Conceptual Geotechnical Report for

USA Parkway Extension

From I-80 to US-50

Storey and Lyon Counties, NV

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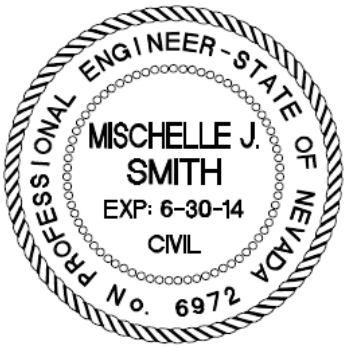

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1.0 INTRODUCTION

1.1 General

This document presents Wood Rodgers' conceptual design geotechnical report for the proposed USA Parkway extension. The proposed alignment and study area extend from the current terminus of the paved USA Parkway improvements (Sta. 690+00, approximately 6.2 miles south of the Interstate 80 corridor) to the south for approximately 12.5 miles to US-50 (Sta. 10+00). The proposed alignment will incorporate 4 travel lanes, drainage improvements, and slope stabilization measures all designed to NDOT Standards. The purpose of this conceptual report is to:

- Characterize and present subsurface soil/bedrock conditions based on readily available published documents and the explorations performed with this study.
- Provide conceptual geotechnical evaluations of the proposed alignment considering the planned improvements and the subsurface conditions encountered in our explorations and material properties determined from our laboratory testing program, and as discussed in referenced literature.
- Present conceptual design considerations.
- Identify notable critical study areas for future investigations.

The conditions, opinions, and conceptual recommendations expressed herein are based on the understanding that as project design moves through completion, additional exploration and analyses will be performed to be consistent with NDOT geotechnical design and procedure protocols.

1.2 Scope

The scope of work for this portion of the project is to obtain and present the information necessary to characterize surface and subsurface soil, bedrock, and groundwater conditions to facilitate development of the 30% design plans. This scope incorporates field exploration, laboratory testing, research, analysis, and preparation of this report.

Our exploration program consisted of advancing test pits approximately every 1000 feet, on average, with a large track mounted excavator. Test pit locations were selectively located to address cut/fill contacts and to concentrate explorations in areas where significant cuts, and generation of significant fill quantities, will occur. Test pits were advanced to depths on the order of 19 feet or until refusal was met. (Refusal was defined as that point at which the rate of exploration advance became less than 1 foot in 10 minutes). Field exploration was complimented by geophysical methods to help further characterize

subsurface conditions. Our geophysical methods included performing seismic refraction surveys (P-waves, ASTM D577-00) and refraction micro-tremor surveys (ReMi ™).

Our report presents and discusses the following:

1. Project description and history.
2. A summary of geologic conditions and seismicity.
3. A summary of our field investigations and laboratory analyses.
4. A discussion of subsurface conditions encountered.
5. Discussions regarding:
    a. Analyses, methods, and calculations performed during the preparation of this report.
    b. Site grading and earthwork.
    c. Evaluation of rock slopes.
    d. R-Value summary for development of structural pavement sections.
    e. Identification of critical areas for future study.

1.3 Other Reports and Investigations

Grading has occurred within the northern limits of the portion of the USA Parkway (Tahoe Reno Industrial Center) alignment currently under consideration. Daily field reports have been included for the mass grading of this portion of the roadway between Station 460+00 and Station 690+00 (Appendix D).

2.0 PROJECT DESCRIPTION

This project consists of constructing a four lane, 60 mph roadway, to provide a connection between I-80 and US-50. The roadway will be designed and constructed to NDOT standards and will ultimately be under NDOT's jurisdiction. As shown in Figure 1 the

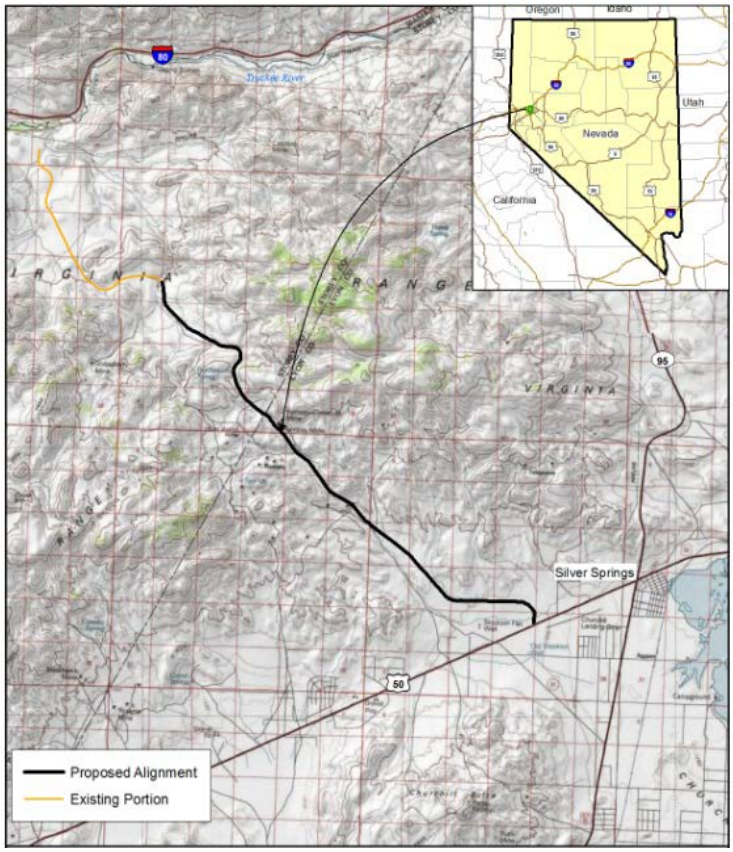

Figure 1 – Vicinity Map

site for the proposed extension begins at the existing terminus of the USA Parkway pavement (shown in gold), approximately 6.2 miles south of the I-80 corridor, and proceeds south for approximately 12.5 miles.

The project can essentially be characterized by 3 segments. Beginning from the north, Stations 690 to 460 ±, the alignment consists of an existing graded road. The proposed corridor also closely approximates existing grade along this portion of the alignment (Photo 1). The next leg of the alignment, Station 460 to 300 ±, transects through the Virginia Range resulting in cuts approaching 100 feet and fills approaching 20 feet in thickness (Photo 2). The final leg of the alignment crosses old alluvium and extends from Station 300 to US 50 (Station 10+00). Portions of this segment are at or near grade and in some areas require fills in excess of 20 feet.

Photo 1 – Looking South along Initial Segment

Numerous dirt roads, drainages, and horse trails cross the proposed alignment. Vegetation ranges between sparse to moderate and consists of native shrubs and grasses to juniper and pinion pines. Springs are present in some of the drainages and in some instances the water is being piped to corrals for livestock. There are two mine sites that are adjacent to the alignment and old fencing crisscrosses throughout the terrain.

Photo 2 – Typical Topography along the Alignment

Information received during the course of our investigation includes:

- Proposed alignment (Jacobs) – Proposed alignment was presented via preliminary drawings. Proposed test pit locations were staked in the field.
- Sections for 55 mph and 60 mph alignments (Jacobs) - The 60 mph alignment was relied upon in the formulation of the recommendations and assessments presented in this report.
- Structure List (Wood Rodgers) – Table 1 presents preliminary locations and sizes of reinforced concrete boxes. No other substantial structures are currently planned or have been identified for the alignment.

Table 1 – Preliminary Structures List

Station	Structure
Sta 13+50	5 – 3’ x 10’ RCBC
Sta 22+50	10 – 3’ x 12’ RCBC
Sta 94+50	1 – 4’ x 3’ RCBC
Sta 123+00	2 – 4’ x 8’ RCBC
Sta 194+75	1 – 4’ x 5’ RCBC
Sta 253+50	3 – 6’ x 10’ RCBC
Sta 255+60	1 – 4’ x 6’ RCBC
Sta 401+20	1 – 6’ x 10’ RCBC
Sta 465+75	1 – 5’ x 5’ RCBC

3.0 GEOLOGIC CONDITIONS AND SEISMICITY

3.1 Local Geology

The bulk of the USA Parkway alignment transects the Virginia Range. The Virginia Range is an east-northeast trending range bounded by the Truckee River canyon on the north and the Carson River valley on the south. Some of the oldest rocks in the Virginia Range are metamorphosed sedimentary and volcanic rocks of the Mesozoic age. These rocks were folded and regionally metamorphosed prior to the intrusion of granitic plutons of the late Mesozoic age. Overlying the Mesozoic rocks is a thick section of volcanic and sedimentary rocks ranging in age from Oligocene to Pleistocene (Bonham, 1969). In addition to the volcanic rock units, deposits of alluvium and colluvium sediments are locally abundant especially on the south end of the site. In our explorations, various rock units were encountered including: basalt, andesite, rhyolite, sandstone, and gravels with clay, sand, cobbles, and boulders.

3.2 Faulting and Seismicity

Figure 2 presents the USGS Quaternary Fault Map for the area surrounding the USA Parkway alignment. Quaternary faults are those which have exhibited displacements or experienced activity within in the last 1.8 million years. Historic activity is defined as having occurred within the last 150 years; Holocene activity is defined as occurring within the last 15,000 years. As can be seen, many Quaternary faults have been mapped within the project area, particularly within the southern limits near Silver Springs. Criticality regarding the presence of a fault structure increases with frequency and latest occurrence of movement.

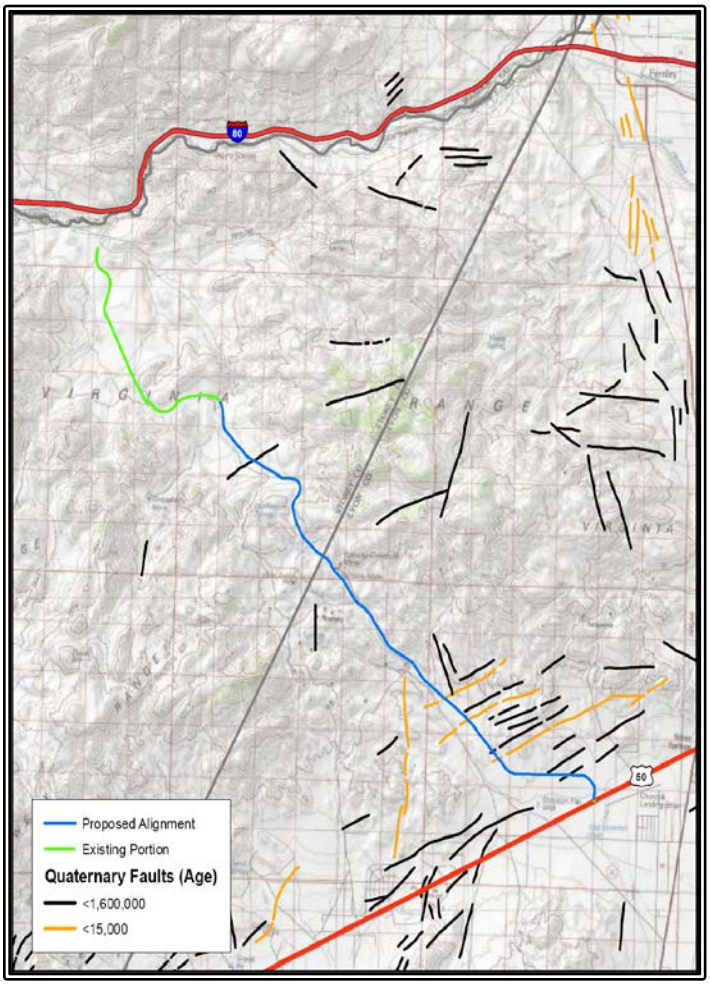

Figure 2– USGS Quaternary Fault Map

The most critical faults presented in Figure 2 have experienced displacement in the last 15,000 years. In Nevada many Quaternary faults remain undetected and unmapped, especially in the alluvial valleys (such as near Silver Springs) where they are: covered by young sediments, in the mountains where lack of young sediments makes determination of a Quaternary age fault difficult, deep in the earth where detection relies on seismology and other remote sensing techniques, and in areas that have not yet been studied (dePolo 2008).

The maps published by the USGS are not sufficiently refined to base an opinion as to whether or not a proposed structure would be in the immediate vicinity of, or underlain by, a mapped fault. As presented in Table 1(page 4), the majority of the structures planned for the alignment consist of reinforced concrete boxes which would not typically be considered critical in the context of proximity to a Holocene active fault. However, the criticality of these box structures should be considered by NDOT. If a higher degree

of refinement is required, fault specific studies should be performed during subsequent design assessments.

NDOT's procedures and policies provide that for design of noncritical structures, the acceleration coefficient be obtained from Article 3.2 of Division IA of AASHTO, 2002, which has been reproduced by the USGS (http://earthquake.usgs.gov/hazards/designmaps/usdesign.php). For the purposes of this report, latitude and longitude were determined centrally along the alignment. Table 2 presents seismic design values based on varying site conditions. ReMi™ shear wave velocity measurements are presented for the specific locations measured. It is our opinion Site Class C may be used in the design of structures north of Station 300. Site Class D should be used for structures south of Station 300 unless exploration during subsequent phases indicates Site Class C or higher is appropriate.

Table 2 – Summary of Seismic Design Criteria as a Function of Site Class

Site Class	Description	PGA	A_s	S_s	S_1	S_{DS}	S_{D1}
B	Rock	0.357	0.357	0.866	0.317	0.866	0.317
C – Sta 690 to 300	Very Dense Soil/Soft Rock	0.357	0.373	0.866	0.317	0.912	0.470
D Sta 300 to 10	Stiff Soil	0.357	0.408	0.866	0.317	0.999	0.560

The values presented in Table 2 are recommended for use when designing incidental structures and considering seismic loading. The Mononobe-Okabe method for determining equivalent seismic loading is recommended for use in design of structures retaining backfill.

Embankments and cut slopes present special considerations when establishing design accelerations. Most references (Abramson, Marcuson & Franklin, and Corps of Engineers) allow for a reduction in the Peak Ground Acceleration (PGA) because of acceptable deformation that can occur within the slope during a seismic event. As referenced by L.W. Abramson, et al (1996) a maximum horizontal acceleration of 0.15g can be used when a FOS greater than 1.15 is considered. Marcuson and Franklin (1983) recommend using ½ the peak ground acceleration, and the Corps of Engineers recommends using 0.1g for a major earthquake and a design FOS greater than 1. Seed reports that embankments designed with a pseudo-static FOS of 1.15 and a seismic coefficient of 0.15 experienced acceptable deformations in earthquakes presenting magnitudes as large as 8.5. Because the slopes associated with our project can tolerate some deformation, a horizontal seismic coefficient of 0.5*PGA (i.e. 0.18) and a minimum Factor of Safety of 1.15 were used for screening protocols.

Liquefaction is a loss of soil shear strength that can occur during a seismic event, as excessive pore water pressure, between the soil grains, is induced by cyclic shear stresses. This phenomenon is limited to unconsolidated, clean to silty sand (up to 35 percent non-plastic fines) lying below the ground water table (typically less than 40 feet deep). Based on the information obtained during our exploration and research programs, a liquefaction potential does not exist at the site due to the competent nature of the subgrade soil (v_s > 600 fps), proximity to bedrock, and depth to groundwater.

4.0 FIELD INVESTIGATIONS

The project was explored in October and December 2012 by excavating a series of 73 test pits using a Hitachi 330 LC trackhoe. The approximate locations of the test pits are shown on Plates A1 thru A4 – Site Plan and Test Pit Locations. In addition, test pit designation approximates the station at which the exploration was performed, i.e. TP 640 was advanced at approximate Station 640+00. The maximum depth of test pit advance extended to 19 feet below the existing ground surface.

Wood Rodgers' personnel examined and classified all soils and rock in the field in general accordance with ASTM D 2488 (Description and Identification of Soils) and ASTM D 5878-08 Standard Guides for Using Rock-Mass Classification Systems for Engineering Purposes. During exploration, representative bulk samples were placed in sealed plastic bags and buckets and returned to our Reno, Nevada laboratory for testing. Additional soil classifications, as well as verification of the field classifications, were subsequently performed in accordance with ASTM 2487 (Unified Soil Classification System [USCS]) upon completion of laboratory testing as described in the Laboratory Testing section of this report. Logs of the test pits are presented as Plate 2 in Appendix A. A USCS chart has been included as Plate A-3 - Graphic Soils Classification Chart.

Groundwater was not encountered in any of our explorations. Spring activity was noted in lower reaches of the canyon, and wet or saturated zones may be encountered within the bedrock.

In addition to test pits, refraction micro-tremor (ReMi ™) and seismic refraction geophysical surveys were employed to evaluate the in-situ rock mass properties within the major cuts slopes. These geophysical methods provide an effective means to obtain subsurface information to depths up to 100 feet. The ReMi method is based on the same theories as spectral analysis of surface waves (SASW) and multi-analysis of surface waves (MSAW) with the benefit of utilizing lightweight, portable seismic equipment. One and two dimensional shear wave velocity profiles were developed to aid in the assessment of thickness and consistency of soils and weathered bedrock. The primary applications for

seismic refraction surveys are to determine depth to bedrock, underlying geologic structures, and anomalous conditions. Rippability is also a common assessment derived from refraction surveys. Compressional (P-wave) and shear (S-wave) velocities measured in tandem aid in the assessment of in-situ elastic moduli. Geophysical data and survey locations are presented in Appendix B.

Photo 3: (TP-640) Photo 3 is typical of material encountered within the graded area of the existing alignment. The material is consistent with NDOT's rock embankment and we anticipate this material was cut from the adjacent hillside. This material consists of poorly graded gravel/sand with clay and some cobbles and small boulders to 24 inches in approximate diameter.

Photo 3 – TP-640

Photos 4 & 5: (TP-455 & TP-435D) Photos 4 & 5 present images of bedrock encountered in various locations along the alignment. The bedrock units ranged from igneous to sedimentary with strength varying from friable to weak/medium strong. These photos are presented to attempt to show the variability of the bedrock within very limited distances. In Photo 4 you can see competent bedrock with a pencil at the top for scale, while other

Photo 4 – TP-455

Photo 5 – TP-435 D

portions of the test pit are weathered and decomposed. Photo 5 (inset) shows the excavator using a ripper tooth to dig down as far as possible. Test pit refusal was encountered at 7 feet in TP-435D.

Photo 6: (TP-230) Photo 6 is characteristic of the alluvial deposits encountered along the southern limits of the alignment. In general, the surface to 1 - 2 feet of soil is comprised of sandy clay (inorganic clay) or clayey sand, capping medium dense to dense clayey sands and gravels with cobbles and boulders.

Photo 6 – TP-230

5.0 LABORATORY ANALYSES

Representative samples of significant soil and bedrock types were tested in the laboratory to measure index properties, such as moisture content (ASTM D2216), grain size distribution (ASTM D6913), R-Value (NDOT T115), direct shear (ASTM D3080), and plasticity (ASTM D4318). These index properties are indicative of mechanical behaviors of the soil and rock, both insitu and reworked as embankment fill. Laboratory test data is presented in Table 3 and in Appendix A of this report:

Table 3 – Geotechnical Testing Summary

Sta	Depth (Ft.)	Classification	% MC	-3"	+ ¾"	+ 4#	-200	LL	PI	R-Value	Cohesion (psf)	ϕ (o)
20	1-2	SM	8.4	100	2	11	17.6	---	NP	60	---	---
35	4-5	GP	6.5	98	35	65	4.8	32	8	---	---	---
45	3-4	GP	12.4	95	24	46	1.6	25	10	41	---	---
55	3-4	GP-GC	5.6	89	27	54	6.7	29	11	56	---	---
65	3-4	SC	13.3	89	12	22	34.3	39	19	21	---	---
75	4-5	GP	3.5	89	28	46	4.2	---	NP	72	---	---
85	2-3	GP	8.6	83	18	33	5.2	34	3	62	---	---
95	1.5-2.5	SP-SM	6.5	100	1	16	7.9	---	NP	50	---	---
105	2-3	SC	15.4	100	0	2	40.3	36	4	44	---	---

Table 3 – Geotechnical Testing Summary												
Sta	Depth (Ft.)	Classification	% MC	-3"	+ ¾"	+ 4#	-200	LL	PI	R-Value	Cohesion (psf)	ϕ (o)
115	5-6	SM	13.8	100	0	9	19.4	---	NP	76	---	---
120	0-1	SM/ML	11.1	100	0	3	47.1	29	14	---	---	---
125	2-3	SP-SM	8.8	100	7	27	7.1	---	NP	---	---	---
135	1-2	SM	16.4	100	2	15	29.8	39	11	---	---	---
145	1-2	SC	14.7	97	8	21	38.0	40	19	20	---	---
170	0-1	SC	14.2	100	10	16	44.3	27	8	---	---	---
190	0-1	SC-SM	16.0	100	3	8	47.6	39	13	---	---	---
215	0-1	CL-CH	12.7	100	3	4	57.8	50	30	---	---	---
225	4-5	SP-SM	8.6	100	28	49	10.1	36	6	45	---	---
230	10-11	GP-GC	4.9	93	32	52	6.9	29	10	44	---	---
230A	9-10	SC	8.1	88	15	32	14.0	40	16	32	---	---
235	3-4	SP-SM	12.0	95	22	37	6.0	46	19	38	---	---
235A	15-16	SC	8.8	100	0	6	20.6	37	15	28	---	---
255	0-1	SC	8.7	93	14	20	42.8	37	21	---	---	---
275	0-2	SC	10.4	100	9	14	48.0	40	16	---	---	---
295	0-1	SC	8.8	100	3	11	49.1	35	17	---	---	---
310	4-5	SP-SM	16.8	100	4	38	9.6	56	24	31	---	---
315	6-7	GM	9.9	100	26	52	13.8	37	13	32	---	---
330	18-19	GP-GC	8.9	100	38	76	6.4	32	10	46	---	---
330A	10-11	GP-GM	10.8	96	38	65	6.2	43	14	44	---	---
330B	8-9	SM	7.6	100	3	11	31.7	24	2	44	---	---
330B	13-14	SC	11.9	100	27	47	32.6	29	13	---	---	---
330C	3-4	SC	11.9	100	14	25	44.6	43	18	19	---	---
335	4-5	SM	4.2	100	4	18	26.3	22	1	64	592	41
345A	2-3	SM	6.2	100	10	35	16.9	28	7	35	---	---
345B	5-6	SC	7.3	100	7	19	34.9	31	13	25	504	29
355	2-3	GP-GC	6.9	88	35	65	5.8	40	16	41	---	---
385	1-2	CL	12.6	100	0	2	57.6	39	58	---	---	---
405	13-14	SC	9.7	97	12	42	16.9	36	14	31	---	---
405A	Crushed	SP-SC	2.4	100	0	33	6.0	29	12	40	---	---
415	12-13	GP-GM	7.9	100	14	56	7.0	44	17	38	1393	33
420A	1-2	SC	8.0	100	0	19	37.1	32	13	---	---	---
425	1-2	SM	7.5	100	12	45	21.2	37	11	31	---	---
435A	Crushed	SP-SC	2.0	100	0	29	6.0	25	6	37	---	---
435B	0-2	GC	6.3	100	21	58	17.0	39	16	26	---	---
440	10-11	SC	10.2	100	0	10	26.9	37	14	---	---	---
450	Crushed	SP-SC	3.1	100	0	25	6.8	29	14	42	---	---
455A	Crushed	SP-SC	2.1	100	0	29	5.1	24	9	40	736	38

Table 3 – Geotechnical Testing Summary												
Sta	Depth (Ft.)	Classification	% MC	-3"	+ ¾"	+ 4#	-200	LL	PI	R-Value	Cohesion (psf)	ϕ (o)
465	0-1	SC	13.7	98	12	40	24.7	43	17	15	---	---
475	1-2	SM	19.8	100	12	33	22.8	43	16	24	---	---
490	0-1	GP-GM	8.1	94	28	56	8.5	32	6	53	---	---
510	1-2	GP-GM	9.5	94	28	58	7.4	34	8	45	---	---
525	1-2	SP-SM	13.5	100	0	45	7.6	48	2	59	---	---
535	2-3	GP-GC	13.9	74	22	36	9.0	31	9	39	---	---
545	0-1	GP-GM	6.5	77	38	57	5.0	23	1	---	317	37
555	1-2	SC	10.5	94	12	28	15.8	27	8	37	---	---
570	0-1	SP-SM	4.0	97	27	46	5.1	21	3	61	---	---
590	0-1	GC	11.8	86	24	41	12.1	39	14	30	---	---
605	0-2	CL	14.2	100	0	2	76.8	46	28	---	---	---
620	0-2	SP-SM	22.1	96	12	35	8.8	32	5	55	---	---
640	0-1.5	SP-SC	7.0	95	24	42	11.7	31	11	37	---	---
655	0-1	SM	11.0	85	9	23	25.2	45	18	25	---	---
670	0-1	GC	12.5	95	39	58	4.9	44	18	41	---	---
680	0-2	SM	12.7	81	11	25	13.4	32	5	55	---	---

In additional to geotechnical testing, chemical testing was performed to assess corrosion potential; presented in Table 4.

Table 4 – Test Summary for Corrosive Soil Assessment					
Sta	Depth (Ft.)	Soluble Chlorides mg/kg SM4500C	pH S.U. AM9045C	Soluble Sulfates % SM4500E	Resistivity Ω-cm AASHTOT288
345A	2-3	226	7.23	0.02	754
345B	5-6	123	7.18	0.01	900
405	13-14	9.5	8.23	0.00	1860
435B	0-2	5.2	6.94	0.00	1960
535	2-3	5.80	7.85	0.00	2820

6.0 DISCUSSION

6.1 General

Due to the extent of this project, we have divided the alignment into three sections:

Section 1, Sta: 690 to 460, Existing graded road (at grade with some fill)

Section 2, Sta: 460 to 300, Canyon alignment through steep terrain (large cuts with some fill)

Section 3, Sta: 300 to 10, Alluvial fan near Silver Springs (fills or near grade)

Unless modified by the Special Provisions, the means, methods, and materials required to perform the recommendations presented herein shall be in accordance with the NDOT Standard Specifications for Road and Bridge Construction (SSR&BC).

Section 1

Section 1 consists of 4.4 miles of existing graded road. The grading occurred via private funding under contract with Reno Engineering Corporation (REC). The proposed improvements for this project closely follow the existing road for alignment and grade. Large untreated slopes, up to approximately 100 feet in height, flank the existing roadway in several locations. Maximum embankment fills approach 20 feet with 2:1 (H:V) side slopes. The road cuts are roughly 2:1 (H:V) and appear to be relatively stable. Long term erosion and instability due to mineral weathering and decomposition are anticipated. Subgrade soils encountered in our excavations typically consisted of medium dense to dense clayey sand with cobbles and boulders (Photo 7, TP-555). At least some cobbles and boulders were found in almost all the test pits in this area except for TP-465 and TP-525 where bedrock was encountered.

Photo 7 – TP-555

The embankment material presents enough rock larger than 4 inches to preclude placement and compaction in 8 inch lifts; therefore, for the remainder of this report this material will be referred to as rock embankment. Table 5, summarizes the gradation, plasticity, and R-Value information for this section of roadway. It should be highlighted that material classifications (ASTM D2487 and ASTM D2488) are based on percentages associated with 3 inch minus particles. Therefore, the bulk of the test data is characteristic of the 3 inch minus fraction of the rock fill. Table 5 also incorporates testing performed during original grading (TP designation indicates current work product; Stationing indicates previous test data).

Test data was examined and the soils' R-Values were plotted against the soils' weighted plasticity (WP, %-#200 x PI). Erratic, high, R-Values were removed from the sample population to present a conservative assessment of the R-Value while increasing data reliability. The resulting equation, *R-Value = -10.334WP+57.549*, was used to predict areas that could potentially present subgrade R-Values less than 20. These locations are presented in red in Table 5 and may be serve to be points of more critical examination during subsequent geotechnical investigations.

Based on our test pits and the available daily field reports generated during mass grading, rock embankment was generated as straight cut to fill. No evidence of selective grading for the upper 1 foot in fill areas was observed. However, based on R-Value testing performed in this segment of roadway, the vast majority of the existing subgrade soils present gradation and plasticity characteristics that would be consistent with structural fills.

Table 5 – R-Value & USCS Summary (Station 690+00 to 460+00)

Station or TP	Depth	Classification	% MC	-3"	+ 4#	-200	LL	PI	R-Value
404+50	0-4	SC	---	100	27	25.0	33	12	---
411+50	0-3	SC	---	100	47	22.2	40	20	51
411+50	3-10	GC	---	100	54	17.6	40	18	---
419+50	0-3	SC	---	100	34	22.5	45	15	---
419+50	3-5	SM	---	100	14	25.8	36	6	---
424+50	0-4	SM	---	100	38	20.7	38	8	---
429+50	0-2	SC	---	100	27	29.8	42	14	---
429+50	2-10	GP/SM	---	100	32	28.3	40	12	---
434+50	0-3	SC	---	100	30	32.4	46	23	---
434+50	3-4	SC	---	100	9	39.9	44	18	---
441+50	0-2	SM	---	100	14	27.9	40	8	---
441+50	2-4	SM	---	100	36	21.0	-	NP	---
441+50	4-6	SM	---	100	32	25.5	44	10	---
446+50	0-2	SM	---	100	26	24.0	40	7	---
446+50	2-4	SM	---	100	25	21.3	40	5	---
450+50	0-2	SM	---	100	23	24.4	39	8	---
450+50	**2-3**	**CL/CH**	**---**	**100**	**1**	**68.5**	**50**	**31**	---
450+50	3-10	SM	---	100	9	36.6	46	14	---
456+50	0-2	SM	---	100	17	26.6	41	9	---
456+50	2-6	SM	---	100	16	38.8	48	17	---
463+50	**0-2**	**MH**	**---**	**100**	**11**	**47.1**	**74**	**40**	---
463+50	**2-3**	**ML**	**---**	**100**	**7**	**62.8**	**-**	**NP**	---
TP 465	0-1	SC	13.7	98	40	24.7	43	17	15

Table 5 – R-Value & USCS Summary (Station 690+00 to 460+00)									
Station or TP	Depth	Classification	% MC	-3"	+ 4#	-200	LL	PI	R-Value
469+50	0-2	SM	---	100	15	27.3	-	NP	---
469+50	2-4	SM	---	100	5	26.7	-	NP	---
TP 475	1-2	SM	19.8	100	33	22.8	43	16	24
476+50	0-2	SM	---	100	13	25.6	-	NP	---
476+50	2-4	SM	---	100	38	18.9	36	11	---
483+50	0-2	GM	---	100	57	13.4	35	8	---
483+50	2-4	SM	---	100	45	17.5	40	8	---
TP 490	0-1	GP/GM	8.1	94	56	8.5	32	6	53
491+50	0-2	GP	---	100	63	11.6	30	8	---
491+50	2-10	SM	---	100	41	19.1	32	8	---
500+50	**0-1**	**SM/SC**	**---**	**100**	**30**	**33.5**	**49**	**21**	---
500+50	1-2	SM	---	100	33	23.7	41	14	---
500+50	2-10	SP	---	100	43	8.2	-	NP	---
506+50	**0-4**	**SC**	**---**	**100**	**27**	**40.5**	**32**	**15**	---
TP 510	1-2	GP/GM	9.5	94	58	7.4	34	8	70
511+50	0-4	GP/GM	---	100	50	10.6	-	NP	---
511+50	4-6	GM	---	100	49	20.4	39	11	---
520+50	0-4	SM	---	100	28	16.7	-	NP	---
521+50	0-4	SM	---	100	32	29.8	31	9	---
TP 525	1-2	SP/SM	13.5	100	45	7.6	48	2	59
525+50	0-1	SC	---	100	44	20.2	26	8	---
525+50	1-10	SC	---	100	40	32.5	26	8	---
530+50	0-1	SP	---	100	46	11.8	35	15	---
530+50	1-4	GP	---	100	59	8.5	24	4	---
531+50	2-4	GM	---	100	65	11.8	-	NP	---
TP 535	2-3	GP/GC	13.9	74	36	9.0	31	9	39
536+50	0-4	SC	---	100	39	28.1	31	14	41
536+50	4-6	GP	---	100	57	6.2	-	NP	---
536+50	6-10	SM/SC	---	100	35	26.7	28	8	---
541+50	0-4	GP/GC	---	100	55	11.2	30	13	---
541+50	4-10	GP	---	100	53	12.1	24	16	---
TP 545	0-1	GP/GM	6.5	77	57	5.0	23	1	---
551+50	0-10	GP	---	100	55	8.2	-	NP	---
TP 555	1-2	SC	10.5	94	28	15.8	27	8	22
560+50	**0-2**	**CL**	**---**	**100**	**10**	**66.0**	**42**	**28**	---
560+50	**2-10**	**GC**	**---**	**100**	**49**	**21.5**	**39**	**19**	---
TP 570	0-1	SP/SM	4.0	97	46	5.1	21	3	61
571+50	2-4	SC	---	100	32	27.7	35	13	---

Table 5 – R-Value & USCS Summary (Station 690+00 to 460+00)									
Station or TP	Depth	Classification	% MC	-3"	+ 4#	-200	LL	PI	R-Value
571+50	6-8	SM	---	100	58	15.0	34	10	---
579+50	2-4	GM	---	100	52	20.2	-	NP	---
589+50	4-6	GP	---	100	62	7.4	23	5	---
TP 590	0-1	GC	11.8	86	41	12.1	39	14	30
TP 605	**0-2**	**CL**	**14.2**	**100**	**2**	**76.8**	**46**	**28**	---
TP 620	0-2	SP/SM	22.1	96	35	8.8	32	5	55
TP 640	0-1.5	SP/SC	7.0	95	42	11.7	31	11	44
TP 655	0-1	SM	11.0	85	23	25.2	45	18	11
TP 670	0-1	GC	12.5	95	58	4.9	44	18	64
TP 680	0-2	SM	12.7	81	25	13.4	32	5	55

Daily field reports discussing prior grading operations are presented in Appendix D.

Section 2

Section 2 (Sta 460 to Sta 300) extends for approximately 3 miles and consists of moderate to large cuts along a canyon wall through basalt (Ta3), mafic intrusive rocks (Tt2), welded and nonwelded silicic ash-flow tuffs, andesite and sandstones (JTRsv), and intrusive rhyolite (Tri) bedrock in various stages of alteration, weathering, and decomposition (Figure 3). Maximum fills approach 40 feet. The bulk of this section of the alignment is typically capped by a thin veneer of clayey sand and gravel. Because the majority of the long, extensive cuts are located in Section 2, the bulk of our discussion and analyses regarding slope stability and excavatability will deal with Section 2.

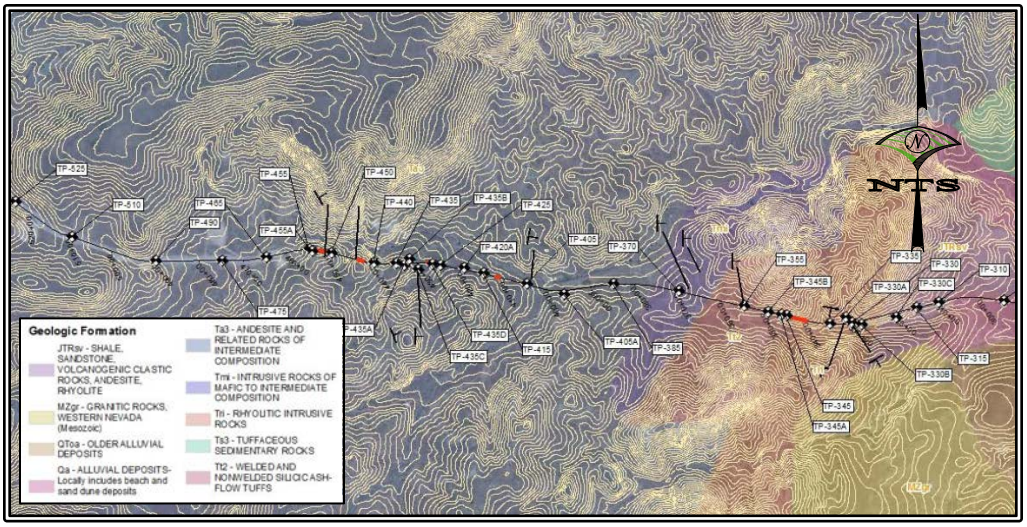

Figure 3– Geologic Map of Section 2

Excavation characteristics associated with the insitu rock vary significantly. Some bedrock excavates to angular cobbles and boulders with very little fines, reflecting insitu joint and fracture patterns (Photo 8, TP-455A); while other sections along the alignment present relatively competent bedrock, devoid of any definable structure, and meeting refusal at shallow depths (Photo 9, TP-450).

Photo 8 – TP-455A

Table 6 presents proposed cut slopes and heights. Table 6 also presents a summary of geotechnical concerns associated with the exposure and potential weathering of the bedrock. Where right-of-way and slope heights allowed, proposed slopes were established at 1½:1 (H:V). Where slope heights began to become excessively high, slopes were slated for special design considerations and have been highlighted in red. For this report, these special design considerations will be limited to wire mesh, with and without localized anchors. More comprehensive slope treatments may be considered in subsequent reports. Consistent with the Rockfall Catchment Area Design Guide (Final Report, ODOT & FHA, November 2001), rockfall has not been identified as a specific concern for slopes 1½:1 (H:V) or flatter. Slopes with stationing greater than 460+00 have already been constructed at 2:1 (H:V).

Photo 9– TP-450

Table 6 – Slope Summary Section 2				
Station	Design Slope (H:V)	Slope Height (Ft)	Geotechnical Summary (RF – Rockfall, E-Erosion)	Required Catchment Width (4:1) for Slopes Steeper than 1.5:1 (Ft)
312+00	1.5:1	22	Angular Cobbles (E)	---
314+00	1.5:1	26	Angular Cobbles (E)	---
316+00	1.5:1	27	Angular Cobbles (E)	---
318+00	1.5:1	45	Angular Cobbles (E)	---
320+00	1.5:1	49	Angular Cobbles (E)	---
322+00	1.5:1	65	Angular Cobbles (E)	---
324+00	1.5:1	84	Sandstone (E)	---
326+00	1.5:1	86	Sandstone (E)	---
328+00	1.5:1	55.5	Sandstone (E)	---
338+00	1.5:1	41	Weathered Bedrock (E)	---
340+00	$2{:}1_{\text{Upper 10'}}/1.5{:}1_{\text{Lower Reach}}$	74	Weathered Bedrock (E + RF)	---
342+00	$2{:}1_{\text{Upper 10'}}/1.5{:}1_{\text{Lower Reach}}$	97	Weathered Bedrock (E + RF)	---
344+00	$2{:}1_{\text{Upper 10'}}/1.5{:}1_{\text{Lower Reach}}$	75	Weathered Bedrock (E + RF)	---
346+00	$2{:}1_{\text{Upper 10'}}/1.5{:}1_{\text{Lower Reach}}$	62	Weathered Bedrock (E + RF)	---
348+00	1.5:1	33	Cobbles & Boulders (E)	---
350+00	1.5:1	38	Cobbles & Boulders (E)	---
368+00	1.5:1	24	Weathered Bedrock (E)	---
370+00	1.5:1	39.5	Weathered Bedrock (E)	---
406+00	2:1	37	Weathered Bedrock (E)	---
408+00	2:1	39	Weathered Bedrock (E)	---
410+00	2:1	47	Weathered Bedrock (E)	---
412+00	2:1	48	Weathered Bedrock (E)	---
416+00	2:1	42	Weathered Bedrock (E)	---
418+00	2:1	28	Weathered Bedrock (E)	---
428+00	2:1	46	Weathered Bedrock (E)	---
430+00	2:1	32	Weathered Bedrock (E)	---
432+00	1.5:1	53	Weathered Bedrock (E)	---
434+00	1.5:1	53	Weathered Bedrock (E)	---
436+00	1.5:1	46	Weathered Bedrock (E)	---
440+00	1.5:1	38	Weathered Rock (E)	---
442+00	1.5:1	88	Weathered Bedrock (E)	---
444+00	1.5:1	62	Weathered Bedrock (E)	---
448+00	1.5:1	37	Weathered Bedrock (E)	---
450+00	1.5:1	66	Weathered Bedrock (E)	---
452+00	1.5:1	84	Weathered Bedrock (E)	---
454+00	1.5:1	88	Weathered Bedrock (E)	---

Section 3

Section 3 (Sta 300 to Sta 10) encompasses the southern extension of the improvement area and will consist mostly of embankment fills with limited cuts. The soils along this portion of the alignment are mainly composed of alluvial deposits (Photo 10, TP-255) consisting of clayey sand with gravel, cobbles, and boulders. During exploration, excavated depths ranged from 10 to 19 feet below existing grade. Isolated locations of the soil profile were partially cemented. Thirteen of the test pits were located within BLM right-of-way. These areas were reseeded with a BLM approved mix after exploration. Geology along the alignment and approximate exploration locations are presented on Plates 1 thru 3 in Appendix A of this report.

Photo 10 – TP-255

6.2 Excavation and Embankment

Excavation of material and construction of embankments shall be in accordance with Section 203, Excavation and Embankment, of NDOT's Standard Specifications for Road and Bridge Construction (Silver Book). Vegetation cleared and grubbed from within improvement areas shall be disposed, treated, in accordance with Section 201, Clearing and Grubbing. Near surface native soils can present a significant amount of fines (i.e. greater than 30%) and medium to high plasticity (i.e. greater than 15). Therefore in cut/fill transition zones the near surface soils should be examined and where necessary removed and replaced with Selected borrow presenting a minimum R-Value of 45.

Due to the depths of cuts and presence of both igneous and strong sedimentary units, blasting will likely be required. Rippability charts have been developed and published by Caterpillar indicating potential rippability based on seismic velocity (P-wave) measurements in the insitu bedrock. Table 7 (following page) presents a summary of the Caterpillar equipment with corresponding rippability depths based on measured P-wave velocities (These rippability charts and conditions of their use are available at http://www.cashmanequipment.com/UserFiles/PDF/CaterpillarPerformanceHandbook42.pdf).

Numbers in red indicate depth equipment is anticipated to excavate and highlights that that equipment is not expected to excavate the full depth of the cut at the location indicated. Numbers in green indicate equipment is anticipated to excavate the full depth of the cut at the location indicated. Comparing the depth of Limiting Velocity to Slope Height should provide an indication as to the amount of blasting that may be required. The P-wave velocities presented in Table 7 represent the 'Rippable' portion of the published charts. Marginal and Non-Rippable velocities were not considered. It has been our experience that the published rippability charts have a tendency to be optimistic when considered in tandem with the contractor's need to adhere to or meet a construction schedule; therefore these excavation limits should in no way be considered absolute.

Table 7 – Rippability and Slope Height

Equipment	Rippable P-Wave Velocity (FPS)	Approximate Depth to Limiting Velocity (Ft)						
		Sta 322	Sta 326	Sta 340	Sta 344	Sta 346	Sta 370	Sta 435
Slope Height (Ft)	---	*65*	*85*	*75*	*75*	*65*	*40*	*50*
D8R Multi or Single Shank #8 Ripper	6,000	**30**	**35**	**20**	**10**	**50**	**5**	**15**
D9R Multi or Single Shank #9 Ripper	7,000	**30**	**40**	**20**	**20**	**60**	**10**	**35**
D10R Multi or Single Shank #10 Ripper	7,500	**30**	**40**	**25**	**20**	**60**	**10**	**40**
D11R Multi or Single Shank #11 Ripper	8,000	**30**	**40**	**25**	**25**	**75**	**15**	**55**
D11R Single Shank #11 Ripper	8,500	**40**	**40**	**30**	**30**	**90**	**20**	**65**

Red indicates 'Rippable' velocities from the Caterpillar charts do not extend through planned cut depths.
Green indicates 'Rippable' velocities from the Caterpillar charts extend through planned cut depths.

Borrow (Section 203.02.04) is not considered material from the widening of roadway cuts nor as roadway excavation. Although some material encountered in our test holes present material consistent with the requirements for Borrow and Selected borrow, additional studies and specific lines of delineation would be required prior to assuming any material source along the alignment is suitable for use as borrow or select borrow. Samples from Test Pits 405, 435A, 450, and 455A were crushed in a mineral processing laboratory to ⅜" minus[1]. R-Values for the crushed samples varied between 37 and 42 and plasticity varied between 6 and 14. It is our opinion crushing the material to 3" minus, as indicated for Selected Borrow, would likely result in minimum R-Values of 45. Simply processing the material by screening or segregation would likely result in test data consistent with our studies and achieving R-Values of 45 or greater would be less reliable.

[1] It was requested the material be processed to 1" minus, attempting to envelope the test data within a conservative window of reliability. However, due to limitations of the equipment and processes a ⅜" minus product was obtained.

The exterior face of any embankment should be constructed with an inclination of no steeper than 2:1 (H:V). The surface of the slope should be compacted to the same percent compaction as the body of the fill. This may be accomplished by compacting the surface of the embankment as it is constructed or by overbuilding the fill and cutting back to its compacted core.

6.3 Design R-Value

The definitive material property used for design of structural pavement sections is resilient modulus. Because many agencies and private firms do not have equipment for performing resilient modulus testing, many agencies adopt conversion protocols to approximate resilient modulus based on readily available testing methods such as R-Value. Table 5 (page 9) summarizes R-Value test data obtained during our investigation. Test samples were selected to represent subgrade near cut/fill transitions, mass graded fills, and subgrade exposed by deeper cuts. Ultimate selection of the design resilient modulus (or R-Value) is a function of judgment, expertise, and experience. AASHTO in their 1993 guide for design of pavement structures purports using the average design value since reliability considerations already introduce a level of conservatism when considering the design traffic load. Figure 4 presents average R-Values for alignment intervals. These intervals were selected based on cuts and fills typical to the segment, and were tempered by anticipated construction practices. Cut/fill transition zones were assumed to have been addressed during grading to present a minimum R-value of 45. Ultimate selection of the design R-Value and structural pavement section design will be performed by others.

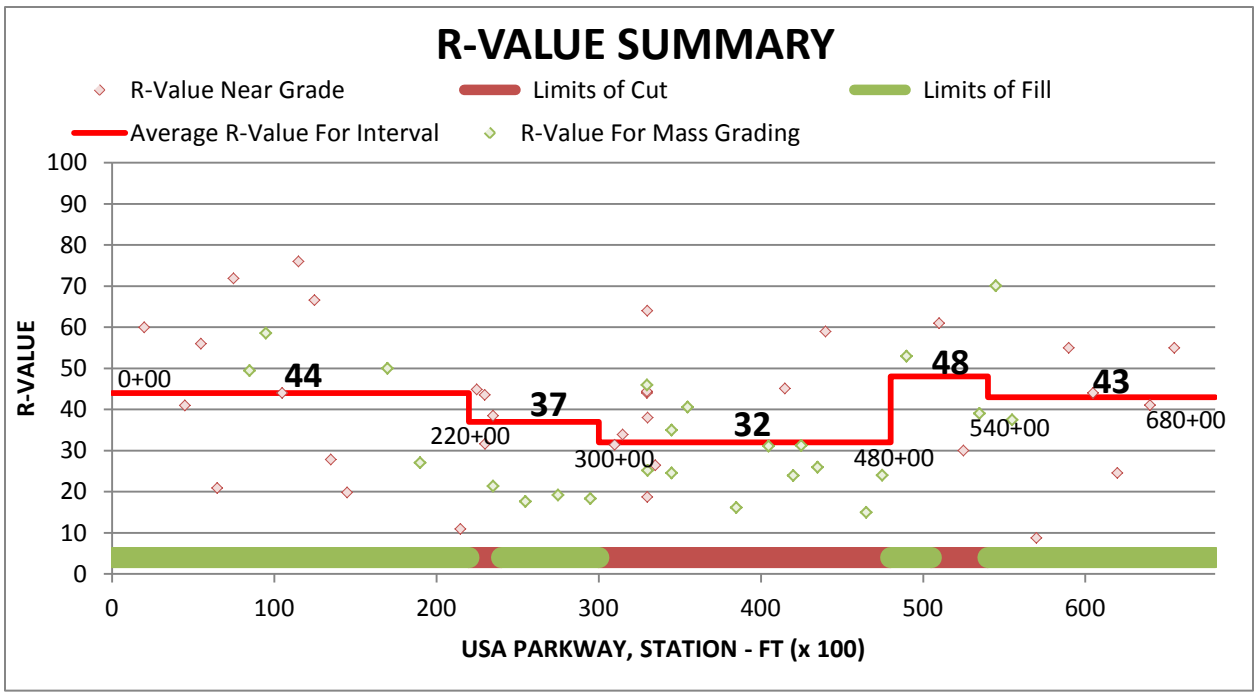

Figure 4– R-Value Summary

As previously discussed, because the insitu bedrock is known to possess extensive zones of alteration and weathering, overexcavation should be anticipated. As cuts to achieve design grade become deeper, bedrock competency consistently increases (based on geophysical surveys) indicating that the need for overexcavation will likely be reduced in deeper cut zones.

As indicated by the test data obtained from the previously graded area, isolated areas presenting relatively low R-Values should be anticipated. However, the criticality and acceptability of these lower test zones would be part of the comprehensive analysis performed during formulation of the structural pavement section.

6.4 Slopes

The majority of the planned cut slopes along the proposed alignment are less than 40 feet (vertical); however, slopes approaching 100 feet in height will be cut particularly in the interval between Station 338+00 and 348+00. For this interval special slope considerations are presented to grade the upper 10 feet of the soil profile to 2:1 (H:V) and the lower reaches of the slope in this interval graded at 1 ½:1 (H:V). The remainder of the cut slopes along the alignment shall be constructed no steeper than 1½:1 (H:V) without additional design considerations. Embankment slopes shall be constructed no steeper than 2:1 (H:V).

As stipulated in Section 204 of the Silver Book, tops of cut slopes shall be rounded to blend the cut slopes with the adjacent natural terrain. Section 204 also calls that the intersection of cuts and fills be blended into each other or into the natural ground slope without a noticeable break.

Slopes 2:1 (H:V) or steeper shall be mechanically stabilized to limit erosion and long term weathering. Slopes flatter than 2:1 (H:V) shall be stabilized by vegetation or mechanical means. Riprap shall be sized and placed in accordance with Section 610 of the Silver Book. Prior to accepting vegetation as an alternative, a Revegetation Specialist (RS) should be consulted to ascertain that adequate nutrients, surface stability, and moisture are available to assure successful vegetation.

6.4.1 Rock Slope Analyses

Rock mass is the discontinuous rock structure which has been created by dissecting discontinuities including: tension and shear joints, dykes, cleavage, faults, and bedding planes. These planes/zones of weakness ultimately separate the intact rock blocks within the overall rock mass. Based on our exploration program, the geologic units along the alignment fail to present any consistent rock structure that could ultimately govern plane, wedge, or toppling failure. Therefore our slope stability assessments

for rock slopes are based on circular failure within a heavily fractured rock system. Overburden properties, associated with these cut slopes, were based on direct shear testing and empirical relationships developed by UC Berkley and Caltrans. These relationships are presented with our calculations under separate cover.

Slope stability analyses were performed using the program XSTABL for cut and embankment slopes 1½:1 (H:V) and flatter. Embankment properties were characterized based on the weakest test data (i.e. lowest cohesion and angle of internal friction) obtained from our laboratory testing program. Strength properties for cut slopes 1½:1 (H:V) and flatter were established using the computer program ROCLab in conjunction with S and P-wave data obtained from our geophysical studies. ROCLab serves as a tool to characterize rock mass.

6.4.2 Geophysical Methods

Prior to being able to evaluate global slope stability, the Geologic Strength Index (GSI) had to be characterized for the rock mass. The GSI allows a rock mass to be considered as a mechanical system while being cognizant of the influence geology has on the mechanical properties. GSI also provides a tool to characterize difficult to describe rock masses. GSI varies between 1 and 100, with lower values characteristic of disintegrated rock and higher values associated with intact or massive rock. Through the development of RocLab, the Hoek-Brown criterion for rock mass can be translated into Mohr-Coulomb parameters c and ϕ. S-wave and P-wave wave data were used with property relationships established by continuum mechanics to assess the elastic modulus of the rock mass. The overall rock mass was characterized in terms of uniaxial compressive strength, the Hoek-Brown non-linear parameter mi, potential blasting disturbance, and the intact rock deformation modulus. GSI was varied until resolution was obtained between the rock mass modulus and the elastic modulus determined from S-wave and P-wave. When resolution was obtained, the corresponding c and ϕ

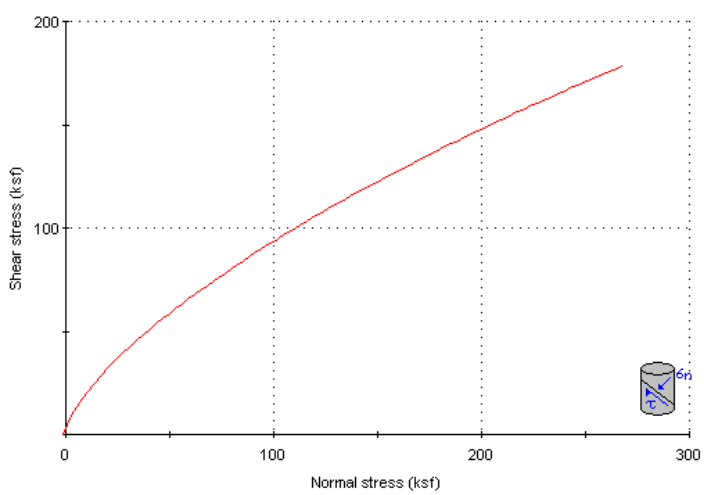

Figure 5 – RocLab Mohr-Coulomb Analysis

values were determined. Figure 5 shows a typical output of RocLab. Specific analysis values are presented in Table 8. Plans showing locations of our geophysical surveys and survey profiles are presented in Appendix B.

Table 8 – Summary of Rock Profile Properties					
S Wave Velocity	P Wave Velocity	Rock Mass Modulus	Depth	Phi	Cohesion
(fps)	(fps)	(psi)	(ft)	(o)	psf
β	α	E	D	ϕ	c
Sta 322					
1500	2000	1.4E+05	25	35	300
3600	7000	1.2E+06	45	56	5600
3600	10000	1.3E+06	72	58	7050
Sta 326					
500	2000	2.7E+04	15	35	300
1550	7000	2.6E+05	30	38	860
3650	10000	1.4E+06	65	55	4750
Sta 340					
600	2000	3.8E+04	10	41	627
1350	5000	1.9E+05	15	59	1575
3900	10000	1.6E+06	60	55	4600
Sta 344					
1000	2000	9.7E+04	15	29	503
1550	5000	2.5E+05	30	38	860
3800	10000	1.5E+06	65	55	4750
Sta 346					
1000	2000	9.7E+04	25	29	503
1550	5000	2.5E+05	50	34	1150
3500	10000	1.3E+06	75	54	5175
TP 450					
1900	3000	3.1E+05	25	44	1000
3000	10000	9.5E+05	50	54	3600
3000	10000	9.5E+05	75	51	4600
TP 455					
900	2000	8.1E+04	35	38	736
1350	5000	1.9E+05	70	32	1440
3000	6000	8.7E+05	85	39	2575

6.4.3 Global Slope Stability Analyses

Because the scope of this report is to present conceptual design considerations, the computer program XSTABL was used to determine the failure 'window' for 1½:1 and 2:1 (H:V) cut slopes. Slope properties (ϕ, c) were varied until the minimum allowable FOS was determined for slopes approaching 100 feet in height. Our process was to then plot ϕ and c values in Figure 6 to identify critical slopes, i.e. slopes where insitu properties encroach upon the failure envelope. Figure 6 presents the results of our analyses. To maintain a level of conservatism in this approach, the values presented indicate the values used for the evaluation of the entire slope; i.e. increase in intact strength with depth was ignored. The data point legend is: Station, Depth of Consideration, Cohesion, and Angle of Internal Friction.

