GeoProfessional Innovation

February 26, 2018
File: PU17212B

Mr. Kevin Kirkman
Mr. Ron Beasley
Sundance South, LLC
594 SE Bishop Boulevard, Suite 102
Pullman, Washington 99163

RE: **Final Summary Letter**
Cayuse Street Block 3, Lots 1–17
Sundance South Subdivision
Pullman, Washington

Good Day, Kevin and Ron.

GeoProfessional Innovation Corporation (GPI) provides this Final Summary Letter for Cayuse Street Block 3, Lots 1–17 in the Sundance South Subdivision located on the south side of Pullman, Washington. This letter summarizes our services from project commencement in October 2017, through project completion in November 2018. During this time, our construction material testing (CMT) services were coordinated with Western Construction (Western) and Germer Construction (Germer), the earthwork contractors. Our services were provided, when requested, on either a continuous or periodic basis referencing the following:

- *Geotechnical Evaluation for Infrastructure* (GEI) performed by GPI, dated June 29, 2017.
- As defined in our CMT proposal (Proposal No. PUP17128), dated May 18, 2017.
- As outlined in our *Scope Addendum*, dated October 12, 2018 and our subsequent discussions with you.
- City of Pullman Standards.
- Sundance South Parametrix plan sheets dated December 2016 and cut/fill tick sheets provided by Parametrix on October 17, 2018.

GPI's authorized scope of services included:

- Geotechnical Consultation
- Earthwork density testing and observation
- Concrete Observation and Testing for the sidewalks and curbs
- Hot-mixed Asphalt Testing for the Roadway
- Construction Material Laboratory Testing

During construction activities and our site visits, field staff generated daily field reports (DFR's) to document their observations, tests results, and the construction status. Preliminary copies of these reports were electronically distributed on the day of the site visit. Subsequent final reports were transmitted weekly with laboratory test results to you, the City of Pullman, and the project team. Please note that during each site visit, testing typically occurred in multiple locations across the development. Therefore, recognize that individual daily field reports contain documentation addressing multiple areas of the entire project site, not specifically associated with Cayuse Street or its individual lots.

Mass Grading Density Testing and Observation

Mass grading was initiated by Western while utility and subsurface drain construction was initiated by Germer. Mass grading began with topsoil stripping in October 2017, followed by subgrade preparation. Western initially struggled with structural fill placement and compaction over the exposed subgrade due to high moisture contents, typical of native soil in the Palouse. We assisted them in properly preparing and compacting subgrades to meet geotechnical subgrade requirements. Once subgrades were correctly prepared, Western began placing and compacting structural fill. GPI obtained multiple fill material samples for Proctor testing as the fill material varied throughout the site.

Due to the site's naturally sloping surface, cuts in the native soil and fill placement were necessary to meet the design grades. Civil design by Parametrix established lot grades with some graded entirely on native soil cuts, some entirely on structural fill embankments, and some a combination of each with varying depths of structural fill and native soil cut. Specific to Cayuse Street (Block 3), the civil design plans delineate:

- Lots 1, 2, 4-8, 10, 14, and 17 are constructed on both cut and fill ranging from 16-feet of cut to 9-feet of fill,
- Lots 3, 9, 15, and 16 are constructed on 1- to 25-feet of fill constructed over native soil, and
- Lots 11-13 are constructed on 2- to 11-feet of native cut soil.

Density test results were compared to Modified Proctor (ASTM D1557) maximum dry density and optimum moisture content for the soil used as structural fill. We conducted density testing on structural fill lifts and, based on the information provided by the contractors, recorded our test locations and relative elevations. Additionally, we provided occasional geotechnical consultation for subgrade preparation throughout construction to assist Western and Germer in meeting the project's geotechnical design and City of Pullman standards. As documented in the appended reports, structural fill for embankments was periodically tested and observed by GPI staff. Where initial tests did not meet compaction requirements, subsequent rework and moisture conditioning advanced, and GPI's retests documented that fill was placed and compacted to meet City of Pullman standards, and conforms to the requirements outlined in the GEI. To the best of our knowledge, we are unaware of any outstanding failed density tests in the locations and depths tested.

Subsurface drains were installed in the site's natural draws located in the western half of the subdivision between Lots 15 and 16, and 2 and 3. These drains are intended to facilitate subgrade drainage and long-term embankment performance. Drains were installed through consultation between GPI, Germer, and KIP Development (KIP) based on the GPI's geotechnical design recommendations and the conditions encountered during earthwork. The drains were installed following site stripping and during site grading and prior to embankment construction. It is critical for embankment performance that these drains be maintained intact and functional through subsequent individual lot construction.

Utility Trench Backfill and Roadway Testing

Following mass grading, Germer began installing utility trenches throughout the project. We sampled imported 5/8-inch-minus crushed gravel, which was used as bedding and backfill, and performed Modified Proctor testing on utility trench backfill materials above bedding. GPI provided a geoprofessional for periodic observation and density testing during utility backfill operations. We conducted density testing on the backfill lifts. Some initial density tests did not meet compaction

requirements and were reported to Germer. Germer re-worked each failed test area and GPI retested the failed areas. To the best of our knowledge, we are unaware of any outstanding failed density tests along utilities or roadways in the locations tested.

Hot Mix Asphalt (HMA) Testing and Curb Construction

During HMA paving operations, GPI provided a geoprofessional to conduct observation and testing. We checked HMA for in place density using a nuclear densometer. We assisted Motley-Motley, Inc. (Motley), the asphalt subcontractor, with establishing effective rolling patterns to achieve minimum density requirements. We sampled loose HMA and transported it to our laboratory for gradation and oil content testing. In the areas tested we observed that HMA appeared to be properly mixed, referencing the submitted mix design and the City of Pullman standards, and the minimum density was achieved. To the best of our knowledge, there are no outstanding deficiencies regarding HMA paving in the locations tested.

Summary

This final letter is intended to summarize the major aspects of our CMT services associated with infrastructure construction along Cayuse Street. This summary does not describe the entirety of our scope and the details of our observations are not reproduced herein. These observations were previously transmitted to the project team and the City of Pullman in weekly transmittals since project commencement and are included in the attached appendix. See the final construction in Photograph 1, below.

Photograph 1: Cayuse Street

GPI accomplished observation and testing services for various infrastructure construction applications authorized by you. To the best of our knowledge, in the locations tested, these construction aspects meet the project specifications. It is important for lot owners and their contractors to recognize that the City of Pullman will likely require compaction testing and verification of City Standards (95% of Modified

Proctor) in foundation locations for lots bearing on fill or a combination of cut and fill. Due to varying moisture contents, our experience has been that moisture conditioning and additional compaction effort is often required to achieve these standards in previously constructed embankments.

Individual lot developments must contemplate their planned construction and seek the appropriate design and testing levels to suit individual budgets and risk tolerance. Specifically, the position of structures as they relate to fill depth and drainage provisions have proven 2 of the most common attributes to foundation, slab, and wall performance. It should also be understood and communicated to future homeowners that they are responsible to direct irrigation away from slopes to reduce their risks increasing slope instability. Additionally, future seeps may develop and increase slope instability under saturated conditions. Therefore, slopes should be vegetated as soon as possible and monitored for maintenance.

We appreciate the continued opportunities to provide these services for your development and we look forward to any upcoming projects. If we can be of further assistance in clarifying the appended documentation, please do not hesitate to contact GPI.

Sincerely,
GPI

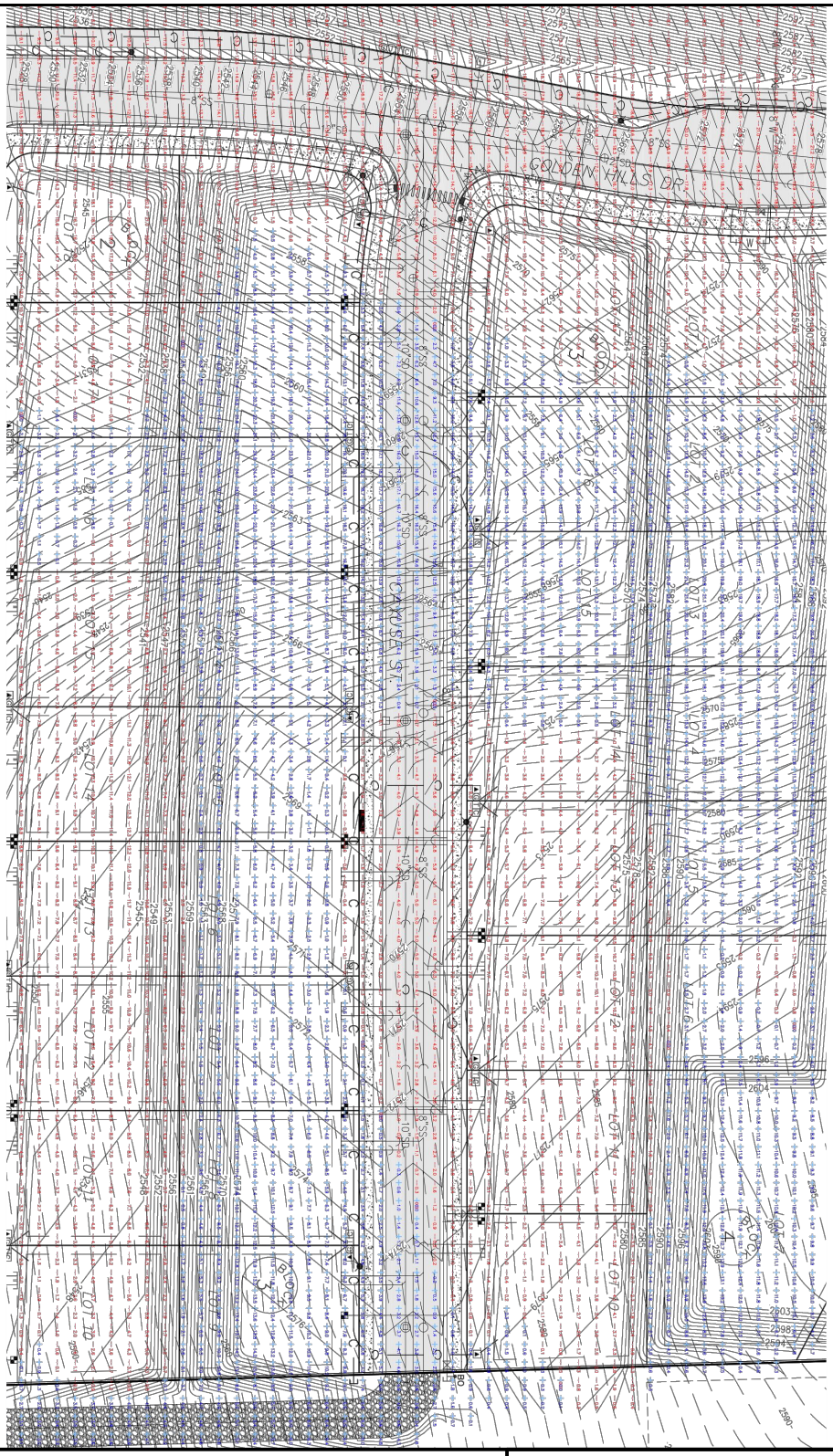
Travis J. Wambeke, P.E.
Principal Engineer

Attachments: Plate 1: Cut/Fill Map
CMT Documentation Reports and Laboratory Test Results

TJW/ac

Legend

+ Fill
– Cut



Reference: Cut/Fill tick map provided by Parametrix on October 17, 2018.

CUT/FILL MAP
Cayuse Street Block 3, Lot 1-17
Sundance South Subdivision
Pullman, Washington

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NOT TO SCALE

PU17212B	PLATE: 1
DRAWN BY: AJR	CHECKED BY: TJW

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GeoProfessional Report

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Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Activity Details

GeoProfessional: ABRAMS, ANDY

Weather: Overcast

Activity Date: 10/27/2017

Engineer - Project - Site Visit

Activity Hours: 2.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location: Subgrade observation

Reported To:
Kevin Holmes (Western Construction) and Dave Germer (Germer Construction)

Narrative:
I arrived at the project site as requested by Dave Germer with Germer Construction (Western) and Kevin Holmes with Western Construction to observe and document topsoil stripping operations as well as subsurface drainage trench construction as outlined in the project geotechnical report. GPI GeoProfessional, John Persell, was also on site with me to observe and document conditions and interact with the contractors. At the time I arrived on site, Kevin with Western reported his topsoil stripping operation is currently in progress and is not yet complete. Kevin requested that GPI return to the site later in the day to observe topsoil stripping after it is complete. I also discussed with Kevin the geotechnical report requirements regarding subgrade preparation, which outline the minimum 90% compaction referencing ASTM D1557 at the subgrade prior to embankment fill placement. Kevin said he may be ready for subgrade testing this afternoon and would let GPI know during our afternoon visit today.

Also while on site, I interacted with Dave Germer regarding subsurface drainage trench construction as outlined on Plate 2 in GPI's geotechnical deliverable. Germer Construction's crew was at the time I was on site initiating drainage trench construction at the very uphill side of the site by accomplishing an approximate 18-inch wide, 2-doot deep trench with a mini excavator. Shawn with Germer Construction then reported the plan for trench construction will be to line the trench with geotextile fabric, place the fabric wrapped perforated pipe in the base of the trench, and backfill it with drain rock then wrap the top "burrito style". I reported to Shawn that this should meet the geotextile design intent outlined on Plate 2. Parametrix was on site staking the drainage trench alignment, which did not necessarily align with the lowest point in the natural draw existing on site, but was placed there to avoid traversing directly across any given residential lot. As outlined on Plate 2 in GPI's deliverable, drainage trench alignment was intended to traverse in between lot lines. I coordinated with both Kevin and Dave for GPI's visit by John Persell later this afternoon.

Activity Details

GeoProfessional: PERSELL, JOHN

Weather: Clear

Activity Date: 10/27/2017

GeoProfessional - Density Testing

Activity Hours: 2.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location: north half of site

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes of Western Construction for subgrade testing of the site. The northern half of the site was tested using a metal T-probe and nuclear density gauge, while the southern half of the site was not tested as it was still being stripped of topsoil. I performed 4 nuclear density tests, all 4 density tests performed on the northern half of the site exceeded 90% compaction and fell within 5% of optimum moisture per ASTM D1557. I reported to Kevin that the north half of the site is ready for placing fill material, documented my results and departed site.

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Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Clear

Activity Date: 10/30/2017

GeoProfessional - Density Testing

Activity Hours: 4.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Fill area along draw, between Waha Court and Cayuse Street

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of reddish brown silt being placed as structural fill for the future housing area and roadways. The current fill surface ranged from about 11 to 26 feet below subgrade. Fill material was placed in approximate 1-foot thick lifts and was compacted by a quad-drum sheep's foot roller followed by a fully loaded CAT 631 earth scraper. Compaction requirements were struggling to be met, so a new sample of fill material was retrieved for laboratory testing. For any locations not tested with the nuclear gage, a visual observation was made which included several passes with the quad-drum sheep's foot roller followed by a fully loaded CAT earth scraper.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 108.4 to 113.0 pcf and 13.6 to 15.2 percent moisture corresponding to 95 and 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE dated 06/29/2017. The material was compacted to a stiff and unyielding condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: WAMBEKE, TRAVIS

Weather: Clear

Activity Date: 10/30/2017

Principal - Site Visit

Activity Hours: 2.0

Ref. Plans/Specs:
GPI Geotechnical Evaluation for Infrastructure

Plans Date: 06/29/2017

General Location:
Earthwork, north central structural fill placement

Reported To: Kevin Holmes (Western Construction)

Narrative:

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I arrived on site after reviewing reports that the earthwork contractor, Western Construction (Western), was having difficulty achieving compaction. We reviewed the Proctors, which comprised a 107 pounds per cubic foot (pcf) on dark brown silt from a sample obtained near the surface versus the 114.5 pcf on the light reddish-brown clay encountered at depth.

At the time I arrived on site, I witnessed Western scrappers cutting and drifting cut into the fill immediately below them, preceding west to east. This is the large central draw fill. Fill placement was moving rather rapidly with 3 active scrapers while the 2 oversized scrapers were removing and wasting top soil over the ridge to the northwest. Justin arrived and we proceeded to perform compaction testing. Initial densities corresponded to between 90 and 91% compaction based on the 114.5 pcf Proctor. We had a loaded scraper proof compact a finite area and retest it. After multiple passes, we got approximately 93% compaction. To me, this indicates the Proctor value being utilized may be slightly high; therefore, I grabbed a sample from the cut area and returned it to our laboratory for modified Proctor testing.

Kevin, Justin, and I briefly discussed the grading efforts and where he would advance next. We also discussed the care needed to excavate along the scraper pass where the fill soil drifted over the native soil interface. Justin verified that Kevin was doing this on a daily basis and cleaning drifted soil down to native soil to provide a good construction interface with the structural fill.

Discrepancy Description:

Activity Details

GeoProfessional: MAFFEY, JUSTIN
Weather: Clear
Activity Date: 10/31/2017

GeoProfessional - Density Testing
Activity Hours: 4.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE
Plans Date: 06/29/2017
General Location:
Fill area along draw, between Waha Court and Cayuse Street and in NE corner of site

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of reddish brown clayey silt being placed as structural fill for the future housing area and roadways. The current fill surface ranged from about 3 to 20 feet below subgrade. Fill material was placed in approximate 1-foot thick lifts and was compacted by a quad-drum sheep's foot roller followed by a fully loaded CAT 631 earth scraper. The laboratory testing of the sample taken the previous day was completed and it was determined that a proctor value of 113.0 would be used as the soils maximum dry density.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.8 to 110.4 pcf and 13 to 19.8 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE dated 06/29/2017. The material was compacted to a stiff and unyielding condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN
Weather: Overcast
Activity Date: 11/01/2017

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GeoProfessional - Density Testing

Activity Hours: 4.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Fill area along draw, between Waha Court and Cayuse Street and in NE corner of site

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of reddish brown clayey silt being placed as structural fill for the future housing area and roadways. The current fill surface ranged from about 10 to 16 feet below subgrade. Fill material was placed in approximate 1-foot thick lifts and was compacted by a quad-drum sheep's foot roller followed by a fully loaded CAT 631 earth scraper.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.8 to 109.9 pcf and 12.2 to 20.1 percent moisture corresponding to 95 and 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE dated 06/29/2017. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Overcast

Activity Date: 11/02/2017

GeoProfessional - Density Testing

Activity Hours: 6.0

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Fill area along draw between Waha Court and Cayuse Street and fill area south of Umatilla Court

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of reddish brown

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clayey silt being placed as structural fill for the future housing areas and roadways. The current fill surface ranged from about 1 to 12 feet below subgrade. Fill material was placed in approximate 1-foot thick lifts and was compacted by a quad-drum sheep's foot roller followed by a fully loaded CAT 631 earth scraper.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.8 to 109.4 pcf and 12.3 to 20.0 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE dated 06/29/2017. The material was compacted to a stiff and unyielding condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Clear

Activity Date: 05/08/2018

GeoProfessional - Density Testing

Activity Hours: 2.0

Field Equipment

Equipment: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Wallowa Street

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Ct. and Wallowa St. as well as the northeast section between the same roadways. The current fill surface ranged from approximately 2.5 to 11.5 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed prior to my arrival and was compacted with a quad-drum sheep's foot roller with several passes across the areas.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 pcf to 109.3 pcf and 18.4 to 21.4 percent moisture corresponding to 95 and 97 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: OKEEFE, KYLE

Weather: Clear

Activity Date: 05/14/2018

GeoProfessional - Density Testing

Activity Hours: 3.0

Field Equipment

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Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Cayuse Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of silty clay being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Ct. and Cayuse St. as well as the northeast section between the same roadways. The current fill surface ranged from approximately 6.5 to 5.5 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed prior to my arrival and was compacted with a quad-drum sheep's foot roller with several passes across the areas.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.9 to 109.6 PCF and 16.3% to 18.0% for in-place moisture corresponding to 95 and 97 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN

Weather: Clear

Activity Date: 05/15/2018

GeoProfessional - Density Testing

Activity Hours: 3.0

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Cayuse Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site in the morning and afternoon as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of a silty clay being used as structural fill between Waha Ct. and Cayuse St. Upon arrival I observed that the structural fill had been compacted using a sheepsfoot roller and scrapers. Compaction of the structural fill had taken place before my arrival although the structural fill appeared to be compacted to a firm, and unyielding surface. Current fill elevations ranged from 1.5 to 6.5 feet below grade according to Kevin. Little to no pumping was observed under construction equipment travelling across the site. I performed multiple density tests here, which achieved the minimum compaction requirements of 95% of ASTM D 1557 using the modified proctor. See In Place Density Test Sheet for results and locations. I documented my results and reported to Kevin with Western before departing site.

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Activity Details

GeoProfessional: BELL, BRITTON

Weather: Clear

Activity Date: 05/21/2018

GeoProfessional - Density Testing

Activity Hours: 1.5

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/29/2018

General Location: Cayuse Street

Reported To: Kevin Kirkman (KIP Development)

Narrative:

I arrived on site as requested by Kevin Kirkman to accomplish nuclear density testing of clay being placed as fill for the Cayuse Street, downhill on site. The current fill surface was about a foot thick, as reported by Kevin. Fill material was placed in approximate 1-foot thick lifts from approximately 7-feet below surface to native ground and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 109.2 to 112.9 pcf and 16.5 to 19.5 percent moisture corresponding to 95 and 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the Pullman City Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Kirkman prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Overcast

Activity Date: 05/23/2018

GeoProfessional - Density Testing

Activity Hours: 1.5

Field Equipment

Equipment: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Wallowa Street, and south end of site

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Wallowa Street as well as the far south section near South Grand Avenue. The current fill surface ranged from approximately 6.0 to 10.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed prior to my arrival and was compacted with a

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quad-drum sheep's foot roller and fully loaded CAT earth scrapers. The area on the south had retained all passing test results, while some areas along the draw between Waha Court and Wallowa Street did not reach compaction requirements. GPI will return to the site to re-test these areas in the draw and accomplish further compaction testing.

Densities measured with the nuclear densometer in the locations tested and passed ranged from approximately 107.6 pcf to 111.3 pcf and 17.1 to 18.3 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 05/23/2018

GeoProfessional - Density Testing **Activity Hours:** 2.0

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/29/2017

General Location:
Waha Court and South of Waha Court

Reported To: Kevin Kirkman (KIP Development)

Narrative:
I arrived on site as requested by Kevin Kirkman to accomplish nuclear density testing and retesting, from the previous day, of reddish clay being placed as subgrade. Fill material was placed in approximate 1-foot thick lifts from approximately 1-feet below the current suface to the current surface and was compacted by a sheep's foot double roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 126.3 to 132.6 pcf and 14.9 to 20 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Kirkman prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 05/24/2018

GeoProfessional - Density Testing **Activity Hours:** 2.0

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/29/2017

General Location:
Waha Court and South of Waha Court

Reported To: Kevin Kirkman (KIP Development)

Narrative:
I arrived on site as requested by Kevin Kirkman to accomplish nuclear density testing and retesting, from the previous day, of reddish clay being placed as subgrade. Fill material was placed in approximate 1-foot thick lifts from approximately 1-feet below the current

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suface to the current surface and was compacted by a sheep's foot double roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 to 107.8 pcf and 16.3 to 20.1 percent moisture corresponding to 95 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Kirkman prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS
Weather: Clear
Activity Date: 05/25/2018

GeoProfessional - Density Testing
Activity Hours: 1.5

Ref. Plans/Specs: GPI GEE
Plans Date: 06/29/2017
General Location:
Between Waha Court and Wallowa Street

Reported To: Kevin Holmes(western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse Street The current fill surface ranged from approximately 2.0 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS
Weather: Overcast
Activity Date: 05/29/2018

GeoProfessional - Density Testing
Activity Hours: 1.5

Ref. Plans/Specs: GPI GEE
Plans Date: 06/29/2017
General Location:
Between Waha Court and Wallowa Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha

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Court and Cayuse Street as well as just south of Cayuse Street. The current fill surface ranged from approximately 2.0 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Clear

Activity Date: 05/30/2018

GeoProfessional - Density Testing

Activity Hours: 5.0

Field Equipment

Equipment: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Wallowa Street

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse St. The current fill surface ranged from approximately 2 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 pcf to 112.1 pcf and 9.8 to 21.4 percent moisture corresponding to 95 and 99 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS

Weather: Clear

Activity Date: 05/31/2018

GeoProfessional - Density Testing

Activity Hours: 1.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Wallowa Street

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Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court. and Cayuse Street as well as just south of Cayuse Street. The current fill surface ranged from approximately 2.0 to 18.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON
Weather: Overcast
Activity Date: 06/01/2018

GeoProfessional - Drafting
Activity Hours: 1.5

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/29/2017

General Location:
South of Waha Court and Cayuse Street

Reported To: Kevin Kirkman (Western Construction)

Narrative:
I arrived on site as requested by Kevin Kirkman of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 3-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.9 to 110.1 pcf and 15.9 to 20.0 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Kirkman prior to departing the site.

Activity Details

GeoProfessional: OKEEFE, KYLE
Weather: Clear
Activity Date: 06/02/2018

GeoProfessional - Density Testing
Activity Hours: 3.5

Field Equipment

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Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Waha Court and Cayuse Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of silty clay being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as the northeast section between the same roadways. The current fill surface ranged from approximately 3.0 feet to 1.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed prior to my arrival and was compacted with a quad-drum sheep's foot roller with several passes across the areas.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.9 to 111.2 PCF and 15.1% to 19.4% for in-place moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON

Weather: Overcast

Activity Date: 06/04/2018

GeoProfessional - Density Testing

Activity Hours: 2.0

Ref. Plans/Specs: GPI GEE

General Location:
South of Waha Court, Cayuse Street, and Umatilla Court

Reported To: Kevin Kirkman (Western Construction)

Narrative:
I arrived on site as requested by Kevin Kirkman of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 3-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 to 111.6 pcf and 15.7 to 20.5 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Kirkman prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS

Weather: Clear

Activity Date: 06/05/2018

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GeoProfessional - Density Testing **Activity Hours:** 4.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Between Cayuse Street and Wallowa Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas between Waha Court and Cayuse Street as well as on the far south end of the site. The current fill surface ranged from approximately 2.0 to 10.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.1 pcf to 114.1 pcf and 11.8 to 21.1 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. Kevin and I discussed the possibility of performing a new proctor test on the soil being excavated due to concerns voiced by Kevin of the material being different. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN **Weather:** Clear **Activity Date:** 06/06/2018

GeoProfessional - Density Testing **Activity Hours:** 1.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street to Umatilla Court

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of a silty clay being used as structural fill between Cayuse Street and Umatilla Street. Upon arrival I observed that the structural fill had been compacted using a sheepsfoot roller and scrapers. Compaction of the structural fill had taken place before my arrival although the structural fill appeared to be compacted to a firm, and unyielding surface. Little to no pumping was observed under construction equipment travelling across the site. I performed multiple density tests here, however, one density test achieved the minimum 95% compaction. The remaining tests did not achieve compaction of 95%, with moisture contents ranging from 20% to 23%. I notified Kevin with western who said he would have the areas tested later in the afternoon. After returning to the site later in the day, I retested the failed area, which subsequently passed. I did not document the failing tests as it was rectified the same day. I documented my results and reported to Kevin with Western before departing site.

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Activity Details

GeoProfessional: MAFFEY, JUSTIN

Weather: Clear

Activity Date: 06/07/2018

GeoProfessional - Density Testing

Activity Hours: 2.5

Field Equipment

Equipment: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Between Cayuse Street and Wallowa Street, south of Umatilla Court

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of light brown silt being placed as embankment fill for the planned residential development. Fill areas tested today included between Cayuse Street and Wallowa Court between Wallowa Street and Umatilla Court, south of Umatilla Court, and along the construction access road on the east side of the site. All areas mentioned above reported passing test results, except an area along the construction access road between Wallowa Street and Umatilla Court. This area was too moist and did not meet compaction requirements. I informed Kevin of the situation and GPI will re-test this area the following day. The current fill surfaces ranged from 1 to 9 feet below subgrade as reported by Mr. Holmes. Material was placed in an approximate 1-foot thick lift and was compacted with a quad-drum sheep's foot roller and CAT 631 earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.9 to 108.7 pcf and 14.4 to 20.1 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 06/29/2017. Material was compacted to a stiff and unyielding condition and did no exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON

Weather: Clear

Activity Date: 06/07/2018

GeoProfessional - Density Testing

Activity Hours: 3.0

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/27/2017

General Location:
Cayuse Street and Umatilla Court

Reported To: Kevin (Western Construction)

Narrative:

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I arrived on site as requested by Kevin of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 109.0 to 106.9 pcf and 17.3 to 20.6 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS **Weather:** Clear **Activity Date:** 06/13/2018

GeoProfessional - Density Testing **Activity Hours:** 5.5

Ref. Plans/Specs: GPI GEE

General Location:
Wallowa Street, Cayuse Street, and Waha Court

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas on Waha Court, Cayuse Street and Wallowa Street. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 98 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: CRESSLER, LUCAS **Weather:** Clear **Activity Date:** 06/14/2018

GeoProfessional - Density Testing **Activity Hours:** 4.5

Ref. Plans/Specs: GPI GEE

General Location:
South end of Cayuse Street and Waha Court

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish

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nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas on Waha Court and Cayuse Street. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 97 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN

Weather: Clear

Activity Date: 06/15/2018

GeoProfessional - Density Testing

Activity Hours: 4.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Cayuse Street, Umatilla Court, Wallowa Street

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site three different times today as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of a silty clay being used as structural fill on Cayuse Court, Umatilla Court, and Wallowa Street. Upon arrival I observed that the structural fill had been compacted using a sheepsfoot roller and scrapers. Compaction of the structural fill had taken place before my arrival although the structural fill appeared to be compacted to a firm, and unyielding surface. Little to no pumping was observed under construction equipment travelling across the site. I performed multiple density tests here, which achieved the minimum 95% of ASTM D1557 using the modified Proctor.

Additionally, approximately 75% of the lift on Umatilla street was to coarse for testing. I gathered a sample of the material and took it back to the lab for testing and compaction was observed. A sheepsfoot roller and scraper made several passes across the lift. The lift of structural fill appeared compacted to a dense, interlocking, and unyielding position with little to no pumping observed under compaction equipment. I documented my results and reported to Kevin with Western before departing site.

