

Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Oct 19, 2021

Work Order No.: 21-8536.Compaction.0002; ver: 1

Work Order Date: Oct 13, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: Structures inc  
Equipment Used: Excavator|Loader|Skid Steer|Smooth Drum Roller  
Weather, High/Low Temp.: Mostly Cloudy, 67/47 (°F)  
Item/Structure Type/Number: Abutment backfill  
Placement Location: Abutment 3 Backfill

Performed by: Brian Rivera  
Nuclear Gauge: 13, Troxler 3440, 20815  
Standard Counts: 1653 / 598

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
1	15	See attached photo for test #1 location	5' BG	137.1	130.2	5.3	136.9	6.5	95.1	-1.2	Pass
2	15	See attached photo for test #2 location	5' BG	137.5	130.8	5.1	136.9	6.5	95.6	-1.4	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade

BG = Below Grade

RFG = Rough Footing Grade

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## Forest Lakes Bridges

Report Date: Oct 19, 2021

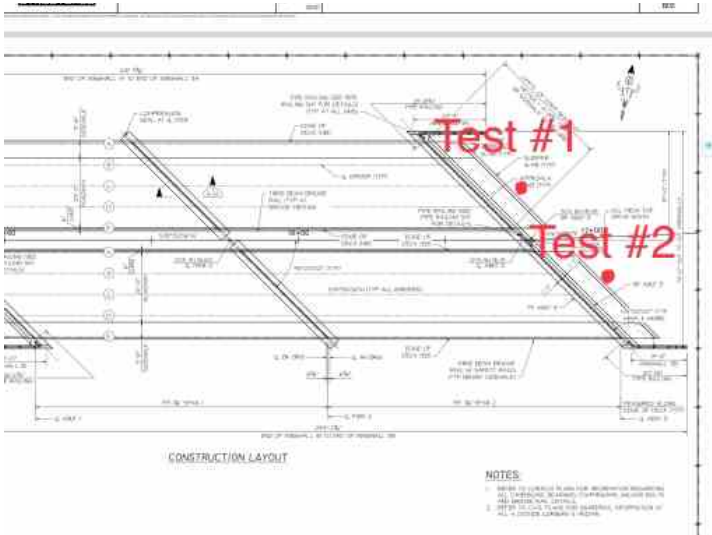
Work Order No.: 21-8536.Compaction.0002; ver: 1

Work Order Date: Oct 13, 2021

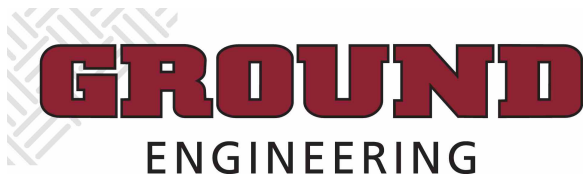
Reviewed by: Josiah Johnson

### Compaction

#### Photos



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Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Oct 19, 2021

Work Order No.: 21-8536.Compaction.0003; ver: 1

Work Order Date: Oct 15, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: Structures inc  
Equipment Used: Skid Steer|Loader|Excavator|Smooth Drum Roller  
Weather, High/Low Temp.: Partly Cloudy, 60/35 (°F)  
Item/Structure Type/Number: Abutment backfill  
Placement Location: Abutment 3 backfill

Performed by: Brian Rivera  
Nuclear Gauge: 106, Instrotek 3500, 3757  
Standard Counts: 2592 / 710

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
3	15	See attached photo for test #1 location	10' BG	137.9	130.5	5.7	136.9	6.5	95.3	-0.8	Pass
4	15	See attached photo for test #2 location	10' BG	139.9	131.2	6.6	136.9	6.5	95.9	0.1	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade