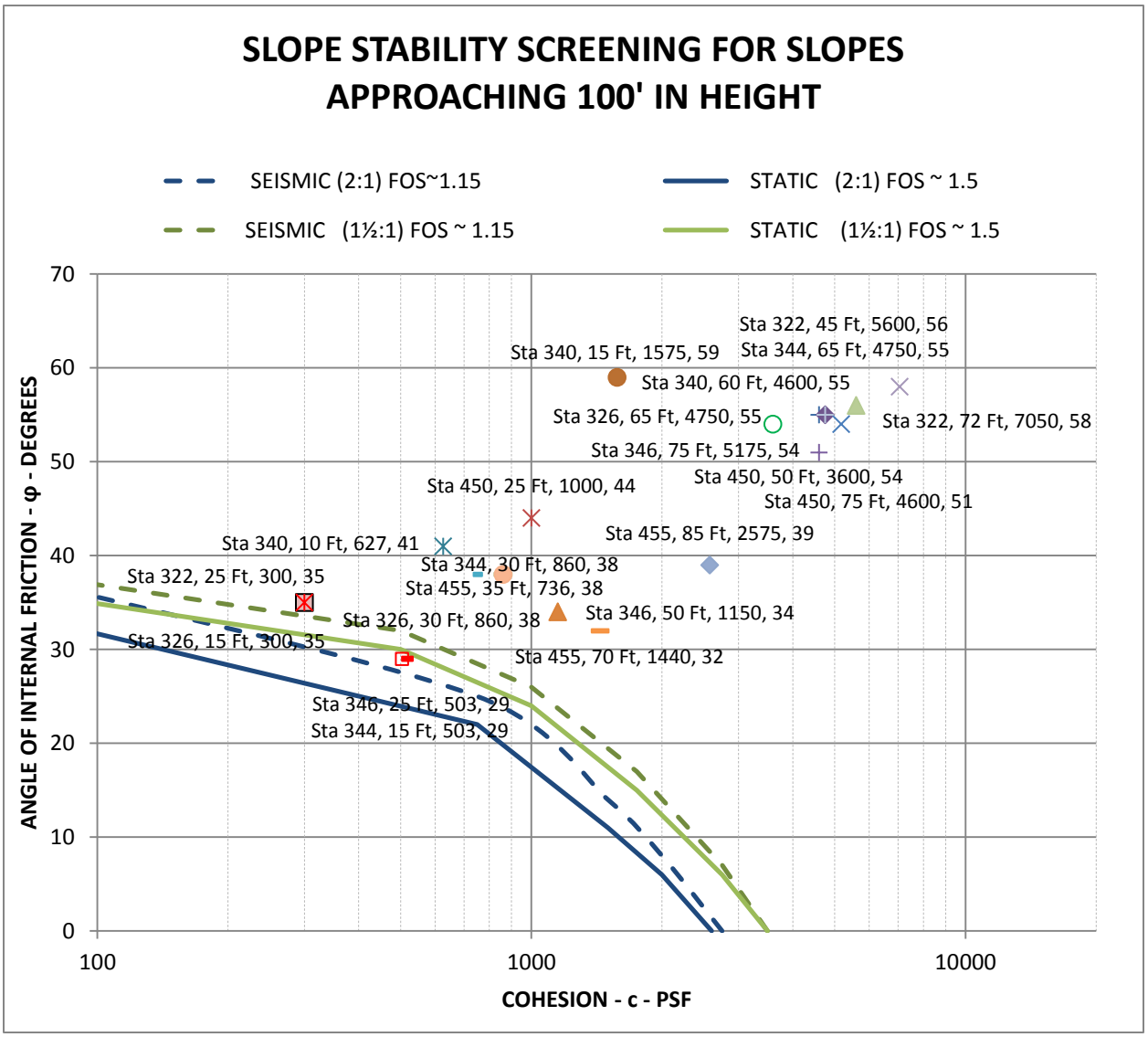

Figure 6 – Global Slope Stability Screening

Figure 6 indicates test data from Stations 344 and 346 present the most critical strength properties. The remaining slopes examined exceed the minimum FOS; shorter, incidental slopes would also be less critical.

The soil/bedrock profiles for Stations 340 thru 348 we re-examined and the slope profile modified to model the weaker material present in the upper reaches of the slope and the more competent units in the lower reaches (as characterized by test data from 344 and 346). Adequate FOS was achieved by flattening the upper 10 feet of the slope to 2:1 (H:V).

6.4.4 Rockfall

Per the Rockfall Catchment Area Design Guide (Final Report, SPR-3(032) Oregon Department of Transportation, and Federal Highway Administration), rockfall is not considered a hazard for slopes 1½:1 (H:V) and flatter.

6.5 Potential Aggregate Sources from Mass Grading

At this stage in the design it was agreed to rely on geophysical means to extend our exploration window to depths of 100 feet; physical samples were therefore not obtained for testing related to potential aggregate/rip rap sources. However, correlation studies have been performed comparing P-wave velocity to impact strength index, slake durability index, and uniaxial compressive strength (Sharma, et al 2007). These correlations were relied upon to establish a screening protocol based on P-wave velocity and to help target areas for specific material property testing during subsequent investigations.

The impact strength index (ISI) is typically used to characterize hardness of coal beds and seams and will be discussed herein as an anecdotal assessment of rock quality. The ISI test consists of dropping a 4 pound steel plunger 20 times from a height of 12 inches onto the prepared sample. The amount of material retained in the initial size range after the test is the ISI. The slake durability index (SDI) test helps assess a rocks resistance to degradation and is closely related to mineralogical composition. Samples are dried, saturated in a rotating drum, and the samples dried again. SDI essentially represents the percentage of material lost during these wetting/tumbling/ and drying cycles. Uniaxial compressive strength (UCS) essentially consists of applying a load to a standardized specimen, and calculating that stress at which the specimen fails to continue to support the load.

Table 9 presents a summary of calculated ISI, SDI, and UCS values from the referenced document by Sharma. Although these values are atypical to local aggregate qualification methods, it is our opinion they

present a unique window into potential aggregate qualification. The Oregon Department of Transportation (ODOT) relies on the SDI for qualification of selected granular backfill, stone embankment material, MSE granular backfill, and riprap. Based on ODOT specifications, a durability index of at least 90% is required for the referenced materials. We therefore recommend that potential aggregate sources, riprap sources, and selected borrow be initially targeted in rock zones presenting P-wave velocities greater than 6,000 fps.

Table 9 – P-Wave Velocity and Rock Property Correlation

P-wave (FPS)	ISI (%)	SDI (%)	UCS (PSI)
0	58.1	78.6	---
2,000	65.3	82.8	---
4,000	72.5	87.0	---
6,000	79.7	91.2	---
8,000	86.9	95.4	5,590
10,000	94.1	99.6	11,270

Sharma, P.K., Singh, T. N., A Correlation Between P-Wave Velocity, Impact Strength Index, Slake Durability Index, and Uniaxial Compressive Strength

6.6 Trenching

Trenching shall be in accordance with the requirements put forth in Section 206 of the Silver Book. Regulations amended in Part 1926, Volume 54, Number 209 of the Federal Register (Table B-1, October 31, 1989) require that temporary sidewall trench slopes be no greater than those presented in Table 10.

Table 10 - Maximum Allowable Temporary Slopes

Soil or Rock Type	Maximum Allowable Slopes[1] For Deep Excavations Less Than 20 Feet Deep[2]	
Stable Rock	Vertical	(90 degrees)
Type A[3] - cohesive, non-fissured soils, with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater	3H:4V	(53 degrees)
Type B - cohesive soils with an unconfined compressive strength between 0.5 and 1.5 tsf	1H:1V	(45 degrees)
Type C - unconfined compressive strength below 0.5 tsf	3H:2V	(34 degrees)

NOTES:

1. Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off. Numerous additional factors and exclusions are included in the formal definitions.
2. Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.
3. A short-term (open 24 hours or less) maximum allowable slope of 1H:2V (63 degrees) is allowed in excavations in Type A soil that are 12 feet or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet in depth shall be 3H:4V (53 degrees).

Temporary trenches with near vertical sidewalls should be relatively stable to a depth of approximately five feet. Excavations to greater depths will require shoring or laying back of sidewalls to maintain adequate stability.

Based on the results of our exploration program, it is our opinion that the bulk of the site units appear to be predominately Type C when disturbed and within the upper 10 feet of the ground surface and Stable Rock for deeper excavations, although variations exist. All trenching should be performed and stabilized in accordance with local, state, and OSHA standards. Bank stability is the responsibility of the contractor, who is present at the site, able to observe changes in ground conditions, and has control over personnel and equipment.

6.7 Structures

Currently, proposed structures are limited to reinforced concrete box culverts (RCB). Structure excavation should be in accordance with Section 206 of the Silver Book. Initial bedding and backfill shall be in accordance with NDOT's standard plans.

Lateral loads, such as wind or seismic, may be resisted by passive soil pressure and friction on the bottom of the footing. The recommended coefficient of base friction is 0.40 for a properly prepared subgrade. This value has been reduced by a factor of 1.5 on the ultimate soil strength. An allowable bearing capacity of 4,000 pounds per square foot may be used when evaluating subgrade support. This value may be increased by a factor of 1.33 for lateral loads such as seismic. At these design loads, calculated post-construction settlement associated with RCB is on the order of ¼ inch or less. Lateral earth pressures imposed on the structure are a function of soil type, moisture conditions, surcharge loading, and adjacent slopes. Lateral resistance, i.e. passive pressure, is also a function of soil type and adjacent slope. Recommended lateral earth pressures are presented in Table 11 – Lateral Earth Pressures. These values assume a horizontal surface behind and in front of the structure, i.e. no surcharge loading.

Table 11 – Lateral Earth Pressures

Condition	Static (psf/ft)	Pseudo-Static (psf/ft)
Equivalent Active Fluid Pressure	43	60
Equivalent Passive Fluid Pressure	400	350
Active Pressure for Restrained Walls	65	82

Because of the type and location of the planned structures, the potential for complete saturation and buildup of hydrostatic pressures is relatively limited. It is assumed that should the potential for saturation

be significant, appropriate drainage mechanisms would be incorporated or the presented design values re-evaluated.

Barrier rails may be incorporated at the toe of slopes stabilized by the wire mesh or as required by NDOT roadway design protocols. The design values presented for RCB's may be used for barrier rails except that the allowable bearing capacity should be reduced to 1,000 pounds per square foot.

7.0 CALCULATIONS

Calculations associated with determination of the reported rock mass properties, global slope stability, bearing capacity, and rockfall analyses are presented under separate cover.

8.0 RECOMMENDATIONS FOR FUTURE WORK

Main considerations associated with the development of the project consist of: slope stability, excavatability, on-site development of structural fills and aggregates, subgrade and required overexcavation, and channel lining. Based on the results of this investigation, we would like to highlight some specific areas that may deserve further consideration as supplementary geotechnical assessments are performed. These limited considerations have been developed anticipating NDOT's comprehensive geotechnical investigation protocols will be the basis of future work. In addition, it has been assumed that structures will be investigated per the NDOT Geotechnical Policies and Procedures Manual and therefore have not been included in our summary.

8.1 Slopes

Because of the weathered rock and the marginal stability noted for slopes in the vicinity of Stations 340 to 348, a greater exploration frequency may be warranted if it is desired to keep the entire slope at a 1 ½:1 (H:V) or to further refine at what elevation the currently recommended change in slope gradient to 2:1 should occur.

8.2 Channels

Channel erosion can have a significant impact on project performance and cost due to armoring requirements. It would be beneficial to study bedrock quality in channel areas to assess the extent and need for armoring. The Selby Rock Mass Strength classification method has been incorporated in bedrock erosion studies (http://adsabs.harvard.edu/abs/2010AGUFMEP41D0737S) and may help provide a basis around which to relate bedrock properties with erodibility.

9.0 REFERENCES

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Bonham, F. Harold, and Papke, G. Keith, "Geology and Mineral Deposits of Washoe and Storey Counties, Nevada", Nevada Bureau of Mines and Geology, Bulletin 70., pgs 50-51, 1969.

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Moore, G. James, and Archbold, N.L., "Geology and Mineral Deposits of Lyon, Douglas, and Ormsby Counties, Nevada", Nevada Bureau of Mines and Geology, Bulletin 75., pgs 21,22, 1969.

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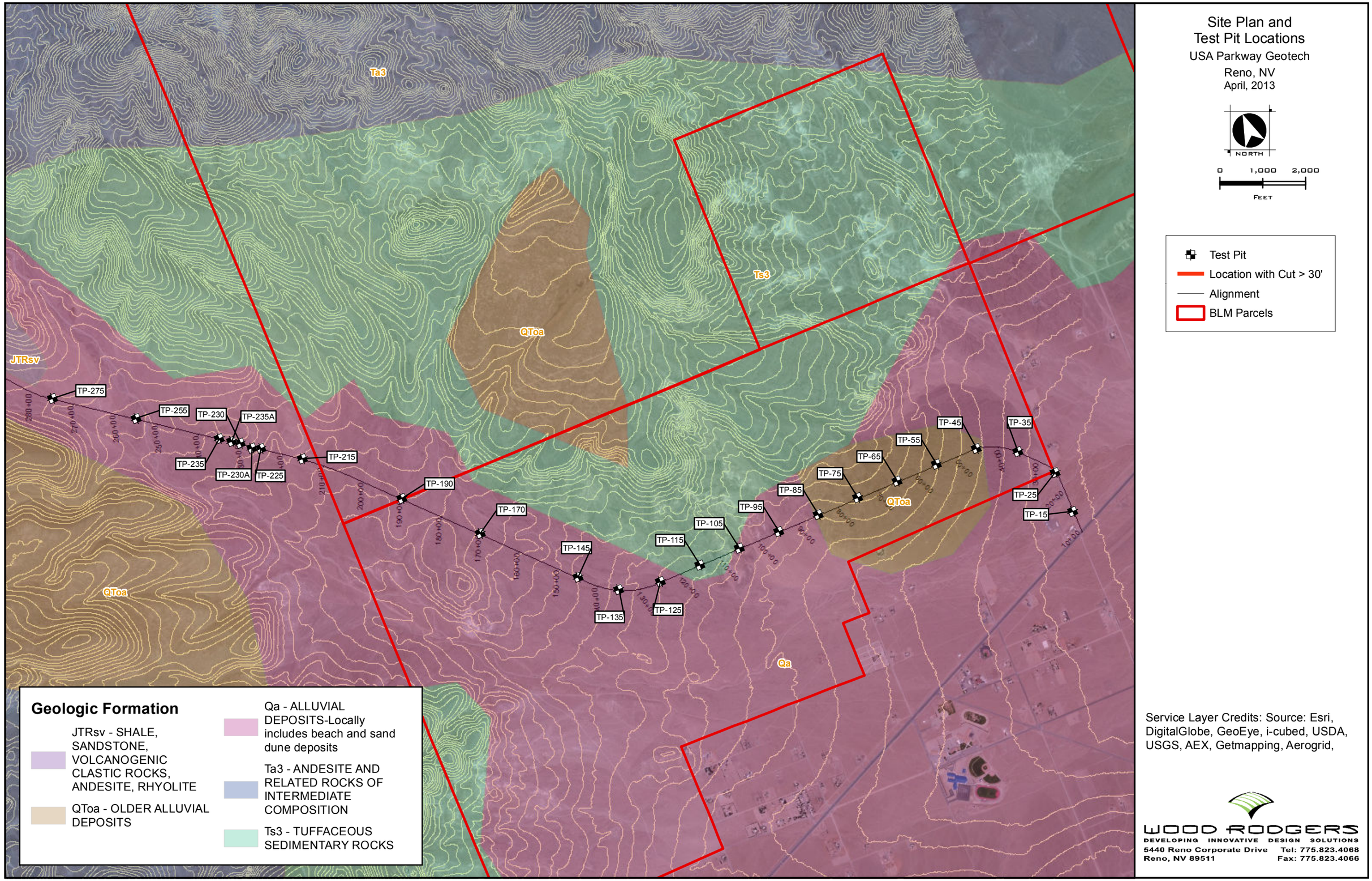
Marions Paul, and Hoek Evert, "GSI: A Geologically Friendly Tool For Rock Mass Strength Estimation."

Sharma, P.K., Singh, T. N., A Correlation Between P-Wave Velocity, Impact Strength Index, Slake Durability Index, and Uniaxial Compressive Strength, Bulletin of Geology and Environment (2008), 67:17-22, DOI 10.1007/s10064-007-0109-y

http://mrdata.usgs.gov/geology/state/state.php?state=NV

APPENDIX A
Boring Logs &
Geotechnical Test Data


Site Plan and
Test Pit Locations
USA Parkway Geotech
Reno, NV
April, 2013
NORTH
0
1,000
2,000
FEET
Test Pit
Location with Cut > 30'
Alignment
BLM Parcels
Ta3
Ts3
QToa
JTRsv
Qa
TP-275
TP-255
TP-230
TP-235A
TP-235
TP-230A
TP-225
TP-215
TP-190
TP-170
TP-145
TP-135
TP-125
TP-115
TP-105
TP-95
TP-85
TP-75
TP-65
TP-55
TP-45
TP-35
TP-25
TP-15
Geologic Formation
JTRsv - SHALE, SANDSTONE, VOLCANOGENIC CLASTIC ROCKS, ANDESITE, RHYOLITE
QToa - OLDER ALLUVIAL DEPOSITS
Qa - ALLUVIAL DEPOSITS-Locally includes beach and sand dune deposits
Ta3 - ANDESITE AND RELATED ROCKS OF INTERMEDIATE COMPOSITION
Ts3 - TUFFACEOUS SEDIMENTARY ROCKS
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,
WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
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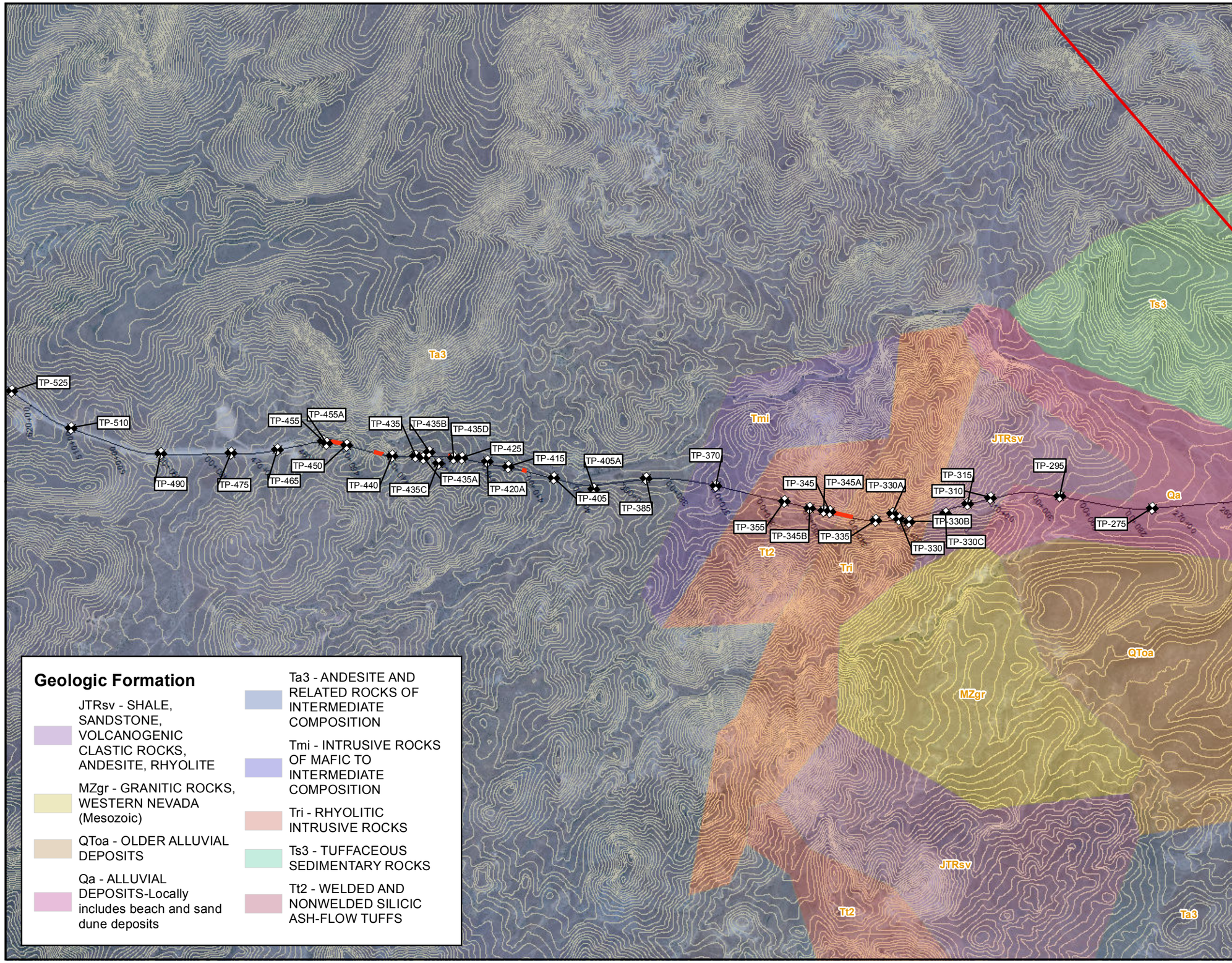
Reno, NV 89511
Tel: 775.823.4068
Fax: 775.823.4066

FIGURE A1



Site Plan and Test Pit Locations

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 1,000 2,000

FEET

- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

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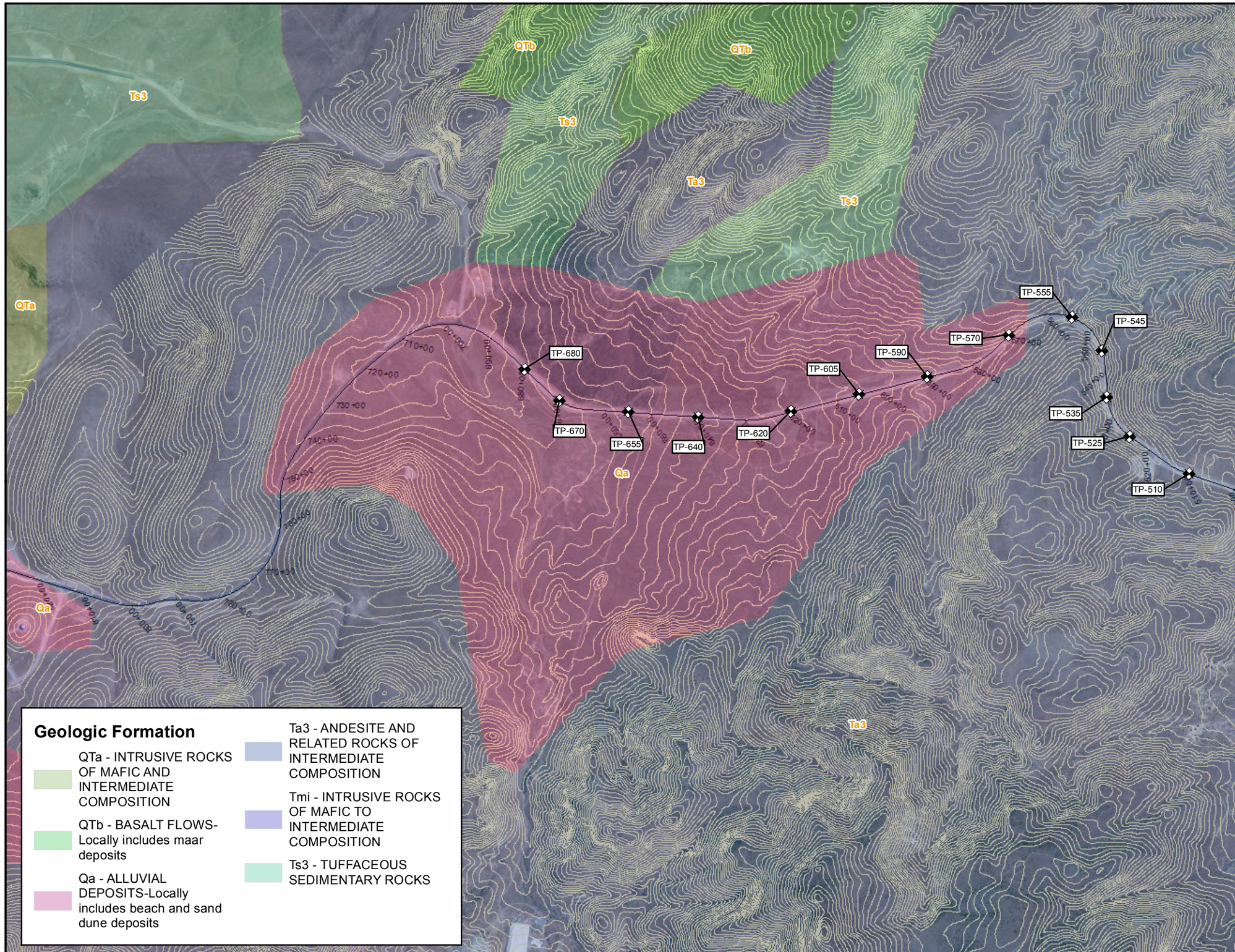
Reno, NV 89511
Tel: 775.823.4068
Fax: 775.823.4066

FIGURE A2



Site Plan and Test Pit Locations

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 1,000 2,000

FEET

- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

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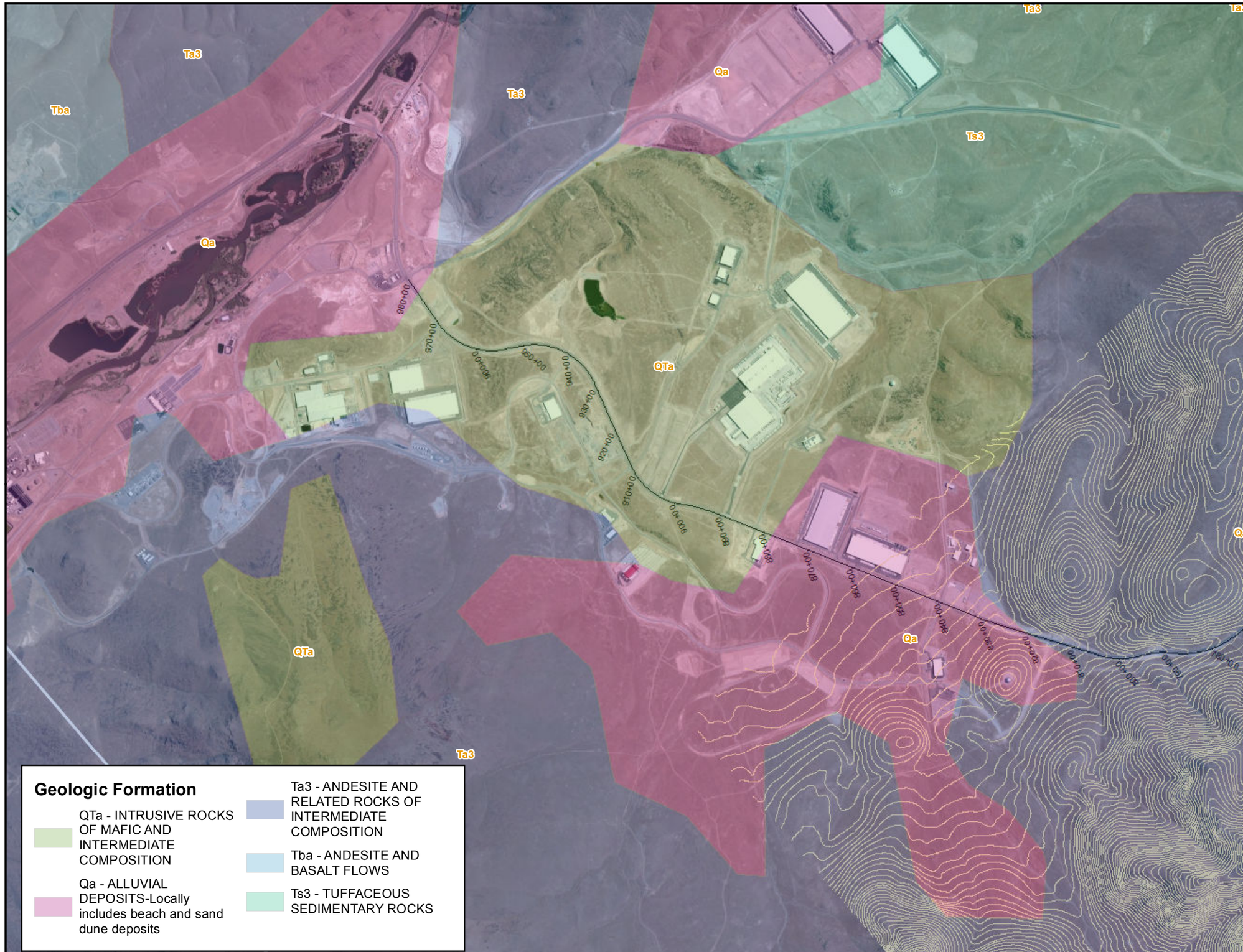
Fax: 775.823.4066

FIGURE A3



Site Plan and Test Pit Locations

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 1,000 2,000

FEET

- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

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FIGURE A4

Wood Rodgers, Inc.
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Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-15+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4291 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 15+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown to tan, slightly moist, medium dense													
		Increasing gravel to 1"	GB 15A	60							8.4	30	30	NP	17.6
2.5		Trace gravel bedding													
5.0		Trace cobbles to 6"													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

GEOTECH BH USA PARKWAY - GINT STD US LAB.GDT - 5/6/13 09:24 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-25+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4295 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 25+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, moist, medium dense													
			GB 25A	60			126.5	10			8.4	30	30	NP	17.6
2.5															
5.0		Increasing gravel and cobbles to 8"													
7.5															
			GB 25B												
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
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Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-35+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4308 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 35+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, moist, medium dense													
		POORLY GRADED GRAVEL, (GP) tan, moist, dense, with some cobbles to 8"													
2.5															
			GB 35A								6.5	31	23	8	4.8
5.0		Increasing cobbles and boulder to 18"													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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TEST PIT NUMBER TP-45+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4350 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 45+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, moist, medium dense													
		POORLY GRADED GRAVEL, (GP) brown, moist, dense, with some cobbles to 12" and boulders to 18"													
2.5															
		Roots	GB 45A	41							12.4	25	15	10	1.6
5.0															
		Caving													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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TEST PIT NUMBER TP-55+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4387 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 55+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, moist, medium dense													
		POORLY GRADED GRAVEL WITH CLAY, (GP-GC) tan, moist, dense, with some cobbles to 12" and boulder to 18"													
2.5			GB 55A	56							5.6	29	18	11	6.7
		Some cementation													
5.0															
		Caving													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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TEST PIT NUMBER TP-65+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4420 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 65+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, moist, medium dense, with cobbles to 12" and boulders to 20"													
2.5			GB 65A	21							13.3	39	20	19	34.3
		POORLY GRADED GRAVEL, (GP) tan, slightly moist, dense, with some cobbles to 12" and boulders to 36"													
5.0		Some cementation													
7.5															

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-75+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4430 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 75+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown, moist, medium dense													
		POORLY GRADED GRAVEL, (GP) gray/tan, slightly moist, dense, with some cobbles to 12" and boulders to 30"													
2.5															
			GB 75A	72							3.5	30	30	NP	4.2
5.0															
		Some cementation													
7.5															

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-85+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/3/12 **COMPLETED** 12/3/12
GROUND ELEVATION 4406 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 85+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown, moist, medium dense													
		POORLY GRADED GRAVEL, (GP) white/tan, slightly moist, dense, with some cobbles to 12" and boulders to 20" Some cementation													
2.5			GB 85A								8.6	34	31	3	5.2
5.0															
7.5															

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-95+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4427 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 95+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown to tan, slightly moist, medium dense													
		POORLY GRADED SAND WITH SILT, (SP-SM) tan to brown, slightly moist, medium dense with sand bedding													
2.5			GB 95A	50							6.5	30	30	NP	7.9
5.0		roots													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-105+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4907 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 105+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND, (SC) brown, slightly moist, medium dense													
		SANDSTONE, tan, slightly moist F, D-30, PDS, excavates to a Silty Sand (SM)													
2.5			GB 105A	44							15.4	35	32	3	40.3
5.0															
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-115+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4472 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 115+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown, moist, medium dense													
		SANDSTONE, tan gray, slightly moist F, D-30, PDS, excavates to a Silty Sand (SM)													
2.5															
5.0			GB 115A	76							13.8	30	30	NP	19.4
		Caving Roots													
7.5															
		W to MS													
10.0															
12.5															

Refusal at 13.5 feet.
Bottom of Test Pit at 13.5 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-125+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4484 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 125+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND, (SC) brown, moist, medium dense	GB 125A								11.1	29	15	14	47.1
		POORLY GRADED SAND WITH SILT, (SP-SM) tan to gray, slightly moist, medium dense with sand bedding													
2.5			GB 125B				122.7	11.5			8.8	30	30	NP	7.1
5.0															
7.5															
		POORLY GRADED GRAVEL, (GP) tan, moist, dense with some cobbles to 10"													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-135+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4515 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 135+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown, moist, medium dense													
		Tan to brown													
			GB 135A				103.5	18.8			16.4	39	28	11	29.8
2.5															
		Slightly cementation													
5.0															
		Dense, gravel bedding													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-145+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4544 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 145+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, moist, dense, with cobbles to 12" and boulders to 18"													
		CLAYEY SAND WITH GRAVEL, (SC) brown tan orange, slightly moist, medium dense, some cementation, with few cobbles to 12"	GB 145A	20							14.7	40	21	19	38
2.5		POORLY GRADED SAND, (SP) gray brown, slightly moist, medium dense, trace cobbles to 12" Alternating layers of cemeted sand/gravel, approximatley 6" in thickness, to 10'													
			GB 145B								4.7	30	30	NP	3.8
5.0		Dense Roots													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-170+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4643 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 170+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND, (SC) brown, moist, medium dense	GB 170A				115.5	14.5			14.2	27	19	8	44.3
		POORLY GRADED GRAVEL, (GP) gray/tan, slightly moist, medium dense with some cobbles to 12" and boulders to 15"													
2.5															
5.0			GB 170B												
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-190

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 12/4/12 **COMPLETED** 12/4/12
GROUND ELEVATION 4684 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 190+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND, (SC) brown, moist, medium dense		GB 190A				107.5	16.4			16.0	39	26	13	47.6
2.5		SILTY SAND, (SM) orange/red, slightly moist, dense, cemented		GB 190B												
5.0		POORLY GRADED GRAVEL, (GP) white/tan, slightly moist, dense, with some cobbles to 12" and boulders to 18"														
7.5																
10.0																

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-215+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4700 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 215+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		INORGANIC CLAY, (CL-CH) dark brown, moist, stiff	GB 215A								12.7	50	20	30	57.8
2.5		SILTY SAND, (SM) white tan, slightly moist, medium dense	GB 215B												
5.0		Dense, Increasing Cobbles													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-225+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4724 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 225+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED SAND WITH SILTY SAND, (SP-SM) white tan, slightly moist, dense with some Cobbles to 12" and boulders to 20"													
2.5															
			GB 225A	45							8.6	36	30	6	10.1
5.0															
		Increasing Cobbles and Boulders													

Bottom of Test Pit at 7.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-230+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4749 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 230+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVEL WITH CLAY AND SAND, (GP-GC) tan white, moist, dense with some Cobbles to 12" and boulders to 24"													
2.5															
5.0															
7.5															
10.0		Caving	GB 230A	44							4.9	29	19	10	6.9
12.5															

Bottom of Test Pit at 14.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-230A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4736 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 36' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY GRAVEL, (GC) dark brown, moist, dense with some Cobbles to 12"													
2.5		CLAYEY SAND WITH GRAVEL, (SC) white tan, slightly moist, medium dense with some Cobbles to 12" and boulders to 18"													
5.0															
7.5															
10.0			GB 230AA	32							8.1	40	24	16	14.0
		Increasing Cobbles and Boulders													
12.5															
15.0															

Bottom of Test Pit at 15.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-235+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4736 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 235+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) dark brown, slightly moist, medium dense with some cobbles to 10"	GB 235A												
2.5		POORLY GRADED SAND WITH CLAY AND GRAVEL, (SP-SC) brown, moist, medium dense with some Cobbles to 12"	GB 235B	38							12.0	46	27	19	6.0
5.0		POORLY GRADED GRAVEL, (GP) brown, slightly moist, dense with some Cobbles to 12" and boulders to 15"													
7.5		Boulders to 20"													
10.0															

Bottom of Test Pit at 10.0 Feet.

GEOTECH BH USA PARKWAY MC XX.X FINES X.X - GINT STD US LAB.GDT - 5/6/13 09:46 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-235A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4745 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 5' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) dark brown, slightly moist, medium dense with some cobbles to 8"													
		POORLY GRADED GRAVEL, (GP) brown, moist, dense with some Cobbles to 12" and boulders to 24"													
2.5															
5.0															
7.5		CLAYSTONE, slightly moist Tan, W to MS, D- 30, PDS, excavates to a Clayey Sand (SC)													
10.0															
12.5															
15.0															

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-235A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
15.0		CLAYSTONE, slightly moist Tan, W to MS, D- 30, PDS, excavates to a Clayey Sand (SC) *(continued)*	GB 235AA	28							8.8	37	22	15	20.6
17.5															

Bottom of Test Pit at 19.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-255+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/30/12 **COMPLETED** 10/30/12
GROUND ELEVATION 4773 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 255+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 12", and boulders to 18"	GB 255A								8.7	37	16	21	42.8
2.5		POORLY GRADED GRAVEL, (GP) tan, slightly moist, dense with some Cobbles to 12", and boulders to 20"													
5.0		Roots													
7.5		Very Dense													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-275+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 4821 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 275+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) dark brown, slightly moist, medium dense with some cobbles to 8"	GB 275A								10.4	40	24	16	48.0
2.5		SANDSTONE Tan/White/Yellow, W to MS, D- 30, PDS, slightly moist, excavates to a Silty Sand with Gravel (SM)	GB 275B												
5.0			GB 275C												
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-295+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 4897 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 245+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 8"	GB 295A								8.8	35	18	17	49.1
		SANDSTONE Tan/White, W to MS, D- 30, PDS, slightly moist, excavates to a Silty Sand (SM)													
2.5			GB 295B												
5.0															
		Increasing cobbles													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-310+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 4993 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 310+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 10"													
2.5		SANDSTONE Tan/White/Orange/Black, W to MS, D- 30, PDS, slightly moist, excavates to a Poorly Graded Sand with Silt (SP-SM)													
5.0			GB 310A	31							16.8	55	32	23	9.6
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-315

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 4997 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 5' SW of CL
5' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 6"													
		CLAYEY GRAVEL WITH SAND, (GC) brown tan, slightly moist, dense with some Cobbles to 12" and boulders to 24"													
2.5															
5.0															
			GB 315A	34							9.9	37	24	13	13.8
7.5															
		Moist													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 5080 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 330+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVEL, (GP) brown, slightly moist, medium dense with some Cobbles to 12"													
2.5															
5.0		RHYOLITE Tan/Brown, W to MS, SY- 40, PDS, slightly moist, excavates to a Poorly Graded Gravel with Clay (GP-CG) with cobbles							85	60					
7.5															
10.0															
12.5															
15.0															

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330+00

CLIENT Jacobs Engineering Group, Inc

PROJECT NAME USA Parkway

PROJECT NUMBER 8480.001

PROJECT LOCATION See Site Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
15.0		RHYOLITE Tan/Brown, W to MS, SY- 40, PDS, slightly moist, excavates to a Poorly Graded Gravel with Clay (GP-CG) with cobbles *(continued)*													
17.5															
			GB 330A	46							8.9	32	22	10	6.4
20.0															

Bottom of Test Pit at 20.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 5124 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 130' NE of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVELS WITH SILTY GRAVELS, (GP-GM) brown, slightly moist, medium dense with some Cobbles to 12"													
2.5									65	80					
5.0															
7.5															
10.0			GB 330AA	44							10.8	44	29	15	6.2

Refusal at 11.0 feet.
Bottom of Test Pit at 11.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330B

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 5056 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 90' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 8"													
		SANDSTONE Tan/White/Brown, W to MS, D- 30, PDS, slightly moist, excavates to a Silty Sand (SM)													
2.5															
5.0															
7.5															
			GB 330BA	44							7.6	24	22	2	31.7
10.0		CLAYEY SAND WITH GRAVEL, (SC) brown, moist, dense	GB 330BB												
12.5															
			GB 330BC								11.9	29	16	13	32.6
15.0															

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330B

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
15.0		CLAYEY SAND WITH GRAVEL, (SC) brown, moist, dense *(continued)* Some cobbles to 12"													

Bottom of Test Pit at 17.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-330C

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/29/12 **COMPLETED** 10/29/12
GROUND ELEVATION 5026 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 105' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 10"													
2.5			GB 330CA	19							11.9	43	25	18	44.6
5.0															
		RHYOLITE Gray/Tan, S, VB- 55, STS, slightly moist, excavates to a Poorly Grade Gravel with Sand (GP) with cobbles and boulders													
7.5															
10.0															

Bottom of Test Pit at 12.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-335+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5108 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 335+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, slightly moist, medium dense with some cobbles to 6"													
2.5															
5.0			GB 335A	64			593	41			4.2	22	21	1	26.3
		Tan													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-345A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5181 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 5' NE of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) brown, slightly moist, dense with some Cobbles to 12" and boulders to 24"													
2.5			GB 345AA	35							6.2	28	21	7	16.9
5.0															

Refusal at 7.0 feet.
Bottom of Test Pit at 7.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-345B

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5189 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 15' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY GRAVEL, (GC) brown tan, slightly moist, medium dense with some Cobbles to 12"													
		CLAYEY SAND WITH GRAVEL, (SC) brown tan, slightly moist, very dense with some Cobbles to 12" and boulders to 15"													
2.5															
5.0			GB 345BA	25			504	29			7.3	31	18	13	34.9
7.5															

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-355+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5205 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 355+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		ANDESITE/BASALT Black/Gray/Orange, S, VB- 55, STS, dry, excavates to a GP-GC with cobbles and boulders							80	70					
2.5			GB 355A	41							6.9	40	24	16	5.8
5.0															

Refusal at 7.0 feet.
Bottom of Test Pit at 7.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-370+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5293 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 370+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) with some cobbles to 8", medium dense, slightly moist, brown													
2.5		Andesite/Basalt, Gray/Brown, S, VB- 65, STS, slightly moist, excavates to a Poorly Grade Gravel (GP) with cobbles and boulders													

Refusal at 3.0 feet.
Bottom of Test Pit at 3.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-385+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5223 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 385+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND, (CL) brown, slightly moist, stiff with some Cobbles to 8"		GB 385A								12.6	39	21	18	57.6
2.5		ANDESITE/BASALT Tan/White/Orange, S, VB- 55, STS, slightly moist, excavates to a Poorly Grade Gravel (GP) with cobbles and boulders														
5.0																
7.5																

Bottom of Test Pit at 9.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-405+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5273 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 405+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 6"													
		WELDED TUFF White/Yellow, W, SY- 35, PDS, slightly moist, excavates to a Clayey Sand (SC) with cobbles													
2.5															
5.0															
7.5															
10.0															
12.5															
			GB 405A	31							9.7	36	22	14	16.9
15.0															

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-405+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
15.0		WELDED TUFF White/Yellow, W, SY- 35, PDS, slightly moist, excavates to a Clayey Sand (SC) with cobbles *(continued)*													

Bottom of Test Pit at 17.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-405A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/26/12 **COMPLETED** 10/26/12
GROUND ELEVATION 5250 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 90' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 6"													
2.5		ANDESITE/BASALT, Sample was crushed for potential Borrow and tested as Poorly Graded Sand with Clay and Gravel (SP-SC). Gray/ White, S, VB- 55, STS, slightly moist, excavates to a Poorly Grade Gravel (GP) with cobbles and boulders	GB 405AA	40					40	45	2.4	29	17	12	6.0
5.0															

Refusal at 7.0 feet.
Bottom of Test Pit at 7.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-415+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5321 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 415+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) with some cobbles to 6"													
		RHYOLITE intrusive rocks, yellow/white, MS, SY- 45, STS, dry, excavates to a Poorly Grade Gravel with Silt and Sand (GP-GM) with cobbles to 12"													
2.5															
5.0															
7.5															
10.0															
12.5			GB 415A	38			1393	33			7.9	44	27	17	7.0
15.0															

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-415+00

CLIENT Jacobs Engineering Group, Inc

PROJECT NAME USA Parkway

PROJECT NUMBER 8480.001

PROJECT LOCATION See Site Plan

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
15.0		RHYOLITE intrusive rocks, yellow/white, MS, SY- 45, STS, dry, excavates to a Poorly Grade Gravel with Silt and Sand (GP-GM) with cobbles to 12" *(continued)*													

Refusal at 16.0 feet.
Bottom of Test Pit at 16.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-420A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5322 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 41' NE of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 8"													
			GB 420AA								8.0	32	19	13	37.1
2.5		ANDESITE/BASALT Gray/ White, S, VB- 55, STS, slightly moist, excavates to a Poorly Grade Gravel (GP) with cobbles and boulders													
5.0															
			GB 420AB												
7.5															

Refusal at 8.0 feet.
Bottom of Test Pit at 8.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-425+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5351 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 425+00 @ 6' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 8"													
		ANDESITE/BASALT Black/ White, S, VB- 55, STS, slightly moist, excavates to a Silty Sand (SM) with cobbles and boulders	GB 425A	31							7.5	37	26	11	21.2
2.5															
5.0															
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-435+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5439 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 435+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 10"													
		ANDESITE Black/ White/Yellow, S, VB- 55, STS, slightly moist, excavates to a Poorly Graded Gravel (GP) with cobbles and boulders													
2.5									10	50					
									35	42					
5.0															
7.5															
10.0															
12.5			GB 435A												

Refusal at 13.0 feet.
Bottom of Test Pit at 13.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-435A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5435 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Ecountered
NOTES: 45' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) with some cobbles to 10", medium dense, slightly moist, brown													
2.5		ANDESITE/BASALT, Sample was crused for potential Borrow and tested as Poorly Graded Sand with Clay and Gravel (SP-SC) Black/ White, S, VB- 55, STS, slightly moist, excavates to a Poorly Graded Gravel (GP) with cobbles and boulders													
5.0															
7.5															
			GB 435AA	37							2.0	25	19	6	6.0

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-435B

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5388 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 82' NE of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY GRAVEL WITH SAND, (GC) with some Cobbles to 8"- medium dense, slightly moist, brown	GB 435BA	26							6.3	39	23	16	17.0
2.5		Andesite/Basalt, Black/ White, S, VB- 55, STS, slightly moist, excavates to a GP with cobbles and boulders													
5.0															
7.5															

Bottom of Test Pit at 8.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-435C

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5399 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 16' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) with some cobbles to 10", medium dense, slightly moist, brown													
		ANDESITE/BASALT Black/ White/yellow, S, VB- 55, STS, slightly moist, excavates to a Clayey Gravel (GC) with cobbles and boulders													
2.5															
5.0															
7.5															
10.0			GB 435CA												

Refusal at 10.0 feet.
Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-435D

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/25/12 **COMPLETED** 10/25/12
GROUND ELEVATION 5383 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 28' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		ANDESITE/BASALT Black/Gray, S, VB- 55, STS, dry, excavates to a Poorly Grade Gravel (GP) with cobbles and boulders													
2.5															
5.0															
7.5															

Refusal at 8.0 feet.
Bottom of Test Pit at 8.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-440+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5439 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 440+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense, with some cobbles to 10"													
2.5		CLAYSTONE, gray/white black/purple, slightly moist, excavates to a Clayey Sand (SC) F, D- 25, PDS													
5.0															
7.5															
10.0			GB 440A								10.2	37	23	14	26.5
12.5															
15.0															

Bottom of Test Pit at 15.0 Feet.

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5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-450+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5509 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encoutered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 450+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		RHYOLITIC INTRUSIVE ROCKS, Sample was crushed for potential Borrow and tested as Poorly Graded Sand with Clay and Gravel (SP-SC), gray/white green/yellow, dry, excavates to a Clayey Gravel (GC) with boulders to 15" S, UB- 55, STS													
2.5															
5.0			GB 450A	42							3.1	29	15	14	6.8

Refusal at 6.0 feet.
Bottom of Test Pit at 6.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
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Fax: 775-823-4066

TEST PIT NUMBER TP-455

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5502 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 455 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense, with some cobbles to 10" with some cobbles to 10"													
		RHYOLITIC INTRUSIVE ROCKS, brown/green white, dry, excavates to a Poorly Grade Gravel (GP) S, UB- 55, STS,	GB 455A						30	80					
2.5															
		Roots													
5.0															

Refusal at 7.0 feet.
Bottom of Test Pit at 7.0 Feet.

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5440 Reno Corporate Drive
Reno, NV 89511
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TEST PIT NUMBER TP-455A

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5524 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: 38' SW of CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 10"													
		RHYOLITIC INTRUSIVE ROCKS, Sample was crushed for potential Borrow and tested as Poorly Graded Sand with Clay and Gravel (SP-SC), gray white, dry excavates to a Clayey Gravel (GP) with boulders to 24" S, UB- 45, STS													
2.5															
5.0															
7.5			GB 455AA	40							2.1	24	15	9	5.1
10.0															

Bottom of Test Pit at 12.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-465+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5467 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 465+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		FILL - CLAYSTONE, brown/yellow white, slightly moist, excavates to a Clayey Sand (SC) F, D- 20, PDS	GB 465A	15							13.7	43	26	17	24.7
2.5		Tan/yellow white/purple, some cobbles to 12"													
5.0															
7.5		Tan/yellow red													
10.0															

Bottom of Test Pit at 11.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
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Fax: 775-823-4066

TEST PIT NUMBER TP-475+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5503 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom **CHECKED BY** Tom
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 475+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYSTONE, brown/yellow white, slightly moist, excavates to a Silty Sand (SM) F, D, PDS													
			GB 475A	24							19.8	43	27	16	22.4
2.5		Dark brown													
5.0															
7.5		Tan/yellow red													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
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TEST PIT NUMBER TP-490+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5599 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom **CHECKED BY** Tom
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 490+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVEL WITH SILT AND SAND, (GP-GM) tan, slightly moist, medium dense with some Cobbles to 12" and boulders to 20"	GB 490A	53							8.1	32	26	6	8.5
2.5															
5.0		CLAYEY GRAVEL, (GC) brown, slightly moist, dense with some Cobbles to 12" and boulders to 25"	GB 490B												
7.5															
10.0		Increasing boulders													

Bottom of Test Pit at 10.0 Feet.

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TEST PIT NUMBER TP-510+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/27/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5716 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 510+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVEL WITH SILT AND SAND, (GP-GM) tan/brown, slightly moist, medium dense, with some cobbles to 12" and boulders to 15"													
			GB 510A	45							9.5	35	26	9	7.4
2.5		CLAYEY GRAVEL, (GC) brown/yellow, slightly moist, medium dense, with some cobbles to 12" and boulders to 19"	GB 510B												
5.0															
7.5		Increasing augular cobbles													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
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Fax: 775-823-4066

TEST PIT NUMBER TP-525+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/24/12 **COMPLETED** 10/24/12
GROUND ELEVATION 5622 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 525+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED SAND WITH SILT AND GRAVEL, (SP-SM) brown green white, slightly moist, F, D-20, PDS													
			GB 525A	59							13.5	49	46	3	7.6
2.5		W to MS													
5.0															
7.5		Green yellow	GB 525B												
10.0															

Bottom of Test Pit at 10.0 Feet.

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TEST PIT NUMBER TP-535+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5564 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 535+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY SAND WITH GRAVEL, (SC) brown, slightly moist, medium dense with some cobbles to 10" and boulders to 18"	GB 535A												
2.5		POORLY GRADED GRAVEL WITH CLAY AND SAND, (GP-GC) brown, slightly moist, dense with some Cobbles to 12"	GB 535B	39							13.9	31	22	9	9.0
5.0		Caving													
7.5															
10.0															
12.5															

Bottom of Test Pit at 13.0 Feet.

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Wood Rodgers, Inc.
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Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-545+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5518 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 545+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED GRAVEL WITH SILT AND SAND, (GP-GM) tan to gray, slightly moist, medium dense with mostly angular Cobbles to 12"	GB 545A				317	37			6.5	23	24	NP	5.0
2.5		Dense													
		Caving													
5.0		Very dense													
7.5															
10.0															

Refusal at 10.0 feet.
Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-555+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5455 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Ecnountered
NOTES: STA: 555+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		INORGANIC CLAYS WITH GRAVEL, (CL) dark, moist, stiff													
		CLAYEY SAND WITH GRAVEL, (SC) tan, slightly moist, medium dense with some cobbles to 10"	GB 555A	37							10.5	27	19	8	15.8
2.5		Dense increasing cobbles to 12" and boulders to 36"													
5.0															
7.5		POORLY GRADED GRAVEL, (GP) tan, slightly moist, very dense with some Cobbles to 12" and boulders to 36"													
10.0															

Refusal at 10.0 feet.
Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-570+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5390 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 570+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED SAND WITH SILT AND GRAVEL, (SP-SM) gray, slightly moist, medium dense with some Cobbles to 12 and boulders to 20"	GB 570A	61							4.0	21	18	3	5.1
2.5		Brown, dense													
5.0		Moist													
7.5		CLAYEY SAND WITH GRAVEL, (SC) tan, slightly moist, medium dense	GB 570B												
		POORLY GRADED GRAVEL, (GP) tan, slightly moist, dense with some Cobbles to 12" and boulders to 15"													
10.0															

Refusal at 10.0 feet.
Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
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TEST PIT NUMBER TP-590+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5301 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 590+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		CLAYEY GRAVEL WITH SAND, (GC) tan, slightly moist, dense with some Cobbles to 12 and boulders to 24"	GB 590A	30							11.8	39	25	14	12.1
2.5		Brown increasing cobbles													
5.0															
7.5		CLAYEY GRAVEL, (GC) brown, slightly moist, dense with some Cobbles to 8"													
		POORLY GRADED GRAVEL, (GP) brown, slightly moist, dense with some Cobbles to 12" and boulders to 20"													

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

GEOTECH BH USA PARKWAY - GINT STD US LAB.GDT - 5/6/13 09:25 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-605+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5249 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 605+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		GRAVELLY LEAN CLAY, (CL) brown, moist, stiff	GB 605A								14.2	46	18	28	76.7
2.5		POORLY GRADED GRAVEL, (GP) tan, slightly moist, dense with some Cobbles to 8													
5.0															
7.5		Very dense													

Refusal at 9.0 feet.
Bottom of Test Pit at 9.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-620+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5185 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 620+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED SAND WITH SILTY SAND, (SP-SM) tan, slightly moist, medium dense some Cobbles to 8"	GB 620A	55							22.1	32	27	5	8.8
2.5		Moist, increasing cobbles and boulders	GB 620B												
5.0		POORLY GRADED GRAVEL, (GP) tan, slightly moist, dense with some Cobbles to 12" and boulders to 18"													
7.5		GRAVELLY LEAN CLAY, (CL) brown, slightly moist, stiff													
10.0															

Bottom of Test Pit at 10.0 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-640+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5119 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 640+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		POORLY GRADED SAND WITH CLAY AND GRAVEL, (SP-SC) brown tan, slightly moist, dense with some Cobbles to 12" and boulders to 24"	GB 640A	44							7.0	31	20	11	11.7
2.5															
5.0		Very Dense													
7.5															

Refusal at 7.5 feet.
Bottom of Test Pit at 7.5 Feet.

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Wood Rodgers, Inc.
5440 Reno Corporate Drive
Reno, NV 89511
Telephone: 775-823-4068
Fax: 775-823-4066

TEST PIT NUMBER TP-655+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5051 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 655+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND, (SM) brown, slightly moist, medium dense with some Cobbles to 12"	GB 655A	25							11.0	45	27	18	25.1
2.5		POORLY GRADED GRAVEL, (GP) brown, slightly moist, very dense with some Cobbles to 12" and boulders to 18"													
5.0															
7.5															

Refusal at 8.0 feet.
Bottom of Test Pit at 8.0 Feet.

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Wood Rodgers, Inc.
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Fax: 775-823-4066

TEST PIT NUMBER TP-670+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 5029 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION ---
NOTES: STA: 670+00 @ CL
AFTER EXCAVATION ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		FILL - CLAYEY GRAVEL WITH SAND, (GW) tan, slightly moist, dense with some Cobbles to 8"	GB 670A	41							12.5	44	26	18	4.9
2.5		Boulders to 20"													
		Incresing to Cobbles, tan													
5.0															
		POORLY GRADED GRAVEL WITH SAND, (GP) brown, slightly moist, very dense with some Cobbles to 12"													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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Fax: 775-823-4066

TEST PIT NUMBER TP-680+00

CLIENT Jacobs Engineering Group, Inc
PROJECT NAME USA Parkway
PROJECT NUMBER 8480.001
PROJECT LOCATION See Site Plan
DATE STARTED 10/23/12 **COMPLETED** 10/23/12
GROUND ELEVATION 4999 ft **TEST PIT SIZE** 24 inches
EXCAVATION CONTRACTOR Stampede
GROUND WATER LEVELS:
EXCAVATION METHOD Hitachi 330 LC
AT TIME OF EXCAVATION --- No Free Water Encountered
LOGGED BY Tom Harding **CHECKED BY** Tom Harding
AT END OF EXCAVATION --- No Free Water Encountered
NOTES: STA: 680+00 @ CL
AFTER EXCAVATION --- No Free Water Encountered

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	R-VALUE	DIRECT SHEAR C PSF	DIRECT SHEAR DEGREE	MAX DRY DENSITY PCF	MAX DRY DENSITY % MOISTURE	STRIKE DEGREES	DIP DEGREES	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
0.0		SILTY SAND WITH GRAVEL, (SM) tan brown, slightly moist, medium dense Cobbles to 12" and Boulders to 15													
2.5			GB 680A	55							13.4	32	27	5	12.7
		Boulders to 24"													
5.0															
		Tan - Brown													
7.5															
10.0															

Bottom of Test Pit at 10.0 Feet.

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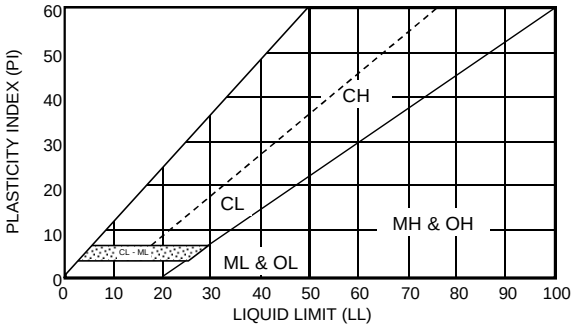
MAJOR DIVISION				TYPICAL NAMES
COARSED-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	**GRAVEL** MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC	CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SAND MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP	POORLY GRADED SAND WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS WITH OR WITHOUT GRAVEL
			SC	CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	**SILT AND CLAY** LIQUID LIMIT 50% OR LESS		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
			OL	ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
	SILT AND CLAY LIQUID LIMIT GREATER THAN 50%		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOLID, ELASTIC SILTS
			CH	INORGANIC CLAYS OR HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC SILTS OR CLAYS MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS



CONSISTENCY		RELATIVE DENSITY	
SILTS & CLAYS	SPT BLOW* COUNTS (N)	SANDS & GRAVELS	SPT BLOW* COUNTS (N)
VERY SOFT	0 - 2	VERY LOOSE	0 - 4
SOFT	3 - 4	LOOSE	5 - 10
MEDIUM STIFF	5 - 8	MEDIUM DENSE	11 - 30
STIFF	9 - 15	DENSE	31 - 50
VERY STIFF	16 - 30	VERY DENSE	50 +
HARD	30 +		

* The Standard Penetration Resistance (N) In blows per foot is obtained by the ASTM D1585 procedure using 2" O.D., 1 3/8" I.D. samplers.

