

 Project: **PORTLAND - UNIVERSITY CREDIT UNION - BRIGHTON AVENUE - MATERIALS TESTING**

 Project Number: **07-0559**

 Client: **UNIVERSITY CREDIT UNION**

### Field Density Test Results

Test #	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
1	8/16/2007	CKT	PARKING LOT - WEST SIDE	TOS	12	7221G	132.9	4.1	95.6	95
2	8/16/2007	CKT	PARKING LOT - EAST SIDE	TOS	12	7221G	138.3	3.5	99.5	95
3	8/16/2007	CKT	ATM DRIVE	TOS	12	7221G	132.7	3.5	95.5	95
4	8/2/2007	VLT	INT. - INSIDE MAIN ENTRANCE 2' E & 10' N OF SW CNR	88.6'	8	7221G	133.7	4.0	96.2	95
5	8/2/2007	VLT	INT. - INSIDE MAIN ENTRANCE 2' E & 1' N OF SW CNR	88.6'	8	7221G	134.5	3.6	96.8	95
6	8/2/2007	VLT	INT. - 60' S & 1' S OF NW CNR	88.6'	8	7221G	135.0	3.9	97.1	95
7	8/2/2007	VLT	INT. - 20' W & 2' N OF SE CNR	88.6'	10	7222G	123.5	3.3	95.5	95
8	8/2/2007	VLT	INT. - 60' W & W 1' N OF SE CNR	88.6'	10	7222G	123.3	3.2	95.4	95
9	8/2/2007	VLT	INT. - 10' W & 1' S OF NE CNR	88.6'	10	7221G	137.7	2.9	99.1	95
10	8/2/2007	VLT	INT. - 30' W & 2' S OF NE CNR	88.6'	10	7221G	135.8	2.8	97.7	95

### Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
7221G	8/3/2007	Leavitt - Boundry Rd	Aggregate Subbase (4" Gravel)	ASTM D-1557 Modified C	139.0	5.8	
7222G	8/3/2007	Leavitt - Boundry Rd	Aggregate Base (1" Gravel)	ASTM D-1557 Modified C	129.3	7.9	

Elevation Notes:

Comments:




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 Reviewed By

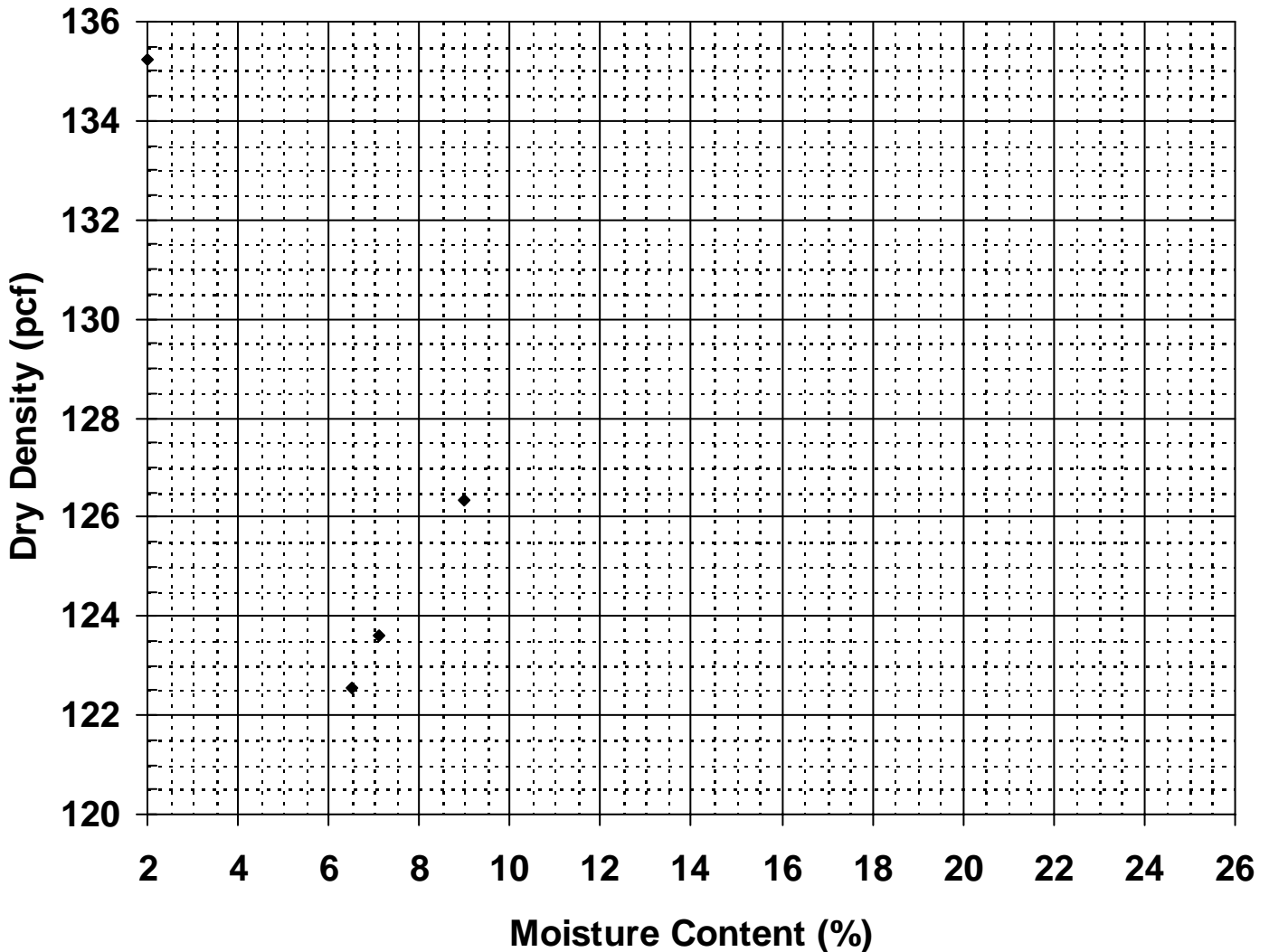
# Report of Moisture-Density

Method **ASTM D-1557 MODIFIED** Procedure **C**

Project Name **PORTLAND - UNIVERSITY CREDIT UNION - BRIGHTON AVENUE - MATERIALS TESTING**  
 Client **UNIVERSITY CREDIT UNION**  
 Material Type **AGGREGATE BASE (1" GRAVEL)**  
 Material Source **LEAVITT - BOUNDARY RD**

Project Number **07-0559**  
 Lab ID **7222G**  
 Date Received **8/3/2007**  
 Date Completed **8/8/2007**  
 Tested By **JUSTIN BISSON**

## Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 126.6  
 Optimum Moisture Content (%) 8.6  
 Percent Oversized 10.5%