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## Forest Lakes Bridges

Report Date: Oct 19, 2021

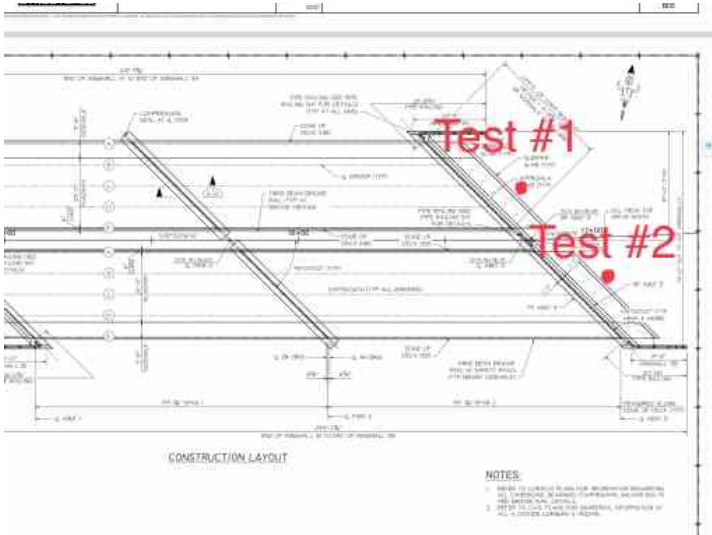
Work Order No.: 21-8536.Compaction.0003; ver: 1

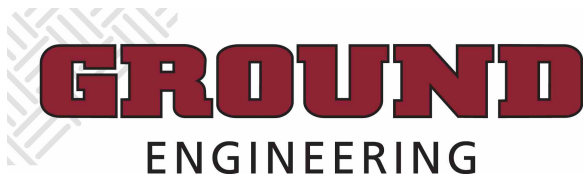
Work Order Date: Oct 15, 2021

Reviewed by: Josiah Johnson

### Compaction

#### Photos





Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Oct 22, 2021

Work Order No.: 21-8536.Compaction.0004; ver: 1

Work Order Date: Oct 18, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Excavator|Loader|Skid Steer|Smooth Drum Roller  
Weather, High/Low Temp.: Clear|Sunny, 74/47 (°F)  
Item/Structure Type/Number: Abutment Backfill  
Placement Location: Abutment 3 Backfill

Performed by: Brian Rivera  
Nuclear Gauge: 106, Instrotek 3500, 3757  
Standard Counts: 2610 / 605

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
5	15	See attached photo for test #1 location	10' BG	138.1	131.4	5.1	136.9	6.5	96.0	-1.4	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade  
BG = Below Grade  
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## Forest Lakes Bridges

Report Date: Oct 22, 2021

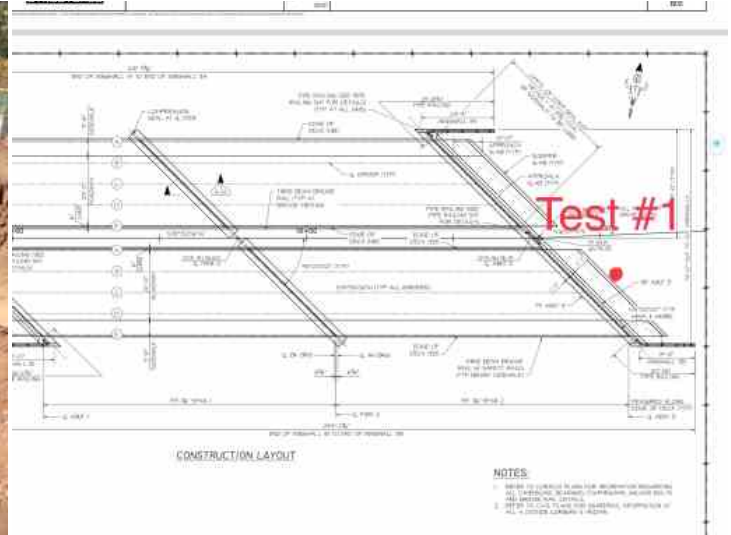
Work Order No.: 21-8536.Compaction.0004; ver: 1

Work Order Date: Oct 18, 2021

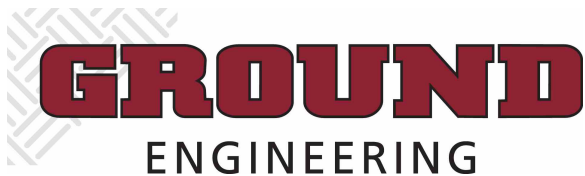
Reviewed by: Josiah Johnson

### Compaction

#### Photos







Client: Elliott Van Stelle  
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Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Oct 22, 2021