DESCRIPTION OF ESTIMATED PERCENTAGES OF GRAVEL, SAND, AND FINES	
TRACE	Particles are present but est. < 5%
FEW	5% - 10%
LITTLE	15% - 20%
SOME	30% - 45%
MOSTLY	50% - 100%

NOTE: Percentages are presented within soil description for soil horizon with laboratory tested soil samples.

DEFINITIONS OF SOIL FRACTIONS	
SOIL COMPONENT	PARTICLE SIZE RANGE
COBBLES	ABOVE 3 INCHES
GRAVEL	3 IN. TO NO. 4 SIEVE
COARSE GRAVEL	3 IN. TO 3/4 IN.
FINE GRAVEL	3/4 IN. TO NO. 4 SIEVE
SAND	NO. 4 TO NO. 200
COARSE SAND	NO. 4 TO NO. 10
MEDIUM SAND	NO. 10 TO NO. 40
FINE SAND	NO. 40 TO NO. 200
FINES (SILT OR CLAY)	MINUS NO. 200 SIEVE

WOOD RODGERS
5440 Reno Corporate Drive, Reno, NV 89511
Phone 775.823.4068 Fax 775.823.4066

UNIFIED SOIL CLASSIFICATION AND KEY TO SOIL DESCRIPTIONS

Geotechnical Investigation

USA Parkway Extension
I-80 to US 50

Project No.: 8480.001
Date: 4.30.13

PLATE A-3

Wood Rodgers, Inc.
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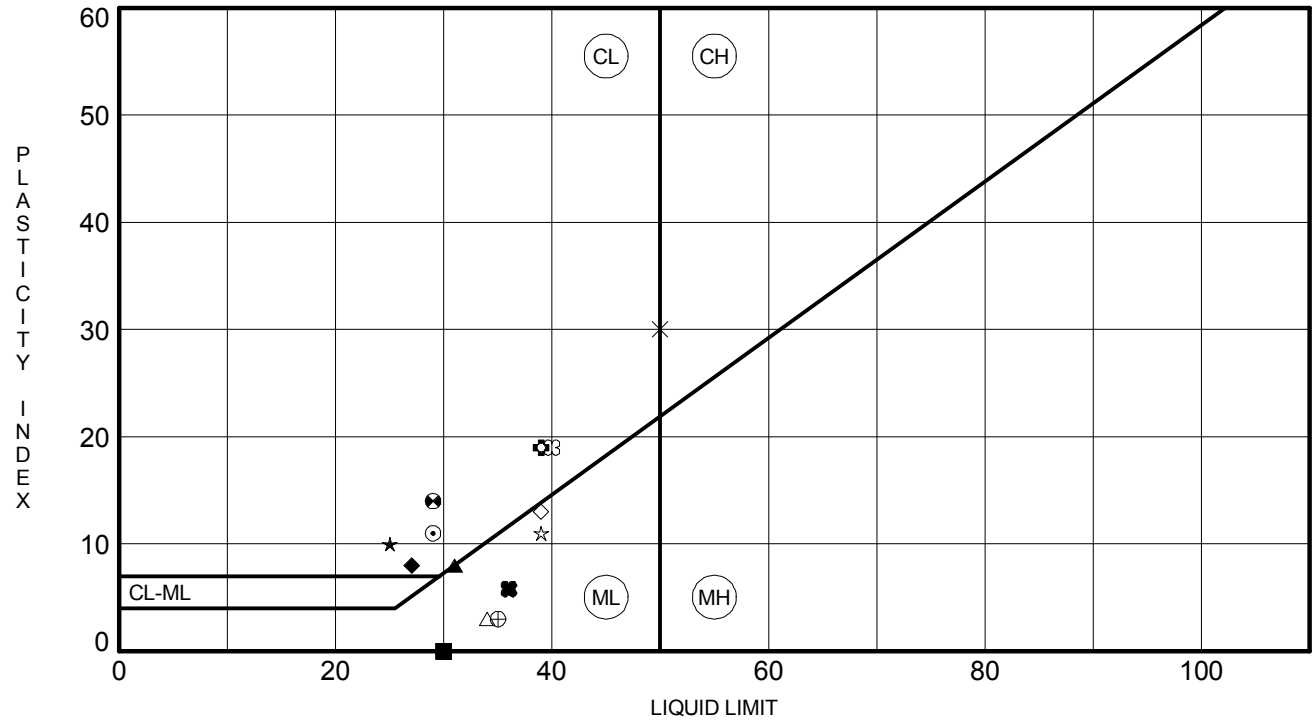
ATTERBERG LIMITS' RESULTS

CLIENT Jacobs Engineering Group, Inc **PROJECT NAME** USA Parkway

PROJECT NUMBER 8480.001 **PROJECT LOCATION** See Site Plan



	TEST PIT	DEPTH	LL	PL	PI	Fines	Classification
●	TP-15+00	1.0	30	30	NP	18	SILTY SAND(SM)
⊠	TP-25+00	1.0	30	30	NP	18	SILTY SAND(SM)
▲	TP-35+00	4.0	31	23	8	5	WELL-GRADED GRAVEL with SAND(GW)
★	TP-45+00	3.0	25	15	10	2	POORLY GRADED SAND with GRAVEL(SP)
⊙	TP-55+00	3.0	29	18	11	7	WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)
✿	TP-65+00	3.0	39	20	19	34	CLAYEY SAND with GRAVEL(SC)
○	TP-75+00	4.0	30	30	NP	4	POORLY GRADED GRAVEL with SAND(GP)
△	TP-85+00	2.0	34	31	3	5	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)
⊗	TP-95+00	1.5	30	30	NP	8	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)
⊕	TP-105+00	2.0	35	32	3	40	SILTY SAND(SM)
□	TP-115+00	5.0	30	30	NP	19	SILTY SAND(SM)
⊛	TP-125+00	0.0	29	15	14	47	CLAYEY SAND(SC)
◕	TP-125+00	2.0	30	30	NP	7	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)
☆	TP-135+00	1.0	39	28	11	30	SILTY SAND with GRAVEL(SM)
⊠	TP-145+00	1.0	40	21	19	38	CLAYEY SAND with GRAVEL(SC)
■	TP-145+00	3.5	30	30	NP	4	POORLY GRADED SAND with GRAVEL(SP)
◆	TP-170+00	0.0	27	19	8	44	CLAYEY SAND with GRAVEL(SC)
◇	TP-190	0.0	39	26	13	48	SILTY SAND(SM)
×	TP-215+00	0.0	50	20	30	58	SANDY FAT CLAY(CH)
✖	TP-225+00	4.0	36	30	6	10	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)

ATTERBERG LIMITS - GINT STD US LAB.GDT - 3/4/13 13:12 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

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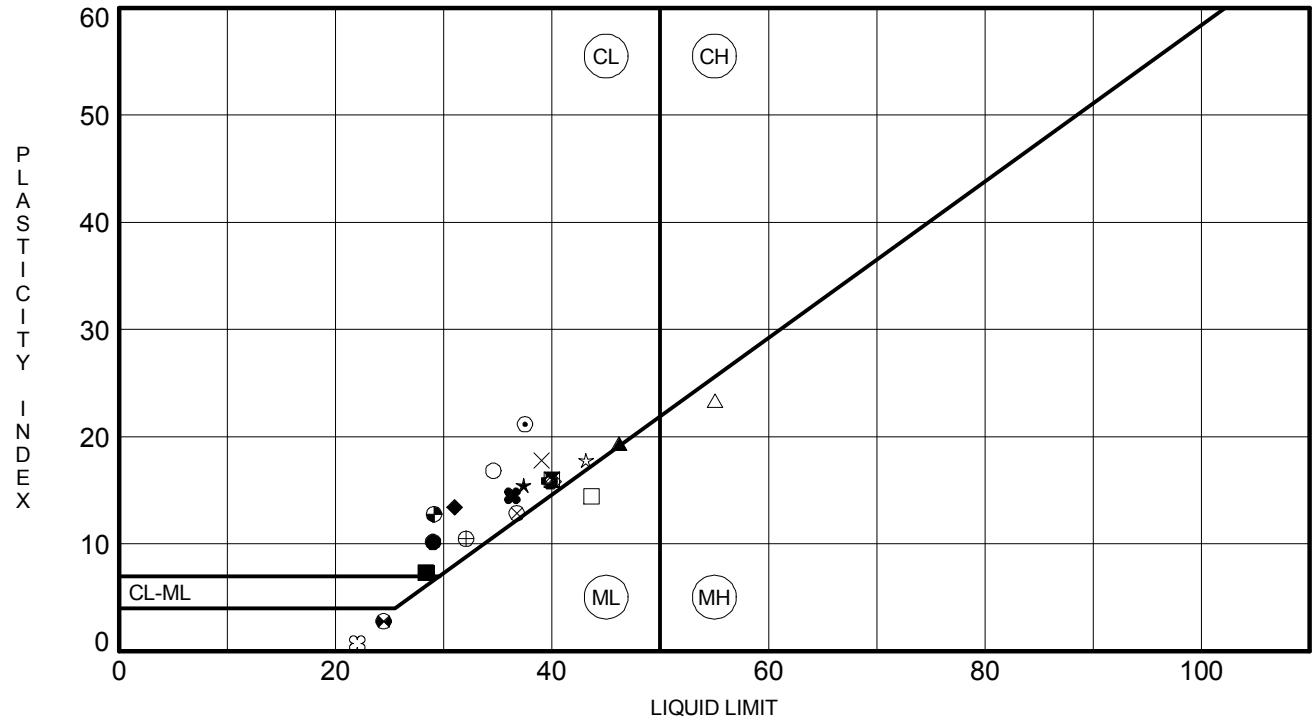
ATTERBERG LIMITS' RESULTS

CLIENT Jacobs Engineering Group, Inc **PROJECT NAME** USA Parkway

PROJECT NUMBER 8480.001 **PROJECT LOCATION** See Site Plan



	TEST PIT	DEPTH	LL	PL	PI	Fines	Classification
●	TP-230+00	10.0	29	19	10	7	WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)
⊠	TP-230A	9.0	40	24	16	14	CLAYEY SAND with GRAVEL(SC)
▲	TP-235+00	3.0	46	27	19	6	POORLY GRADED SAND with CLAY and GRAVEL(SP-SC)
★	TP-235A	15.0	37	22	15	21	CLAYEY SAND(SC)
⊙	TP-255+00	0.0	37	16	21	43	CLAYEY SAND with GRAVEL(SC)
✿	TP-275+00	0.0	40	24	16	48	CLAYEY SAND(SC)
○	TP-295+00	0.0	35	18	17	49	CLAYEY SAND(SC)
△	TP-310+00	4.0	55	32	23	10	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)
⊗	TP-315	6.0	37	24	13	14	CLAYEY GRAVEL with SAND(GC)
⊕	TP-330+00	18.0	32	22	10	6	POORLY GRADED GRAVEL with CLAY and SAND(GP-GC)
□	TP-330A	10.0	44	29	15	6	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
⊛	TP-330B	8.0	24	22	2	32	SILTY SAND(SM)
◕	TP-330B	13.0	29	16	13	33	CLAYEY GRAVEL with SAND(GC)
☆	TP-330C	3.0	43	25	18	45	CLAYEY SAND with GRAVEL(SC)
⊠	TP-335+00	4.0	22	21	1	26	SILTY SAND with GRAVEL(SM)
■	TP-345A	2.0	28	21	7	17	SILTY, CLAYEY SAND with GRAVEL(SC-SM)
◆	TP-345B	5.0	31	18	13	35	CLAYEY SAND with GRAVEL(SC)
◇	TP-355+00	2.0	40	24	16	6	POORLY GRADED GRAVEL with CLAY and SAND(GP-GC)
×	TP-385+00	0.0	39	21	18	58	SANDY LEAN CLAY(CL)
✖	TP-405+00	13.0	36	22	14	17	CLAYEY GRAVEL with SAND(GC)

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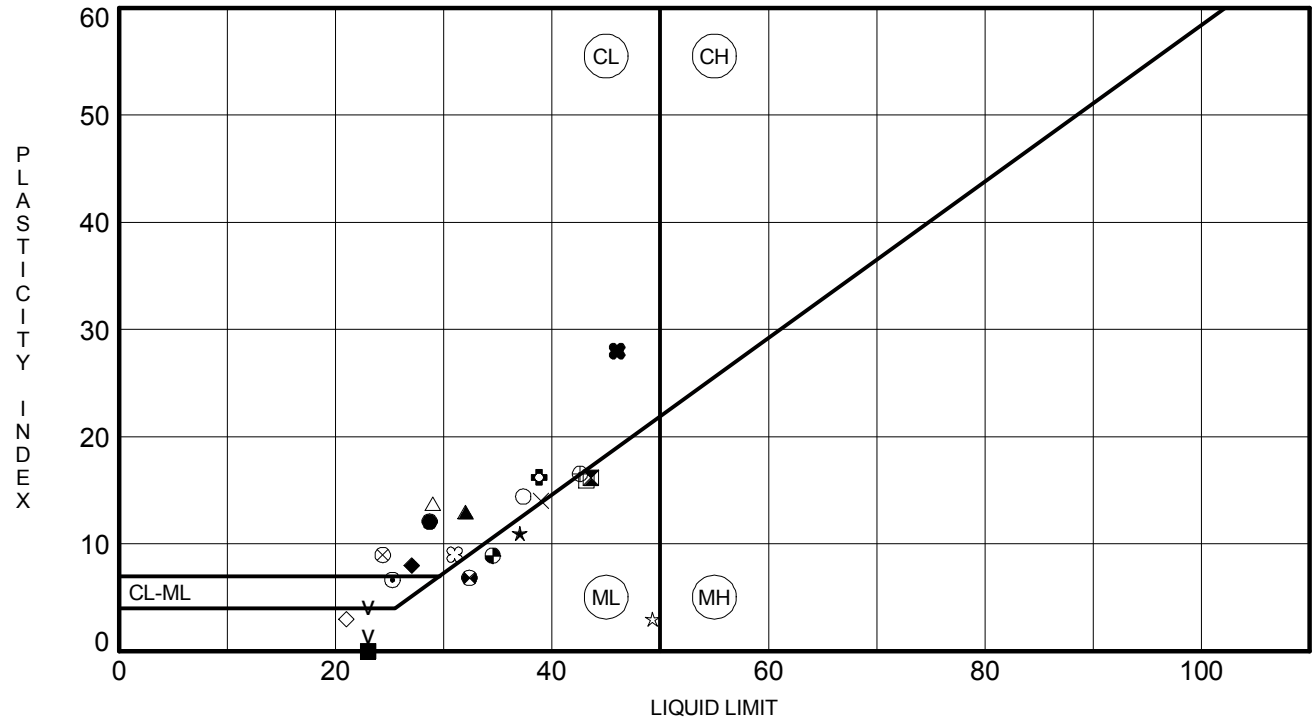
ATTERBERG LIMITS' RESULTS

CLIENT Jacobs Engineering Group, Inc **PROJECT NAME** USA Parkway

PROJECT NUMBER 8480.001 **PROJECT LOCATION** See Site Plan



	TEST PIT	DEPTH	LL	PL	PI	Fines	Classification
●	TP-405A	3.0	29	17	12	6	WELL-GRADED SAND with CLAY and GRAVEL(SW-SC)
⊠	TP-415+00	12.0	44	27	17	7	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
▲	TP-420A	1.0	32	19	13	37	CLAYEY SAND with GRAVEL(SC)
★	TP-425+00	1.0	37	26	11	21	SILTY GRAVEL with SAND(GM)
⊙	TP-435A	8.0	25	19	6	6	POORLY GRADED SAND with SILTY CLAY and GRAVEL(SP-SC)
✿	TP-435B	0.0	39	23	16	17	CLAYEY GRAVEL with SAND(GC)
○	TP-440+00	10.0	37	23	14	27	CLAYEY SAND(SC)
△	TP-450+00	4.0	29	15	14	7	POORLY GRADED SAND with CLAY and GRAVEL(SP-SC)
⊗	TP-455A	7.0	24	15	9	5	WELL-GRADED SAND with CLAY and GRAVEL(SW-SC)
⊕	TP-465+00	0.0	43	26	17	25	CLAYEY GRAVEL with SAND(GC)
□	TP-475+00	1.0	43	27	16	23	SILTY SAND with GRAVEL(SM)
⊛	TP-490+00	0.0	32	26	6	9	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
◕	TP-510+00	1.0	35	26	9	7	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
☆	TP-525+00	1.0	49	46	3	8	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)
⊠	TP-535+00	2.0	31	22	9	9	CLAYEY GRAVEL with SAND(GC)
■	TP-545+00	0.0	23	24	NP	5	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
◆	TP-555+00	1.0	27	19	8	16	CLAYEY SAND with GRAVEL(SC)
◇	TP-570+00	0.0	21	18	3	5	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)
×	TP-590+00	0.0	39	25	14	12	CLAYEY GRAVEL with SAND(GC)
✖	TP-605+00	0.0	46	18	28	77	LEAN CLAY with SAND(CL)

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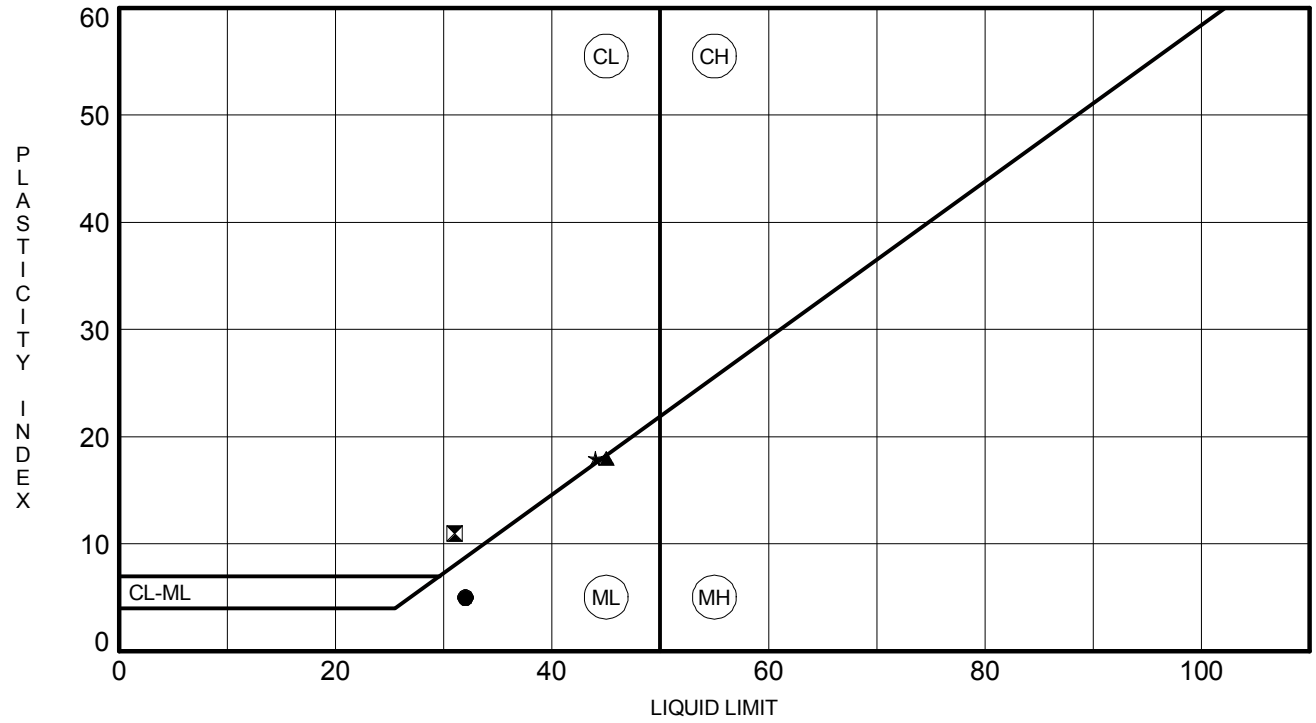
ATTERBERG LIMITS' RESULTS

CLIENT Jacobs Engineering Group, Inc **PROJECT NAME** USA Parkway

PROJECT NUMBER 8480.001 **PROJECT LOCATION** See Site Plan



	TEST PIT	DEPTH	LL	PL	PI	Fines	Classification
●	**TP-620+00**	**0.0**	**32**	**27**	**5**	**9**	**POORLY GRADED SAND with SILT and GRAVEL(SP-SM)**
⧗	**TP-640+00**	**0.0**	**31**	**20**	**11**	**12**	**CLAYEY GRAVEL with SAND(GC)**
▲	**TP-655+00**	**0.0**	**45**	**27**	**18**	**25**	**SILTY SAND with GRAVEL(SM)**
★	**TP-670+00**	**0.0**	**44**	**26**	**18**	**5**	**WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)**
⊙	**TP-680+00**	**2.0**	**32**	**27**	**5**	**13**	**SILTY SAND with GRAVEL(SM)**

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GRAIN SIZE DISTRIBUTION

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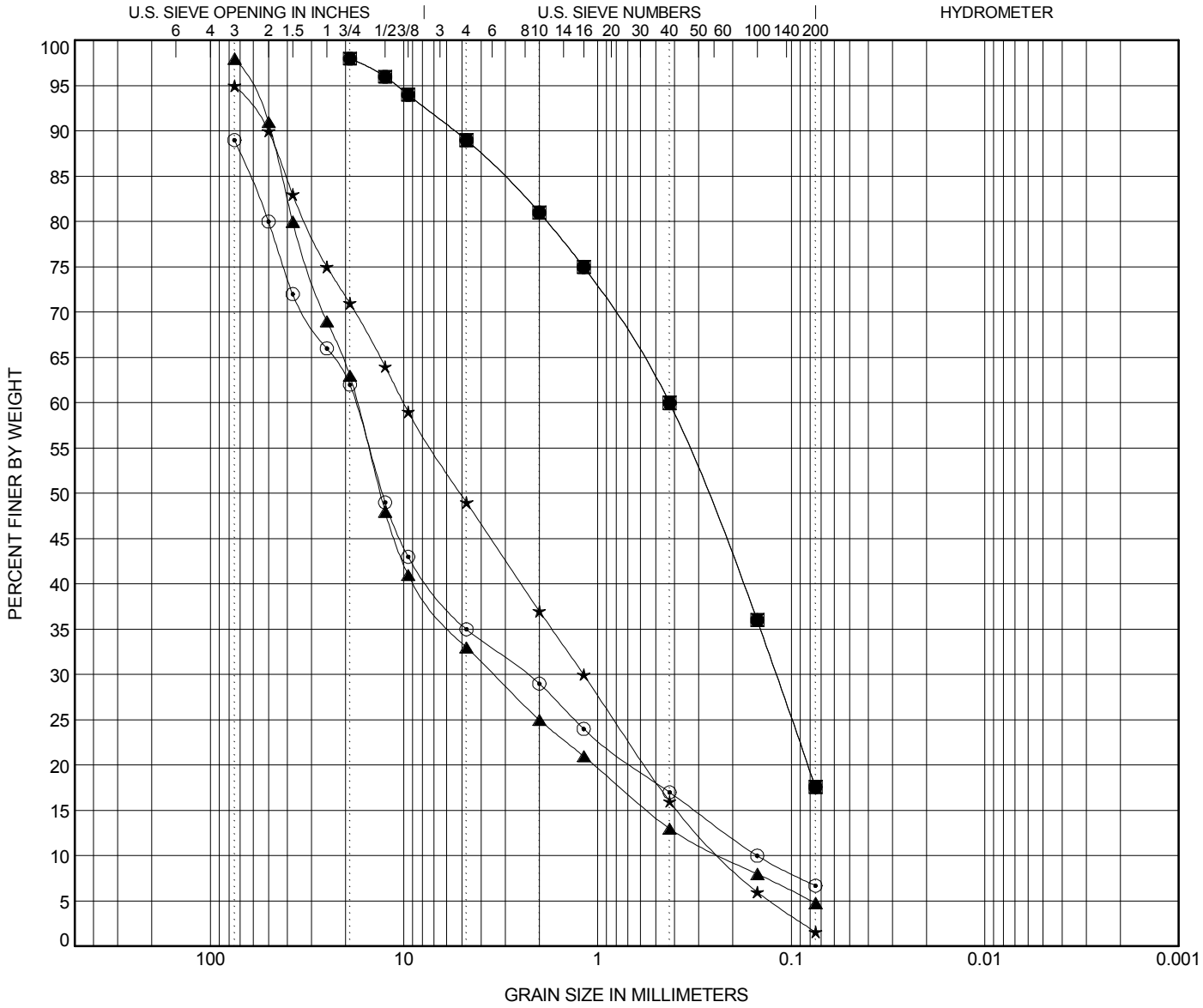

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-15+00**	**1.0**	**SILTY SAND(SM)**	**30**	**30**	**NP**		
⧗	**TP-25+00**	**1.0**	**SILTY SAND(SM)**	**30**	**30**	**NP**		
▲	**TP-35+00**	**4.0**	**WELL-GRADED GRAVEL with SAND(GW)**	**31**	**23**	**8**	**2.97**	**76.80**
★	**TP-45+00**	**3.0**	**POORLY GRADED SAND with GRAVEL(SP)**	**25**	**15**	**10**	**0.61**	**44.11**
⊙	**TP-55+00**	**3.0**	**WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)**	**29**	**18**	**11**	**2.00**	**118.76**

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-15+00**	**1.0**	**19**	**0.425**	**0.12**		**9.0**	**71.4**	**17.6**	
⧗	**TP-25+00**	**1.0**	**19**	**0.425**	**0.12**		**9.0**	**71.4**	**17.6**	
▲	**TP-35+00**	**4.0**	**75**	**17.474**	**3.434**	**0.228**	**65.0**	**28.2**	**4.8**	
★	**TP-45+00**	**3.0**	**75**	**10.036**	**1.18**	**0.228**	**46.0**	**47.4**	**1.6**	
⊙	**TP-55+00**	**3.0**	**75**	**17.815**	**2.31**	**0.15**	**54.0**	**28.3**	**6.7**	

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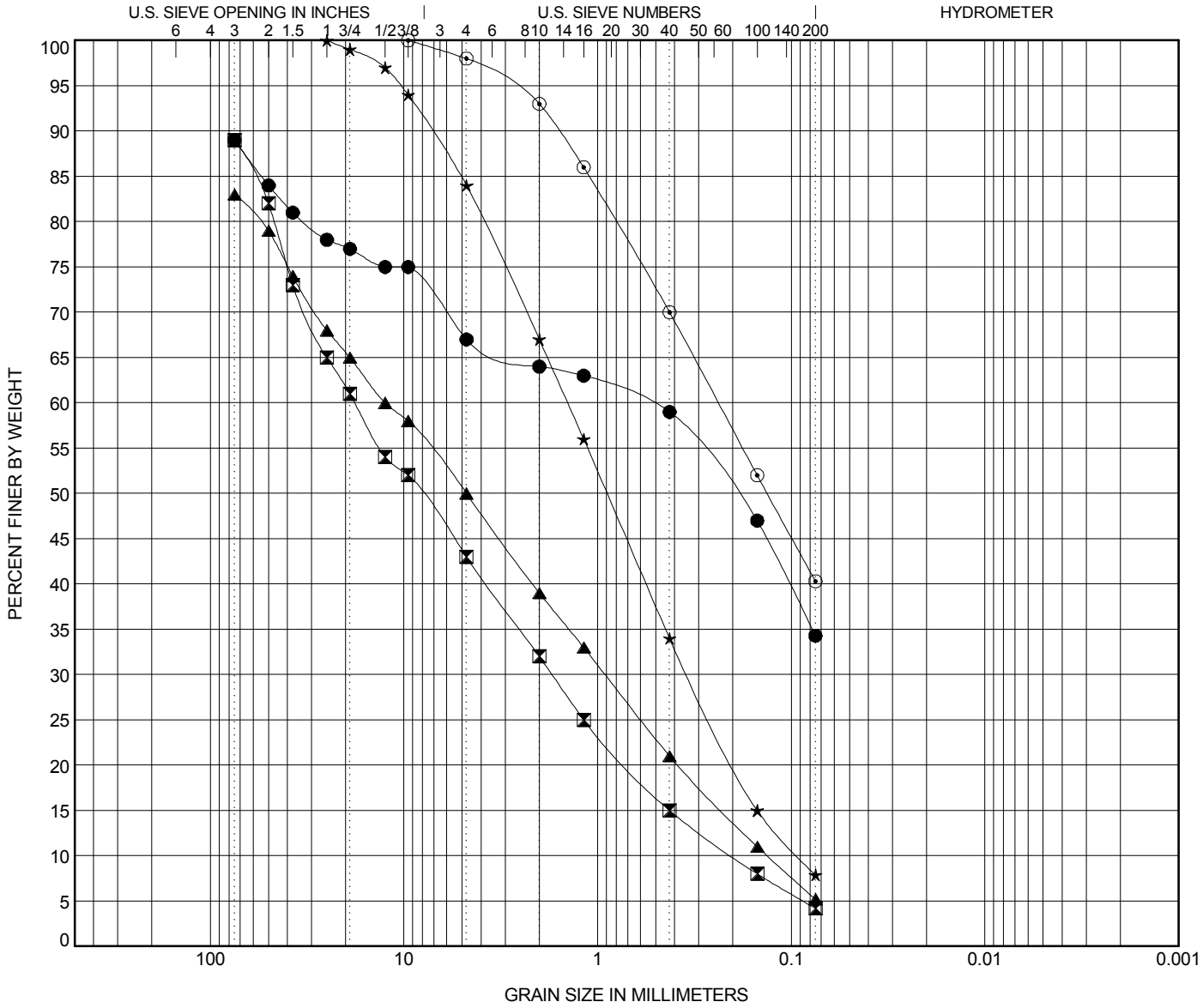

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-65+00	3.0	CLAYEY SAND with GRAVEL(SC)	39	20	19		
⊠	TP-75+00	4.0	POORLY GRADED GRAVEL with SAND(GP)	30	30	NP	0.82	88.60
▲	TP-85+00	2.0	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	34	31	3	0.50	93.91
★	TP-95+00	1.5	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	30	30	NP	0.89	15.53
⊙	TP-105+00	2.0	SILTY SAND(SM)	35	32	3		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-65+00	3.0	75	0.549			22.0	32.7	34.3	
⊠	TP-75+00	4.0	75	17.897	1.72	0.202	46.0	38.8	4.2	
▲	TP-85+00	2.0	75	12.5	0.914	0.133	33.0	44.8	5.2	
★	TP-95+00	1.5	25	1.43	0.341	0.092	16.0	76.1	7.9	
⊙	TP-105+00	2.0	9.5	0.238			2.0	57.7	40.3	

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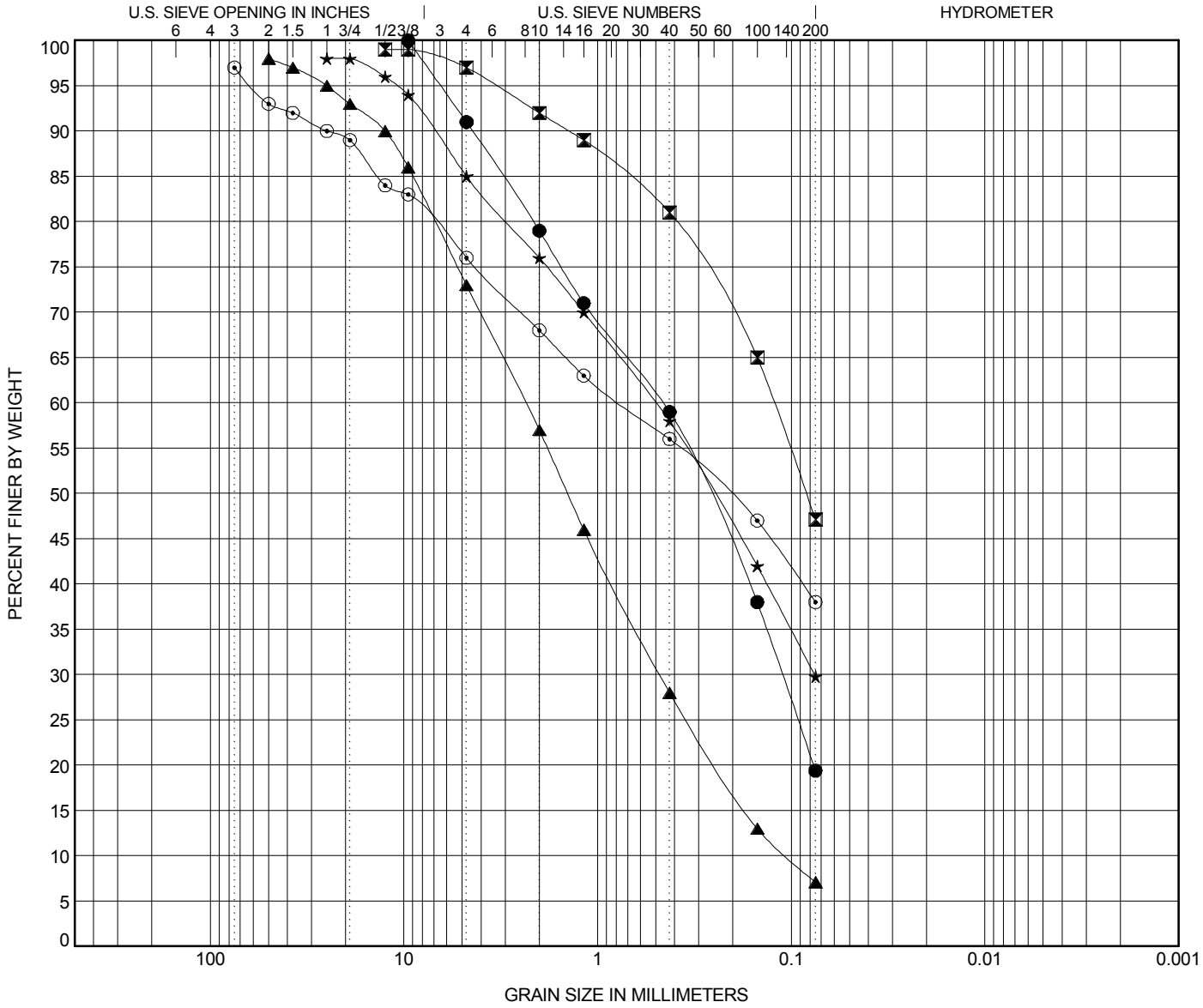

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-115+00**	**5.0**	**SILTY SAND(SM)**	**30**	**30**	**NP**		
⧗	**TP-125+00**	**0.0**	**CLAYEY SAND(SC)**	**29**	**15**	**14**		
▲	**TP-125+00**	**2.0**	**POORLY GRADED SAND with SILT and GRAVEL(SP-SM)**	**30**	**30**	**NP**	**0.91**	**22.31**
★	**TP-135+00**	**1.0**	**SILTY SAND with GRAVEL(SM)**	**39**	**28**	**11**		
⊙	**TP-145+00**	**1.0**	**CLAYEY SAND with GRAVEL(SC)**	**40**	**21**	**19**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-115+00**	**5.0**	**9.5**	**0.463**	**0.111**		**9.0**	**71.6**	**19.4**	
⧗	**TP-125+00**	**0.0**	**12.5**	**0.124**			**2.0**	**49.9**	**47.1**	
▲	**TP-125+00**	**2.0**	**50**	**2.352**	**0.476**	**0.105**	**25.0**	**65.9**	**7.1**	
★	**TP-135+00**	**1.0**	**25**	**0.504**	**0.076**		**13.0**	**55.2**	**29.8**	
⊙	**TP-145+00**	**1.0**	**75**	**0.762**			**21.0**	**38.0**	**38.0**	

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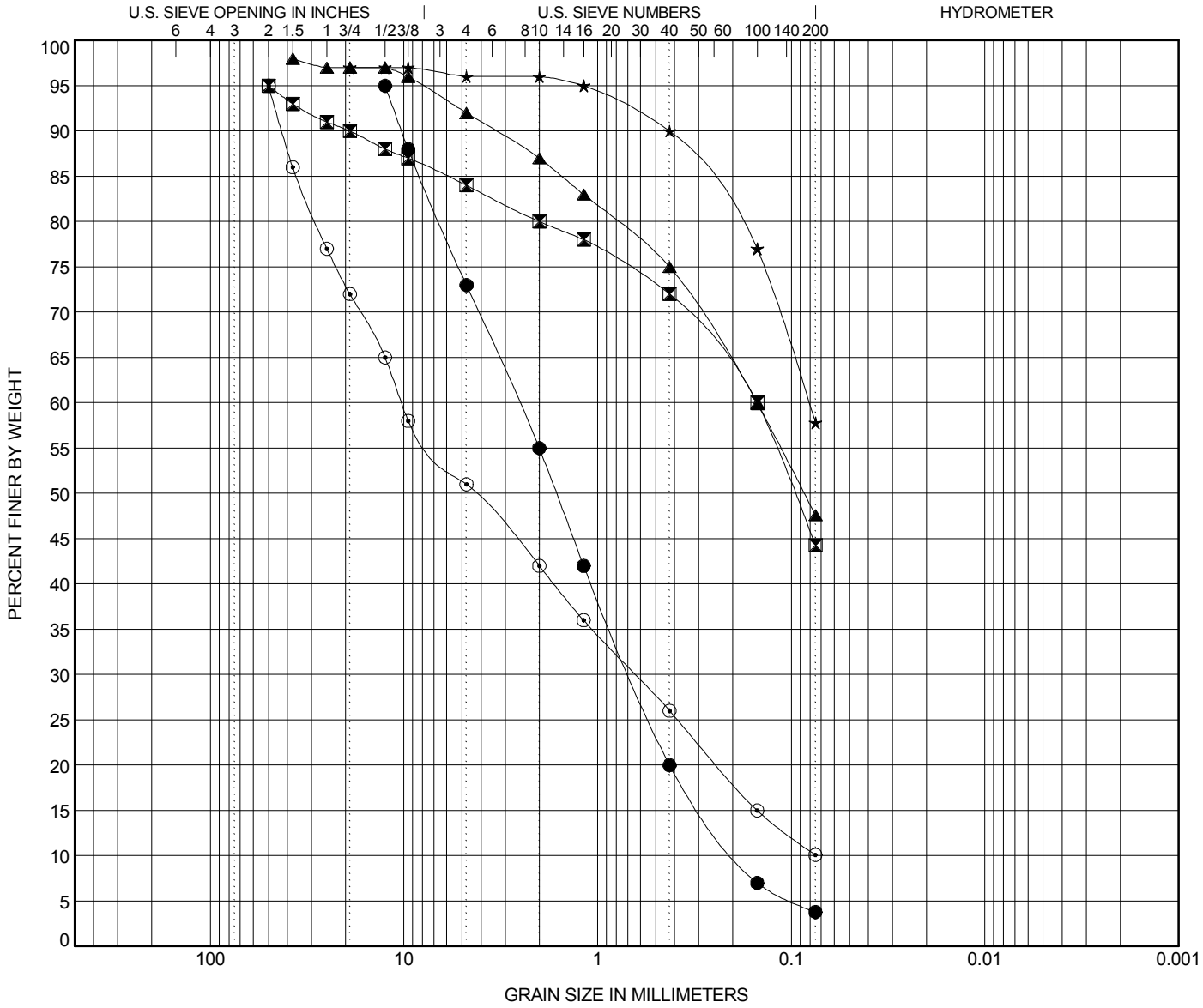

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-145+00	3.5	POORLY GRADED SAND with GRAVEL(SP)	30	30	NP	0.94	13.33
⧗	TP-170+00	0.0	CLAYEY SAND with GRAVEL(SC)	27	19	8		
▲	TP-190	0.0	SILTY SAND(SM)	39	26	13		
★	TP-215+00	0.0	SANDY FAT CLAY(CH)	50	20	30		
⊙	TP-225+00	4.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	36	30	6	0.54	138.95

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-145+00	3.5	12.5	2.543	0.676	0.191	22.0	69.2	3.8	
⧗	TP-170+00	0.0	50	0.15			11.0	39.7	44.3	
▲	TP-190	0.0	37.5	0.15			6.0	44.4	47.6	
★	TP-215+00	0.0	19	0.081			1.0	38.2	57.8	
⊙	TP-225+00	4.0	50	10.275	0.639		44.0	40.9	10.1	

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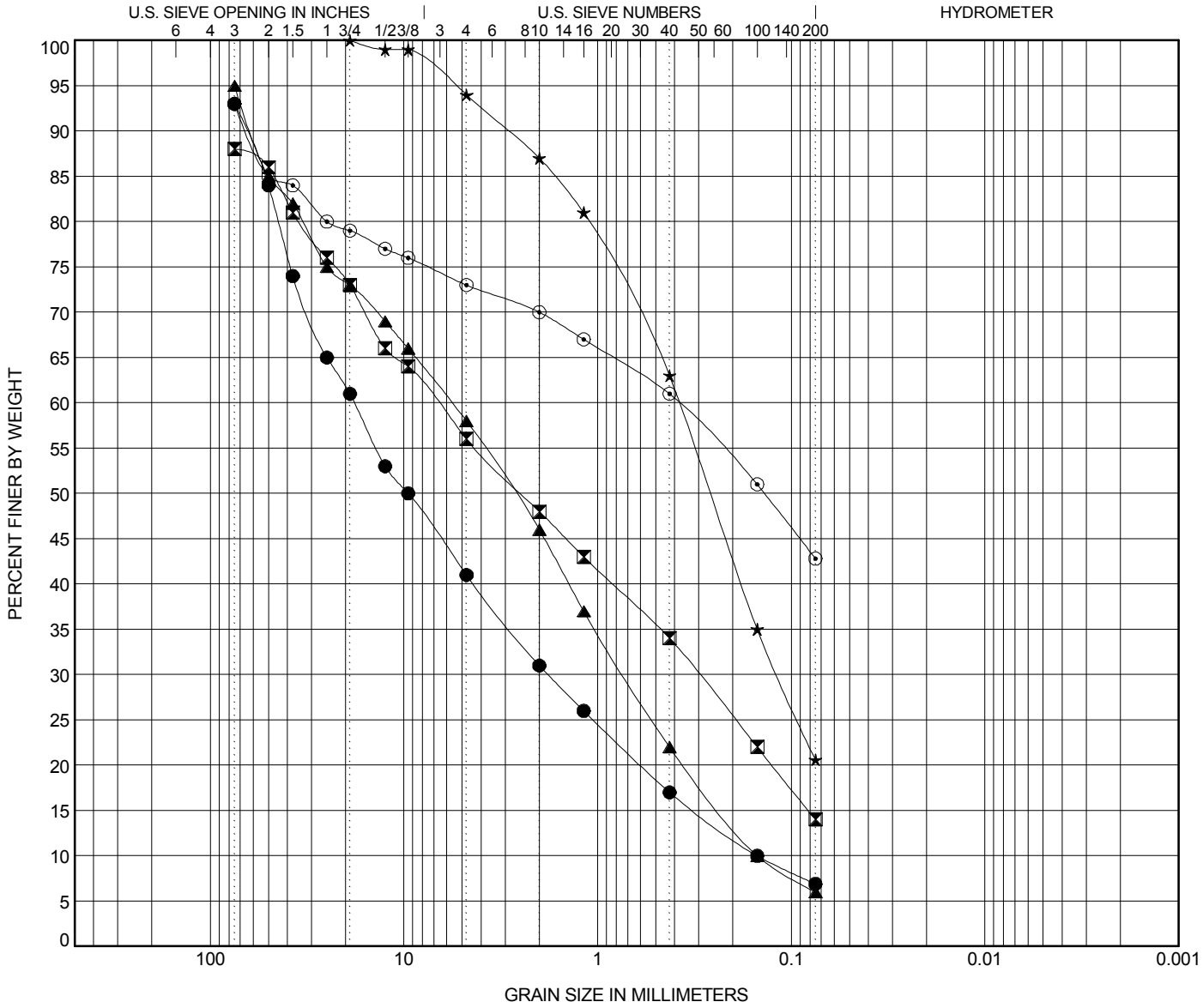

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-230+00**	**10.0**	**WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)**	**29**	**19**	**10**	**1.20**	**120.21**
⧓	**TP-230A**	**9.0**	**CLAYEY SAND with GRAVEL(SC)**	**40**	**24**	**16**		
▲	**TP-235+00**	**3.0**	**POORLY GRADED SAND with CLAY and GRAVEL(SP-SC)**	**46**	**27**	**19**	**0.63**	**37.66**
★	**TP-235A**	**15.0**	**CLAYEY SAND(SC)**	**37**	**22**	**15**		
⊙	**TP-255+00**	**0.0**	**CLAYEY SAND with GRAVEL(SC)**	**37**	**16**	**21**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-230+00**	**10.0**	**75**	**18.031**	**1.8**	**0.15**	**52.0**	**34.1**	**6.9**	
⧓	**TP-230A**	**9.0**	**75**	**6.718**	**0.3**		**32.0**	**42.0**	**14.0**	
▲	**TP-235+00**	**3.0**	**75**	**5.649**	**0.733**	**0.15**	**37.0**	**52.0**	**6.0**	
★	**TP-235A**	**15.0**	**19**	**0.38**	**0.118**		**6.0**	**73.4**	**20.6**	
⊙	**TP-255+00**	**0.0**	**75**	**0.383**			**20.0**	**30.2**	**42.8**	

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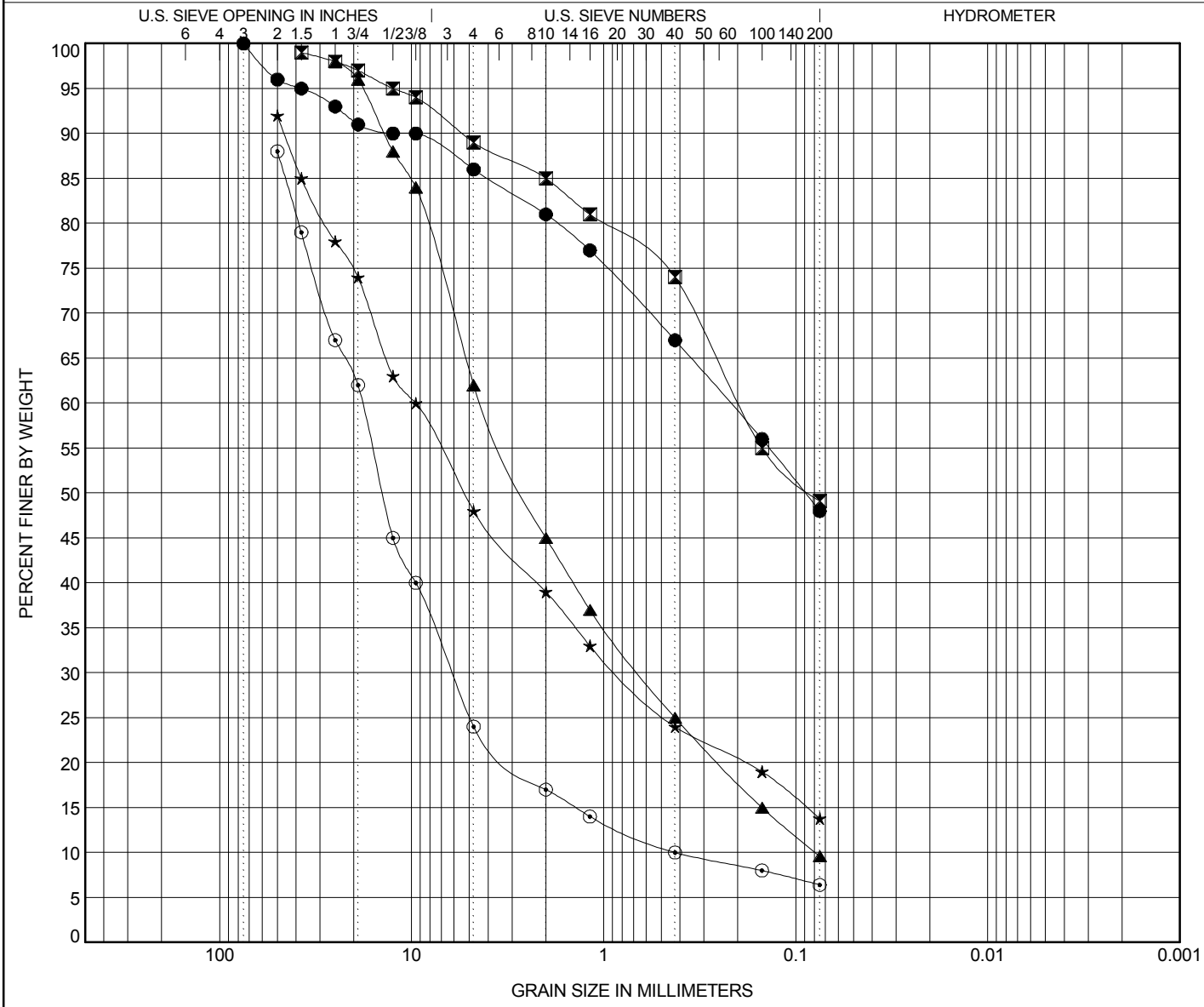

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-275+00**	**0.0**	**CLAYEY SAND(SC)**	**40**	**24**	**16**		
⧗	**TP-295+00**	**0.0**	**CLAYEY SAND(SC)**	**35**	**18**	**17**		
▲	**TP-310+00**	**4.0**	**WELL-GRADED SAND with SILT and GRAVEL(SW-SM)**	**55**	**32**	**23**	**1.25**	**54.34**
★	**TP-315**	**6.0**	**CLAYEY GRAVEL with SAND(GC)**	**37**	**24**	**13**		
⊙	**TP-330+00**	**18.0**	**POORLY GRADED GRAVEL with CLAY and SAND(GP-GC)**	**32**	**22**	**10**	**4.94**	**42.56**

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-275+00**	**0.0**	**75**	**0.219**			**14.0**	**38.0**	**48.0**	
⧗	**TP-295+00**	**0.0**	**37.5**	**0.197**			**10.0**	**39.9**	**49.1**	
▲	**TP-310+00**	**4.0**	**25**	**4.29**	**0.65**	**0.079**	**36.0**	**52.4**	**9.6**	
★	**TP-315**	**6.0**	**50**	**9.5**	**0.84**		**44.0**	**34.2**	**13.8**	
⊙	**TP-330+00**	**18.0**	**50**	**18.087**	**6.16**	**0.425**	**64.0**	**17.6**	**6.4**	

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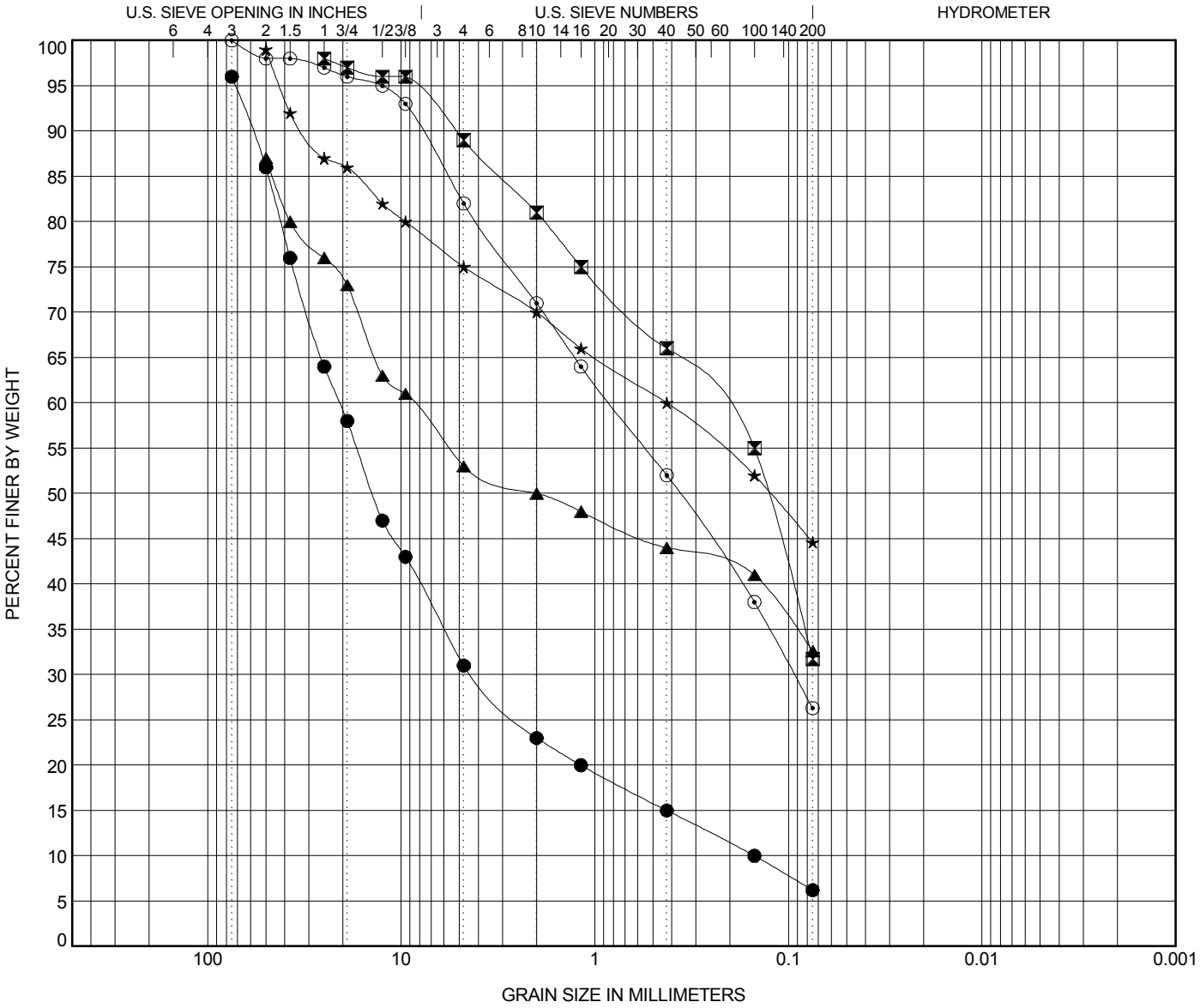

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-330A**	**10.0**	**POORLY GRADED GRAVEL with SILT and SAND(GP-GM)**	**44**	**29**	**15**	**5.82**	**138.80**
⧗	**TP-330B**	**8.0**	**SILTY SAND(SM)**	**24**	**22**	**2**		
▲	**TP-330B**	**13.0**	**CLAYEY GRAVEL with SAND(GC)**	**29**	**16**	**13**		
★	**TP-330C**	**3.0**	**CLAYEY SAND with GRAVEL(SC)**	**43**	**25**	**18**		
⊙	**TP-335+00**	**4.0**	**SILTY SAND with GRAVEL(SM)**	**22**	**21**	**1**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-330A**	**10.0**	**75**	**20.82**	**4.263**	**0.15**	**65.0**	**24.8**	**6.2**	
⧗	**TP-330B**	**8.0**	**25**	**0.241**			**9.0**	**57.3**	**31.7**	
▲	**TP-330B**	**13.0**	**50**	**8.712**			**34.0**	**20.4**	**32.6**	
★	**TP-330C**	**3.0**	**50**	**0.425**			**24.0**	**30.4**	**44.6**	
⊙	**TP-335+00**	**4.0**	**75**	**0.84**	**0.093**		**18.0**	**55.7**	**26.3**	

