02191565.0004 **Report Number: Service Date:** 03/06/20 **Report Date:** 03/11/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building pad and Site backfill (See attached diagram)

Material Type Tested: Weathered Shale, gray

02191565.0002A **Proctor No.: Compaction Equipment:** Sheepsfoot roller

Contractor placing the fill: Larry Bair Construction

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0% to 4% above optimum moisture content, obtained from geotechnical report

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of native soil. The elevation at the test locations today was from 14 feet below finished grade as provided by Norm with Axiom.

Tests:

Terracon performed 5 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition. **Services:**

Terracon Rep.: Kevin Hollis **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Minis

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials. Page 1 of 1

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0004

Service Date: 03/06/20 **Report Date:** 03/11/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Mate	rial Information		Lab To	est Data	Project Requirements		
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002A	Weathered Shale trace Gravel, gray	ASTM D698	15.3	112.6	15.3 - 18.3	Min 95

Field	Test Data		Probe	Wet	Water	Water	Dry	Percent	
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)	Content (%)	Density (pcf)	Compaction (%)
	Mass Fill				<u> </u>	(1)		(I)	
1	38.916092N 94.413989 W	-13'4"	1	6	132.8	19.6	17.3	113.2	100+
2	38.915919N 94.413851W	-13'4"	1	6	130.4	18.7	16.7	111.7	99
3	38.916086N 94.413726W	-12'8"	1	6	132.1	19.4	17.2	112.7	100
4	39.916099N 94.413935W	-12'8"	1	6	130.3	20.1	18.2	110.2	98
5	38.915921N 94.414261W	-12'8"	1	6	129.2	18.0	16.2	111.2	99

Datum: Top of Ground **Std. Cnt. M:**688 Std. Cnt. D: 2081 37061 Make: TROXLER Model: 3430 Last Cal. Date: 10/23/2019

Comments: Test and/or retest results on this report meet project requirements as noted above.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture **Services:**

condition.

Terracon Rep.: Kevin Hollis Reported To: Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

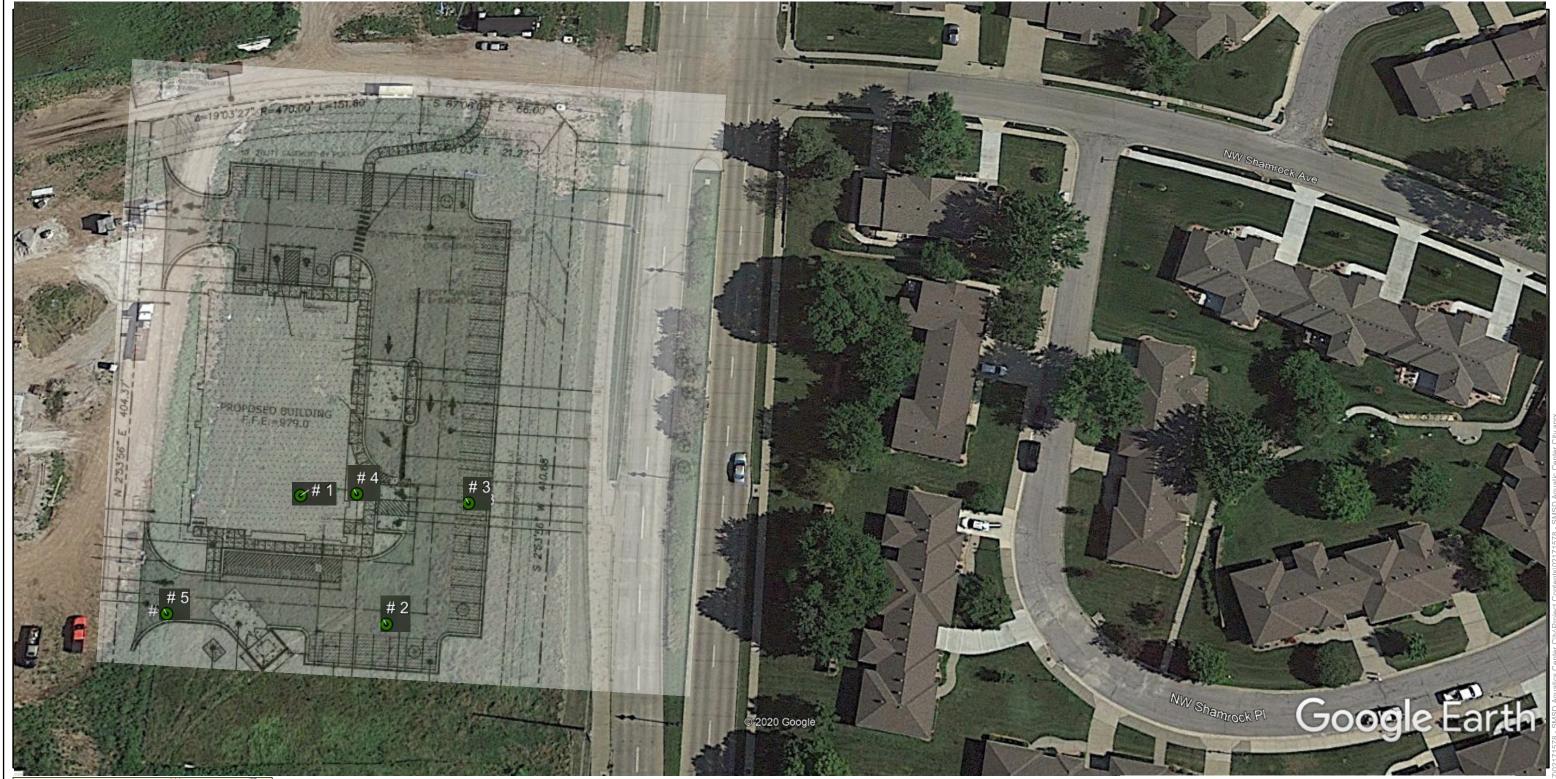
(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Ja & Muir Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





Field Density Test Status

Pass -- 5 Test(s)

Report No.:
02191565.0004
Service Date:
03/06/2020
Technician:
Kevin Hollis

Nuclear Field Density Testing

terracon.com Observed Locations

DCI - Lee's Summit

Exhibit

Report Number: 02191565.0006 **Service Date:** 03/07/20 **Report Date:** 03/11/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building pad and Site backfill (See attached diagram)

Material Type Tested: Weathered Shale, yellowish brown; Weathered Shale, gray

02191565.0002B; 02191565.0002A **Proctor No.:**

Compaction Equipment: Sheepsfoot roller

Contractor placing the fill: Larry Bair Construction

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0% to 4% above optimum moisture content, obtained from geotechnical report

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill. The elevation at the test locations today was from 966 to 971, as estimated from site grade stakes.

Tests:

Terracon performed 7 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition. **Services:**

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muin

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10 Page 1 of 1

Report Number: 02191565.0006 **Service Date:** 03/07/20 **Report Date:** 03/11/20

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Suite 101

DCI - Lee's Summit

2001 Shamrock Rd

Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Material Information							Lab T	est Data	Project Requirements		
Mat. No.	Proctor Ref. No.		tion and Des	cription		oratory Method	Optimum Water Content (%)	Max. Lab Density (pcf)	Water Content (%)	Compaction (%)	
1	02191565.0002B	Weathered S yellowish bro	Shale trace Gravel,				M D698	19.8	103.5	19.8 - 23.8	Min 95
2	02191565.0002A	•	ed Shale trace Gravel, gray		ASTM D698		15.3	112.6	15.3 - 19.3	Min 95	
	Test Data		T 10: /	3.5	Probe	Wet	Water	Water	Dry	Percent	
Test No.	Test Lo	cation	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)	Content (%)	Density (pcf)	Compaction (%)	
	Site Fill (See Attac	ched Diagram)								
1 2	Y: 38.91610, X: - Y: 38.91639, X: -		966.5 971	1 1	8 8	128.7 128.0	22.2 22.1	20.8 20.9	106.5 105.9	100+ 100+	
	Building Pad										
3 4	Y: 38.91616, X: - Y: 38.91636, X: -		969 971	2 1	8 8	127.8 125.3	20.2 21.7	18.8 20.9	107.6 103.6	96 100	
	Site Fill										
5	Y: 38.91614, X: -	94.41385	969	1	8	126.0	22.2	21.4	103.8	100	
	Building Pad										
6	Y: 38.91622, X: -	94.41409	970	1	8	126.5	21.7	20.7	104.8	100+	
	Site Fill										

8

Model:

Comments: Test and/or retest results on this report meet project requirements as noted above.

966

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

1

condition.