Work Order No.: 21-8536.Compaction.0007; ver: 1

Work Order Date: Oct 19, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Excavator|Loader|Skid Steer|Smooth Drum Roller  
Weather, High/Low Temp.: Clear|Sunny, 65/35 (°F)  
Item/Structure Type/Number: Abutment backfill  
Placement Location: Abutment 3 Backfill

Performed by: Brian Rivera  
Nuclear Gauge: 106, Instrotek 3500, 3757  
Standard Counts: 2595 / 601

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
10	15	See attached photo for test #1 location	8' BG	137.2	130.2	5.4	136.9	6.5	95.1	-1.1	Pass
11	15	See attached photo for test #2 location	8' BG	137.5	130.2	5.6	136.9	6.5	95.1	-0.9	Pass

Commonly Used Abbreviations:

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Report Date: Oct 22, 2021

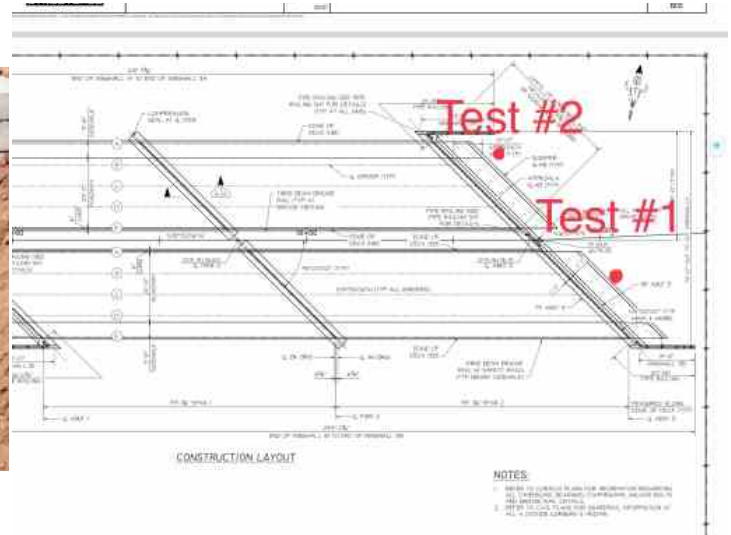
Work Order No.: 21-8536.Compaction.0007; ver: 1

Work Order Date: Oct 19, 2021

Reviewed by: Josiah Johnson

### Compaction

#### Photos





### Forest Lakes Bridges

Report Date: Oct 22, 2021

Work Order No.: 21-8536.Compaction.0008; ver: 1

Work Order Date: Oct 20, 2021

Reviewed by: Josiah Johnson

#### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Excavator|Jumping Jack|Smooth Drum Roller|Skid Steer|Loader|Water Truck  
Weather, High/Low Temp.: Sunny|Calm|Clear, 60/25 (°F)  
Item/Structure Type/Number: Abutment and Wingwall  
Placement Location: BF Abutment 1 on eastbound and westbound lanes of bridge at STA 14+74.77

Performed by: Cody Jerz  
Nuclear Gauge: 47, Troxler 3440, 34667  
Standard Counts: 1914 / 662

#### On-Site Notifications

Name	Company
Larry Urioste	Structures, inc.

#### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

#### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

#### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

#### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
6	15	8' W of Abutment 1 STA 14+95	6.5' BG	129.6	122.5	5.8	136.9	6.5	89.5	-0.7	Fail
6.1	15	8' W of Abutment 1 STA 14+95	6.5' BG	138.9	131.8	5.4	136.9	6.5	96.3	-1.1	Pass
7	15	5' W of Abutment 1 STA 14+55	6.5' BG	132.5	125.4	5.7	136.9	6.5	91.6	-0.8	Fail
7.1	15	5' W of Abutment 1 STA 14+55	6.5' BG	138.4	131.6	5.2	136.9	6.5	96.1	-1.3	Pass
8	15	10' W of Abutment 1 STA 14+40	6.5' BG	140.1	133.8	4.7	136.9	6.5	97.7	-1.8	Pass

#### Commonly Used Abbreviations:

RSG = Rough Surface Grade  
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## Forest Lakes Bridges