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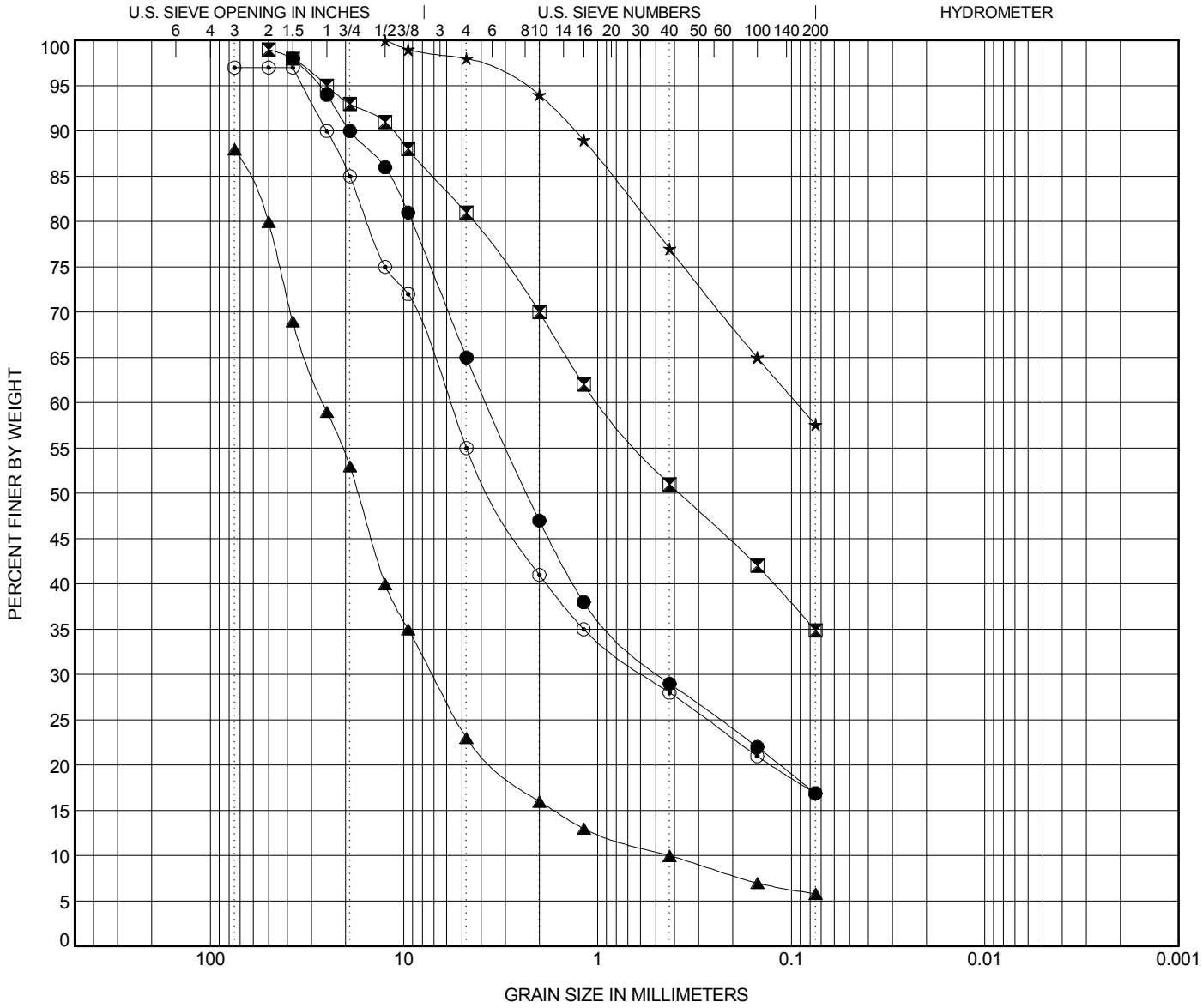

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-345A**	**2.0**	**SILTY, CLAYEY SAND with GRAVEL(SC-SM)**	**28**	**21**	**7**		
⧗	**TP-345B**	**5.0**	**CLAYEY SAND with GRAVEL(SC)**	**31**	**18**	**13**		
▲	**TP-355+00**	**2.0**	**POORLY GRADED GRAVEL with CLAY and SAND(GP-GC)**	**40**	**24**	**16**	**4.58**	**61.26**
★	**TP-385+00**	**0.0**	**SANDY LEAN CLAY(CL)**	**39**	**21**	**18**		
⊙	**TP-405+00**	**13.0**	**CLAYEY GRAVEL with SAND(GC)**	**36**	**22**	**14**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-345A**	**2.0**	**37.5**	**3.735**	**0.476**		**33.0**	**48.1**	**16.9**	
⧗	**TP-345B**	**5.0**	**50**	**0.98**			**18.0**	**46.1**	**34.9**	
▲	**TP-355+00**	**2.0**	**75**	**26.034**	**7.117**	**0.425**	**65.0**	**17.2**	**5.8**	
★	**TP-385+00**	**0.0**	**12.5**	**0.094**			**2.0**	**40.4**	**57.6**	
⊙	**TP-405+00**	**13.0**	**75**	**5.824**	**0.569**		**42.0**	**38.1**	**16.9**	

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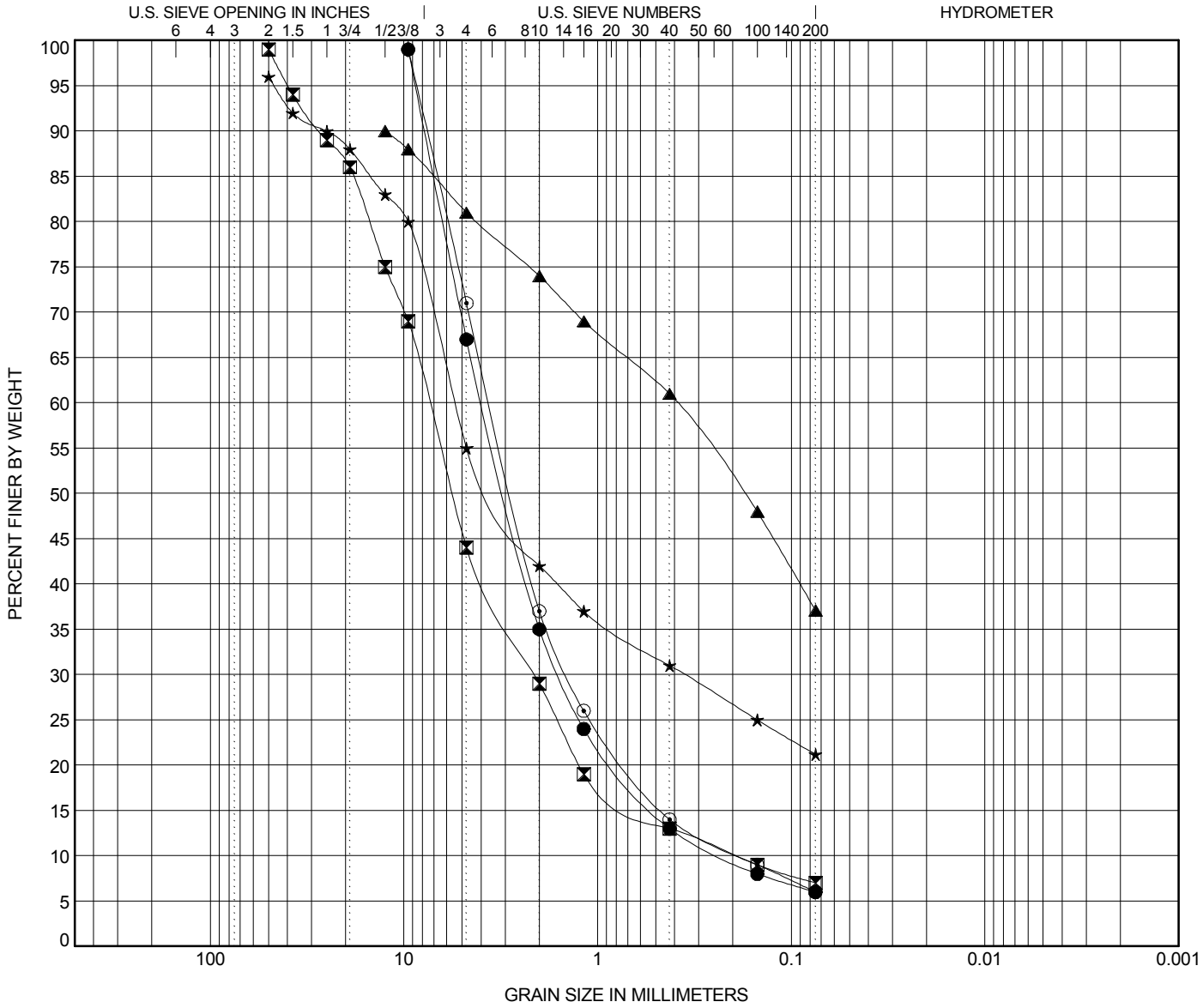

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-405A	3.0	WELL-GRADED SAND with CLAY and GRAVEL(SW-SC)	29	17	12	2.77	17.28
⊠	TP-415+00	12.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	44	27	17	3.12	38.04
▲	TP-420A	1.0	CLAYEY SAND with GRAVEL(SC)	32	19	13		
★	TP-425+00	1.0	SILTY GRAVEL with SAND(GM)	37	26	11		
⊙	TP-435A	8.0	POORLY GRADED SAND with SILTY CLAY and GRAVEL(SP-SC)	25	19	6	3.08	19.44

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-405A	3.0	9.5	3.931	1.574	0.228	32.0	61.0	6.0	
⊠	TP-415+00	12.0	50	7.402	2.119	0.195	55.0	37.0	7.0	
▲	TP-420A	1.0	12.5	0.392			9.0	43.9	37.1	
★	TP-425+00	1.0	50	5.456	0.357		41.0	33.8	21.2	
⊙	TP-435A	8.0	9.5	3.591	1.43	0.185	28.0	65.0	6.0	

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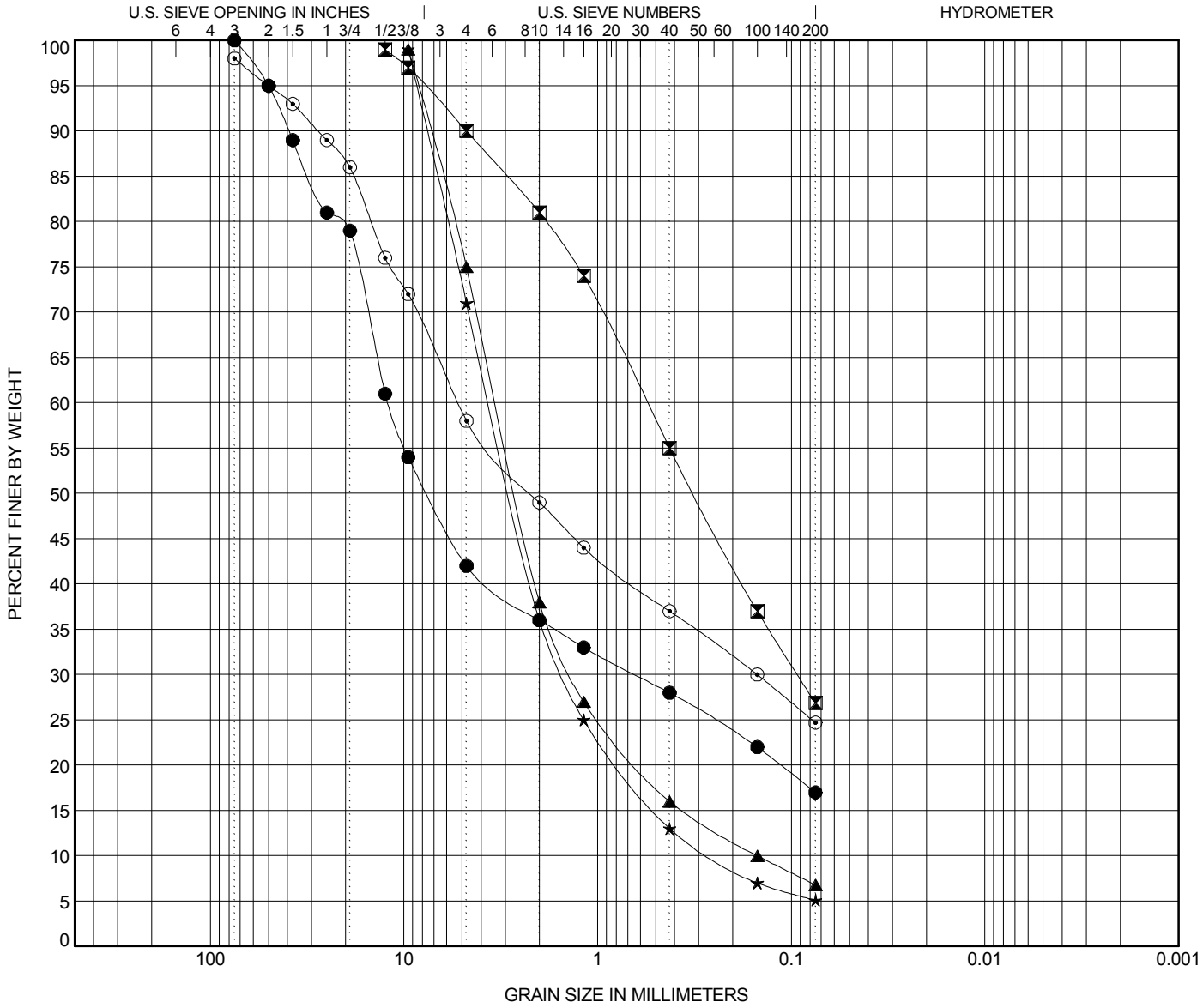
GRAIN SIZE DISTRIBUTION

CLIENT Jacobs Engineering Group, Inc **PROJECT NAME** USA Parkway

PROJECT NUMBER 8480.001 **PROJECT LOCATION** See Site Plan



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	**TP-435B**	**0.0**	**CLAYEY GRAVEL with SAND(GC)**	**39**	**23**	**16**		
⊠	**TP-440+00**	**10.0**	**CLAYEY SAND(SC)**	**37**	**23**	**14**		
▲	**TP-450+00**	**4.0**	**POORLY GRADED SAND with CLAY and GRAVEL(SP-SC)**	**29**	**15**	**14**	**3.70**	**22.30**
★	**TP-455A**	**7.0**	**WELL-GRADED SAND with CLAY and GRAVEL(SW-SC)**	**24**	**15**	**9**	**2.46**	**14.33**
⊙	**TP-465+00**	**0.0**	**CLAYEY GRAVEL with SAND(GC)**	**43**	**26**	**17**		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**TP-435B**	**0.0**	**75**	**12.019**	**0.639**		**58.0**	**25.0**	**17.0**	
⊠	**TP-440+00**	**10.0**	**12.5**	**0.556**	**0.093**		**9.0**	**63.1**	**26.9**	
▲	**TP-450+00**	**4.0**	**9.5**	**3.345**	**1.363**	**0.15**	**24.0**	**68.2**	**6.8**	
★	**TP-455A**	**7.0**	**9.5**	**3.619**	**1.5**	**0.252**	**28.0**	**65.9**	**5.1**	
⊙	**TP-465+00**	**0.0**	**75**	**5.244**	**0.15**		**40.0**	**33.3**	**24.7**	

GRAIN SIZE - GINT STD US LAB.GDT - 3/4/13 13:12 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

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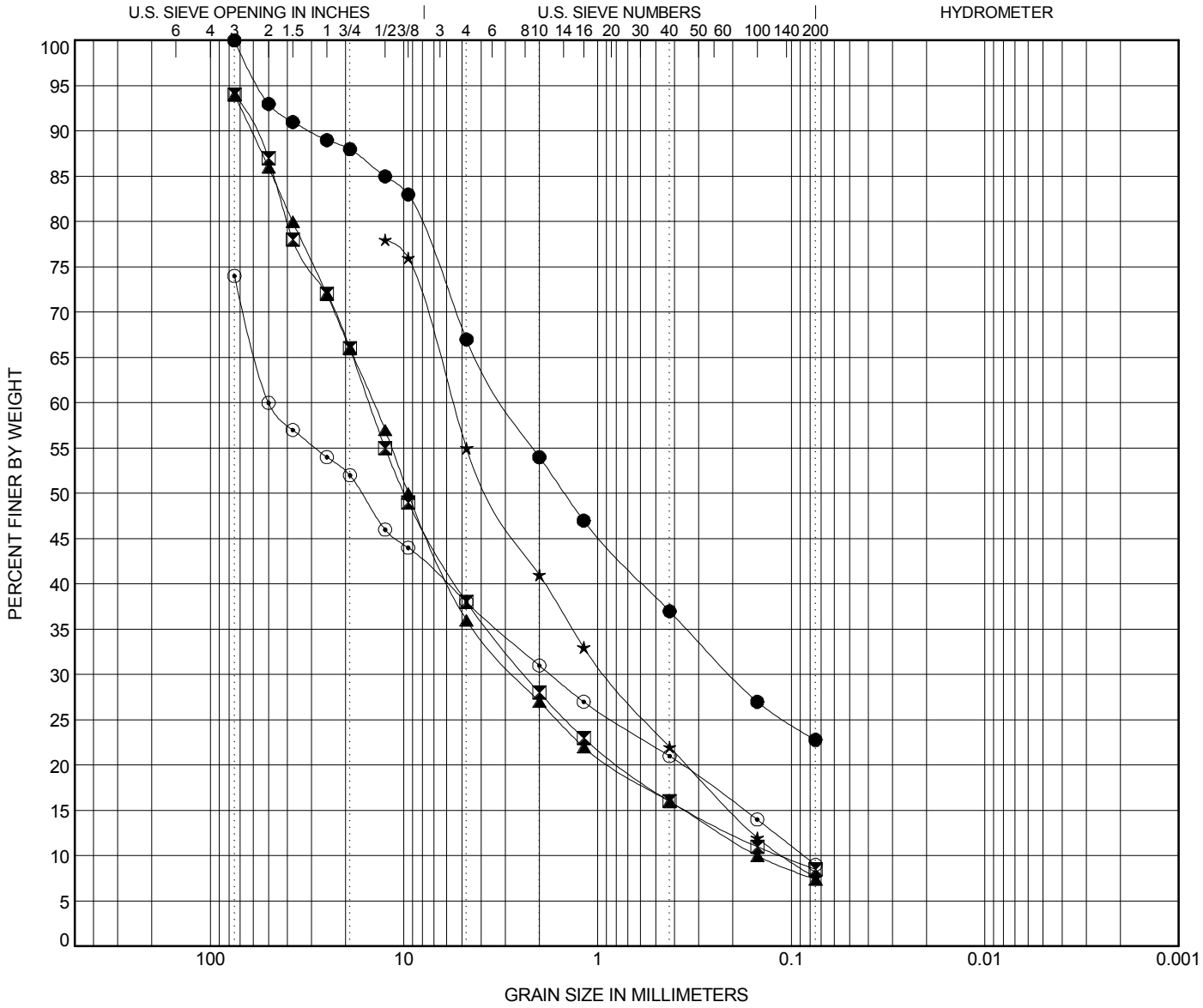

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-475+00	1.0	SILTY SAND with GRAVEL(SM)	43	27	16		
⧗	TP-490+00	0.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	32	26	6	3.29	133.01
▲	TP-510+00	1.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	35	26	9	3.30	95.81
★	TP-525+00	1.0	WELL-GRADED SAND with SILT and GRAVEL(SW-SM)	49	46	3	1.30	51.18
⊙	TP-535+00	2.0	CLAYEY GRAVEL with SAND(GC)	31	22	9	0.71	580.37

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-475+00	1.0	75	2.981	0.205		33.0	44.2	22.8	
⧗	TP-490+00	0.0	75	15.121	2.378	0.114	56.0	29.5	8.5	
▲	TP-510+00	1.0	75	14.372	2.668	0.15	58.0	28.6	7.4	
★	TP-525+00	1.0	12.5	5.602	0.893	0.109	23.0	47.4	7.6	
⊙	TP-535+00	2.0	75	50	1.753	0.086	36.0	29.0	9.0	

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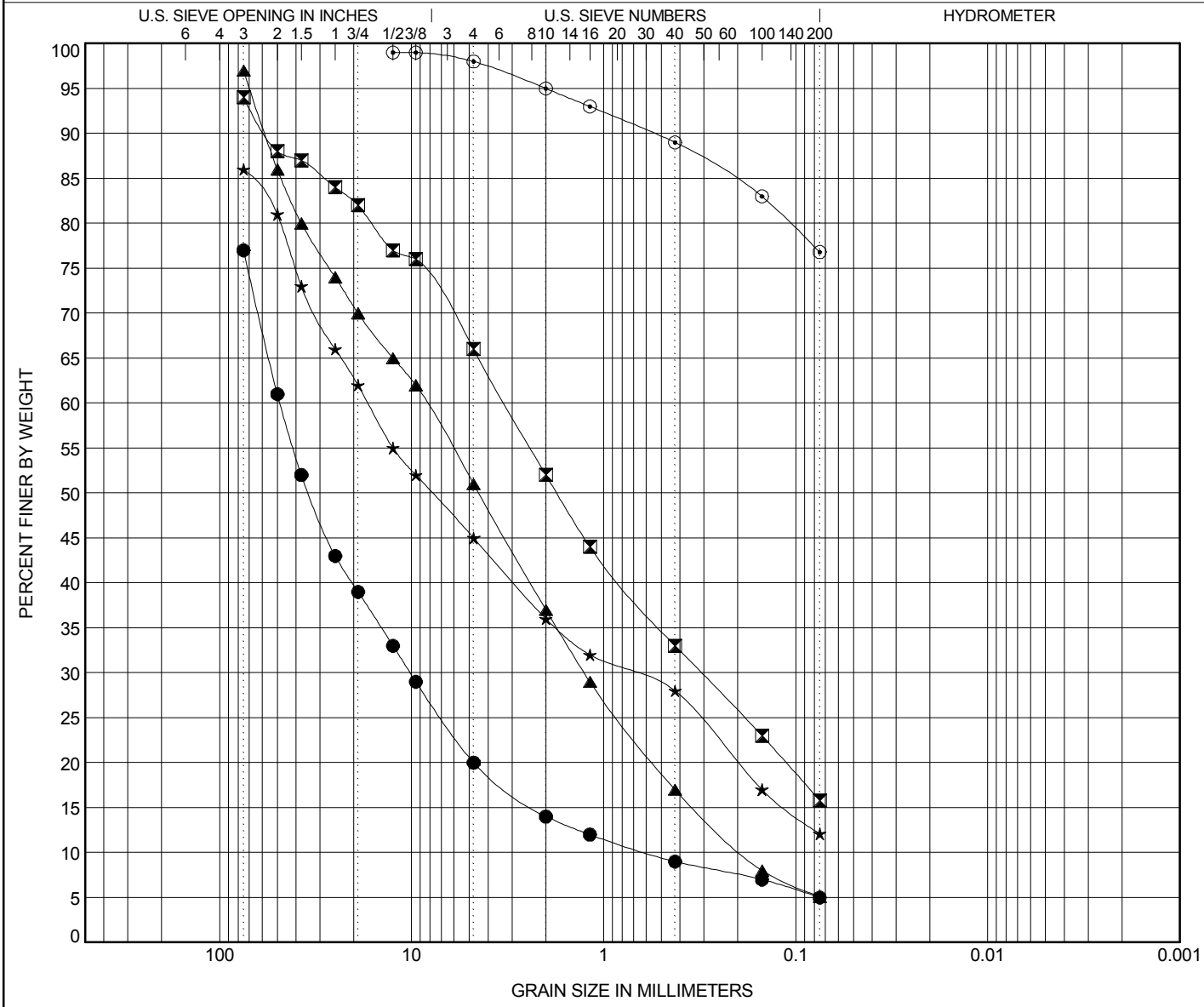

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-545+00	0.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	23	24	NP	3.58	81.07
⧗	TP-555+00	1.0	CLAYEY SAND with GRAVEL(SC)	27	19	8		
▲	TP-570+00	0.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	21	18	3	1.00	44.30
★	TP-590+00	0.0	CLAYEY GRAVEL with SAND(GC)	39	25	14	0.53	302.52
⊙	TP-605+00	0.0	LEAN CLAY with SAND(CL)	46	18	28		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-545+00	0.0	75	48.427	10.175	0.597	57.0	15.0	5.0	
⧗	TP-555+00	1.0	75	3.279	0.311		28.0	50.2	15.8	
▲	TP-570+00	0.0	75	8.375	1.26	0.189	46.0	45.9	5.1	
★	TP-590+00	0.0	75	16.858	0.708		41.0	32.9	12.1	
⊙	TP-605+00	0.0	12.5				1.0	21.2	76.8	

GRAIN SIZE - GINT STD US LAB.GDT - 3/4/13 13:12 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ

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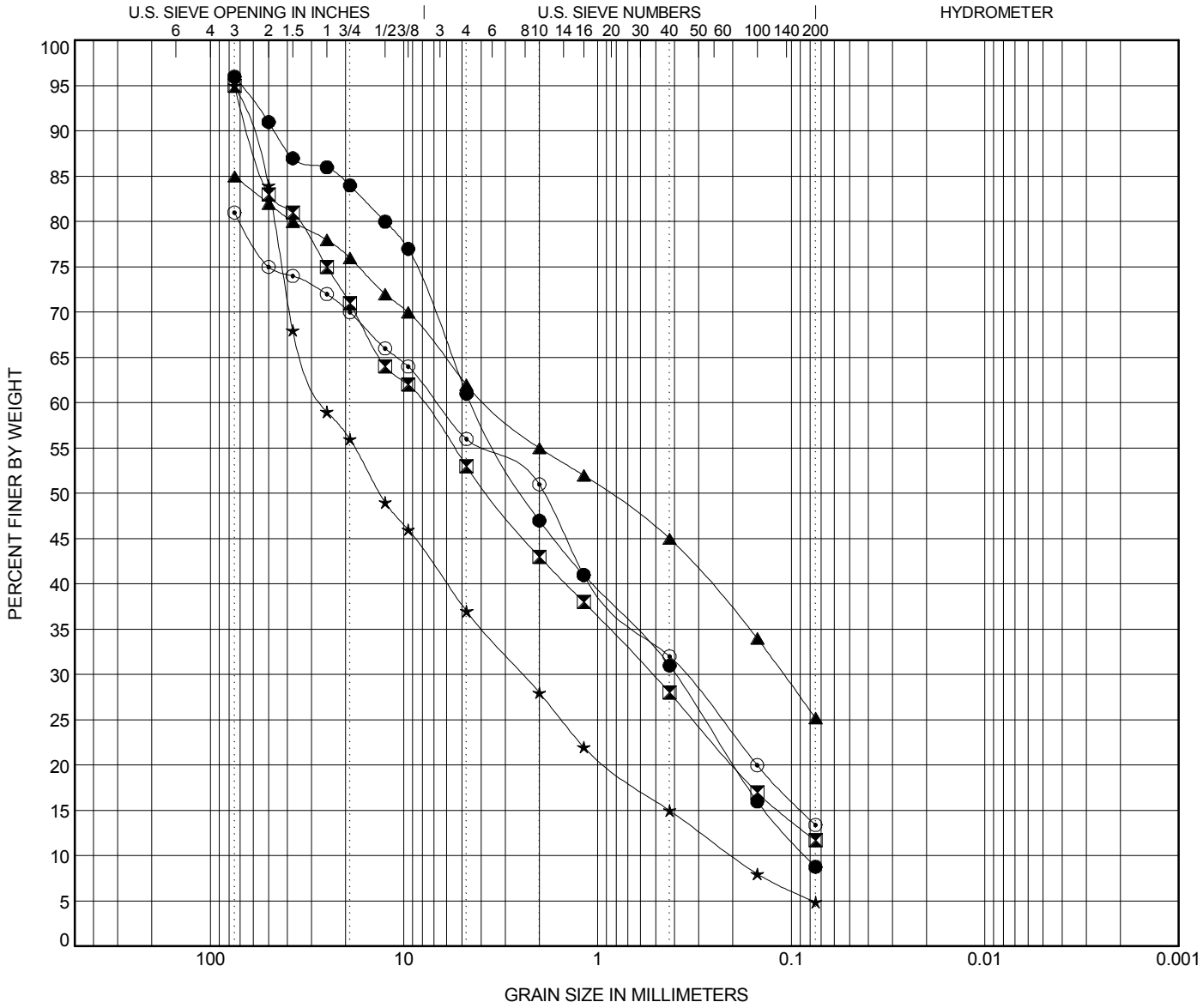
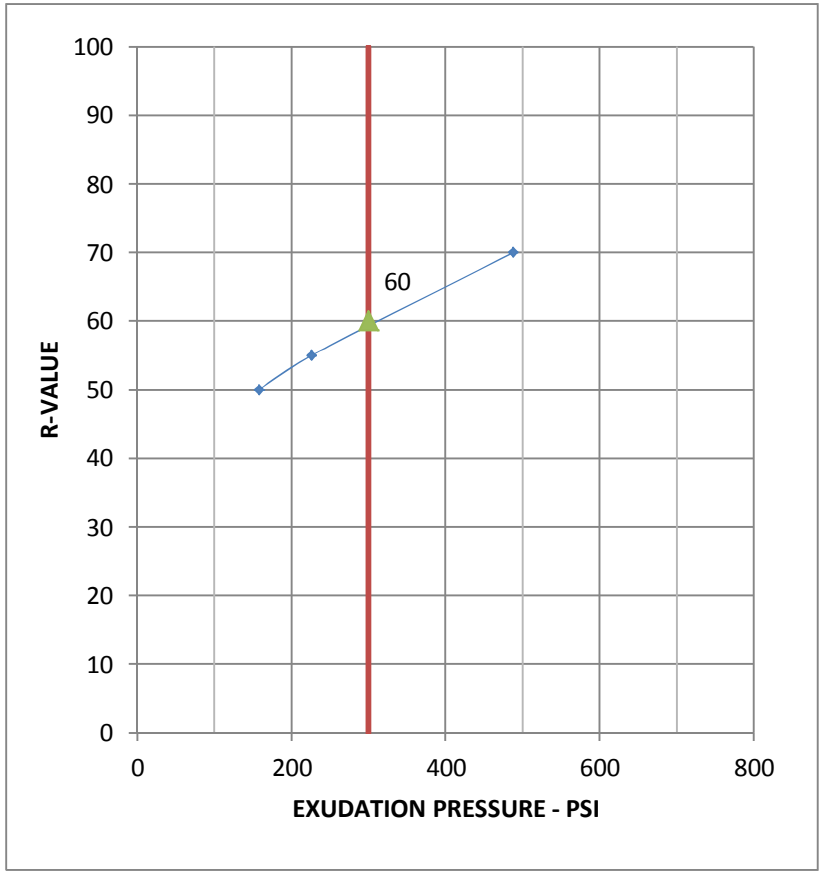


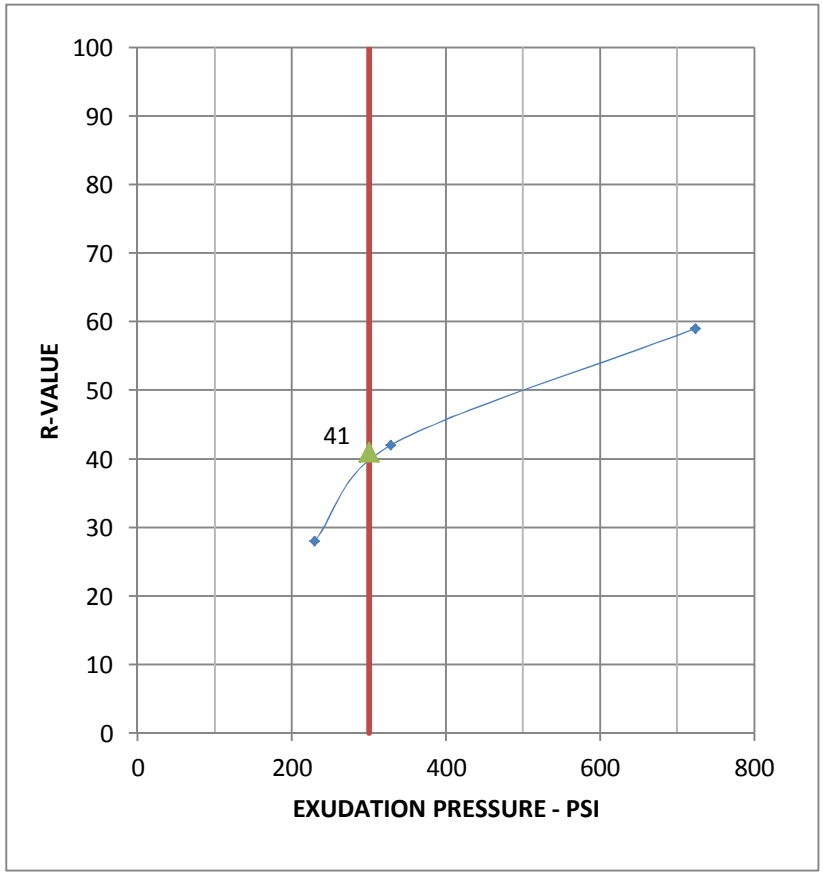
COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	TEST PIT	DEPTH	Classification	LL	PL	PI	Cc	Cu
●	TP-620+00	0.0	POORLY GRADED SAND with SILT and GRAVEL(SP-SM)	32	27	5	0.42	52.96
⧗	TP-640+00	0.0	CLAYEY GRAVEL with SAND(GC)	31	20	11	0.56	135.62
▲	TP-655+00	0.0	SILTY SAND with GRAVEL(SM)	45	27	18		
★	TP-670+00	0.0	WELL-GRADED GRAVEL with CLAY and SAND(GW-GC)	44	26	18	1.11	129.48
⊙	TP-680+00	2.0	SILTY SAND with GRAVEL(SM)	32	27	5		

	TEST PIT	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-620+00	0.0	75	4.465	0.396	0.084	35.0	52.2	8.8	
⧗	TP-640+00	0.0	75	8.144	0.521		42.0	41.3	11.7	
▲	TP-655+00	0.0	75	3.71	0.109		23.0	36.8	25.2	
★	TP-670+00	0.0	75	26.152	2.424	0.202	58.0	32.1	4.9	
⊙	TP-680+00	2.0	75	6.718	0.357		25.0	42.6	13.4	

GRAIN SIZE - GINT STD US LAB.GDT - 3/4/13 13:12 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\USA PARKWAY\NEW PROJECT.GPJ





Test Summary Table - Sta 15+00 & 25+00			
Unit Weight (pcf)	113.5	112.1	111.1
Moisture (%)	12.5	12.0	11.5
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	158	226	488
Expansion Pressure (psf)	5	13	13
$R\text{-}Value_{300psi\ Exudation}$	50	56	70

Test Summary Table - Sta 45+00			
Unit Weight (pcf)	112.0	111.9	115.9
Moisture (%)	12.1	11.0	10.0
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	230	329	724
Expansion Pressure (psf)	4	7	11
$R\text{-}Value_{300psi\ Exudation}$	28	42	59

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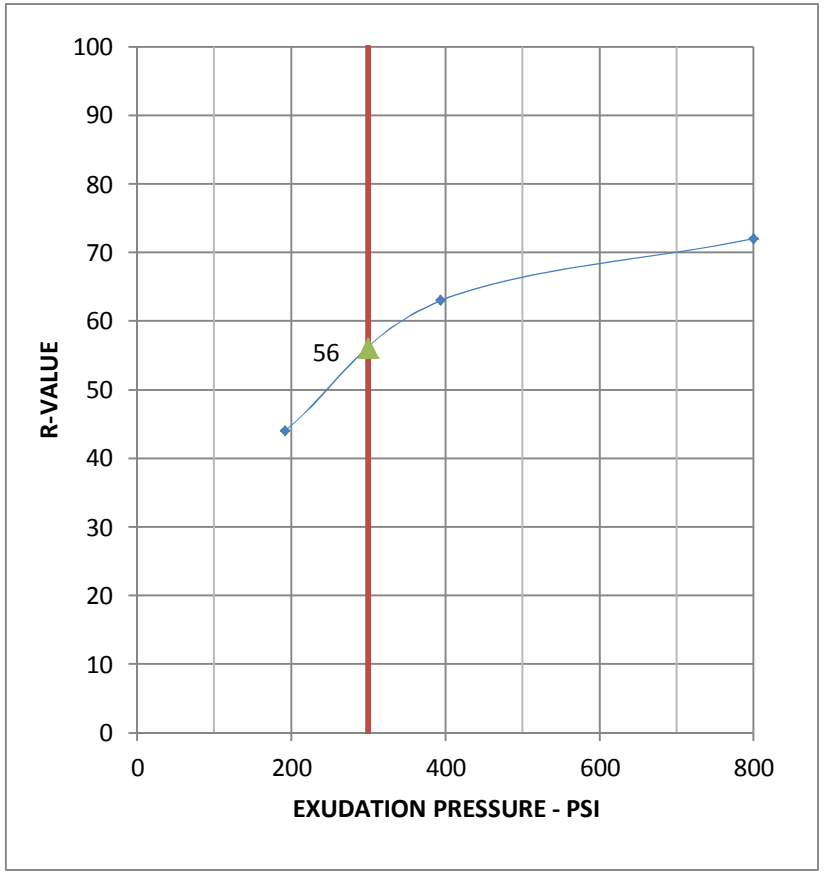
SUMMARY OF R-VALUE TEST DATA

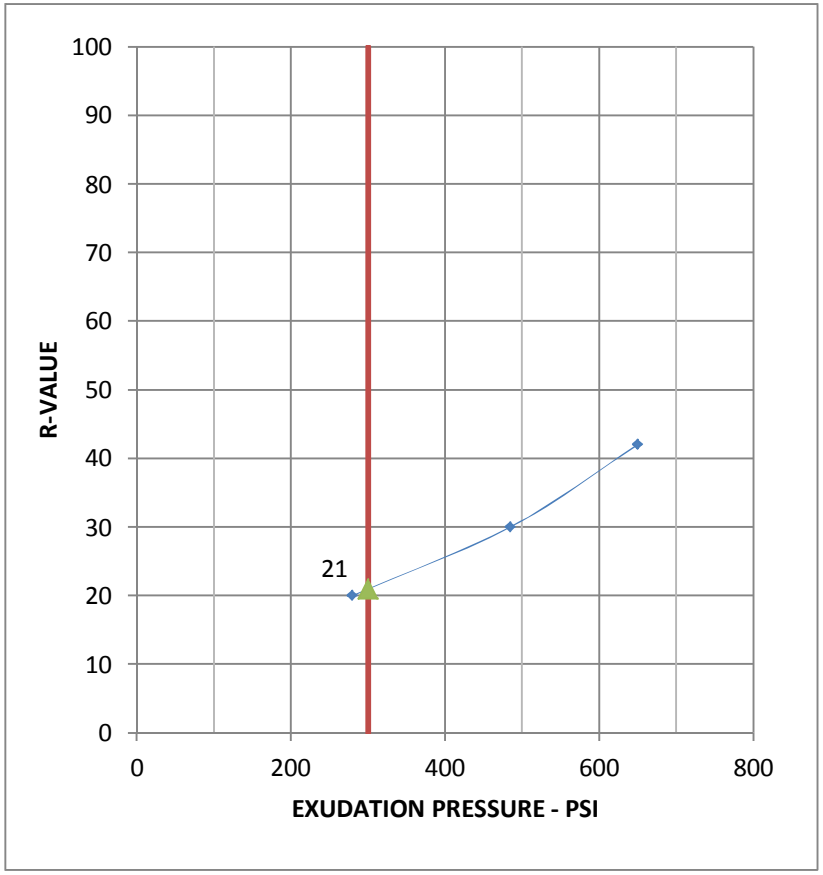
Geotechnical Investigation

USA Parkway

Project No.: 8480.001
Date: 3.4.13

PLATE R1





Test Summary Table - Sta 55+00			
Unit Weight (pcf)	108.4	109.6	108.0
Moisture (%)	14.2	13.4	12.2
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	192	394	800
Expansion Pressure (psf)	16	21	27
$R\text{-}Value_{300psi\ Exudation}$	44	63	72

Test Summary Table - Sta 65+00			
Unit Weight (pcf)	19.4	22.4	23.2
Moisture (%)	17.6	20.1	23.2
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	280	485	650
Expansion Pressure (psf)	16	26	65
$R\text{-}Value_{300psi\ Exudation}$	20	30	42

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SUMMARY OF R-VALUE TEST DATA

Geotechnical Investigation

USA Parkway

Project No.: 8480.001
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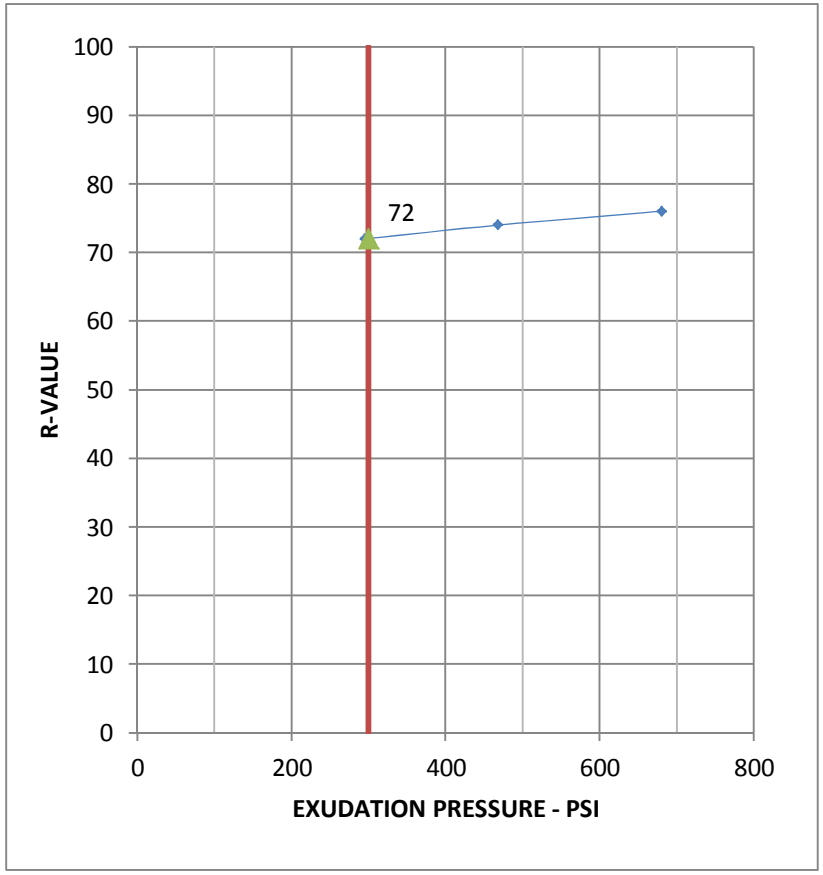
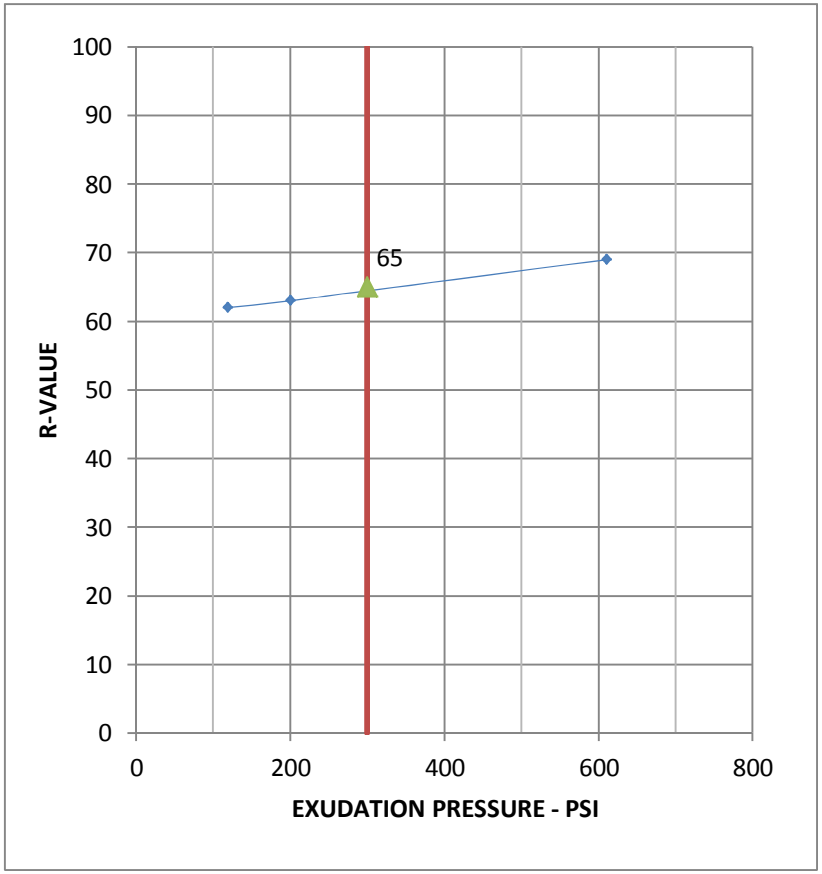
PLATE R2





Test Summary Table - Sta 75+00			
Unit Weight (pcf)	116.2	112.2	117.2
Moisture (%)	12.7	11.7	14.0
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	295	468	680
Expansion Pressure (psf)	13	17	17
$R\text{-}Value_{300psi\ Exudation}$	72	74	76

Test Summary Table - Sta 85+00			
Unit Weight (pcf)	100.6	98.1	100.3
Moisture (%)	19.1	18.0	17.0
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	119	200	610
Expansion Pressure (psf)	13	16	30
$R\text{-}Value_{300psi\ Exudation}$	62	63	69

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SUMMARY OF R-VALUE TEST DATA

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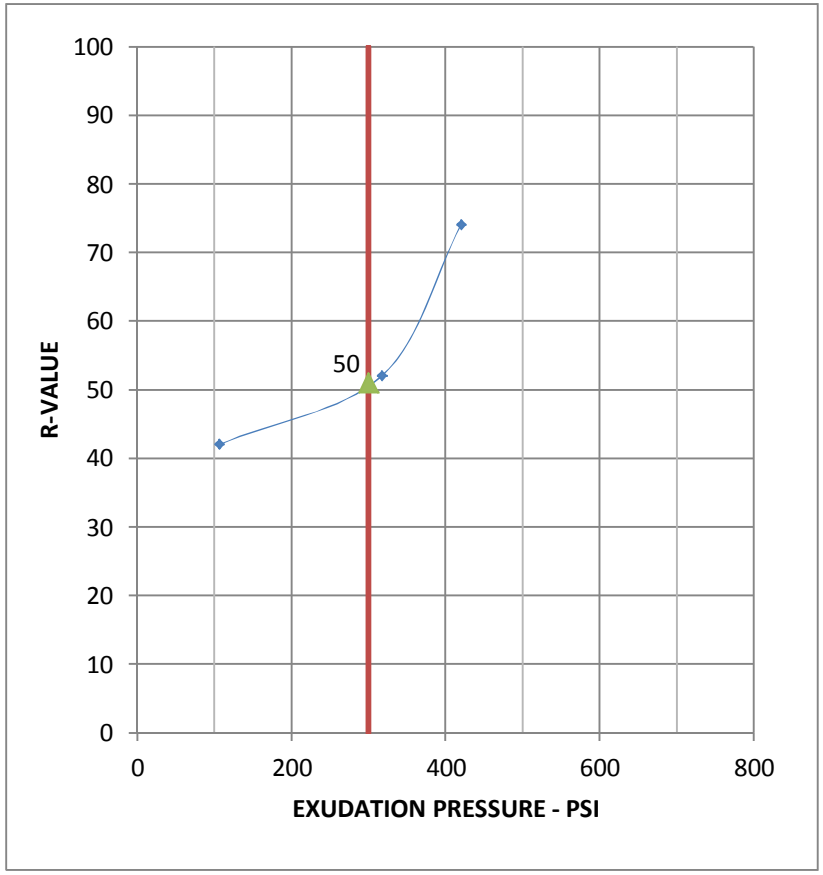
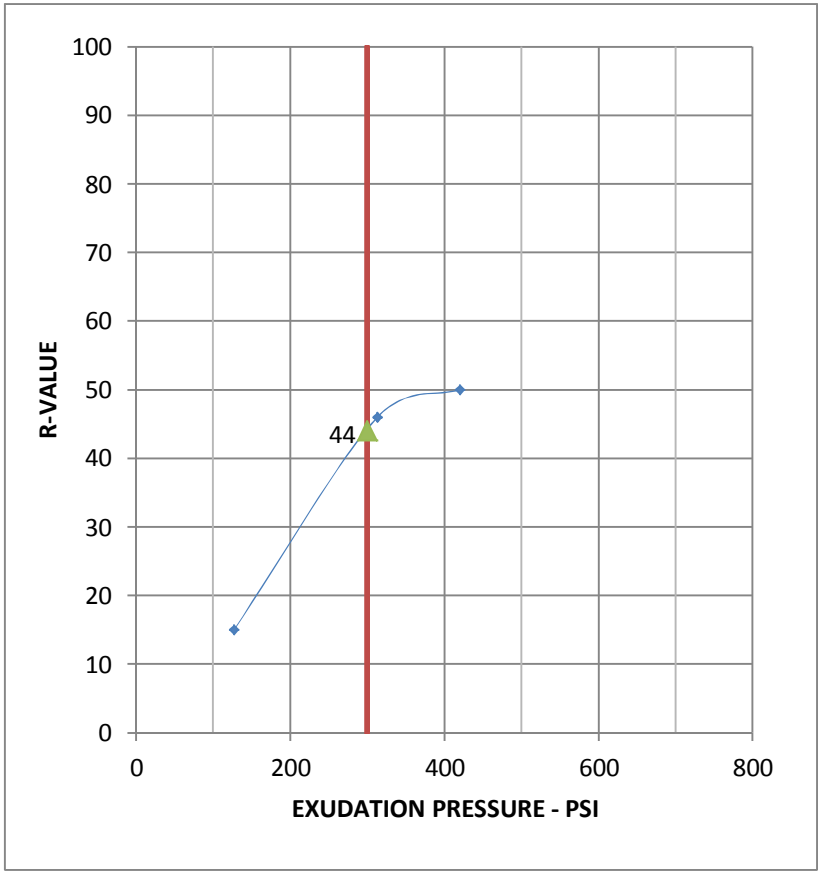
PLATE R3





Test Summary Table - Sta 95+00, 1.5-2.5'			
Unit Weight (pcf)	113.6	110.6	110.4
Moisture (%)	15.0	14.5	13.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	106	317	420
Expansion Pressure (psf)	0	2	3
$R\text{-}Value_{300psi\ Exudation}$	42	52	74

Test Summary Table - Sta 105+00, 2-3'			
Unit Weight (pcf)	99.9	103.3	104.9
Moisture (%)	24.6	22.6	20.9
Foot Pressure (psi)	150	200	200
Exudation Pressure (psi)	127	313	420
Expansion Pressure (psf)	5	5	8
$R\text{-}Value_{300psi\ Exudation}$	15	46	34

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SUMMARY OF R-VALUE TEST DATA

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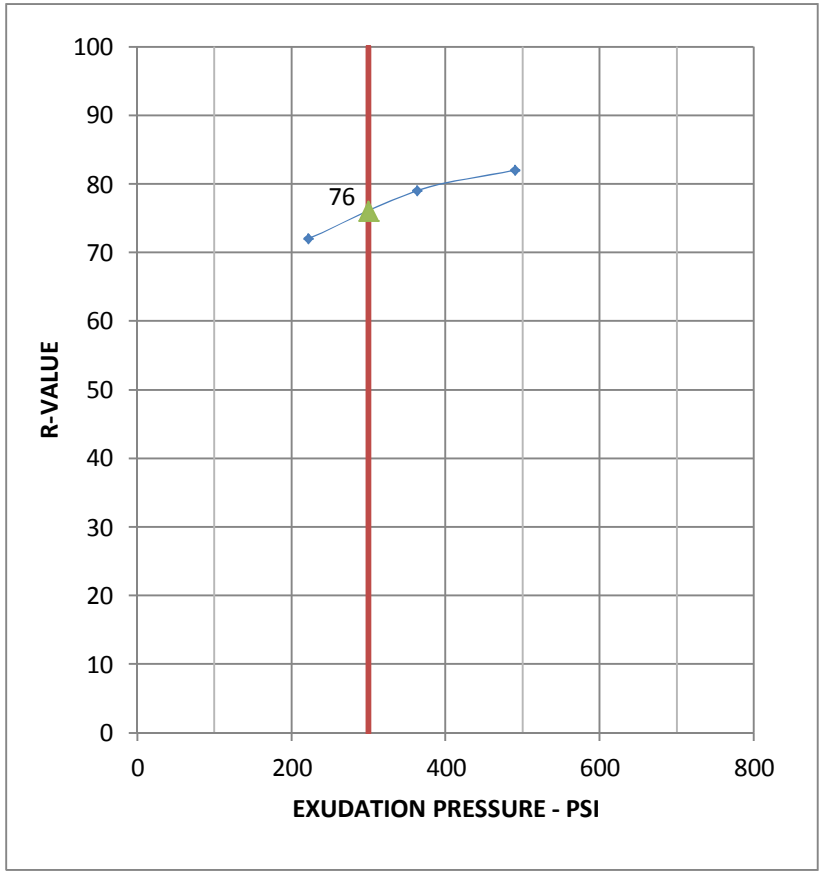
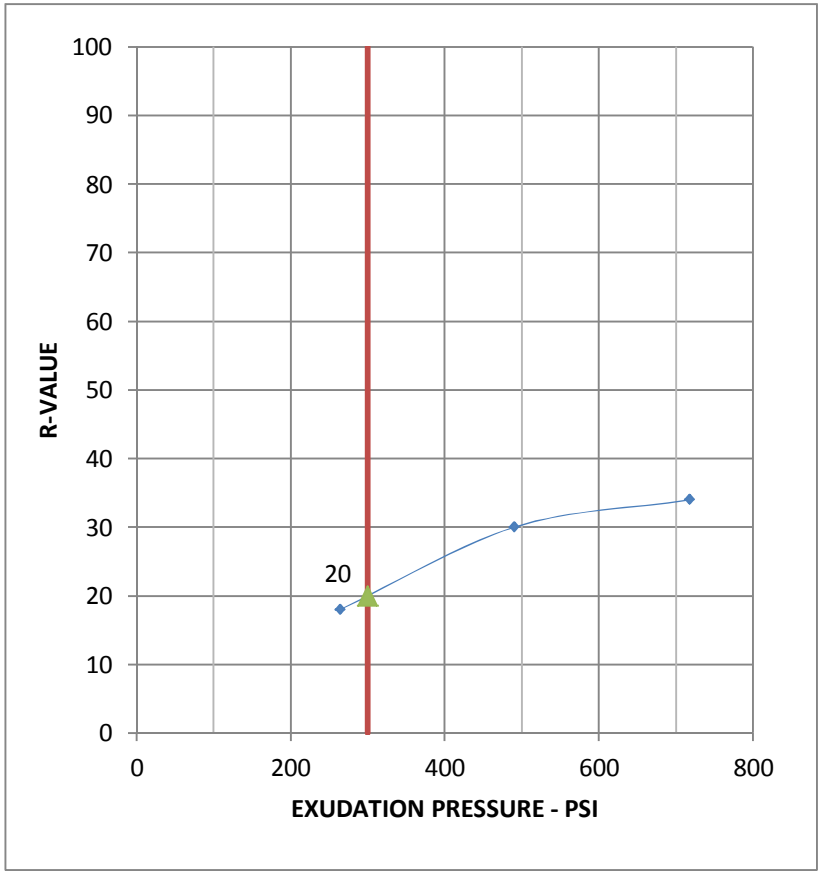
PLATE R4





Test Summary Table - Sta 115+00, 5-6'			
Unit Weight (pcf)	75.2	77.5	73.1
Moisture (%)	46.3	45.3	43.5
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	222	363	490
Expansion Pressure (psf)	0	0	0
$R\text{-}Value_{300psi\ Exudation}$	72	79	82

Test Summary Table - Sta 145+00, 1-2'			
Unit Weight (pcf)	92.9	98.4	104.0
Moisture (%)	26.8	23.6	21.2
Foot Pressure (psi)	100	150	200
Exudation Pressure (psi)	264	490	718
Expansion Pressure (psf)	6	11	31
$R\text{-}Value_{300psi\ Exudation}$	18	30	34

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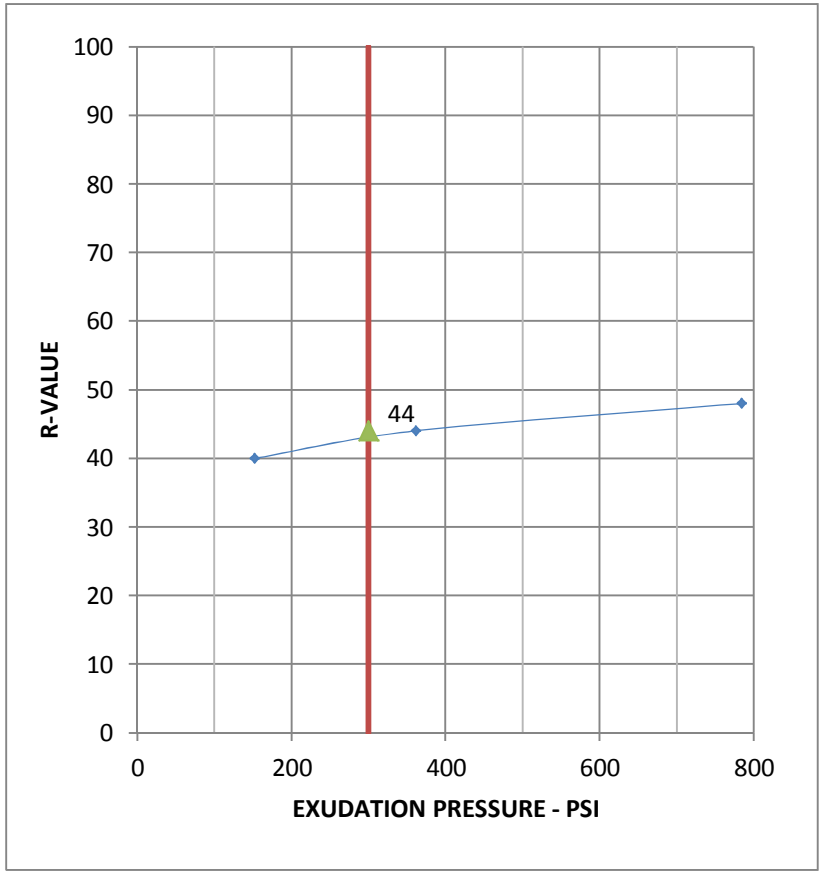
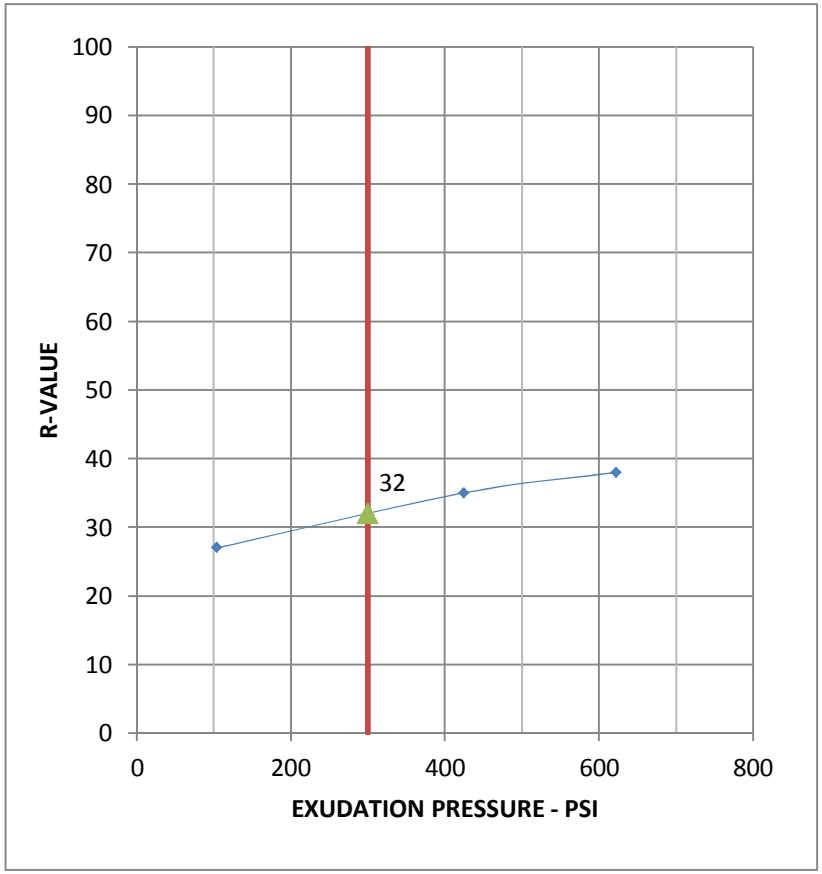
PLATE R5