Activity Details

GeoProfessional: BELL, BRITTON

Weather: Clear

Activity Date: 06/25/2018

GeoProfessional - Density Testing

Activity Hours: 2.0

Ref. Plans/Specs:
City of Pullman Standards and GPI

Plans Date: 06/27/2017

General Location:
Cayuse Street and Umatilla Court

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Reported To: Kevin (Western Construction)

Narrative:
I arrived on site as requested by Kevin of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 108.7 to 108.8 pcf and 17.0 to 17.2 percent moisture corresponding to 95 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. I was also called to visually inspect two 1 foot lifts of shot rock being placed on the lowest level. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 06/27/2018

GeoProfessional - Density Testing **Activity Hours:** 1.0

GeoProfessional - Subgrade Observation **Activity Hours:** 1.0

Ref. Plans/Specs:
City of Pullman Standards and GPI GEE

Plans Date: 06/29/2017

General Location:
Cayuse Street and Umatilla Court

Reported To: Kevin Holmes (Western Construction)

Narrative:
I arrived on site as requested by Kevin Holmes of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 108.3 to 110.0 pcf and 14.8 to 18.7 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. I was also was requested to visually inspect two 1 foot lifts of shot rock being placed on the lowest level. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Holmes prior to departing the site.

Discrepancy: Yes

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 06/29/2018

GeoProfessional - Density Testing **Activity Hours:** 2.0

GeoProfessional - Subgrade Observation **Activity Hours:** 1.0

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Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier

Reported To: Kevin Holmes (Western Construction)

Narrative:

I arrived on site as requested by Kevin Holmes of Western Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 108.4 to 110.3 pcf and 16.9 to 20.1 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Kevin Holmes prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN **Weather:** Clear **Activity Date:** 07/05/2018

GeoProfessional - Density Testing **Activity Hours:** 4.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Waha Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site three different times as requested by Sean Hammond with Germer Construction (Germer) to accomplish nuclear density testing of a 5/8 minus crushed aggregate and silty clay being placed as backfill for the sanitary sewer line trench on Waha Street from manhole 17 to 18. Upon arrival in the morning I performed density testing on the crushed aggregate that had been placed over the pipe. Approximately 2 feet of gravel was over the pipe and compaction had taken place before my arrival, although the fill appeared to be compacted to a dense, interlocking, and unyielding position. Test results recorded in the area of the gravel from manhole 17 to 18 achieved the minimum 95% compaction of ASTM D1557 using the modified proctor.

Upon arrival in the afternoon I performed several density tests in the areas mentioned above. Compaction had taken place before my arrival and the silty clay backfill appeared compacted to a firm and dense position, while the gravel around manhole 17 appeared compacted to a dense, interlocking, and unyielding position. Lift thickness appeared to be approximately 12-18 inches. Tests performed in the trench backfill achieved the minimum 95% compaction.

Upon arrival on my final visit I performed several density tests in the sanitary sewer line trench. Compaction had taken place before my arrival and the silty clay backfill appeared compacted to a firm and dense position, while the gravel around manhole 17 appeared compacted to a dense, interlocking, and unyielding position. Lift thickness appeared to be approximately 12-18 inches. Tests performed around manhole 17 achieved the minimum 95% compaction. However, tests performed on the silty clay backfill along the length of the trench failed to achieve the minimum 95% compaction. I notified Sean with Germer who informed me that they would remove some of the silty clay backfill and rip it to let it dry before testing again on Monday. I documented my results and reported to Sean Hammond with Germer before departing site.

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Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/12/2018

GeoProfessional - Density Testing **Activity Hours:** 3.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to 2 feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.3 to 116.5 pcf and 12.3 to 17.3 percent moisture corresponding from 95 to 103 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean Hammond prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/13/2018

GeoProfessional - Density Testing **Activity Hours:** 4.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of aggregate being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 114.1 to 133.5 pcf and 12.3 to 17.3 percent moisture corresponding from 90 to 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. Failing tests (Less than 95% compaction) were retested following additional compaction efforts until tests met the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000
Fax: 509.339.2001

Client:

KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/16/2018

GeoProfessional - Density Testing **Activity Hours:** 6.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier and Waha Court

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.1 to 114.1 pcf and 11.2 to 16.4 percent moisture corresponding from 95 to 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/17/2018

GeoProfessional - Density Testing **Activity Hours:** 6.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier and Waha Court

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line along Waha Court. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.4 to 107.6 pcf and 11.5 to 17.5 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/18/2018

GeoProfessional - Density Testing **Activity Hours:** 6.0

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Middle Tier and Waha Court

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line along Waha Court. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 to 110.8 pcf and 11.3 to 17.5 percent moisture corresponding from 95 to 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/19/2018

GeoProfessional - Density Testing **Activity Hours:** 6.0

Ref. Plans/Specs: **Plans Date:** 06/29/2017 **General Location:** Middle Tier and Waha Court
City of Pullman Standards and GPI GEE

Reported To: Sean Hammond (Western Construction)

Narrative:
I arrived on site as requested by Sean Hammond of Western Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.3 to 109.0 pcf and 13.0 to 15.8 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

GeoProfessional: BELL, BRITTON **Weather:** Clear **Activity Date:** 07/20/2018

GeoProfessional - Density Testing **Activity Hours:** 4.0

Ref. Plans/Specs: City of Pullman Standards **Plans Date:** 06/29/2017 **General Location:** Middle Tier and Waha Court

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Reported To: Sean Hammond (Western Construction)

Narrative:
I arrived on site as requested by Sean Hammond of Western Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the aggregate locations tested ranged from approximately 132.3 to 136.0 pcf and 6.5 to 8.5 percent moisture corresponding from 95 to 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

Activity Details

GeoProfessional: HENDERSON, RICK **Weather:** Clear **Activity Date:** 07/21/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 4.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of 5/8" gravel and reddish brown clay being placed as backfill for the storm drain line running along Cayuse Street on site. Fill surfaces ranged from 1 to 3 feet above the pipe. Material was placed in approximate 1-foot thick lifts and was compacted with a utility trench roller (gravel) and sheep's foot roller (clay).

Densities measured with the nuclear densometer in the locations tested all achieved compaction of at least 95% of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense/stiff and interlocking/unyielding condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Hammond prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN **Weather:** Clear **Activity Date:** 07/23/2018

GeoProfessional - Density Testing **Activity Hours:** 1.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street

Reported To: Sean Hammond (Germer Construction)

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Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of 5/8" gravel and reddish brown clay being placed as backfill for the storm drain line running along Cayuse Street on site. Fill surfaces ranged from 1 to 3 feet above the pipe. Material was placed in approximate 1-foot thick lifts and was compacted with a utility trench roller (gravel) and sheep's foot roller (clay).

Densities measured with the nuclear densometer in the locations tested all achieved compaction of at least 95% of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense/stiff and interlocking/unyielding condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Hammond prior to departing the site.

Activity Details

GeoProfessional: KANNENBERG, JOSHUA

Weather: Clear

Activity Date: 07/23/2018

GeoProfessional - Density Testing

Activity Hours: 4.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Cayuse Street, Wallawa Street and Waha Court

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of 5/8" gravel and reddish brown clay being placed as backfill for the storm drain lines running along Cayuse Street, Waha court and Wallawa Street on site. Fill surfaces ranged from 1 to 3 feet above the pipe. Material was placed in approximate 1-foot thick lifts and was compacted with a utility trench roller (gravel) and sheep's foot roller (clay).

Densities measured with the nuclear densometer in the locations tested all achieved compaction of at least 95% of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense/stiff and interlocking/unyielding condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Hammond prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN

Weather: Clear

Activity Date: 07/24/2018

GeoProfessional - Density Testing

Activity Hours: 4.0

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location: Waha Court and Cayuse Street

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site two different times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of a 5/8 minus crushed aggregate and silty clay being placed as backfill for the sanitary sewer line trench on Waha Court and Cayuse Street. Upon arrival I performed density testing on the crushed aggregate over the trench on Waha Court. Compaction had taken place before my arrival, although the fill appeared to be compacted to a dense, interlocking, and unyielding position. Test results recorded in the area of the gravel over the sanitary sewer line on Waha court achieved the minimum 95% compaction of ASTM D1557 using the modified proctor.

Additionally, GPI Geoprofessional Zach Paulsen was also on site. I assisted Zach with density testing throughout the site. While testing, the nuclear density gauge being used was sprayed with water from the water truck becoming inoperable, at which time we waited for another gauge to be brought out to site to continue testing.

Upon arrival on my final visit, Zach and I performed several density tests in the sanitary sewer line trench along Cayuse Street and Wallowa Street. Compaction had taken place before my arrival although the gravel along the Wallowa Street sanitary sewer line trench appeared compacted to a dense, interlocking, and unyielding position. Lift thickness appeared to be approximately 12 inches. Tests performed along the Wallowa Street trench achieved the minimum 95% compaction. However, tests performed on the silty clay backfill along the length of the trench on Cayuse Street failed to achieve the minimum 95% compaction. See In-Place density test sheet for results and locations. I notified Sean with Germer who informed me that they would have this area tested later. See Zach Paulsen's daily field report for other testing performed throughout the day. I documented my results and reported to Sean Hammond with Germer before departing site.

Activity Details

GeoProfessional: PAULSEN, ZACH
Weather: Clear
Activity Date: 07/24/2018

GeoProfessional - Density Testing
Activity Hours: 10.0

Ref. Plans/Specs: GPI GEE
Plans Date: 06/29/2017
General Location: Waha Court and Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Waha Court and Cayuse Street. The current fill surface was about 1 foot below finish base to 10 feet below finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 9-feet below finish base to 1 feet below finish base and was compacted by whacker "jumping jacks", vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 104.8 to 137.7 pcf and 4.6 to 18.6 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

On Cayuse St. there was a small section of the utility trench east side of the center man whole that failed to meet compaction requirements, Sean was notified prior to departing the site.

Activity Details

GeoProfessional Innovation

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GeoProfessional Report

Client:

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Pullman, WA 99163

Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 07/25/2018

GeoProfessional - Density Testing **Activity Hours:** 10.0

Ref. Plans/Specs: GPI GEE **General Location:** Waha Court and Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site three times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Waha Court and Cayuse Street. The current fill surface was about 1 foot below finish base to 2 feet below finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below finish base to 1 feet below finish base and was compacted by whacker "jumping jacks", vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 123.0 to 147.6 pcf and 5.1 to 17.1 percent moisture corresponding to 95 and 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PERSELL, JOHN **Weather:** Clear **Activity Date:** 07/25/2018

GeoProfessional - Density Testing **Activity Hours:** 3.5

Field Equipment

Density Gauge: Yes

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Waha Court and Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of a 5/8 minus crushed aggregate and silty clay being placed as backfill for the sanitary sewer line trench on Waha Court and Cayuse Street. Upon arrival I performed density testing on the crushed aggregate around the manholes on Cayuse street. Compaction had taken place before my arrival, although the fill appeared to be compacted to a dense, interlocking, and unyielding position. Test results recorded in the area of the gravel around the manholes on Cayuse Street achieved the minimum 95% compaction of ASTM D1557 using the modified proctor.

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Project:

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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

I then performed several nuclear density tests on Waha Court for the service lines and around the 2nd manhole. Compaction was accomplished using a dual drum vibratory trench roller making several passes across the lifts of crushed aggregate around the manhole and the silty clay over the service lines. Little to no pumping, rutting or deflection was observed under compaction equipment. The trench backfill appeared compacted to a firm, dense, interlocking, and unyielding position. Lift thickness appeared to be approximately 12 inches. Test results here achieved the minimum 95% compaction of ASTM D1557 using the modified proctors. See In-Place density test sheet for results and locations. GPI geoprofessional Zach Paulsen was also on site, please see his daily field report for other testing performed throughout the day. I documented my results and reported to Sean Hammond with Germer before departing site.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 07/26/2018

GeoProfessional - Density Testing **Activity Hours:** 6.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Cayuse Street. The current fill surface was about 1 foot below finish base to 0.5 feet below finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below finish base to 1 feet below finish base and was compacted by whacker "jumping jacks", vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 122.8 to 144.7 pcf and 7.2 to 19.0 percent moisture corresponding to 95 and 101 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

The final scheduled visit was cancelled by Sean Hammond do to unforeseen events and was scheduled to arrive on location the following morning.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 07/27/2018

GeoProfessional - Density Testing **Activity Hours:** 5.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street and Wallowa Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

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Project:

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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Cayuse Street as well as the western most manhole Wallowa Street. The current fill surface was about 1 foot below finish base to .5 feet below finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below finish base to 1 feet below finish base and was compacted vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 117.3 to 144.6 pcf and 5.2 to 16.9 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

The final scheduled visit was cancelled by Sean Hammond do to unforeseen events and was scheduled to arrive on location the following morning.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 07/30/2018

GeoProfessional - Density Testing

Activity Hours: 10.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Cayuse Street and Wallowa Street

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Cayuse Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller and “jumping jack” wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 121.8 to 148.7 pcf and 3.9 to 15.5 percent moisture corresponding to 95 and 100.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 07/31/2018

GeoProfessional - Density Testing

Activity Hours: 6.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location: Wallowa Street

Reported To: Sean Hammond (Germer Construction)

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Project:

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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Narrative:

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 6-feet below finish base to 5 feet below finish base and was compacted vibratory sheep's foot trench roller, and “jumping jack” wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 139.3 to 148.6 pcf and 5.1 to 7.2 percent moisture corresponding to 95 and 99.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I did observe several lifts of clay in the storm water trench exhibit bridging behavior yielding less than ideal results. This was reported to site foreman and the material was removed and re-rolled. Density testing will continue tomorrow morning at the request of Germer.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 08/31/2018

GeoProfessional - Overtime - Density Testing

Activity Hours: 6.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Umatilla Street and Golden Hills Drive

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel reddish brown clay and 5/8" minus crushed gravel being placed for sanitation sewers and storm drains on Umatilla Street and clay back fill being placed on Golden Hills Drive. The current fill surface was about 5 feet below finish road subgrade to 3 feet below finish road subgrade on the main sanitation and storm drain trench and 3 feet below finish road subgrade to 1 foot below finish road subgrade on the southern utility trenches on Umatilla Street. On Golden Hills Drive, the current fill surface was 1 foot below finish road subgrade to 2 feet below finished road subgrade as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 5 feet below finish road subgrade to a 1 feet below finish road subgrade and was compacted with a vibrating sheep's foot trench roller, large single drum vibrating sheep's foot roller and "J" tamper.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.3 to 142.1 pcf dry density and 3.7 to 14.4 percent moisture corresponding to 95 to 101 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

Fill material to coarse for testing was being placed prior to my departure comprised of clay and localized shot rock in between storm drain piping and sanitation piping in troughs between manhole 7 and 6. A photo was taken and uploaded to the report for documentation.

I documented my results and reported to Sean prior to departing the site.

Uploaded Files

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GeoProfessional Report

Client:

KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Upload Description:

Material to coarse for testing placed in between storm drain piping and sanitation piping from manhole 7 to 6

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 09/06/2018

GeoProfessional - Overtime - Density Testing

Activity Hours: 5.0

GeoProfessional Innovation

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GeoProfessional Report

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Pullman, WA 99163

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Umatilla Street between manhole 6.5 and 6. Golden Hills Drive. north of manhole 4. Cayuse Street storm drain run off.

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of clay reddish brown clay and being placed for sanitation sewers and storm drains on Umatilla Street and gravel being placed as backfill for storm drain and sanitation trenches along Golden Hills Drive as well as storm drain runoff on Cayuse Street. The current fill surface was about 2 feet below finish road subgrade on the main sanitation and storm drain trench and utility trenches on Umatilla Street 4 to 5 feet below finish road subgrade and 5 to 1 foot below finished road subgrade on Cayuse Street, as reported by Sean. Fill material was placed prior to my arrival and was compacted with a large single drum vibrating sheep's foot roller, J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 113.6 to 154.1 pcf dry density and 2.8 to 14.3 percent moisture corresponding to 95 and 110 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 09/07/2018

GeoProfessional - Overtime - Density Testing

Activity Hours: 5.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive waterline and stormboxes along Waha and Cayuse Street

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for storm boxes being placed on Waha and Cayuse Street as well as the waterline tie in on Golden Hills Drive. The current fill surface was about 3.5 to finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 108.4 to 139.2 pcf dry density and 4.0 to 13.9 percent moisture corresponding to 95 and 122 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

GeoProfessional Report

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Client:

KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:

PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 09/10/2018

GeoProfessional - Overtime - Density Testing

Activity Hours: 5.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive sanitation trench, waterline, and waterline tie in

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline and sanitation trenched being placed on Golden Hills Drive. The current fill surface was about 5.5 to finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 139.7 pcf dry density and 3.6 to 7.5 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 09/11/2018

GeoProfessional - Overtime - Density Testing

Activity Hours: 3.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive. sanitation trench, waterline and waterline tie in

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenched being placed on Golden Hills Drive. The current fill surface was about 1 to 2 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 133.4 to 134.6 pcf dry density and 4.8 to 5.3 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

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I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 09/12/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 1.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Work canceled

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing. No testing was done do to no new lifts being placed. Waterlines are being installed on Cayuse Street. and Wallowa Street. Further testing will be needed tomorrow morning.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 09/13/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 1.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Work canceled

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing. No testing was done do to no new lifts being placed. Waterlines are being installed on Cayuse Street and Wallowa Street. Further testing will be needed tomorrow morning.

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Activity Details

GeoProfessional: SAUL, NICK **Weather:** Clear **Activity Date:** 09/15/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 1.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Cayuse Street waterline and Waha Court waterline

Reported To: Sean Hammond (Germer)

Narrative:
I arrived on site as requested by Sean Hammond (Germer) to accomplish nuclear density testing of 3/8 minus gravel being placed as structural fill for the Waha Court and Cayuse Street waterline trenches. Fill material was placed in approximate 6-inch thick lifts and was compacted by walk behind trench rollers and handheld compactors. In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 126.5 to 137 pcf and 4.2 to 7.8 percent moisture failing to meet required minimum compaction of 95 percent in 3 out of 4 test locations; see In-Place Density Test Sheet for results and locations. I documented my results and reported to Sean Hammond prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 09/17/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 3.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Work canceled

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing. No testing was done do to no new lifts being placed. Waterlines are being installed on Umatilla Street. I was told to return in the afternoon for possible testing. Upon returning in the afternoon no testing was needed and work was canceled. Further testing will be needed Wednesday.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 09/20/2018

GeoProfessional - Density Testing **Activity Hours:** 2.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:**

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Wallowa Street, Cayuse Street, Golden Hills Drive, Umatilla Court and Waha Street. waterline trench

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenches installed on Wallowa Street, Cayuse Street, Golden Hills Drive, Umatilla Court, and Waha Street waterline trench. The current fill surface was about 0.5 to 2 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.5 to 136.8 pcf dry density and 3.7 to 8.0 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH
Weather: Clear
Activity Date: 09/21/2018

GeoProfessional - Density Testing
Activity Hours: 4.0

Ref. Plans/Specs: GPI GEE
Plans Date: 06/29/2017
General Location:
Cayuse Street, Golden Hills Drive, and Waha Street waterline trench

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenches installed on Cayuse Street, Golden Hills Drive, and Waha Street waterline trench. The current fill surface was about at to 3.5 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 139.6 pcf dry density and 3.9 to 6.6 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH
Weather: Clear
Activity Date: 09/24/2018

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GeoProfessional - Density Testing

Activity Hours: 4.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Cayuse Street, Golden Hills Drive, and Waha Street waterline trench

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenches installed on Cayuse Street, Golden Hills Drive and Wallowa Street waterline trench. The current fill surface was about at to 2 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 142.4 pcf dry density and 5.0 to 7.4 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

Activity Details

GeoProfessional: WAMBEKE, TRAVIS

Weather: Clear

Activity Date: 09/24/2018

Engineer - Principal - Site Visit

Activity Hours: 1.0

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location: Construction progress

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site to review the construction progress since my last site visit. Roadway subgrades had been achieved with the exception of isolated utility backfill areas. In my traverse throughout the project site, no soft or unstable areas were visually evident. A haul truck was proof compacting in a couple of roadway areas noting no significant deflection or rutting. Sean noted that he had initiated his waterline pressure test. Once that passes, the City will take over and install laterals and Germer will advance curb and sidewalk grades. Sean estimated that would occur in the next 2 weeks. Once sidewalk and curb is established, paving will occur relatively quickly thereafter.

No modifications to the slopes along Umatilla Street where continuous seepage has been observed throughout the project's duration. I reminded Sean to construct the underdrains that I understood Kevin and Ron had approved prior to completing curb and sidewalk. Additionally, it is important that I whitness these underdrains and the conditions exposed during their construction.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 09/26/2018

GeoProfessional Report

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GeoProfessional - Density Testing **Activity Hours:** 1.5

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Work canceled

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing but no new lifts have been placed. Further testing is requested Friday morning.

Activity Details

GeoProfessional: WAMBEKE, TRAVIS **Weather:** Clear **Activity Date:** 10/17/2018

Engineer - Principal - Site Visit **Activity Hours:** 1.0

Ref. Plans/Specs: NA **General Location:** Construction progress

Reported To: Sean Hammond (Germer Construction)

Narrative:
In preparation for producing final letters on various lots and roadways for the project, I arrived on site and reviewed the construction progress. At this point, the only street that is entirely covered with some base course is Golden Hills Drive. Waha is close and the subsequent street south is receiving base at this time. Remaining roadways were continuing to be worked on. There is quite a bit of utility work at the entrance to the subdivision. Franchise utility ditches are open behind curb line on every roadway. According to Sean, Knox Concrete will be on site to advance curb and Gutter along Waha as early as tomorrow.

GeoProfessional Innovation

GeoProfessional Report

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Sundance Court
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Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 10/22/2018

GeoProfessional - Short Notice - Density Testing

Activity Hours: 3.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive eastern curbside

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the eastern curbs on Golden Hills Dr. The current fill surface was at finished road subgrade as reported by Sean. Fill material was placed in approximate 5-inch thick lifts from approximately 0.5-feet below road subgrade and was compacted by a large vibrating smooth drum roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 134.7 to 139.5 pcf dry density and 2.7 to 4.4 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean Hammond prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 10/29/2018

GeoProfessional - Short Notice - Density Testing

Activity Hours: 6.0

Ref. Plans/Specs: GPI's GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive, Waha Court, Cayuse Street, Umatilla Street

Reported To: Sean Hammond with Germer Construction

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at finish grade, as reported by Sean. Fill material was placed prior to my arrival and was compacted with a large vibrating single drum roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 134.2 to 145.7 pcf and 2.8 to 6.6 percent moisture corresponding to 95 and 103 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

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Sundance South Subdivision
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I completed testing Waha Ct., Cayuse St., and Golden Hills Dr. down to Umatilla St. The southern 150' of Golden Hills Dr. was unfinished and waiting to be bladed and rolledprior to my departure. Wallowa and Umatilla St. still has to be tested prior to paving.

I documented my results and reported to Sean Hammond with Germer Construction prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Overcast **Activity Date:** 10/31/2018

GeoProfessional - Density Testing **Activity Hours:** 4.0

Ref. Plans/Specs: GPI GEE **Plans Date:** 06/29/2017 **General Location:** Wallowa Street, Waha Court, Cayuse Street, and Golden Hills Drive

Reported To: Mr. Sean Hammond with Germer Construction

Narrative:

I arrived on site as requested by Mr. Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at finish road subgrade as reported by Mr. Hammond. Fill material was placed in approximate 6-inch thick lifts from approximately 0.5 to 1-foot below below finish road subgrade and was compacted by a large single drum vibrating roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.3 to 145.2 pcf dry density and 4.8 to 7.6 percent moisture corresponding to 95 and 104 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Sean Hammond with Germer Construction prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN **Weather:** Overcast **Activity Date:** 11/06/2018

GeoProfessional - Short Notice - Asphalt Density Testing **Activity Hours:** 7.0

Ref. Plans/Specs: City of Pullman Standards **General Location:** Cayuse Street and Waha Court

Reported To: Sean Hammond (Germer Construction)

Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along Cayuse Street and Waha Court. A theoretical maximum density (Rice) of 160.1 pcf was provided based on the 1/2-inch mix design. Approximately 570 tons of HMA were placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB53 for the intermediate rolling, and finished with a couple static passes with the CAT roller. A total of 19

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Project:

PU17212B
Sundance South Subdivision
Sundance Court
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quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards. I documented my results and reported to Colt with Motley prior to departing the site.

Activity Details

GeoProfessional: MAFFEY, JUSTIN **Weather:** Clear **Activity Date:** 11/08/2018

GeoProfessional - Job Cancellation **Activity Hours:** 1.5

Ref. Plans/Specs: N/A **General Location:** Sundance South Development

Reported To: Sean Hammond (Germer Construction, Inc.)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction, Inc. (Germer) to accomplish nuclear density testing of the hot mix asphalt paving, yet paving was cancelled for the day. No notice was given to GPI so a job cancellation applies.

Activity Details

GeoProfessional: KANNENBERG, JOSHUA **Weather:** Overcast **Activity Date:** 11/09/2018

GeoProfessional - Asphalt Density Testing **Activity Hours:** 5.5

Ref. Plans/Specs: City of Pullman Standards **General Location:** Golden Hills Drive

Reported To: Sean Hammond (Germer Construction)

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along Golden Hills Drive and the approach to Golden Hills from Highway 27 at the south entrance to the project site. A theoretical maximum density (Rice) of 160.1 pcf was provided based on the 1/2-inch mix design. The HMA was placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB24 for the intermediate rolling, and finished with a couple static passes with the CAT roller. A total of 16 quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards. I documented my results and reported to Sean with Germer and Colt with Motley prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH **Weather:** Clear **Activity Date:** 11/10/2018

GeoProfessional - Overtime - Density Testing **Activity Hours:** 1.5

GeoProfessional Report

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Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Western approach of Golden Hills Drive

Reported To: Sean Hammond with Germer Construction

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at finish road subgrade, as reported by Sean. Fill material was placed and compacted prior to my arrival.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 137.4 pcf dry density and 2.6 to 5.0 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean Hammond with Germer Construction prior to departing the site.

Activity Details

GeoProfessional: PAULSEN, ZACH

Weather: Clear

Activity Date: 11/12/2018

GeoProfessional - Asphalt Density Testing

Activity Hours: 5.5

Ref. Plans/Specs: GPI GEE

Plans Date: 06/29/2017

General Location:
Golden Hills Drive western side of the road

Reported To: Sean Hammond with Germer Construction

Narrative:
I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along the western side of Golden Hills Drive. A theoretical maximum density (Rice) of 160.1 pcf wet density was provided based on the 1/2-inch mix design. Approximately 450 tons of HMA were placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB53 for the intermediate rolling and finished with a couple static passes with the CAT roller. A total of 12 quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards.