Report Date: Oct 22, 2021

Work Order No.: 21-8536.Compaction.0008; ver: 1

Work Order Date: Oct 20, 2021

Reviewed by: Josiah Johnson

### Compaction

#### Photos



Smooth drum roller being used for compaction

### Forest Lakes Bridges

Report Date: Oct 27, 2021

Work Order No.: 21-8536.Compaction.0009; ver: 1

Work Order Date: Oct 25, 2021

Reviewed by: Josiah Johnson

#### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Smooth Drum Roller|Water Truck|Bulldozer  
Weather, High/Low Temp.: Calm|Clear|Sunny, 80/43 (°F)  
Item/Structure Type/Number: Backfill  
Placement Location: W Abutment Backfill

Performed by: Angelo Donnabella  
Nuclear Gauge: 69, Troxler 3440, 37442  
Standard Counts: 2139 / 770

#### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

#### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

#### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Relative Comp. (%)	95 min.
015 - Class 1	Moist. Dev. (%)	-2 to 2

#### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

#### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
12	15	W abutment, STA 14+45, Test location #1	8'BG	136.8	130.4	4.9	136.9	6.5	95.3	-1.6	Pass
13	15	W abutment, STA 14+45, Test location #2	8'BG	139.8	132.8	5.3	136.9	6.5	97.0	-1.2	Pass
14	15	W abutment, STA 14+45, Test location #3	7'BG	135.4	127.5	6.2	136.9	6.5	93.1	-0.3	Fail
14.1	15	W abutment, STA 14+45, Test location #3.1	7'BG	138.4	130.7	5.9	136.9	6.5	95.5	-0.6	Pass
15	15	W abutment, STA 14+45, Test location #4	7'BG	135.6	127.1	6.7	136.9	6.5	92.8	0.2	Fail
15.1	15	W abutment, STA 14+45, Test location #4.1	7'BG	139.2	131.0	6.3	136.9	6.5	95.7	-0.2	Pass

Commonly Used Abbreviations:

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## Forest Lakes Bridges

Report Date: Oct 27, 2021

Work Order No.: 21-8536.Compaction.0009; ver: 1

Work Order Date: Oct 25, 2021

Reviewed by: Josiah Johnson

### Compaction

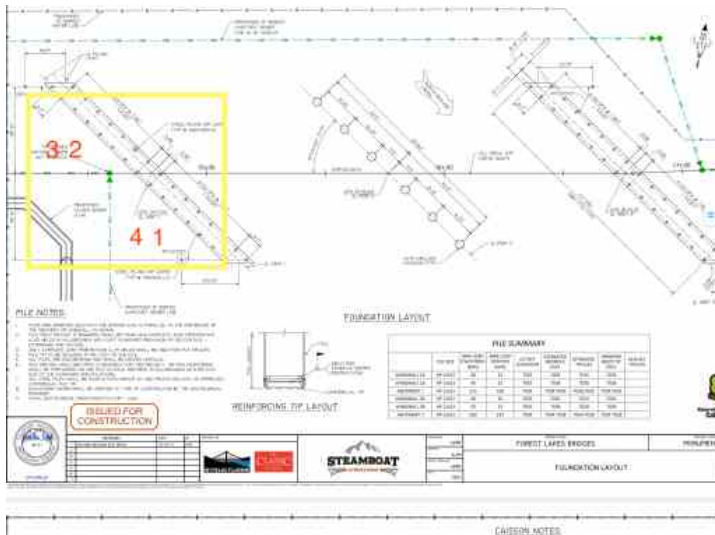
#### Photos



8'BG at W abutment



7'BG at W abutment



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### Forest Lakes Bridges

Report Date: Oct 27, 2021

Work Order No.: 21-8536.Compaction.0010; ver: 1

Work Order Date: Oct 26, 2021

Reviewed by: Josiah Johnson

#### Compaction

Earthwork Contractor:	AB Underground	Performed by:	Greg Davies
Equipment Used:	Loader Smooth Drum Roller	Nuclear Gauge:	100, Instrotek 3500, 3549
Weather, High/Low Temp.:	Sunny, 70/55 (°F)	Standard Counts:	2768 / 770
Item/Structure Type/Number:	Abutment and wingwall		
Placement Location:	Abutment 1 and wingwalls		