Y: 38.91603, X: -94.41396

Make: TROXLER

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

Datum: Civil Elevation

36256

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

7

S/N:

Reviewed By:

123.6

3430

23.3

Project Manager

100.3

97

Std. Cnt. D: 1995

Last Cal. Date: 10/24/2019

23.2

Std. Cnt. M: 644

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 1 of 1

CR0007, 11-16-12, Rev.7





Field Density Test Status

Pass -- 7 Test(s)

Report No.:
02191565.0006
Service Date:
03/07/2020
Technician:
Carl Creamer

Technician:

Carl Creamer

Scale:

1" = 80'



13910 West 96th Terr Lenexa, KS 66215
PH. (913) 998 7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing
Observed Locations

Exhibit

 Report Number:
 02191565.0007

 Service Date:
 03/07/20

 Report Date:
 03/11/20

Report Date: 03/11/20

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway Suite 101

Everett, WA 98201

DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Project Number: 02191565

Observed/Tested Location: Building Pad and Site backfill (See attached diagram)

Material Type Tested: Weathered shale trace gravel, yellowish brown

Proctor No.: 02191565.0002B

Compaction Equipment: Sheepsfoot roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698

Specified moisture %: 0% to 4% above optimum moisture content, obtained from geotechnical report

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill.

Tests:

Terracon performed 2 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition.

Terracon Rep.: Todd Lawler

Reported To: Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Feras El-musseln

Suf Muir

Project Manager

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0007 **Service Date:** 03/07/20

Report Date: 03/11/20

Task: 01 - Earthwork Observation and Testing



Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Mater	ial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002B	Weathered Shale trace Gravel,	ASTM D698	19.8	103.5	19.8 - 23.8	Min 95
		yellowish brown					

Field	Test Data	Probe	Wet	Water	Water	Dry	Percent		
Test	Tost Location	Lift /	Mat.	Depth	Density	Content	Content	Density	Compaction
No.	Test Location	Elev.	No.	<u>(in)</u>	(pcf)	(pcf)	(%)	(pcf)	(%)
	Building Pad (See Attached Dia	gram)							
1	Y: 38.91611, X: -94.41408	970'	1	8	121.5	22.1	22.2	99.4	96
2	Y: 38.91639, X: -94.41392	972'	1	8	122.6	21.8	21.6	100.8	97

Datum: Civil Elevation

S/N: Make: Model: Last Cal. Date:

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Todd Lawler **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Feras El-Glassein Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 1 of 1

CR0007, 11-16-12, Rev.7





Field Density Test Status

• Passing -- 2 Test(s)

Report No.: 02191565.0007 Service Date: 03/07/2020 Technician:

Todd Lawler
Scale:
1" = 80'



13910 West 96th Terr Lenexa, KS 66215
PH. (913) 998 7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing
Observed Locations

Exhibit

Report Number: 02191565.0009 **Service Date:** 03/26/20 **Report Date:** 04/02/20

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St Lenexa, KS 66219-5102 913-492-7777

1 4

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Mass fill

Material Type Tested: Weathered Shale trace Gravel, yellowish brown

Proctor No.: 02191565.0002B

Compaction Equipment: Pad Foot Roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0 to 4% above optimum moisture content, as obtained from the geotechnical report.

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill. The elevation at the test locations today was approximately 974 feet, but the GPS was not set up and this was only an estimate provided by Larry Baier .

Tests:

Terracon performed 4 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. Two of the four tests performed met the project specifications for compaction and moisture content, the other two were retested on April 2, 2020 (refer to Terracon Report No. 02191565.0012 for retests).

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Report Number: Service Date:

02191565.0009

 Service Date:
 03/26/20

 Report Date:
 04/02/20

 Task:
 01 - Earth

04/02/20 01 - Earthwork Observation and Testing Jerracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings
2001 Shamrock Rd
2232 Broadway
Lee's Summit, MO
Suite 101

Everett, WA 98201 Project Number: 02191565

Results of the test performed by Terracon were reported to Norm with Axiom Construction before leaving the project site.

Services:

Terracon Rep.: Kevin Hollis

Reported To: Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Sallhuir Feras El-Gussein

Project Manager

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 2 of 2

Report Number: 02191565.0009 **Service Date:** 03/26/20

Report Date:

04/02/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Mater	rial Information	r		Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002B	Weathered Shale trace Gravel,	ASTM D698	19.8	103.5	19.8 - 23.8	Min 95
		yellowish brown					

Field	Field Test Data			Probe	Wet	Water	Water	Dry	Percent
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth	Density	Content	Content	Density	Compaction
110.		_ Elev.	110.	<u>(in)</u>	(pcf)	(pcf)	(%)	(pcf)	(%)
	Mass Fill								
1	38.916142N -94.413994W	974	1	6	120.8	21.9	22.1	98.9	96
2	38.916461N -94.413720W	974	1	6	116.5	17.3	17.4 *	99.2	96
3	39.916328N -94.413940W	974	1	6	122.0	19.9	19.5 *	102.1	99
4	38.916092N -94.413898W	974	1	6	125.9	22.0	21.2	103.9	100
	a								

Datum: Civil Elevation

Model: Last Cal. Date: S/N: Make:

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services:

Terracon Rep.: Kevin Hollis **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

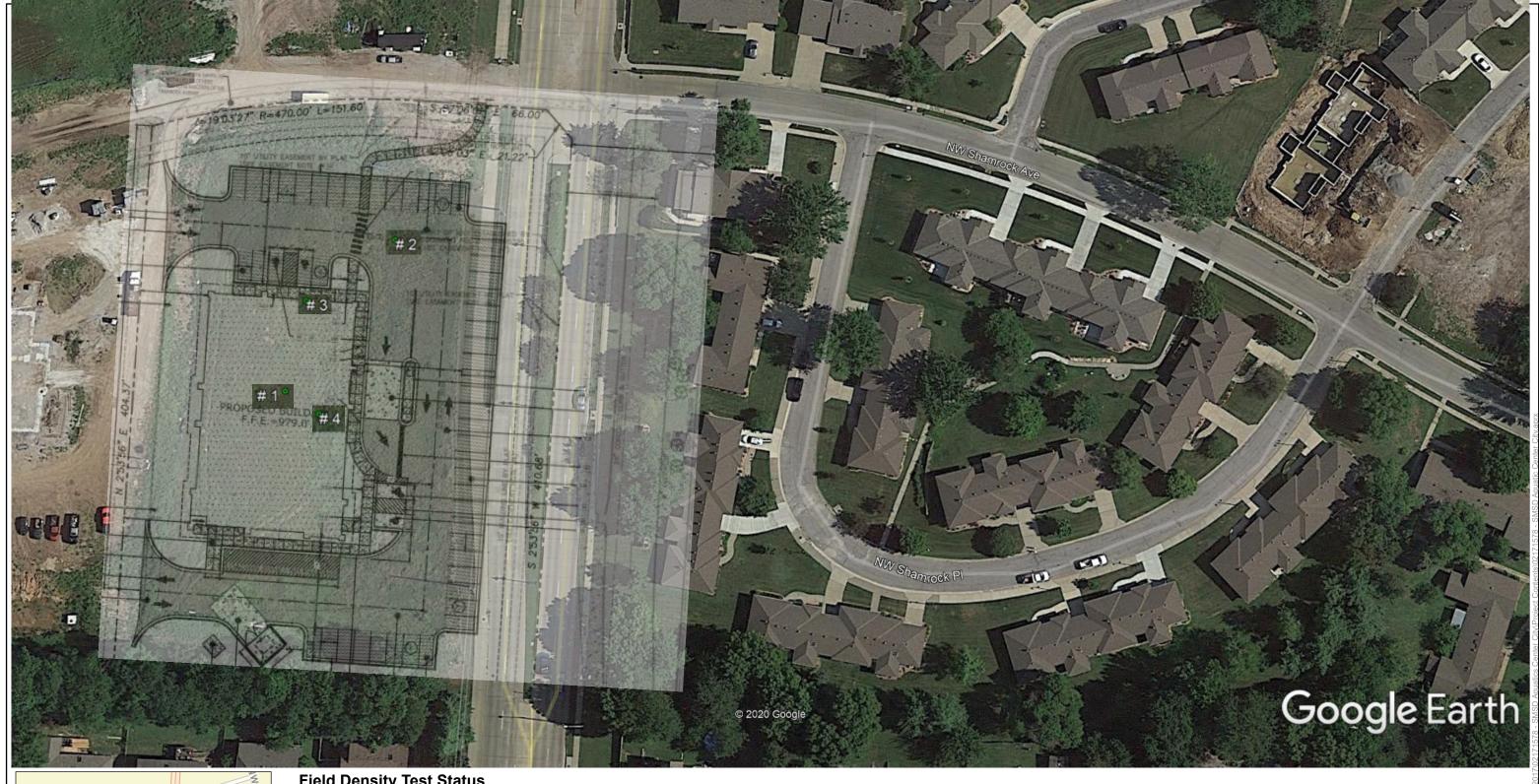
(1) Axiom Northwest Construction, Inc., norm@axiomnw.com

Reviewed By:

Suff Minic Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





Field Density Test Status

Pass -- 4 Test(s)

Report No.: 02191565.0009 Service Date: 03/26/2020 Technician:

Consulting Engineers & Scientists

13910 West 96th Terr Lenexa, KS 66215 PH. (913) 998 7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing **Observed Locations**

Exhibit

 Report Number:
 02191565.0010

 Service Date:
 03/31/20

 Report Date:
 04/03/20

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

DCI - Lee's Summit

2001 Shamrock Rd

Lee's Summit, MO

Client Project

Axiom Northwest Construction, Inc.
Attn: Norm Hellings
2232 Broadway
Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building Pad and Parking Lot Fill

Material Type Tested: Weathered Shale trace Gravel, yellowish brown.