Test Summary Table - Sta 230+00 10-11'			
Unit Weight (pcf)	114.0	113.3	110.0
Moisture (%)	15.0	13.0	11.9
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	152	361	784
Expansion Pressure (psf)	7	9	10
$R\text{-}Value_{300psi\ Exudation}$	40	44	48

Test Summary Table - Sta 230A+00 9-10'			
Unit Weight (pcf)	105.1	95.7	98.2
Moisture (%)	22.0	21.0	19.9
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	104	425	622
Expansion Pressure (psf)	6	12	19
$R\text{-}Value_{300psi\ Exudation}$	27	35	38

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Geotechnical Investigation

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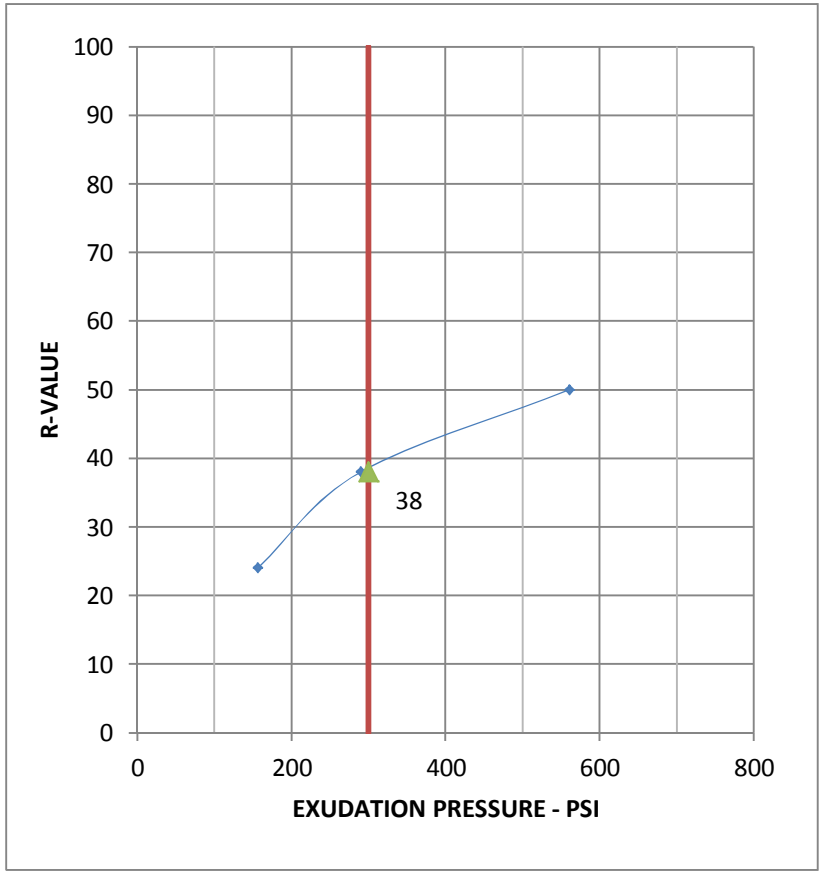
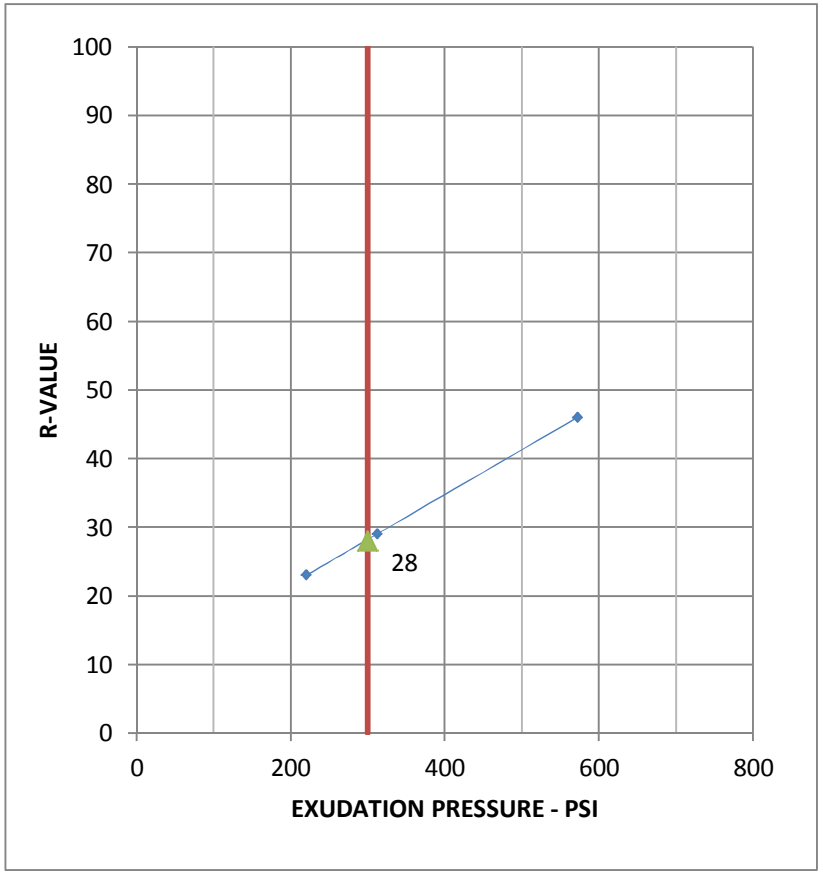
PLATE R6





Test Summary Table - Sta 235+00 3-4'			
Unit Weight (pcf)	100.8	102.4	101.7
Moisture (%)	23.4	22.3	21.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	156	290	561
Expansion Pressure (psf)	5	7	8
$R\text{-}Value_{300psi\ Exudation}$	24	38	50

Test Summary Table - Sta 235A+00 15-16'			
Unit Weight (pcf)	104.8	108.3	113.8
Moisture (%)	20.3	18.2	16.0
Foot Pressure (psi)	125	200	200
Exudation Pressure (psi)	220	312	572
Expansion Pressure (psf)	15	22	28
$R\text{-}Value_{300psi\ Exudation}$	23	29	46

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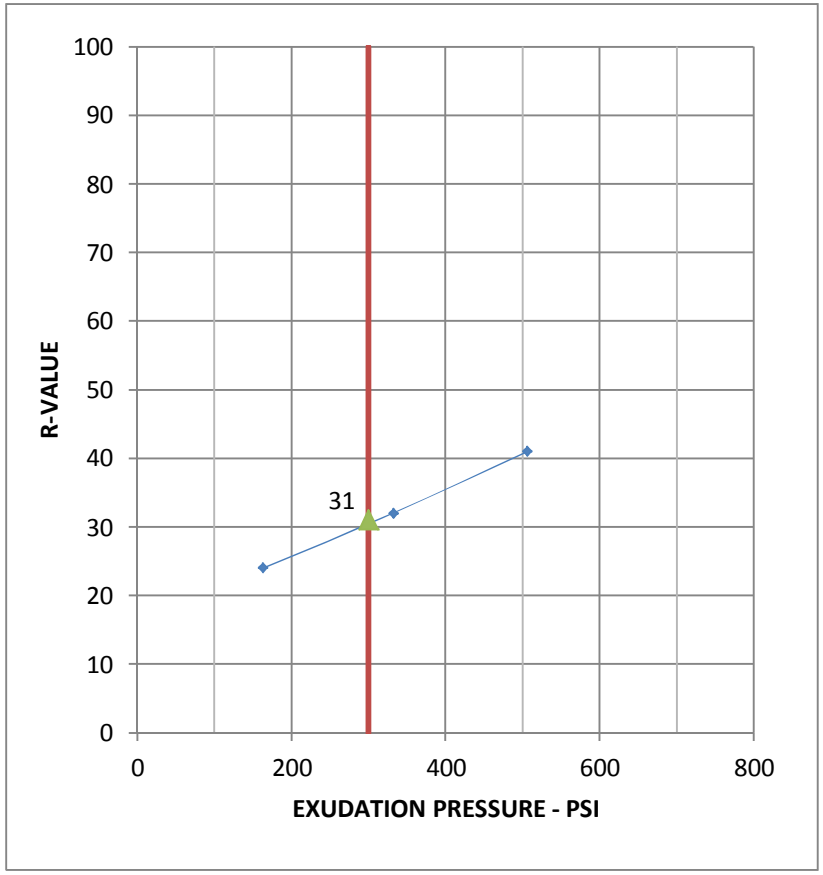
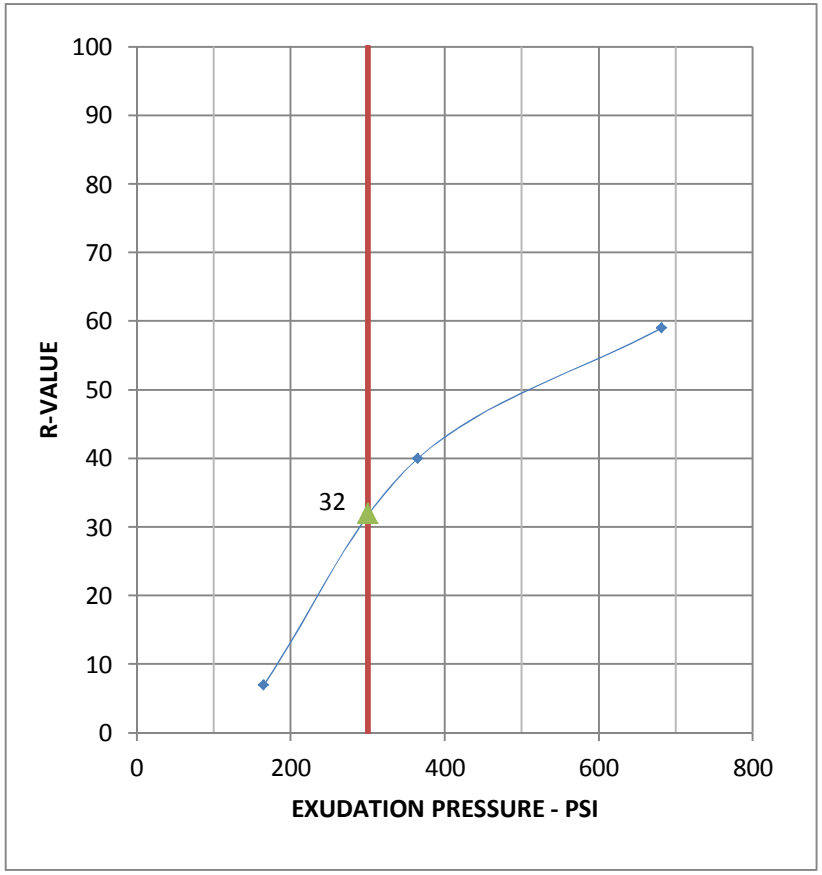
PLATE R7





Test Summary Table - Sta 310+00 4-5'			
Unit Weight (pcf)	86.7	84.7	96.8
Moisture (%)	26.7	28.5	26.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	163	332	506
Expansion Pressure (psf)	14	19	19
$R\text{-}Value_{300psi\ Exudation}$	24	32	41

Test Summary Table - Sta 315+00 6-7'			
Unit Weight (pcf)	113.5	116.1	119.7
Moisture (%)	15.4	13.1	12.0
Foot Pressure (psi)	100	200	200
Exudation Pressure (psi)	165	365	682
Expansion Pressure (psf)	4	5	9
$R\text{-}Value_{300psi\ Exudation}$	7	40	59

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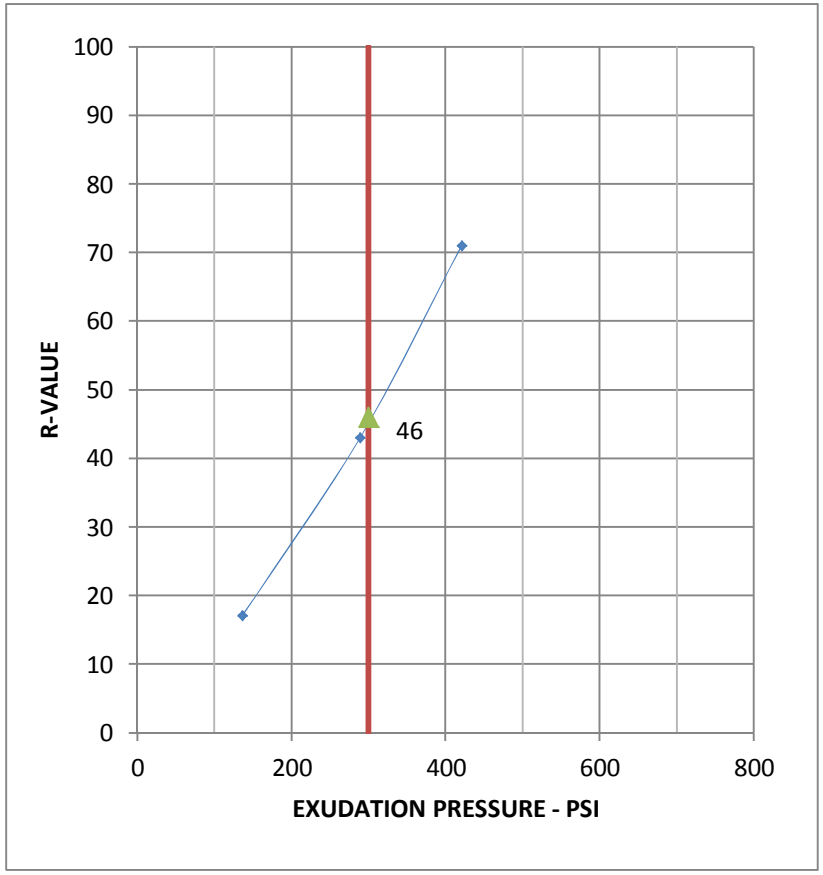
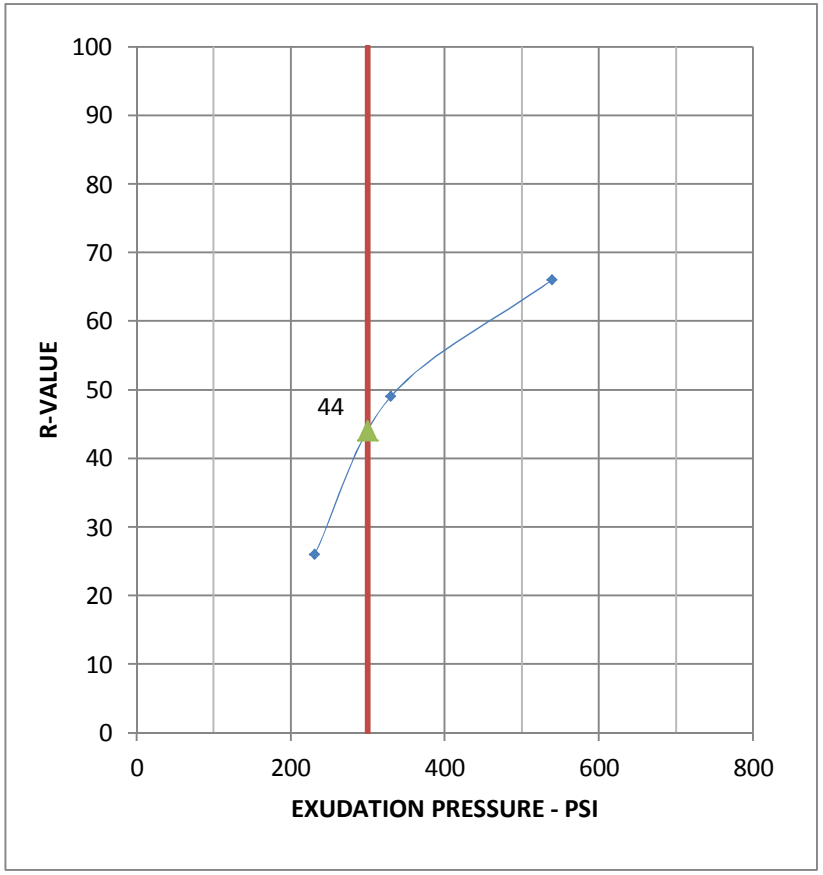
PLATE R8





Test Summary Table - Sta 330+00 18-19'			
Unit Weight (pcf)	112.0	117.5	119.3
Moisture (%)	16.9	14.7	13.6
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	136	289	421
Expansion Pressure (psf)	4	5	5
$R\text{-}Value_{300psi\ Exudation}$	17	43	71

Test Summary Table - Sta 330A+00 10-11'			
Unit Weight (pcf)	106.4	107.7	110.6
Moisture (%)	19.1	18.0	16.9
Foot Pressure (psi)	150	200	200
Exudation Pressure (psi)	231	330	539
Expansion Pressure (psf)	9	14	32
$R\text{-}Value_{300psi\ Exudation}$	26	49	66

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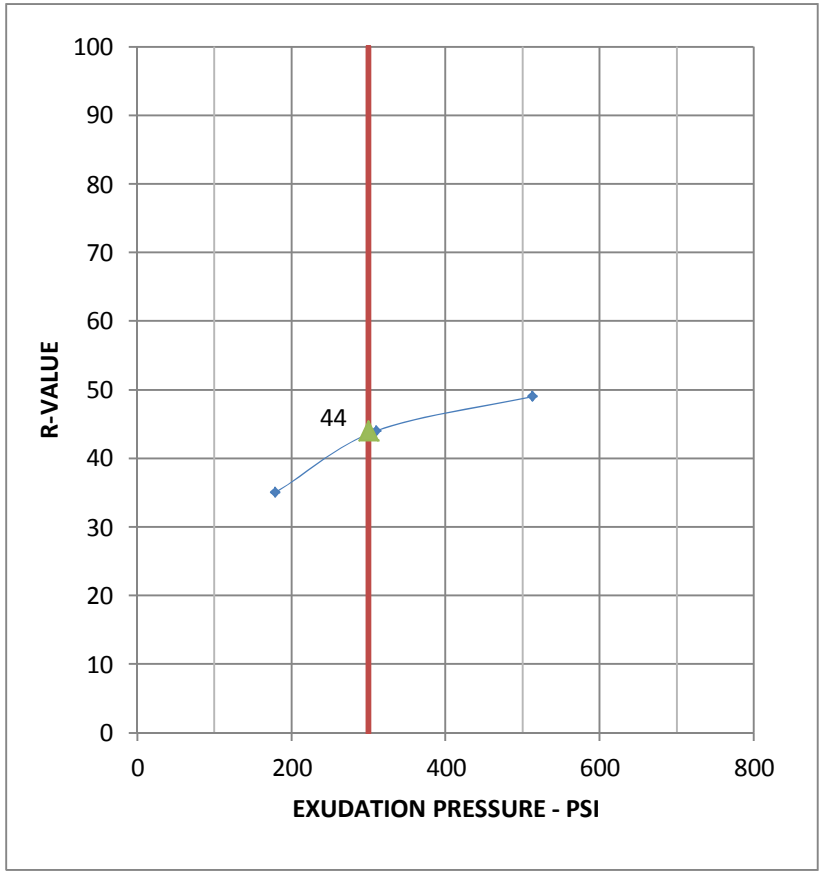
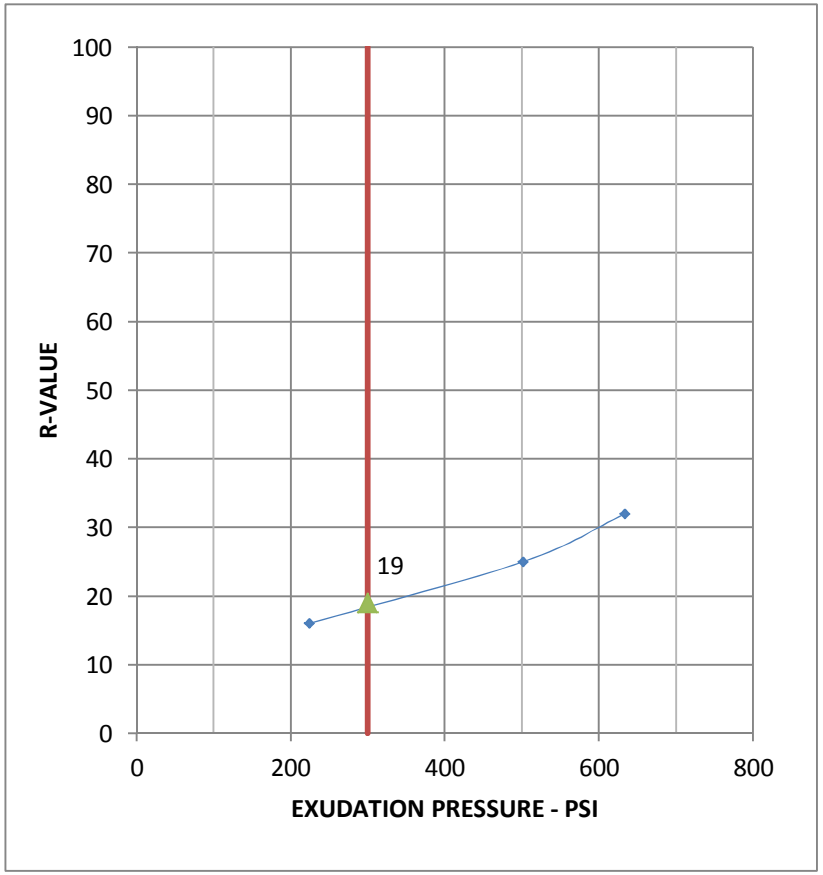
PLATE R9





Test Summary Table - Sta 330B+00 8-9'			
Unit Weight (pcf)	108.0	111.6	112.1
Moisture (%)	17.3	16.3	15.2
Foot Pressure (psi)	100	150	200
Exudation Pressure (psi)	179	310	513
Expansion Pressure (psf)	0	4	14
$R\text{-}Value_{300psi\ Exudation}$	35	44	49

Test Summary Table - Sta 330C+00 3-4'			
Unit Weight (pcf)	102.0	104.8	121.9
Moisture (%)	25.2	20.7	18.4
Foot Pressure (psi)	90	200	200
Exudation Pressure (psi)	224	502	634
Expansion Pressure (psf)	0	0	47
$R\text{-}Value_{300psi\ Exudation}$	16	25	32

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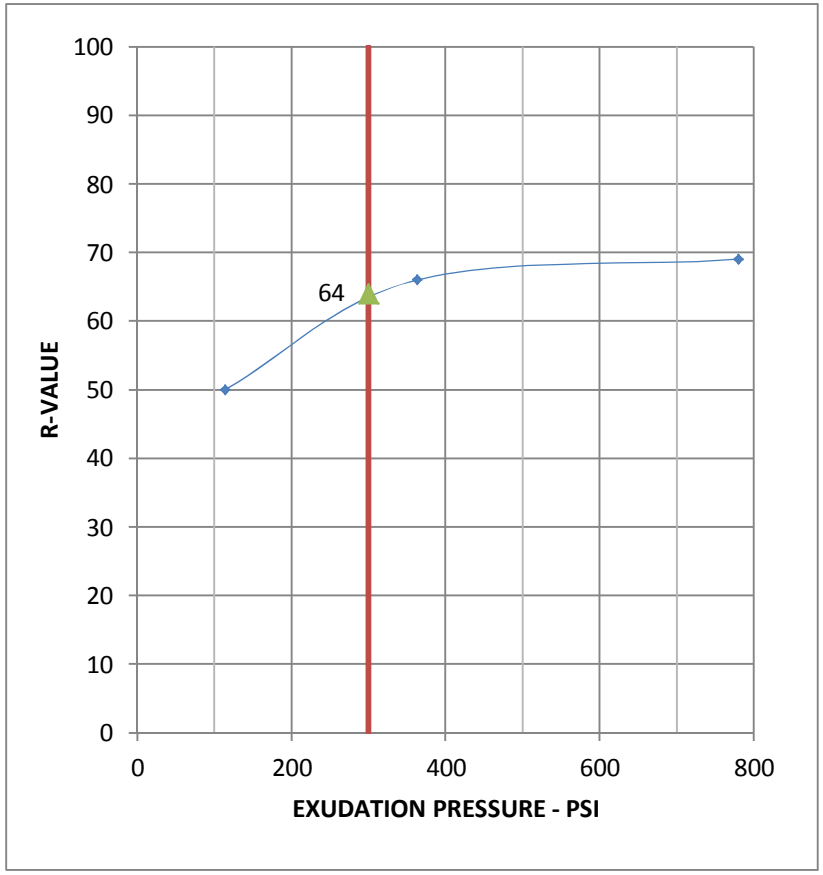
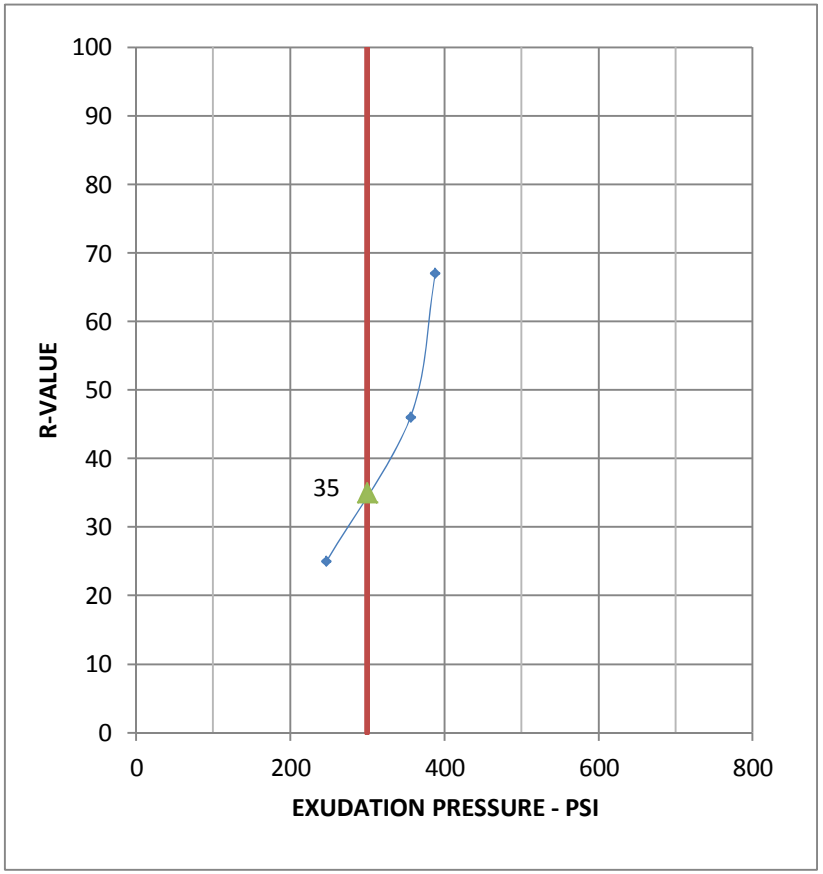
PLATE R10





Test Summary Table - Sta 335+00 4-5'			
Unit Weight (pcf)	112.3	124.5	114.0
Moisture (%)	13.4	12.3	11.2
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	114	363	780
Expansion Pressure (psf)	5	8	13
$R\text{-}Value_{300psi\ Exudation}$	50	67	69

Test Summary Table - Sta 345A+00 2-3'			
Unit Weight (pcf)	113.6	116.4	117.1
Moisture (%)	14.6	13.6	12.6
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	247	356	388
Expansion Pressure (psf)	1	13	16
$R\text{-}Value_{300psi\ Exudation}$	29	46	67

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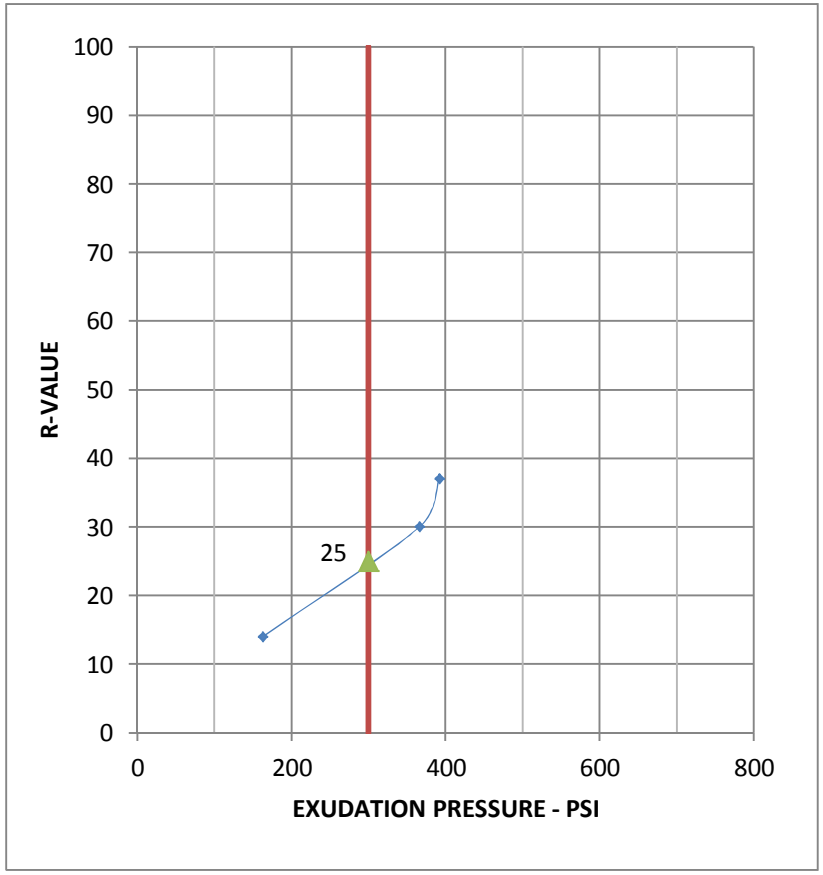
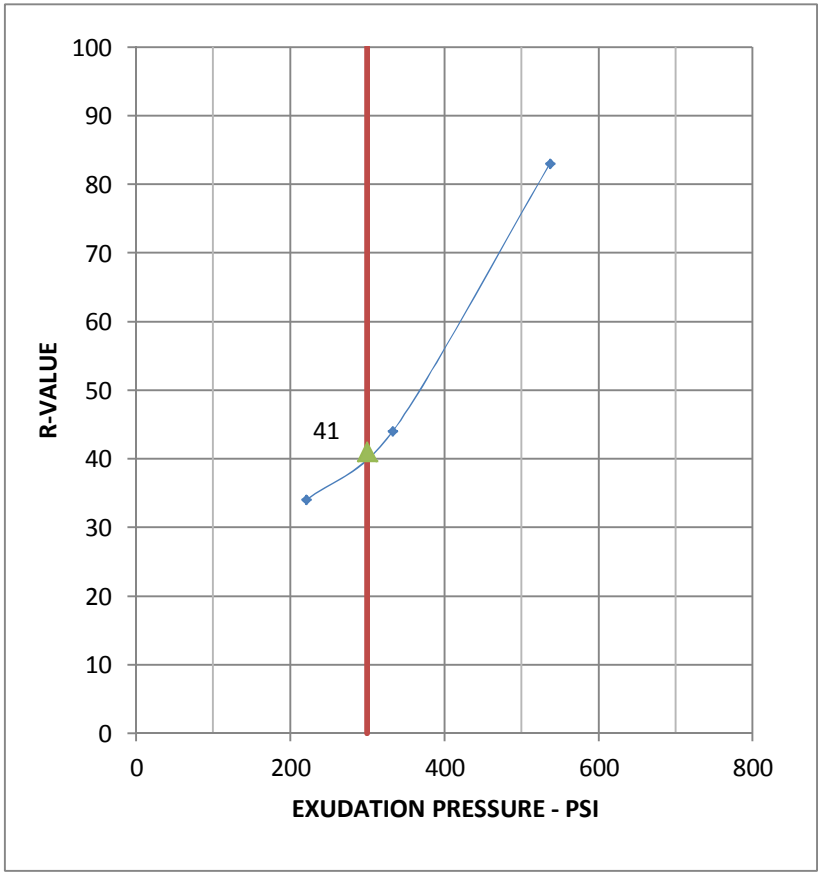
PLATE R11





Test Summary Table - Sta 345B+00 5-6'			
Unit Weight (pcf)	106.9	112.3	113.1
Moisture (%)	18.5	16.4	15.2
Foot Pressure (psi)	70	140	200
Exudation Pressure (psi)	163	366	392
Expansion Pressure (psf)	0	6	11
$R\text{-}Value_{300psi\ Exudation}$	14	30	37

Test Summary Table - Sta 355+00 2-3'			
Unit Weight (pcf)	117.3	124.2	119.0
Moisture (%)	14.6	13.6	12.5
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	221	333	537
Expansion Pressure (psf)	3	6	9
$R\text{-}Value_{300psi\ Exudation}$	34	44	83

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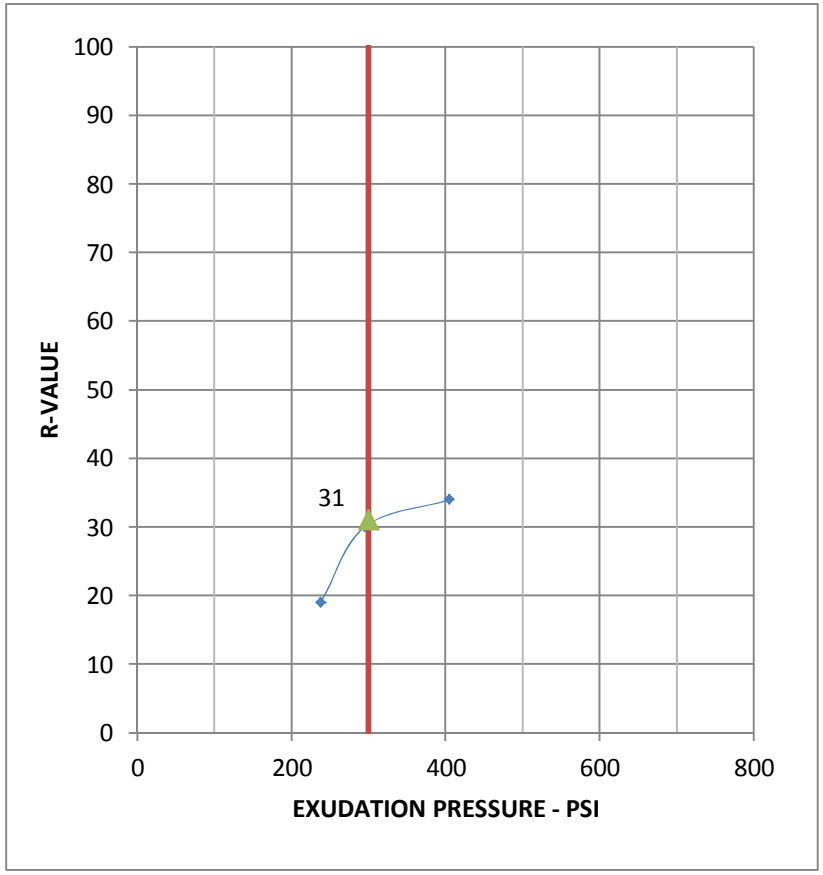
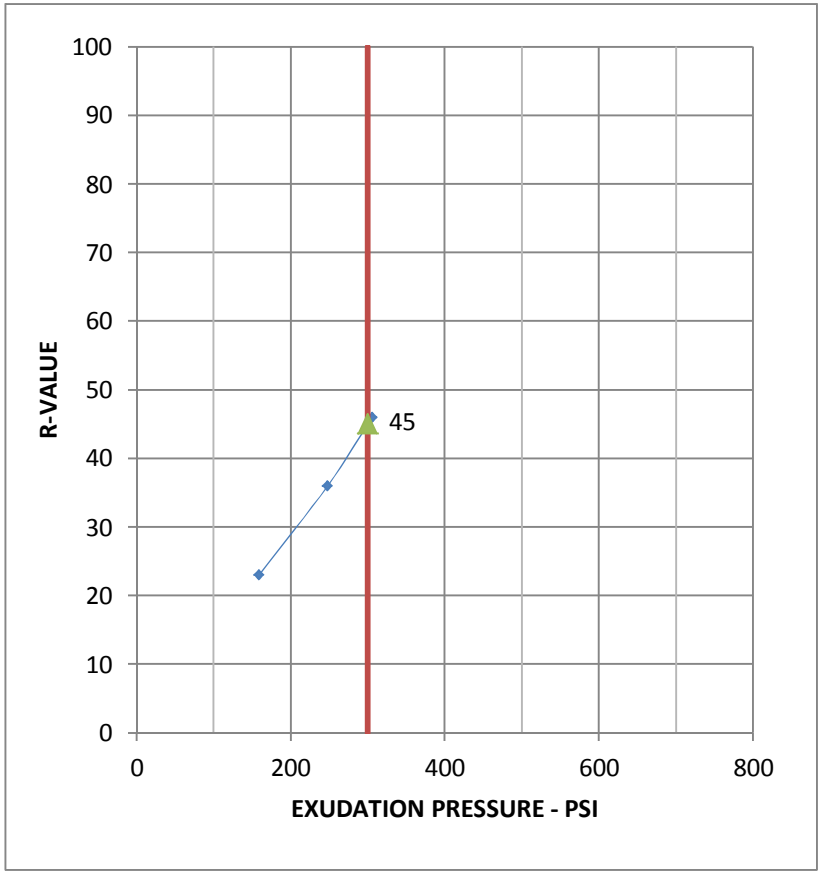
PLATE R12





Test Summary Table - Sta 405+00 13-14'			
Unit Weight (pcf)	111.0	115.6	114.9
Moisture (%)	17.3	16.2	15.2
Foot Pressure (psi)	150	200	200
Exudation Pressure (psi)	238	295	405
Expansion Pressure (psf)	12	20	22
$R\text{-}Value_{300psi\ Exudation}$	19	30	34

Test Summary Table - Sta 225+00 4-5'			
Unit Weight (pcf)	108.3	109.2	111.7
Moisture (%)	16.8	15.7	14.8
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	159	248	306
Expansion Pressure (psf)	10	12	17
$R\text{-}Value_{300psi\ Exudation}$	23	36	46

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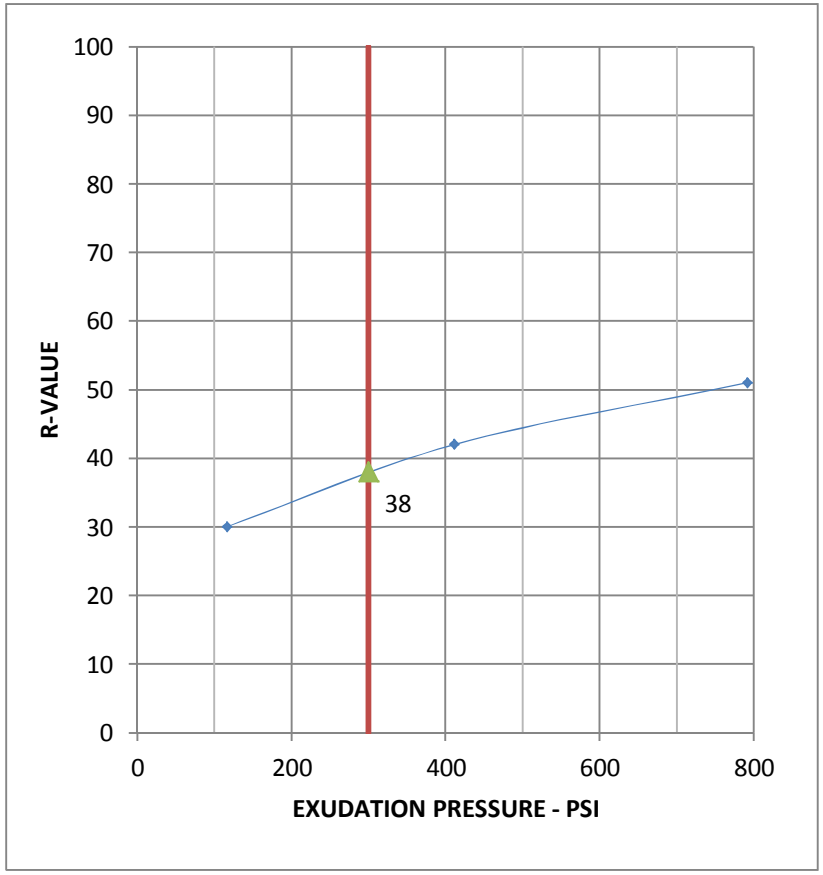
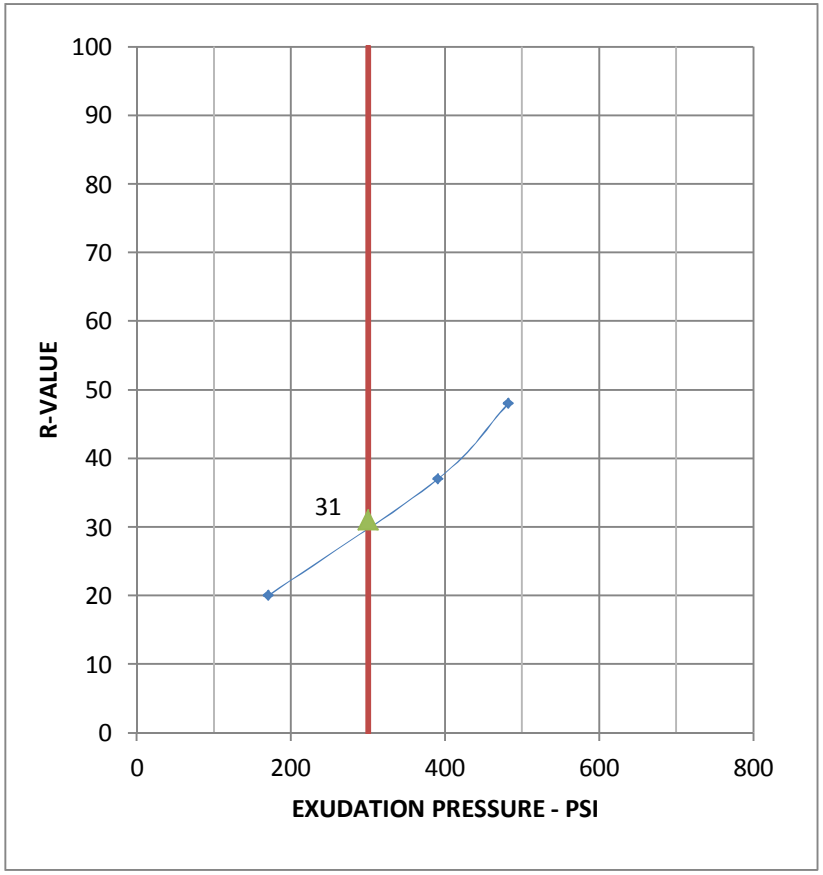
PLATE R13





Test Summary Table - Sta 415+00 12-15'			
Unit Weight (pcf)	111.6	112.6	120.1
Moisture (%)	15.8	13.7	11.5
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	116	411	792
Expansion Pressure (psf)	4	6	10
$R\text{-}Value_{300psi\ Exudation}$	30	42	51

Test Summary Table - Sta 425+00 1-2'			
Unit Weight (pcf)	103.6	112.5	107.5
Moisture (%)	20.2	19.1	18.0
Foot Pressure (psi)	100	200	200
Exudation Pressure (psi)	171	391	482
Expansion Pressure (psf)	5	8	13
$R\text{-}Value_{300psi\ Exudation}$	20	37	48

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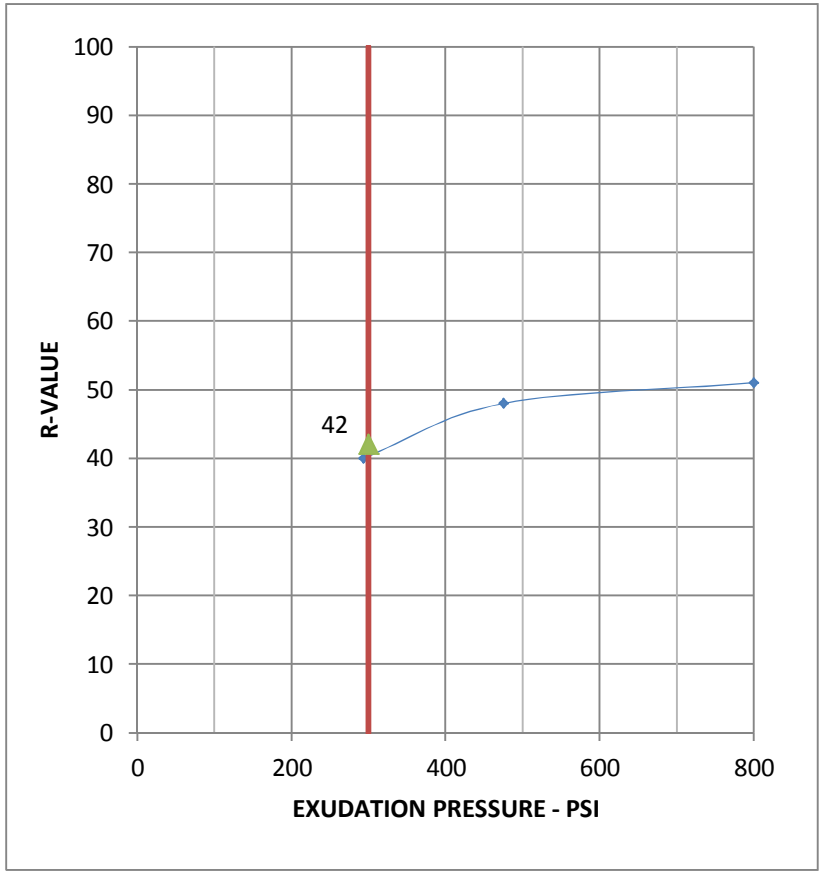
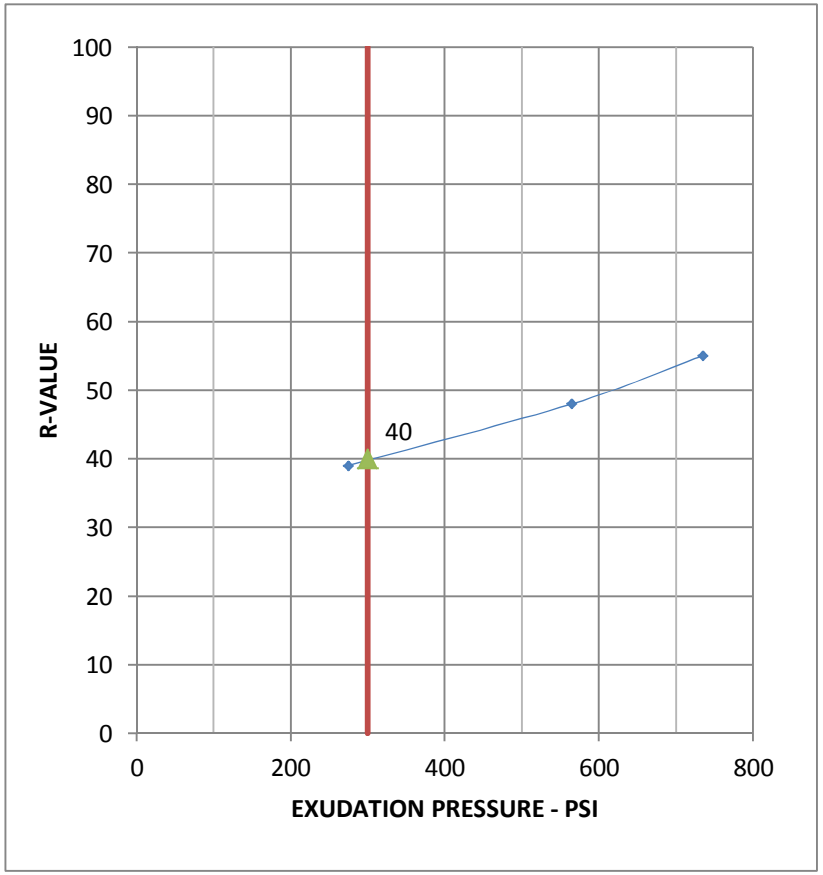
PLATE R14





Test Summary Table - Sta 450+00			
Unit Weight (pcf)	114.7	61.9	115.7
Moisture (%)	13.3	100.0	12.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	293	475	800
Expansion Pressure (psf)	4	12	32
$R\text{-}Value_{300psi\ Exudation}$	40	48	51

Test Summary Table - Sta 450A+00			
Unit Weight (pcf)	104.8	112.0	111.7
Moisture (%)	12.7	10.7	11.7
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	275	695	735
Expansion Pressure (psf)	3	9	12
$R\text{-}Value_{300psi\ Exudation}$	39	48	55

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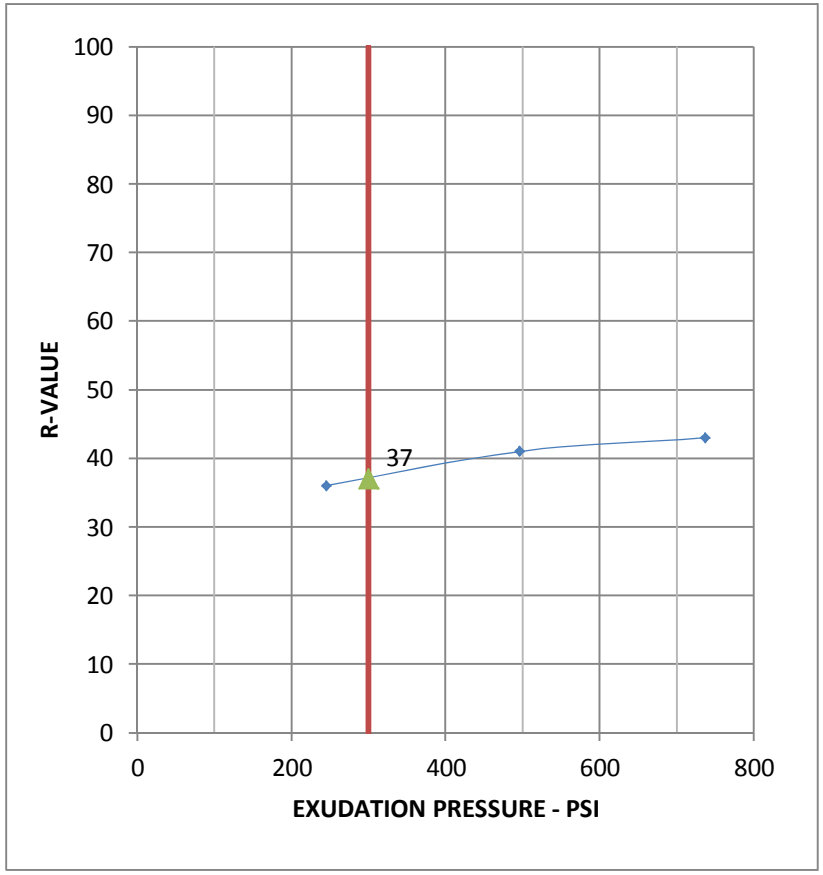
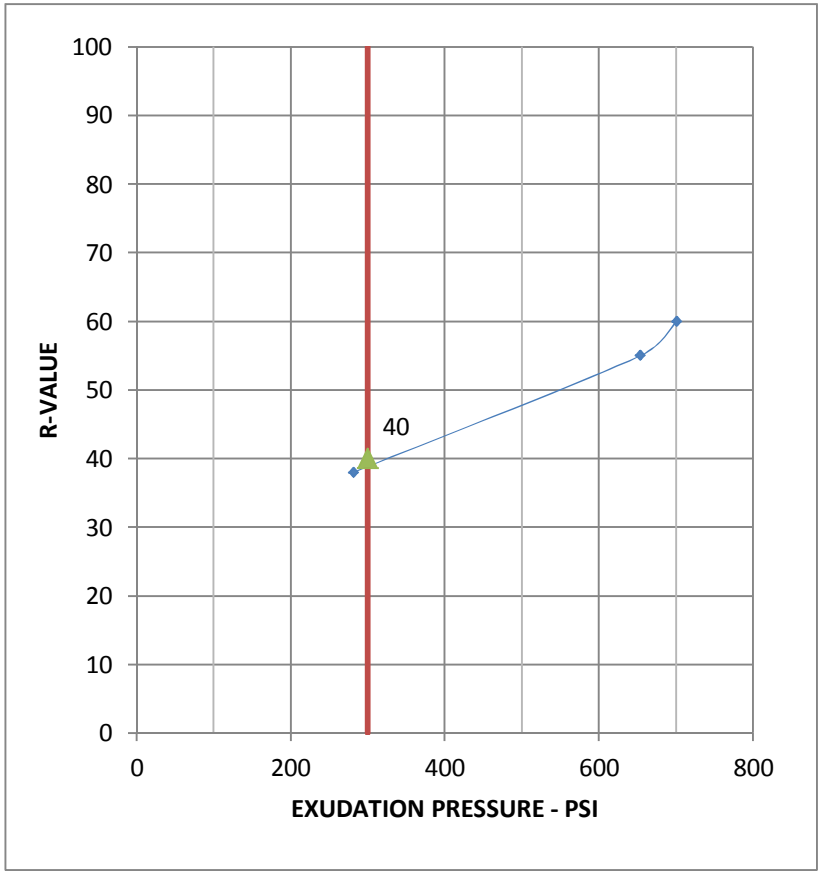
PLATE R15





Test Summary Table - Sta 435A+00			
Unit Weight (pcf)	105.0	102.2	115.7
Moisture (%)	14.2	12.2	10.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	245	496	737
Expansion Pressure (psf)	3	3	13
$R\text{-}Value_{300psi\ Exudation}$	36	41	43

Test Summary Table - Sta 455+00			
Unit Weight (pcf)	109.7	109.5	108.4
Moisture (%)	11.9	10.3	8.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	282	654	701
Expansion Pressure (psf)	0	3	8
$R\text{-}Value_{300psi\ Exudation}$	47	55	60