Corrected Dry Density (pcf) **129.3**  
Corrected Moisture Content (%) **7.9**



Comments **USED AS INTERIOR BACKFILL**

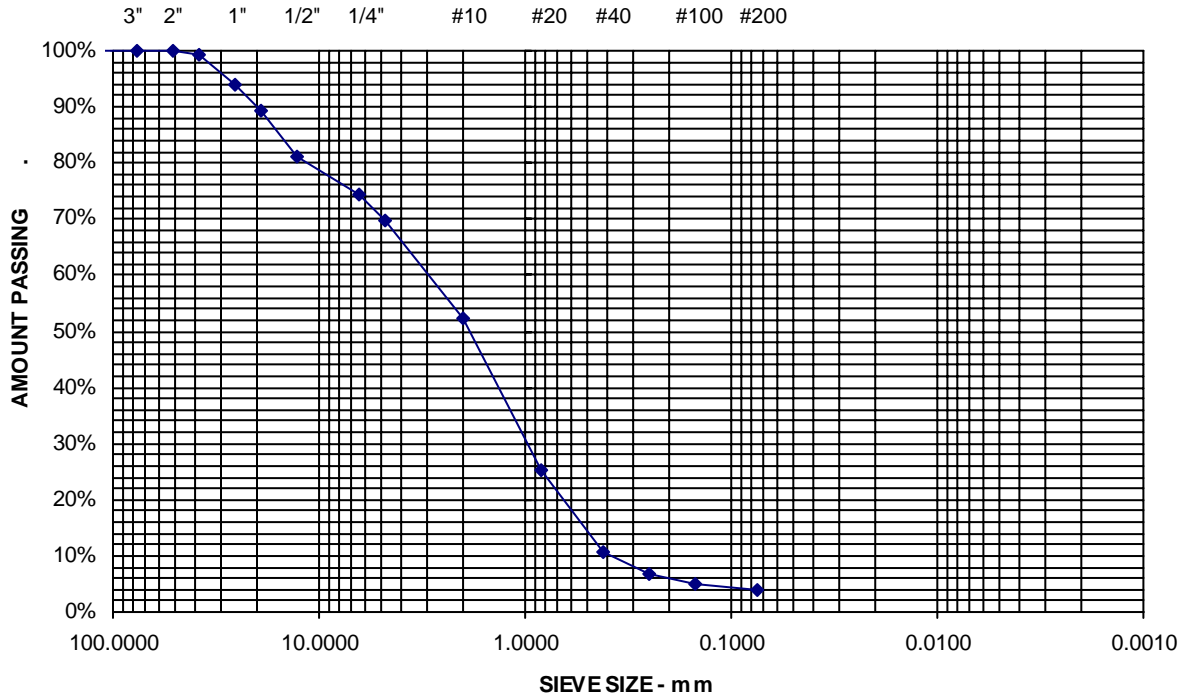
Roger E. Domingo

Project Name PORTLAND - UNIVERSITY CREDIT UNION - BRIGHTON AVENUE - MATERIALS TESTING  
 Client UNIVERSITY CREDIT UNION  
 Material Type AGGREGATE BASE (1" GRAVEL)  
 Material Source LEAVITT - BOUNDARY RD

Project Number 07-0559  
 Lab ID 7222G  
 Date Received 8/3/2007  
 Date Complete 8/6/2007  
 Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (MM/μM)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING(%)</u>	<u>MDOT TYPE A Specifications (%)</u>	<u>05-1238 Structural Fill Specifications (%)</u>
150 mm	6"	100		
125 mm	5"	100		
100 mm	4"	100		
75 mm	3"	100		100
50 mm	2"	100	100	
38.1 mm	1-1/2"	99		
25.0 mm	1"	94		
19.0 mm	3/4"	89		
12.5 mm	1/2"	81	45 - 70 †	
6.3 mm	1/4"	74	30 - 55 †	
4.75 mm	No. 4	70		30 - 90
2.00 mm	No. 10	52		
850 μm	No. 20	25		
425 μm	No. 40	11	0 - 20	10 - 50
250 μm	No. 60	7		
150 μm	No. 100	5		
75 μm	No. 200	3.8	0 - 5	0 - 8