Proctor No.: 02191565.0002B **Compaction Equipment:** Pad Foot Roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698).

Specified moisture %: 0% to +4% above optimum moisture content, as obtained from the geotechnical

report.

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 10-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill.

Tests:

Terracon performed 6 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Norm with Axiom Construction before leaving the project site.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition.

Terracon Rep.: Caleb Brewer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Feras El-musseln

Suff Muin

Project Manager

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10 Page 1 of 1

Report Number: 02191565.0010 **Service Date:** 03/31/20

Report Date: 04/03/20

Task: 01 Farthwork Observation

Task: 01 - Earthwork Observation and Testing

Terracon

Lenexa, KS 66219-5102

913-492-7777

Std. Cnt. M:620

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings
2001 Shamrock Rd
2232 Broadway
Lee's Summit, MO
Suite 101

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements	
				Optimum		***	
	_			Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002B	Weathered Shale trace Gravel,	ASTM D698	19.8	103.5	19.8 - 23.8	Min 95
		yellowish brown					

Field	Test Data			Probe	Wet	Water	Water	Dry	Percent
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)	Content (%)	Density (pcf)	Compaction (%)
	Building Pad (See Attached Dia	gram)							
1	Y: 38.91613, X: -94.41412	971.4'	1	6	122.3	20.8	20.5	101.5	98
2	Y: 38.91633, X: -94.41410	973.0'	1	6	123.9	20.6	19.9	103.3	100
	Parking Lot								
3	Y: 38.91607, X: -94.41377	970.0'	1	8	123.9	21.8	21.4	102.1	99
4	Y: 38.91624, X: -94.41383	972.3'	1	8	125.3	22.2	21.5	103.1	100
5	Y: 38.91650, X: -94.41373	974.8'	1	8	122.3	20.2	19.8	102.1	99
6	Y: 38.91593, X: -94.41382	968.5'	1	8	119.6	21.4	21.8	98.2	95

S/N: 36264 Make: TROXLER Model: 3430 Last Cal. Date: 10/21/2019

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Caleb Brewer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

Datum: Civil Elevation (feet)

norm@axiomnw.com

Reviewed By:

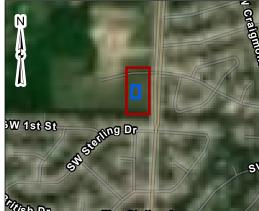
Project Manager

Std. Cnt. D: 1933

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





• Pass -- 6 Test(s)

Report No.: 01191565.0010 Service Date: 03/31/2020 Technician: 15620 W 113th Street

1" = 30'

Lenexa, KS 66219 PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing **Observed Locations**

Exhibit

02191565.0011 **Report Number: Service Date:** 04/01/20 **Report Date:** 04/03/20

Task: 01 - Earthwork Observation and Testing

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway

DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building Pad and Parking Lot Fill

Material Type Tested: Weathered Shale trace Gravel, yellowish brown.

02191565.0002B **Proctor No.: Compaction Equipment:** Pad Foot Roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698).

Specified moisture %: 0% to +4% above optimum moisture content, as obtained from the geotechnical

report.

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill.

Tests:

Terracon performed 3 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Norm with Axiom Construction before leaving the project site.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition. Services:

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0011 **Service Date:** 04/01/20 **Report Date:** 04/03/20

Task: 01 - Earthwork Observation and Testing

Terracon
15620 W 113th St

Lenexa, KS 66219-5102 913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Mater	rial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002B Weathered Shale trace Gravel,		ASTM D698	19.8	103.5	19.8 - 23.8	Min 95
		yellowish brown					

Field	Test Data			Probe	Wet	Water	Water	Drv	Percent
Test	Took I anadian	Lift /	Mat.	Depth	Density	Content	Content	Density	Compaction
No.	Test Location	Elev.	No.	<u>(in)</u>	(pcf)	(pcf)	<u>(%)</u>	(pcf)	(%)
	Building Pad (See Attached Dia	gram)							
1	Y: 38.91638, X: -94.41396	974.0'	1	8	124.0	22.4	22.0	101.6	98
2	Y: 38.91632, X: -94.41417	974.0'	1	8	123.7	22.6	22.4	101.1	98
3	Y: 38.91617, X: -94.41421	973.0'	1	8	123.2	21.8	21.5	101.4	98

Datum: Civil Elevation (feet)

S/N: Make:

Model:

Std. Cnt. M:643 Std. Cnt. D: 1977

Last Cal. Date:

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Project Manager

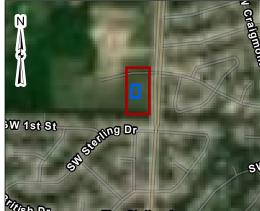
Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 1 of 1

CR0007, 11-16-12, Rev.7





Pass -- 3 Test(s)

Report No.:
01191565.0011
Service Date:
04/01/2020
Technician:
Carl Creamer
Scale:
1" = 30'
PH. (913) 492-3

Consulting Engineers & Scientists

15620 W 113th Street Lenexa, KS 66219
PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing

Observed Locations

Exhibit

 Report Number:
 02191565.0012

 Service Date:
 04/02/20

 Report Date:
 04/03/20

Task: 01 - Earthwork Observation and Testing

15620 W 113th St

Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.
Attn: Norm Hellings
2232 Broadway
Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building Pad and Parking Lot Fill

Material Type Tested: Weathered shale trace gravel, yellowish brown; weathered shale trace gravel, gray

DCI - Lee's Summit

2001 Shamrock Rd

Lee's Summit, MO

Proctor No.: 02191565.0002B and 02191565.0002A

Compaction Equipment: Pad foot roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0% to +4% above optimum moisture content, as obtained from the geotechnical

report

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing with Observation:

The referenced fill material was placed in approximately 10-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill.

Tests:

Terracon performed 4 nuclear field density tests, and 1 retest to determine wet density and water content in general accordance with ASTM D6938. One of the tests and its corresponding retest performed did not meet the project specifications for moisture content.

Deviations: Test No. 4 did not meet project specifications for moisture content. The materials represented by these tests should be moisture conditioned and recompacted and follow-up tests scheduled.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Report Number: 02191565.0012 **Service Date:** 04/02/20 **Report Date:** 04/03/20

Task: 01 - Earthwork Observation and Testing

Tierracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition.

Terracon Rep.: Feras El-Ghussein **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Feras El-musseln

Project Manage

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 2 of 2

Report Number: 02191565.0012 **Service Date:** 04/02/20 **Report Date:** 04/03/20

01 - Earthwork Observation and Testing Task:



Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit. MO Suite 101

Everett, WA 98201 Project Number: 02191565

Mate	rial Information	1		Lab T	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002B	Weathered Shale trace Gravel,	ASTM D698	19.8	103.5	19.8 - 23.8	Min 95
		yellowish brown					
2	02191565.0002A	Weathered Shale trace Gravel, gray	ASTM D698	15.3	112.6	15.3 - 19.3	Min 95

Field	Test Data	F	Probe	Wet	Water	Water	Dry	Percent	
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)	Content (%)	Density (pcf)	Compaction (%)
	Building Pad and Parking Lot (S	See attached	l diagram	1)					
1	Retest of Report 02191565.0009, Test 2	975.5	1	8	121.0	20.5	20.4	100.5	97
2	Retest of Report 02191565.0009, Test 3	973.5	1	8	125.0	20.7	19.8	104.3	100+
3	Y: 38.916303, X: -94.413821	972.6	2	6	129.8	17.1	15.2 *	112.7	100
4	Retest of Test No. 3, Y: 38.916252, X: -94.413874	972.6	2	10	136.1	16.1	13.4 *	120.0	100+
5	Y: 38.916439, X: -94.414001	975.0	2	10	134.1	18.3	15.8	115.8	100+
Datum	: Civil Elevation						Std. Cnt. M:	746 Std. (Cnt. D: 2139

Model:

3430

Comments: An asterisk (*) appears next to the test results which do not meet the project requirements as noted above.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture **Services:**

condition.