#### On-Site Notifications

Name	Company
Larry Urioste	Structures Inc

#### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

#### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Relative Comp. (%)	95 min.
015 - Class 1	Moist. Dev. (%)	-2 to 2

#### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

#### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
16	15	Location 1 attached	7' BG	137.6	130.4	5.5	136.9	6.5	95.3	-1.0	Pass
17	15	Location 2 attached	7' BG	139.7	132.3	5.6	136.9	6.5	96.6	-0.9	Pass
18	15	Location 3 attached	7' BG	141.9	134.6	5.4	136.9	6.5	98.3	-1.1	Pass
19	15	Location 4 attached	5' BG	139.9	131.4	6.5	136.9	6.5	96.0	0.0	Pass
20	15	Location 5 attached	5' BG	142.8	134.7	6.0	136.9	6.5	98.4	-0.5	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade  
BG = Below Grade  
RFG = Rough Footing Grade

## Forest Lakes Bridges

Report Date: Oct 27, 2021

Work Order No.: 21-8536.Compaction.0010; ver: 1

Work Order Date: Oct 26, 2021

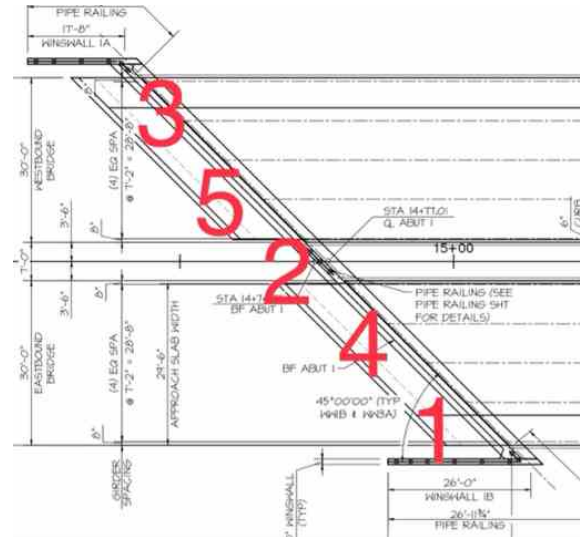
Reviewed by: Josiah Johnson

### Compaction

#### Photos

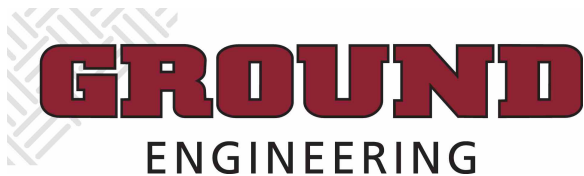


Compaction area



Test locations in red





Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Nov 23, 2021

Work Order No.: 21-8536.Compaction.0013; ver: 1

Work Order Date: Nov 19, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Smooth Drum Roller  
Weather, High/Low Temp.: Mostly Sunny, 65/50 (°F)  
Item/Structure Type/Number: Abutment backfill  
Placement Location: East abutments

Performed by: Greg Davies  
Nuclear Gauge: 100, Instrotek 3500, 3549  
Standard Counts: 2760 / 768

### On-Site Notifications

Name	Company
Dylan Brellenthin	AB Underground

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
21	15	Location 1 attached	4' BG	140.5	131.7	6.7	136.9	6.5	96.2	0.2	Pass
22	15	Location 2 attached	4' BG	143.6	134.6	6.7	136.9	6.5	98.3	0.2	Pass

Commonly Used Abbreviations:

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## Forest Lakes Bridges

Report Date: Nov 23, 2021

Work Order No.: 21-8536.Compaction.0013; ver: 1

Work Order Date: Nov 19, 2021

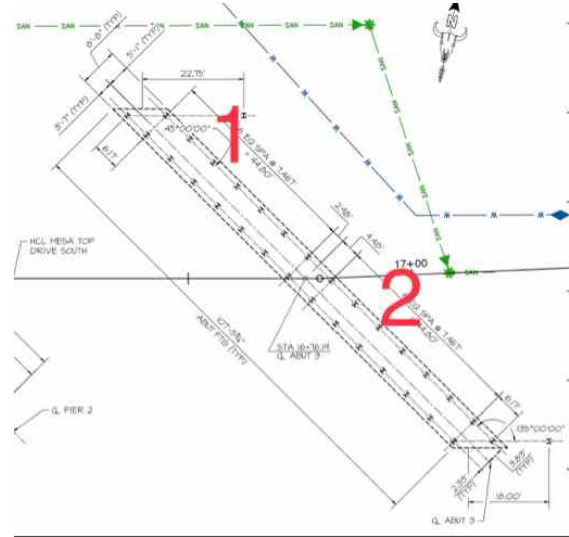
Reviewed by: Josiah Johnson

### Compaction

#### Photos



Compaction area



Test locations in red

### Forest Lakes Bridges

Report Date: Nov 24, 2021

Work Order No.: 21-8536.Compaction.0014; ver: 1

Work Order Date: Nov 23, 2021

Reviewed by: Josiah Johnson

#### Compaction

Earthwork Contractor:	AB Underground	Performed by:	Greg Davies
Equipment Used:	Smooth Drum Roller	Nuclear Gauge:	100, Instrotek 3500, 3549
Weather, High/Low Temp.:	Mostly Sunny, 60/50 (°F)	Standard Counts:	2764 / 770
Item/Structure Type/Number:	Abutment backfill		
Placement Location:	East abutment		

#### On-Site Notifications

Name	Company
Dylan Brellenthin	AB Underground

#### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

#### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

#### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

#### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
23	15	Location 1 attached	3' BG	141.8	134.2	5.7	136.9	6.5	98.0	-0.8	Pass
24	15	Location 2 attached	3' BG	142.5	134.9	5.6	136.9	6.5	98.6	-0.9	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade  
BG = Below Grade  
RFG = Rough Footing Grade

## Forest Lakes Bridges

Report Date: Nov 24, 2021

Work Order No.: 21-8536.Compaction.0014; ver: 1

Work Order Date: Nov 23, 2021

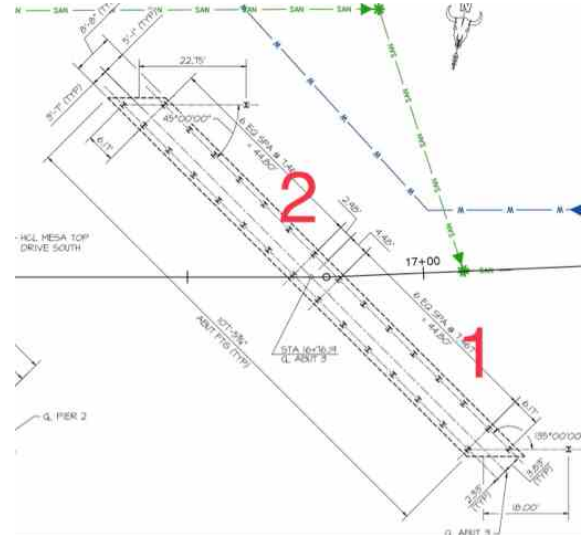
Reviewed by: Josiah Johnson

### Compaction

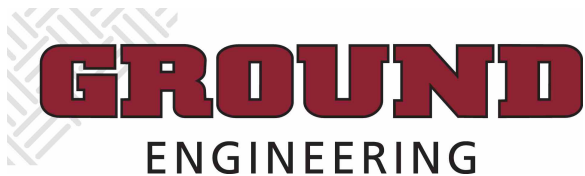
#### Photos



Compaction area



Test locations in red



Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Dec 1, 2021

Work Order No.: 21-8536.Compaction.0016; ver: 1

Work Order Date: Nov 30, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Excavator|Loader|Smooth Drum Roller|Skid Steer  
Weather, High/Low Temp.: Clear|Sunny, 60/32 (°F)  
Item/Structure Type/Number: Abutment Backfill  
Placement Location: West Abutment Backfill

Performed by: Brian Rivera  
Nuclear Gauge: 13, Troxler 3440, 20815  
Standard Counts: 1654 / 603

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
25	15	See attached photo for test #1 location	2' BG	136.7	130.8	4.5	136.9	6.5	95.6	-2.0	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade  
BG = Below Grade  
RFG = Rough Footing Grade

Results apply only to the specific items and locations referenced and at the time of testing, observations or special inspections. This report should not be reproduced, except in full, without the written permission of GROUND Engineering Consultants, Inc.