I documented my results and reported to Colt with Motley prior to departing the site.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Sundance South Subdivision
Sundance Court
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
1		10/27/17	PUL17-0177	A	ML	13.5	114.5	11.7	96.3	8	84	90 / 103	DF/MF
2		10/27/17	PUL17-0177	A	ML	13.5	114.5	15.1	105.4	8	92	90 / 103	DP/MP
3		10/27/17	PUL17-0177	A	ML	13.5	114.5	12.5	104.1	8	91	90 / 103	DP/MP
4	1	10/27/17	PUL17-0177	A	ML	13.5	114.5	15.9	102.8	8	90	90 / 103	DP/MP
5		10/30/17	PUL17-0177	A	ML	13.5	114.5	13.6	113.0	8	99	95 / 103	DP
6		10/30/17	PUL17-0177	A	ML	13.5	114.5	15.2	108.4	8	95	95 / 103	DP
7		10/30/17	PUL17-0177	A	ML	13.5	114.5	14.8	109.2	8	95	95 / 103	DP
8		10/30/17	PUL17-0329	A	ML	16.0	113.0	19.2	102.6	8	91	90 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Fill - Subgrade: Fill			Troxler / 3430 / 37625 / 2/3/2017	PERSELL, JOHN
2	Fill - Subgrade: Fill			Troxler / 3430 / 37625 / 2/3/2017	PERSELL, JOHN
3	Fill - Subgrade: Fill			Troxler / 3430 / 37625 / 2/3/2017	PERSELL, JOHN
4	Fill - Subgrade: Fill			Troxler / 3430 / 37625 / 2/3/2017	PERSELL, JOHN
5	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.	18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
6	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.	18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
7	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.	18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
8	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.	14.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DF/MF: Density Fail / Moisture Fail **DP/MP:** Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
9		10/30/17	PUL17-0329	A	ML	16.0	113.0	20.4	102.6	8	91	90 / 103	DP
10		10/30/17	PUL17-0329	A	ML	16.0	113.0	16.8	105.1	8	93	90 / 103	DP
11		10/30/17	PUL17-0329	A	ML	16.0	113.0	15.8	101.3	8	90	90 / 103	DP
12		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.8	107.6	8	95	95 / 103	DP
13		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.2	107.4	8	95	95 / 103	DP
14		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.1	8	95	95 / 103	DP
15		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.7	8	95	95 / 103	DP
16		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
9	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
10	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
11	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
12	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
13	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
14	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
15	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
16	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
17		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.9	107.6	8	95	95 / 103	DP
18		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.0	106.8	8	95	95 / 103	DP
19		10/31/17	PUL17-0329	A	ML	16.0	113.0	13.0	110.4	8	98	95 / 103	DP
20		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95 / 103	DP
21		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.2	107.7	8	95	95 / 103	DP
22		10/31/17	PUL17-0329	A	ML	16.0	113.0	15.6	108.9	8	96	95 / 103	DP
23		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95 / 103	DP
24		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.4	107.7	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	20.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
18	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
19	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
20	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
21	Fill - Subgrade: Fill in NE corner of site. Along Waha Ct.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
22	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
23	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
24	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
25		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.3	8	96	95 / 103	DP
26		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.7	108.2	8	96	95 / 103	DP
27		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.1	108.3	8	96	95 / 103	DP
28		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.0	8	95	95 / 103	DP
29		10/31/17	PUL17-0329	A	ML	16.0	113.0	15.3	109.1	8	97	95 / 103	DP
30		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95 / 103	DP
31		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.4	108.8	8	96	95 / 103	DP
32		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.5	110.2	8	98	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
25	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
26	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
27	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
28	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
29	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	6.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
30	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
31	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
32	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
33		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.1	107.4	8	95	95 / 103	DP
34		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.9	106.9	8	95	95 / 103	DP
35		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95 / 103	DP
36		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.9	108.1	8	96	95 / 103	DP
37		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	109.0	8	96	95 / 103	DP
38		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.5	8	95	95 / 103	DP
39		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.1	8	95	95 / 103	DP
40		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.0	8	96	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
33	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
34	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
35	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	16.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
36	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
37	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
38	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
39	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
40	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
41		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.3	107.8	8	95	95 / 103	DP
42		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.2	107.7	8	95	95 / 103	DP
43		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.1	107.5	8	95	95 / 103	DP
44		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.3	8	95	95 / 103	DP
45		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.0	107.3	8	95	95 / 103	DP
46		11/1/17	PUL17-0329	A	ML	16.0	113.0	13.1	107.3	8	95	95 / 103	DP
47		11/1/17	PUL17-0329	A	ML	16.0	113.0	12.6	107.5	8	95	95 / 103	DP
48		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.0	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
41	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
42	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
43	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
44	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
45	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
46	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
47	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
48	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
49		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.1	107.3	8	95	95 / 103	DP
50		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.2	107.4	8	95	95 / 103	DP
51		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.2	108.9	8	96	95 / 103	DP
52		11/1/17	PUL17-0329	A	ML	16.0	113.0	13.8	107.3	8	95	95 / 103	DP
53		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.3	108.8	8	96	95 / 103	DP
54		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.2	107.0	8	95	95 / 103	DP
55		11/1/17	PUL17-0329	A	ML	16.0	113.0	14.8	107.5	8	95	95 / 103	DP
56		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.0	109.9	8	97	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
49	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
50	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
51	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
52	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
53	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
54	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
55	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
56	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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In-Place Density Tests

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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
57		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP
58		11/1/17	PUL17-0329	A	ML	16.0	113.0	12.2	106.9	8	95	95 / 103	DP
59		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.4	107.5	8	95	95 / 103	DP
60		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.5	107.0	8	95	95 / 103	DP
61		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.4	108.2	8	96	95 / 103	DP
62		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.4	107.7	8	95	95 / 103	DP
63		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95 / 103	DP
64		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.9	107.3	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
57	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
58	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
59	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
60	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	11.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
61	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
62	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
63	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
64	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
65		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.0	106.9	8	95	95 / 103	DP
66		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.2	106.8	8	95	95 / 103	DP
67		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.5	109.0	8	96	95 / 103	DP
68		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.7	106.8	8	95	95 / 103	DP
69		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.0	108.3	8	96	95 / 103	DP
70		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.3	107.2	8	95	95 / 103	DP
71		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.3	107.5	8	95	95 / 103	DP
72		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.5	106.8	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
65	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
66	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
67	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
68	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
69	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
70	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	14.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
71	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
72	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
73		11/1/17	PUL17-0329	A	ML	16.0	113.0	14.1	108.4	8	96	95 / 103	DP
74		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP
75		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.6	106.8	8	95	95 / 103	DP
76		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.1	8	95	95 / 103	DP
77		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.3	108.2	8	96	95 / 103	DP
78		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.1	8	96	95 / 103	DP
79		11/2/17	PUL17-0329	A	ML	16.0	113.0	17.7	108.7	8	96	95 / 103	DP
80		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.8	106.9	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
73	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
74	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
75	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
76	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	1.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
77	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
78	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
79	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	11.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
80	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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81		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.6	108.6	8	96	95 / 103	DP
82		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.1	106.9	8	95	95 / 103	DP
83		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.1	107.4	8	95	95 / 103	DP
84		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.3	108.3	8	96	95 / 103	DP
85		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.0	107.0	8	95	95 / 103	DP
86		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	8	95	95 / 103	DP
87		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.8	107.8	8	95	95 / 103	DP
88		11/2/17	PUL17-0329	A	ML	16.0	113.0	17.9	107.0	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
81	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
82	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
83	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
84	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
85	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
86	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
87	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
88	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	6.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
89		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.7	107.7	8	95	95 / 103	DP
90		11/2/17	PUL17-0329	A	ML	16.0	113.0	20.0	108.3	8	96	95 / 103	DP
91		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.4	107.6	8	95	95 / 103	DP
92		11/2/17	PUL17-0329	A	ML	16.0	113.0	12.3	109.4	8	97	95 / 103	DP
93		11/2/17	PUL17-0329	A	ML	16.0	113.0	16.6	109.1	8	97	95 / 103	DP
94		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.1	110.2	8	98	95 / 103	DP
95		11/2/17	PUL17-0329	A	ML	16.0	113.0	14.8	106.8	8	95	95 / 103	DP
96		11/2/17	PUL17-0329	A	ML	16.0	113.0	14.0	107.5	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
89	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	6.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
90	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
91	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.	4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
92	Fill - Subgrade: Fill south of Umatilla St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
93	Fill - Subgrade: Fill south of Umatilla St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
94	Fill - Subgrade: Fill south of Umatilla St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
95	Fill - Subgrade: Fill south of Umatilla St.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
96	Fill - Subgrade: Fill south of Umatilla St.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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97		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.1	107.1	8	95	95 / 103	DP
98		11/2/17	PUL17-0329	A	ML	16.0	113.0	16.3	106.8	8	95	95 / 103	DP
99		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.6	108.4	8	96	95 / 103	DP
100		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	106.9	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
97	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
98	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
99	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	1.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
100	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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101		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.3	106.8	8	95	95 / 103	DP
102		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95 / 103	DP
103		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.5	108.1	8	96	95 / 103	DP
104		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	108.1	8	96	95 / 103	DP
105		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	107.3	8	95	95 / 103	DP
106		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.7	108.4	8	96	95 / 103	DP
107		5/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.8	6	96	95 / 103	DP
108		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.9	107.0	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
101	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
102	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
103	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
104	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
105	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.	4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017	MAFFEY, JUSTIN
106	Fill - Embankment: Between Waha Ct. and Cayuse St.	7.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
107	Fill - Embankment: Between Waha Ct. and Cayuse St.	11.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
108	Fill - Embankment: Between Cayuse St.and Wallowa St.	9.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Pullman, WA 99163

Test Results

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109		5/8/18	PUL17-0329	A	ML	16.0	113.0	19.5	107.6	8	95	95 / 103	DP
110		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.7	107.5	8	95	95 / 103	DP
111		5/8/18	PUL17-0329	A	ML	16.0	113.0	18.4	109.3	8	97	95 / 103	DP
112		5/8/18	PUL17-0329	A	ML	16.0	113.0	19.2	109.0	8	96	95 / 103	DP
113		5/8/18	PUL17-0329	A	ML	16.0	113.0	21.4	107.0	8	95	95 / 103	DP
114		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.3	108.5	8	96	95 / 103	DP
115		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.0	109.5	8	97	95 / 103	DP
116		5/14/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.6	8	97	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
109	Fill - Embankment: Between Cayuse St.and Wallowa St.	4.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
110	Fill - Embankment: Between Waha St. And Cayuse St.	2.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
111	Fill - Embankment: Between Waha St. And Cayuse St.	4.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
112	Fill - Embankment: Between Cayuse St. And Wallowa St	9.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
113	Fill - Embankment: Between Cayuse St. And Wallowa St	9.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
114	Subgrade: Between Waha Court and Cayuse Street	-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE
115	Subgrade: Between Waha Court and Cayuse Street	-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE
116	Subgrade: Between Waha Court and Cayuse Street	-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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117		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.8	8	95	95 / 103	DP
118		5/14/18	PUL17-0329	A	ML	16.0	113.0	16.7	106.9	8	95	95 / 103	DP
119		5/14/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.2	8	95	95 / 103	DP
120		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95 / 103	DP
121		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.3	107.0	8	95	95 / 103	DP
122		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95 / 103	DP
123		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.7	106.9	8	95	95 / 103	DP
124		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.9	8	95	95 / 103	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
117	Subgrade: Between Waha Court and Cayuse Street	-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE
118	Subgrade: Between Waha Court and Cayuse Street	-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE
119	Subgrade: Between Waha Court and Cayuse Street	-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017	OKEEFE, KYLE
120	Fill - Structural: Between Waha and Cayuse	6.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
121	Fill - Structural: Between Waha and Cayuse	4.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
122	Fill - Structural: Between Waha and Cayuse	4.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
123	Fill - Structural: Between Waha and Cayuse	3.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
124	Fill - Structural: Between Waha and Cayuse	3.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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125		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.1	106.9	8	95	95 / 103	DP
126		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.1	107.0	8	95	95 / 103	DP
127		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.2	8	95	95 / 103	DP
128		5/21/18	PUL17-0177	A	ML	13.5	114.5	16.5	112.9	8	99	95 /	DP
129		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.4	109.5	8	96	95 /	DP/MF
130		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.5	109.5	8	96	95 /	DP
131		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.1	109.2	8	95	95 /	DP
132		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.6	8	96	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
125	Fill - Structural: Between Waha and Cayuse	1.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
126	Fill - Structural: Between Waha and Cayuse	6.0	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
127	Fill - Structural: Between Waha and Cayuse	6.0	Below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
128	Subgrade: Second Road Downhill	2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
129	Subgrade: Second Road Downhill	2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
130	Subgrade: Second Road Downhill	2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
131	Subgrade: Second Road Downhill	2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
132	Fill - Subgrade: Second street downhill	2,506.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass **DP/MF:** Density Pass / Moisture Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
133		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	109.5	8	96	95 /	DP
134		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	109.1	8	95	95 /	DP
135		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	109.0	8	95	95 /	DP
136		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	109.9	8	96	95 /	DP
137		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95 /	DP
138		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.4	8	95	95 /	DP
139		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.8	111.4	8	97	95 /	DP
140		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.2	108.5	8	95	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
133	Fill - Subgrade: South of waha ct	2,506.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
134	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
135	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
136	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
137	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
138	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
139	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
140	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
141		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.4	108.9	8	95	95 /	DP
142		5/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	114.1	8	100	95 /	DP
143		5/22/18	PUL17-0177	A	ML	13.5	114.5	16.8	110.0	8	96	95 /	DP
144		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	108.5	8	95	95 /	DP
145		5/22/18	PUL17-0177	A	ML	13.5	114.5	17.4	109.6	8	96	95 /	DP
146		5/22/18	PUL17-0177	A	ML	13.5	114.5	20.0	108.8	8	95	95 /	DP
147		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.8	8	95	95 /	DP
148		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	109.3	8	95	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
141	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
142	Fill - Subgrade: South of waha ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
143	Fill - Subgrade: Second Street down	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
144	Fill - Subgrade: Second Street down	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
145	Fill - Subgrade: Second Street down	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
146	Fill - Subgrade: Second Street down	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
147	Fill - Subgrade: Waha Ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	CAMPBELL, CHARLIE
148	Fill - Subgrade: Waha Ct	2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
149		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.1	108.7	8	96	95 /	DP
150		5/23/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.6	8	95	95 /	DP
151		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.9	108.6	8	96	95 /	DP
152		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.4	111.3	8	98	95 /	DP
153		5/23/18	PUL17-0177	A	ML	13.5	114.5	19.8	110.6	8	97	95 /	DP
154		5/23/18	PUL17-0177	A	ML	13.5	114.5	17.5	108.3	8	95	95 /	DP
155		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.4	113.9	8	99	95 /	DP
156		5/23/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.9	8	96	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
149	Fill - Embankment: Draw between Cayuse and Waha	6.0	BSG	Troxler / 3430 / 22354 / 4/19/2018	MAFFEY, JUSTIN
150	Fill - Embankment: South end	10.0	BSG	Troxler / 3430 / 22354 / 4/19/2018	MAFFEY, JUSTIN
151	Fill - Embankment: South end	10.0	BSG	Troxler / 3430 / 22354 / 4/19/2018	MAFFEY, JUSTIN
152	Fill - Embankment: South end	10.0	BSG	Troxler / 3430 / 22354 / 4/19/2018	MAFFEY, JUSTIN
153	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
154	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
155	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
156	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
157		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.1	8	95	95 /	DP
158		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.1	108.8	8	95	95 /	DP
159		5/23/18	PUL17-0177	A	ML	13.5	114.5	18.9	110.1	8	96	95 /	DP
160		5/23/18	PUL17-0177	A	ML	13.5	114.5	18.2	108.8	8	95	95 /	DP
161		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.3	8	95	95 /	DP
162		5/24/18	PUL17-0177	A	ML	13.5	114.5	20.0	108.7	8	95	95 /	DP
163		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.9	8	95	95 /	DP
164		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.0	110.3	8	96	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
157	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
158	Fill - Subgrade: Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
159	Fill - Subgrade: South of Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
160	Fill - Subgrade: South of Waha Ct	2,603.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
161	Fill - Subgrade: Second Road Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
162	Fill - Subgrade: Second Road Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
163	Fill - Subgrade: Second Road Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
164	Fill - Subgrade: Second Road Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
165		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.6	109.1	8	95	95 /	DP
166		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.2	108.6	8	95	95 /	DP
167		5/24/18	PUL17-0177	A	ML	13.5	114.5	20.6	108.5	8	95	95 /	DP
168		5/24/18	PUL17-0177	A	ML	13.5	114.5	15.9	110.0	8	96	95 /	DP
169		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.1	109.0	8	95	95 /	DP
170		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.8	8	95	95 /	DP
171		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.5	8	95	95 /	DP
172		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
165	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
166	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
167	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
168	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
169	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
170	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
171	Fill - Subgrade: Waha Ct	2,690.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
172	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

Pullman
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Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
173		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.5	107.9	8	94	95 /	DF
174		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.7	108.3	8	95	95 /	DP
175		5/24/18	PUL17-0177	A	ML	13.5	114.5	17.7	108.7	8	95	95 /	DP
176		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.9	108.3	8	95	95 /	DP
177		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.3	109.5	8	96	95 /	DP
178		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.5	110.1	8	96	95 /	DP
179	173	5/24/18	PUL17-0177	A	ML	13.5	114.5	16.1	109.7	8	96	95 /	DP
180		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.2	109.7	8	96	95 /	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
173	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
174	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
175	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
176	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
177	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
178	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
179	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
180	Fill - Subgrade: Waha Ct	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DF: Density Fail **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
181		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.1	109.1	8	95	95 /	DP
182		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.5	108.5	8	95	95 /	DP
183		5/24/18	PUL17-0177	A	ML	13.5	114.5	17.9	109.1	8	95	95 /	DP
184		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.4	8	95	95 /	DP
185		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95 /	DP/MP
186		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP
187		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95 /	DP/MP
188		5/25/18	PUL17-0177	A	ML	13.5	114.5	16.0	112.9	8	99	95 /	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
181	Fill - Subgrade: Second Street Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
182	Fill - Subgrade: Second Street Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
183	Fill - Subgrade: Second Street Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
184	Fill - Subgrade: Second Street Downhill	2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
185	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
186	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
187	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
188	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
189		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	110.3	8	98	95 /	DP/MP
190		5/25/18	PUL17-0329	A	ML	16.0	113.0	16.0	107.8	8	95	95 /	DP/MP
191		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95 /	DP/MP
192		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.2	8	97	95 /	DP/MP
193		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	111.1	8	98	95 /	DP/MP
194		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP
195		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.5	8	96	95 /	DP/MP
196		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
189	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
190	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
191	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
192	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
193	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
194	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
195	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
196	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
197		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	111.9	8	99	95 /	DP/MP
198		5/25/18	PUL17-0329	A	ML	16.0	113.0	16.0	106.9	8	95	95 /	DP/MP
199		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.2	8	98	95 /	DP/MP
200		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	110.3	8	98	95 /	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
197	Fill - Embankment: Wanna court, East end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
198	Fill - Embankment: Cayuse st, West end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
199	Fill - Embankment: Cayuse st, West end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
200	Fill - Embankment: Cayuse st, West end			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
201		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.5	8	96	95	DP/MP
202		5/29/18	PUL17-0329	A	ML	16.0	113.0	16.0	108.6	8	96	95	DP/MP
203		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	111.1	8	98	95	DP/MP
204		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	113.9	8	101	95	DP/MP
205		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
206		5/29/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.1	8	97	95	DP/MP
207		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
208		5/29/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
201	Fill - Embankment: Coyuse ct			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
202	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
203	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
204	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
205	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
206	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
207	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
208	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
209		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	109.4	8	97	95	DP/MP
210		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP
211		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95	DP/MP
212		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	108.7	8	96	95	DP/MP
213		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.7	111.4	8	99	95	DP/MP
214		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.1	110.3	8	98	95	DP/MP
215		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.7	108.9	8	96	95	DP
216		5/30/18	PUL17-0329	A	ML	16.0	113.0	15.6	106.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
209	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
210	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
211	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
212	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
213	Fill - Embankment: Waha st			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
214	Fill - Embankment: Cayuse ct			Troxler / 3430 / 22354 / 4/19/2018	CRESSLER, LUCAS
215	Fill - Embankment: South of Cayuse St.	4.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
216	Fill - Embankment: South of Cayuse St.	8.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
217		5/30/18	PUL17-0329	A	ML	16.0	113.0	13.6	107.5	8	95	95	DP
218		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.6	109.3	8	97	95	DP
219		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.2	8	98	95	DP
220		5/30/18	PUL17-0329	A	ML	16.0	113.0	11.6	110.2	8	98	95	DP
221		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.5	107.2	8	95	95	DP
222		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.8	107.5	8	95	95	DP
223		5/30/18	PUL17-0329	A	ML	16.0	113.0	14.6	109.0	8	96	95	DP
224		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.1	108.4	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
217	Fill - Embankment: South of Cayuse St.	10.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
218	Fill - Embankment: South of Cayuse St.	13.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
219	Fill - Embankment: South of Cayuse St.	9.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
220	Fill - Embankment: South of Cayuse St.	8.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
221	Fill - Embankment: South of Cayuse St.	8.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
222	Fill - Embankment: South of Cayuse St.	3.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
223	Fill - Embankment: South of Cayuse St.	4.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
224	Fill - Embankment: Cayuse St.	3.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
225		5/30/18	PUL17-0329	A	ML	16.0	113.0	9.8	112.1	8	99	95	DP
226		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.4	107.9	8	95	95	DP
227		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.7	107.9	8	95	95	DP
228		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.2	8	95	95	DP
229		5/30/18	PUL17-0329	A	ML	16.0	113.0	12.1	108.6	8	96	95	DP
230		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.2	8	95	95	DP
231		5/30/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.5	8	95	95	DP
232		5/30/18	PUL17-0329	A	ML	16.0	113.0	12.8	111.2	8	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
225	Fill - Embankment: Between Waha Ct. And Cayuse St.	0.0	@ subgrade	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
226	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
227	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
228	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
229	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
230	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
231	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
232	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
233		5/30/18	PUL17-0329	A	ML	16.0	113.0	14.4	108.5	8	96	95	DP
234		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.6	108.8	8	96	95	DP
235		5/30/18	PUL17-0329	A	ML	16.0	113.0	20.3	107.0	8	95	95	DP
236		5/30/18	PUL17-0329	A	ML	16.0	113.0	19.2	107.2	8	95	95	DP
237		5/30/18	PUL17-0329	A	ML	16.0	113.0	21.4	107.7	8	95	95	DP
238		5/30/18	PUL17-0329	A	ML	16.0	113.0	20.0	107.8	8	95	95	DP
239		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
240		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
233	Fill - Embankment: Waha Ct	4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018	MAFFEY, JUSTIN
234	Fill - Embankment: South of Cayuse St.	7.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
235	Fill - Embankment: South of Cayuse St.	9.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
236	Fill - Embankment: South of Cayuse St.	13.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
237	Fill - Embankment: South of Cayuse St.	7.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
238	Fill - Embankment: South of Cayuse St.	5.0	BSG	Instrotek / X3500 / 718 / 3/21/2018	MAFFEY, JUSTIN
239	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
240	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
241		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
242		5/31/18	PUL17-0329	A	ML	16.0	113.0	16.0	110.3	8	98	95	DP/MP
243		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.2	8	97	95	DP/MP
244		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95	DP/MP
245		5/31/18	PUL17-0329	A	ML	16.0	113.0	16.0	106.9	8	95	95	DP/MP
246		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
247		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
248		5/31/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
241	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
242	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
243	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
244	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
245	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
246	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
247	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
248	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
249		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
250		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	112.2	8	99	95	DP/MP
251		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
252		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
253		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
254		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
255		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
256		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.9	108.6	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
249	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
250	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
251	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
252	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
253	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
254	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
255	Fill - Embankment: Cayuse ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
256	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
257		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.3	8	98	95	DP
258		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.6	108.5	8	96	95	DP
259		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.3	108.4	8	96	95	DP
260		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.1	109.2	8	97	95	DP
261		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.3	8	95	95	DP
262		6/1/18	PUL17-0329	A	ML	16.0	113.0	14.6	107.7	8	95	95	DP
263		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.3	8	95	95	DP
264		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.7	107.6	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
257	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
258	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
259	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
260	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
261	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
262	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
263	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
264	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
265		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.7	8	95	95	DP
266		6/1/18	PUL17-0329	A	ML	16.0	113.0	14.5	112.5	8	100	95	DP
267		6/1/18	PUL17-0329	A	ML	16.0	113.0	10.4	107.6	8	95	95	DP
268		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.0	8	95	95	DP
269		6/1/18	PUL17-0329	A	ML	16.0	113.0	20.1	107.2	8	95	95	DP
270		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.4	8	95	95	DP
271		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
272		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.6	107.8	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
265	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
266	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
267	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT	2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	CAMPBELL, CHARLIE
268	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
269	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
270	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
271	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
272	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
273		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.6	108.4	8	96	95	DP
274		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.5	110.9	8	98	95	DP
275		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.4	111.2	8	98	95	DP
276		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.6	110.6	8	98	95	DP
277		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.7	110.5	8	98	95	DP
278		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.0	108.9	8	96	95	DP
279		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.2	106.9	8	95	95	DP
280		6/2/18	PUL17-0329	A	ML	16.0	113.0	19.4	107.2	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
273	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
274	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
275	Fill - Embankment: Between Cayuse and Waha Ct.	1.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
276	Fill - Embankment: Between Cayuse and Waha Ct.	1.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
277	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
278	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
279	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
280	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
281		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.9	107.0	8	95	95	DP
282		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.0	8	95	95	DP
283		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.1	107.0	8	95	95	DP
284		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.9	8	95	95	DP
285		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.5	108.1	8	96	95	DP
286		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.7	108.8	8	96	95	DP
287		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.9	108.3	8	96	95	DP
288		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.1	108.7	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
281	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
282	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
283	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
284	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
285	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
286	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
287	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE
288	Fill - Embankment: Between Cayuse and Waha Ct.	3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018	OKEEFE, KYLE

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
289		6/4/18	PUL17-0329	A	ML	16.0	113.0	20.5	107.0	8	95	95	DP
290		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.3	111.6	8	99	95	DP
291		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP
292		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.8	8	95	95	DP
293		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.8	110.7	8	98	95	DP
294		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.1	110.9	8	98	95	DP
295		6/4/18	PUL17-0329	A	ML	16.0	113.0	15.7	111.1	8	98	95	DP
296		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.7	8	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
289	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
290	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
291	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
292	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
293	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
294	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
295	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
296	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
297		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.0	110.5	8	98	95	DP
298		6/4/18	PUL17-0329	A	ML	16.0	113.0	19.3	107.1	8	95	95	DP
299		6/4/18	PUL17-0329	A	ML	16.0	113.0	19.6	108.4	8	96	95	DP
300		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.4	107.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
297	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
298	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.	2,561.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
299	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
300	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
301		6/4/18	PUL17-0329	A	ML	16.0	113.0	15.9	111.0	8	98	95	DP
302		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.7	8	97	95	DP
303		6/4/18	PUL17-0329	A	ML	16.0	113.0	13.6	107.7	8	95	95	DP
304		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.6	108.2	8	96	95	DP
305		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.9	8	96	95	DP
306		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.5	110.5	8	98	95	DP
307		6/5/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.6	8	95	95	DP/MP
308		6/5/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.2	8	97	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
301	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
302	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
303	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing	2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
304	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing	2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
305	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing	2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
306	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing	2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
307	Fill - Embankment: Cayuse			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
308	Fill - Embankment: Cayuse			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
309		6/5/18	PUL17-0177	A	ML	13.5	114.5	18.0	111.9	8	98	95	DP/MF
310		6/5/18	PUL17-0177	A	ML	13.5	114.5	18.0	109.3	8	95	95	DP/MF
311		6/5/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP
312		6/5/18	PUL17-0329	A	ML	16.0	113.0	17.0	107.7	8	95	95	DP/MP
313		6/6/18	PUL17-0177	A	ML	13.5	114.5	16.8	111.8	8	98	95	DP
314		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.7	8	95	95	DP
315		6/6/18	PUL17-0329	A	ML	16.0	113.0	17.9	107.9	8	95	95	DP
316		6/6/18	PUL17-0329	A	ML	16.0	113.0	14.4	108.7	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
309	Backfill - Sanitary Sewer Line Trench: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
310	Backfill - Sanitary Sewer Line Trench: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
311	Backfill - Sanitary Sewer Line Trench: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
312	Backfill - Sanitary Sewer Line Trench: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
313	Fill - Structural: Cayuse st	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
314	Fill - Embankment: South of Cayuse St.	1.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
315	Fill - Embankment: South of Cayuse St.	2.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
316	Fill - Embankment: South of Cayuse St.	2.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP/MF: Density Pass / Moisture Fail **DP/MP:** Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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Phone: 509.339.2000 | Fax: 509.339.2001

In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
317		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.2	107.4	8	95	95	DP
318		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.1	8	96	95	DP
319		6/6/18	PUL17-0329	A	ML	16.0	113.0	20.1	107.8	8	95	95	DP
320		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.3	8	95	95	DP
321		6/6/18	PUL17-0329	A	ML	16.0	113.0	14.9	108.3	8	96	95	DP
322		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.4	106.9	8	95	95	DP
323		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
324		6/6/18	PUL17-0329	A	ML	16.0	113.0	16.7	107.3	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
317	Fill - Embankment: South of Cayuse St.	4.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
318	Fill - Embankment: South of Cayuse St.	6.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
319	Fill - Embankment: South and east of Cayuse St. along construction access road	9.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
320	Fill - Embankment: South of Wallowa St.	7.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
321	Fill - Embankment: South of Wallowa St.	8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
322	Fill - Embankment: South of Wallowa St.	4.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
323	Fill - Embankment: South of Umatilla Ct.	8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN
324	Fill - Embankment: South of Umatilla Ct.	8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
325		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.4	108.5	8	96	95	DP
326		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.9	106.9	8	95	95	DP
327		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.7	108.2	8	96	95	DP
328		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.4	8	95	95	DP
329		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.5	106.8	8	95	95	DP
330		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.8	8	95	95	DP
331		6/7/18	PUL17-0329	A	ML	16.0	113.0	20.6	106.9	8	95	95	DP
332		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.8	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
325	Fill - P-152 Excavation, Subgrade, and Embankment: East Load Road	2,544.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
326	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,544.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
327	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
328	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
329	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill	2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
330	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift	2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
331	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift	2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
332	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift	2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
333		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.3	109.0	8	96	95	DP
334		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.3	108.1	8	96	95	DP/MP
335		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.5	8	95	95	DP/MP
336		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.9	108.7	8	96	95	DP/MP
337		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.4	8	95	95	DP/MP
338		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.3	8	98	95	DP/MP
339		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
340		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.9	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
333	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift	2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
334	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
335	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
336	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
337	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
338	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
339	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
340	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
341		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95	DP/MP
342		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.3	8	98	95	DP/MP
343		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
344		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.1	8	95	95	DP/MP
345		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.2	8	96	95	DP/MP
346		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.6	110.1	8	97	95	DP/MP
347		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.9	109.0	8	96	95	DP/MP
348		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.7	111.3	8	98	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
341	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
342	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
343	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
344	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
345	Fill - Embankment: Cayuse St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
346	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
347	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
348	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
349		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.8	109.2	8	97	95	DP/MP
350		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.3	8	95	95	DP/MP
351		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
352		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95	DP/MP
353		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.7	107.8	8	95	95	DP/MP
354		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95	DP/MP
355		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.8	111.7	8	99	95	DP/MP
356		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.1	111.7	8	99	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
349	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
350	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
351	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
352	Fill - General: South of Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
353	Fill - General: South of Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
354	Fill - General: South of Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
355	Fill - General: South of Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
356	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
357		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.1	8	95	95	DP/MP
358		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
359		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.0	8	96	95	DP/MP
360		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.1	8	95	95	DP/MP
361		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.7	8	96	95	DP/MP
362		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.3	8	97	95	DP/MP
363		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.3	8	95	95	DP/MP
364		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.2	109.0	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
357	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
358	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
359	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
360	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
361	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
362	Fill - General: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
363	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
364	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
365		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.7	109.6	8	97	95	DP/MP
366		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP/MP
367		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP/MP
368		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	8	95	95	DP/MP
369		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.6	107.1	8	95	95	DP/MP
370		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.8	109.3	8	97	95	DP/MP
371		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.8	109.2	8	97	95	DP/MP
372		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.6	109.4	8	97	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
365	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
366	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
367	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
368	Fill - General: Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
369	Fill - General: Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
370	Fill - General: Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
371	Fill - General: Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
372	Fill - General: North of Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
373		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.2	109.0	8	96	95	DP/MP
374		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.9	109.1	8	97	95	DP/MP
375		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.2	110.0	8	97	95	DP/MP
376		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.9	8	95	95	DP/MP
377		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
378		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.8	8	96	95	DP/MP
379		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.6	109.0	8	96	95	DP/MP
380		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.8	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
373	Fill - General: North of Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
374	Fill - General: North of Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
375	Fill - General: North of Waha St			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
376	Fill - General: South of wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
377	Fill - General: South of wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
378	Fill - General: South of wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
379	Fill - General: South of wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
380	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
381		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	109.1	8	97	95	DP/MP
382		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.7	8	96	95	DP/MP
383		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.9	8	97	95	DP/MP
384		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.9	8	96	95	DP/MP
385		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.2	108.2	8	96	95	DP/MP
386		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.9	109.2	8	97	95	DP/MP
387		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.8	108.5	8	96	95	DP/MP
388		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
381	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
382	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
383	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
384	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
385	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
386	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
387	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
388	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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Phone: 509.339.2000 | Fax: 509.339.2001