Terracon Rep.: Feras El-Ghussein Reported To: Norm with Axiom

Contractor: Axiom Northwest Construction

Make: TROXLER

Report Distribution:

38862

S/N:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Project Manager

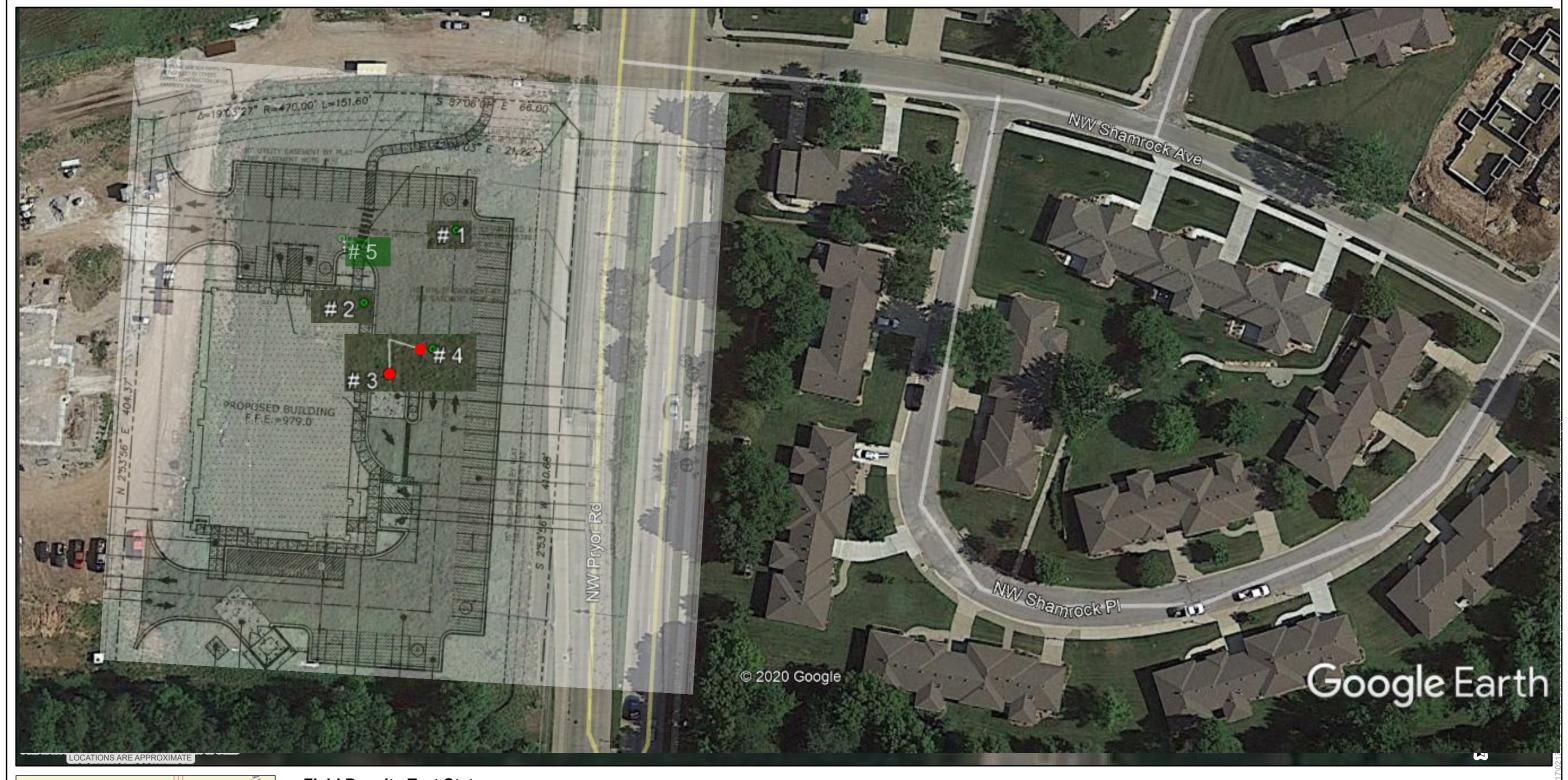
Last Cal. Date: 10/23/2019

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 1 of 1

CR0007, 11-16-12, Rev.7





Field Density Test Status

Pass -- 3 Test(s)Fail -- 1 Test (s)

02191565.0012 Service Date: Technician: Feras El-Ghussein

NTS

Report No.: 04/03/2020 Consulting Engineers & Scientists 13910 West 96th Terr Lenexa, KS 66215

terracon.com

PH. (913) 998 7777

Nuclear Field Density Testing

Observed Locations

DCI - Lee's Summit

Exhibit

02191565.0014 **Report Number: Service Date:** 04/07/20 **Report Date:** 04/13/20

Everett, WA 98201

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

> Project Number: 02191565

Observed/Tested Location: Pavement subgrade and Building Pad

Weathered Shale trace Gravel, gray **Material Type Tested:**

Proctor No.: 02191565.0002A **Compaction Equipment:** Sheepsfoot roller

Contractor placing the fill: Larry Bair Construction

95% of Standard Proctor (ASTM D 698) **Specified Compaction %:**

0% to 4% above optimum moisture content, as obtained from the geotechnical report **Specified moisture %:**

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

Terracon was directed to the previously placed and compacted fill by Norm with Axiom. Terracon was not on-site during fill placement to observe the material below the fill placed or observe lift thickness and compaction equipment.

Tests:

Terracon performed 3 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed did not meet the project specifications for moisture content.

Deviations: Test Nos. 1 to 3 did not meet project specifications for compaction and/or moisture content. We've observed that the materials represented by these tests were moisture conditioned, recompacted, and follow-up tests performed. Refer to Terracon Report No. 02191565.0015 for the results of these tests.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested. Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition.

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muice

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials. Page 1 of 1

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0014

Service Date: 04/07/20 **Report Date:** 04/13/20

Suite 101

Task: 01 - Earthwork Observation and Testing



15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565,0002A	Weathered Shale trace Gravel, grav	ASTM D698	15.3	112.6	15.3 - 19.3	Min 95

Field	Test Data		Probe	Wet	Water	Water	Dry	Percent	
Test		Lift /	Mat.	Depth	Density	Content	Content	Density	Compaction
No.	Test Location	Elev.	No.	(in)	(pcf)	(pcf)	(%)	(pcf)	(%)
	Building Pad and East Parking	(See Attache	ed Diagra	m)					
1	Y: 38.91639, X: -94.41388	975.5'	1	8	133.6	15.5	13.1 *	118.1	100+
2	Y: 38.91629, X: -94.41404	975.5'	1	8	135.4	15.3	12.7 *	120.1	100+
3	Y: 38.91612, X: -94.41414	975.5'	1	8	136.7	15.7	13.0 *	121.0	100+

 Datum: Civil Elevation (feet)
 Std. Cnt. M: 646
 Std. Cnt. D: 1987

 S/N: 36257
 Make: TROXLER
 Model: 3430
 Last Cal. Date: 10/24/2019

Comments: An asterisk (*) appears next to the test results which do not meet the project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