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## Forest Lakes Bridges

Report Date: Dec 1, 2021

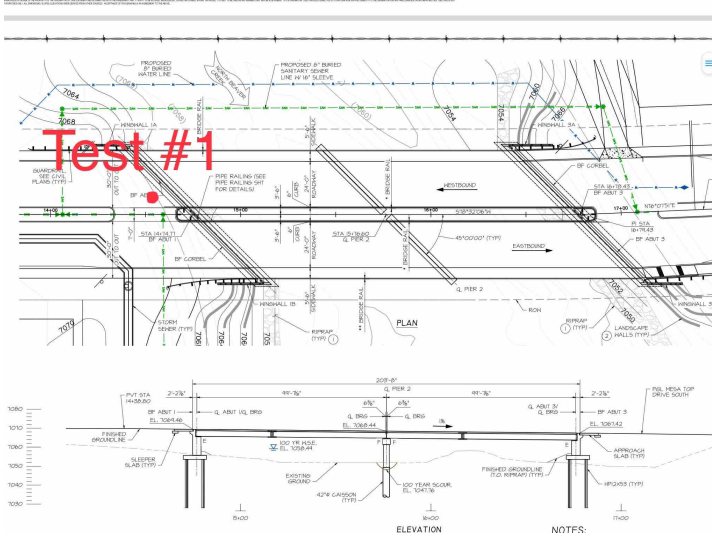
Work Order No.: 21-8536.Compaction.0016; ver: 1

Work Order Date: Nov 30, 2021

Reviewed by: Josiah Johnson

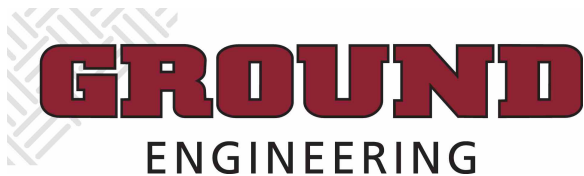
### Compaction

### Photos



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Client: Elliott Van Stelle  
Structures, Inc.  
4 Inverness Court East, Suite 250  
Englewood, CO 80112

## Forest Lakes Bridges

Report Date: Dec 6, 2021

Work Order No.: 21-8536.Compaction.0017; ver: 1

Work Order Date: Dec 2, 2021

Reviewed by: Josiah Johnson

### Compaction

Earthwork Contractor: AB Underground  
Equipment Used: Excavator|Loader|Smooth Drum Roller|Skid Steer  
Weather, High/Low Temp.: Clear|Sunny, 70/32 (°F)  
Item/Structure Type/Number: Abutment backfill  
Placement Location: West abutment backfill

Performed by: Brian Rivera  
Nuclear Gauge: 13, Troxler 3440, 20815  
Standard Counts: 1658 / 605

### On-Site Notifications

Name	Company
Elliott Van Stelle	Structures, Inc.

### Material Properties

Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Soil Type	Proctor Method
136.9	6.5	A-1-b (0)	C

### Specifications

Spec. ID - Specification Title	Property	Specified
015 - Class 1	Moist. Dev. (%)	-2 to 2
015 - Class 1	Relative Comp. (%)	95 min.

### Nuclear Soil Density and Moisture Content (ASTM D6938 and D4718 / AASHTO T310 and T224)

### Results

Test No.	Spec. ID	Test Location	Elevation (ft)	Gauge Total Wet Density (pcf)	Corr. Field Dry Density (pcf)	Corr. Field MC (%)	Lab Max. Dry Density (pcf)	Lab Opt. MC (%)	Relative Comp. (%)	Moist. Dev. (%)	Pass or Fail
26	15	See attached photo for test #1 location	RSG	138.8	132.1	5.1	136.9	6.5	96.5	-1.4	Pass

Commonly Used Abbreviations:

RSG = Rough Surface Grade  
BG = Below Grade  
RFG = Rough Footing Grade

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## Forest Lakes Bridges

Report Date: Dec 6, 2021

Work Order No.: 21-8536.Compaction.0017; ver: 1

Work Order Date: Dec 2, 2021

Reviewed by: Josiah Johnson

### Compaction

#### Photos