In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
389		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.8	8	95	95	DP/MP
390		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.3	8	97	95	DP/MP
391		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.3	8	97	95	DP/MP
392		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.4	8	96	95	DP/MP
393		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.1	8	96	95	DP/MP
394		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.2	8	96	95	DP/MP
395		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP/MP
396		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	108.1	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
389	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
390	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
391	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
392	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
393	Fill - General: Waha CT.			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
394	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
395	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
396	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
397		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
398		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.5	106.8	8	95	95	DP/MP
399		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.5	8	97	95	DP/MP
400		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.1	110.2	8	98	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
397	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
398	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
399	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
400	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
401		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.6	108.8	8	96	95	DP/MP
402		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95	DP/MP
403		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.2	108.5	8	96	95	DP/MP
404		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.9	8	95	95	DP/MP
405		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	109.3	8	97	95	DP/MP
406		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
407		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.5	8	95	95	DP/MP
408		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	111.3	8	98	95	DF

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
401	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
402	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
403	Fill - General: Wallowa st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
404	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
405	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
406	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
407	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
408	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DF:** Density Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
409		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
410		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.3	8	96	95	DP/MP
411		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.7	8	97	95	DP/MP
412		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
413		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95	DP/MP
414		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.7	8	95	95	DP/MP
415		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.7	8	95	95	DP/MP
416		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.1	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
409	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
410	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
411	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
412	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
413	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
414	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
415	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
416	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
417		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.7	107.4	8	95	95	DP/MP
418		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.9	108.5	8	96	95	DP/MP
419		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.1	8	96	95	DP/MP
420		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.6	8	97	95	DP/MP
421		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
422		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP
423		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.6	107.8	8	95	95	DP/MP
424		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
417	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
418	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
419	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
420	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
421	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
422	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
423	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
424	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
425		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
426		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.7	8	95	95	DP/MP
427		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.8	107.2	8	95	95	DP/MP
428		6/13/18	PUL17-0329	A	ML	16.0	113.0	17.6	110.7	8	98	95	DP/MP
429		6/14/18	PUL17-0177	A	ML	13.5	114.5	16.5	112.9	8	99	95	DP/MP
430		6/14/18	PUL17-0177	A	ML	13.5	114.5	15.7	110.0	8	96	95	DP/MP
431		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.7	106.9	8	95	95	DP/MP
432		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.0	8	97	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
425	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
426	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
427	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
428	Fill - Embankment: Waha st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
429	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
430	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
431	Fill - General: Waha ct			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
432	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
433		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.5	8	96	95	DP/MP
434		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
435		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.5	8	95	95	DP/MP
436		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.2	108.8	8	96	95	DP/MP
437		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.2	8	96	95	DP/MP
438		6/14/18	PUL17-0329	A	ML	16.0	113.0	17.6	110.2	8	98	95	DP/MP
439		6/14/18	PUL17-0329	A	ML	16.0	113.0	16.8	108.0	8	96	95	DP/MP
440		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
433	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
434	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
435	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
436	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
437	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
438	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
439	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
440	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
441		6/14/18	PUL17-0329	A	ML	16.0	113.0	16.4	109.8	8	97	95	DP/MP
442		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.5	8	95	95	DP/MP
443		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
444		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.3	8	96	95	DP/MP
445		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.3	108.8	8	96	95	DP
446		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.4	8	95	95	DP
447		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
448		6/15/18	PUL17-0329	A	ML	16.0	113.0	19.2	106.8	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
441	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
442	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
443	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
444	Fill - General: Cayuse st			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
445	Fill - Subgrade: Wallowa	2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
446	Fill - Subgrade: Wallowa	2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
447	Fill - Subgrade: Wallowa	2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
448	Fill - Subgrade: Wallowa	2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
449		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.1	106.8	8	95	95	DP
450		6/15/18	PUL17-0329	A	ML	16.0	113.0	16.8	108.7	8	96	95	DP
451		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.7	110.4	8	98	95	DP
452		6/15/18	PUL17-0329	A	ML	16.0	113.0	19.9	107.1	8	95	95	DP
453		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.3	112.2	8	99	95	DP
454		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.9	111.1	8	98	95	DP
455		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.3	109.1	8	97	95	DP
456		6/15/18	PUL17-0329	A	ML	16.0	113.0	14.5	108.2	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
449	Fill - Subgrade: Wallowa	2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
450	Fill - Subgrade: Cayuse	0.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
451	Fill - Subgrade: Cayuse	0.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
452	Fill - Subgrade: Cayuse	6.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
453	Fill - Subgrade: Cayuse	5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
454	Fill - Subgrade: Cayuse	5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
455	Fill - Subgrade: Cayuse	5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
456	Fill - Subgrade: Umatilla	5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
457		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.8	112.4	8	99	95	DP
458		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.6	108.6	8	95	95	DP
459		6/20/18	PUL17-0177	A	ML	13.5	114.5	17.9	115.2	8	101	95	DP
460		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.4	108.5	8	95	95	DP
461		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.1	8	95	95	DP
462		6/20/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
463		6/20/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.9	8	97	95	DP/MP
464		6/20/18	PUL17-0329	A	ML	16.0	113.0	15.8	109.0	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
457	Fill - Subgrade: Umatilla	5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018	PERSELL, JOHN
458	Fill - P-152 Excavation and Embankment Outside of Pavement: Third Teir Downhill	2,560.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
459	Fill - P-152 Excavation and Embankment Outside of Pavement: Third Teir Downhill	2,560.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
460	Fill - P-152 Excavation and Embankment Outside of Pavement: Western end of Top Teir	2,611.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
461	Fill - P-152 Excavation and Embankment Outside of Pavement: Western end of Top Teir	2,611.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
462	Fill - General: Waha CT, east end			Instrotek / X3500 / 1089 / 3/21/2018	CRESSLER, LUCAS
463	Fill - General: Waha CT, east end			Instrotek / X3500 / 1089 / 3/21/2018	CRESSLER, LUCAS
464	Fill - General: Waha CT, east end			Instrotek / X3500 / 1089 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
465		6/22/18	PUL17-0177	A	ML	13.5	114.5	14.7	114.5	8	100	95	DP
466		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	109.6	8	96	95	DP
467		6/22/18	PUL17-0177	A	ML	13.5	114.5	14.3	115.3	8	101	95	DP
468		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	110.4	8	96	95	DP
469		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.0	113.3	8	99	95	DP
470		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	110.6	8	97	95	DP
471		6/22/18	PUL17-0177	A	ML	13.5	114.5	11.3	118.4	8	103	95	DP
472		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	112.3	8	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
465	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,504.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
466	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,504.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
467	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,504.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
468	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,613.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
469	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,613.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
470	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,613.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
471	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,613.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
472	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
473		6/22/18	PUL17-0177	A	ML	13.5	114.5	17.6	110.2	8	96	95	DP
474		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.1	113.2	8	99	95	DP
475		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.2	8	94	95	DF
476	475	6/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	108.5	8	95	95	DP
477		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.3	8	95	95	DP
478		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.9	8	95	95	DP
479		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.9	8	96	95	DP
480		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.7	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
473	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
474	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
475	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
476	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
477	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
478	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
479	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier	2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
480	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,501.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass **DF:** Density Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
481		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.0	108.9	8	95	95	DP
482		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.3	111.1	8	97	95	DP
483		6/25/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.7	8	95	95	DP
484		6/25/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	8	95	95	DP
485		6/27/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.0	8	96	95	DP
486		6/27/18	PUL17-0177	A	ML	13.5	114.5	14.8	108.5	8	95	95	DP
487		6/27/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95	DP
488		6/27/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.8	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
481	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,501.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
482	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier	2,501.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
483	Fill - P-152 Excavation and Embankment Outside of Pavement: Second Highest Tier	2,571.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
484	Fill - P-152 Excavation and Embankment Outside of Pavement: Second Highest Tier	2,571.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
485	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,570.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
486	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,570.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
487	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,570.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON
488	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,571.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
489		6/28/18	PUL17-0177	A	ML	13.5	114.5	11.9	110.6	8	97	95	DP
490		6/28/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.2	8	95	95	DP
491		6/28/18	PUL17-0177	A	ML	13.5	114.5	11.4	109.3	8	95	95	DP
492		6/28/18	PUL17-0177	A	ML	13.5	114.5	12.9	115.3	8	101	95	DP
493		6/28/18	PUL17-0177	A	ML	13.5	114.5	12.9	115.3	8	101	95	DP
494		6/29/18	PUL17-0177	A	ML	13.5	114.5	16.9	110.3	8	96	95	DP
495		6/29/18	PUL17-0177	A	ML	13.5	114.5	19.5	109.2	8	95	95	DP
496		6/29/18	PUL17-0177	A	ML	13.5	114.5	20.1	108.4	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
489	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,573.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
490	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,573.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
491	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,574.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
492	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,574.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
493	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct	2,574.0	AMSL	Instrotek / X3500 / 718 / 3/21/2018	BELL, BRITTON
494	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier	2,549.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
495	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier	2,550.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON
496	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier	2,550.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
497		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.2	113.9	8	99	95	DP
498		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.2	112.1	8	98	95	DP
499		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.3	109.5	8	96	95	DP
500		7/3/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.1	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
497	Fill - Embankment: SE site corner lot fill	-10.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018	ABRAMS, ANDY
498	Fill - Embankment: SE site corner lot fill	-10.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018	ABRAMS, ANDY
499	Fill - Embankment: East end of second bench. Lot fill	-1.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018	ABRAMS, ANDY
500	Fill - Embankment: East end of second bench. Lot fill	-1.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018	ABRAMS, ANDY

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
501		7/5/18	PUL17269		GP	8.0	140.0	5.4	133.0	6	95	95	DP
502		7/5/18	PUL17269		GP	8.0	140.0	7.4	132.8	6	95	95	DP
503		7/5/18	PUL17269		GP	8.0	140.0	7.9	133.1	6	95	95	DP
504		7/5/18	PUL17269		GP	8.0	140.0	8.5	138.9	6	99	95	DP
505		7/5/18	PUL17269		GP	8.0	140.0	7.8	139.1	6	99	95	DP
506		7/5/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
507		7/5/18	PUL17-0329	A	ML	16.0	113.0	11.4	107.5	8	95	95	DP
508		7/5/18	PUL17-0329	A	ML	16.0	113.0	12.6	107.4	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
501	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, south side of structure	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
502	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 50 ft east	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
503	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 100 ft east	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
504	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 150 ft east	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
505	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 200 ft east	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
506	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure	2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
507	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 150 ft east	3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
508	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 200 ft east	3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
509		7/5/18	PUL17269		GP	8.0	140.0	5.7	133.5	8	95	95	DP
510		7/5/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.5	8	95	95	DP
511		7/5/18	PUL17269		GP	8.0	140.0	5.2	132.9	8	95	95	DP
512		7/5/18	PUL17269		GP	8.0	140.0	6.8	136.1	8	97	95	DP
513		7/9/18	PUL17-0329	A	ML	16.0	113.0	16.5	106.9	8	95	95	DP/MP
514		7/9/18	PUL17-0177	A	ML	13.5	114.5	12.5	117.0	8	102	95	DP/MP
515		7/9/18	PUL17-0177	A	ML	13.5	114.5	16.5	108.9	8	95	95	DP/MP
516		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.7	108.8	8	96	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
509	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure	3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
510	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 50 ft east	3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
511	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure	4.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
512	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, south side of structure	4.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018	PERSELL, JOHN
513	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 50 feet			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
514	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 100 feet			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
515	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 150 feet			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
516	Backfill - Sanitary Sewer Line Trench: 20feet west of manhole 18, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
517		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.4	8	97	95	DP/MP
518		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.3	8	98	95	DP/MP
519		7/9/18	PUL17269		GP	8.0	140.0	7.0	132.7	8	95	95	DP/MP
520		7/9/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.9	8	95	95	DP/MP
521		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.7	8	95	95	DP/MP
522		7/9/18	PUL17269		GP	8.0	140.0	7.5	135.6	8	97	95	DP/MP
523		7/9/18	PUL17269		GP	8.0	140.0	7.1	132.3	8	95	95	DP/MP
524		7/10/18	PUL17-0177	A	ML	13.5	114.5	14.1	111.2	8	97	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
517	Backfill - Sanitary Sewer Line Trench: 120 feet west of manhole 18, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
518	Backfill - Sanitary Sewer Line Trench: 170 feet west of manhole 18, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
519	Backfill - Sanitary Sewer Line Trench: 20 feet west of manhole 17, 4 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
520	Backfill - Sanitary Sewer Line Trench: 20 feet east of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
521	Backfill - Sanitary Sewer Line Trench: 110 feet east of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
522	Backfill - Sanitary Sewer Line Trench: 110 feet east of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
523	Backfill - Sanitary Sewer Line Trench: 100 feet west of manhole 17, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
524	Backfill - Sanitary Sewer Line Trench: 30 feet east of manhole 17, 0 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
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Pullman, WA 99163

Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
525		7/10/18	PUL17-0177	A	ML	13.5	114.5	14.3	111.2	8	97	95	DP/MP
526		7/10/18	PUL17269		GP	8.0	140.0	7.0	132.6	8	95	95	DP/MP
527		7/10/18	PUL17-0329	A	ML	16.0	113.0	16.9	106.8	8	95	95	DP/MP
528		7/10/18	PUL17269		GP	8.0	140.0	7.1	133.3	8	95	95	DP/MP
529		7/10/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.9	8	95	95	DP/MP
530		7/10/18	PUL17269		GP	8.0	140.0	7.1	133.3	8	95	95	DP/MP
531		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.5	108.9	8	96	95	DP/MP
532		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.1	107.6	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
525	Backfill - Sanitary Sewer Line Trench: 30 feet east of manhole 17, 0 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
526	Backfill - Sanitary Sewer Line Trench: Around manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
527	Backfill - Sanitary Sewer Line Trench: 50 feet West of manhole 17, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
528	Backfill - Sanitary Sewer Line Trench: 100 feet West of manhole 17, 4 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
529	Backfill - Sanitary Sewer Line Trench: 150 feet west of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
530	Backfill - Sanitary Sewer Line Trench: Around manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
531	Backfill - Sanitary Sewer Line Trench: 200 feet west of manhole 17, 3 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
532	Backfill - Sanitary Sewer Line Trench: 50 feet west of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
533		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.4	8	95	95	DP/MP
534		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.7	109.5	8	97	95	DP/MP
535		7/11/18	PUL17269		GP	8.0	140.0	5.7	135.0	8	96	95	DP/MF
536		7/11/18	PUL17269		GP	8.0	140.0	7.7	140.5	8	100	95	DP/MP
537		7/11/18	PUL17269		GP	8.0	140.0	6.4	136.9	8	98	95	DP/MF
538		7/11/18	PUL17269		GP	8.0	140.0	5.6	133.9	8	96	95	DP/MF
539		7/11/18	PUL17-0329	A	ML	16.0	113.0	10.8	115.0	8	102	95	DP/MF
540		7/12/18	PUL17-0329	A	ML	16.0	113.0	12.8	116.5	8	103	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
533	Backfill - Sanitary Sewer Line Trench: 200 feet west of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
534	Backfill - Sanitary Sewer Line Trench: 150 feet west of manhole 17, 2 feet BGS			Instrotek / X3500 / 718 / 3/21/2018	CRESSLER, LUCAS
535	Backfill - Utility Trench: North trench			Troxler / 3430 / 61919 / 8/31/2017	KANNENBERG, JOSHUA
536	Backfill - Utility Trench: North trench			Troxler / 3430 / 61919 / 8/31/2017	KANNENBERG, JOSHUA
537	Backfill - Utility Trench: North trench			Troxler / 3430 / 61919 / 8/31/2017	KANNENBERG, JOSHUA
538	Backfill - Utility Trench: North trench			Troxler / 3430 / 61919 / 8/31/2017	KANNENBERG, JOSHUA
539	Backfill - Utility Trench: Grade			Troxler / 3430 / 61919 / 8/31/2017	KANNENBERG, JOSHUA
540	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 15 feet west of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP/MF:** Density Pass / Moisture Fail **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
541		7/12/18	PUL17269		GP	8.0	140.0	7.5	135.4	8	97	95	DP
542		7/12/18	PUL17269		GP	8.0	140.0	5.8	138.7	8	99	95	DP
543		7/12/18	PUL17269		GP	8.0	140.0	7.4	138.9	8	99	95	DP
544		7/12/18	PUL17269		GP	8.0	140.0	7.1	139.8	8	100	95	DP
545		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.3	108.7	8	96	95	DP
546		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.3	8	95	95	DP
547		7/12/18	PUL17269		GP	8.0	140.0	7.2	132.8	8	95	95	DP
548		7/12/18	PUL17-0329	A	ML	16.0	113.0	16.5	107.3	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
541	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 5 feet east of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
542	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
543	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet southwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
544	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
545	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 15 feet west of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
546	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 35 feet northwest of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
547	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
548	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
549		7/12/18	PUL17-0329	A	ML	16.0	113.0	12.3	108.0	8	96	95	DP
550		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.3	8	95	95	DP
551		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.2	106.9	8	95	95	DP
552		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.3	107.6	8	95	95	DP
553		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.7	109.9	8	97	95	DP
554		7/12/18	PUL17269		GP	8.0	140.0	4.4	133.0	8	95	95	DP
555		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	109.6	8	97	95	DP
556		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	109.6	8	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
549	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet southwest of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
550	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northwest of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
551	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet north of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
552	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 30 feet south of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
553	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 10 feet east of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
554	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
555	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 ft south of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
556	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 ft south of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
557		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	108.7	8	96	95	DP
558		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.9	8	95	95	DP
559		7/12/18	PUL17269		GP	8.0	140.0	4.0	141.3	8	101	95	DP
560		7/12/18	PUL17269		GP	8.0	140.0	7.1	133.6	8	95	95	DP
561		7/13/18	PUL17-0329	A	ML	16.0	113.0	11.2	108.5	8	96	95	DP
562		7/13/18	PUL17-0329	A	ML	16.0	113.0	13.8	108.4	8	96	95	DP
563		7/13/18	PUL17269		GP	8.0	140.0	4.4	132.7	8	95	95	DP
564		7/13/18	PUL17-0329	A	ML	16.0	113.0	14.0	114.1	8	101	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
557	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft northwest of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
558	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft northwest of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
559	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 ft west of SD 18	6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
560	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 ft west of SD 18	6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
561	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet north of SD 18	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
562	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 20 feet west of SD 18	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
563	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
564	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 ft south of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
565		7/13/18	PUL17-0329	A	ML	16.0	113.0	12.6	107.5	8	95	95	DP
566		7/13/18	PUL17-0329	A	ML	16.0	113.0	15.4	108.7	8	96	95	DP
567		7/13/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.6	8	95	95	DP
568		7/13/18	PUL17269		GP	8.0	140.0	7.1	126.1	8	90	95	DF
569	568	7/13/18	PUL17269		GP	8.0	140.0	8.9	134.7	8	96	95	DP
570		7/13/18	PUL17269		GP	8.0	140.0	6.1	129.8	8	93	95	DF
571		7/13/18	PUL17269		GP	8.0	140.0	6.0	125.5	8	90	95	DF
572	571	7/13/18	PUL17269		GP	8.0	140.0	6.9	132.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
565	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 70 ft northwest of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
566	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 70 ft southwest of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
567	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft west of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
568	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet east of SD 19	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
569	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 110 feet southeast of SD 19	6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
570	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
571	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 50 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
572	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 50 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass **DF:** Density Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
573		7/13/18	PUL17269		GP	8.0	140.0	6.1	129.2	8	92	95	DF
574	573	7/13/18	PUL17269		GP	8.0	140.0	6.1	133.5	8	95	95	DP
575	570	7/13/18	PUL17269		GP	8.0	140.0	6.0	132.4	8	95	95	DP
576		7/13/18	PUL17269		GP	8.0	140.0	5.8	128.4	8	92	95	DF
577	576	7/13/18	PUL17269		GP	8.0	140.0	5.8	128.4	8	92	95	DF
578		7/16/18	PUL17269		GP	8.0	140.0	3.5	131.0	6	94	90	DP
579		7/16/18	PUL17269		GP	8.0	140.0	4.5	133.9	6	96	90	DP
580		7/16/18	PUL17269		GP	8.0	140.0	4.8	134.8	6	96	90	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
573	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 250 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
574	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 350 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
575	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 450 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
576	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 500 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
577	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 500 ft east Eastern SD	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
578	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northeast of SD 19	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
579	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 250 feet northeast of SD 19	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
580	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 250 feet southeast of SD 19	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DF: Density Fail **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
581		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.9	8	95	95	DP
582		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.6	109.7	8	97	95	DP
583		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.2	114.1	8	101	95	DP
584		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.6	109.3	8	97	95	DP
585		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.3	107.2	8	95	95	DP
586		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.2	108.3	8	96	95	DP
587		7/16/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.2	8	95	95	DP
588		7/16/18	PUL17-0329	A	ML	16.0	113.0	12.5	108.7	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
581	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet northwest of SD 18	1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
582	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18	1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
583	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 30 feet north of SD 19	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
584	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet west of SD 19	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
585	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet northwest of SD 19	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
586	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet west of SD 19	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
587	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet west of SD 19	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
588	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
589		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.5	107.4	6	95	95	DP
590		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.5	107.9	6	95	95	DP
591		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	109.1	6	97	95	DP
592		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.3	107.0	6	95	95	DP
593		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.2	107.5	6	95	95	DP
594		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.2	108.1	6	96	95	DP
595		7/16/18	PUL17269		GP	8.0	140.0	8.0	133.3	6	95	95	DP
596		7/16/18	PUL17269		GP	8.0	140.0	6.4	132.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
589	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet west of SD 18	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
590	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet northwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
591	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet southwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
592	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 feet southwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
593	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 feet southwest of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
594	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 400 feet west of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
595	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 200 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
596	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 150 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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In-Place Density Tests

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
597		7/16/18	PUL17269		GP	8.0	140.0	5.8	133.7	6	96	95	DP
598		7/16/18	PUL17269		GP	8.0	140.0	5.4	134.2	6	96	95	DP
599		7/16/18	PUL17269		GP	8.0	140.0	3.9	135.4	6	97	95	DP
640	577	7/13/18	PUL17269		GP	8.0	140.0	6.3	136.3	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
597	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 100 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
598	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
599	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 18	1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
640	Backfill - Stormwater Line Trench: Waha Ct, 400 ft east of SD 5.	8.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
600		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.2	108.1	6	96	95	DP
601		7/16/18	PUL17-0329	A	ML	16.0	113.0	16.4	107.9	8	95	95	DP
602		7/16/18	PUL17-0329	A	ML	16.0	113.0	16.4	106.8	6	95	95	DP
603		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.9	6	95	95	DP
604		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.1	6	95	95	DP
605		7/17/18	PUL17269		GP	8.0	140.0	5.7	136.0	6	97	95	DP
606		7/17/18	PUL17269		GP	8.0	140.0	4.8	137.2	6	98	95	DP
607		7/17/18	PUL17269		GP	8.0	140.0	8.1	139.8	6	100	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
600	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
601	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
602	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft west of SD 18	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
603	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft west of SD 18	1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
604	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft west of SD 18	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
605	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 150 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
606	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 100 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
607	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 80 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
608		7/17/18	PUL17269		GP	8.0	140.0	7.2	132.7	6	95	95	DP
609		7/17/18	PUL17-0329	A	ML	16.0	113.0	11.5	107.4	8	95	95	DP
610		7/17/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.6	8	95	95	DP
611		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP
612		7/17/18	PUL17269		GP	8.0	140.0	6.5	133.1	6	95	95	DP
613		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.4	8	95	95	DP
614		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.4	8	95	95	DP
615		7/17/18	PUL17269		GP	8.0	140.0	6.5	134.6	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
608	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
609	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft east of SD 19.	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
610	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft east of SD 19.	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
611	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft east of SD 19.	0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
612	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, westernmost SD.	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
613	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 30 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
614	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 30 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
615	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, westernmost SD.	3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
616		7/18/18	PUL17269		GP	8.0	140.0	6.4	134.1	6	96	95	DP
617		7/18/18	PUL17269		GP	8.0	140.0	6.0	133.2	6	95	95	DP
618		7/18/18	PUL17269		GP	8.0	140.0	7.0	133.9	6	96	95	DP
619		7/18/18	PUL17-0329	A	ML	16.0	113.0	13.3	109.5	8	97	95	DP
620		7/18/18	PUL17269		GP	8.0	140.0	6.1	132.7	8	95	95	DP
621		7/18/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.2	8	95	95	DP
622		7/18/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.2	8	95	95	DP
623		7/18/18	PUL17-0329	A	ML	16.0	113.0	11.3	107.0	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
616	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
617	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft west of SD 18	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
618	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 50 ft west of SD 18	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
619	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 19	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
620	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 19	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
621	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft southwest of SD 19	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
622	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft northwest of SD 19	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
623	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft southwest of SD 19	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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624		7/18/18	PUL17-0329	A	ML	16.0	113.0	15.6	107.6	8	95	95	DP
625		7/18/18	PUL17-0329	A	ML	16.0	113.0	16.2	107.8	8	95	95	DP
626		7/18/18	PUL17-0329	A	ML	16.0	113.0	11.3	110.8	8	98	95	DP
627		7/18/18	PUL17269		GP	8.0	140.0	6.9	133.1	8	95	95	DP
628		7/18/18	PUL17269		GP	8.0	140.0	4.0	133.9	8	96	95	DP
629		7/19/18	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	6	95	95	DP
630	629	7/19/18	PUL17269		GP	8.0	140.0	8.6	132.3	8	95	95	DP
631		7/19/18	PUL17269		GP	8.0	140.0	6.2	137.8	8	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
624	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft northwest of SD 19	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
625	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft northwest of SD 19	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
626	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft northwest of SD 19	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
627	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 5	6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
628	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 feet north of SD 5	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
629	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
630	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
631	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft east of SD 5	5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
632		7/19/18	PUL17269		GP	8.0	140.0	6.2	132.5	8	95	95	DP
633		7/19/18	PUL17269		GP	8.0	140.0	5.6	135.2	8	97	95	DP
634		7/19/18	PUL17269		GP	8.0	140.0	6.1	136.2	8	97	95	DP
635		7/19/18	PUL17269		GP	8.0	140.0	6.6	134.8	8	96	95	DP
636		7/19/18	PUL17269		GP	8.0	140.0	6.7	134.3	6	96	95	DP
637		7/19/18	PUL17-0329	A	ML	16.0	113.0	13.2	109.0	6	96	95	DP
638		7/19/18	PUL17-0329	A	ML	16.0	113.0	13.0	108.8	6	96	95	DP
639		7/19/18	PUL17269		GP	8.0	140.0	8.7	134.8	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
632	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
633	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 90 ft east of westernmost SD	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
634	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 90 ft east of westernmost SD	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
635	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 220 ft east of westernmost SD	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
636	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
637	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft east of SD 5	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
638	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 250 ft east of SD 5	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
639	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 250 ft east of SD 5	4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
641		7/20/18	PUL17269		GP	8.0	140.0	8.5	132.3	8	95	95	DP
642		7/20/18	PUL17269		GP	8.0	140.0	5.6	132.9	8	95	95	DP
643		7/20/18	PUL17269		GP	8.0	140.0	7.0	136.0	8	97	95	DP
644		7/20/18	PUL17269		GP	8.0	140.0	6.8	133.2	8	95	95	DP
645		7/20/18	PUL17269		GP	8.0	140.0	6.5	132.5	8	95	95	DP
646		7/20/18	PUL17-0329	A	ML	16.0	113.0	13.8	108.4	8	96	95	DP
647		7/21/18	PUL17269		GP	8.0	140.0	3.9	134.0	8	96	95	DP
648		7/21/18	PUL17-0329	A	ML	16.0	113.0	14.3	107.1	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
641	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 400 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
642	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 450 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
643	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 490 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
644	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 550 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
645	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 600 ft east of westernmost SD.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
646	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft east of SD 5.	2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018	BELL, BRITTON
647	Backfill - Stormwater Line Trench: NW storm water MH	5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018	HENDERSON, RICK
648	Backfill - Stormwater Line Trench: 30 deet east of NW storm water MH	5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018	HENDERSON, RICK