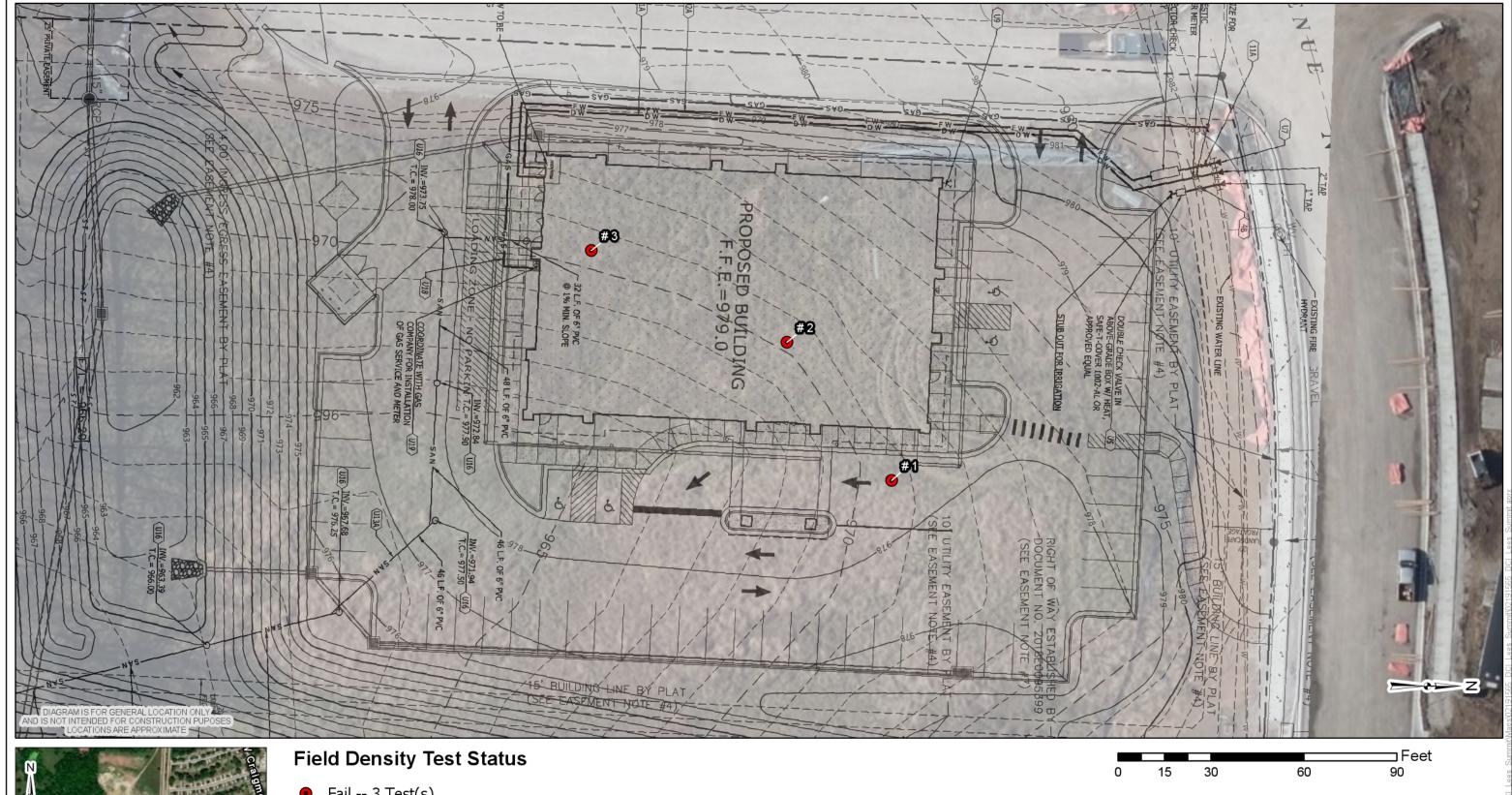
Project Manager

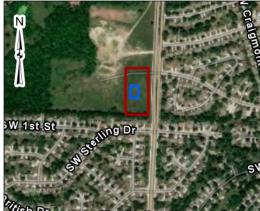
Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Page 1 of 1

CR0007, 11-16-12, Rev.7





• Fail -- 3 Test(s)

Report No. 01191565.0014 Service Date: 04/07/2020 Technician: Carl Creamer

15620 W 113th Street

Lenexa, KS 66219 PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing Observed Locations

Exhibit

DEVIATION LOG

Report Date: 4/13/2020



Client Project

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway Everett, WA 98201 DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Project Number:

02191565

Deviation No.	Report No.	Service	Service Date	Description/Comments	How Resolved	Date Resolved	Status
D000001	0012	Field Density Testing	04/02/20	Moisture content does not comply, Tes	t 4	-	Open
D000002	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 1 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000003	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 2 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000004	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 3 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000005	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 1 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed
D000006	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 2 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed
D000007	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 3 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed

02191565.0015 **Report Number: Service Date:** 04/08/20 **Report Date:** 04/13/20

01 - Earthwork Observation and Testing

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Task:

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Pavement subgrade and Building Pad

Weathered Shale trace Gravel, gray **Material Type Tested:**

Proctor No.: 02191565.0002A **Compaction Equipment:** Sheepsfoot roller

Contractor placing the fill: Larry Bair Construction

95% of Standard Proctor (ASTM D 698) **Specified Compaction %:**

0% to 4% above optimum moisture content, as obtained from the geotechnical report **Specified moisture %:**

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

Terracon was directed to the previously placed and compacted fill by Norm with Axiom. Terracon was not on-site during fill placement to observe the material below the fill placed or observe lift thickness and compaction equipment.

Tests:

Terracon performed 3 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed did not meet the project specifications for moisture content.

Deviations: Test Nos. 1 to 3 did not meet project specifications for compaction and/or moisture content. We've observed that the materials represented by these tests were moisture conditioned, recompacted, and follow-up tests performed. Refer to Terracon Report No. 02191565.0016 for the results of these tests.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested. Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition.

Terracon Rep.: Kevin L. McCurdy **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muice

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials. Page 1 of 1

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0015 **Service Date:** 04/08/20

Report Date: 04/13/20

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St

Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002A	Weathered Shale trace Gravel, gray	ASTM D698	15.3	112.6	15.3 - 19.3	Min 95

Field	Test Data			Probe	Wet	Water	Water	Drv	Percent
Test	Test Location	Lift / Elev.	Mat.	Depth	Density	Content	Content	Density	Compaction
No.		Elev.	No.	<u>(in)</u>	(pcf)	(pcf)	<u>(%)</u>	(pcf)	(%)
	Building pad								
1	N 38.91633, W 94.41411	975.5	1	6	134.5	16.7	14.2 *	117.8	100+
2	N 38.91615, W 94.41397	975.5	1	6	133.4	16.1	13.7 *	117.3	100+
3	N 38.91621, W 94.41367	975.5	1	6	138.1	16.8	13.8 *	121.3	100+

Datum: Civil Elevation (feet)

S/N: 60910 Make: TROXLER Model: 3430 Last Cal. Date: 10/22/2019

Comments: An asterisk (*) appears next to the test results which do not meet the project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Kevin L. McCurdy **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

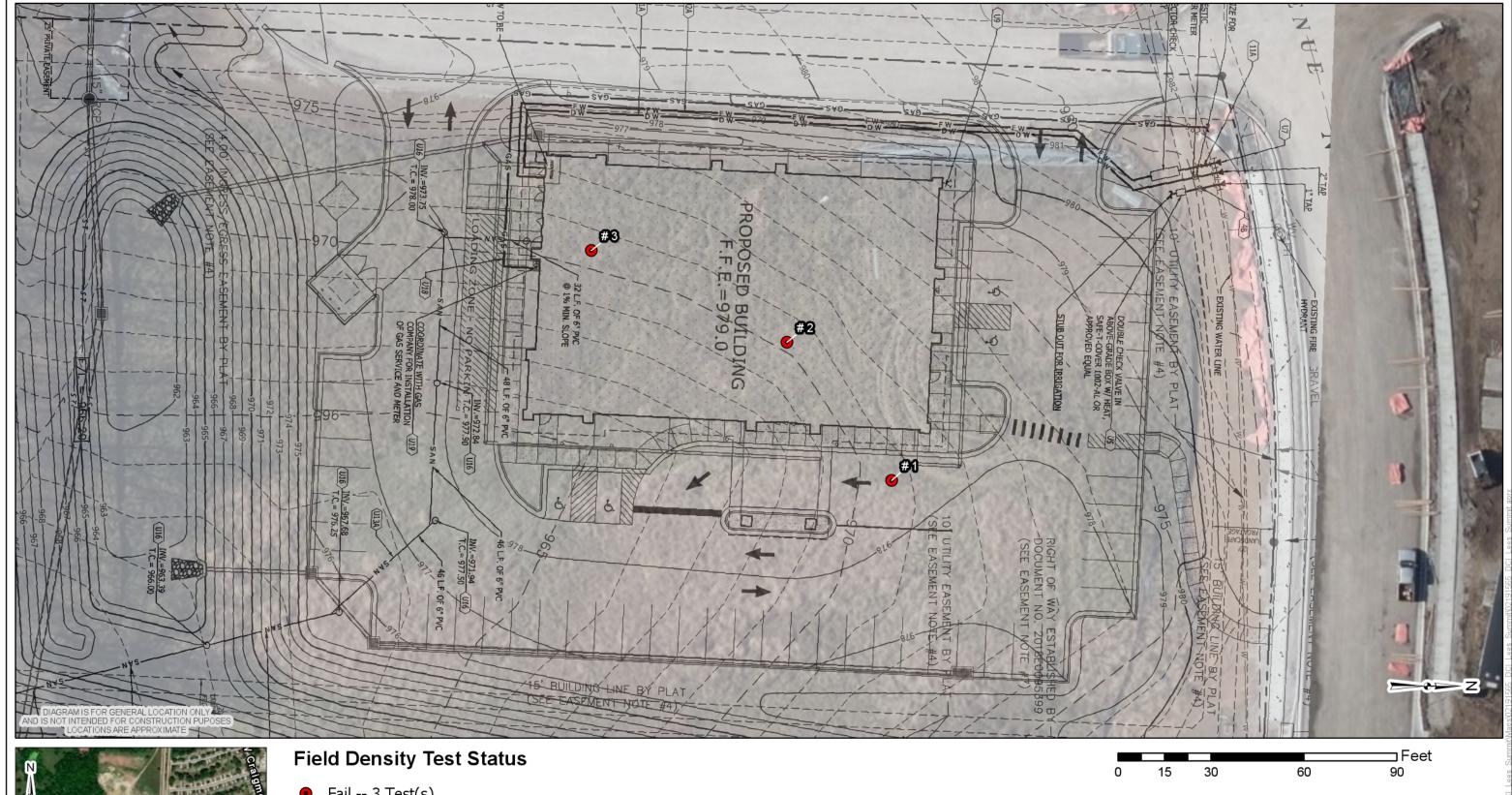
norm@axiomnw.com

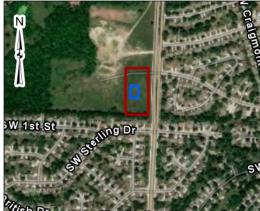
Reviewed By:

Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





• Fail -- 3 Test(s)

Report No.: 02191565.0015 Service Date: 04/08/2020 Consulting Engineers & Scientists Technician: Kevin McCurdy 15620 W 113th Street Lenexa, KS 66219 PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing Observed Locations

Exhibit

DEVIATION LOG

Report Date: 4/13/2020



Client Project

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway Everett, WA 98201 DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Project Number:

02191565

Deviation No.	Report No.	Service	Service Date	Description/Comments	How Resolved	Date Resolved	Status
D000001	0012	Field Density Testing	04/02/20	Moisture content does not comply, Tes	t 4	-	Open
D000002	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 1 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000003	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 2 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000004	0014	Field Density Testing	04/07/20	Moisture content does not comply, Tes	t 3 Moisture conditioned and retested, refer to Terracon Report 02191565.0015	04/08/20	Closed
D000005	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 1 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed
D000006	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 2 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed
D000007	0015	Field Density Testing	04/08/20	Moisture content does not comply, Tes	t 3 Moisture conditioned and retested, refer to Terracon Report 02191565.0016	04/09/20	Closed

02191565.0016 **Report Number: Service Date:** 04/09/20 **Report Date:** 04/13/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Pavement subgrade and Building Pad

Material Type Tested: Weathered Shale trace Gravel, gray

02191565.0002A **Proctor No.: Compaction Equipment:** Sheepsfoot roller

Contractor placing the fill: Larry Bair Construction

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0% to 4% above optimum moisture content, as obtained from the geotechnical report

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

Terracon was directed to the previously placed and compacted fill by Norm with Axiom. Terracon was not on-site during fill placement to observe the material below the fill placed or observe lift thickness and compaction equipment.

