



January 27, 2025

Mr. Brian Maenner  
Vice President of Development  
Intrinsic Development  
3622 Endeavor Avenue  
Columbia, Missouri 65201

RE: Special Inspection Report No. 1  
Townplace Suites – Discovery Park  
1901 NE Discovery Avenue  
Lee' Summit, Missouri  
Report Period: October 27, 2024 to December 28, 2024  
Permit No.: PRCOM20235734  
UES Project No.: A23129.00089.003  
Legacy Project No: J044702.04

Dear Mr. Maenner:

This letter with attachments will constitute our Special Inspection transmittal for the above referenced project. Representatives of UES have provided field observation and testing services for site development and engineered fill during the report period. Our services have been provided on a part-time basis as scheduled by representatives of Advanced Excavation, LLC. The compliance of materials or work not observed by our personnel is not addressed, or implied, by this or any previous report.

### **Summary of Activities**

#### **Site Development**

Following the removal of the vegetation, the subgrades were observed at the following locations:

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November 8 - Building pad at Line A to S, 1 to 12

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November 21 - Parking garage at Line H to U, 14 to 24

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December 9 - North parking lot and the private drive between Lots 3 and 4

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The exposed grades were observed with respect to stability and moisture content prior to fill placement. The exposed grades were also proofrolled with a fully-loaded off-road dump truck to aid in evaluating the stability of the underlying soils.

#### **Engineered Fill**

Field density tests and visual observations were performed in engineered fill placed for the building pad, parking garage, and parking lot between November 8 and December 10. The engineered fill consisted primarily of clays except within the top two feet of the building pad. On-

site crushed limestone was placed as low-volume-change material within the top two feet of the building pad. The fill was placed in approximately 8- to 9-inch lifts and compacted with a self-propelled sheepsfoot roller or vibratory smooth drum roller. The test results were evaluated using existing moisture-density (standard Proctor) relationship tests. Results of the field density tests are enclosed.

### **Status of Compliance**

The specific items discussed above in this report appeared to be in general compliance with the contract documents.

### **Closure**

The results of our field observations and testing were reported to authorized personnel during our site visits. If you have any questions regarding this report, or if we may be of further service, please contact us.

Respectfully submitted,

UES



Peter F. Brull, P.E.  
Senior Engineer



Steve Damron  
CMT Department Manager

Attachments: Field Density Test Results

cc: Mr. Joe Frogge – City of Lee's Summit  
Mr. Aaron Addis – Intrinsic Development  
Mr. Earl Peterson – Intrinsic Development  
Mr. AJ Dolph – Rosemann & Associates, PC  
UES S.I. File

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**Townplace at Discovery Park  
Variance/Discrepancy List**

NOTE: Items resolved during the report period are shaded

Variance Number	Date Opened	Date Closed	Description
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**Client:** Intrinsic Development  
**Project:** A23129.00089.003  
Townplace Suites - Discovery Park J044702.04  
Lee's Summit, MO

## Field Density Test Results

**Report Date:** 11/08/2024

**Area Being Filled:** Building pad at Line A to S, 1 to 12

**Description of Fill Material:** (1) 4424: Crushed limestone

### TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
1	Building pad Grid P/8	966.5	122.2@7.5 <sup>(1)</sup>	125.80	6.40	4"	102.9	--/--	95	Pass
2	Building pad Grid J/7.5	966.5	122.2@7.5 <sup>(1)</sup>	123.10	6.00	4"	100.7	--/--	95	Pass
3	Building pad Grid E.2/7.5	966.5	122.2@7.5 <sup>(1)</sup>	124.30	6.40	4"	101.7	--/--	95	Pass
4	Building pad Grid P/4.5	966.5	122.2@7.5 <sup>(1)</sup>	123.70	6.80	4"	101.2	--/--	95	Pass
5	Building pad Grid E.5/3	966.5	122.2@7.5 <sup>(1)</sup>	124.20	6.50	4"	101.6	--/--	95	Pass