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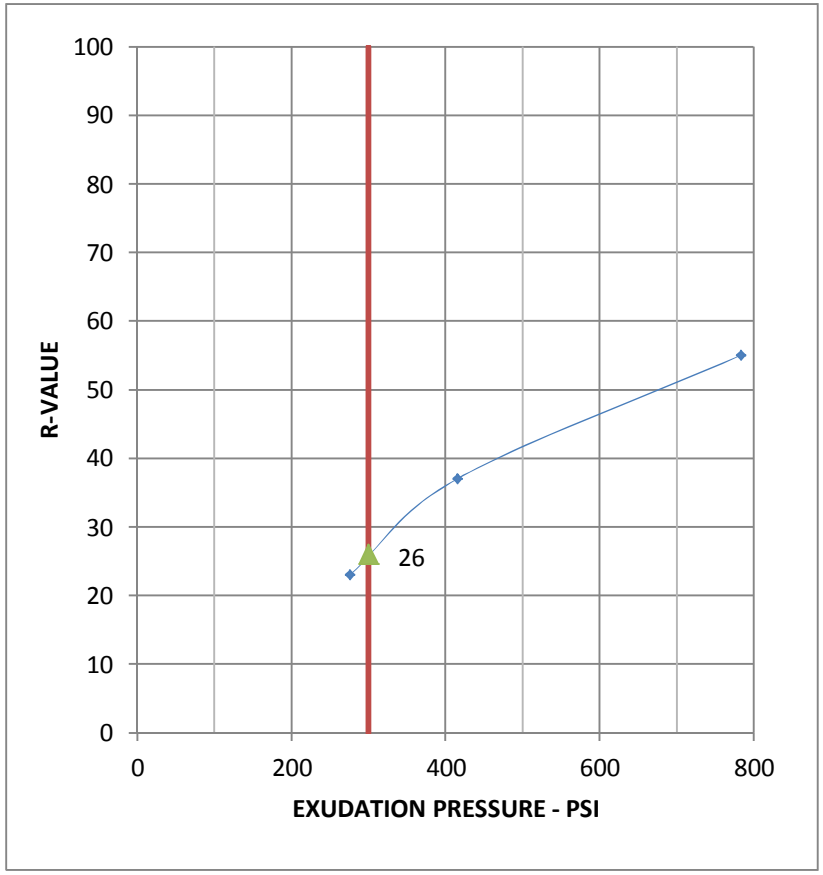
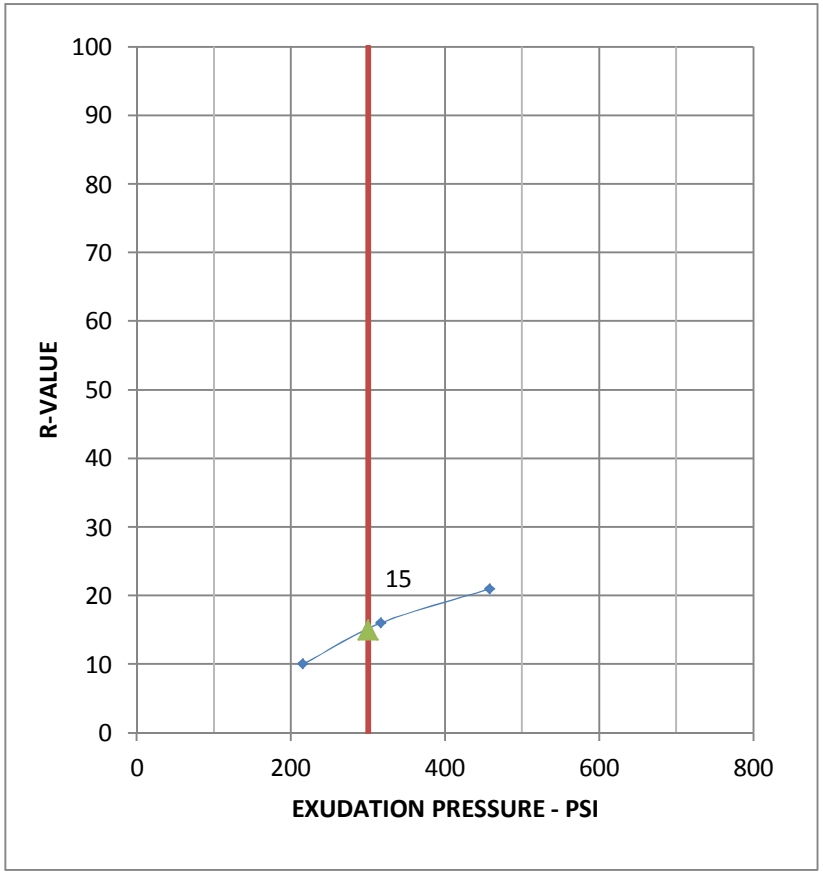
PLATE R16





Test Summary Table - Sta 435B+00 0-2'			
Unit Weight (pcf)	113.0	115.5	114.0
Moisture (%)	16.7	14.6	12.4
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	276	415	783
Expansion Pressure (psf)	2	3	4
$R\text{-}Value_{300psi\ Exudation}$	23	37	55

Test Summary Table - Sta 465+00 0-1'			
Unit Weight (pcf)	97.4	99.4	102.1
Moisture (%)	24.0	22.9	21.8
Foot Pressure (psi)	80	130	200
Exudation Pressure (psi)	216	317	458
Expansion Pressure (psf)	3	5	5
$R\text{-}Value_{300psi\ Exudation}$	10	16	21

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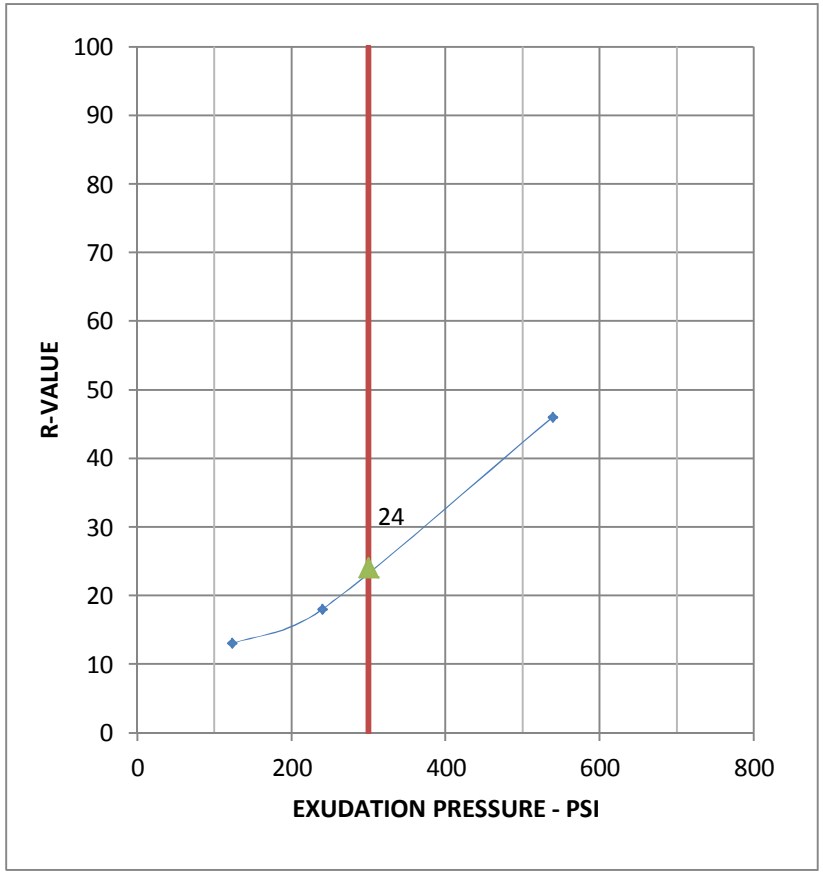
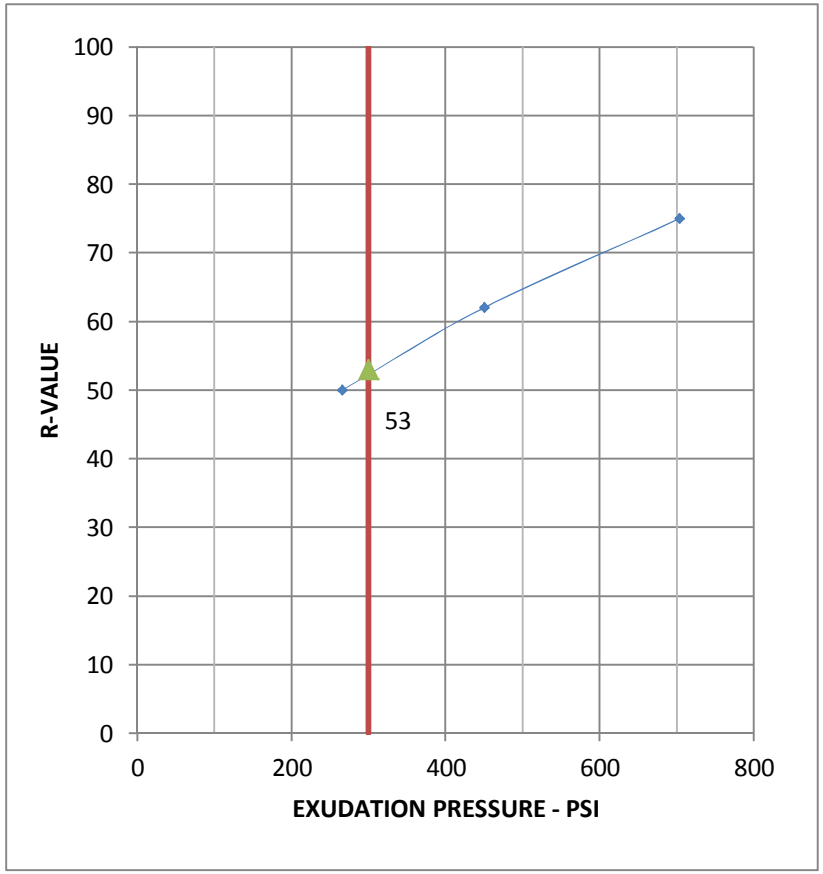
PLATE R17





Test Summary Table - Sta 475+00 1-2'			
Unit Weight (pcf)	90.4	92.1	96.7
Moisture (%)	28.8	26.5	24.0
Foot Pressure (psi)	60	150	200
Exudation Pressure (psi)	123	240	539
Expansion Pressure (psf)	10	17	25
$R\text{-}Value_{300psi\ Exudation}$	13	18	46

Test Summary Table - Sta 490+00 0-1'			
Unit Weight (pcf)	110.4	107.9	107.7
Moisture (%)	17.5	16.4	14.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	266	450	704
Expansion Pressure (psf)	5	5	10
$R\text{-}Value_{300psi\ Exudation}$	49	62	75

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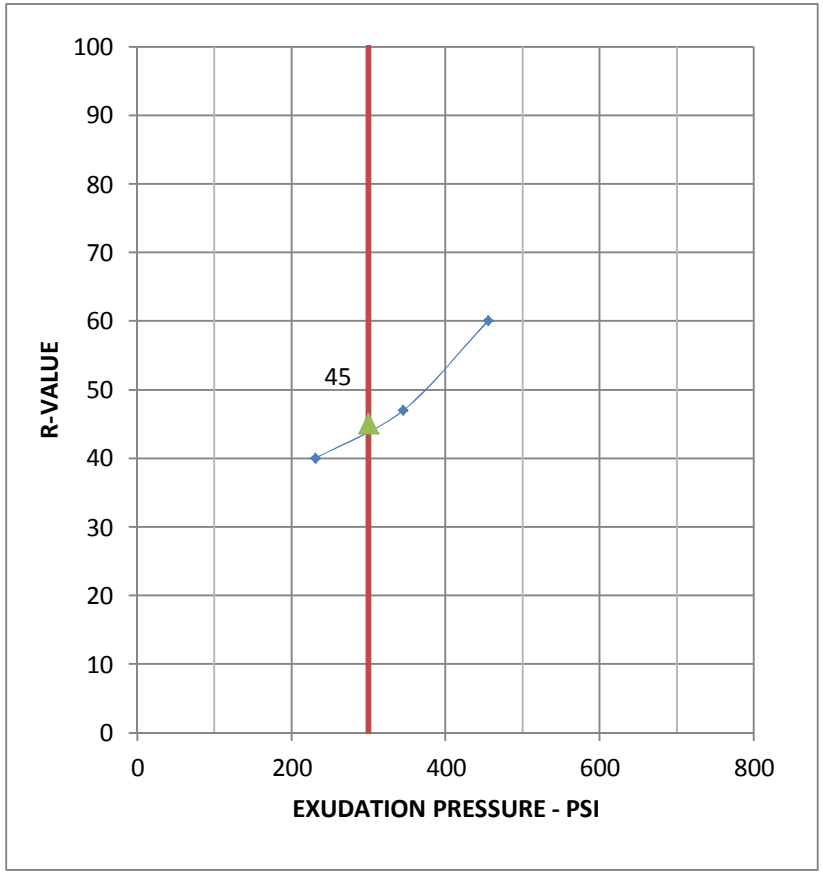
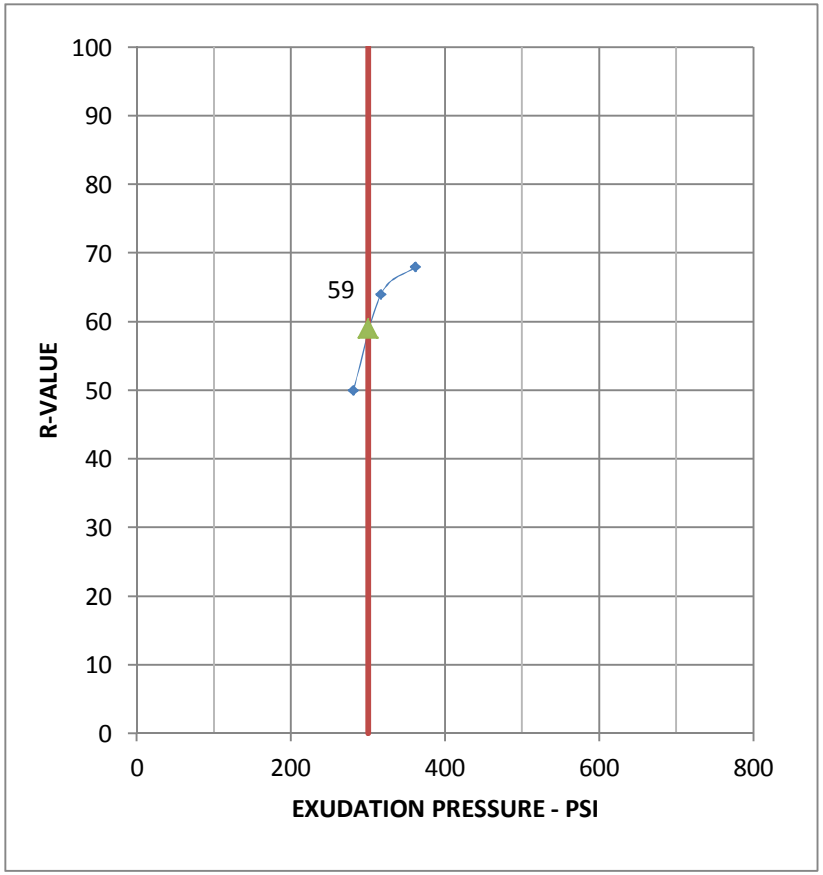
PLATE R18





Test Summary Table - Sta 510+00 1-2'			
Unit Weight (pcf)	104.3	105.3	104.4
Moisture (%)	19.5	18.3	18.0
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	231	345	455
Expansion Pressure (psf)	17	17	15
$R\text{-}Value_{300psi\ Exudation}$	40	47	60

Test Summary Table - Sta 525+00 1-2'			
Unit Weight (pcf)	74.4	78.9	75.4
Moisture (%)	31.6	28.0	30.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	281	317	362
Expansion Pressure (psf)	11	11	12
$R\text{-}Value_{300psi\ Exudation}$	50	64	68

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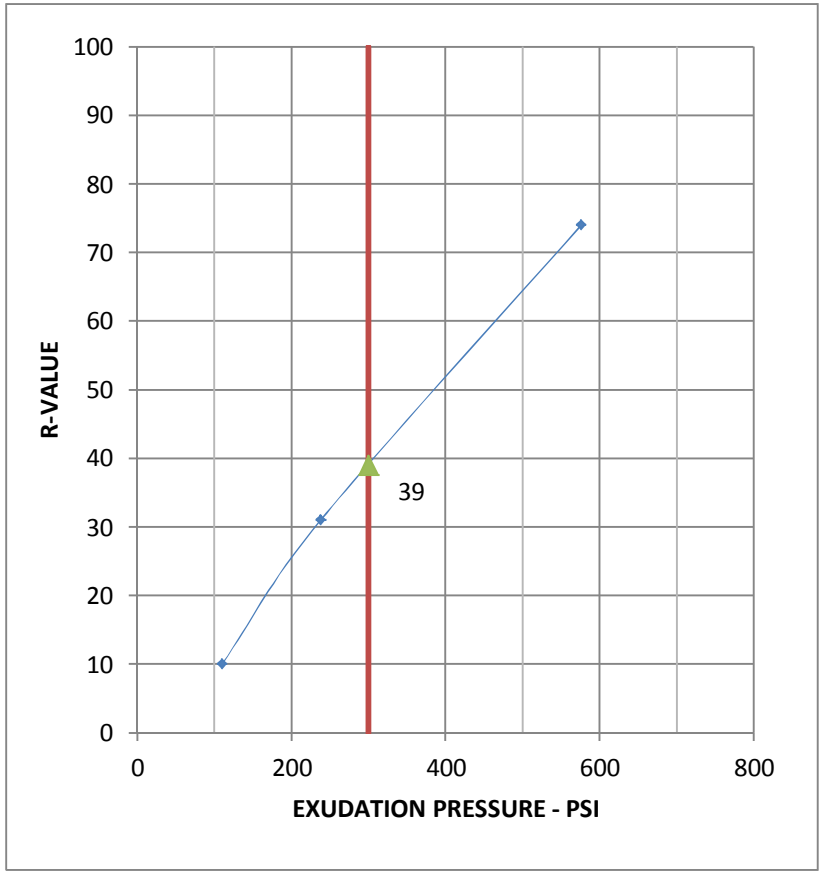
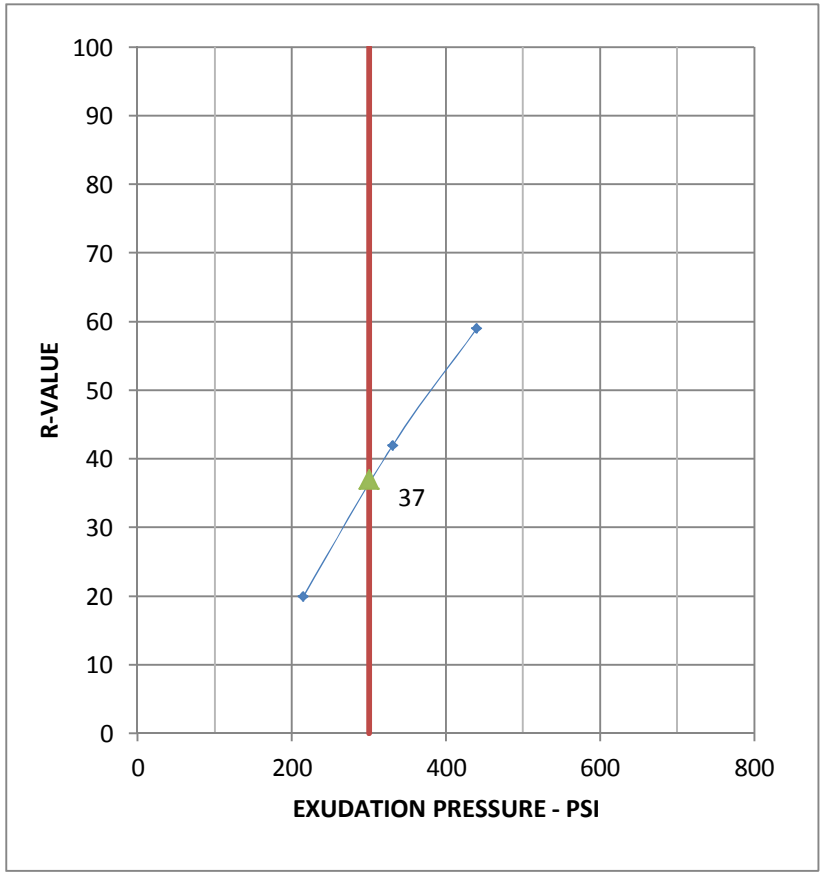
PLATE R19





Test Summary Table - Sta 535+00 2-3'			
Unit Weight (pcf)	107.0	109.3	109.9
Moisture (%)	19.5	17.3	15.4
Foot Pressure (psi)	80	200	200
Exudation Pressure (psi)	110	238	576
Expansion Pressure (psf)	0	12	12
$R\text{-}Value_{300psi\ Exudation}$	10	34	74

Test Summary Table - Sta 555+00 1-2'			
Unit Weight (pcf)	108.8	111.6	112.8
Moisture (%)	18.3	17.2	16.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	215	331	440
Expansion Pressure (psf)	34	17	5
$R\text{-}Value_{300psi\ Exudation}$	20	42	59

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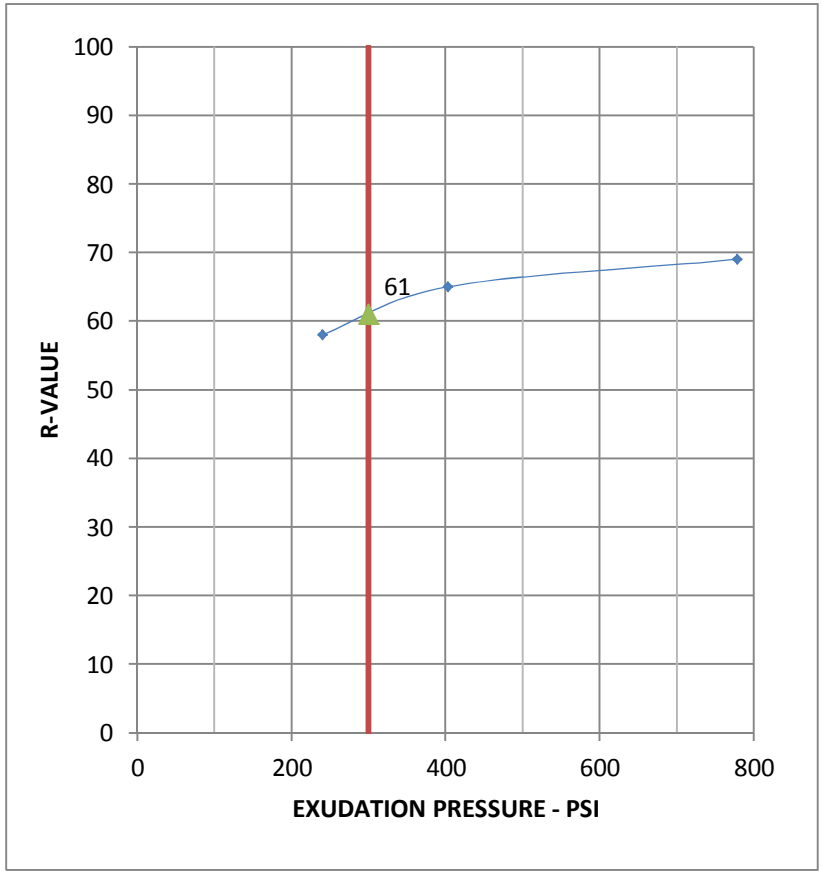
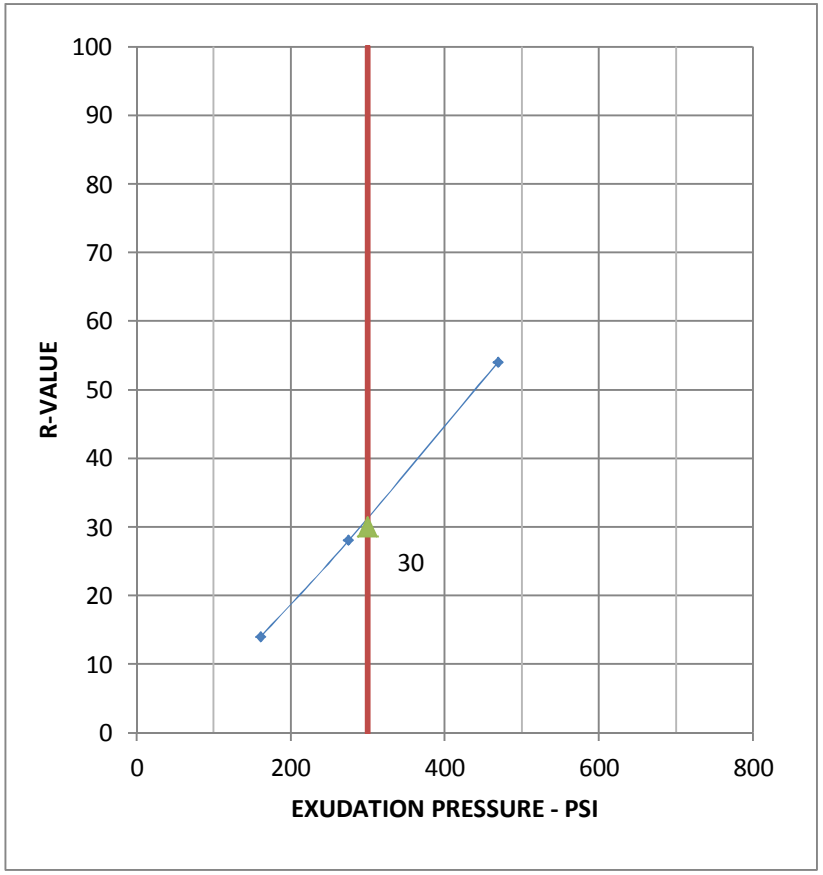
PLATE R20





Test Summary Table - Sta 570+00 0-1'			
Unit Weight (pcf)	113.3	114.5	115.5
Moisture (%)	13.4	12.4	11.3
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	240	403	778
Expansion Pressure (psf)	20	17	6
$R\text{-}Value_{300psi\ Exudation}$	58	65	69

Test Summary Table - Sta 590+00 0-1'			
Unit Weight (pcf)	105.5	105.5	109.7
Moisture (%)	19.8	18.5	17.4
Foot Pressure (psi)	80	200	200
Exudation Pressure (psi)	161	275	469
Expansion Pressure (psf)	23	23	16
$R\text{-}Value_{300psi\ Exudation}$	14	28	54

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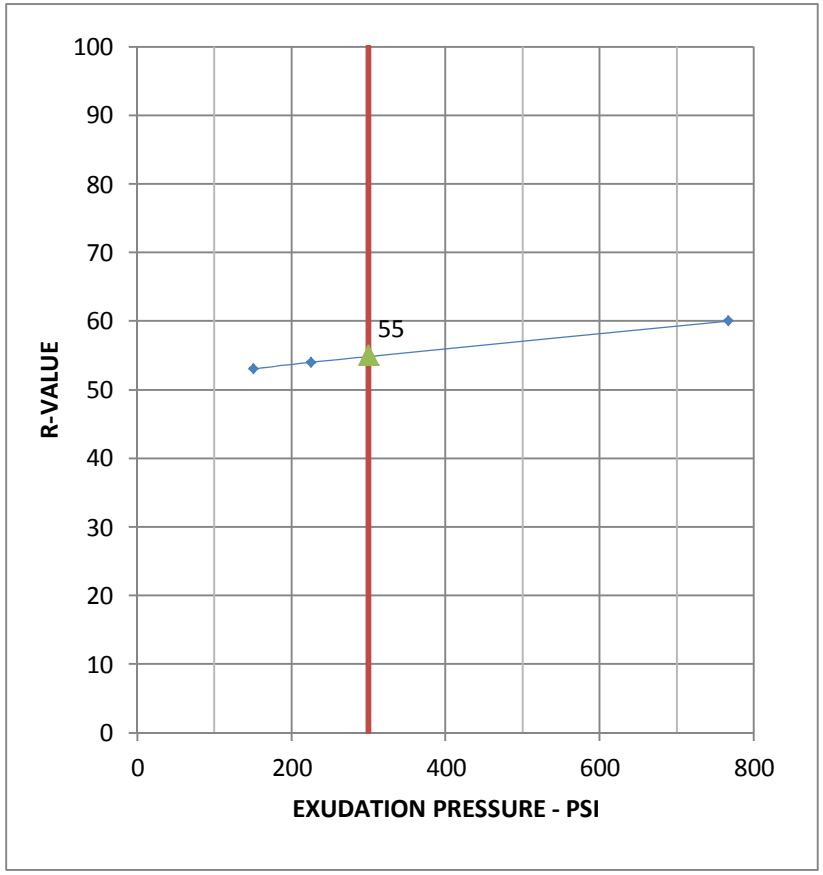
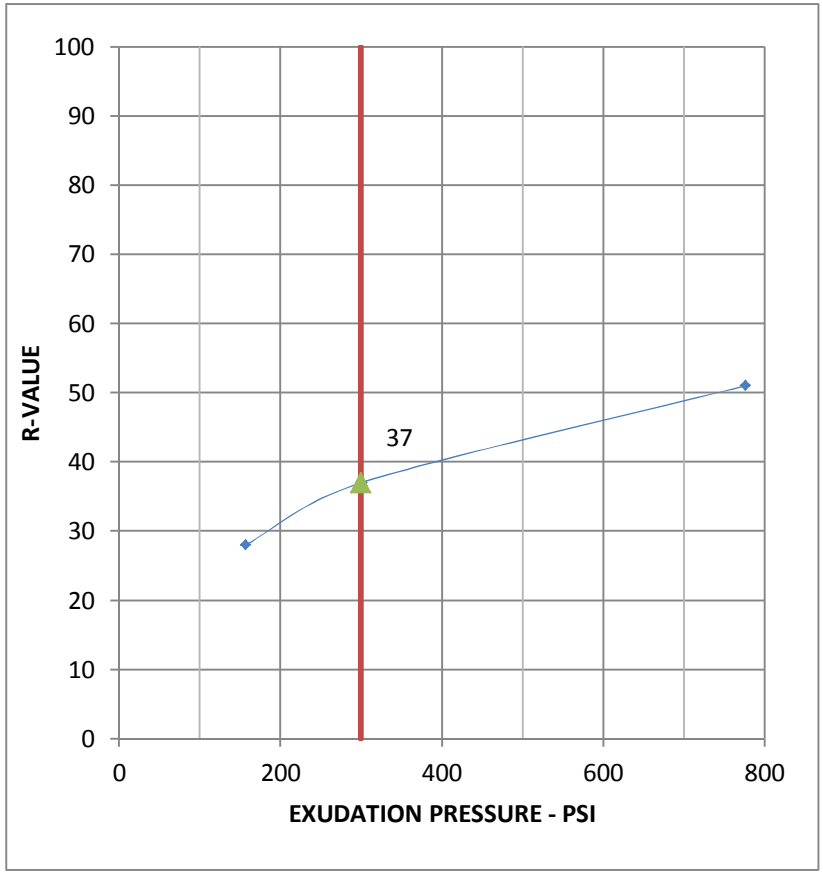
PLATE R21





Test Summary Table - Sta 620+00 0-2'			
Unit Weight (pcf)	88.3	100.9	103.0
Moisture (%)	20.1	19.1	17.9
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	150	225	767
Expansion Pressure (psf)	20	20	66
$R\text{-}Value_{300psi\ Exudation}$	53	54	60

Test Summary Table - Sta 640+00 0-1½'			
Unit Weight (pcf)	113.3	112.8	112.9
Moisture (%)	16.4	14.3	12.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	157	301	776
Expansion Pressure (psf)	3	3	21
$R\text{-}Value_{300psi\ Exudation}$	28	37	51

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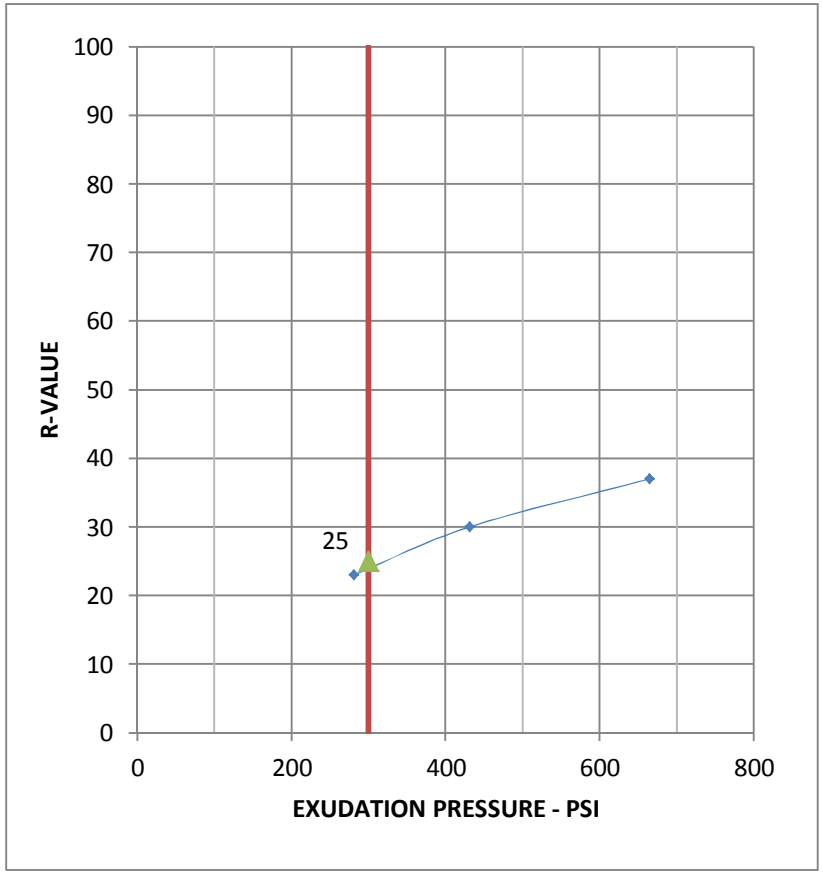
SUMMARY OF R-VALUE TEST DATA

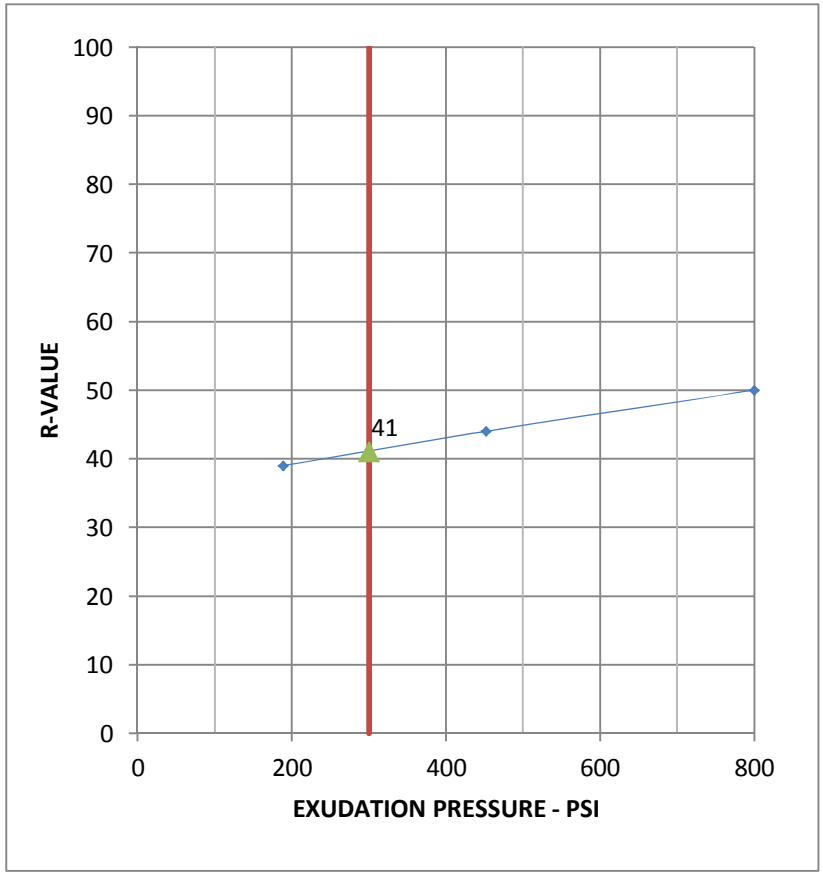
Geotechnical Investigation

USA Parkway

Project No.: 8480.001
Date: 3.4.13

PLATE R22





Test Summary Table - Sta 655+00 0-1'			
Unit Weight (pcf)	97.6	98.7	100.4
Moisture (%)	26.6	22.4	22.2
Foot Pressure (psi)	90	125	200
Exudation Pressure (psi)	281	431	665
Expansion Pressure (psf)	0	4	27
$R\text{-}Value_{300psi\ Exudation}$	23	30	37

Test Summary Table - Sta 680+00 0-2'			
Unit Weight (pcf)	102.3	103.4	105.0
Moisture (%)	20.5	19.4	18.2
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	189	452	800
Expansion Pressure (psf)	5	1	13
$R\text{-}Value_{300psi\ Exudation}$	46	40	50

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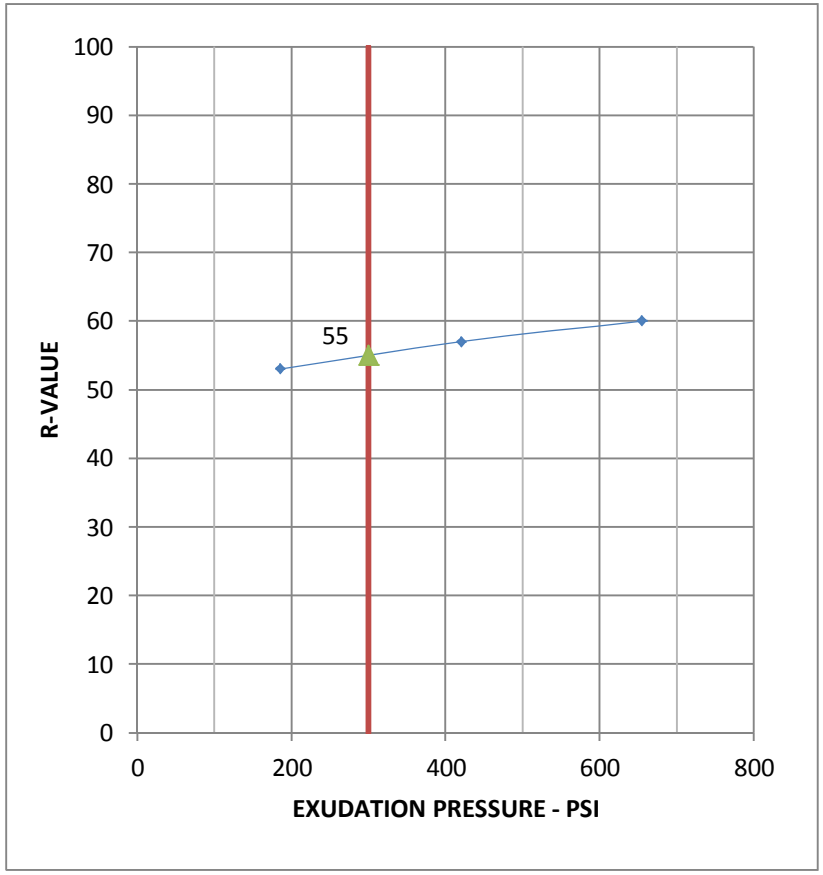
SUMMARY OF R-VALUE TEST DATA

Geotechnical Investigation

USA Parkway

Project No.: 8480.001
Date: 3.4.13

PLATE R23



Test Summary Table - Sta 680+00 0-2'			
Unit Weight (pcf)	115.6	116.9	117.2
Moisture (%)	15.6	16.2	16.1
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	185	420	655
Expansion Pressure (psf)	10	10	22
$R\text{-}Value_{300psi\ Exudation}$	53	57	60

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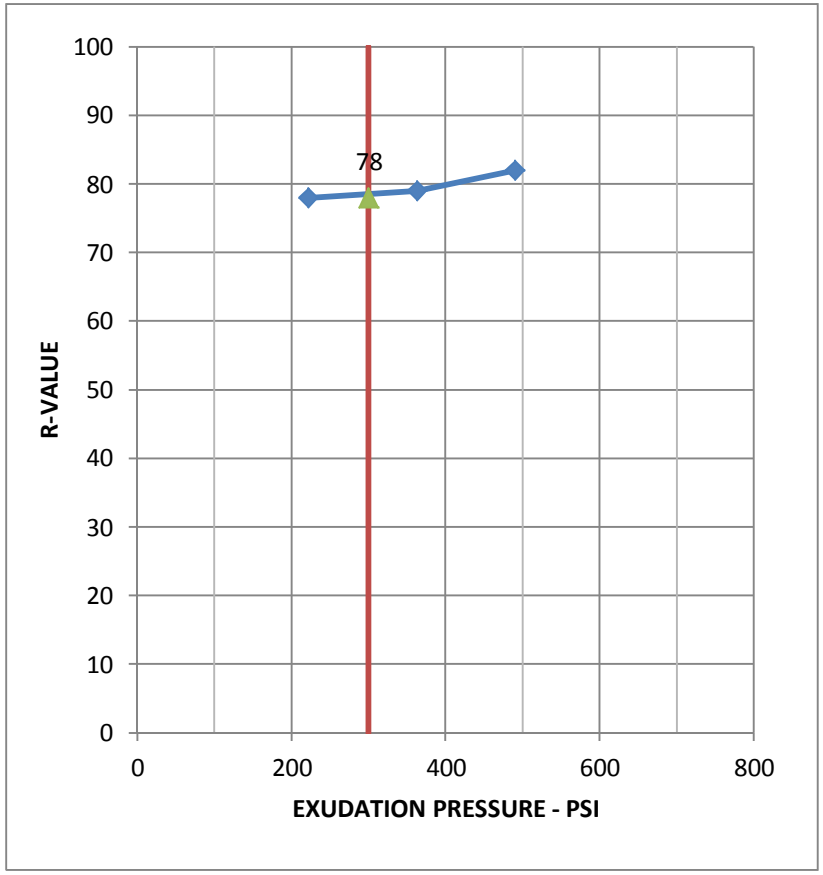
SUMMARY OF R-VALUE TEST DATA

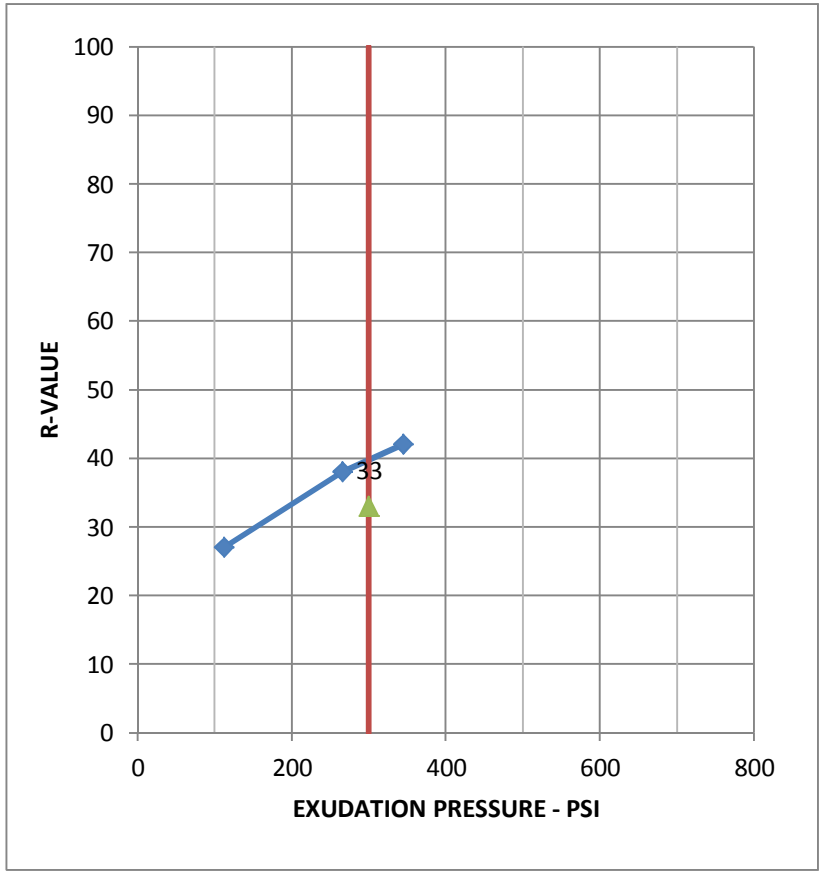
Geotechnical Investigation

USA Parkway

Project No.: 8480.001
Date: 3.4.13

PLATE R24





Test Summary Table - Sta xxx+xx, 0-2'			
Unit Weight (pcf)	75.2	77.5	73.1
Moisture (%)	20.6	19.5	17.7
Foot Pressure (psi)	200	200	200
Exudation Pressure (psi)	222	363	490
Expansion Pressure (psf)	0	0	5
$R\text{-}Value_{300psi\ Exudation}$	78	79	82

Test Summary Table - Sta xxx+xx, 0-2'			
Unit Weight (pcf)	119.4	119.7	119.6
Moisture (%)	15.6	13.3	12.3
Foot Pressure (psi)	90	200	200
Exudation Pressure (psi)	112	266	345
Expansion Pressure (psf)	0	0	5
$R\text{-}Value_{300psi\ Exudation}$	27	33	42

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SUMMARY OF R-VALUE TEST DATA

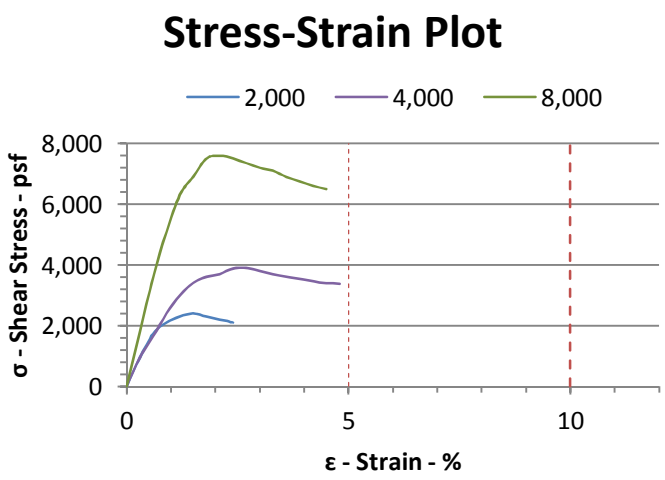
Geotechnical Investigation

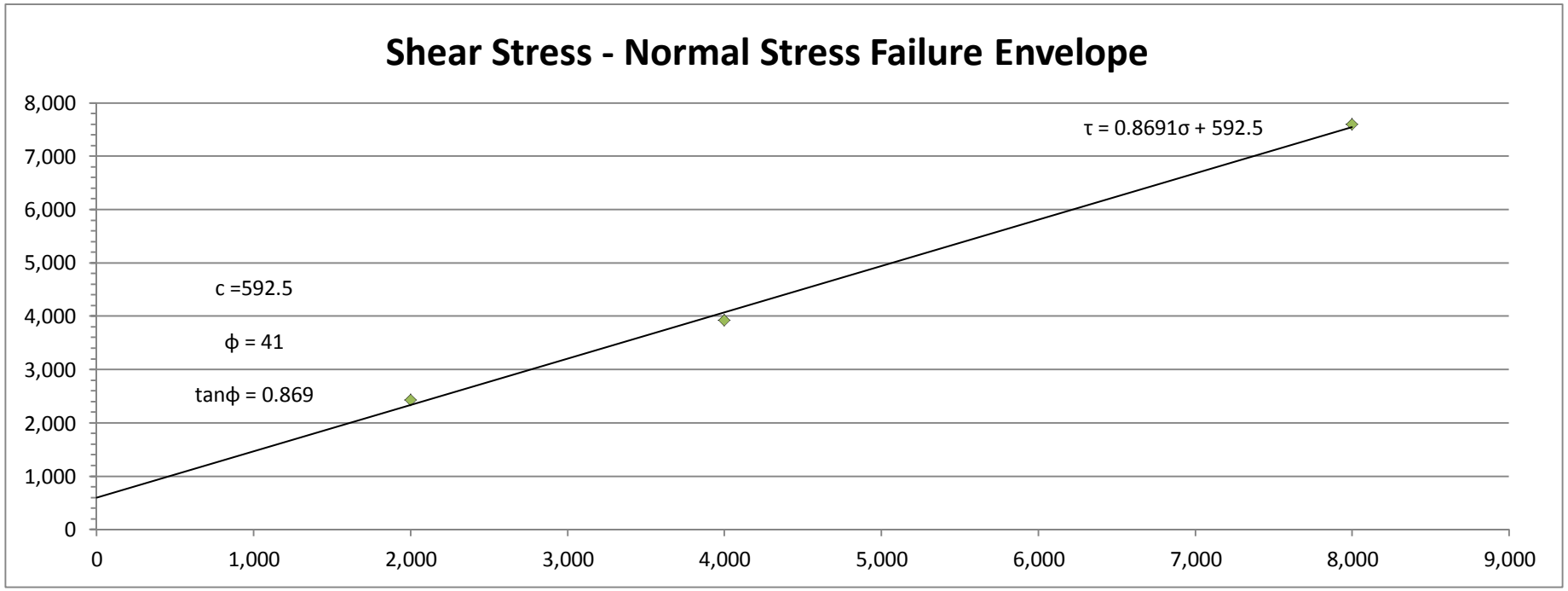
USA Parkway

Project No.: 8480.001
Date: 3.4.13

PLATE 4e

Test Summary Table - Sta 335 4-5'						
Test Property	Initial			Final		
Normal Stress, psf	2,000	4,000	8,000	2,000	4,000	8,000
Dry Density, pcf	117.9	118.0	120.7	118.6	118.0	120.7
Moisture Content, %	11.0	11.0	9.8	13.9	14.4	13.2
Saturation, %	76.1	76.4	74.1	98.0	99.9	99.6
Void Ratio, %	0.3768	0.3755	0.3442	0.3690	0.3755	0.3442
Diameter, in.	2.42	2.42	2.42	2.42	2.42	2.42
Height, in.	1.010	1.010	1.000	1.004	1.010	1.000
Stress @ 5 % Strain	---	---	---	---	---	---
Ultimate Stress, psf	---	---	---	2430	3920	7595
Strain, %	---	---	---	1.4	2.5	2.1





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SUMMARY OF DIRECT SHEAR TEST DATA

Geotechnical Investigation

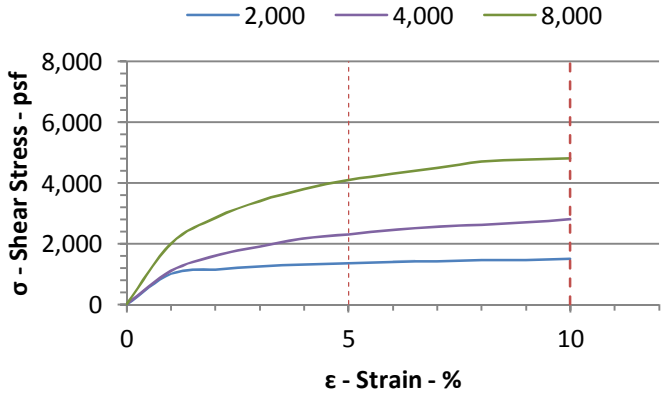
USA Parkway

Project No.: 8480.001
Date: 4.16.13

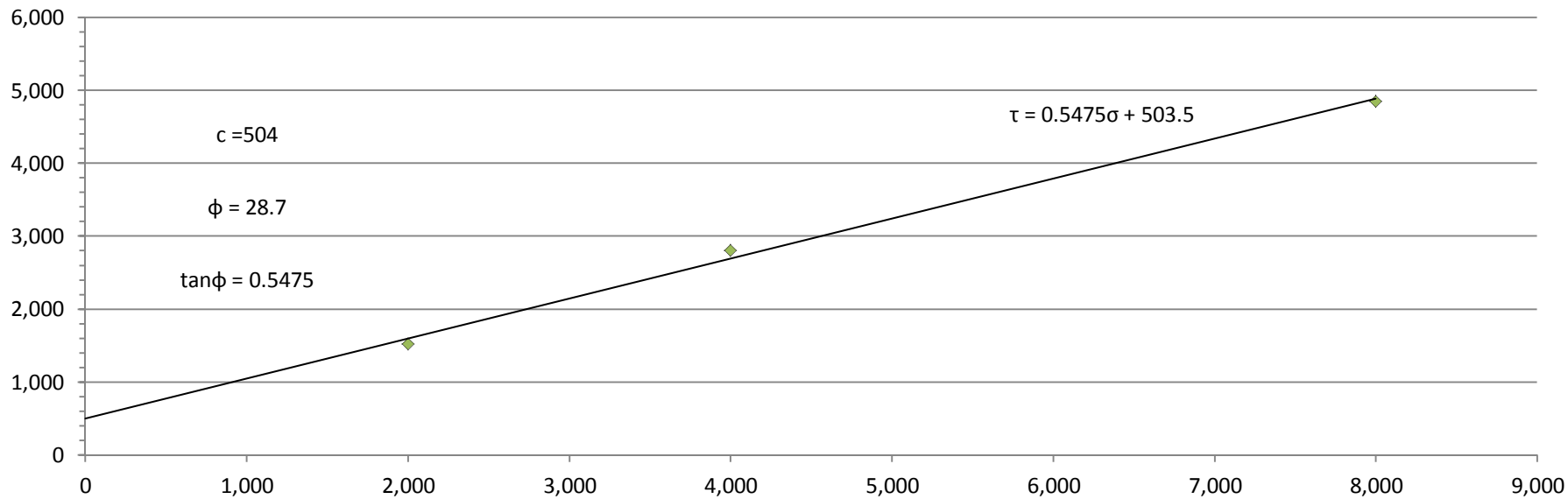
PLATE DS 335

Test Summary Table - Sta 345B 5-6'						
Test Property	Initial			Final		
Normal Stress, psf	2,000	4,000	8,000	2,000	4,000	8,000
Dry Density, pcf	109.2	109.4	109.4	111.5	113.8	114.8
Moisture Content, %	12.5	12.5	12.5	17.5	16.4	15.9
Saturation, %	66.8	67.2	66.9	99.8	99.8	99.8
Void Ratio, %	0.4867	0.4840	0.4841	0.4561	0.4565	0.4141
Diameter, in.	2.42	2.42	2.42	2.42	2.42	2.42
Height, in.	1.000	1.000	1.000	0.979	0.961	0.953
Stress @ 5 % Strain	---	---	---	1350	2300	4100
Ultimate Stress, psf	---	---	---	1525	2804	4847
Strain, %	---	---	---	10.1	10.3	10.2

Stress-Strain Plot



Shear Stress - Normal Stress Failure Envelope



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SUMMARY OF DIRECT SHEAR TEST DATA

Geotechnical Investigation

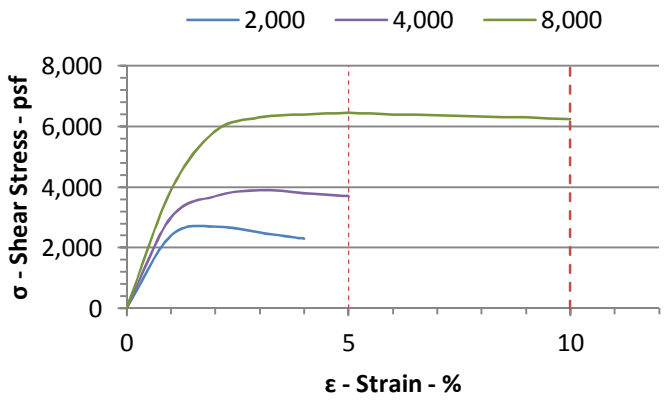
USA Parkway

Project No.: 8480.001
Date: 4.16.13

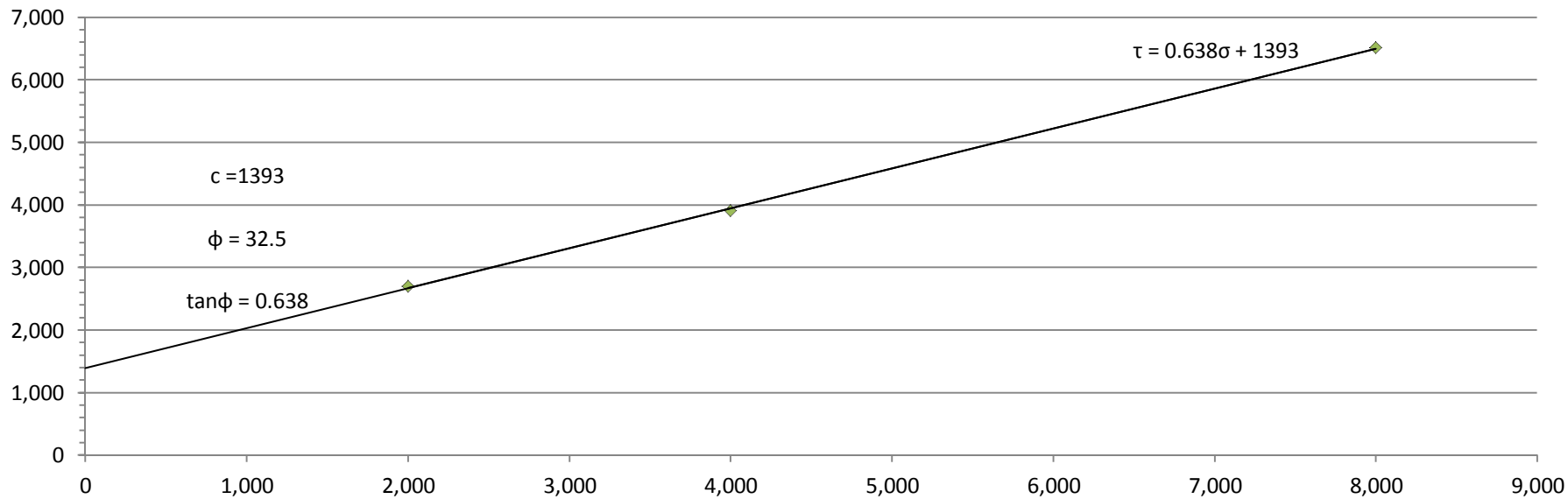
PLATE DS 345

Test Summary Table - Sta 415 12-15'						
Test Property	Initial			Final		
Normal Stress, psf	2,000	4,000	8,000	2,000	4,000	8,000
Dry Density, pcf	115.8	114.7	115.7	116.7	115.8	116.9
Moisture Content, %	9.7	9.7	9.7	14.9	15.4	14.9
Saturation, %	63.2	61.0	62.9	99.3	99.9	99.5
Void Ratio, %	0.4011	0.4156	0.4028	0.3913	0.4020	0.3881
Diameter, in.	2.42	2.42	2.42	2.42	2.42	2.42
Height, in.	1.000	1.010	1.000	0.993	1.000	1.990
Stress @ 5 % Strain	---	---	---	---	3700	6450
Ultimate Stress, psf	---	---	---	2695	3906	6510
Strain, %	---	---	---	1.9	2.8	4.7