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

Test Method: ASTM D 6938

Client:
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
649		7/21/18	PUL17269		GP	8.0	140.0	7.4	133.6	8	95	95	DP
650		7/21/18	PUL17-0329	A	ML	16.0	113.0	10.7	111.2	8	98	95	DP
651		7/21/18	PUL17269		GP	8.0	140.0	5.3	133.1	8	95	95	DP
652		7/23/18	PUL17269		GP	8.0	140.0	5.2	132.3	8	95	95	DP
653		7/23/18	PUL17269		GP	8.0	140.0	3.2	133.1	8	95	95	DP
654		7/23/18	PUL17269		GP	8.0	140.0	4.1	137.6	8	98	95	DP
655		7/23/18	PUL17269		GP	8.0	140.0	3.2	132.9	8	95	95	DP
656		7/23/18	PUL17269		GP	8.0	140.0	5.1	132.4	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
649	Backfill - Stormwater Line Trench: 150 feet east of NW storm water MH	5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018	HENDERSON, RICK
650	Backfill - Stormwater Line Trench: 200 feet east of NW storm water MH	4.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018	HENDERSON, RICK
651	Backfill - Stormwater Line Trench: 250 feet east of NW storm water MH	6.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018	HENDERSON, RICK
652	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	2.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
653	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
654	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
655	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
656	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	2.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
657		7/23/18	PUL17269		GP	8.0	140.0	3.7	133.4	8	95	95	DP
658		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.4	113.5	8	100	95	DP
659		7/23/18	PUL17-0329	A	ML	16.0	113.0	15.1	110.9	8	98	95	DP
660		7/23/18	PUL17269		GP	8.0	140.0	8.2	135.1	8	97	95	DP
661		7/23/18	PUL17269		GP	8.0	140.0	11.1	132.9	8	95	95	DP
662		7/23/18	PUL17269		GP	8.0	140.0	7.7	134.4	8	96	95	DP
663		7/23/18	PUL17269		GP	8.0	140.0	3.2	132.5	8	95	95	DP
664		7/23/18	PUL17269		GP	8.0	140.0	4.8	133.2	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
657	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13	1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
658	Backfill - Sanitary Sewer Line Trench: Storm drain line 30 feet west of SD12	3.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
659	Backfill - Sanitary Sewer Line Trench: Storm drain line 30 feet east of SD11	3.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018	MAFFEY, JUSTIN
660	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
661	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
662	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
663	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
664	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
665		7/23/18	PUL17-0329	A	ML	16.0	113.0	12.3	115.8	8	102	95	DP
666		7/23/18	PUL17-0329	A	ML	16.0	113.0	13.2	108.4	8	96	95	DP
667		7/23/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.0	8	95	95	DP
668		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.8	108.4	8	96	95	DP
669		7/23/18	PUL17269		GP	8.0	140.0	4.8	133.6	8	95	95	DP
670		7/23/18	PUL17269		GP	8.0	140.0	4.7	132.8	8	95	95	DP
671		7/23/18	PUL17269		GP	8.0	140.0	5.7	135.4	8	97	95	DP
672		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.7	108.3	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
665	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
666	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
667	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
668	Backfill - Utility Trench: -4	-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
669	Backfill - Utility Trench: South utility trench	-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
670	Backfill - Utility Trench: Golden hills man hole	-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
671	Backfill - Utility Trench: Waha man hole	-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
672	Backfill - Utility Trench: Middle bench west side	0.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
673		7/23/18	PUL17-0329	A	ML	16.0	113.0	13.5	107.5	8	95	95	DP
674		7/23/18	PUL17269		GP	8.0	140.0	5.5	133.7	8	96	95	DP
675		7/24/18	PUL17269		GP	8.0	140.0	5.8	135.3	8	97	95	DP
676		7/24/18	PUL17269		GP	8.0	140.0	4.6	136.0	8	97	95	DP
677		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.8	110.5	8	97	95	DP
678		7/24/18	PUL17-0177	A	ML	13.5	114.5	12.4	112.7	8	98	95	DP
679		7/24/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.7	8	96	95	DP
680		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.1	108.3	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
673	Backfill - Utility Trench: Middle bench west side	0.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
674	Backfill - Utility Trench: South trench	-5.0	Grade	Instrotek / X3500 / 718 / 3/21/2018	KANNENBERG, JOSHUA
675	Backfill - Sanitary Sewer Line Trench: 20 away 13	2.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
676	Backfill - Stormwater Line Trench: 75 west storm drain 13	2.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
677	Backfill - Stormwater Line Trench: 125 west storm drain 13	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
678	Backfill - Stormwater Line Trench: 25 east storm drain 12	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
679	Backfill - Stormwater Line Trench: 15 east storm drain 12	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
680	Backfill - Stormwater Line Trench: 11 west storm drain 12	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
681		7/24/18	PUL17269		GP	8.0	140.0	7.5	133.8	8	96	95.5	DP
682		7/24/18	PUL17269		GP	8.0	140.0	6.4	133.6	8	95	95	DP
683		7/24/18	PUL17-0177	A	ML	13.5	114.5	14.2	116.5	8	102	95	DP
684		7/24/18	PUL17-0177	A	ML	13.5	114.5	14.6	116.4	8	102	95	DP
685		7/24/18	PUL17-0177	A	ML	13.5	114.5	7.3	137.1	8	120	95	DP
686		7/24/18	PUL17269		GP	8.0	140.0	7.4	132.5	8	95	95	DP/MP
687		7/24/18	PUL17269		GP	8.0	140.0	7.5	133.1	8	95	95	DP/MP
688		7/24/18	PUL17269		GP	8.0	140.0	7.1	132.3	8	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
681	Backfill - Stormwater Line Trench: 1 South east storm drain 14	3.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
682	Backfill - Stormwater Line Trench: 1 east storm drain 14	3.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
683	Backfill - Stormwater Line Trench: 25 east storm drain 14	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
684	Backfill - Stormwater Line Trench: 16 west storm drain 16	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
685	Backfill - Stormwater Line Trench: 1 east storm drain 14	1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
686	Backfill - Stormwater Line Trench: 1 north storm drain 14	3.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
687	Backfill - Stormwater Line Trench: 1 south east sewer 14	2.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
688	Backfill - Stormwater Line Trench: 1 north sewer 14	2.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
689		7/24/18	PUL17-0177	A	ML	13.5	114.5	13.9	111.3	8	97	95	DP
690		7/24/18	PUL17-0177	A	ML	13.5	114.5	17.4	108.3	8	95	95	DP
691		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.6	8	97	95	DP
692		7/24/18	PUL17269		GP	8.0	140.0	6.2	132.8	6	95	95	DP
693		7/24/18	PUL17269		GP	8.0	140.0	6.5	137.7	6	98	95	DP
694		7/24/18	PUL17269		GP	8.0	140.0	6.0	134.6	8	96	95	DP
695		7/24/18	PUL17269		GP	8.0	140.0	5.1	136.2	8	97	95	DP
696		7/24/18	PUL17269		GP	8.0	140.0	5.3	132.5	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
689	Backfill - Sanitary Sewer Line Trench: Cayuse street	1.0	1 Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
690	Backfill - Sanitary Sewer Line Trench: Cayuse street	1.0	1 Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
691	Backfill - Stormwater Line Trench: Cayuse	2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
692	Backfill - Stormwater Line Trench: Cayuse	2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
693	Backfill - Stormwater Line Trench: Cayuse	2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
694	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole	3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PERSELL, JOHN
695	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole	3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PERSELL, JOHN
696	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole	3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PERSELL, JOHN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
697		7/24/18	PUL17269		GP	8.0	140.0	8.7	133.4	8	95	95	DP
698		7/24/18	PUL17269		GP	8.0	140.0	9.6	132.8	8	95	95	DP
699		7/24/18	PUL17-0177	A	ML	13.5	114.5	18.6	104.8	8	92	95	DF
700		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.5	111.6	8	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
697	Backfill - Sanitary Sewer Line Trench: Wallowa	10.0	10 below grade trench	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
698	Backfill - Sanitary Sewer Line Trench: Wallowa	10.0	10 below grade trench	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
699	Backfill - Sanitary Sewer Line Trench: Cayuse st	1.0	Foot below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
700	Backfill - Sanitary Sewer Line Trench: Cayuse st	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DF:** Density Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
701		7/25/18	PUL17-0177	A	ML	13.5	114.5	14.0	111.8	8	98	95	DP
702		7/25/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.3	8	95	95	DP
703		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.3	8	96	95	DP
704		7/25/18	PUL17-0177	A	ML	13.5	114.5	13.1	108.8	8	95	95	DP
705		7/25/18	PUL17269		GP	8.0	140.0	6.6	135.6	8	97	95	DP
706		7/25/18	PUL17269		GP	8.0	140.0	6.4	137.5	8	98	95	DP
707		7/25/18	PUL17269		GP	8.0	140.0	5.9	134.3	8	96	95	DP
708		7/25/18	PUL17269		GP	8.0	140.0	5.1	134.3	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
701	Backfill - Stormwater Line Trench: Cayuse st	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
702	Backfill - Stormwater Line Trench: Cayuse st	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
703	Backfill - Stormwater Line Trench: Cayuse st	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
704	Backfill - Stormwater Line Trench: Cayuse st	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
705	Backfill - Stormwater Line Trench: Waha ct	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
706	Backfill - Stormwater Line Trench: Waha ct	1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
707	Backfill - Stormwater Line Trench: Waha ct	1.5	1.5 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
708	Backfill - Stormwater Line Trench: Waha ct	1.5	1.5 below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
709		7/25/18	PUL17269		GP	8.0	140.0	7.1	136.3	8	97	95	DP
710		7/25/18	PUL17269		GP	8.0	140.0	5.7	137.2	8	98	95	DP
711		7/25/18	PUL17269		GP	8.0	140.0	7.8	132.6	8	95	95	DP
712		7/25/18	PUL17269		GP	8.0	140.0	9.6	136.5	8	98	95	DP
713		7/25/18	PUL17269		GP	8.0	140.0	6.8	134.0	8	96	95	DP
714		7/25/18	PUL17269		GP	8.0	140.0	6.0	134.3	8	96	95	DP
715		7/25/18	PUL17269		GP	8.0	140.0	6.0	136.9	8	98	95	DP
716		7/25/18	PUL17269		GP	8.0	140.0	6.3	134.5	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
709	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
710	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
711	Backfill - Sanitary Sewer Line Trench: 3rd manhole from west on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
712	Backfill - Sanitary Sewer Line Trench: 3rd manhole from west on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
713	Backfill - Sanitary Sewer Line Trench: East manhole on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
714	Backfill - Sanitary Sewer Line Trench: East manhole on cayuse st	3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
715	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west Waha Ct	1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
716	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west Waha Ct	1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
717		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.7	110.5	8	97	95	DP
718		7/25/18	PUL17-0177	A	ML	13.5	114.5	12.9	111.1	8	97	95	DP
719		7/25/18	PUL17-0177	A	ML	13.5	114.5	17.3	109.3	8	95	95	DP
720		7/25/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.0	8	95	95	DP
721		7/25/18	PUL17-0177	A	ML	13.5	114.5	13.8	109.7	8	96	95	DP
722		7/25/18	PUL17269		GP	8.0	140.0	6.5	138.6	8	99	95	DP
723		7/25/18	PUL17269		GP	8.0	140.0	6.7	134.9	8	96	95	DP
724		7/25/18	PUL17269		GP	8.0	140.0	5.1	134.2	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
717	Backfill - Sanitary Sewer Line Trench: Waha Ct, 5th service line from west, north side	1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
718	Backfill - Sanitary Sewer Line Trench: Waha Ct, 3rd service line from west, south side	1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
719	Backfill - Sanitary Sewer Line Trench: Waha Ct, 5th service line from west, south side	1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018	PERSELL, JOHN
720	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
721	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
722	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
723	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
724	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
725		7/25/18	PUL17269		GP	8.0	140.0	7.2	132.6	8	95	95	DP
726		7/25/18	PUL17269		GP	8.0	140.0	6.6	132.4	8	95	95	DP
727		7/25/18	PUL17269		GP	8.0	140.0	7.6	134.4	8	96	95	DP
728		7/25/18	PUL17269		GP	8.0	140.0	8.1	136.5	8	98	95	DP
729		7/25/18	PUL17269		GP	8.0	140.0	5.6	134.1	8	96	95	DP
730		7/25/18	PUL17-0177	A	ML	13.5	114.5	15.6	112.0	8	98	95	DP
731		7/26/18	PUL17269		GP	8.0	140.0	7.4	136.1	8	97	95	DP
732		7/26/18	PUL17-0177	A	ML	13.5	114.5	14.6	110.6	8	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
725	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
726	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
727	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
728	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
729	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
730	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
731	Backfill - Stormwater Line Trench: Cayuse st	3.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
732	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
733		7/26/18	PUL17-0177	A	ML	13.5	114.5	16.4	110.9	8	97	95	DP
734	699	7/25/18	PUL17-0177	A	ML	13.5	114.5	12.5	119.3	8	104	95	DP
735		7/26/18	PUL17-0177	A	ML	13.5	114.5	7.2	115.7	8	101	95	DP
736		7/26/18	PUL17-0177	A	ML	13.5	114.5	17.1	108.6	8	95	95	DP
737		7/26/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.3	8	95	95	DP
738		7/26/18	PUL17269		GP	8.0	140.0	8.0	134.0	8	96	95	DP
739		7/26/18	PUL17269		GP	8.0	140.0	8.0	132.6	8	95	95	DP
740		7/26/18	PUL17269		GP	8.0	140.0	7.3	134.1	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
733	Backfill - Stormwater Line Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
734	Backfill - Sanitary Sewer Line Trench: Cayuse st	1.0	Foot below grade	Instrotek / X3500 / 718 / 3/21/2018	BJORNBERG, BRENT
735	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
736	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
737	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
738	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
739	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
740	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
741		7/26/18	PUL17-0177	A	ML	13.5	114.5	12.5	109.2	8	95	95	DP
742		7/26/18	PUL17-0177	A	ML	13.5	114.5	14.0	109.1	8	95	95	DP
743		7/26/18	PUL17-0177	A	ML	13.5	114.5	8.9	108.3	8	95	95	DP
744		7/26/18	PUL17-0177	A	ML	13.5	114.5	13.2	108.9	8	95	95	DP
745		7/26/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.1	8	95	95	DP
746		7/27/18	PUL17-0177	A	ML	13.5	114.5	7.2	109.4	8	96	95	DP
747		7/27/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.7	8	95	95	DP
748		7/27/18	PUL17-0177	A	ML	13.5	114.5	12.5	108.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
741	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
742	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
743	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
744	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
745	Backfill - Utility Trench: Cayuse st	0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
746	Backfill - Utility Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
747	Backfill - Utility Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
748	Backfill - Utility Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
749		7/27/18	PUL17-0177	A	ML	13.5	114.5	10.9	111.2	8	97	95	DP
750		7/27/18	PUL17-0177	A	ML	13.5	114.5	16.9	108.6	8	95	95	DP
751		7/27/18	PUL17-0177	A	ML	13.5	114.5	11.2	109.1	8	95	95	DP
752		7/27/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.7	8	95	95	DP
753		7/27/18	PUL17-0177	A	ML	13.5	114.5	10.7	112.7	8	98	95	DP
754		7/27/18	PUL17-0177	A	ML	13.5	114.5	11.0	109.8	8	96	95	DP
755		7/27/18	PUL17269		GP	8.0	140.0	6.2	136.2	8	97	95	DP
756		7/27/18	PUL17269		GP	8.0	140.0	5.2	133.8	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
749	Backfill - Utility Trench: Cayuse st	1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
750	Backfill - Utility Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
751	Backfill - Utility Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
752	Backfill - Utility Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
753	Backfill - Utility Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
754	Backfill - Utility Trench: Cayuse st	1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
755	Backfill - Utility Trench: Palawa st	4.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
756	Backfill - Utility Trench: Palawa st	4.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
757		7/30/18	PUL17269		GP	8.0	140.0	5.6	132.6	8	95	95	DP
758		7/30/18	PUL17269		GP	8.0	140.0	4.7	135.7	8	97	95	DP
759		7/30/18	PUL17269		GP	8.0	140.0	5.5	138.9	8	99	95	DP
760		7/30/18	PUL17269		GP	8.0	140.0	3.9	133.7	8	96	95	DP
761		7/30/18	PUL17269		GP	8.0	140.0	6.1	134.5	8	96	95	DP
762		7/30/18	PUL17269		GP	8.0	140.0	5.5	140.9	8	101	95	DP
763		7/30/18	PUL17269		GP	8.0	140.0	4.1	134.1	8	96	95	DP
764		7/30/18	PUL17269		GP	8.0	140.0	6.0	136.5	8	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
757	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
758	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
759	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
760	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
761	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
762	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
763	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
764	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
765		7/30/18	PUL17269		GP	8.0	140.0	8.5	133.5	8	95	95	DP
766		7/30/18	PUL17269		GP	8.0	140.0	10.1	133.0	8	95	95	DP
767		7/30/18	PUL17269		GP	8.0	140.0	8.7	132.8	8	95	95	DP
768		7/30/18	PUL17269		GP	8.0	140.0	6.4	134.2	8	96	95	DP
769		7/30/18	PUL17269		GP	8.0	140.0	7.0	132.6	8	95	95	DP
770		7/30/18	PUL17269		GP	8.0	140.0	8.4	135.6	8	97	95	DP
771		7/30/18	PUL17-0177	A	ML	13.5	114.5	14.1	111.9	8	98	95	DP
772		7/30/18	PUL17269		GP	8.0	140.0	6.5	132.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
765	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
766	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
767	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
768	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
769	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
770	Backfill - Stormwater Line Trench: Wallowa st	8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
771	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
772	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
773		7/30/18	PUL17269		GP	8.0	140.0	7.5	134.3	8	96	95	DP
774		7/30/18	PUL17269		GP	8.0	140.0	7.1	138.3	8	99	95	DP
775		7/30/18	PUL17269		GP	8.0	140.0	8.4	135.2	6	97	95	DP
776		7/30/18	PUL17-0177	A	ML	13.5	114.5	15.5	108.6	6	95	95	DP
777		7/30/18	PUL17-0177	A	ML	13.5	114.5	12.1	109.9	6	96	95	DP
778		7/30/18	PUL17-0177	A	ML	13.5	114.5	12.1	108.7	8	95	95	DP
779		7/31/18	PUL17269		GP	8.0	140.0	6.8	139.1	8	99	95	DP
780		7/31/18	PUL17269		GP	8.0	140.0	6.2	134.9	8	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
773	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
774	Backfill - Utility Trench: Cayuse st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
775	Backfill - Utility Trench: Cayuse st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
776	Backfill - Utility Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
777	Backfill - Utility Trench: Cayuse st	0.0	At finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
778	Backfill - Utility Trench: Cayuse st	0.0	At finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
779	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
780	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
781		7/31/18	PUL17269		GP	8.0	140.0	6.1	132.9	8	95	95	DP
782		7/31/18	PUL17269		GP	8.0	140.0	7.2	133.1	8	95	95	DP
783		7/31/18	PUL17269		GP	8.0	140.0	6.3	133.9	8	96	95	DP
784		7/31/18	PUL17269		GP	8.0	140.0	6.8	139.6	8	100	95	DP
785		7/31/18	PUL17269		GP	8.0	140.0	5.1	132.5	8	95	95	DP
786		7/31/18	PUL17269		GP	8.0	140.0	6.2	133.1	8	95	95	DP
787		8/1/18	PUL17269		GP	8.0	140.0	6.0	137.8	8	98	95	DP
788		8/1/18	PUL17269		GP	8.0	140.0	6.1	136.7	8	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
781	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
782	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
783	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
784	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
785	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
786	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
787	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
788	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
789		8/1/18	PUL17-0177	A	ML	13.5	114.5	12.5	109.9	8	96	95	DP
790		8/1/18	PUL17-0177	A	ML	13.5	114.5	12.5	113.4	8	99	95	DP
791		8/1/18	PUL17-0177	A	ML	13.5	114.5	11.9	113.3	6	99	95	DP
792		8/1/18	PUL17-0177	A	ML	13.5	114.5	11.5	109.8	6	96	95	DP
793		8/1/18	PUL17269		GP	8.0	140.0	7.2	137.5	8	98	95	DP
794		8/1/18	PUL17269		GP	8.0	140.0	7.6	136.5	8	98	95	DP
795		8/1/18	PUL17269		GP	8.0	140.0	8.2	137.5	8	98	95	DP
796		8/1/18	PUL17269		GP	8.0	140.0	8.3	136.2	8	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
789	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
790	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
791	Backfill - Waterline Trench: trench second row up			Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
792	Backfill - Waterline Trench: trench second row up			Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
793	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
794	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
795	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
796	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
797		8/1/18	PUL17269		GP	8.0	140.0	6.8	135.8	8	97	95	DP
798		8/2/18	PUL17-0177	A	ML	13.5	114.5	10.5	110.4	6	96	95	DP
799		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.0	108.8	6	95	95	DP
800		8/2/18	PUL17269		GP	8.0	140.0	5.5	133.2	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
797	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
798	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
799	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
800	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
801		8/2/18	PUL17269		GP	8.0	140.0	6.3	133.3	6	95	95	DP
802		8/2/18	PUL17-0177	A	ML	13.5	114.5	14.7	108.4	8	95	95	DP
803		8/2/18	PUL17-0177	A	ML	13.5	114.5	10.3	108.5	6	95	95	DP
804		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.7	109.5	6	96	95	DP
805		8/2/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.6	6	96	95	DP
806		8/2/18	PUL17269		GP	8.0	140.0	3.8	133.1	6	95	95	DP
807		8/2/18	PUL17269		GP	8.0	140.0	6.9	134.1	6	96	95	DP
808		8/2/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.9	8	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
801	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
802	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
803	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
804	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
805	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
806	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
807	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
808	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
809		8/2/18	PUL17-0177	A	ML	13.5	114.5	9.7	109.5	6	96	95	DP
810		8/2/18	PUL17-0177	A	ML	13.5	114.5	16.4	108.8	6	95	95	DP
811		8/2/18	PUL17-0177	A	ML	13.5	114.5	11.7	110.1	6	96	95	DP
812		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.7	110.3	6	96	95	DP
813		8/3/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.9	6	95	95	DP
814		8/3/18	PUL17-0177	A	ML	13.5	114.5	12.8	109.1	6	95	95	DP
815		8/3/18	PUL17-0177	A	ML	13.5	114.5	9.7	109.3	6	95	95	DP
816		8/3/18	PUL17-0177	A	ML	13.5	114.5	11.8	108.8	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
809	Backfill - Stormwater Line Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
810	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
811	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
812	Backfill - Stormwater Line Trench: Wallowa st	4.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
813	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
814	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
815	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
816	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
817		8/3/18	PUL17-0177	A	ML	13.5	114.5	8.3	117.8	6	103	95	DP
818		8/3/18	PUL17-0177	A	ML	13.5	114.5	11.0	110.4	6	96	95	DP
819		8/3/18	PUL17-0177	A	ML	13.5	114.5	6.5	108.5	6	95	95	DP
820		8/3/18	PUL17-0177	A	ML	13.5	114.5	7.9	108.5	6	95	95	DP
821		8/3/18	PUL17269		GP	8.0	140.0	6.1	134.6	6	96	95	DP
822		8/3/18	PUL17269		GP	8.0	140.0	5.5	134.2	6	96	95	DP
823		8/3/18	PUL17-0177	A	ML	13.5	114.5	12.6	109.9	6	96	95	DP
824		8/3/18	PUL17-0177	A	ML	13.5	114.5	9.5	108.7	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
817	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
818	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
819	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
820	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
821	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
822	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
823	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
824	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
825		8/3/18	PUL17-0177	A	ML	13.5	114.5	7.6	110.0	6	96	95	DP
826		8/3/18	PUL17-0177	A	ML	13.5	114.5	10.7	108.5	6	95	95	DP
827		8/3/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.0	6	98	95	DP
828		8/6/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.4	6	95	95	DP
829		8/6/18	PUL17-0177	A	ML	13.5	114.5	12.6	108.5	6	95	95	DP
830		8/6/18	PUL17-0177	A	ML	13.5	114.5	13.8	109.8	6	96	95	DP
831		8/6/18	PUL17269		GP	8.0	140.0	7.3	132.3	6	95	95	DP
832		8/6/18	PUL17269		GP	8.0	140.0	6.6	132.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
825	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
826	Backfill - Stormwater Line Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
827	Backfill - Stormwater Line Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
828	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
829	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
830	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
831	Backfill - Stormwater Line Trench: Wallowa st	6.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
832	Backfill - Stormwater Line Trench: Wallowa st	6.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
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GeoProfessional Innovation — In-Place Density Tests

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833		8/6/18	PUL17269		GP	8.0	140.0	5.7	132.6	6	95	95	DP
834		8/6/18	PUL17-0177	A	ML	13.5	114.5	12.7	108.6	6	95	95	DP
835		8/6/18	PUL17269		GP	8.0	140.0	9.3	133.4	6	95	95	DP
836		8/6/18	PUL17269		GP	8.0	140.0	7.3	137.2	6	98	95	DP
837		8/6/18	PUL17-0177	A	ML	13.5	114.5	14.7	108.8	6	95	95	DP
838		8/6/18	PUL17-0177	A	ML	13.5	114.5	11.3	108.7	6	95	95	DP
839		8/6/18	PUL17269		GP	8.0	140.0	8.0	134.7	6	96	95	DP
840		8/7/18	PUL17269		GP	8.0	140.0	5.0	135.4	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
833	Backfill - Stormwater Line Trench: Wallowa st	6.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
834	Backfill - Stormwater Line Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
835	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
836	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
837	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
838	Backfill - Stormwater Line Trench: Wallowa st	4.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
839	Backfill - Stormwater Line Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
840	Backfill - Waterline Trench: Wallowa st	6.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
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841		8/7/18	PUL17269		GP	8.0	140.0	6.9	132.8	6	95	95	DP
842		8/8/18	PUL17269		GP	8.0	140.0	6.4	142.1	6	101	95	DP
843		8/9/18	PUL17269		GP	8.0	140.0	5.5	139.4	6	100	95	DP
844		8/9/18	PUL17269		GP	8.0	140.0	6.4	135.6	6	97	95	DP
845		8/9/18	PUL17269		GP	8.0	140.0	6.3	136.6	6	98	95	DP
846		8/9/18	PUL17269		GP	8.0	140.0	5.5	132.8	6	95	95	DP
847		8/9/18	PUL17269		GP	8.0	140.0	5.1	136.5	6	98	95	DP
848		8/9/18	PUL17269		GP	8.0	140.0	7.2	132.8	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
841	Backfill - Waterline Trench: Wallowa st	6.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
842	Backfill - Utility Trench: Wallowa st west side	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
843	Backfill - Utility Trench: Wallowa st. West side 1st trench	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
844	Backfill - Utility Trench: Wallowa st. West side 3rd trench	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
845	Backfill - Utility Trench: Wallowa st. West side 4th trench	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
846	Backfill - Utility Trench: Wallowa st. West side 5th trench	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
847	Backfill - Utility Trench: Wallowa st. East side 1st trench	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
848	Backfill - Utility Trench: Wallowa st east side of trench 3rd trench	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
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849		8/9/18	PUL17269		GP	8.0	140.0	5.1	132.5	6	95	95	DP
850		8/9/18	PUL17269		GP	8.0	140.0	6.5	134.8	6	96	95	DP
851		8/9/18	PUL17269		GP	8.0	140.0	5.6	132.9	6	95	95	DP
852		8/10/18	PUL17269		GP	8.0	140.0	6.6	138.1	6	99	95	DP
853		8/10/18	PUL17269		GP	8.0	140.0	7.3	141.4	6	101	95	DP
854		8/10/18	PUL17269		GP	8.0	140.0	7.7	137.4	6	98	95	DP
855		8/10/18	PUL17269		GP	8.0	140.0	4.7	136.1	6	97	95	DP
856		8/10/18	PUL17269		GP	8.0	140.0	5.2	133.5	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
849	Backfill - Utility Trench: Wallowa st west side of trench	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
850	Backfill - Utility Trench: Wallowa st west side of trench	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
851	Backfill - Utility Trench: Wallowa st west side of trench	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
852	Backfill - Utility Trench: East side of trench on wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
853	Backfill - Utility Trench: East side of trench on wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
854	Backfill - Utility Trench: East side of trench on wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
855	Backfill - Utility Trench: East side of trench wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
856	Backfill - Utility Trench: East side of trench wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
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857		8/10/18	PUL17269		GP	8.0	140.0	4.3	135.7	4	97	95	DP
858		8/10/18	PUL17269		GP	8.0	140.0	8.0	137.3	4	98	95	DP
859		8/10/18	PUL17269		GP	8.0	140.0	7.9	138.7	4	99	95	DP
860		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.2	8	95	95	DP
861		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.5	6	95	95	DP
862		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.1	110.7	6	97	95	DP
863		8/11/18	PUL17-0177	A	ML	13.5	114.5	18.5	108.3	6	95	95	DP
864		8/11/18	PUL17-0177	A	ML	13.5	114.5	14.0	113.2	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
857	Backfill - Utility Trench: East side of trench wallowa st	7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
858	Backfill - Utility Trench: East side of trench wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
859	Backfill - Utility Trench: East side of trench wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
860	Fill - Subgrade: Umatilla st	8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
861	Fill - Subgrade: Umatilla st	8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
862	Fill - Subgrade: Umatilla st	8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
863	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
864	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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865		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.0	109.7	6	96	95	DP
866		8/11/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.0	6	95	95	DP
867		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.3	6	95	95	DP
868		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.8	6	95	95	DP
869		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.2	111.3	6	97	95	DP
870		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.6	111.0	6	97	95	DP
871		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.7	6	96	95	DP
872		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	108.9	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
865	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
866	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
867	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
868	Fill - Subgrade: Umatilla st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
869	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
870	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
871	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
872	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

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873		8/11/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.4	6	95	95	DP
874		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.0	6	95	95	DP
875		8/13/18	PUL17-0177	A	ML	13.5	114.5	13.9	109.4	6	96	95	DP
876		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.5	108.4	6	95	95	DP
877		8/13/18	PUL17269		GP	8.0	140.0	6.1	133.4	6	95	95	DP
878		8/13/18	PUL17269		GP	8.0	140.0	5.6	133.7	6	96	95	DP
879		8/13/18	PUL17269		GP	8.0	140.0	7.0	135.0	6	96	95	DP
880		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.3	111.2	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
873	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
874	Fill - Subgrade: Umatilla st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
875	Backfill - Utility Trench: Wallowa st east side of trench	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
876	Backfill - Utility Trench: Wallowa st east side of trench	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
877	Backfill - Utility Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
878	Backfill - Utility Trench: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
879	Backfill - Utility Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
880	Fill - Subgrade: Umatilla st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
881		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.3	109.7	6	96	95	DP
882		8/13/18	PUL17-0177	A	ML	13.5	114.5	12.5	108.3	6	95	95	DP
883		8/13/18	PUL17-0177	A	ML	13.5	114.5	10.8	110.1	6	96	95	DP
884		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.8	6	95	95	DP
885		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.0	6	97	95	DP
886		8/13/18	PUL17-0177	A	ML	13.5	114.5	16.2	109.3	6	95	95	DP
887		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.3	108.4	6	95	95	DP
888		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.8	108.8	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
881	Fill - Subgrade: Umatilla st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
882	Fill - Subgrade: Umatilla st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
883	Fill - Subgrade: Umatilla st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
884	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
885	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
886	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
887	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
888	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
889		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.7	114.5	6	100	95	DP
890		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.1	109.3	6	95	95	DP
891		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.9	6	95	95	DP
892		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.0	112.5	6	98	95	DP
893		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.5	6	96	95	DP
894		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.7	114.4	6	100	95	DP
895		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.2	6	95	95	DP
896		8/13/18	PUL17-0177	A	ML	13.5	114.5	13.1	113.3	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
889	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
890	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
891	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
892	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
893	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
894	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
895	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
896	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
897		8/13/18	PUL17-0177	A	ML	13.5	114.5	12.8	108.5	6	95	95	DP
898		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.8	6	97	95	DP
899		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.0	6	95	95	DP
900		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.0	108.9	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
897	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
898	Fill - Subgrade: Wallowa st	6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
899	Backfill - Utility Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
900	Backfill - Utility Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
901		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.3	114.1	6	100	95	DP
902		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.8	110.7	6	97	95	DP
903		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.8	108.6	6	95	95	DP
904		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.7	6	98	95	DP
905		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.9	109.5	6	96	95	DP
906		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.7	113.6	6	99	95	DP
907		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.0	6	96	95	DP
908		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.2	108.9	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
901	Backfill - Utility Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
902	Backfill - Utility Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
903	Backfill - Utility Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
904	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
905	Backfill - Utility Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
906	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
907	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
908	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
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594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
909		8/14/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.8	6	95	95	DP
910		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.2	6	96	95	DP
911		8/14/18	PUL17-0177	A	ML	13.5	114.5	18.4	108.5	6	95	95	DP
912		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.9	6	96	95	DP
913		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	6	95	95	DP
914		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.7	6	95	95	DP
915		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.0	109.1	6	95	95	DP
916		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.8	109.5	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
909	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
910	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
911	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
912	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
913	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
914	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
915	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
916	Backfill - Stormwater Line Trench: Wallowa st	5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