Tests:

Terracon performed 5 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. 2 of the 5 tests performed did not meet the project specifications for moisture content. The material represented by these tests were moisture conditioned, recompacted, and retested the same day, and the retests met project specifications.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested. Results of the test performed by Terracon were reported to Norm with Axiom before leaving the project site.

Perform in-place density and moisture content tests to determine degree of compaction and material moisture condition. **Services:**

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Sal Muis

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials. Page 1 of 1

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0016 **Service Date:** 04/09/20 **Report Date:** 04/13/20

Suite 101

Task: 01 - Earthwork Observation and Testing

Terracon

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0002A	Weathered Shale trace Gravel, gray	ASTM D698	15.3	112.6	15.3 - 19.3	Min 95

Field	Test Data	Lift / Mat. Depth Density Conte		Probe	Wet	Water	Water	Dry	Percent
Test No.	Test Location			Content (pcf)	Content (%)	Density (pcf)	Compaction (%)		
	Building Pad and East Parking	(See Attache	d Diagra	ım)					
1	Y: 38.91637, X: -94.41392, Retest of test 1, 4/8/2020	975.5'	1	8	136.5	16.3	13.6 *	120.2	100+
2	Y: 38.91628, X: -94.41409, Retest of test 2, 4/8/2020	975.5'	1	8	134.4	17.8	15.3	116.6	100+
3	Y: 38.91613, X: -94.41417, Retest of test 3, 4/8/2020	975.5'	1	8	138.5	17.0	14.0 *	121.5	100+
4	Y: 38.91638, X: -94.41394, Retest of test 1, 4/9/2020	975.5'	1	8	141.0	19.2	15.8	121.8	100+
5	Y: 38.91614, X: -94.41415, Retest of test 3, 4/9/2020	975.5'	1	8	133.5	19.1	16.7	114.4	100+

 Datum: Civil Elevation (feet)
 Std. Cnt. M: 644
 Std. Cnt. D: 1995

 S/N: 36257
 Make: TROXLER
 Model: 3430
 Last Cal. Date: 10/24/2019

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services: Perform in-place density and moisture content tests to determine degree of compaction and material moisture

condition.

Terracon Rep.: Carl W. Creamer **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

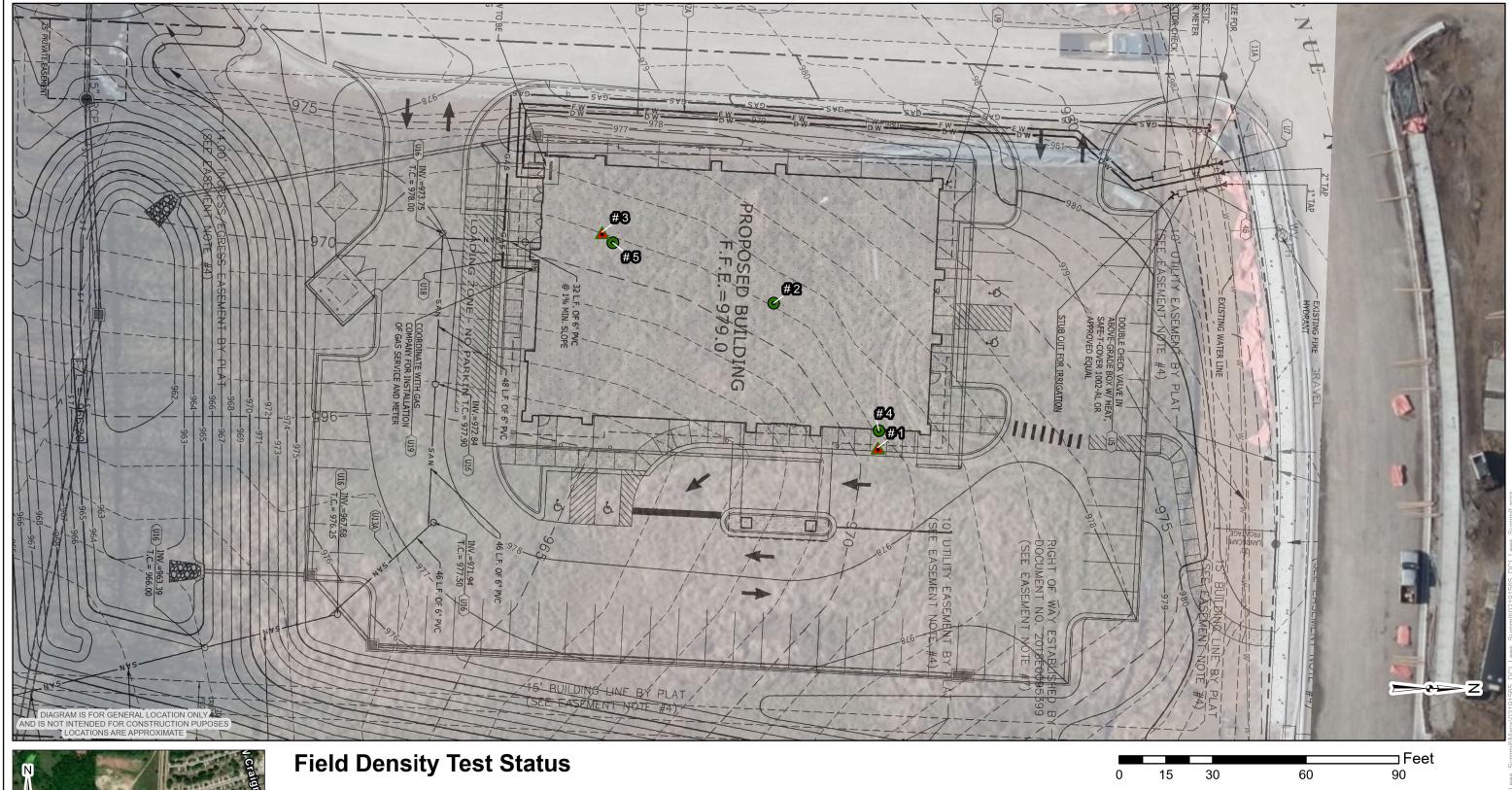
norm@axiomnw.com

Reviewed By:

Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





- Pass -- 3 Test(s)
- ▲ Retested/ Accepted Same Day -- 2 Test(s)

Report No.: 01191565.0016 Service Date: 04/09/2020 Technician: Carl Creamer 15620 W 113th Street 1" = 30'

Lenexa, KS 66219

PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing Observed Locations

Exhibit

Report Number: 02191565.0017 **Service Date:** 04/10/20 **Report Date:** 04/19/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway Suite 101

DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building pad (west side) and Pavement Subgrade(east side)

Material Type Tested: Fat clay (west side) and Weathered shale(east side)

02191565.0001A and 02191565.0002A **Proctor No.:**

Compaction Equipment: Pad foot roller

Contractor placing the fill: Larry Bair Excavating

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Specified moisture %: 0% to+4% above optimum moisture content, as obtained from geotechnical report.

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

The referenced fill material was placed in approximately 8-inch thick lifts and compacted with the equipment referenced above. Prior to fill placement the exposed subgrade consisted of previously placed and tested fill.

Tests:

Terracon performed 7 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction and moisture content.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Norm w/Axiom before leaving the project site.