† SAMPLE DOES NOT MEET SPECIFICATION



Comments USED AS INTERIOR STRUCTURAL FILL

Roger E. Domingo

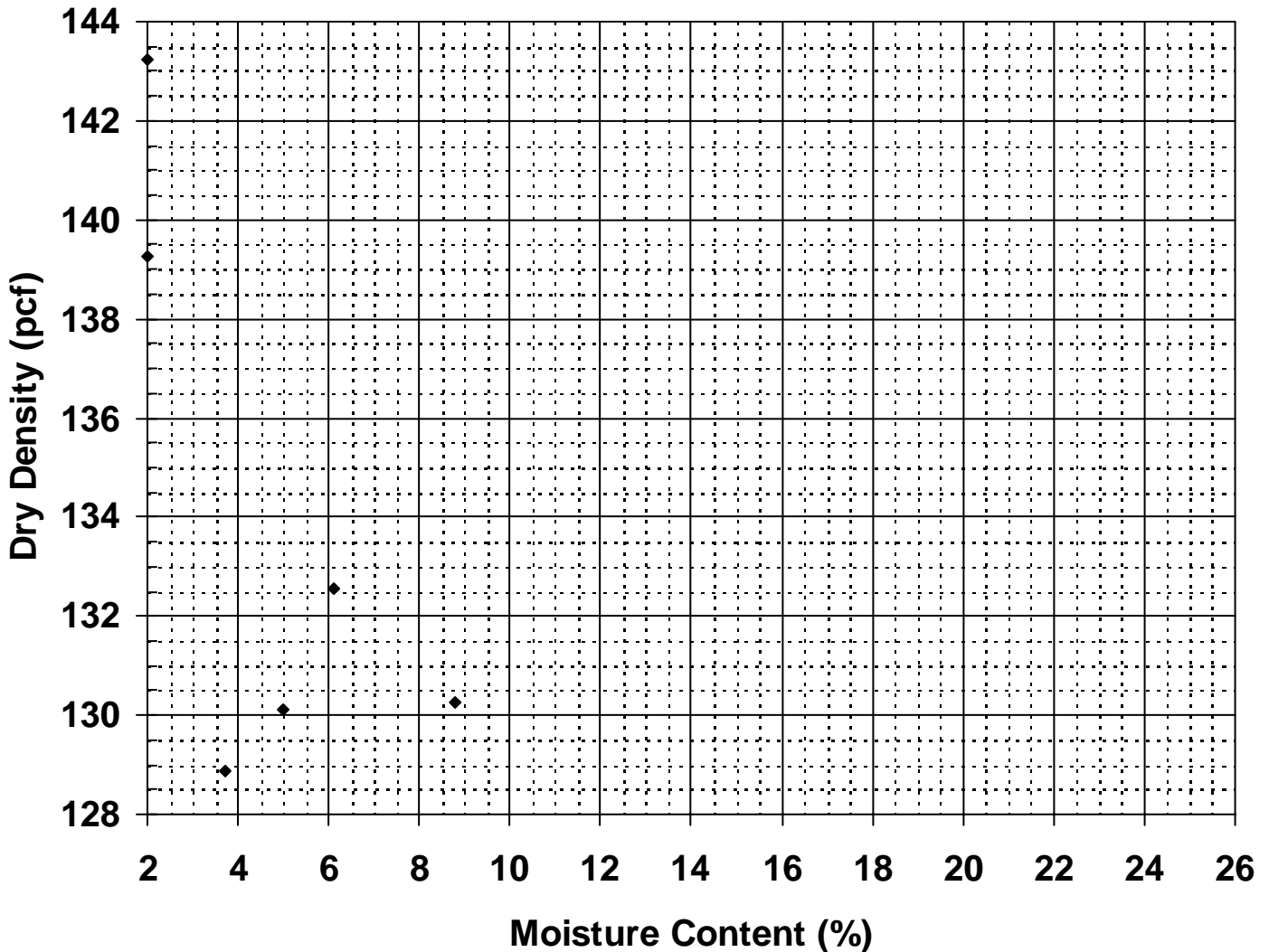
# Report of Moisture-Density

Method **ASTM D-1557 MODIFIED** Procedure **C**

Project Name PORTLAND - UNIVERSITY CREDIT UNION - BRIGHTON AVENUE - MATERIALS TESTING  
 Client UNIVERSITY CREDIT UNION  
 Material Type AGGREGATE SUBBASE (4" GRAVEL)  
 Material Source LEAVITT - BOUNDARY RD

Project Number 07-0559  
 Lab ID 7221G  
 Date Received 8/3/2007  
 Date Completed 8/7/2007  
 Tested By JUSTIN BISSON

## Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 133.1  
 Optimum Moisture Content (%) 7.2  
 Percent Oversized 27.6%