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6 O'Donnell Road
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
917		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.7	6	97	95	DP
918		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.5	117.8	6	103	95	DP
919		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.1	6	98	95	DP
920		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.8	6	95	95	DP
921		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.9	6	95	95	DP
922		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.0	109.8	6	96	95	DP
923		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.4	113.3	6	99	95	DP
924		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.4	108.7	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
917	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
918	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
919	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
920	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
921	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
922	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
923	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
924	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
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594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
925		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.1	111.3	6	97	95	DP
926		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.2	109.2	6	95	95	DP
927		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.7	6	95	95	DP
928		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.4	6	96	95	DP
929		8/15/18	PUL17-0177	A	ML	13.5	114.5	18.0	108.6	6	95	95	DP
930		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.7	110.3	6	96	95	DP/MP
931		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.4	108.8	6	95	95	DP/MP
932		8/15/18	PUL17-0177	A	ML	13.5	114.5	17.2	111.6	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
925	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
926	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
927	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
928	Backfill - Stormwater Line Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
929	Backfill - Utility Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
930	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
931	Backfill - Utility Trench: Wallowa st	4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
932	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Project:
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
933		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.6	6	95	95	DP/MP
934		8/15/18	PUL17269		GP	8.0	140.0	6.9	135.1	6	97	95	DP
935		8/15/18	PUL17269		GP	8.0	140.0	6.6	132.4	6	95	95	DP
936		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.5	112.9	6	99	95	DP
937		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.6	6	95	95	DP/MP
938		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	111.6	6	97	95	DP/MP
939		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.2	115.5	6	101	95	DP/MP
940		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.5	111.6	6	97	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
933	Backfill - Utility Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
934	Backfill - Stormwater Line Trench: Golden hills dr	6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
935	Backfill - Stormwater Line Trench: Golden hills dr	6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
936	Backfill - Stormwater Line Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
937	Backfill - Utility Trench: Wallowa st	3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
938	Backfill - Utility Trench: Wallowa st	7.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
939	Backfill - Utility Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
940	Backfill - Utility Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
941		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.0	6	96	95	DP/MP
942		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.6	109.2	6	95	95	DP
943		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.5	111.4	6	97	95	DP
944		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.4	6	98	95	DP/MP
945		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.9	109.1	6	95	95	DP/MP
946		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.4	6	97	95	DP/MP
947		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.4	110.6	6	97	95	DP/MP
948		8/15/18	PUL17269		GP	8.0	140.0	5.5	133.9	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
941	Backfill - Stormwater Line Trench: Wallowa st	2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
942	Backfill - Utility Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
943	Backfill - Utility Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
944	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
945	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
946	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
947	Backfill - Stormwater Line Trench: Wallowa st	2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
948	Backfill - Stormwater Line Trench: Golden hills dr	6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
949		8/15/18	PUL17269		GP	8.0	140.0	7.4	132.6	6	95	95	DP
950		8/15/18	PUL17269		GP	8.0	140.0	8.2	136.8	6	98	95	DP
951		8/15/18	PUL17269		GP	8.0	140.0	5.6	133.4	6	95	95	DP
952		8/15/18	PUL17269		GP	8.0	140.0	7.2	132.4	6	95	95	DP
953		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.8	6	99	95	DP
954		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.2	112.3	6	98	95	DP
955		8/16/18	PUL17-0177	A	ML	13.5	114.5	11.4	109.1	6	95	95	DP
956		8/16/18	PUL17-0177	A	ML	13.5	114.5	10.9	116.7	6	102	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
949	Backfill - Stormwater Line Trench: Golden hills dr	6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
950	Backfill - Stormwater Line Trench: Golden hills dr	6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
951	Backfill - Stormwater Line Trench: Golden hills dr	4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
952	Backfill - Stormwater Line Trench: Golden hills dr	4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
953	Backfill - Stormwater Line Trench: Wallowa st	3.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
954	Backfill - Stormwater Line Trench: Wallowa st	2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
955	Backfill - Utility Trench: Wallowa st	2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
956	Backfill - Utility Trench: Wallowa st	2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
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594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
957		8/16/18	PUL17269		GP	8.0	140.0	6.5	132.7	6	95	95	DP
958		8/16/18	PUL17269		GP	8.0	140.0	7.9	133.7	6	96	95	DP
959		8/16/18	PUL17269		GP	8.0	140.0	5.4	132.9	6	95	95	DP
960		8/16/18	PUL17269		GP	8.0	140.0	6.7	135.1	6	97	95	DP
961		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.9	109.3	6	95	95	DP
962		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.2	108.3	6	95	95	DP
963		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.1	6	95	95	DP
964		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.0	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
957	Backfill - Stormwater Line Trench: Golden Hills dr.	5.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
958	Backfill - Stormwater Line Trench: Golden Hills dr.	5.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
959	Backfill - Stormwater Line Trench: Golden Hills dr.	4.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
960	Backfill - Stormwater Line Trench: Golden Hills dr.	5.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
961	Backfill - Utility Trench: Wallowa st	2.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
962	Backfill - Utility Trench: Wallowa st	1.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
963	Backfill - Utility Trench: Wallowa st		Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
964	Backfill - Utility Trench: Wallowa st	2.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
965		8/16/18	PUL17-0177	A	ML	13.5	114.5	11.9	119.9	6	105	95	DP
966		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.9	111.2	6	97	95	DP/MP
967		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.6	108.7	6	95	95	DP/MP
968		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.1	110.1	6	96	95	DP/MP
969		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.0	112.1	6	98	95	DP/MP
970		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.4	111.4	6	97	95	DP/MP
971		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	111.3	6	97	95	DP/MP
972		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.2	6	95	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
965	Backfill - Stormwater Line Trench: Wallowa st	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
966	Backfill - Utility Trench: Wallowa st	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
967	Backfill - Stormwater Line Trench: Wallowa st	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
968	Backfill - Utility Trench: Wallowa st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
969	Backfill - Utility Trench: Wallowa st	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
970	Backfill - Stormwater Line Trench: Wallowa st 100’ east of SD 9	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
971	Backfill - Stormwater Line Trench: Wallowa st 25’ east of SD 9	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
972	Backfill - Utility Trench: Wallowa st 25’ east of SD 9 north utility trench	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
973		8/16/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.4	6	97	95	DP/MP
974		8/16/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.8	6	95	95	DP/MP
975		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.6	6	97	95	DP/MP
976		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	108.4	6	95	95	DP/MP
977		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	6	95	95	DP
978		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.4	6	96	95	DP
979		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.7	6	95	95	DP
980		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.4	109.7	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
973	Backfill - Utility Trench: Wallowa st 25’ east of SD 9 south utility trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
974	Backfill - Utility Trench: Wallowa st 25’ west of SD 9 south utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
975	Backfill - Utility Trench: Wallowa st 100’ west of SD 9 south utility trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
976	Backfill - Utility Trench: Wallowa st 200’ west of SD 9 south utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
977	Backfill - Utility Trench: Wallowa st 200’ west of SD 9	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
978	Backfill - Utility Trench: Wallowa st 150’ west of SD 9	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
979	Backfill - Utility Trench: West of storm drain 9 150’ north utility trench. Wallowa st	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
980	Backfill - Utility Trench: West of storm drain 9 75’. Wallowa st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP/MP: Density Pass / Moisture Pass **DP:** Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
981		8/17/18	PUL17269		GP	8.0	140.0	6.6	134.1	6	96	95	DP
982		8/17/18	PUL17269		GP	8.0	140.0	8.3	132.4	6	95	95	DP
983		8/17/18	PUL17269		GP	8.0	140.0	6.3	132.5	6	95	95	DP
984		8/17/18	PUL17269		GP	8.0	140.0	6.3	135.4	6	97	95	DP
985		8/17/18	PUL17-0177	A	ML	13.5	114.5	14.5	109.2	6	95	95	DP
986		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.6	108.5	6	95	95	DP
987		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.8	108.3	6	95	95	DP
988		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.5	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
981	Backfill - Stormwater Line Trench: Golden hills dr. North 10' storm drain 10	6.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
982	Backfill - Stormwater Line Trench: Golden hills dr. North 100' storm drain 10	6.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
983	Backfill - Stormwater Line Trench: Golden hills dr. North 200' storm drain 10	6.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
984	Backfill - Stormwater Line Trench: Golden hills dr. North 275' storm drain 10	6.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
985	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 50'	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
986	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 150'	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
987	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 250'	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
988	Backfill - Stormwater Line Trench: Wallowa st. 50' west of SD 9 north side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
989		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.5	110.1	6	96	95	DP
990		8/17/18	PUL17-0177	A	ML	13.5	114.5	10.2	115.6	6	101	95	DP
991		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.1	108.7	6	95	95	DP
992		8/17/18	PUL17-0177	A	ML	13.5	114.5	14.0	111.6	6	97	95	DP
993		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.2	111.2	6	97	95	DP
994		8/17/18	PUL17-0177	A	ML	13.5	114.5	15.9	108.7	6	95	95	DP
995		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.4	111.8	6	98	95	DP
996		8/17/18	PUL17-0177	A	ML	13.5	114.5	11.7	109.7	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
989	Backfill - Stormwater Line Trench: Wallowa st. 25’ east of SD 9.	1.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
990	Backfill - Utility Trench: Wallowa st. 50’ east of SD 9 south side utility trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
991	Backfill - Utility Trench: Wallowa st. 100’ east of SD 9 south side utility trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
992	Backfill - Utility Trench: Wallowa st. 150’ east of SD 9	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
993	Backfill - Utility Trench: Wallowa st. 50’ east of SD 8	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
994	Backfill - Utility Trench: Wallowa st. 100’ west of SD 8. North side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
995	Backfill - Utility Trench: Wallowa st. 150’ west of SD 8. North side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
996	Backfill - Utility Trench: Wallowa st. 75’ east of SD 9. North side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
997		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.8	108.5	6	95	95	DP
998		8/20/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.5	6	95	95	DP
999		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.1	110.5	6	97	95	DP
1000		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.5	116.1	6	101	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
997	Backfill - Utility Trench: Wallowa st. 15' east of SD 9. North side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
998	Backfill - Stormwater Line Trench: Wallowa st. South side utility trench	3.5	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
999	Backfill - Stormwater Line Trench: Wallowa st. Storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1000	Backfill - Stormwater Line Trench: Wallowa st. Storm drain trench	1.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1001		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.4	111.2	6	97	95	DP
1002		8/20/18	PUL17-0177	A	ML	13.5	114.5	15.0	108.6	6	95	95	DP/MP
1003		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	114.0	6	100	95	DP/MP
1004		8/20/18	PUL17269		GP	8.0	140.0	4.2	133.2	6	95	95	DP
1005		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.3	109.8	6	96	95	DP
1006		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	111.7	6	98	95	DP
1007		8/20/18	PUL17-0177	A	ML	13.5	114.5	11.2	113.2	6	99	95	DP
1008		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.1	110.3	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1001	Backfill - Stormwater Line Trench: Wallowa st. North side utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1002	Backfill - Utility Trench: Wallowa st. South side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1003	Backfill - Stormwater Line Trench: Wallowa st. Storm drain	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1004	Backfill - Stormwater Line Trench: Golden Hills Dr. Storm drain	3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1005	Fill - Structural: Umatilla st. Bottom of north side embankment	3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1006	Fill - Structural: Umatilla st. Bottom of north side embankment	5.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1007	Fill - Structural: Umatilla st. Bottom of north side embankment	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1008	Fill - Structural: Umatilla st. Bottom of north side embankment	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1009		8/20/18	PUL17269		GP	8.0	140.0	7.2	133.1	6	95	95	DP
1010		8/20/18	PUL17269		GP	8.0	140.0	6.4	132.5	6	95	95	DP
1011		8/20/18	PUL17269		GP	8.0	140.0	6.9	133.4	6	95	95	DP
1012		8/20/18	PUL17-0177	A	ML	13.5	114.5	9.6	109.8	6	96	95	DP
1013		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	109.2	6	95	95	DP/MP
1014		8/20/18	PUL17-0177	A	ML	13.5	114.5	10.0	108.8	6	95	95	DP
1015		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.7	108.5	6	95	95	DP
1016		8/20/18	PUL17269		GP	8.0	140.0	6.6	136.8	6	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1009	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1010	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1011	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1012	Backfill - Stormwater Line Trench: Wallowa st. storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1013	Backfill - Utility Trench: Wallowa st. South side utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1014	Backfill - Utility Trench: Wallowa st. Storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1015	Backfill - Utility Trench: Wallowa st. North side utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1016	Backfill - Sanitary Sewer Line Trench: Golden hills drive. Northern most man hole	4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DP/MP:** Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1017		8/20/18	PUL17269		GP	8.0	140.0	7.2	134.0	6	96	95	DP
1018		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.9	109.0	6	95	95	DP
1019		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.4	111.3	6	97	95	DP
1020		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.3	112.4	6	98	95	DP
1021		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.6	108.6	6	95	95	DP
1022		8/21/18	PUL17-0177	A	ML	13.5	114.5	18.1	108.6	6	95	95	DP
1023		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.7	6	95	95	DP
1024		8/21/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1017	Backfill - Sanitary Sewer Line Trench: Golden hills drive and wallowa st intersection	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1018	Backfill - Sanitary Sewer Line Trench: Wallowa st 20’ east of golden hills manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1019	Backfill - Sanitary Sewer Line Trench: Wallowa st 50’ east of golden hills manhole north side utility trench.	2.5	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018	PAULSEN, ZACH
1020	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1021	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1022	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1023	Backfill - Sanitary Sewer Line Trench: Wallowa st. 100’ east of golden hills dr intersection. Storm drain trench	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1024	Backfill - Sanitary Sewer Line Trench: Wallowa st. 50’ east of golden hills dr intersection. South side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1025		8/21/18	PUL17269		GP	8.0	140.0	7.6	136.9	6	98	95	DP
1026		8/21/18	PUL17-0177	A	ML	13.5	114.5	13.6	108.5	6	95	95	DP
1027		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.0	6	98	95	DP
1028		8/21/18	PUL17269		GP	8.0	140.0	7.2	132.6	6	95	95	DP
1029		8/21/18	PUL17269		GP	8.0	140.0	7.2	132.9	6	95	95	DP
1030		8/21/18	PUL17269		GP	8.0	140.0	6.9	137.6	6	98	95	DP
1031		8/21/18	PUL17269		GP	8.0	140.0	7.6	140.3	6	100	95	DP
1032		8/21/18	PUL17269		GP	8.0	140.0	6.3	132.5	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1025	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of waha st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1026	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of waha st	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1027	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1028	Backfill - Sanitary Sewer Line Trench: Golden hills dr. And wallowa st storm drain intersection	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1029	Backfill - Sanitary Sewer Line Trench: Golden hills dr. And wallowa st storm drain intersection east side of man hole 2'	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1030	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1031	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1032	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1033		8/21/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.5	6	95	95	DP
1034		8/21/18	PUL17269		GP	8.0	140.0	7.6	134.9	6	96	95	DP
1035		8/21/18	PUL17269		GP	8.0	140.0	6.9	141.0	6	101	95	DP
1036		8/21/18	PUL17269		GP	8.0	140.0	10.5	133.1	6	95	95	DP
1037		8/21/18	PUL17269		GP	8.0	140.0	6.6	135.0	6	96	95	DP
1038		8/21/18	PUL17269		GP	8.0	140.0	5.8	133.8	6	96	95	DP
1039		8/21/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.2	6	95	95	DP
1040		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.3	109.6	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1033	Backfill - Sanitary Sewer Line Trench: Golden hills dr storm drain trench north of wallowa st 125’	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1034	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole west side 1’	7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1035	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole east side 1’	7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1036	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole east side 8’	7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1037	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest east man hole east side 1’	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1038	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest east man hole west side 2’	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1039	Backfill - Stormwater Line Trench: Golden hills dr. North of wallowa st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1040	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1041		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.2	6	98	95	DP
1042		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.8	108.4	6	95	95	DP
1043		8/21/18	PUL17269		GP	8.0	140.0	7.8	132.6	6	95	95	DP
1044		8/21/18	PUL17269		GP	8.0	140.0	7.5	133.6	6	95	95	DP
1045		8/21/18	PUL17269		GP	8.0	140.0	6.3	134.0	6	96	95	DP
1046		8/22/18	PUL17269		GP	8.0	140.0	6.4	132.5	6	95	95	DP
1047		8/22/18	PUL17269		GP	8.0	140.0	6.3	133.1	6	95	95	DP
1048		8/22/18	PUL17269		GP	8.0	140.0	7.3	134.9	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1041	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1042	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1043	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest manhole east. North side 1' from manhole	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1044	Backfill - Stormwater Line Trench: Wallowa st furthest manhole east. West side 1' from manhole	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1045	Backfill - Stormwater Line Trench: Wallowa st furthest manhole east. East side 2' from manhole	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1046	Backfill - Manhole: Wallowa st 2nd furthest east manhole west side 2'	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1047	Backfill - Manhole: Wallowa st furthest east manhole north east side 1'	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1048	Backfill - Manhole: Wallowa st furthest east manhole south Wes side 1'	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1049		8/22/18	PUL17269		GP	8.0	140.0	6.1	135.2	6	97	95	DP
1050		8/22/18	PUL17269		GP	8.0	140.0	7.0	138.3	6	99	95	DP
1051		8/22/18	PUL17269		GP	8.0	140.0	7.0	134.4	6	96	95	DP
1052		8/22/18	PUL17269		GP	8.0	140.0	5.6	141.0	6	101	95	DP
1053		8/22/18	PUL17269		GP	8.0	140.0	7.8	136.1	6	97	95	DP
1054		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.9	6	96	95	DP
1055		8/22/18	PUL17-0177	A	ML	13.5	114.5	14.6	109.4	6	96	95	DP
1056		8/22/18	PUL17-0177	A	ML	13.5	114.5	17.3	108.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1049	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. south Wes side 2’	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1050	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. North side 2’	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1051	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. North side 2’	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1052	Backfill - Manhole: Wallowa st 2nd furthest manhole east of golden hills dr. North side 2’	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1053	Backfill - Manhole: Wallowa st 2nd furthest manhole east of golden hills dr. North side 2’	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1054	Backfill - Manhole: Golden Hills Dr. north of wallowa st	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1055	Backfill - Manhole: Golden Hills Dr. north of wallowa st	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1056	Backfill - Manhole: Golden Hills Dr. north of cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1057		8/22/18	PUL17-0177	A	ML	13.5	114.5	17.3	110.1	6	96	95	DP
1058		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.0	108.4	6	95	95	DP
1059		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.9	110.9	6	97	95	DP
1060		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.1	112.0	6	98	95	DP
1061		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.1	108.9	6	95	95	DP
1062		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.4	6	95	95	DP
1063		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.4	110.7	6	97	95	DP
1064		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.8	113.3	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1057	Backfill - Manhole: Golden Hills Dr. north of cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1058	Backfill - Utility Trench: Wallowa st south side of storm drains	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1059	Backfill - Utility Trench: Wallowa st storm drain	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1060	Backfill - Utility Trench: Wallowa st storm drain	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1061	Backfill - Utility Trench: Wallowa st northern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1062	Backfill - Utility Trench: Wallowa st southern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1063	Backfill - Utility Trench: Wallowa st northern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1064	Backfill - Utility Trench: Wallowa st southern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1065		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.2	114.5	6	100	95	DP
1066		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.2	110.0	6	96	95	DP
1067		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.9	6	96	95	DP
1068		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.7	110.6	6	97	95	DP
1069		8/22/18	PUL17-0177	A	ML	13.5	114.5	10.7	114.9	6	100	95	DP
1070		8/22/18	PUL17-0177	A	ML	13.5	114.5	9.4	110.7	6	97	95	DP
1071		8/22/18	PUL17-0177	A	ML	13.5	114.5	13.2	109.2	6	95	95	DP
1072		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.1	112.8	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1065	Backfill - Utility Trench: Wallowa st north side utility trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1066	Backfill - Utility Trench: Wallowa st south side utility trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1067	Backfill - Utility Trench: Wallowa st south side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1068	Backfill - Utility Trench: Wallowa st south side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1069	Backfill - Utility Trench: Wallowa st south side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1070	Backfill - Utility Trench: Wallowa st south side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1071	Backfill - Utility Trench: Wallowa st north side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1072	Backfill - Utility Trench: Wallowa st north side utility trench	0.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1073		8/22/18	PUL17-0177	A	ML	13.5	114.5	14.1	108.3	6	95	95	DP
1074		8/22/18	PUL17-0177	A	ML	13.5	114.5	13.5	111.5	6	97	95	DP
1075		8/22/18	PUL17-0177	A	ML	13.5	114.5	16.5	108.4	6	95	95	DP
1076		8/23/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.1	6	95	95	DP
1077		8/23/18	PUL17-0177	A	ML	13.5	114.5	13.1	111.0	6	97	95	DP
1078		8/23/18	PUL17-0177	A	ML	13.5	114.5	12.1	113.9	6	99	95	DP
1079		8/23/18	PUL17-0177	A	ML	13.5	114.5	11.7	109.2	6	95	95	DP
1080		8/23/18	PUL17-0177	A	ML	13.5	114.5	11.4	111.7	6	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1073	Backfill - Utility Trench: Golden Hills dr. South of waha st intersection	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1074	Backfill - Utility Trench: Golden Hills dr. Between waha and cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1075	Backfill - Utility Trench: Golden Hills dr. North of cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1076	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1077	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1078	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1079	Backfill - Utility Trench: Wallowa st north side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1080	Backfill - Utility Trench: Wallowa st north side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1081		8/23/18	PUL17-0177	A	ML	13.5	114.5	13.5	111.0	6	97	95	DP
1082		8/23/18	PUL17269		GP	8.0	140.0	6.1	132.6	6	95	95	DP
1083		8/23/18	PUL17269		GP	8.0	140.0	6.7	133.1	6	95	95	DP
1084		8/23/18	PUL17269		GP	8.0	140.0	5.9	133.5	6	95	95	DP
1085		8/23/18	PUL17269		GP	8.0	140.0	7.3	137.3	6	98	95	DP
1086		8/24/18	PUL17269		GP	8.0	140.0	6.7	139.7	6	100	95	DP
1087		8/24/18	PUL17269		GP	8.0	140.0	6.2	133.1	6	95	95	DP
1088		8/24/18	PUL17269		GP	8.0	140.0	8.1	137.4	6	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1081	Backfill - Utility Trench: Wallowa st north side utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1082	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain	7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1083	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1084	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1085	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1086	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1087	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1088	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1089		8/24/18	PUL17269		GP	8.0	140.0	6.6	132.6	6	95	95	DP
1090		8/27/18	PUL17269		GP	8.0	140.0	5.0	133.0	6	95	95	DP
1091		8/27/18	PUL17269		GP	8.0	140.0	5.1	132.5	6	95	95	DP
1092		8/27/18	PUL17269		GP	8.0	140.0	5.2	133.6	6	95	95	DP
1093		8/27/18	PUL17269		GP	8.0	140.0	6.1	133.5	6	95	95	DP
1094		8/27/18	PUL17269		GP	8.0	140.0	6.4	135.7	6	97	95	DP
1095		8/27/18	PUL17269		GP	8.0	140.0	5.4	133.2	6	95	95	DP
1096		8/27/18	PUL17269		GP	8.0	140.0	5.6	135.8	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1089	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1090	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 2’ East of furthest east SD	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1091	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 3’ west of furthest east SD	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1092	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 20’ south of furthest east SD	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1093	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench north side	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1094	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20’ west of furthest east SD.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1095	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10’ southwest of furthest east SD.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1096	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20’ southwest of furthest east SD.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1097		8/27/18	PUL17269		GP	8.0	140.0	4.9	137.2	6	98	95	DP
1098		8/27/18	PUL17269		GP	8.0	140.0	7.3	136.2	6	97	95	DP
1099		8/27/18	PUL17269		GP	8.0	140.0	5.0	136.3	6	97	95	DP
1100		8/27/18	PUL17269		GP	8.0	140.0	5.4	135.4	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1097	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10’ southeast of furthest east SD.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1098	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 15’ north of sanitation trench	7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1099	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20’ west of furthest east SD	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1100	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10’ west of furthest east SD	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1101		8/27/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
1102		8/27/18	PUL17269		GP	8.0	140.0	5.8	135.3	6	97	95	DP
1103		8/28/18	PUL17269		GP	8.0	140.0	4.7	138.8	6	99	95	DP
1104		8/28/18	PUL17269		GP	8.0	140.0	5.3	139.3	6	100	95	DP
1105		8/28/18	PUL17269		GP	8.0	140.0	5.0	133.0	6	95	95	DP
1106		8/28/18	PUL17269		GP	8.0	140.0	4.8	141.8	6	101	95	DP
1107		8/28/18	PUL17269		GP	8.0	140.0	4.1	134.3	6	96	95	DP
1108		8/28/18	PUL17269		GP	8.0	140.0	4.4	132.8	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1101	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 5' northeast of furthest east SS manhole	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1102	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 25' northeast of furthest east SS manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1103	Backfill - Stormwater Line Trench: Umatilla st. North east of eastern most manhole 40'	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1104	Backfill - Stormwater Line Trench: Umatilla st. North east of eastern most manhole 5'	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1105	Backfill - Stormwater Line Trench: Umatilla st. East of eastern most manhole 20'	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1106	Backfill - Stormwater Line Trench: Umatilla st. East of eastern most manhole 5'	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1107	Backfill - Stormwater Line Trench: Umatilla st. SouthEast of eastern most manhole 40'	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1108	Backfill - Stormwater Line Trench: Umatilla st. SouthEast of eastern most manhole 10'	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1109		8/28/18	PUL17269		GP	8.0	140.0	4.9	133.7	6	96	95	DP
1110		8/28/18	PUL17269		GP	8.0	140.0	4.2	132.4	6	95	95	DP
1111		8/28/18	PUL17269		GP	8.0	140.0	5.2	134.6	6	96	95	DP
1112		8/28/18	PUL17269		GP	8.0	140.0	4.3	135.1	6	97	95	DP
1113		8/28/18	PUL17269		GP	8.0	140.0	5.0	137.7	6	98	95	DP
1114		8/28/18	PUL17269		GP	8.0	140.0	4.5	135.5	6	97	95	DP
1115		8/28/18	PUL17269		GP	8.0	140.0	4.2	132.4	6	95	95	DP
1116		8/28/18	PUL17269		GP	8.0	140.0	5.7	132.5	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1109	Backfill - Stormwater Line Trench: Umatilla st. North of eastern most manhole 2’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1110	Backfill - Stormwater Line Trench: Umatilla st. North of eastern most manhole 2’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1111	Backfill - Stormwater Line Trench: Umatilla st. West of eastern most manhole 50’ in stormdrain trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1112	Backfill - Stormwater Line Trench: Umatilla st. West of eastern most manhole 50’ in sanitation trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1113	Backfill - Stormwater Line Trench: Umatilla st. North of sanitation trench 20’ in utility trench	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1114	Backfill - Stormwater Line Trench: Umatilla st. North of sanitation trench 5’ in utility trench	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1115	Backfill - Stormwater Line Trench: Umatilla st. South of storm drain trench 20’ in utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1116	Backfill - Stormwater Line Trench: Umatilla st. South of storm drain trench 5’ in utility trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1117		8/28/18	PUL17269		GP	8.0	140.0	5.6	135.8	6	97	95	DP
1118		8/28/18	PUL17269		GP	8.0	140.0	3.3	132.6	6	95	95	DP
1119		8/28/18	PUL17269		GP	8.0	140.0	3.7	136.6	6	98	95	DP
1120		8/28/18	PUL17269		GP	8.0	140.0	6.8	134.1	6	96	95	DP
1121		8/28/18	PUL17269		GP	8.0	140.0	7.6	136.7	6	98	95	DP
1122		8/28/18	PUL17269		GP	8.0	140.0	6.2	136.0	6	97	95	DP
1123		8/28/18	PUL17269		GP	8.0	140.0	4.5	132.6	6	95	95	DP
1124		8/29/18	PUL17269		GP	8.0	140.0	6.4	138.6	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1117	Backfill - Utility Trench: Umatilla st. North of sanitation trench 8’	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1118	Backfill - Utility Trench: Umatilla st. South of storm drain trench 15’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1119	Backfill - Utility Trench: Umatilla st. South of storm drain trench 5’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1120	Backfill - Utility Trench: Umatilla st.storm drain trench 120’ west of furthest east manjole	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1121	Backfill - Utility Trench: Umatilla st. Utility trench 25’ east of furthest east manhole	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1122	Backfill - Utility Trench: Umatilla st. Utility trench 10’ east of furthest east manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1123	Backfill - Utility Trench: Umatilla st. Northeast Utility trench 25’ east of furthest east manhole	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1124	Backfill - Utility Trench: Umatilla st. Southeast utility trench 50’ from furthest east MH	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
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Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1125		8/29/18	PUL17269		GP	8.0	140.0	5.0	133.6	6	95	95	DP
1126		8/29/18	PUL17269		GP	8.0	140.0	6.0	139.9	6	100	95	DP
1127		8/29/18	PUL17269		GP	8.0	140.0	3.8	133.4	6	95	95	DP
1128		8/29/18	PUL17269		GP	8.0	140.0	4.5	140.9	6	101	95	DP
1129		8/29/18	PUL17269		GP	8.0	140.0	5.6	132.7	6	95	95	DP
1130		8/29/18	PUL17269		GP	8.0	140.0	4.2	133.8	6	96	95	DP
1131		8/29/18	PUL17269		GP	8.0	140.0	3.4	133.0	6	95	95	DP
1132		8/29/18	PUL17269		GP	8.0	140.0	6.5	132.7	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1125	Backfill - Utility Trench: Umatilla st. Southeast utility trench 20' from furthest east MH	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1126	Backfill - Utility Trench: Umatilla st. Northeast utility trench 20' from furthest east MH	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1127	Backfill - Utility Trench: Umatilla st. Storm drain trench 7' west from furthest east MH	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1128	Backfill - Utility Trench: Umatilla st. Southern utility trench 7' from storm drain in eastern cul de sac	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1129	Backfill - Utility Trench: Umatilla st. Southern utility trench 20' from storm drain in eastern cul de sac	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1130	Backfill - Utility Trench: Umatilla st. Southern utility trench 20' from storm drain.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1131	Backfill - Utility Trench: Umatilla st. Southern utility trench 5' from storm drain.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1132	Backfill - Utility Trench: Umatilla st. Northern utility trench 15' from sanitation trench.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1133		8/29/18	PUL17269		GP	8.0	140.0	5.4	133.7	6	96	95	DP
1134		8/29/18	PUL17269		GP	8.0	140.0	4.6	136.9	6	98	95	DP
1135		8/29/18	PUL17269		GP	8.0	140.0	3.4	134.9	6	96	95	DP
1136		8/29/18	PUL17269		GP	8.0	140.0	3.6	132.8	6	95	95	DP
1137		8/29/18	PUL17269		GP	8.0	140.0	4.8	133.0	6	95	95	DP
1138		8/29/18	PUL17269		GP	8.0	140.0	4.5	133.5	6	95	95	DP
1139		8/29/18	PUL17269		GP	8.0	140.0	6.1	135.1	6	97	95	DP
1140		8/29/18	PUL17269		GP	8.0	140.0	5.4	133.2	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1133	Backfill - Utility Trench: Umatilla st. Storm drain trench 100’ west from eastern most manhole	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1134	Backfill - Utility Trench: Umatilla st. Storm drain trench 120’ west from eastern most manhole	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1135	Backfill - Utility Trench: Umatilla st. Southern utility trench south of manhole 6.5 15’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1136	Backfill - Utility Trench: Umatilla st. Southern utility trench south of manhole 6.5 5’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1137	Backfill - Utility Trench: Umatilla st. Northern utility trench north of manhole 6.5 15’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1138	Backfill - Utility Trench: Umatilla st. Northern utility trench north of manhole 6.5 5’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1139	Backfill - Utility Trench: Umatilla st. Sanitation trench 50’ east of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1140	Backfill - Utility Trench: Umatilla st. Sanitation trench 5’ east of manhole 6.5	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1141		8/29/18	PUL17269		GP	8.0	140.0	4.2	132.9	6	95	95	DP
1142		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	120.6	6	105	95	DP
1143		8/29/18	PUL17-0177	A	ML	13.5	114.5	11.1	121.9	6	106	95	DP
1144		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	114.1	6	100	95	DP
1145		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	121.9	6	106	95	DP
1146		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.7	117.5	6	103	95	DP
1147		8/29/18	PUL17-0177	A	ML	13.5	114.5	11.1	122.5	6	107	95	DP
1148		8/29/18	PUL17-0177	A	ML	13.5	114.5	10.7	117.3	6	102	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1141	Backfill - Utility Trench: Umatilla st. Northern utility trench 30’ north of Sanitation trench. Between manhole 6.5-7	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1142	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Southern utility trench 30’ south of storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1143	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Southern utility trench 5’ south of storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1144	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. South east utility trench 25’ southeast of storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1145	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. South east utility trench 5’ southeast of storm drain trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1146	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Eastern utility trench 25’ east of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1147	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Eastern utility trench 15’ east of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1148	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Northeastern utility trench 30’ east of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1149		8/29/18	PUL17-0177	A	ML	13.5	114.5	7.3	133.6	6	117	95	DP
1150		8/29/18	PUL17-0177	A	ML	13.5	114.5	16.8	116.3	6	102	95	DP
1151		8/29/18	PUL17-0177	A	ML	13.5	114.5	17.7	108.8	6	95	95	DP
1152		8/29/18	PUL17269		GP	8.0	140.0	7.1	134.4	6	96	95	DP
1153		8/29/18	PUL17269		GP	8.0	140.0	5.1	132.4	6	95	95	DP
1154		8/29/18	PUL17269		GP	8.0	140.0	6.0	133.8	6	96	95	DP
1155		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.1	108.8	6	95	95	DP
1156		8/30/18	PUL17-0177	A	ML	13.5	114.5	13.9	110.6	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1149	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Northeastern utility trench 15' east of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1150	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Storm drain trench 50' west of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1151	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Storm drain trench 15' west of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1152	Backfill - Utility Trench: Umatilla st. Storm drain trench 25' east of manhole 6.5	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1153	Backfill - Utility Trench: Umatilla st. Storm drain trench 25' east of manhole 6.5	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1154	Backfill - Utility Trench: Umatilla st. Sanitation trench 25' east of manhole 6.5	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1155	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1156	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
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In-Place Density Tests