Services:

Terracon Rep.: Canaan Punzo **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muice

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0017 **Service Date:** 04/10/20

Service Date: 04/10/20 **Report Date:** 04/19/20

Suite 101

Task: 01 - Earthwork Observation and Testing

Terracon

Lenexa, KS 66219-5102

913-492-7777

Std. Cnt. M: 701

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements		
				Optimum				
				Water	Max. Lab	Water		
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction	
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)	
1	02191565.0001A	Fat Clay (CH), brown & grayish	ASTM D698	19.0	100.3	19.0 - 23.0	Min 95	
		brown						
2	02191565.0002A	Weathered Shale trace Gravel, gray	ASTM D698	15.3	112.6	15.3 - 19.3	Min 95	

Field	Test Data			Probe	Wet	Water	Water	Dry	Percent
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)		Density (pcf)	Compaction (%)
	(See Attached Diagram)								
1	Y: 38.91620, X: -94.41409	975.5	1	8	119.2	19.1	19.1	100.1	100
2	Y: 38.91638, X: -94.41404	975.5	1	8	119.9	20.1	20.1	99.8	100
3	Y: 38.91628, X: -94.41371	975.5	2	8	129.3	17.2	15.3	112.1	100
4	Y: 38.91628, X: -94.41379	976	2	8	129.8	17.7	15.8	112.1	100
5	Y: 38.91599, X: -94.41371	976	2	8	130.1	17.3	15.3	112.8	100
6	Y: 38.91626, X: -94.41375	976	1	8	125.0	21.5	20.8	103.5	100+
7	Y: 38.91608, X: -94.41381	976	1	8	120.7	20.2	20.1	100.5	100

Model:

3430

Comments: Test and/or retest results on this report meet project requirements as noted above.

Make: TROXLER

Services:

S/N: 35429

Terracon Rep.: Canaan Punzo **Reported To:** Norm with Axiom

Datum: Civil Elevations(in feet)

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc., norm@axiomnw.com

Reviewed By:

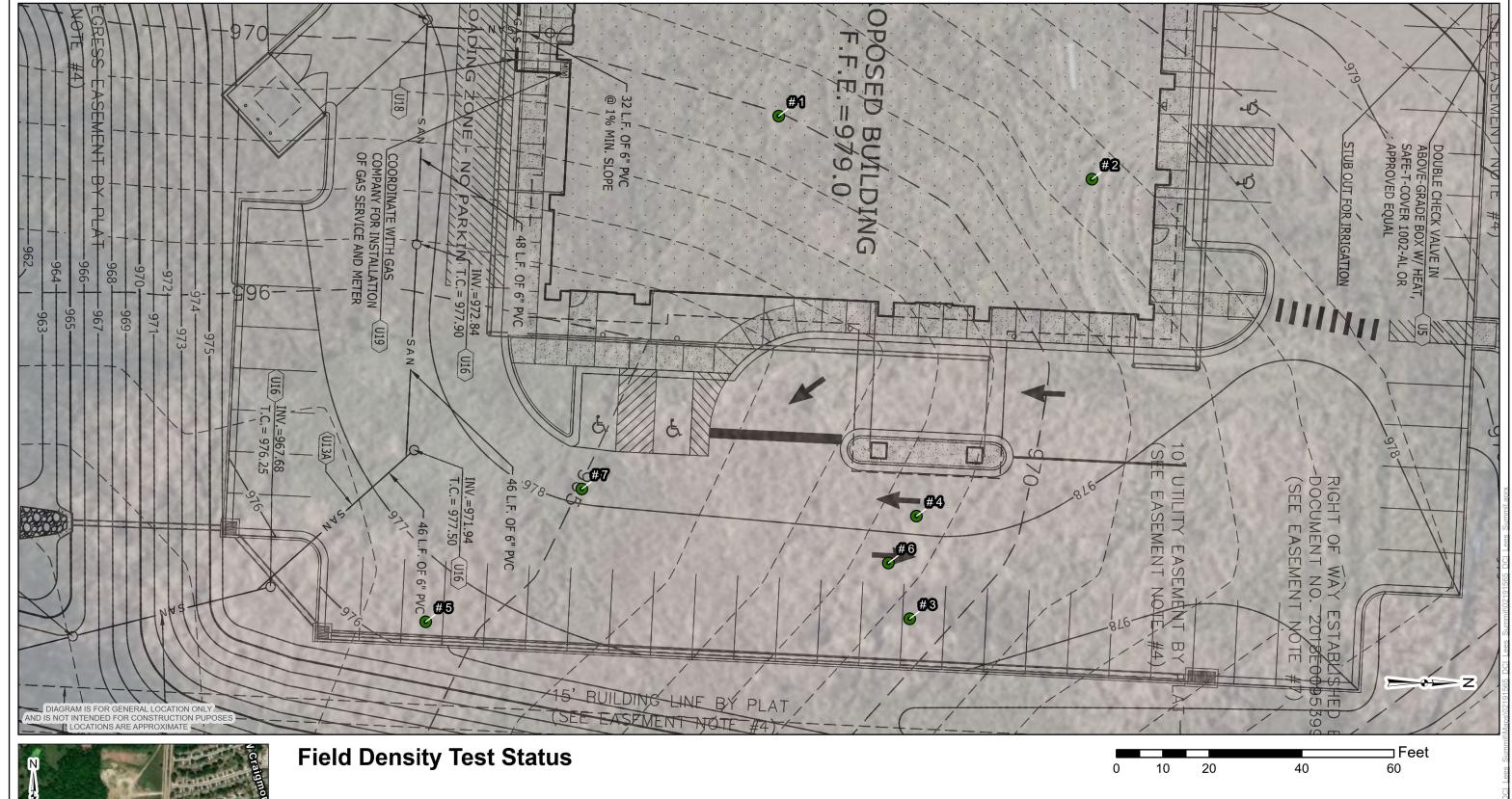
Feras El-Glasseir Project Manager

Std. Cnt. D: 1770

Last Cal. Date: 10/23/2019

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





Pass -- 7 Test(s)

Report No.:
01191565.0017
Service Date:
04/10/2020
Technician:
Canaan Punzo
Scale:
1" = 20'
PH. (913) 492-7777



terracon.com

Nuclear Field Density Testing
Observed Locations

DCI - Lee's Summit

Exhibit

02191565.0026 **Report Number: Service Date:** 05/06/20 **Report Date:**

05/13/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101 Everett, WA 98201 Project Number: 02191565

Observed/Tested Location: Building pad

Material Type Tested: Limestone Screenings, dark gray

02191565.0025A **Proctor No.:**

Steel smooth drum roller **Compaction Equipment: Contractor placing the fill:** Larry Bair Construction

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

Terracon was directed to the previously placed and compacted fill by Nick with Larry Bair Construction. Terracon was not on-site during fill placement to observe the material below the fill placed or observe lift thickness and compaction equipment.

Tests:

Terracon performed 3 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Nick with Larry Bair Construction before leaving the project site.

Services:

Terracon Rep.: Carl W. Creamer

Nick with Larry Bair Construction **Reported To:** Axiom Northwest Construction Contractor:

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muice

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials. CT0001, 10-16-13, Rev.10 Page 1 of 1

Report Number: 02191565.0026

Service Date: 05/06/20 **Report Date:** 05/13/20

Task: 01 - Earthwork Observation and Testing

Terracon

Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings
2001 Shamrock Rd
2232 Broadway
Lee's Summit, MO
Suite 101

Everett, WA 98201 Project Number: 02191565

Mate	rial Information			Lab To	est Data	Project Requirements	
				Optimum			
				Water	Max. Lab	Water	
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)
1	02191565.0025A	Limestone Screenings, dark gray	ASTM D698	10.3	129.2		Min 95

Test Data			Probe	Wet	Water	Water	Dry	Percent
	Lift /	Mat.	Depth	Density	Content	Content	Density	Compaction
Test Location	Elev.	No.	(in)	(pcf)	(pcf)	(%)	(pcf)	(%)
Building Pad (See Attached Dia	gram)							
Y: 38.91620, X: -94.41403	-10"	1	8	143.5	13.3	10.2	130.2	100+
Y: 38.91639, X: -94.41408	-10"	1	8	137.4	8.9	6.9	128.5	99
Y: 38.91627, X: -94.41415	-10"	1	8	136.3	9.2	7.2	127.1	98
	Test Location Building Pad (See Attached Dia Y: 38.91620, X: -94.41403 Y: 38.91639, X: -94.41408	Test Location Lift / Elev. Building Pad (See Attached Diagram) Y: 38.91620, X: -94.41403 -10" Y: 38.91639, X: -94.41408 -10"	Test Location Lift / Elev. Mat. No. Building Pad (See Attached Diagram) Y: 38.91620, X: -94.41403 -10" 1 -10" 1 Y: 38.91639, X: -94.41408 -10" 1 -10" 1	Building Pad (See Attached Diagram) Lift / No. Mat. Vincology Depth (in) Y: 38.91620, X: -94.41403 -10" 1 8 Y: 38.91639, X: -94.41408 -10" 1 8	Building Pad (See Attached Diagram) Lift / Elev. Mat. No. Depth (in) Density (pcf) Y: 38.91620, X: -94.41403 -10" 1 8 143.5 Y: 38.91639, X: -94.41408 -10" 1 8 137.4	Lift / Plant Mat. Plant Depth (in) Density (pcf) Content (pcf) Building Pad (See Attached Diagram) Y: 38.91620, X: -94.41403 -10" 1 8 143.5 13.3 Y: 38.91639, X: -94.41408 -10" 1 8 137.4 8.9	Building Pad (See Attached Diagram) Lift / Elev. Mat. No. Depth (in) Density (pcf) Content (pcf) Content (%) Y: 38.91620, X: -94.41403 -10" 1 8 143.5 13.3 10.2 Y: 38.91639, X: -94.41408 -10" 1 8 137.4 8.9 6.9	Building Pad (See Attached Diagram) Lift / Elev. Mat. No. Depth (in) Density (pcf) Content (pcf) Content (%) Density (pcf) Y: 38.91620, X: -94.41403 -10" 1 8 143.5 13.3 10.2 130.2 Y: 38.91639, X: -94.41408 -10" 1 8 137.4 8.9 6.9 128.5