Stress-Strain Plot



Shear Stress - Normal Stress Failure Envelope



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SUMMARY OF DIRECT SHEAR TEST DATA

Geotechnical Investigation

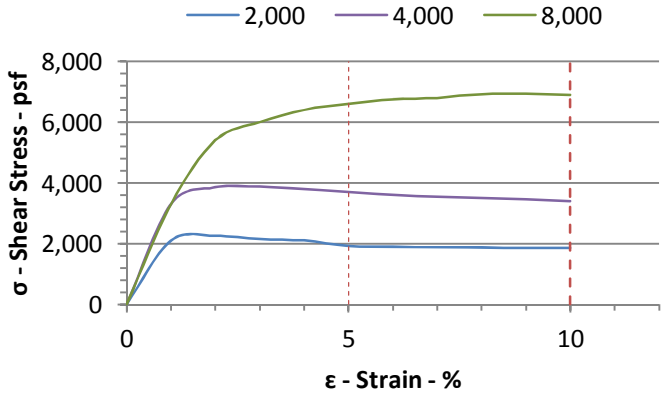
USA Parkway

Project No.: 8480.001
Date: 4.16.13

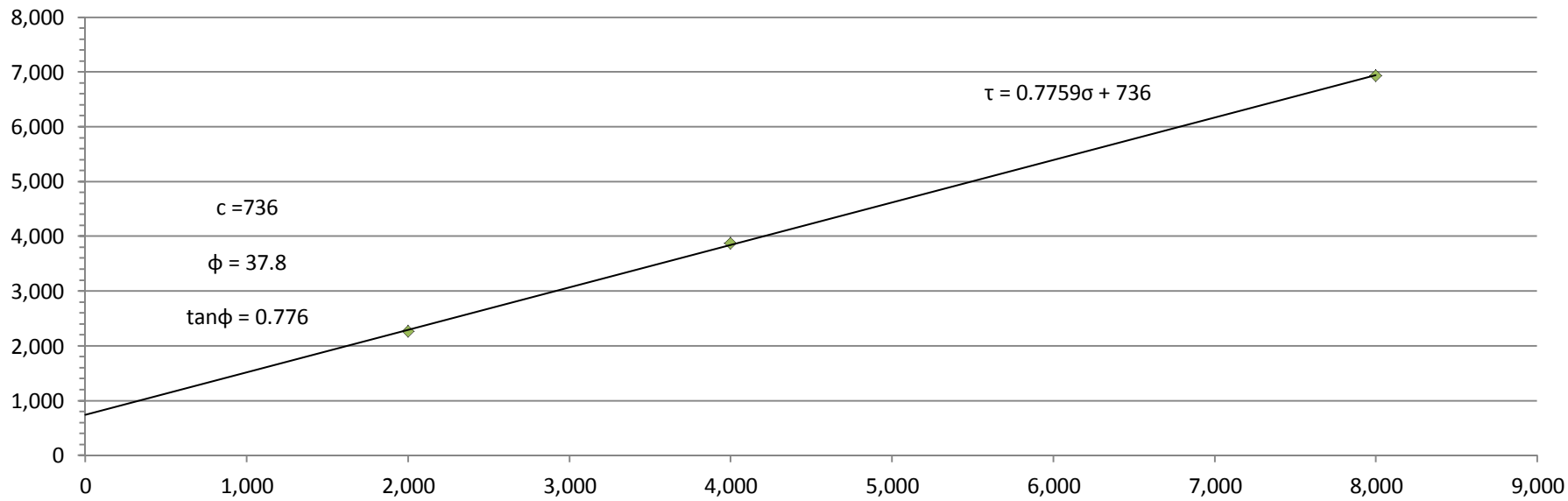
PLATE DS 415

Test Summary Table - Sta 455 5-10'						
Test Property	Initial			Final		
Normal Stress, psf	2,000	4,000	8,000	2,000	4,000	8,000
Dry Density, pcf	113.7	113.7	113.6	113.7	113.7	113.6
Moisture Content, %	10.7	10.7	10.7	16.7	16.7	17.1
Saturation, %	62.1	62.1	62.0	97.3	97.3	99.4
Void Ratio, %	0.4555	0.4553	0.4559	0.4555	0.4553	0.4559
Diameter, in.	2.42	2.42	2.42	2.42	2.42	2.42
Height, in.	1.010	1.010	1.010	1.010	1.010	1.010
Stress @ 5 % Strain	---	---	---	1900	3700	6900
Ultimate Stress, psf	---	---	---	2264	3875	6931
Strain, %	---	---	---	1.8	2.9	8.5

Stress-Strain Plot



Shear Stress - Normal Stress Failure Envelope



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SUMMARY OF DIRECT SHEAR TEST DATA

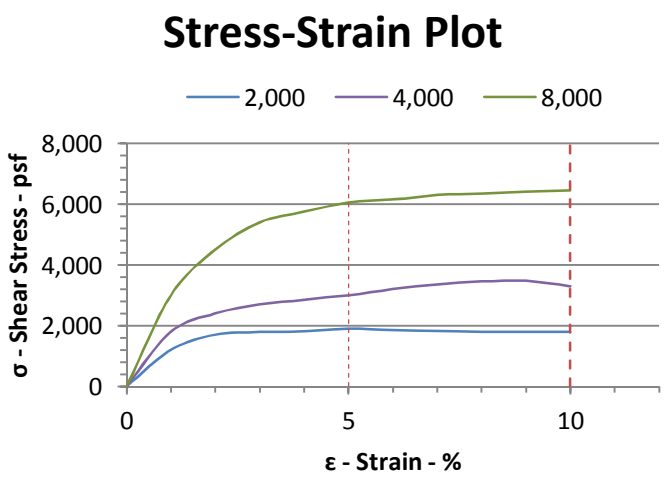
Geotechnical Investigation

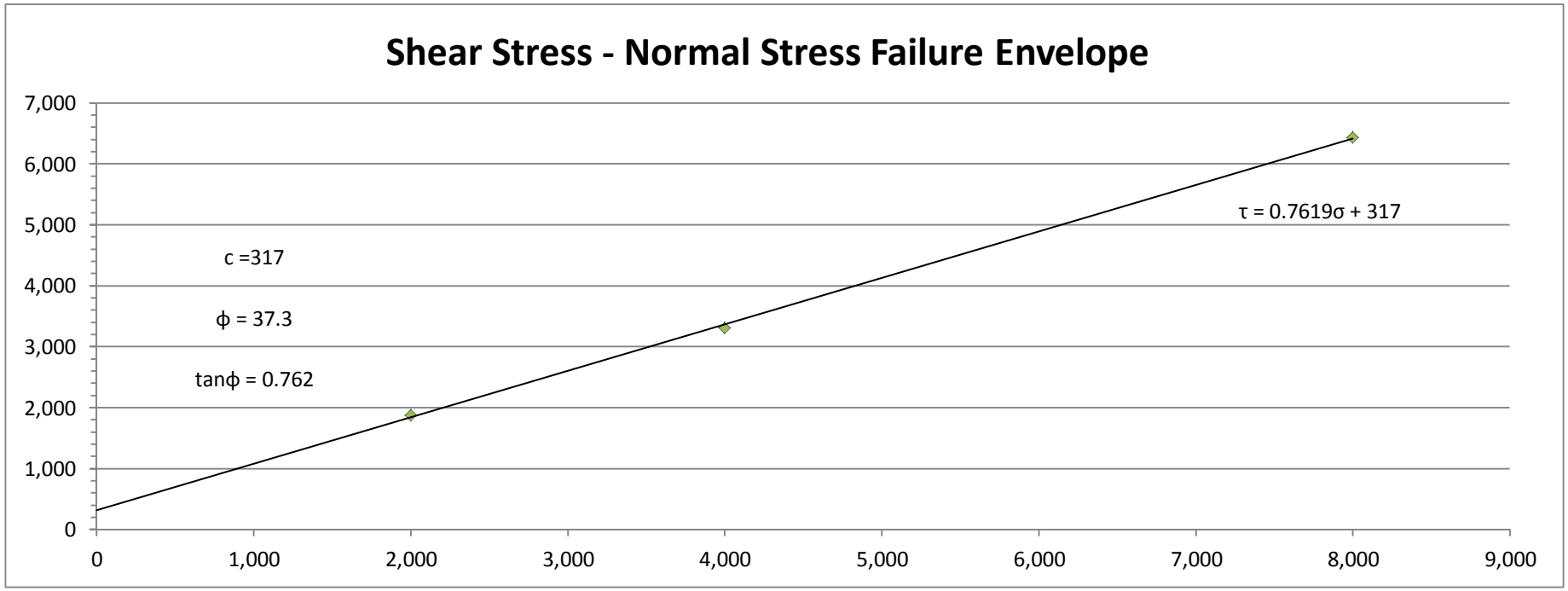
USA Parkway

Project No.: 8480.001
Date: 4.16.13

PLATE DS 545

Test Summary Table - Sta 545 0-1'						
Test Property	Initial			Final		
Normal Stress, psf	2,000	4,000	8,000	2,000	4,000	8,000
Dry Density, pcf	111.3	110.2	110.1	111.8	113.1	114.3
Moisture Content, %	5.0	5.0	5.0	17.3	16.7	16.1
Saturation, %	28.6	27.7	27.6	99.5	99.7	99.5
Void Ratio, %	0.4584	0.4723	0.4738	0.4519	0.4356	0.4198
Diameter, in.	2.42	2.42	2.42	2.42	2.42	2.42
Height, in.	1.000	1.010	1.010	0.996	0.985	0.973
Stress @ 5 % Strain	---	---	---	1900	3000	6000
Ultimate Stress, psf	---	---	---	1878	3309	6431
Strain, %	---	---	---	4.7	10.2	9.8





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SUMMARY OF DIRECT SHEAR TEST DATA

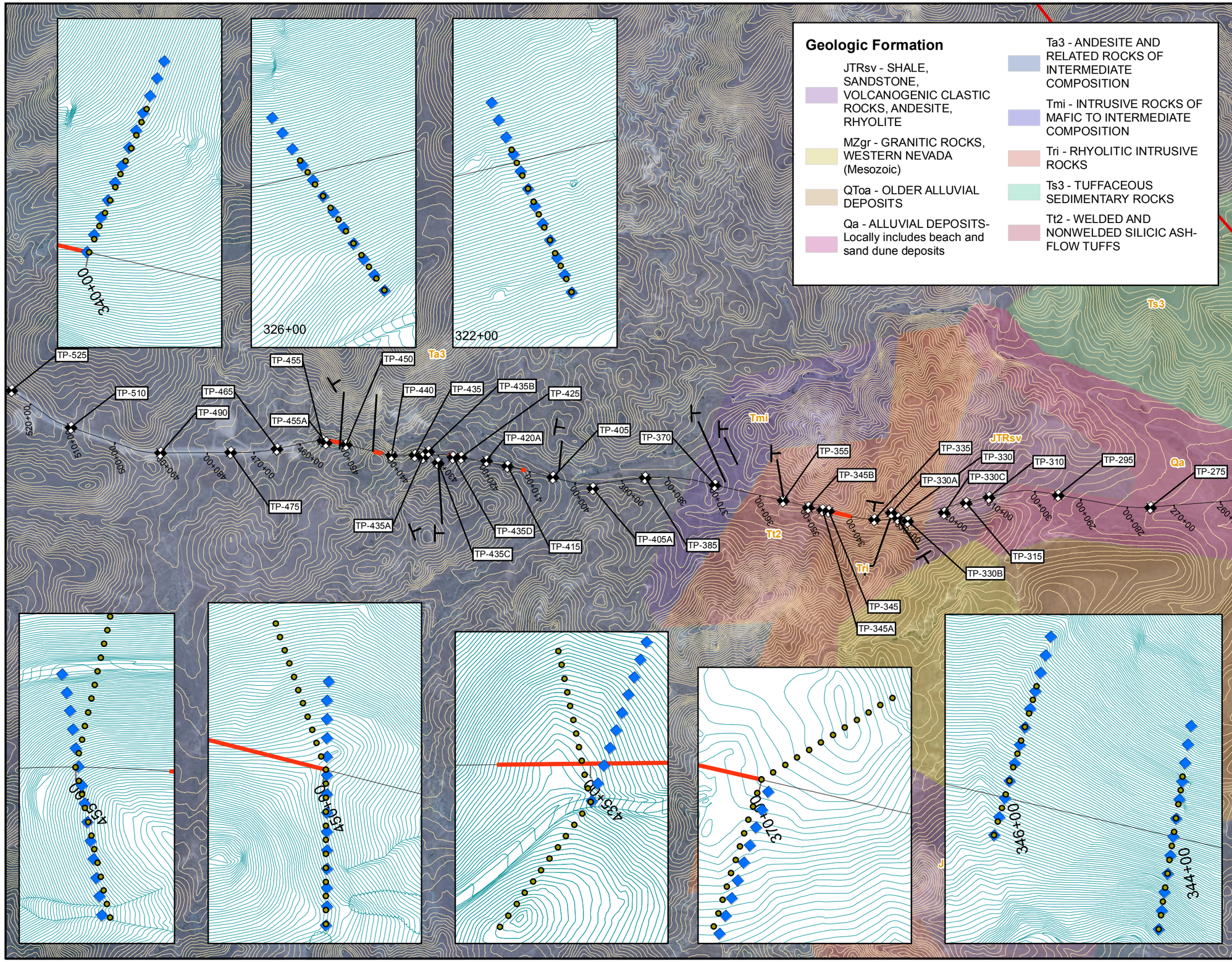
Geotechnical Investigation

USA Parkway

Project No.: 8480.001
Date: 4.16.13

PLATE DS 545

APPENDIX B
Geophysical Surveys



Geophysical Test Data
USA Parkway Geotech
Reno, NV
April, 2013

NORTH

0 1,000 2,000
FEET

Strike/Dip Location
REMI Alignment
P-Wave Alignment
Test Pit
Location with Cut > 30'
Alignment
BLM Parcels

All inset maps are at 1"=200' and have 2' contours

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

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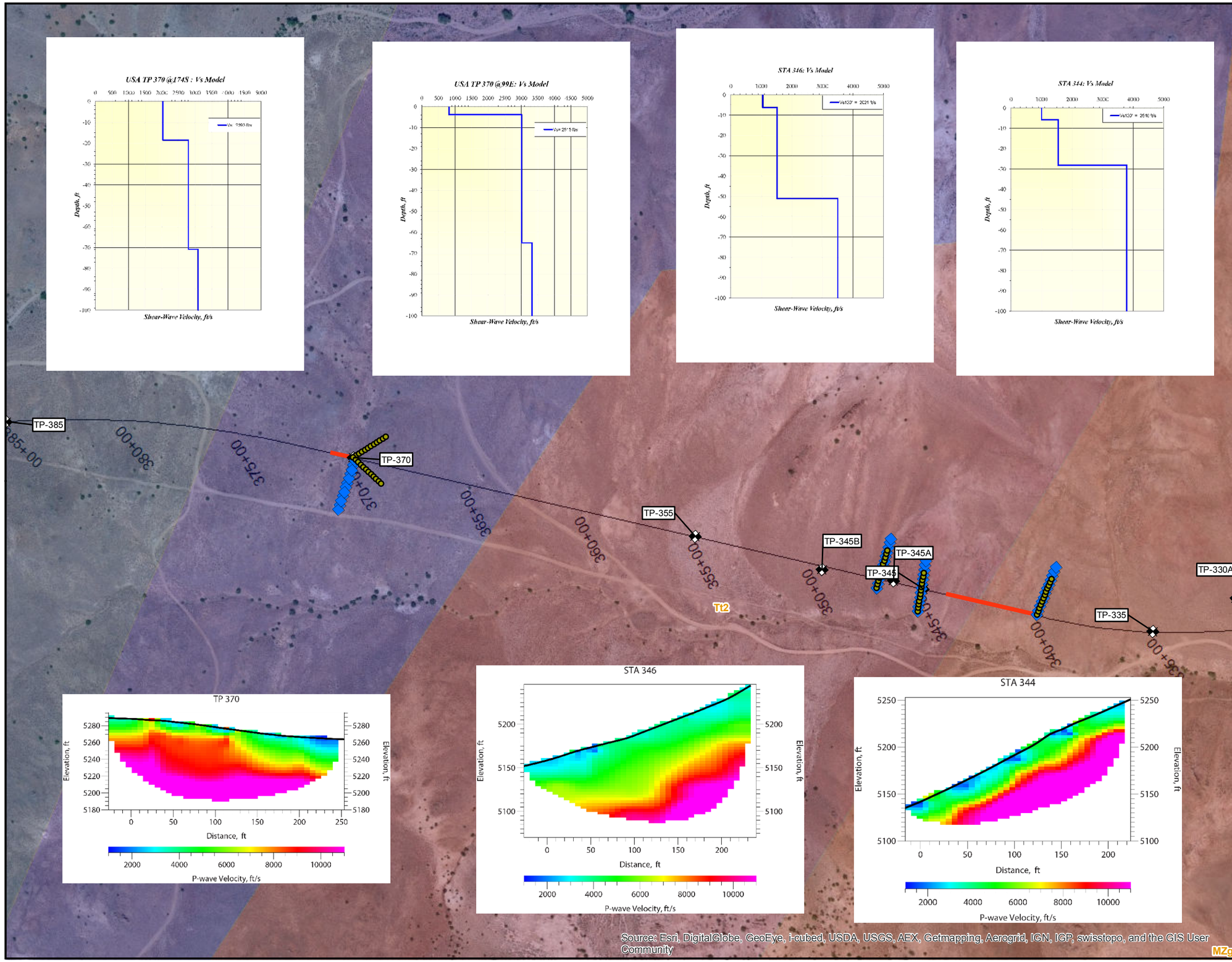
FIGURE B1



Geophysical Test Data

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 200 400

FEET

- P-Wave Alignment
- REMI Alignment
- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Geologic Formation

- Ta3 - ANDESITE AND RELATED ROCKS OF INTERMEDIATE COMPOSITION
- Tmi - INTRUSIVE ROCKS OF MAFIC TO INTERMEDIATE COMPOSITION
- Tri - RHYOLITIC INTRUSIVE ROCKS
- Tt2 - WELDED AND NONWELDED SILICIC ASH-FLOW TUFFS

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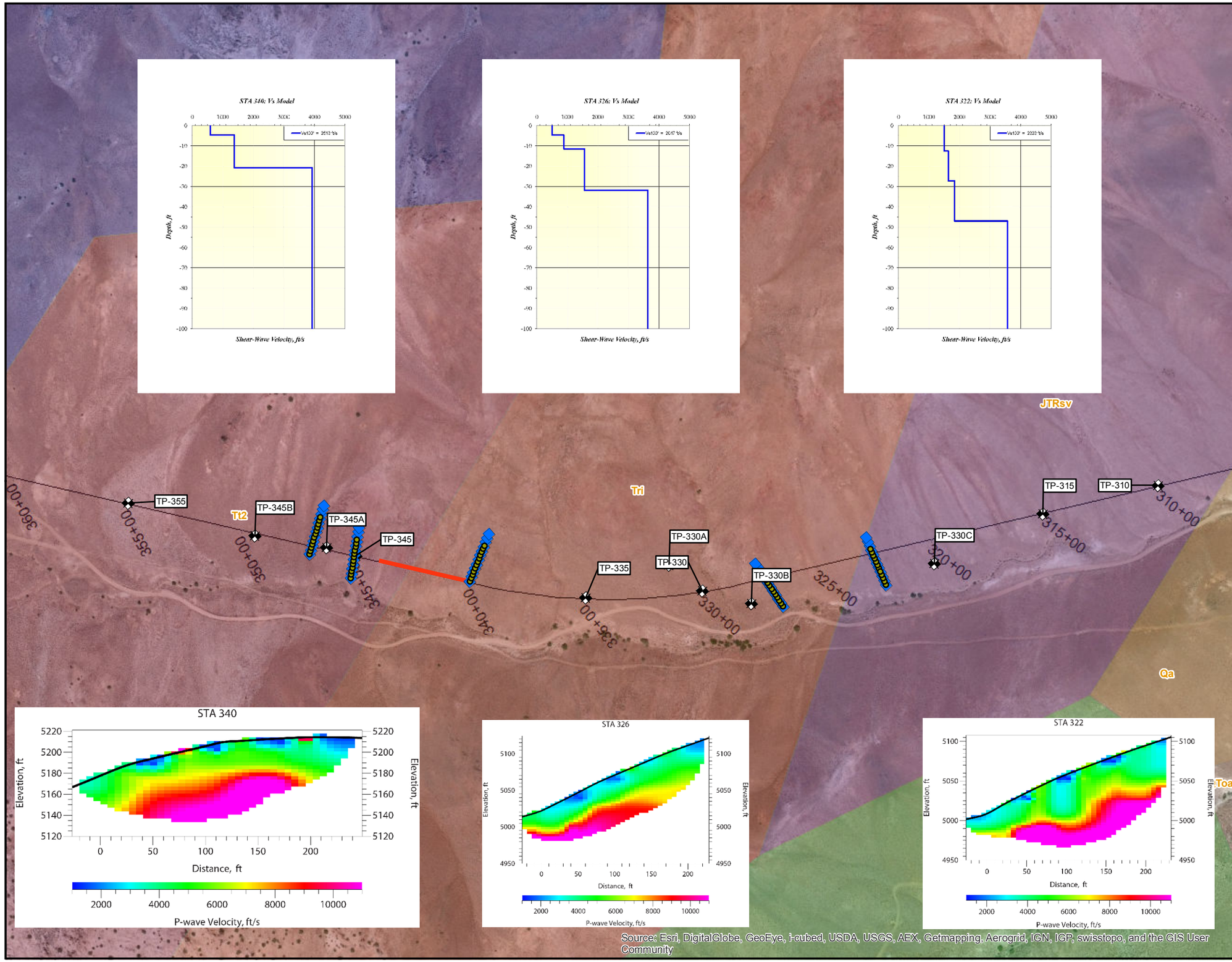
FIGURE B2



Geophysical Test Data

USA Parkway Geotech
Reno, NV
April, 2013

NORTH

0 200 400
FEET

- P-Wave Alignment
- REMI Alignment
- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Geologic Formation

- JTRsv - SHALE, SANDSTONE, VOLCANOGENIC CLASTIC ROCKS, ANDESITE, RHYOLITE
- MZgr - GRANITIC ROCKS, WESTERN NEVADA (Mesozoic)
- Qa - ALLUVIAL DEPOSITS- Locally includes beach and sand dune deposits
- Tmi - INTRUSIVE ROCKS OF MAFIC TO INTERMEDIATE COMPOSITION
- Tri - RHYOLITIC INTRUSIVE ROCKS
- Tt2 - WELDED AND NONWELDED SILICIC ASH-FLOW TUFFS

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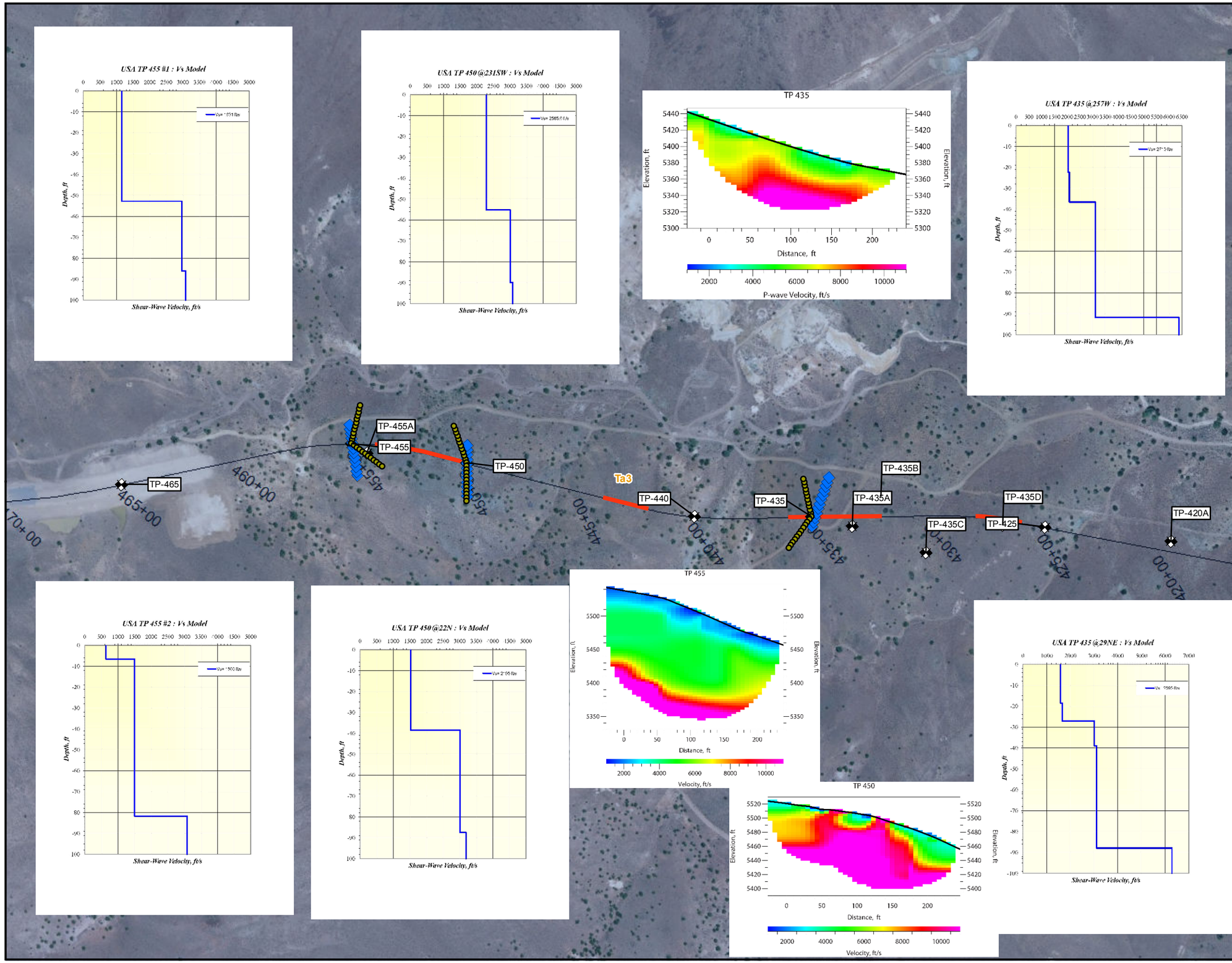
FIGURE B3



Geophysical Test Data

USA Parkway Geotech
Reno, NV
April, 2013

NORTH

0 200 400
FEET

- P-Wave Alignment
- REMI Alignment
- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Geologic Formation

Ta3 - ANDESITE AND RELATED ROCKS OF INTERMEDIATE COMPOSITION

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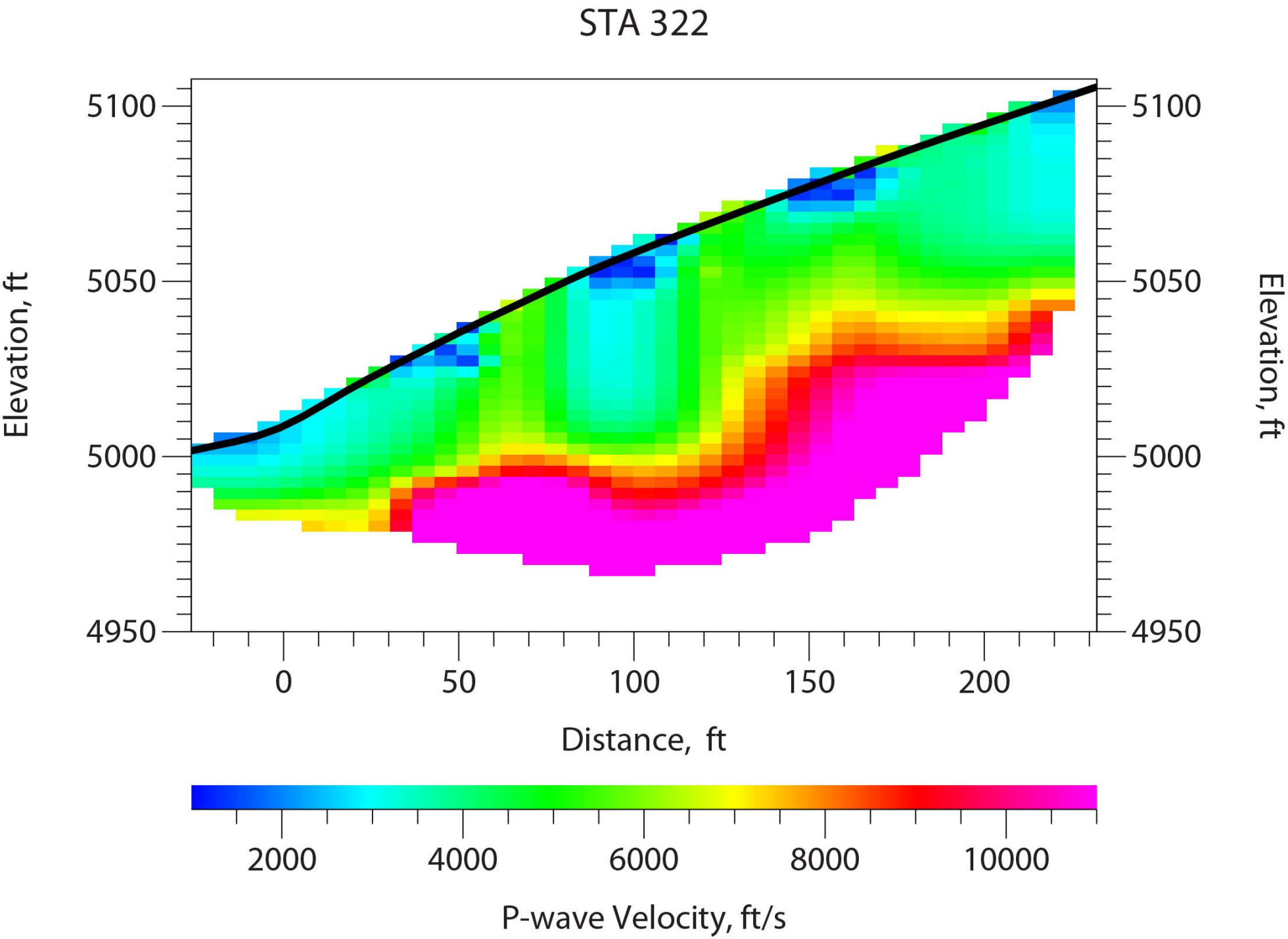
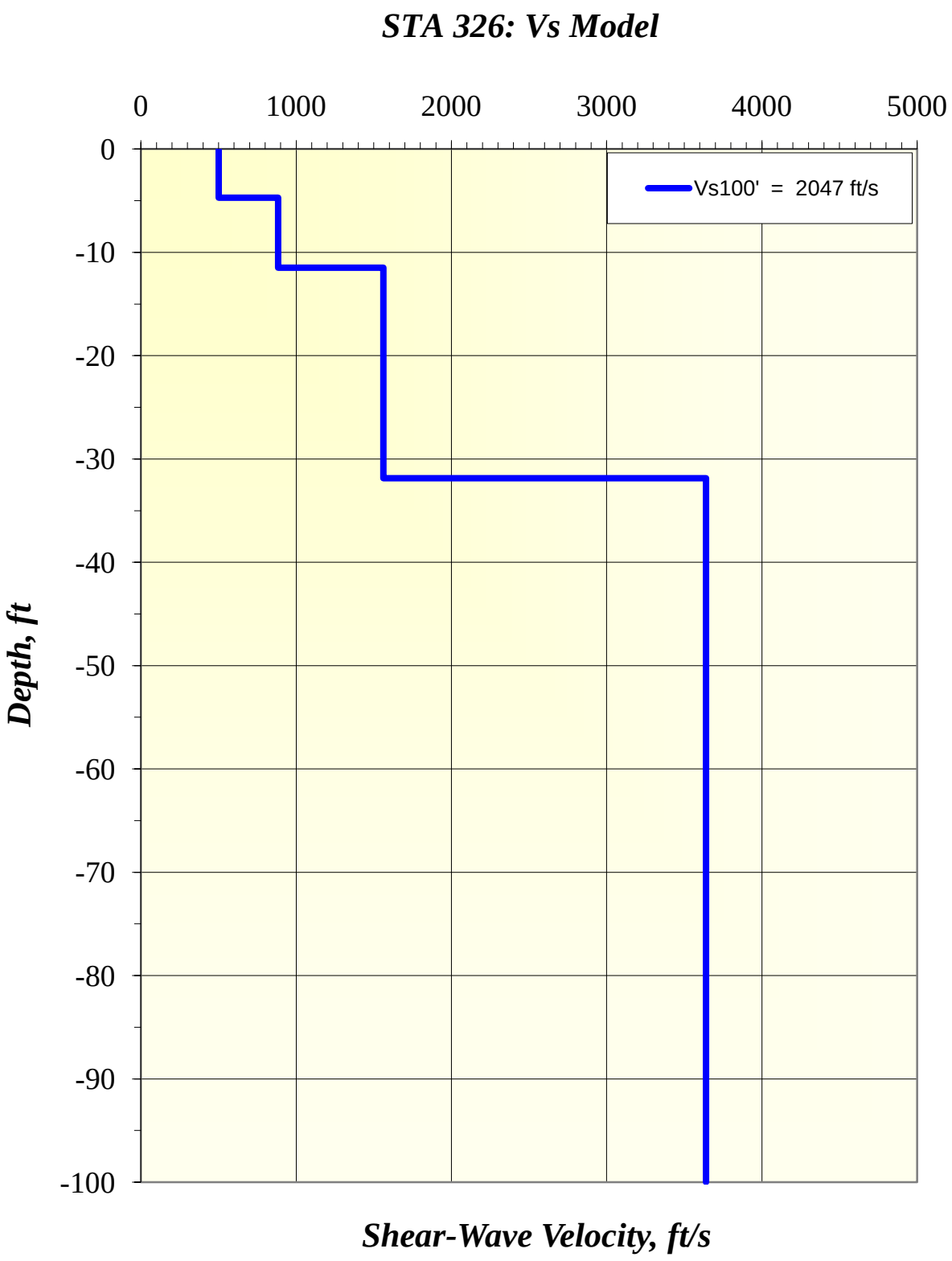
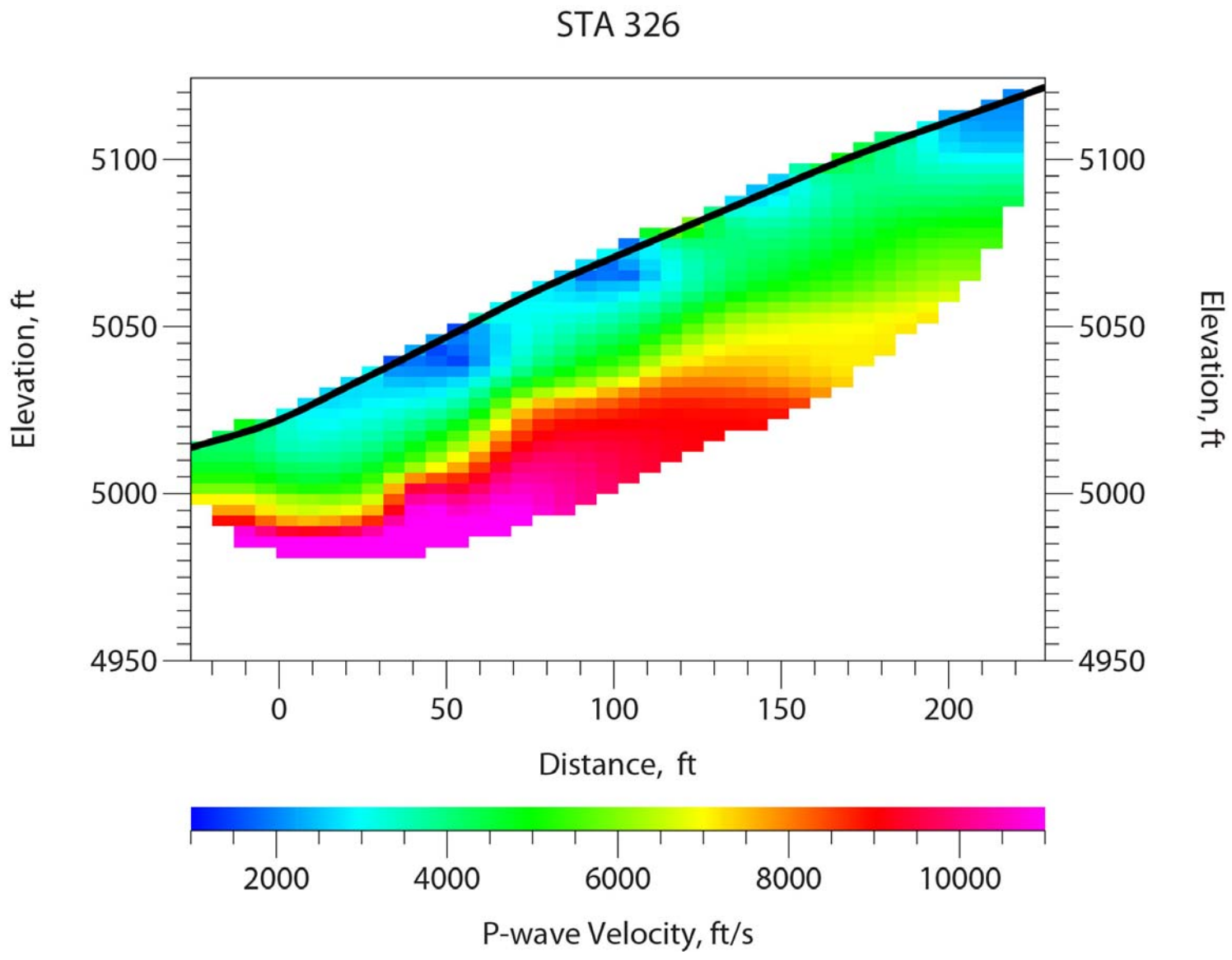
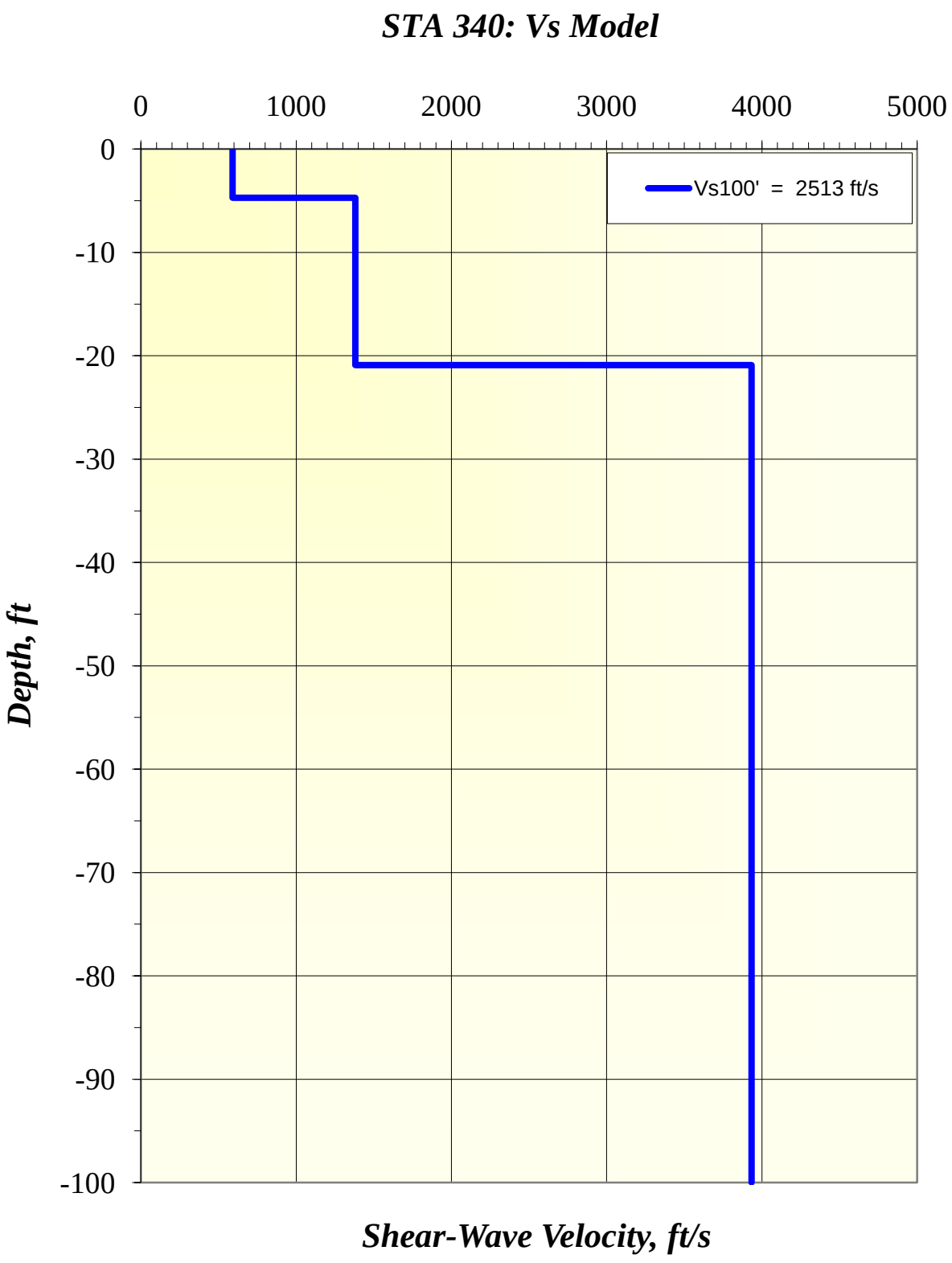
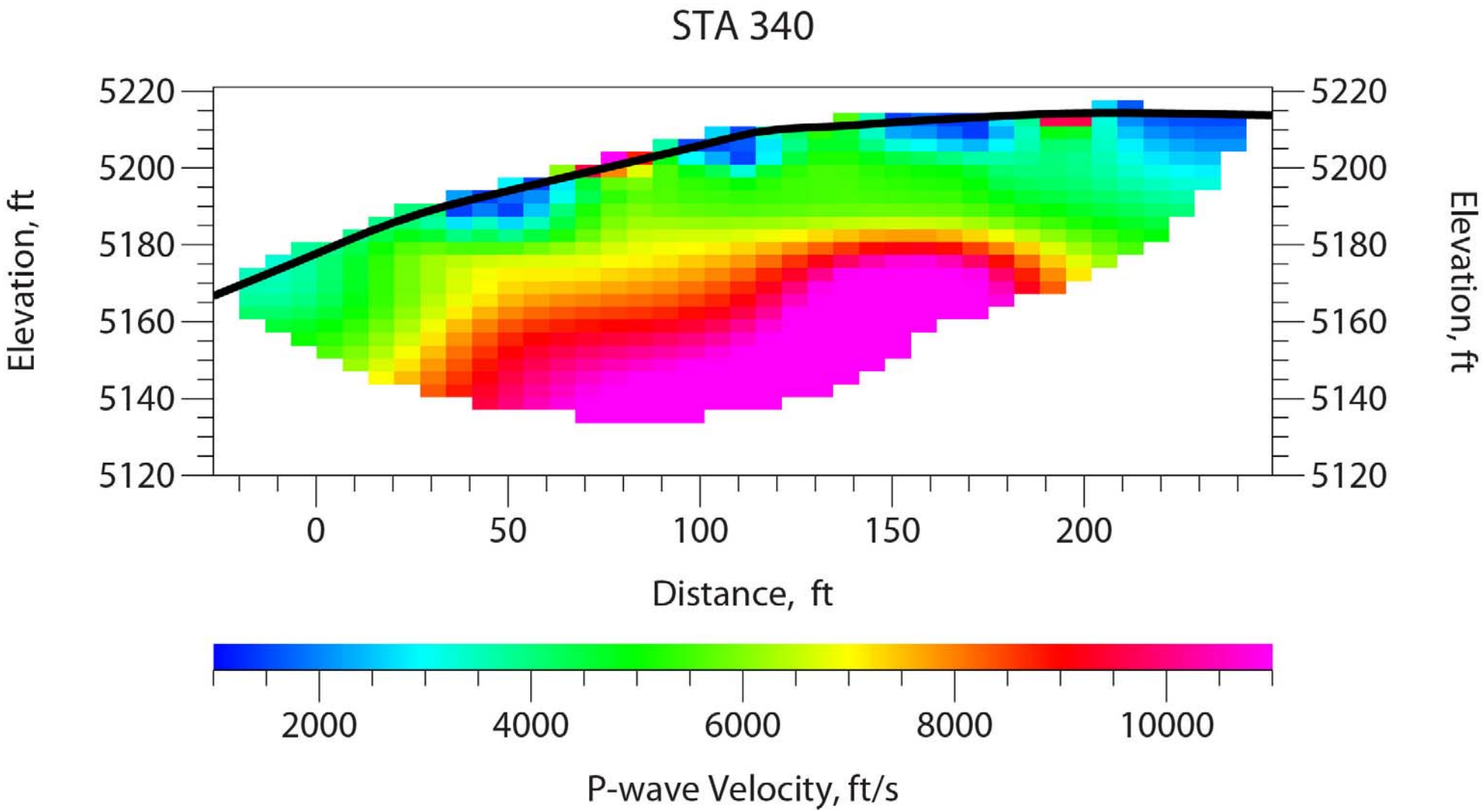
FIGURE B4

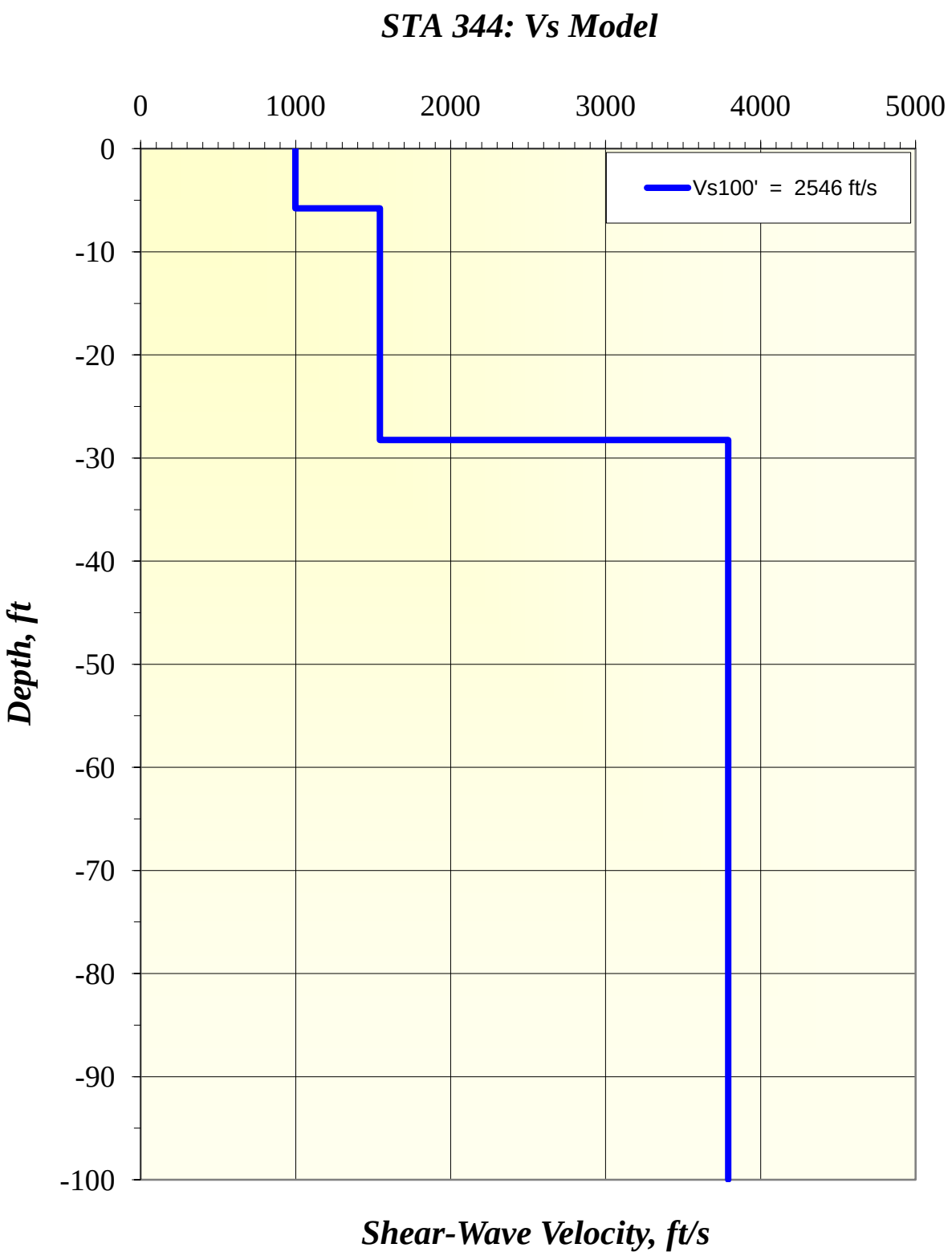

STA 322
5100
5050
5000
4950
Elevation, ft
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

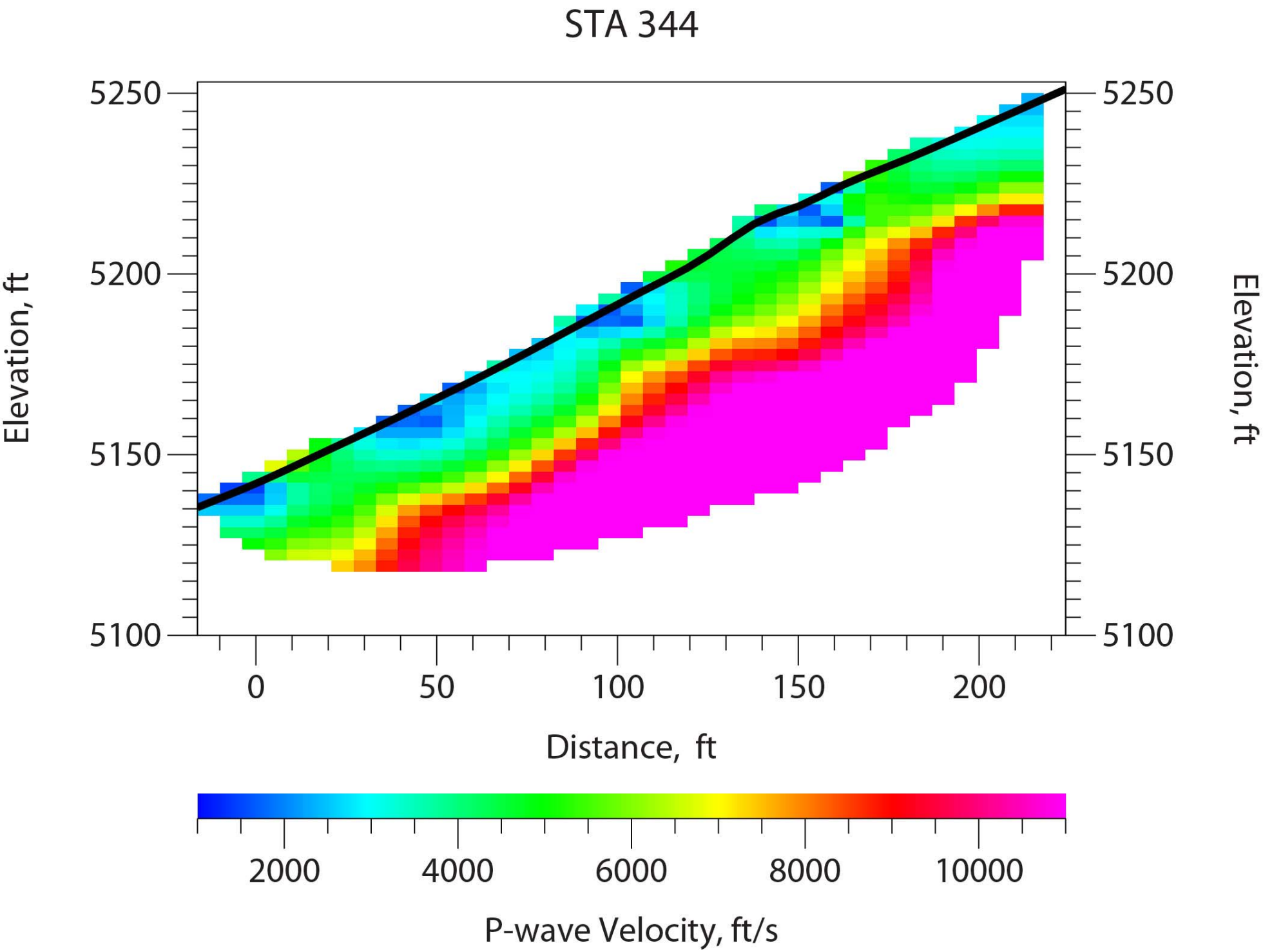

STA 326: Vs Model
0
1000
2000
3000
4000
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Vs100' = 2047 ft/s
Depth, ft
Shear-Wave Velocity, ft/s

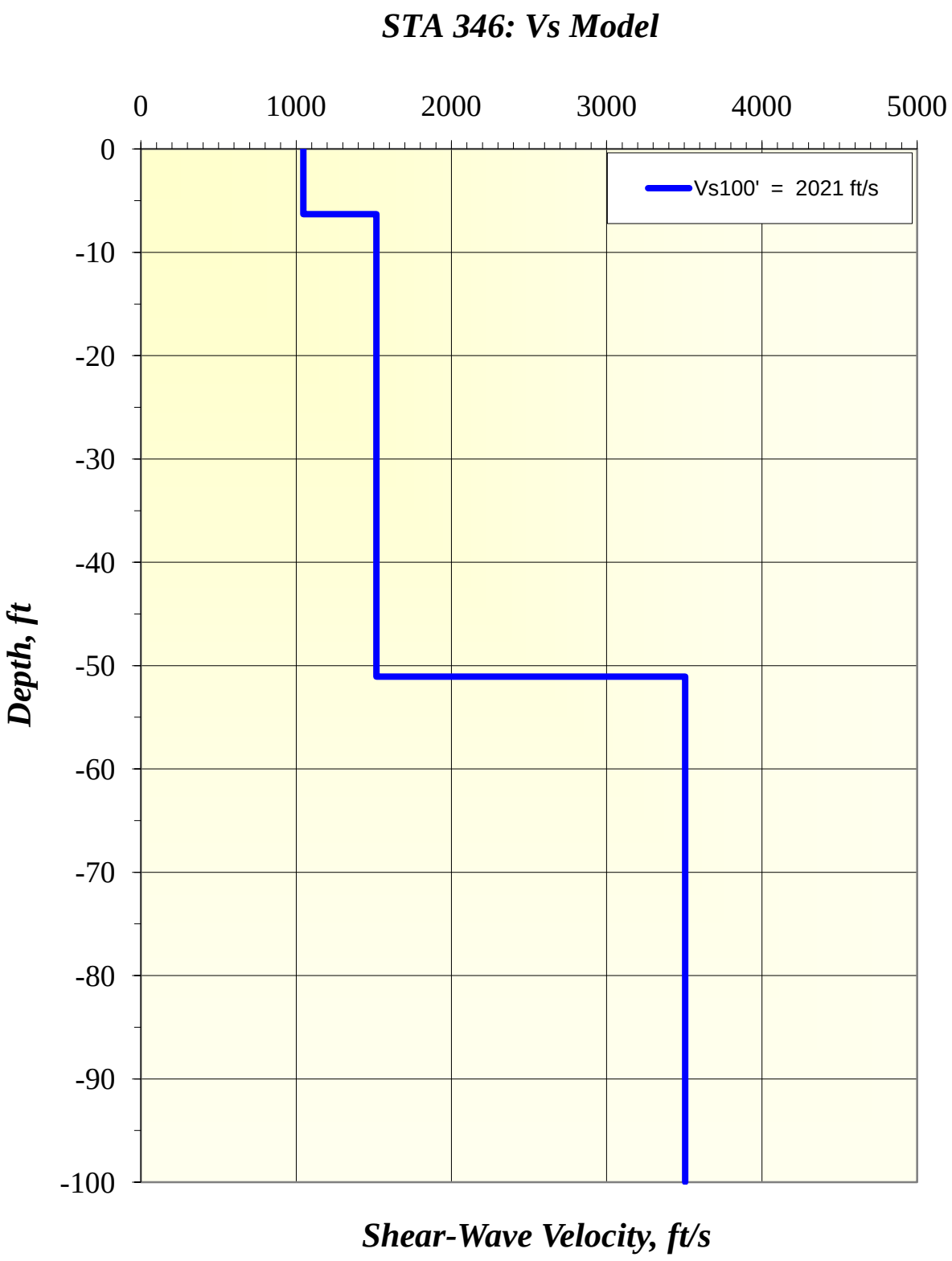

STA 326
Elevation, ft
5100
5050
5000
4950
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