**Remarks:** Finished grade = 968.0

**UES Representative:** Ryan Davidson

**Report Date:** 11/22/2024

**Area Being Filled:**

**Description of Fill Material:** (1) 4424: Crushed limestone

### TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
1	Parking garage Grid S/16.5	965.3	122.2@7.5 <sup>(1)</sup>	119.70	5.20	8"	98.0	0.0/4.0	95	Pass
2	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
2	Parking garage Grid J.5/16.2	965.3	122.2@7.5 <sup>(1)</sup>	115.70	5.50	8"	94.7	--/--	95	Pass
3	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
3	Parking garage Grid S/14.5	965.3	122.2@7.5 <sup>(1)</sup>	124.10	5.60	8"	101.6	--/--	95	Pass
4	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
4	Parking garage Grid J.5/14.3	965.3	122.2@7.5 <sup>(1)</sup>	131.00	6.00	8"	107.2	--/--	95	Pass
5	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
5	Parking garage Grid S/10.8	965.3	122.2@7.5 <sup>(1)</sup>	119.20	5.50	8"	97.5	--/--	95	Pass
6	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
6	Parking garage Grid J.5/21.2	965.3	122.2@7.5 <sup>(1)</sup>	118.30	6.10	8"	96.8	--/--	95	Pass
7	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	

Report Date: 11/22/2024

Area Being Filled:

Description of Fill Material: (1) 4424: Crushed limestone

TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
7	Building Grid N.5/6.7	965.3	122.2@7.5 <sup>(1)</sup>	125.80	5.60	8"	102.9	0.0/4.0	95	Pass
8	Building pad between gridlines		122.2@7.5 <sup>(1)</sup>				--	--/--	95	
8	Building Grid D/6.8	965.3	122.2@7.5 <sup>(1)</sup>	117.60	5.40	8"	96.2	0.0/4.0	95	Pass

Remarks:

UES Representative: Seth T. Littlestone

Report Date: 11/21/2024

Area Being Filled: Building pad at Line H to U, 14 to 24

Description of Fill Material: (1) 4424: Crushed limestone  
(5) 3877: yellow-brown with gray fat clay (CH) with trace weathered shale

TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
1	Building pad Grid H.5/15.5	964.8	122.2@7.5 <sup>(1)</sup>	121.90	4.60	8"	99.8	--/--	95	Pass
2	Building pad Grid H.5/21	964.8	122.2@7.5 <sup>(1)</sup>	122.40	8.50	8"	100.2	--/--	95	Pass
3	Building pad Grid S/19.5	964.8	122.2@7.5 <sup>(1)</sup>	119.10	8.00	8"	97.5	--/--	95	Pass
4	Building pad Grid S/15.5	964.8	122.2@7.5 <sup>(1)</sup>	123.20	5.50	8"	100.8	--/--	95	Pass
5	Building pad Grid U.5/21	960.8	105.2@19.6 <sup>(5)</sup>	101.90	20.10	8"	96.9	0.1/4.0	95	Pass
6	Building pad Grid U.5/21	961.4	105.2@19.6 <sup>(5)</sup>	101.50	20.40	8"	96.5	0.1/4.0	95	Pass
7	Building pad Grid U.5/21	962.3	105.2@19.6 <sup>(5)</sup>	103.20	19.60	8"	98.1	0.1/4.0	95	Pass
8	Building pad Grid U.5/21	962.9	105.2@19.6 <sup>(5)</sup>	104.10	19.50	8"	99.0	0.1/4.0	95	Pass
9	Building pad Grid D/6	967.3	122.2@7.5 <sup>(1)</sup>	117.80	5.60	8"	96.4	--/--	95	Pass
10	Building pad Grid N.5/7.5	967.3	122.2@7.5 <sup>(1)</sup>	121.30	6.00	8"	99.3	--/--	95	Pass
11	Building pad Grid S/21	964.8	122.2@7.5 <sup>(1)</sup>	122.50	5.00	8"	100.2	--/--	95	Pass
12	Building pad Grid J/19.5	964.8	122.2@7.5 <sup>(1)</sup>	120.20	5.00	8"	98.4	--/--	95	Pass