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1157		8/30/18	PUL17-0177	A	ML	13.5	114.5	13.8	114.5	6	100	95	DP
1158		8/30/18	PUL17-0177	A	ML	13.5	114.5	9.7	119.2	6	104	95	DP
1159		8/30/18	PUL17-0177	A	ML	13.5	114.5	7.3	126.3	6	110	95	DP
1160		8/30/18	PUL17-0177	A	ML	13.5	114.5	5.4	116.1	6	101	95	DP
1161		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.0	120.3	6	105	95	DP
1162		8/30/18	PUL17-0177	A	ML	13.5	114.5	9.0	111.9	6	98	95	DP
1163		8/30/18	PUL17-0177	A	ML	13.5	114.5	8.5	122.1	6	107	95	DP
1164		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.2	110.5	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1157	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1158	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 50' northeast of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1159	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 50' east of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1160	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' east of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1161	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 30' southeast of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1162	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' southeast of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1163	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' southeast of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1164	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' south of manhole 7	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1165		8/30/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.8	6	99	95	DP
1166		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.4	114.6	6	100	95	DP
1167		8/30/18	PUL17-0177	A	ML	13.5	114.5	7.4	136.7	6	119	95	DP
1168		8/30/18	PUL17-0177	A	ML	13.5	114.5	5.9	132.5	6	116	95	DP
1169		8/30/18	PUL17269		GP	8.0	140.0	5.4	137.8	6	98	95	DP
1170		8/30/18	PUL17269		GP	8.0	140.0	4.9	132.8	6	95	95	DP
1171		8/30/18	PUL17269		GP	8.0	140.0	5.5	132.9	6	95	95	DP
1172		8/30/18	PUL17269		GP	8.0	140.0	4.9	135.7	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1165	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 25' west of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1166	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 100' west of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1167	Backfill - Utility Trench: Umatilla st. 5' west of manhole 6.5 sanitation trench	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1168	Backfill - Utility Trench: Umatilla st. 25' west of manhole 6.5 sanitation trench	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1169	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10' east of manhole 6.5	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1170	Backfill - Sanitary Sewer Line Trench: Umatilla st. 1' east of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1171	Backfill - Sanitary Sewer Line Trench: Umatilla st. 5' west of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1172	Backfill - Sanitary Sewer Line Trench: Umatilla st. 25' west of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1173		8/30/18	PUL17269		GP	8.0	140.0	5.5	132.9	6	95	95	DP
1174		8/30/18	PUL17269		GP	8.0	140.0	5.0	132.6	6	95	95	DP
1175		8/30/18	PUL17269		GP	8.0	140.0	5.4	138.3	6	99	95	DP
1176		8/30/18	PUL17269		GP	8.0	140.0	5.1	134.3	6	96	95	DP
1177		8/30/18	PUL17269		GP	8.0	140.0	5.0	134.7	6	96	95	DP
1178		8/30/18	PUL17269		GP	8.0	140.0	6.4	136.0	6	97	95	DP
1179		8/30/18	PUL17269		GP	8.0	140.0	4.9	138.2	6	99	95	DP
1180		8/30/18	PUL17269		GP	8.0	140.0	6.0	140.5	6	100	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1173	Backfill - Sanitary Sewer Line Trench: Umatilla st. 50’ west of manhole 6.5	4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1174	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10’ east of manhole 6	4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1175	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10’ west of manhole 6	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1176	Backfill - Sanitary Sewer Line Trench: Golden hill dr. 100’ south of manhole 5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1177	Backfill - Sanitary Sewer Line Trench: Umatilla st. 100’ west of manhole 6	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1178	Backfill - Stormwater Line Trench: Umatilla st. 100’ west of manhole 6	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1179	Backfill - Stormwater Line Trench: Umatilla st. 50’ west of manhole 6	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1180	Backfill - Stormwater Line Trench: Umatilla st. 50’ west of manhole 6	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1181		8/30/18	PUL17269		GP	8.0	140.0	6.4	141.5	6	101	95	DP
1182		8/30/18	PUL17269		GP	8.0	140.0	6.2	141.2	6	101	95	DP
1183		8/30/18	PUL17269		GP	8.0	140.0	6.7	132.4	6	95	95	DP
1184		8/30/18	PUL17269		GP	8.0	140.0	6.3	133.9	6	96	95	DP
1185		8/30/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.5	6	97	95	DP
1186		8/31/18	PUL17269		GP	8.0	140.0	5.2	137.7	6	98	95	DP
1187		8/31/18	PUL17269		GP	8.0	140.0	4.3	137.0	6	98	95	DP
1188		8/31/18	PUL17269		GP	8.0	140.0	4.1	133.0	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1181	Backfill - Utility Trench: Umatilla st. 50’ west of manhole 6 southern utility trench	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1182	Backfill - Utility Trench: Umatilla st. 50’ west of manhole 6 southern utility trench	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1183	Backfill - Stormwater Line Trench: Umatilla st. 40’ west of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1184	Backfill - Stormwater Line Trench: Umatilla st. 10’ west of manhole 6.5	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1185	Backfill - Stormwater Line Trench: Umatilla st. 50’ west of manhole 7	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1186	Backfill - Utility Trench: Umatilla st. Northern utility trench 50’ west of manhole 6.5	4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1187	Backfill - Utility Trench: Umatilla st. Northern utility trench 50’ west of manhole 6.5	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1188	Backfill - Utility Trench: Umatilla st. Sanitation trench 60’ west of manhole 6.5	4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1189		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.7	6	95	95	DP
1190		8/31/18	PUL17269		GP	8.0	140.0	4.2	142.1	6	101	95	DP
1191		8/31/18	PUL17269		GP	8.0	140.0	5.5	135.3	6	97	95	DP
1192		8/31/18	PUL17269		GP	8.0	140.0	4.0	132.7	6	95	95	DP
1193		8/31/18	PUL17269		GP	8.0	140.0	5.4	134.4	6	96	95	DP
1194		8/31/18	PUL17269		GP	8.0	140.0	6.2	133.3	6	95	95	DP
1195		8/31/18	PUL17269		GP	8.0	140.0	5.3	132.6	6	95	95	DP
1196		8/31/18	PUL17269		GP	8.0	140.0	3.9	132.6	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1189	Backfill - Utility Trench: Umatilla st. Sanitation trench 40’ east of manhole 6.0	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1190	Backfill - Utility Trench: Umatilla st. Sanitation trench 10’ east of manhole 6.0	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1191	Backfill - Utility Trench: Umatilla st. Sanitation trench 1’ east of manhole 6.0	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1192	Backfill - Utility Trench: Umatilla st. Sanitation trench 3’ south of manhole 6.0	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1193	Backfill - Utility Trench: Umatilla st. Sanitation trench 1’ west of manhole 6.0	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1194	Backfill - Utility Trench: Umatilla st. Sanitation trench 15’ west of manhole 6.0	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1195	Backfill - Stormwater Line Trench: Umatilla st. Sanitation trench 15’ west of manhole 6.0	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1196	Backfill - Stormwater Line Trench: Umatilla st. Sanitation trench 3’ west of manhole 6.0	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1197		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.3	6	95	95	DP
1198		8/31/18	PUL17269		GP	8.0	140.0	6.8	137.3	6	98	95	DP
1199		8/31/18	PUL17269		GP	8.0	140.0	5.3	133.6	6	95	95	DP
1200		8/31/18	PUL17269		GP	8.0	140.0	4.6	132.9	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1197	Backfill - Stormwater Line Trench: Umatilla st. Northern utility trench 20’ east of manhole 6.0	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1198	Backfill - Stormwater Line Trench: Umatilla st. Northern utility trench 20’ east of manhole 6.0	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1199	Backfill - Utility Trench: Umatilla st 15’ east of manhole 6. Southern Utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1200	Backfill - Utility Trench: Umatilla st 15’ east of manhole 6. Southern Utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1201		8/31/18	PUL17269		GP	8.0	140.0	3.7	134.7	6	96	95	DP
1202		8/31/18	PUL17269		GP	8.0	140.0	4.6	135.2	6	97	95	DP
1203		8/31/18	PUL17269		GP	8.0	140.0	4.7	133.2	6	95	95	DP
1204		8/31/18	PUL17269		GP	8.0	140.0	3.8	137.6	6	98	95	DP
1205		8/31/18	PUL17269		GP	8.0	140.0	7.6	133.7	6	96	95	DP
1206		8/31/18	PUL17269		GP	8.0	140.0	6.1	137.4	6	98	95	DP
1207		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.8	6	95	95	DP
1208		8/31/18	PUL17269		GP	8.0	140.0	5.3	138.3	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1201	Backfill - Stormwater Line Trench: Umatilla st 15’ east of manhole 6.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1202	Backfill - Stormwater Line Trench: Umatilla st 5’ east of manhole 6.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1203	Backfill - Stormwater Line Trench: Umatilla st 2’ south of manhole 6.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1204	Backfill - Stormwater Line Trench: Umatilla st 1’ north of manhole 6.	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1205	Backfill - Stormwater Line Trench: Golden hills dr. 5’ north of manhole 3	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1206	Backfill - Utility Trench: Umatilla st. 50’ west of manhole 6.5. Southern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1207	Backfill - Utility Trench: Umatilla st. 50’ west of manhole 6.5. Southern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1208	Backfill - Sanitary Sewer Line Trench: Umatilla st. 1’ north of manhole 6. Sanitation trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1209		8/31/18	PUL17269		GP	8.0	140.0	5.3	133.6	6	95	95	DP
1210		8/31/18	PUL17269		GP	8.0	140.0	4.5	133.5	6	95	95	DP
1211		8/31/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.4	6	96	95	DP
1212		9/4/18	PUL17-0177	A	ML	13.5	114.5	12.7	108.5	6	95	95	DP
1213		9/4/18	PUL17-0177	A	ML	13.5	114.5	15.2	113.3	6	99	95	DP
1214		9/4/18	PUL17269		GP	8.0	140.0	4.8	136.2	6	97	95	DP
1215		9/4/18	PUL17269		GP	8.0	140.0	4.4	132.4	6	95	95	DP
1216		9/4/18	PUL17-0177	A	ML	13.5	114.5	10.8	113.1	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1209	Backfill - Stormwater Line Trench: Umatilla st. 1' north of manhole 6. Sanitation trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1210	Backfill - Stormwater Line Trench: Umatilla st. 2' south of manhole 6. Sanitation trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1211	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of cayuse st. Sanitation trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1212	Backfill - Stormwater Line Trench: Umatilla st between man hole 6 and 6.5. Storm drain trench. 20' west of MH 6.5	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1213	Backfill - Stormwater Line Trench: Umatilla st between man hole 6 and 6.5. Storm drain trench. 100' west of MH 6.5	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1214	Backfill - Stormwater Line Trench: golden Hills dr between man hole 3 and 5. North 15' of manhole 3	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1215	Backfill - Stormwater Line Trench: golden Hills dr between man hole 3 and 5. North 100' of manhole 3	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1216	Backfill - Stormwater Line Trench: Umatilla st eastern cul de sac. 30' west of manhole 7	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1217		9/4/18	PUL17-0177	A	ML	13.5	114.5	13.1	110.0	6	96	95	DP
1218		9/4/18	PUL17-0177	A	ML	13.5	114.5	12.8	111.3	6	97	95	DP
1219		9/4/18	PUL17-0177	A	ML	13.5	114.5	11.6	115.9	6	101	95	DP
1220		9/4/18	PUL17-0177	A	ML	13.5	114.5	10.6	109.9	6	96	95	DP
1221		9/4/18	PUL17269		GP	8.0	140.0	5.8	133.5	6	95	95	DP
1222		9/4/18	PUL17269		GP	8.0	140.0	5.4	135.1	6	97	95	DP
1223		9/4/18	PUL17-0177	A	ML	13.5	114.5	19.6	108.4	6	95	95	DP
1224		9/4/18	PUL17-0177	A	ML	13.5	114.5	15.1	114.3	6	100	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1217	Backfill - Utility Trench: Umatilla st eastern cul de sac. 30’ west of manhole 7. North utility trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1218	Backfill - Utility Trench: Umatilla st eastern cul de sac. 50’ west of manhole 7. Souther utility trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1219	Backfill - Stormwater Line Trench: Umatilla st eastern cul de sac. 100’ west of manhole 7.	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1220	Backfill - Utility Trench: Umatilla st eastern cul de sac. 120’ west of manhole 7. Northern utility trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1221	Backfill - Utility Trench: Golden Hills dr storm drain trench. North 120’ manhole 4	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1222	Backfill - Utility Trench: Golden Hills dr storm drain trench. North 50’ manhole 4	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1223	Backfill - Stormwater Line Trench: Storm drain trench between man hole 6.5 and 6. 20’ west of man hole 6.5	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1224	Backfill - Utility Trench: Storm drain trench between man hole 6.5 and 6. 20’ east of man hole 6. Northern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1225		9/5/18	PUL17-0177	A	ML	13.5	114.5	17.5	108.7	6	95	95	DP
1226		9/5/18	PUL17-0177	A	ML	13.5	114.5	17.7	111.0	6	97	95	DP
1227		9/6/18	PUL17269		GP	8.0	140.0	5.1	133.2	6	95	95	DP
1228		9/6/18	PUL17269		GP	8.0	140.0	5.3	132.8	6	95	95	DP
1229		9/6/18	PUL17269		GP	8.0	140.0	7.5	134.4	6	96	95	DP
1230		9/6/18	PUL17269		GP	8.0	140.0	4.5	132.9	6	95	95	DP
1231		9/6/18	PUL17269		GP	8.0	140.0	6.6	135.7	6	97	95	DP
1232		9/6/18	PUL17269		GP	8.0	140.0	6.8	140.2	6	100	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1225	Backfill - Stormwater Line Trench: Umatilla st. 15' west of manhole 6.5. Storm drain trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1226	Backfill - Utility Trench: Umatilla st. 25' west of manhole 6.5. Southern utility trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1227	Backfill - Stormwater Line Trench: Golden Hills dr. North of manhole 4 100'	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1228	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of manhole 4 100'	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1229	Backfill - Stormwater Line Trench: Golden Hills dr. North of manhole 4 30'	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1230	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of manhole 4 30'	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1231	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. West of manhole 4 2'	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1232	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. East of manhole 4 3'	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1233		9/6/18	PUL17269		GP	8.0	140.0	5.7	133.7	6	96	95	DP
1234		9/6/18	PUL17269		GP	8.0	140.0	3.9	133.3	6	95	95	DP
1235		9/6/18	PUL17269		GP	8.0	140.0	4.5	132.3	6	95	95	DP
1236		9/6/18	PUL17-0177	A	ML	13.5	114.5	14.3	113.6	6	99	95	DP
1237		9/6/18	PUL17269		GP	8.0	140.0	5.2	150.7	6	108	95	DP
1238		9/6/18	PUL17269		GP	8.0	140.0	3.6	154.1	6	110	95	DP
1239		9/6/18	PUL17269		GP	8.0	140.0	4.7	145.9	6	104	95	DP
1240		9/6/18	PUL17269		GP	8.0	140.0	2.8	133.3	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1233	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. South of manhole 4 20’	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1234	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. East of manhole 4 20’	6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1235	Backfill - Sanitary Sewer Line Trench: umatilla st. East of manhole 4 30’	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1236	Backfill - Sanitary Sewer Line Trench: umatilla st. East of manhole 6 30’	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1237	Backfill - Manhole: Umatilla st. 1’ north of manhole 7	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1238	Backfill - Manhole: Umatilla st. 3’ north of manhole 7	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1239	Backfill - Manhole: Umatilla st. 1’ south of manhole 7	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1240	Backfill - Manhole: Cayuse st. 2nd water box from the west. West 2’	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1241		9/6/18	PUL17269		GP	8.0	140.0	4.1	137.7	6	98	95	DP
1242		9/6/18	PUL17269		GP	8.0	140.0	5.5	135.3	6	97	95	DP
1243		9/6/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
1244		9/7/18	PUL17-0177	A	ML	13.5	114.5	13.9	108.4	6	95	95	DP
1245		9/7/18	PUL17-0177	A	ML	13.5	114.5	9.4	110.5	6	97	95	DP
1246		9/7/18	PUL17-0177	A	ML	13.5	114.5	5.9	132.4	6	116	95	DP
1247		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.7	139.2	6	122	95	DP
1248		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.9	137.2	6	120	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1241	Backfill - Manhole: Cayuse st. 2nd water box from the west. West 1’	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1242	Backfill - Manhole: Cayuse st. 2nd water box from the west. East 1’	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1243	Backfill - Manhole: Cayuse st. 1st water box from the west. West 1’	5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1244	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain trench north of wallowa st	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1245	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain trench north of wallowa st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1246	Backfill - Sanitary Sewer Line Trench: Cayuse st furthest west storm box. 1’ east	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1247	Backfill - Sanitary Sewer Line Trench: Waha st furthest west storm box. 2’ south	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1248	Backfill - Sanitary Sewer Line Trench: Waha st furthest west storm box. 2’ north	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1249		9/7/18	PUL17-0177	A	ML	13.5	114.5	5.4	134.7	6	118	95	DP
1250		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.9	133.2	6	116	95	DP
1251		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.0	133.2	6	116	95	DP
1252		9/7/18	PUL17269		GP	8.0	140.0	4.3	132.5	6	95	95	DP
1253		9/7/18	PUL17269		GP	8.0	140.0	4.2	134.4	6	96	95	DP
1254		9/10/18	PUL17269		GP	8.0	140.0	7.4	132.7	6	95	95	DP
1255		9/10/18	PUL17269		GP	8.0	140.0	7.5	132.8	6	95	95	DP
1256		9/10/18	PUL17269		GP	8.0	140.0	5.5	133.8	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1249	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain tie in. Eastern half	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1250	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Water line tie in. Western half	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1251	Backfill - Sanitary Sewer Line Trench: Cayuse st western most storm box. West 1'	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1252	Backfill - Stormwater Line Trench: Cayuse st. Second storm box east. Southern box. 1' west		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1253	Backfill - Stormwater Line Trench: Cayuse st. Second storm box east. Southern box. 1' east		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1254	Backfill - Sanitary Sewer Line Trench: Golden hills dr north of umatilla st sanitation trench	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1255	Backfill - Sanitary Sewer Line Trench: Golden hills dr north of umatilla st sanitation trench	5.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1256	Backfill - Waterline Trench: Golden hills dr south of waha st. Waterline trench	4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1257		9/10/18	PUL17269		GP	8.0	140.0	4.7	134.1	6	96	95	DP
1258		9/10/18	PUL17269		GP	8.0	140.0	5.2	132.6	6	95	95	DP
1259		9/10/18	PUL17269		GP	8.0	140.0	5.1	132.8	6	95	95	DP
1260		9/10/18	PUL17269		GP	8.0	140.0	4.0	132.8	6	95	95	DP
1261		9/10/18	PUL17269		GP	8.0	140.0	6.8	133.4	6	95	95	DP
1262		9/10/18	PUL17269		GP	8.0	140.0	7.1	134.4	6	96	95	DP
1263		9/10/18	PUL17269		GP	8.0	140.0	7.3	139.7	6	100	95	DP
1264		9/10/18	PUL17269		GP	8.0	140.0	6.8	132.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1257	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of umatilla st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1258	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1259	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1260	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of cayuse st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1261	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And wallowa	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1262	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And wallowa	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1263	Backfill - Waterline Trench: Golden Hills dr water line tie in north ofwallowa st	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1264	Backfill - Waterline Trench: Golden Hills dr water line trench between wallowa and waha	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1265		9/10/18	PUL17269		GP	8.0	140.0	5.0	132.4	6	95	95	DP
1266		9/10/18	PUL17269		GP	8.0	140.0	3.6	132.4	6	95	95	DP
1267		9/10/18	PUL17269		GP	8.0	140.0	5.5	133.7	6	96	95	DP
1268		9/10/18	PUL17269		GP	8.0	140.0	5.6	134.1	6	96	95	DP
1269		9/10/18	PUL17269		GP	8.0	140.0	6.3	133.4	6	95	95	DP
1270		9/11/18	PUL17269		GP	8.0	140.0	4.8	133.4	6	95	95	DP
1271		9/11/18	PUL17269		GP	8.0	140.0	5.3	134.6	6	96	95	DP
1272		9/14/18	PUL17269		GP	8.0	140.0	6.9	134.8	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1265	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1266	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1267	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1268	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1269	Backfill - Waterline Trench: Golden Hills dr water line trench north of wallowa st	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1270	Backfill - Waterline Trench: Golden Hills dr south of cayuse st	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1271	Backfill - Waterline Trench: Golden Hills dr south of cayuse st water line trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1272	Backfill - Waterline Trench: Wallowa st waterline trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1273		9/14/18	PUL17269		GP	8.0	140.0	6.3	133.2	6	95	95	DP
1274		9/14/18	PUL17269		GP	8.0	140.0	7.8	134.4	6	96	95	DP
1275		9/14/18	PUL17269		GP	8.0	140.0	3.8	147.1	6	105	95	DP
1276		9/14/18	PUL17269		GP	8.0	140.0	8.6	138.7	6	99	95	DP
1277		9/14/18	PUL17269		GP	8.0	140.0	4.9	133.9	6	96	95	DP
1278		9/14/18	PUL17269		GP	8.0	140.0	5.8	132.7	6	95	95	DP
1279		9/14/18	PUL17269		GP	8.0	140.0	5.6	134.5	6	96	95	DP
1280		9/14/18	PUL17269		GP	8.0	140.0	7.3	135.0	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1273	Backfill - Waterline Trench: Wallowa st waterline trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1274	Backfill - Waterline Trench: Wallowa st waterline trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1275	Backfill - Waterline Trench: Golden Hills dr. waterline trench	1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1276	Backfill - Waterline Trench: Wallowa st. Waterline trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1277	Backfill - Waterline Trench: Wallowa st. Waterline trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1278	Backfill - Waterline Trench: Wallowa st. Waterline trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1279	Backfill - Waterline Trench: Wallowa st. Waterline trench.	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1280	Backfill - Waterline Trench: Wallowa st waterline trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1281		9/14/18	PUL17269		GP	8.0	140.0	6.3	133.7	6	96	95	DP
1282		9/15/18	PUL17269		GP	8.0	140.0	4.2	126.5	6	90	95	DF
1283		9/15/18	PUL17269		GP	8.0	140.0	5.5	130.8	6	93	95	DF
1284		9/15/18	PUL17269		GP	8.0	140.0	4.5	130.2	6	93	95	DF
1285		9/15/18	PUL17269		GP	8.0	140.0	7.8	137.0	6	98	95	DP
1286		9/20/18	PUL17269		GP	8.0	140.0	4.7	133.0	6	95	95	DP
1287		9/20/18	PUL17269		GP	8.0	140.0	5.3	132.6	6	95	95	DP
1288		9/20/18	PUL17269		GP	8.0	140.0	4.1	132.9	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1281	Backfill - Waterline Trench: Waha st waterline trench	2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1282	Backfill - Waterline Trench: Second row up, waterline trench	1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
1283	Backfill - Waterline Trench: Second row up, waterline trench	1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
1284	Backfill - Waterline Trench: Second row up, waterline trench	1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
1285	Backfill - Waterline Trench: First row up, waterline trench	3.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018	SAUL, NICK
1286	Backfill - Waterline Trench: Waha st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1287	Backfill - Waterline Trench: Waha st waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1288	Backfill - Waterline Trench: Waha st waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass **DF:** Density Fail	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1289		9/20/18	PUL17269		GP	8.0	140.0	4.2	133.8	6	96	95	DP
1290		9/20/18	PUL17269		GP	8.0	140.0	5.6	136.7	6	98	95	DP
1291		9/20/18	PUL17269		GP	8.0	140.0	5.9	136.8	6	98	95	DP
1292		9/20/18	PUL17269		GP	8.0	140.0	5.0	135.5	6	97	95	DP
1293		9/20/18	PUL17269		GP	8.0	140.0	4.4	136.3	6	97	95	DP
1294		9/20/18	PUL17269		GP	8.0	140.0	8.0	135.2	6	97	95	DP
1295		9/20/18	PUL17269		GP	8.0	140.0	6.1	133.0	6	95	95	DP
1296		9/20/18	PUL17269		GP	8.0	140.0	4.8	136.5	6	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1289	Backfill - Waterline Trench: Waha st waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1290	Backfill - Waterline Trench: Golden hills dr waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1291	Backfill - Waterline Trench: Golden hills dr waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1292	Backfill - Waterline Trench: Golden hills dr waterline trench	0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1293	Backfill - Waterline Trench: Cayuse st waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1294	Backfill - Waterline Trench: Cayuse st waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1295	Backfill - Waterline Trench: Cayuse st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1296	Backfill - Waterline Trench: Cayuse st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

Pullman
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Phone: 509.339.2000 | Fax: 509.339.2001