 Datum: Final Subgrade
 Std. Cnt. M: 646
 Std. Cnt. D: 1981

 S/N: 36257
 Make: TROXLER
 Model: 3430
 Last Cal. Date: 10/24/2019

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services:

Terracon Rep.: Carl W. Creamer

Reported To: Nick with Larry Bair Construction **Contractor:** Axiom Northwest Construction

Report Distribution:

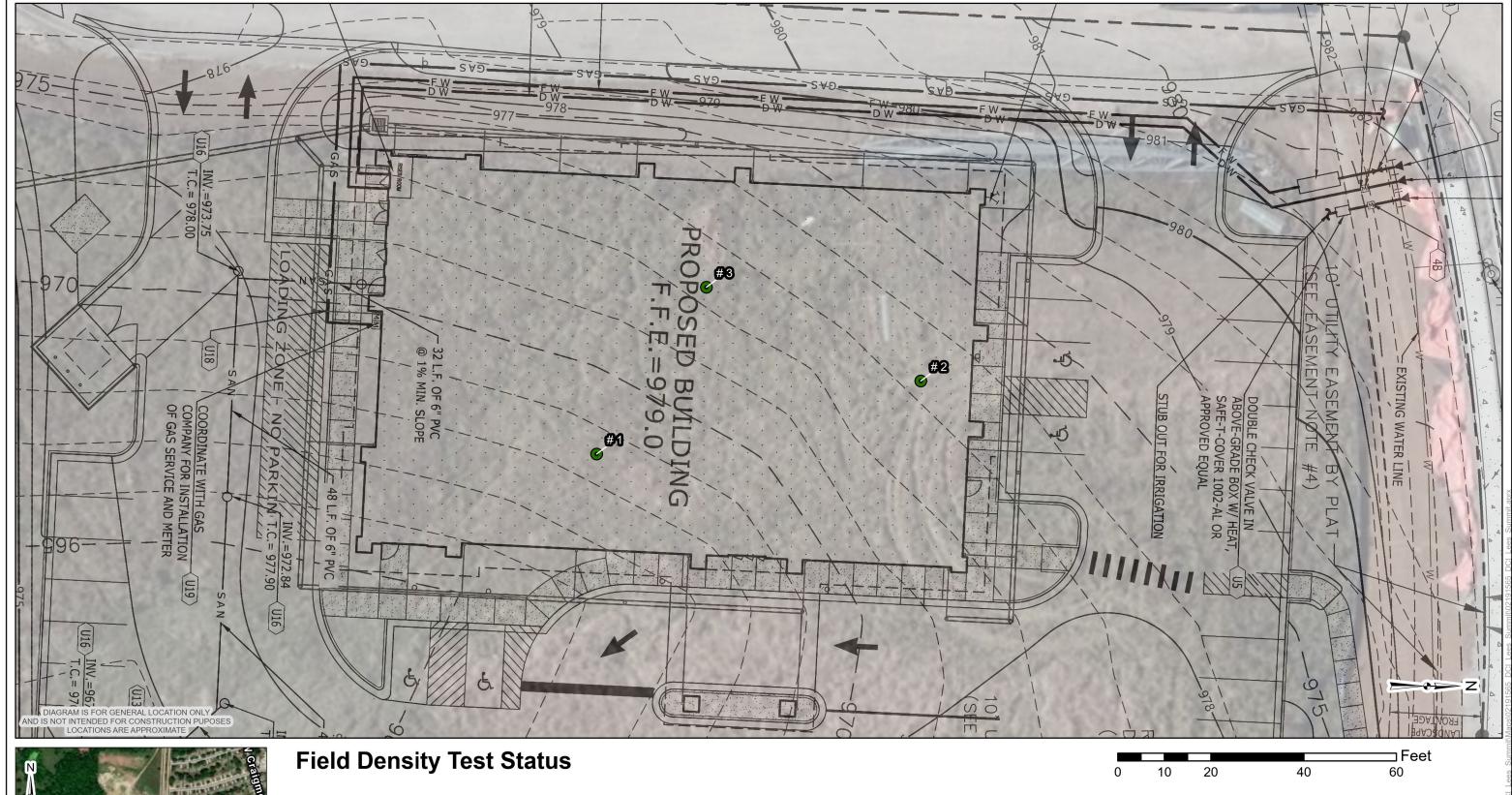
(1) Axiom Northwest Construction, Inc., norm@axiomnw.com

Reviewed By:

Feras El-Glassein Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.





Pass -- 3 Test(s)

Report No.:

01191565.0029

Service Date:

05/06/2020

Technician:

Carl Creamer

Scale:

1" = 20'

Consulting Engineers & Scientists 15620 W 113th Street Lenexa, KS 66219 PH. (913) 492-7777 terracon.com

DCI - Lee's Summit

Nuclear Field Density Testing
Observed Locations

Exhibit

02191565.0027 **Report Number: Service Date:** 05/06/20 **Report Date:**

05/13/20

01 - Earthwork Observation and Testing Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project**

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway

Suite 101

Everett, WA 98201

DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Project Number: 02191565

Observed/Tested Location: Building pad

Material Type Tested:

Limestone Screenings, dark gray

Proctor No.:

02191565.0025A

Compaction Equipment:

Steel smooth drum roller

Contractor placing the fill: Larry Bair Construction

Specified Compaction %: 95% of Standard Proctor (ASTM D 698)

Service:

As requested, a Terracon representative performed field density tests with a nuclear density meter to measure wet density and water content of the material referenced above.

Testing without Observation:

Terracon was directed to the previously placed and compacted fill by Nick with Larry Bair Construction. Terracon was not on-site during fill placement to observe the material below the fill placed or observe lift thickness and compaction equipment.

Tests:

Terracon performed 5 nuclear field density tests to determine wet density and water content in general accordance with ASTM D6938. The tests performed met the project specifications for compaction.

Comments:

The results of the tests provided in this report are based on the soil conditions present at the time of our site visit. Should any changes occur to the subgrade soils prior to placement of additional fill, the condition of the material tested today should be retested.

Results of the test performed by Terracon were reported to Nick with Larry Bair Construction before leaving the project site.

Services:

Terracon Rep.: Richard N. Cohen **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Suff Muice

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CT0001, 10-16-13, Rev.10

Report Number: 02191565.0027 **Service Date:** 05/06/20

Report Date: 05/13/20

Task: 01 - Earthwork Observation and Testing

Terracon

Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings
2001 Shamrock Rd
2232 Broadway
Lee's Summit, MO
Suite 101

Everett, WA 98201

Project Number: 02191565

Material Information					Lab Test Data		Project Requirements	
				Optimum				
				Water	Max. Lab	Water		
Mat.	Proctor		Laboratory	Content	Density	Content	Compaction	
No.	Ref. No.	Classification and Description	Test Method	(%)	(pcf)	(%)	(%)	
1	02191565.0025A	Limestone Screenings, dark gray	ASTM D698	10.3	129.2		Min 95	

Field	Test Data			Probe	Wet	Water	Water	Drv	Percent
Test No.	Test Location	Lift / Elev.	Mat. No.	Depth (in)	Density (pcf)	Content (pcf)	Content (%)	Density (pcf)	Compaction (%)
	Building pad								
1	20' N. & 20' E. of the S.W. corner	Grade	1	8	143.0	11.6	8.8	131.4	100+
2	30' N. & 15' E. of the S.E. corner	Grade	1	8	144.9	10.1	7.5	134.8	100+
3	Middle of building	Grade	1	8	146.1	11.7	8.7	134.4	100+
4	25' S. & 20' E. of N.W. corner	Grade	1	8	144.4	11.8	8.9	132.6	100+
5	20'S. & 25'W. of N.E. corner	Grade	1	8	141.5	11.2	8.6	130.3	100+

 Datum: Grade Stakes
 Std. Cnt. M:738
 Std. Cnt. D: 1859

 S/N: 37049
 Make: TROXLER
 Model: 3430
 Last Cal. Date: 10/24/2019

Comments: Test and/or retest results on this report meet project requirements as noted above.

Services:

Terracon Rep.: Richard N. Cohen **Reported To:** Norm with Axiom

Contractor: Axiom Northwest Construction

Report Distribution:

(1) Axiom Northwest Construction, Inc., norm@axiomnw.com

Reviewed By:

Feras El-Ghasein Project Manager

Test Methods: ASTM D6938

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.