Remarks: Finished grade = 967.3

UES Representative: Seth T. Littlestone

Report Date: 12/10/2024

Area Being Filled: North parking lot

Description of Fill Material: (4) 4056: red-brown fat clay (CH) with sand  
(5) 3877: yellow-brown with gray fat clay (CH) with trace weathered shale

TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
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Report Date: 12/10/2024

Area Being Filled: North parking lot

Description of Fill Material: (4) 4056: red-brown fat clay (CH) with sand  
(5) 3877: yellow-brown with gray fat clay (CH) with trace weathered shale

TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
1	North parking lot 20' north 180' west	964.0	99.2@21.3 (4)	100.90	21.80	8"	101.7	0.1/4.0	95	Pass
2	North parking lot 25' north 90' west	964.0	99.2@21.3 (4)	101.80	25.00	8"	102.6	0.1/4.0	95	Pass
3	North parking lot 18' north 30' west	964.0	99.2@21.3 (4)	98.70	23.70	8"	99.5	0.1/4.0	95	Pass
4	North parking lot 35' north 180' west	964.7	105.2@19.6 (5)	106.20	20.30	8"	101.0	0.1/4.0	95	Pass
5	North parking lot 28' north 90' west	964.7	99.2@21.3 (4)	98.70	23.80	8"	99.5	0.1/4.0	95	Pass
6	North parking lot 38' north 30' west	964.7	105.2@19.6 (5)	103.40	19.60	8"	98.3	0.1/4.0	95	Pass

Remarks: Reference point: Parking garage northeast corner  
Finished grade ~ 965.0

UES Representative: Seth T. Littlestone

Report Date: 11/22/2024

Area Being Filled: Building pad and parking garage low-volume-change material

Description of Fill Material: (1) 4424: Crushed limestone

TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)

Test No.	Test Location	Elevation (feet) +/-	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
1	Parking garage Grid S/16.5	965.3	122.2@7.5 (1)	119.70	5.20	8"	98.0	0.0/4.0	95	Pass
2	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
2	Parking garage Grid J.5/16.2	965.3	122.2@7.5 (1)	115.70	5.50	8"	94.7	--/--	95	Pass
3	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
3	Parking garage Grid S/14.5	965.3	122.2@7.5 (1)	124.10	5.60	8"	101.6	--/--	95	Pass
4	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
4	Parking garage Grid J.5/14.3	965.3	122.2@7.5 (1)	131.00	6.00	8"	107.2	--/--	95	Pass
5	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
5	Parking garage Grid S/10.8	965.3	122.2@7.5 (1)	119.20	5.50	8"	97.5	--/--	95	Pass
6	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
6	Parking garage Grid J.5/21.2	965.3	122.2@7.5 (1)	118.30	6.10	8"	96.8	--/--	95	Pass
7	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	
7	Building Grid N.5/6.7	965.3	122.2@7.5 (1)	125.80	5.60	8"	102.9	0.0/4.0	95	Pass
8	Building pad between gridlines		122.2@7.5 (1)				--	--/--	95	

**Report Date:** 11/22/2024

**Area Being Filled:** Building pad and parking garage low-volume-change material

**Description of Fill Material:** (1) 4424: Crushed limestone

**TABULATION OF FIELD DENSITY TEST RESULTS (ASTM D6938)**

Test No.	Test Location	Elevation (feet) -/+	Max. Dry Den. @ Optimum Moisture (pcf @ %)	In Place Dry Density (pcf)	In Place Moisture (%)	Probe Depth	Percent Compaction	Moisture Tolerance (-/+)	Min. Comp. Spec. (%)	Result
8	Building Grid D/6.8	965.3	122.2@7.5 <sup>(1)</sup>	117.60	5.40	8"	96.2	0.0/4.0	95	Pass

**Remarks:** Finished grade (building) = 966.58  
Finished grade (parking garage) = 966.5

**UES Representative:** SETH THOMAS. LITTLESTONE