In-Place Density Tests

Test Method: ASTM D 6938

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1297		9/20/18	PUL17269		GP	8.0	140.0	4.1	132.6	6	95	95	DP
1298		9/20/18	PUL17269		GP	8.0	140.0	5.0	132.5	6	95	95	DP
1299		9/20/18	PUL17269		GP	8.0	140.0	4.9	133.0	6	95	95	DP
1300		9/20/18	PUL17269		GP	8.0	140.0	4.4	135.6	6	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1297	Backfill - Waterline Trench: Cayuse st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1298	Backfill - Waterline Trench: Umatilla st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1299	Backfill - Waterline Trench: Umatilla st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1300	Backfill - Waterline Trench: Umatilla st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

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In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1301		9/20/18	PUL17269		GP	8.0	140.0	3.7	134.1	6	96	95	DP
1302		9/21/18	PUL17269		GP	8.0	140.0	5.4	133.9	6	96	95	DP
1303		9/21/18	PUL17269		GP	8.0	140.0	4.4	137.2	6	98	95	DP
1304		9/21/18	PUL17269		GP	8.0	140.0	6.3	133.0	6	95	95	DP
1305		9/21/18	PUL17269		GP	8.0	140.0	6.4	135.2	6	97	95	DP
1306		9/21/18	PUL17269		GP	8.0	140.0	4.9	134.3	6	96	95	DP
1307		9/21/18	PUL17269		GP	8.0	140.0	4.2	134.4	6	96	95	DP
1308		9/21/18	PUL17269		GP	8.0	140.0	4.8	132.5	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1301	Backfill - Waterline Trench: Umatilla st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1302	Backfill - Waterline Trench: Golden hills dr. Waterline trench at cayuse st		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1303	Backfill - Waterline Trench: Cayuse st water line trench	3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1304	Backfill - Waterline Trench: Golden Hills dr water line trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1305	Backfill - Waterline Trench: Golden Hills dr water line trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1306	Backfill - Waterline Trench: Golden Hills dr water line trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1307	Backfill - Waterline Trench: Waha st water line trench	1.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1308	Backfill - Waterline Trench: Golden hills dr water line trench	1.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1309		9/21/18	PUL17269		GP	8.0	140.0	6.5	132.6	6	95	95	DP
1310		9/21/18	PUL17269		GP	8.0	140.0	5.1	132.4	6	95	95	DP
1311		9/21/18	PUL17269		GP	8.0	140.0	5.1	132.6	6	95	95	DP
1312		9/21/18	PUL17269		GP	8.0	140.0	5.9	135.2	6	97	95	DP
1313		9/21/18	PUL17269		GP	8.0	140.0	6.4	139.6	6	100	95	DP
1314		9/21/18	PUL17269		GP	8.0	140.0	4.4	134.2	6	96	95	DP
1315		9/21/18	PUL17269		GP	8.0	140.0	6.6	132.6	6	95	95	DP
1316		9/21/18	PUL17269		GP	8.0	140.0	3.9	132.8	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1309	Backfill - Waterline Trench: Golden hills dr water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1310	Backfill - Waterline Trench: Golden hills dr waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1311	Backfill - Waterline Trench: Waha st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1312	Backfill - Waterline Trench: Waha st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1313	Backfill - Waterline Trench: Waha st waterline trench	1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1314	Backfill - Waterline Trench: Waha st waterline trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1315	Backfill - Waterline Trench: Golden hills dr waterline trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1316	Backfill - Waterline Trench: Golden hills dr waterline trench	0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation® In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Pullman, WA 99163

Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1317		9/24/18	PUL17269		GP	8.0	140.0	7.4	136.3	6	97	95	DP
1318		9/24/18	PUL17269		GP	8.0	140.0	5.8	133.1	6	95	95	DP
1319		9/24/18	PUL17269		GP	8.0	140.0	5.6	142.4	6	102	95	DP
1320		9/24/18	PUL17269		GP	8.0	140.0	5.2	133.9	6	96	95	DP
1321		9/24/18	PUL17-0177	A	ML	13.5	114.5	5.2	134.4	6	117	95	DP
1322		9/24/18	PUL17-0177	A	ML	13.5	114.5	5.8	137.1	6	120	95	DP
1323		9/24/18	PUL17269		GP	8.0	140.0	5.0	133.5	6	95	95	DP
1324		9/24/18	PUL17269		GP	8.0	140.0	6.4	136.7	6	98	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1317	Backfill - Waterline Trench: Golden hills dr at cayuse st waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1318	Backfill - Waterline Trench: Golden hills dr at cayuse st waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1319	Backfill - Waterline Trench: cayuse st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1320	Backfill - Waterline Trench: cayuse st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1321	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1322	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1323	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1324	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1325		9/24/18	PUL17269		GP	8.0	140.0	5.5	132.6	6	95	95	DP
1326		9/24/18	PUL17269		GP	8.0	140.0	5.4	132.7	6	95	95	DP
1327		9/24/18	PUL17269		GP	8.0	140.0	5.1	132.7	6	95	95	DP
1328		9/24/18	PUL17269		GP	8.0	140.0	5.1	138.6	6	99	95	DP
1329		9/24/18	PUL17269		GP	8.0	140.0	5.4	132.4	6	95	95	DP
1330		9/25/18	PUL17269		GP	8.0	140.0	4.7	141.1	6	101	95	DP
1331		9/25/18	PUL17269		GP	8.0	140.0	4.6	133.4	6	95	95	DP
1332		9/25/18	PUL17269		GP	8.0	140.0	3.8	135.0	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1325	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1326	Backfill - Waterline Trench: Wallowa st water line trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1327	Backfill - Manhole: Wallowa st western most manholes		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1328	Backfill - Manhole: Wallowa st western most manholes		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1329	Backfill - Manhole: Wallowa st western most manholes		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1330	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1331	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1332	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1333		9/25/18	PUL17269		GP	8.0	140.0	5.1	133.7	6	96	95	DP
1334		9/25/18	PUL17269		GP	8.0	140.0	4.3	133.6	6	95	95	DP
1335		9/25/18	PUL17269		GP	8.0	140.0	6.1	143.5	6	102	95	DP
1336		9/25/18	PUL17269		GP	8.0	140.0	4.5	133.3	6	95	95	DP
1337		9/25/18	PUL17269		GP	8.0	140.0	5.7	141.3	6	101	95	DP
1338		9/25/18	PUL17269		GP	8.0	140.0	5.0	132.8	6	95	95	DP
1339		10/4/18	PUL17269		GP	8.0	140.0	4.1	133.4	6	95	95	DP
1340		10/4/18	PUL17269		GP	8.0	140.0	4.6	134.8	6	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1333	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1334	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1335	Backfill - Waterline Trench: Umatilla st waterline trench		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1336	Backfill - Waterline Trench: Umatilla st waterline trench	3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1337	Backfill - Waterline Trench: Umatilla st waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1338	Backfill - Waterline Trench: Golden hills dr waterline trench	2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1339	Backfill - Stormwater Line Trench: Golden hills dr south of umatilla		At finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1340	Backfill - Stormwater Line Trench: Golden hills dr south of umatilla		At finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1341		10/4/18	PUL17269		GP	8.0	140.0	3.7	138.1	6	99	95	DP
1342		10/4/18	PUL17269		GP	8.0	140.0	5.1	138.9	6	99	95	DP
1343		10/4/18	PUL17269		GP	8.0	140.0	3.2	136.3	6	97	95	DP
1344		10/4/18	PUL17269		GP	8.0	140.0	4.3	139.3	6	100	95	DP
1345		10/4/18	PUL17269		GP	8.0	140.0	3.7	133.1	6	95	95	DP
1346		10/4/18	PUL17269		GP	8.0	140.0	4.0	131.6	6	94	90	DP
1347		10/4/18	PUL17269		GP	8.0	140.0	4.6	130.7	6	93	90	DP
1348		10/4/18	PUL17269		GP	8.0	140.0	4.2	133.4	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1341	Backfill - Waterline Trench: Golden hills dr south of umatilla	0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1342	Backfill - Waterline Trench: Golden hills dr south of umatilla	0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1343	Backfill - Stormwater Line Trench: Golden hills dr at umatilla	2.0	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1344	Backfill - Stormwater Line Trench: Golden hills dr at umatilla	0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1345	Backfill - Waterline Trench: Umatilla st western fire hydrant	0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1346	Backfill - Waterline Trench: West of golden hills dr. Storm trench to pond	2.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1347	Backfill - Waterline Trench: West of golden hills dr. Storm trench to pond	2.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1348	Backfill - Manhole: Umatilla st north of manhole 6 2’		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1349		10/4/18	PUL17269		GP	8.0	140.0	5.5	132.3	6	95	95	DP
1350		10/4/18	PUL17269		GP	8.0	140.0	4.5	134.6	6	96	95	DP
1351		10/4/18	PUL17269		GP	8.0	140.0	3.6	132.3	6	95	95	DP
1352		10/11/18	PUL17269		GP	8.0	140.0	7.2	133.4	6	95	95	DP
1353		10/11/18	PUL17269		GP	8.0	140.0	7.6	134.5	6	96	95	DP
1354		10/11/18	PUL17269		GP	8.0	140.0	4.0	132.6	6	95	95	DP
1355		10/11/18	PUL17269		GP	8.0	140.0	3.3	132.9	6	95	95	DP
1356		10/13/18	PUL17269		GP	8.0	140.0	4.9	139.2	6	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1349	Backfill - Manhole: Umatilla st north of manhole 6 storm 3’		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1350	Backfill - Manhole: Waha st catch basin		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1351	Backfill - Manhole: Waha st catch basin		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1352	Backfill - Manhole: Golden hills drive north of umatilla st		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1353	Backfill - Manhole: Golden hills drive north of umatilla st		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1354	Backfill - Utility Trench: umatilla st norther utility		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1355	Backfill - Utility Trench: umatilla st northern utility		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1356	Fill - P-152 Excavation, Subgrade, and Embankment: Waha waterline		Approximately top of trench	Troxler / 3430 / 37625 / 3/21/2018	ROSS, JOSH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1357		10/22/18	PUL18-0205		GP	7.0	142.0	3.9	137.4	4	97	95	DP
1358		10/22/18	PUL18-0205		GP	7.0	142.0	4.4	135.2	4	95	95	DP
1359		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	134.7	4	95	95	DP
1360		10/22/18	PUL18-0205		GP	7.0	142.0	2.7	135.5	4	95	95	DP
1361		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	138.1	4	97	95	DP
1362		10/22/18	PUL18-0205		GP	7.0	142.0	3.2	134.9	4	95	95	DP
1363		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	139.5	4	98	95	DP
1364		10/22/18	PUL18-0205		GP	7.0	142.0	2.9	137.1	4	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1357	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1358	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1359	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1360	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1361	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1362	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1363	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1364	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Client:
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1365		10/22/18	PUL18-0205		GP	7.0	142.0	4.2	135.7	4	96	95	DP
1366		10/29/18	PUL18-0205		GP	7.0	142.0	6.6	135.2	4	95	95	DP
1367		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	134.6	4	95	95	DP
1368		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	134.4	4	95	95	DP
1369		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	134.3	4	95	95	DP
1370		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	134.8	4	95	95	DP
1371		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.2	4	95	95	DP
1372		10/29/18	PUL18-0205		GP	7.0	142.0	4.6	138.0	4	97	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1365	Fill - Subgrade: Golden hills dr eastern curb side		At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1366	Fill - Subgrade: Umatilla road. South side curbs		At finish road grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1367	Fill - Subgrade: Umatilla road. South side curbs		At finish road grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1368	Fill - Subgrade: Umatilla road. South side curbs		At finish road grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1369	Fill - Subgrade: Umatilla road. South side curbs		At finish road grade	Instrotek / X3500 / 718 / 3/21/2018	PAULSEN, ZACH
1370	Fill - Subgrade: Umatilla road. South side curb		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1371	Fill - Subgrade: Umatilla road. North side curb		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1372	Fill - Subgrade: Umatilla road. North side curb		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1373		10/29/18	PUL18-0205		GP	7.0	142.0	4.2	135.0	4	95	95	DP
1374		10/29/18	PUL18-0205		GP	7.0	142.0	3.3	141.3	4	100	95	DP
1375		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	137.9	4	97	95	DP
1376		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	139.4	4	98	95	DP
1377		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.7	4	96	95	DP
1378		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	138.8	4	98	95	DP
1379		10/29/18	PUL18-0205		GP	7.0	142.0	4.5	137.8	4	97	95	DP
1380		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.1	6	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1373	Fill - Subgrade: Umatilla road. North side curb		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1374	Fill - Subgrade: Waha road. East of side of radius		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1375	Fill - Subgrade: Waha road. West of radius. Center of road		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1376	Fill - Subgrade: Waha road. West of radius. South of center of road		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1377	Fill - Subgrade: Waha road. West of radius. North of center of road		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1378	Fill - Subgrade: Waha road. West of radius. Center of road		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1379	Fill - Subgrade: Waha road. West of radius. Center of road		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1380	Fill - Subgrade: Golden Hills drive. At center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1381		10/29/18	PUL18-0205		GP	7.0	142.0	4.0	144.9	4	102	95	DP
1382		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	142.5	4	100	95	DP
1383		10/29/18	PUL18-0205		GP	7.0	142.0	4.0	142.0	4	100	95	DP
1384		10/29/18	PUL18-0205		GP	7.0	142.0	3.1	145.7	4	103	95	DP
1385		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	144.0	4	101	95	DP
1386		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	142.5	4	100	95	DP
1387		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	145.1	4	102	95	DP
1388		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	144.2	4	102	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1381	Fill - Subgrade: Golden Hills drive. West of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1382	Fill - Subgrade: Golden Hills drive. East of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1383	Fill - Subgrade: Golden Hills drive. West of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1384	Fill - Subgrade: Golden Hills drive. East of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1385	Fill - Subgrade: Golden Hills drive. West of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1386	Fill - Subgrade: Golden Hills drive. East of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1387	Fill - Subgrade: Golden Hills drive. West of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1388	Fill - Subgrade: Golden Hills drive. East of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation — In-Place Density Tests

Test Method: ASTM D 6938

Pullman
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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1389		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	135.1	4	95	95	DP
1390		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	141.4	4	100	95	DP
1391		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	136.1	4	96	95	DP
1392		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	135.0	4	95	95	DP
1393		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	135.9	4	96	95	DP
1394		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	136.9	4	96	95	DP
1395		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	140.5	4	99	95	DP
1396		10/29/18	PUL18-0205		GP	7.0	142.0	2.8	134.4	4	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1389	Fill - Subgrade: Golden Hills drive. At center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1390	Fill - Subgrade: Golden Hills drive. East of center line of road		At finish grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1391	Fill - Subgrade: Cayuse street. At center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1392	Fill - Subgrade: Cayuse street. South of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1393	Fill - Subgrade: Cayuse street. North of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1394	Fill - Subgrade: Cayuse street. South of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1395	Fill - Subgrade: Cayuse street. North of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1396	Fill - Subgrade: Cayuse street. South of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Project:
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Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1397		10/29/18	PUL18-0205		GP	7.0	142.0	4.6	134.9	4	95	95	DP
1398		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	134.2	4	95	95	DP
1399		10/30/18	PUL18-0205		GP	7.0	142.0	2.2	136.4	4	96	95	DP
1400		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	134.3	4	95	95	DP
1401		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	136.2	4	96	95	DP
1402		10/30/18	PUL18-0205		GP	7.0	142.0	3.1	134.4	4	95	95	DP
1403		10/30/18	PUL18-0205		GP	7.0	142.0	3.3	134.7	4	95	95	DP
1404		10/31/18	PUL17269		GP	8.0	140.0	5.2	145.2	4	104	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1397	Fill - Subgrade: Cayuse street. North of center of roadway		At finish road grade	Troxler / 3430 / 37625 / 3/21/2018	PAULSEN, ZACH
1398	Fill - Subgrade: Wallowa st. At center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1399	Fill - Subgrade: Wallowa st. South of center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1400	Fill - Subgrade: Wallowa st. North of center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1401	Fill - Subgrade: Wallowa st. North of center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1402	Fill - Subgrade: Wallowa st. At center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1403	Fill - Subgrade: Wallowa st. North of center line of roadway		At finish grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1404	Fill - Subgrade: Golden Hills Drive. At center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1405		10/31/18	PUL17269		GP	8.0	140.0	4.8	143.6	4	103	95	DP
1406		10/31/18	PUL17269		GP	8.0	140.0	6.1	133.4	4	95	95	DP
1407		10/31/18	PUL17269		GP	8.0	140.0	5.0	134.9	4	96	95	DP
1408		10/31/18	PUL17269		GP	8.0	140.0	4.8	133.6	4	95	95	DP
1409		10/31/18	PUL17269		GP	8.0	140.0	6.4	135.3	4	97	95	DP
1410		10/31/18	PUL17269		GP	8.0	140.0	6.2	132.7	4	95	95	DP
1411		10/31/18	PUL17269		GP	8.0	140.0	5.0	132.4	4	95	95	DP
1412		10/31/18	PUL17269		GP	8.0	140.0	6.0	132.6	4	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1405	Fill - Subgrade: Golden Hills Drive. West of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1406	Fill - Subgrade: Golden Hills Drive. East of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1407	Fill - Subgrade: Golden Hills Drive. West of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1408	Fill - Subgrade: Waha court. North of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1409	Fill - Subgrade: Waha court. North of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1410	Fill - Subgrade: Waha court. Southth of center line of road		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1411	Fill - Subgrade: Cayuse street. South of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1412	Fill - Subgrade: Cayuse street. North of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1413		10/31/18	PUL17269		GP	8.0	140.0	5.4	132.3	4	95	95	DP
1414		10/31/18	PUL17269		GP	8.0	140.0	6.4	132.4	4	95	95	DP
1415		10/31/18	PUL17269		GP	8.0	140.0	4.9	132.9	4	95	95	DP
1416		10/31/18	PUL17269		GP	8.0	140.0	6.4	136.0	4	97	95	DP
1417		10/31/18	PUL17269		GP	8.0	140.0	7.6	137.4	4	98	95	DP
1418		10/31/18	PUL17269		GP	8.0	140.0	7.0	135.3	4	97	95	DP
1419		10/31/18	PUL17269		GP	8.0	140.0	6.8	137.1	4	98	95	DP
1420		10/31/18	PUL17269		GP	8.0	140.0	5.1	139.1	4	99	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1413	Fill - Subgrade: Cayuse street. South of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1414	Fill - Subgrade: Cayuse street. North of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1415	Fill - Subgrade: Cayuse street. South of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1416	Fill - Subgrade: Cayuse street. North of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1417	Fill - Subgrade: Cayuse street. South of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1418	Fill - Subgrade: Golden Hills drive. West of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1419	Fill - Subgrade: Golden Hills drive. East of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1420	Fill - Subgrade: Golden Hills drive. West of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1421		10/31/18	PUL17269		GP	8.0	140.0	6.7	132.9	4	95	95	DP
1422		10/31/18	PUL17269		GP	8.0	140.0	5.2	133.3	4	95	95	DP
1423		10/31/18	PUL17269		GP	8.0	140.0	7.0	134.6	4	96	95	DP
1424		11/2/18	PUL17269		GP	8.0	140.0	5.8	134.7	4	96	95	DP
1425		11/2/18	PUL17269		GP	8.0	140.0	6.3	133.2	4	95	95	DP
1426		11/2/18	PUL17269		GP	8.0	140.0	4.8	134.2	4	96	95	DP
1427		11/2/18	PUL17269		GP	8.0	140.0	5.6	132.6	4	95	95	DP
1428		11/2/18	PUL17269		GP	8.0	140.0	5.1	132.7	4	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1421	Fill - Subgrade: Golden Hills drive. East of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1422	Fill - Subgrade: Golden Hills drive. West of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1423	Fill - Subgrade: Golden Hills drive. East of center line		At finish road grade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1424	Fill - Subgrade: Wallowa street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1425	Fill - Subgrade: Wallowa street. North of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1426	Fill - Subgrade: Wallowa street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1427	Fill - Subgrade: Wallowa street. North of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1428	Fill - Subgrade: Wallowa street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1429		11/2/18	PUL17269		GP	8.0	140.0	4.6	132.4	4	95	95	DP
1430		11/2/18	PUL17269		GP	8.0	140.0	7.2	137.6	4	98	95	DP
1431		11/2/18	PUL17269		GP	8.0	140.0	6.9	137.0	4	98	95	DP
1432		11/2/18	PUL17269		GP	8.0	140.0	6.0	134.3	4	96	95	DP
1433		11/2/18	PUL17269		GP	8.0	140.0	6.3	135.6	4	97	95	DP
1434		11/2/18	PUL17269		GP	8.0	140.0	5.4	133.6	4	95	95	DP
1435		11/2/18	PUL17269		GP	8.0	140.0	6.0	133.9	4	96	95	DP
1436		11/2/18	PUL17269		GP	8.0	140.0	6.3	134.7	4	96	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1429	Fill - Subgrade: Wallowa street. North of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1430	Fill - Subgrade: Umatilla street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1431	Fill - Subgrade: Umatilla street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1432	Fill - Subgrade: Umatilla street. South of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1433	Fill - Subgrade: Umatilla street. North of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1434	Fill - Subgrade: Umatilla street. East end of radius		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1435	Fill - Subgrade: Golden Hills Drive. West of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1436	Fill - Subgrade: Golden Hills Drive. West of center line of road		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

GeoProfessional Innovation

In-Place Density Tests

Test Method: ASTM D 6938

Pullman
6 O'Donnell Road
Pullman, WA 99163
Phone: 509.339.2000 | Fax: 509.339.2001

Client:
KIP Development
594 SE Bishop Boulevard, Suite 102
Pullman, WA 99163

Project:
PU17212B
Sundance South Subdivision
Sundance Court
Pullman, WA 99163

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1437		11/10/18	PUL17269		GP	8.0	140.0	5.0	137.4	4	98	95	DP
1438		11/10/18	PUL17269		GP	8.0	140.0	2.6	132.4	4	95	95	DP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1437	Fill - Subgrade: Western approach of Golden Hills Drive		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH
1438	Fill - Subgrade: Western approach of Golden Hills Drive		At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018	PAULSEN, ZACH

Remarks	Comments
DP: Density Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

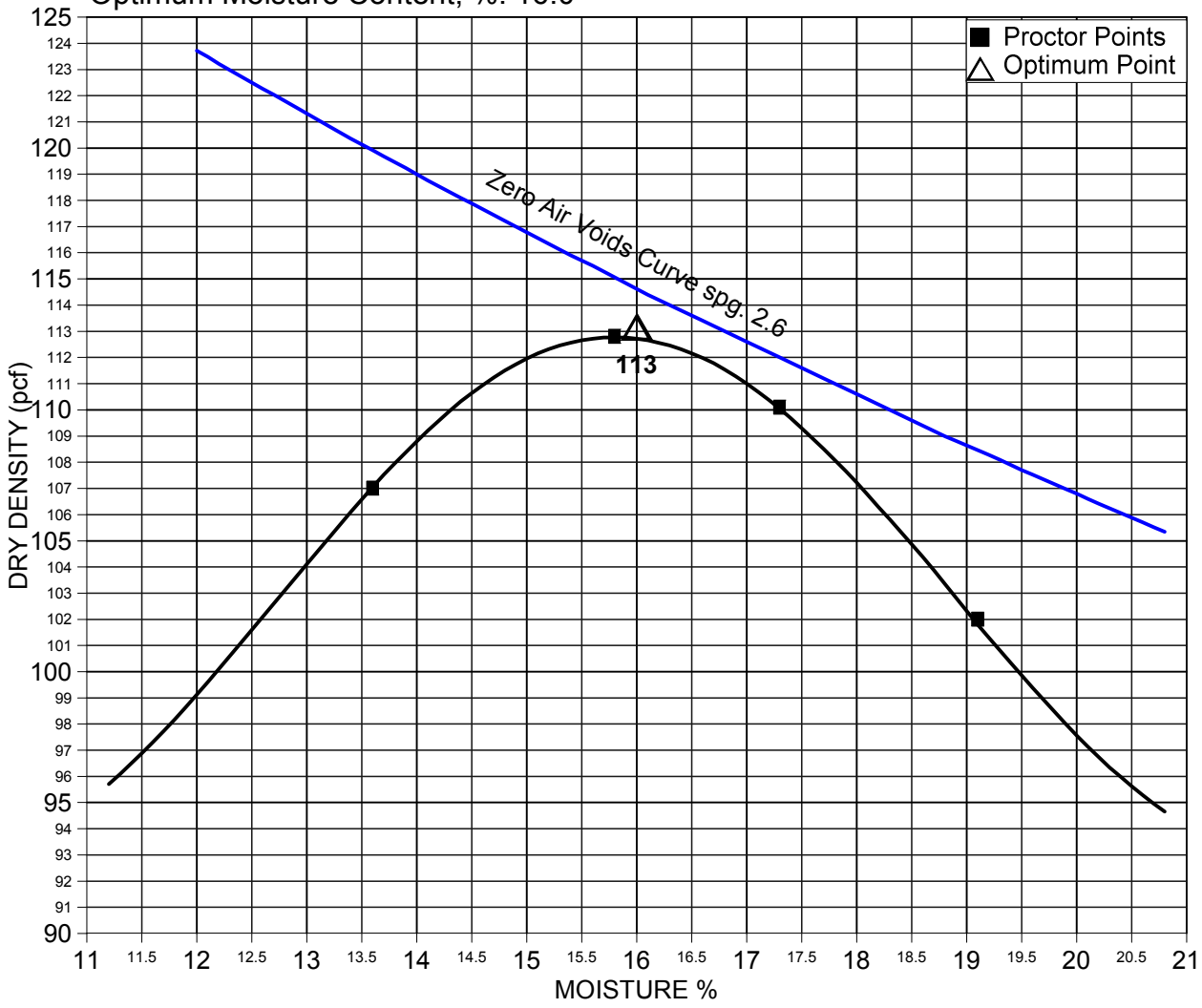
MOISTURE-DENSITY RELATIONSHIP CURVE
ASTM D 1557
Method A

GRADING ANALYSIS

SCREEN SIZE	% PASSING	AS TESTED
#4	100	100

Project: Sundance South Subdivision
Client: Sundance South, LLC
File Name: PU17128A
Lab Number: PUL17-0329
Sample Location: On-site Native
Sample Type: Silt (ML)
Date Tested: 10/30/17 By: JBM
Rammer Type: Manual

Maximum Dry Density, pcf : 113.0
Optimum Moisture Content, %: 16.0



Reviewed By: _____

GeoProfessional Innovation.
6 O'Donnell Road Pullman, Washington 99163
Phone.509.339.2000 Fax.509.339.2001

Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/13/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant Pullman, WA	Sampled By: Date Sampled:	Motley 11/12/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/12/2018
Sample Number:	PUL18-0234		

AASHTO T329 Moisture Content of HMA by Oven Method

By weight of total mix

Moisture Content, %: 0.06

AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

By weight of total mix, no NCAT correction

Asphalt Content, %: 6.7

AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.554

Theoretical Maximum Density, pcf*: 159.0

**pounds per cubic foot*

AASHTO T30 Mechanical Analysis of Extracted Aggregate

Specification Reference: WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0234 Passing, %	Spec Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	<u>91</u>	90 Max
#4	4.76	68	-
#8	2.38	45	28-58
#16	1.19	29	-
#30	0.595	19	-
#50	0.297	12	-
#100	0.149	9	-
#200	0.074	6.2	2.0-7.0

__ Underlined values designate results that fall outside of the specification's allowable deviations.

GeoProfessional Innovation

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Justin Maffey, E.I.T.

Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/13/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant Pullman, WA	Sampled By: Date Sampled:	Motley 11/9/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/9/2018
Sample Number:	PUL18-0230		

AASHTO T329 Moisture Content of HMA by Oven Method

By weight of total mix

Moisture Content, %: 0.04

AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

By weight of total mix, no NCAT correction

Asphalt Content, %: 6.6

AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.565

Theoretical Maximum Density, pcf*: 159.7

**pounds per cubic foot*

AASHTO T30 Mechanical Analysis of Extracted Aggregate

Specification Reference: WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0230 Passing, %	Spec Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	93	90 Max
#4	4.76	72	-
#8	2.38	50	28-58
#16	1.19	33	-
#30	0.595	22	-
#50	0.297	14	-
#100	0.149	10	-
#200	0.074	7.2	2.0-7.0

__ Underlined values designate results that fall outside of the specification's allowable deviations.

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Justin Maffey, E.I.T.

Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/8/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant Pullman, WA	Sampled By: Date Sampled:	Motley 11/7/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/7/2018
Sample Number:	PUL18-0226		

AASHTO T329 Moisture Content of HMA by Oven Method

By weight of total mix

Moisture Content, %: 0.03

AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

By weight of total mix, no NCAT correction

Asphalt Content, %: 6.5

AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.538

Theoretical Maximum Density, pcf*: 158.0

**pounds per cubic foot*

AASHTO T30 Mechanical Analysis of Extracted Aggregate

Specification Reference: WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0226 Passing, %	Spec Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	97	90-100
3/8"	9.51	88	90 Max
#4	4.76	64	-
#8	2.38	44	28-58
#16	1.19	30	-
#30	0.595	21	-
#50	0.297	14	-
#100	0.149	10	-
#200	0.074	7.2	2.0-7.0

__ Underlined values designate results that fall outside of the specification's allowable deviations.

GeoProfessional Innovation

6 O'Donnell Road Pullman, WA 99163

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Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/8/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant Pullman, WA	Sampled By: Date Sampled:	Motley 11/6/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/6/2018
Sample Number:	PUL18-0225		

AASHTO T329 Moisture Content of HMA by Oven Method

By weight of total mix

Moisture Content, %: 0.14

AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

By weight of total mix, no NCAT correction

Asphalt Content, %: 6.4

AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.548

Theoretical Maximum Density, pcf*: 158.6

**pounds per cubic foot*

AASHTO T30 Mechanical Analysis of Extracted Aggregate

Specification Reference: WSDOT Standard Specifications for Road, Bridge, and Municipal Construction 2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0225 Passing, %	Spec Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	90	90 Max
#4	4.76	65	-
#8	2.38	45	28-58
#16	1.19	32	-
#30	0.595	22	-
#50	0.297	15	-
#100	0.149	11	-
#200	0.074	8.2	2.0-7.0

__ Underlined values designate results that fall outside of the specification's allowable deviations.

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