Corrected Dry Density (pcf) **139**  
Corrected Moisture Content (%) **5.8**



Comments USED AS INTERIOR BACKFILL

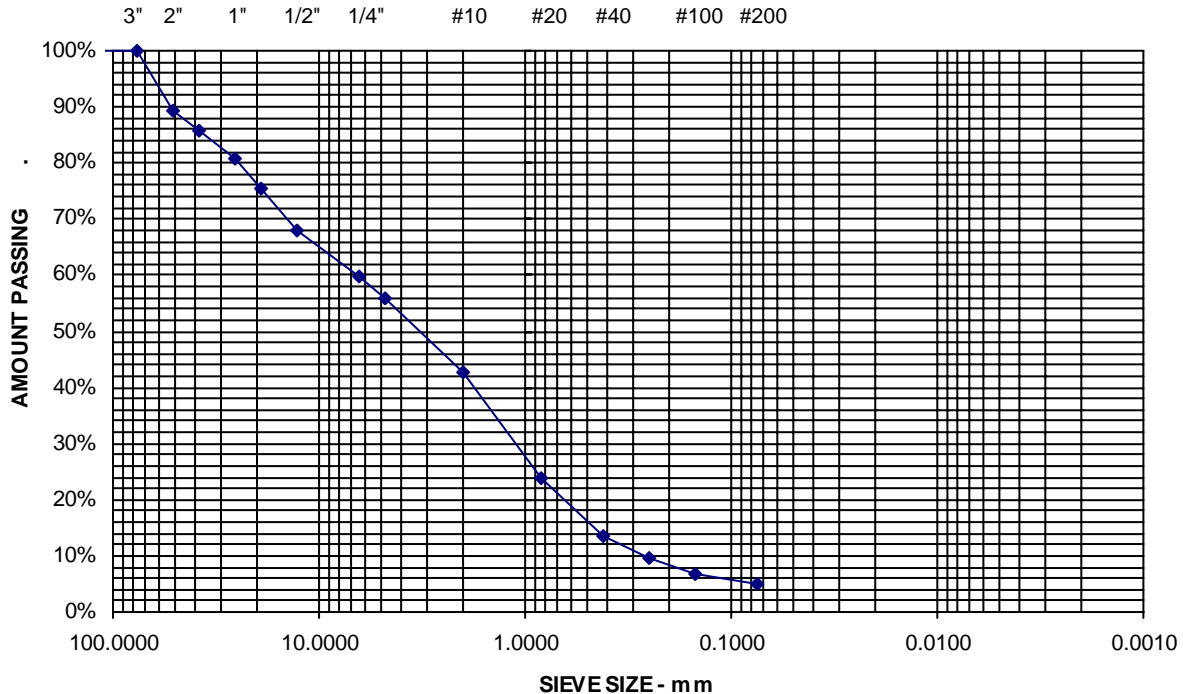
Roger E. Domingo

Project Name PORTLAND - UNIVERSITY CREDIT UNION - BRIGHTON AVENUE - MATERIALS TESTING  
 Client UNIVERSITY CREDIT UNION  
 Material Type AGGREGATE SUBBASE (4" GRAVEL)  
 Material Source LEAVITT - BOUNDARY RD

Project Number 07-0559  
 Lab ID 7221G  
 Date Received 8/3/2007  
 Date Complete 8/6/2007  
 Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (MM/μM)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING(%)</u>	<u>MDOT 703 06 Type D Specifications (%)</u>	<u>05-1238 Structural Fill Specifications (%)</u>
150 mm	6"	100	100	
125 mm	5"	100		
100 mm	4"	100		
75 mm	3"	100		100
50 mm	2"	89		
38.1 mm	1-1/2"	86		
25.0 mm	1"	81		
19.0 mm	3/4"	75		
12.5 mm	1/2"	68		
6.3 mm	1/4"	60	25 - 70	
4.75 mm	No. 4	56		30 - 90
2.00 mm	No. 10	43		
850 μm	No. 20	24		
425 μm	No. 40	13	0 - 30	10 - 50
250 μm	No. 60	10		
150 μm	No. 100	7		
75 μm	No. 200	4.8	0 - 7	0 - 8

SAMPLE MEETS SPECIFICATION



Comments USED AS INTERIOR STRUCTURAL FILL

Roger E. Domingo