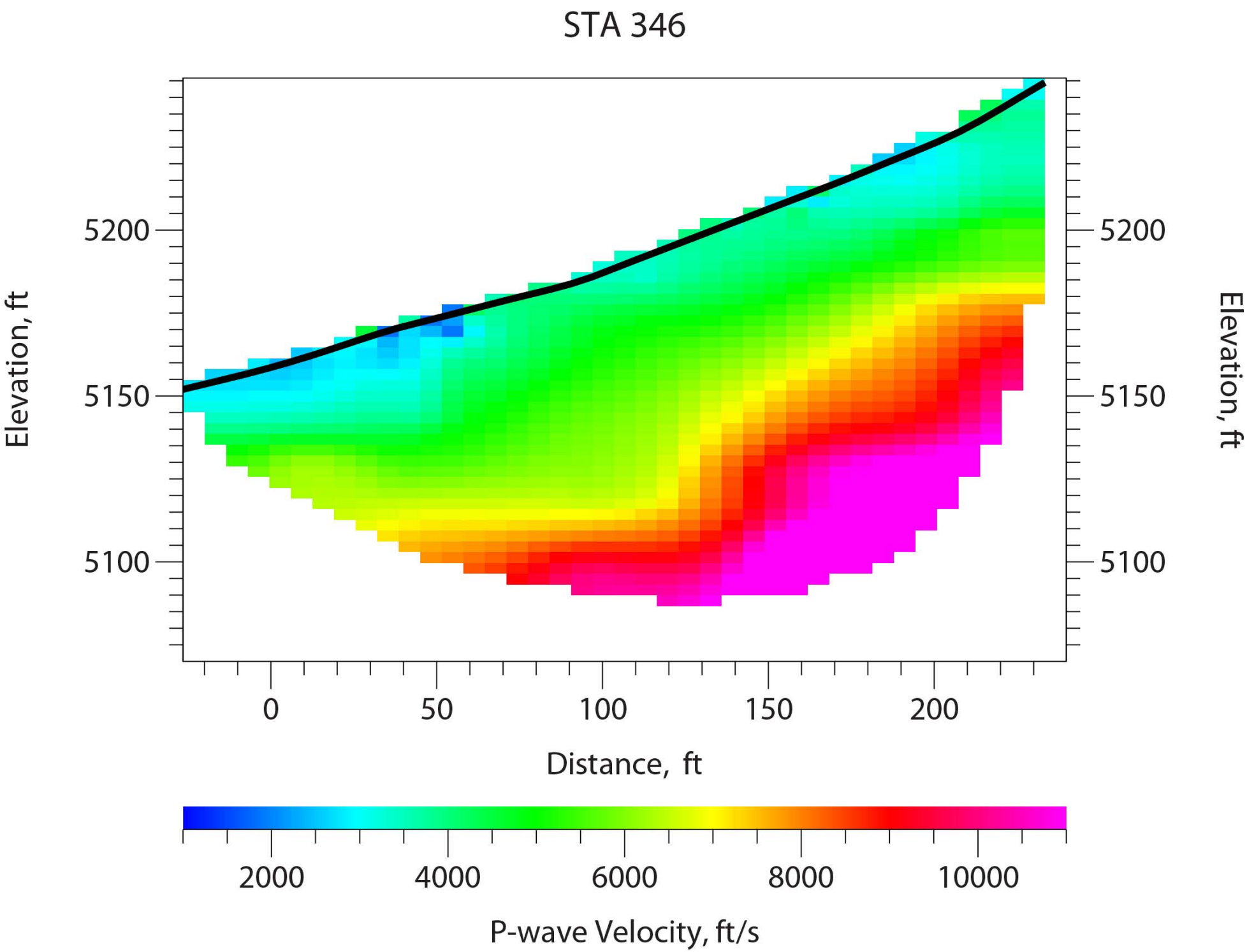

STA 340: Vs Model
0
1000
2000
3000
4000
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs100' = 2513 ft/s
Shear-Wave Velocity, ft/s

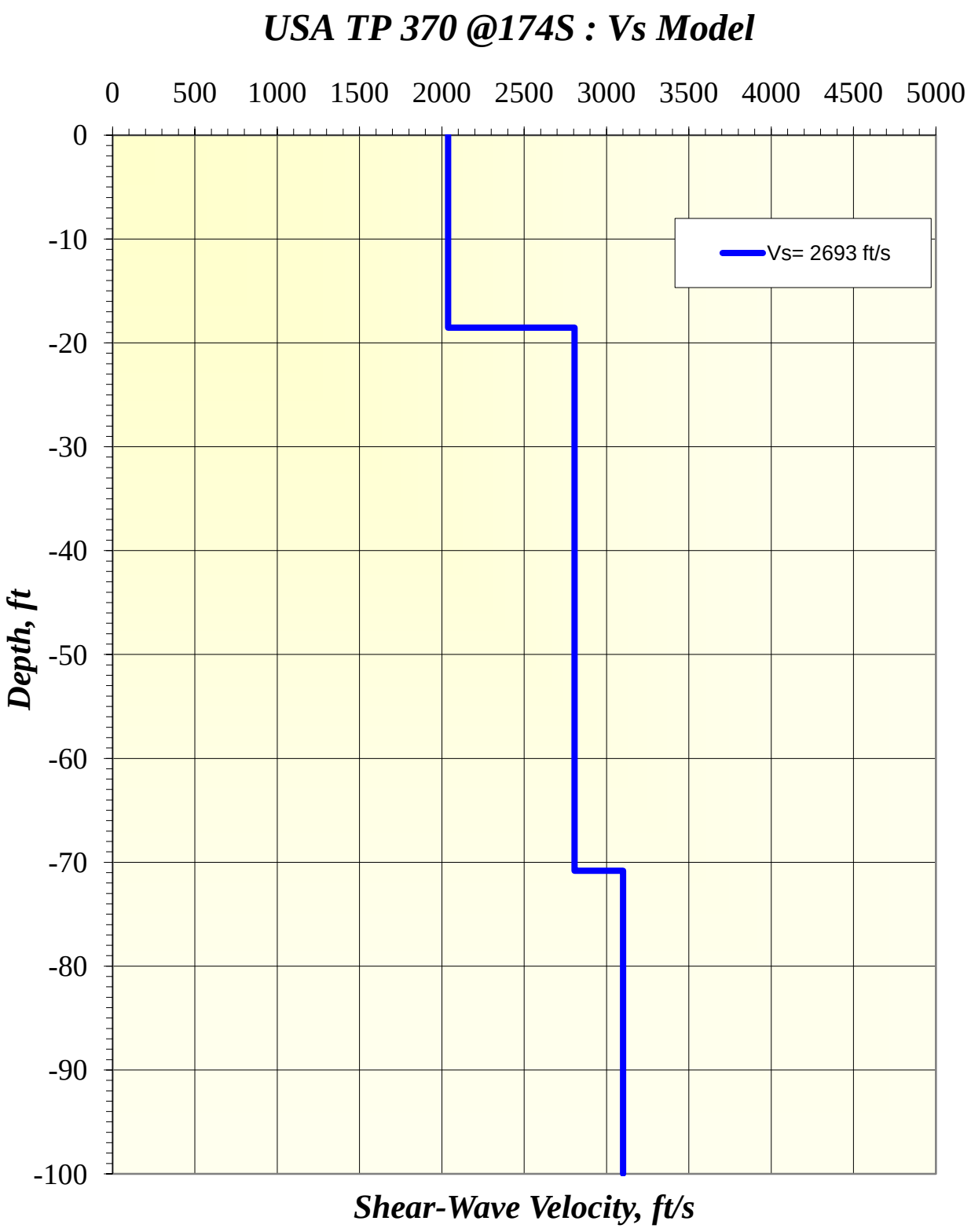

STA 340
5220
5200
5180
5160
5140
5120
Elevation, ft
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

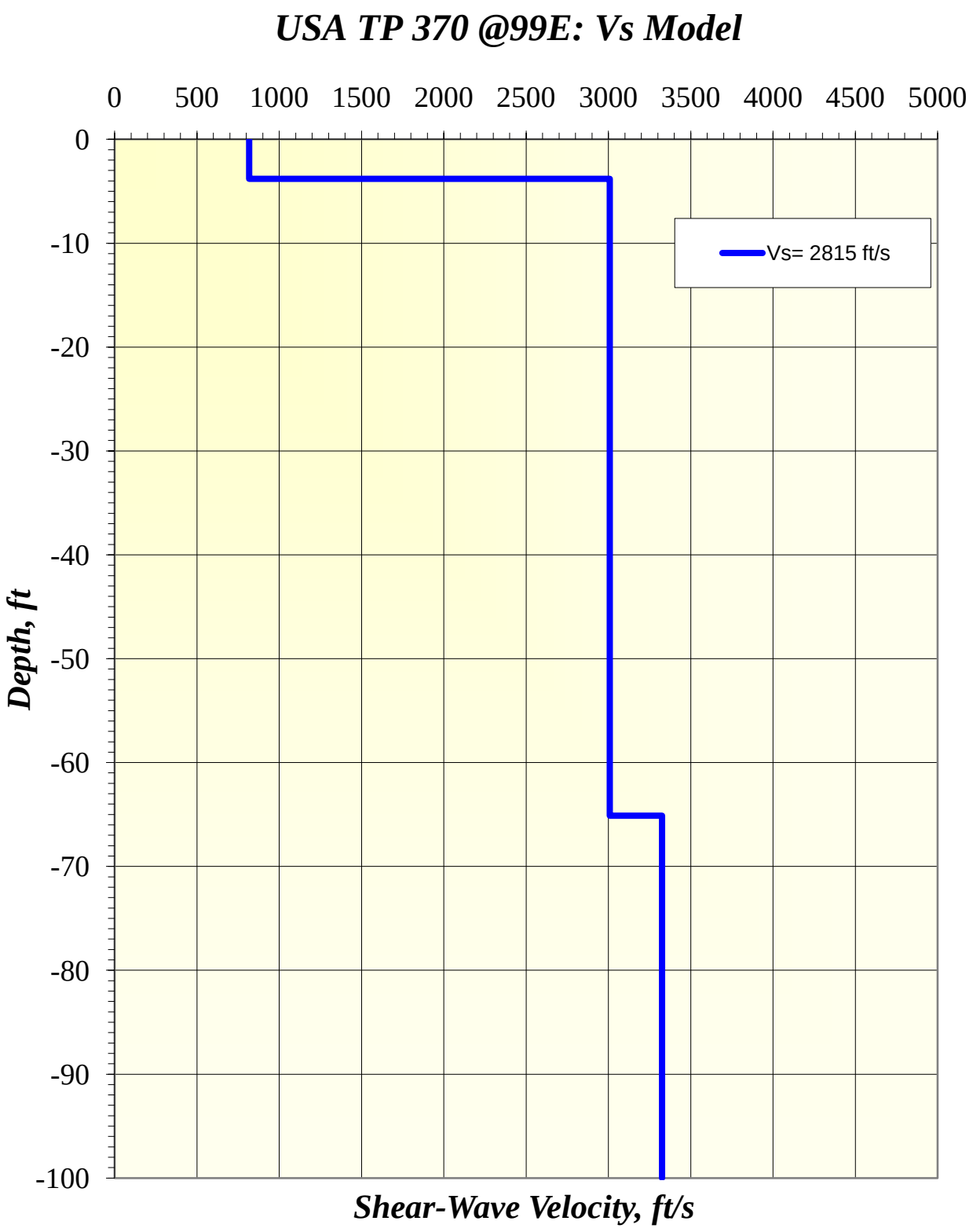

STA 344: Vs Model
0
1000
2000
3000
4000
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Vs100' = 2546 ft/s
Depth, ft
Shear-Wave Velocity, ft/s

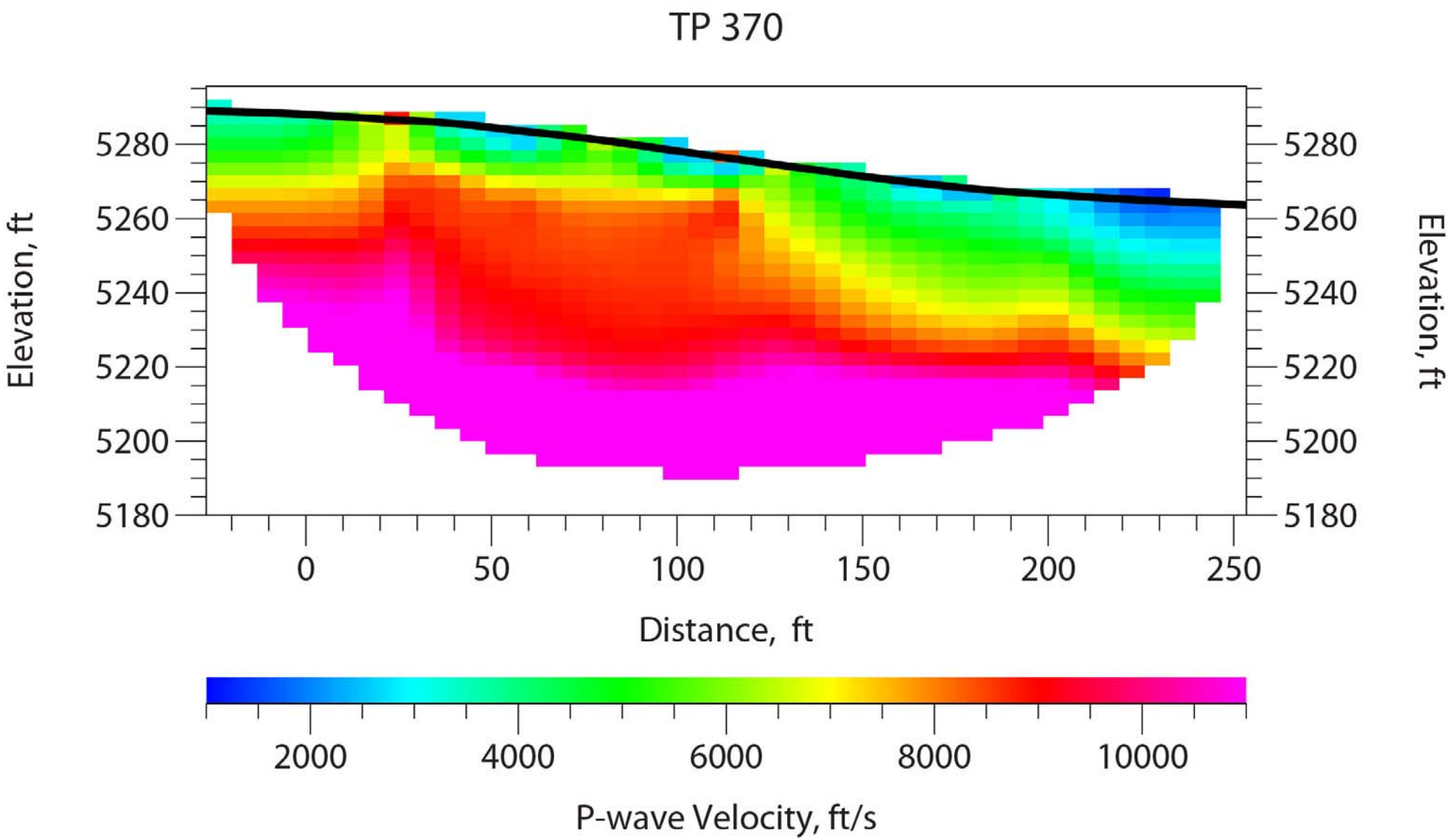

STA 344
5250
5200
5150
5100
Elevation, ft
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

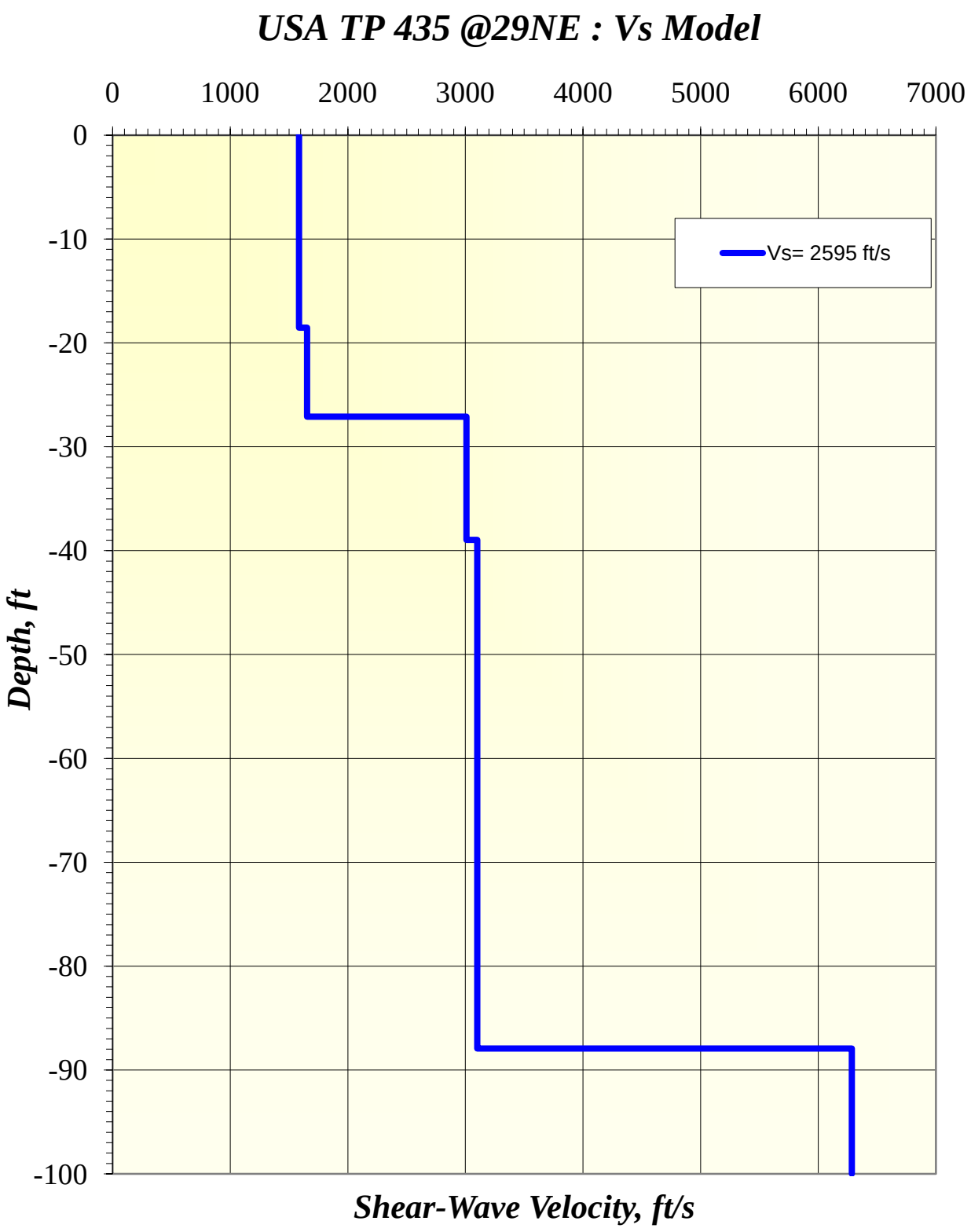

STA 346: Vs Model
0
1000
2000
3000
4000
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs100' = 2021 ft/s
Shear-Wave Velocity, ft/s

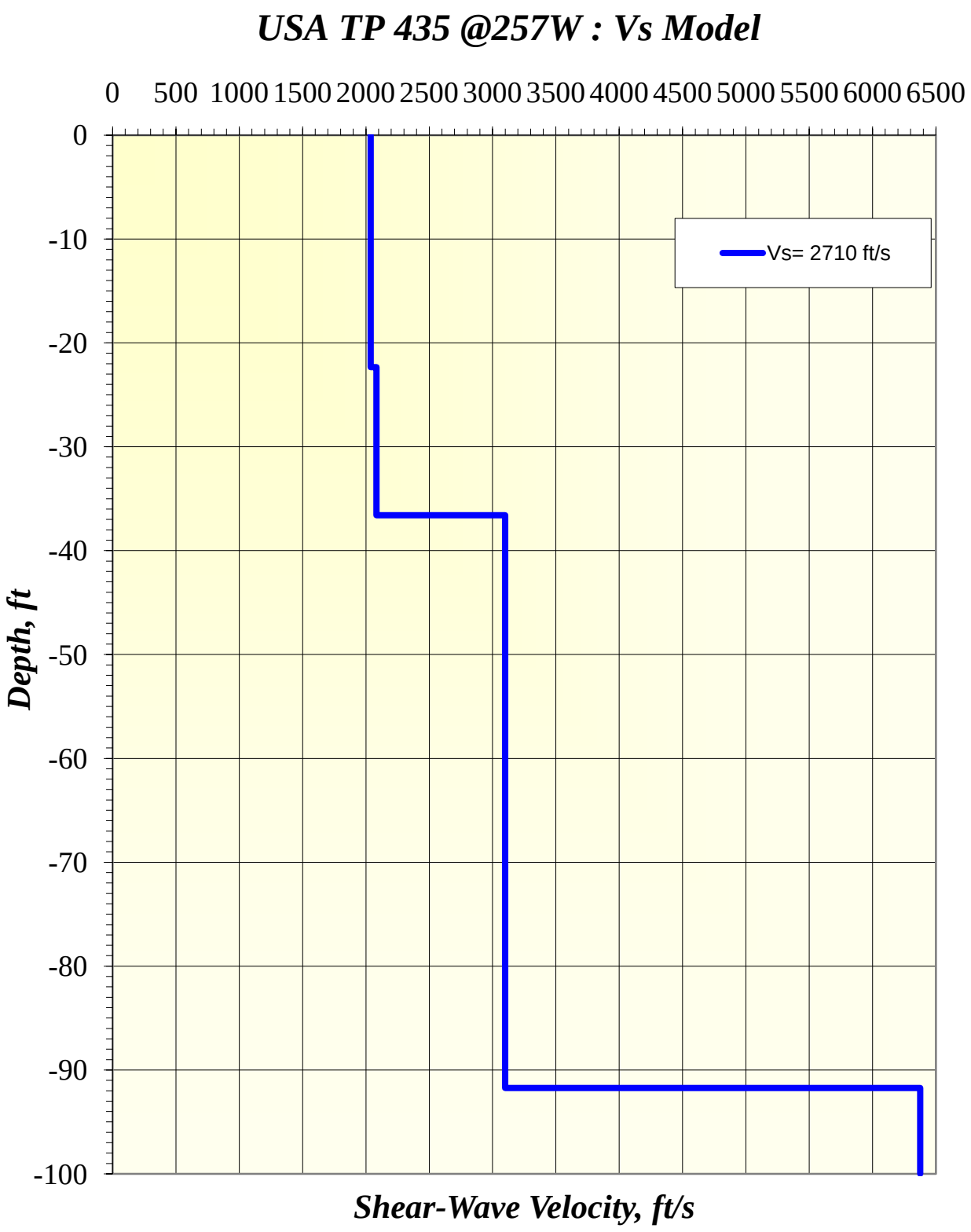

STA 346
Elevation, ft
5200
5150
5100
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

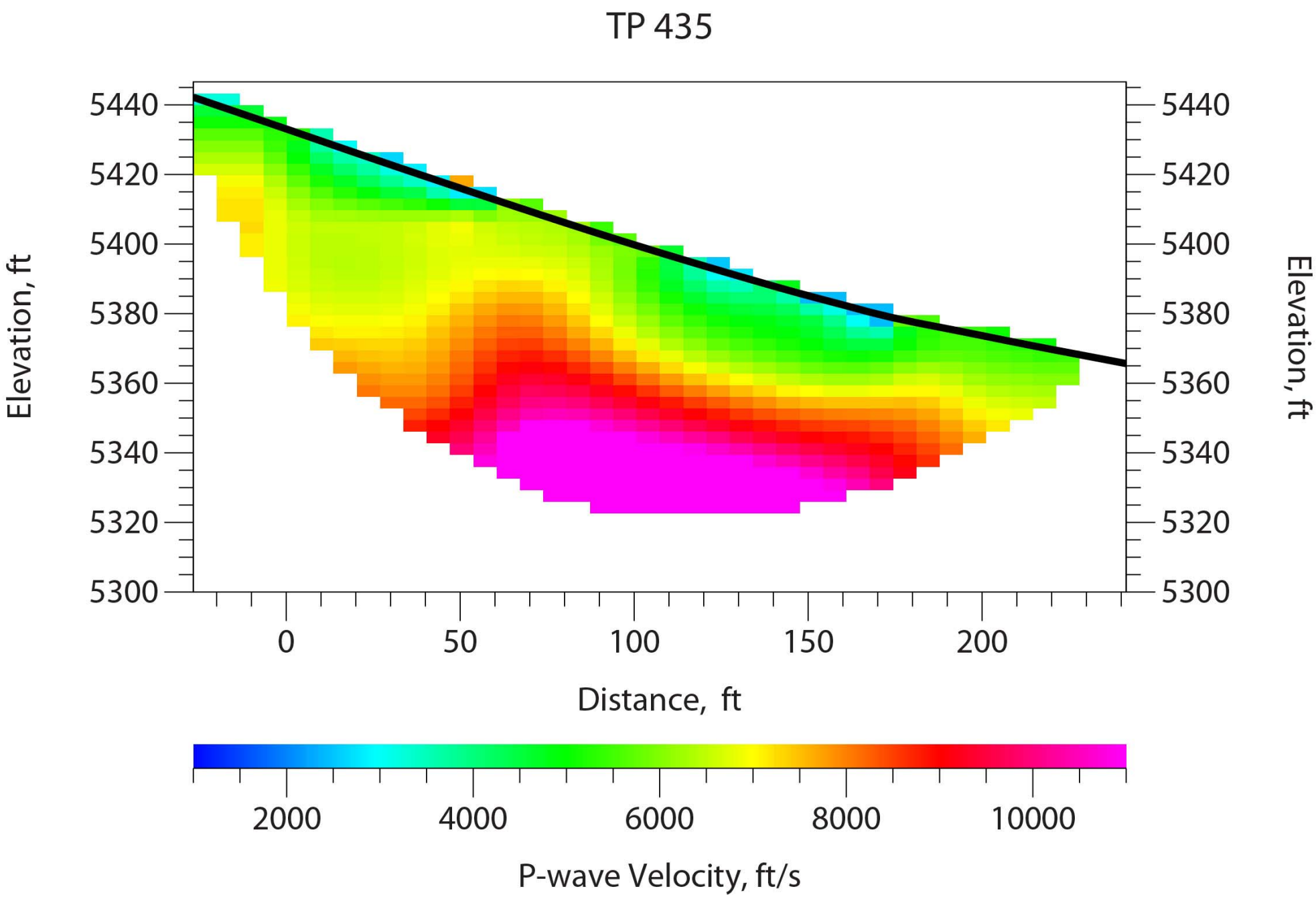

USA TP 370 @174S : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2693 ft/s
Shear-Wave Velocity, ft/s

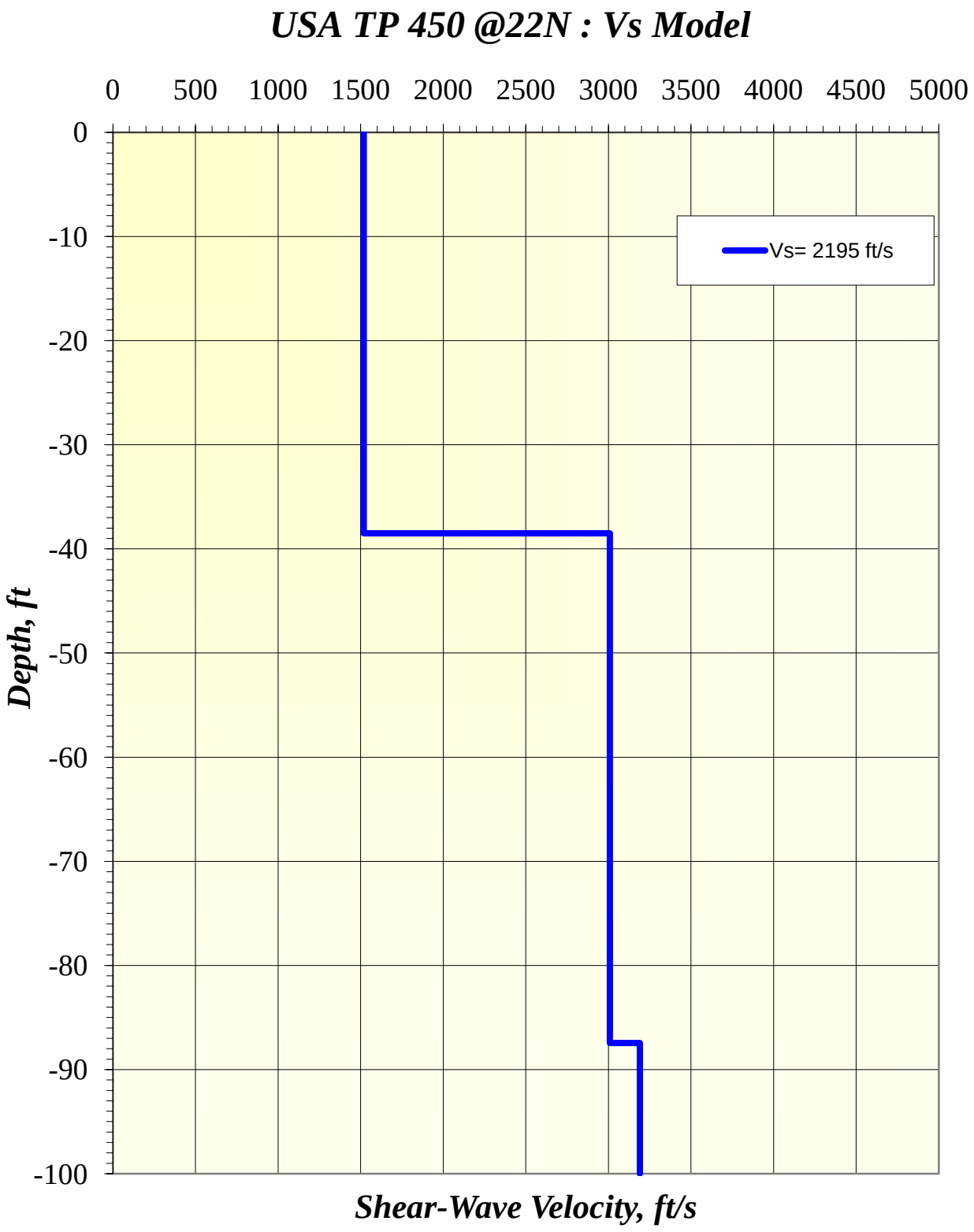

USA TP 370 @99E: Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2815 ft/s
Shear-Wave Velocity, ft/s

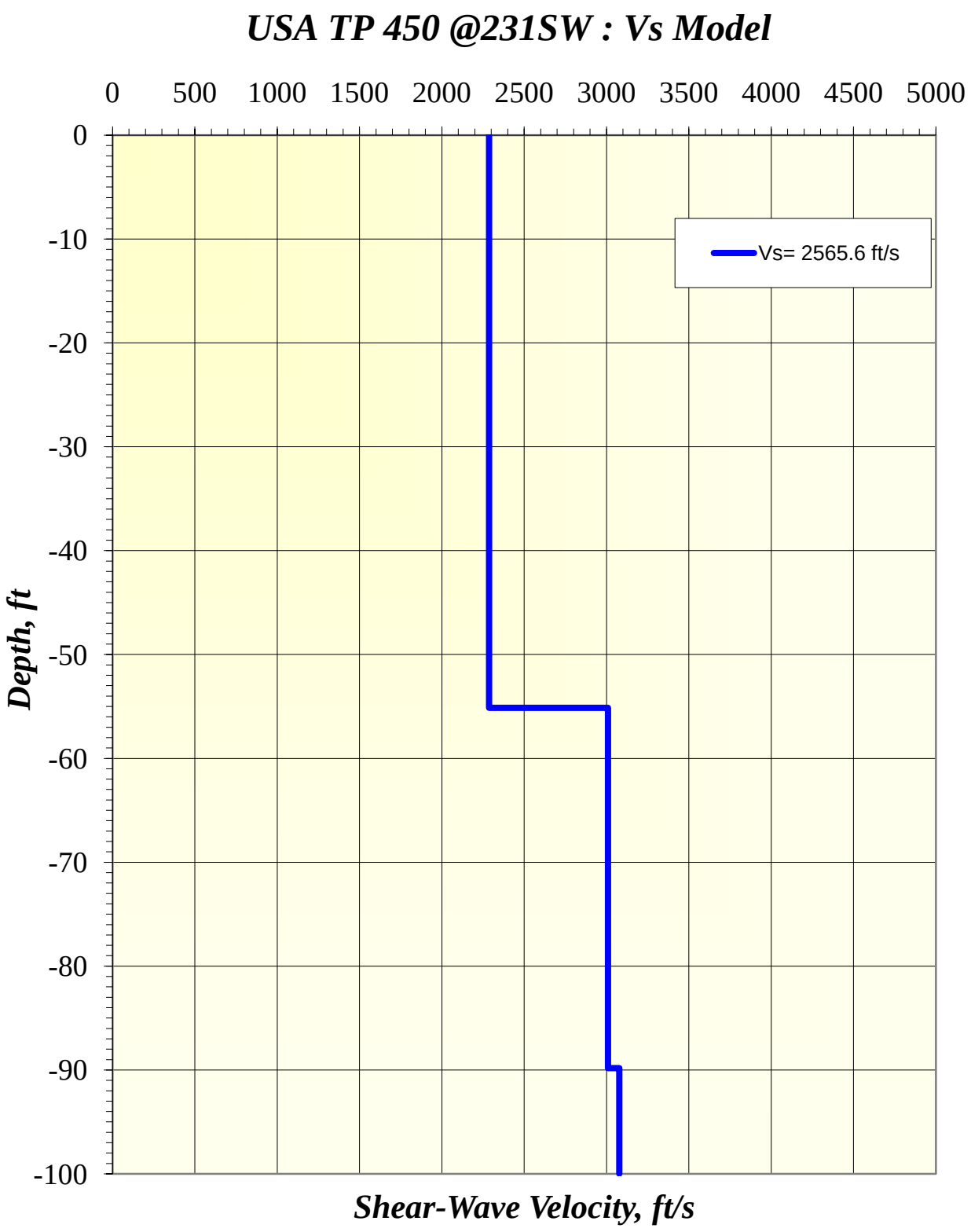

TP 370
Elevation, ft
5280
5260
5240
5220
5200
5180
0
50
100
150
200
250
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s

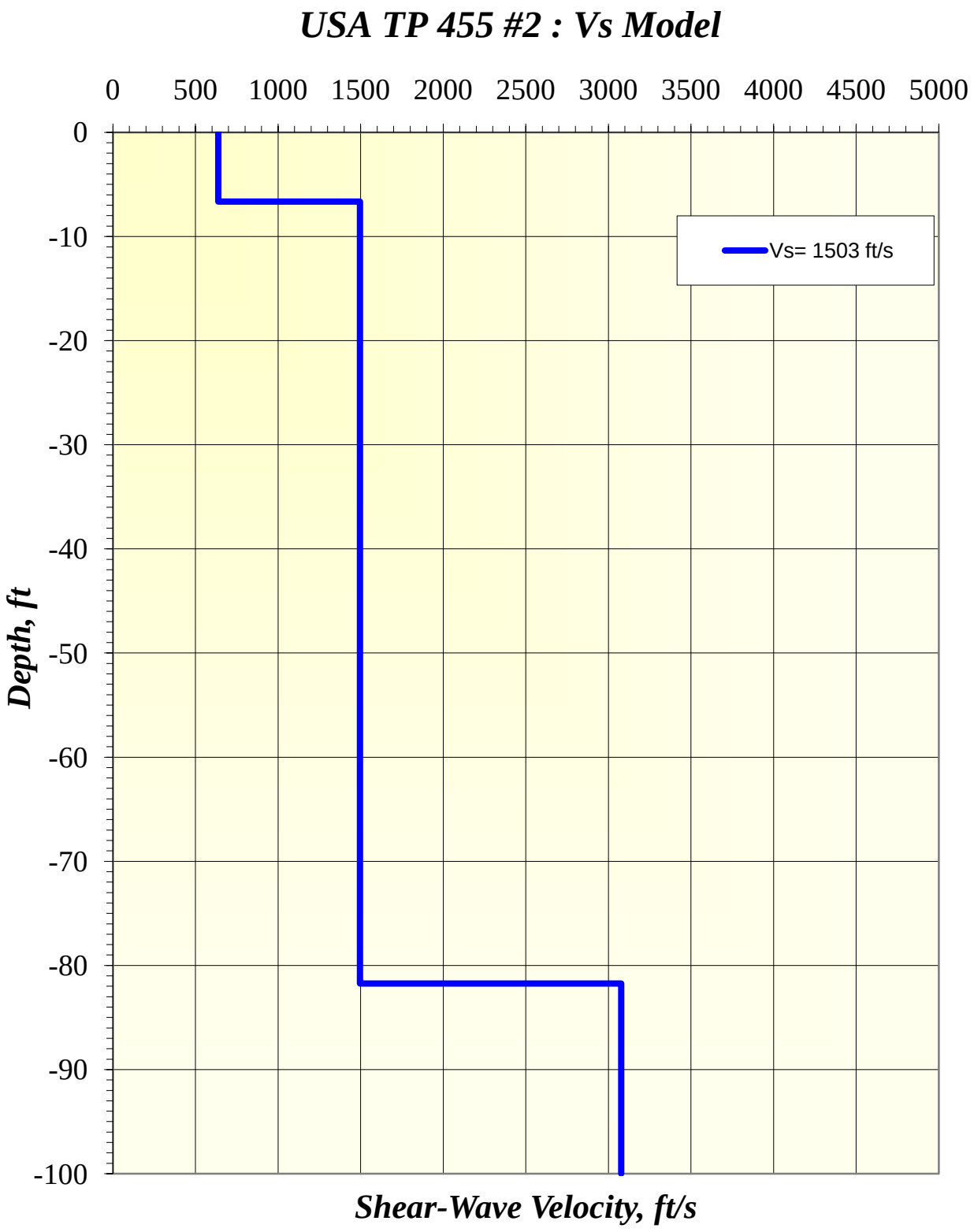

USA TP 435 @29NE : Vs Model
0
1000
2000
3000
4000
5000
6000
7000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2595 ft/s
Shear-Wave Velocity, ft/s

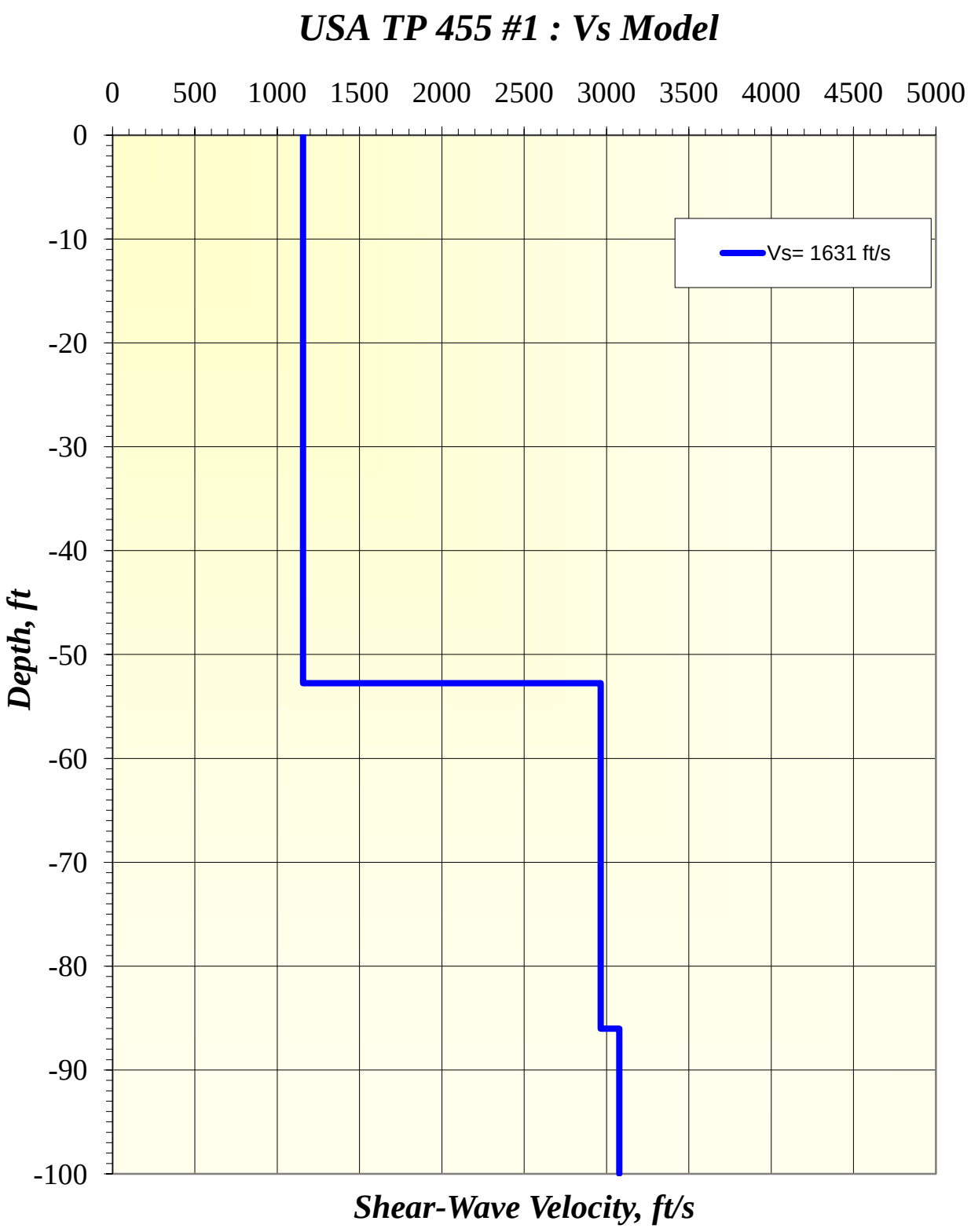

USA TP 435 @257W : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2710 ft/s
Shear-Wave Velocity, ft/s


TP 435
Elevation, ft
5440
5420
5400
5380
5360
5340
5320
5300
0
50
100
150
200
Distance, ft
2000
4000
6000
8000
10000
P-wave Velocity, ft/s


USA TP 450 @22N : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2195 ft/s
Shear-Wave Velocity, ft/s


USA TP 450 @231SW : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 2565.6 ft/s
Shear-Wave Velocity, ft/s


USA TP 455 #2 : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 1503 ft/s
Shear-Wave Velocity, ft/s


USA TP 455 #1 : Vs Model
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Depth, ft
Vs= 1631 ft/s
Shear-Wave Velocity, ft/s

APPENDIX C
Photo Summary

Photo Summary

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 1,000 2,000

FEET

- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
5440 Reno Corporate Drive Tel: 775.823.4068
Reno, NV 89511 Fax: 775.823.4066

FIGURE C1

Photo Summary

USA Parkway Geotech

Reno, NV

April, 2013

NORTH

0 1,000 2,000

FEET

- Test Pit
- Location with Cut > 30'
- Alignment
- BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
5440 Reno Corporate Drive Tel: 775.823.4068
Reno, NV 89511 Fax: 775.823.4066

FIGURE C2

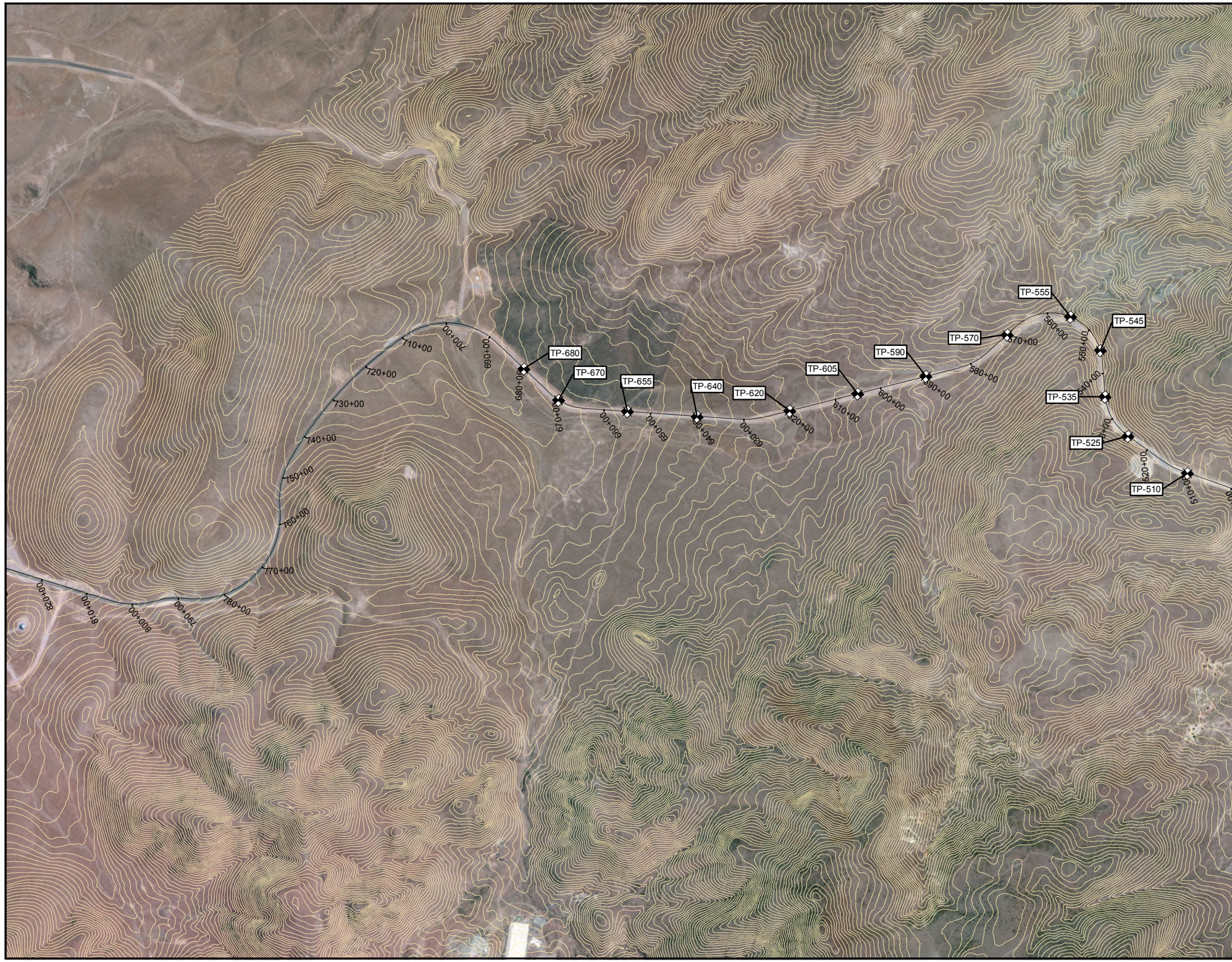


Photo Summary
USA Parkway Geotech
Reno, NV
April, 2013

NORTH

0 1,000 2,000
FEET

Test Pit
Location with Cut > 30'
Alignment
BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
5440 Reno Corporate Drive Tel: 775.823.4068
Reno, NV 89511 Fax: 775.823.4066

FIGURE C3

Photo Summary
USA Parkway Geotech
Reno, NV
April, 2013

NORTH

0 1,000 2,000
FEET

Test Pit
Location with Cut > 30'
Alignment
BLM Parcels

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid,

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
5440 Reno Corporate Drive Tel: 775.823.4068
Reno, NV 89511 Fax: 775.823.4066

FIGURE C4

APPENDIX D
Previous Work

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.2.2007

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 510+00LT through 502+00LT and placing fill material from stations 510+00RT through 502+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	510+00RT USA Prk Way	x											4BRG	107.8	8.9	10.1	119.5	90	90
2	508+00RT USA Prk Way	x											4BRG	110.2	10.2	10.1	119.5	92	90
3	506+00RT USA Prk Way	x											4BRG	109.5	11.3	10.1	119.5	92	90
4	504+00RT USA Prk Way	x											5BRG	108.4	8.7	10.1	119.5	91	90
5	502+00RT USA Prk Way	x											5BRG	108.9	9.1	10.1	119.5	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ BRM ☐ DVM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Cogan

DATE: 1.2.07

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.3.2007

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 510+00LT through 502+00LT and placing fill material from stations 510+00RT through 502+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Source: Native: Import: Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	510+00RT USA Prk Way	x											2BRG	107.1	8.9	10.1	119.5	90	90
2	508+00RT USA Prk Way	x											2BRG	110.2	7.9	10.1	119.5	92	90
3	506+00RT USA Prk Way	x											2BRG	109.6	9.8	10.1	119.5	92	90
4	504+00RT USA Prk Way	x											3BRG	108.4	10.3	10.1	119.5	91	90
5	502+00RT USA Prk Way	x											3BRG	110.4	9.7	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JEE
JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Cox

DATE: 1-3-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.8.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 510+00LT through 502+00LT and placing fill material from stations 510+00RT through 502+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	510+00RT USA Prk Way	x											1BRG	107.8	8.2	10.1	119.5	90	90
2	508+00RT USA Prk Way	x											1BRG	110.2	9.1	10.1	119.5	92	90
3	506+00RT USA Prk Way	x											1BRG	111.5	7.9	10.1	119.5	93	90
4	504+00RT USA Prk Way	x											1BRG	108.4	8.6	10.1	119.5	91	90
5	502+00RT USA Prk Way	x											1bRG	109.2	9.4	10.1	119.5	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Cox

DATE: 1.8.08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.9.2007

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 5496+00LT through 490+00LT and placing fill material from stations 495+00RT through 490+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	494+00RT USA Prk Way	x											3BRG	109.7	8.9	10.1	119.5	92	90
2	492+00RT USA Prk Way	x											3BRG	108.4	10.4	10.1	119.5	91	90
3	490+00RT USA Prk Way	x											4BRG	110.3	9.2	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Cox

DATE: 1-9-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.10.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 496+00LT through 489+00LT and placing fill material from stations 495+00RT through 489+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	494+00RT USA Prk Way	x											2BRG	108.7	9.9	10.1	119.5	91	90
2	492+00RT USA Prk Way	x											2BRG	109.4	8.7	10.1	119.5	92	90
3	490+00RT USA Prk Way	x											3BRG	107.9	10.2	10.1	119.5	90	90
4	489+00RT USA Prk Way	x											4BRG	108.4	8.2	10.1	119.5	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Cox

DATE: 1·10·08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.11.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 496+00LT through 489+00LT and placing fill material from stations 495+00RT through 489+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	494+00RT USA Prk Way	x											1BRG	108.9	9.8	10.1	119.5	91	90
2	492+00RT USA Prk Way	x											1BRG	110.2	8.7	10.1	119.5	92	90
3	490+00RT USA Prk Way	x											1BRG	109.4	10.0	10.1	119.5	92	90
4	489+00RT USA Prk Way												2BRG	109.7	8.5	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

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Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Ryan Gis

DATE: 1·11·08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.14.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 489+00LT through 485+00LT and placing fill material from stations 489+00RT through 485+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In-Place Dry Density (pcf)	In-Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	489+00RT USA Prk Way	x											RG	108.9	9.7	10.1	119.5	91	90
2	487+00RT USA Prk Way	x											2BRG	110.2	10.3	10.1	119.5	92	90
3	486+00RT USA Prk Way	x											2BRG	107.8	9.4	10.1	119.5	90	90
4	485+00RT USA Prk Way	x											2BRG	109.2	8.9	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Ryan Gray

DATE: 1-14-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.15.2008

Weather:		Temp.°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 489+00LT through 485+00LT and placing fill material from stations 489+00RT through 485+00RT,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation *	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	487+00RT USA Prk Way	x											RG	109.2	8.9	10.1	119.5	91	90
2	486+00RT USA Prk Way	x											RG	108.4	9.4	10.1	119.5	91	90
3	485+00RT USA Prk Way	x											RG	110.6	8.6	10.1	119.5	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

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SIGNATURE: Ryan Cox

DATE: 1-15-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.16.2008

Weather:	Temp°F:	Present:	Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 485+00 through 482+00 and placing fill material from stations 482+00 through 478+00,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	482+00RT USA Prk Way	x											3BRG	110.3	9.2	10.1	119.5	92	90
2	481+00LT USA Prk Way	x											3BRG	109.4	10.6	10.1	119.5	92	90
3	480+00RT USA Prk Way	x											3BRG	111.6	9.4	10.1	119.5	93	90
4	479+00LT USA Prk Way	x											3BRG	108.4	8.9	10.1	119.5	91	90
5	478+00RT USA Prk Way	x											3BRG	109.1	8.6	10.1	119.5	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

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Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

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SIGNATURE: Roger Cox

DATE: 1-16-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.17.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 485+00 through 482+00 and placing fill material from stations 482+00 through 478+00,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained and/or where test results indicate additional workmanship was required, the area was reworked until a passing test was obtained. Those density test collected, if any, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	482+00RT USA Prk Way	x											1BRG	109.4	8.9	10.1	119.5	92	90
2	481+00LT USA Prk Way	x											1BRG	108.7	10.4	10.1	119.5	91	90
3	480+00RT USA Prk Way	x											1BRG	111.3	8.6	10.1	119.5	93	90
4	479+00LT USA Prk Way	x											1BRG	109.9	9.4	10.1	119.5	92	90
5	478+00RT USA Prk Way	x											1BRG	110.4	9.9	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Ryan Cox

DATE: 1-17-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 1.21.2007

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 471+00 through 474+00 and placing fill material from stations 475+50 through 478+50,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected,are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	478+50RT USA Prk Way	x											3BRG	108.5	8.9	10.1	119.5	91	90
2	477+00LT USA Prk Way	x											4BRG	110.2	10.2	10.1	119.5	92	90
3	476+00RT USA Prk Way	x											4BRG	109.4	9.9	10.1	119.5	92	90
4	475+00LT USA Prk Way	x											5BRG	111.3	9.4	10.1	119.5	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

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SIGNATURE:

DATE:

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.22.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 471+00 through 474+00 and placing fill material from stations 475+50 through 478+50,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected,are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	482+50RT USA Prk Way	x											RG	110.3	9.9	10.1	119.5	92	90
2	480+50LT USA Prk Way	x											RG	108.4	8.6	10.1	119.5	91	90
3	478+50RT USA Prk Way	x											RG	109.2	10.2	10.1	119.5	91	90
4	476+50LT USA Prk Way	x											2BRG	109.9	8.9	10.1	119.5	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

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SIGNATURE:

DATE:

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	1.23.2007

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 465+00 through 462+00 and placing fill material from stations 462+50 through 458+00,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected,are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation *	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	461+50RT USA Prk Way	x											4BRG	106.4	15.2	18.5	118.0	90	90
2	459+00LT USA Prk Way	x											5BRG	108.1	16.7	18.5	118.0	92	90
3	458+00RT USA Prk Way	x											6BRG	107.6	15.9	18.5	118.0	91	90
4	462+00LT USA Prk Way	x											3BRG	106.9	17.6	18.5	118.0	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM

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SIGNATURE:

DATE:

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 2.19.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.Contactor was cuttting material from stations 471+00 through 465+00 and placing fill material from stations 451+00 through 460+00,With a D10 Dozer Fill material is being moisture conditioned, placed in uniform lifts and compacted with a 825G sheeps foot. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected,are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	452+00RT USA Prk Way	x											RG	110.3	17.2	18.5	118.0	93	90
2	454+00LT USA Prk Way	x											RG	108.2	16.9	18.5	118.0	92	90
3	456+00RT USA Prk Way	x											RG	106.2	18.1	18.5	118.0	90	90
4	458+00LT USA Prk Way	x											RG	107.4	17.9	18.5	118.0	91	90
5	460+00LT USA Prk Way	x											RG	109.5	16.4	18.5	118.0	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

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SIGNATURE: Ryan Cox

DATE: 2.19.08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 3.3.2008

Weather:		Temp °F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today. Fill material is being moisture conditioned, placed in uniform lifts and compacted. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	472+00RT USA Prk Way	x											RG	115.4	14.2	15.9	124.8	92	90
2	473+00LT USA Prk Way	x											RG	116.0	12.9	15.9	124.8	93	90
3	475+00RT USA Prk Way	x											RG	114.4	13.8	15.9	124.8	92	90
4	476+00LT USA Prk Way	x											RG	113.7	14.5	15.9	124.8	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

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SIGNATURE: Ryan Cogan

DATE: 3.3.08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	3.4.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.material was being cut from stations 476+00 through 480+00LT and being placed on right hand shoulder from stations 520+00RT through 512+44Rt Fill material is being moisture conditioned, placed in uniform lifts and compacted. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	25FT E' of 512+44																		
	USA PRK Way	x											4BRG	113.0	14.1	15.9	124.8	91	90
2	60FT E' of 514+00																		
	USA PRK Way	x											8BRG	116.2	13.6	15.9	124.8	93	90
3	80FT E' of 515+00																		
	USA PRK Way	x											8BRG	114.6	15.0	15.9	124.8	92	90
4	150FT E' of 517+72																		
	USA PRK Way	x											10BRG	113.9	14.9	15.9	124.8	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

Copies To:

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Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

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SIGNATURE: Ryan Gee

DATE: 3.4.08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	3.5.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.material was being cut from stations 476+00 through 480+00LT and being placed on right hand shoulder from stations 520+00RT through 512+44Rt Fill material is being moisture conditioned, placed in uniform lifts and compacted. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	40FT E' of 512+44																		
	USA Park Way	x											6BRG	116.2	12.9	15.9	124.8	93	90
2	60FT E' of 514+00																		
	USA Park Way	x											6BRG	113.9	14.5	15.9	124.8	91	90
3	80FT E' of 515+00																		
	USA Park Way	x											6BRG	115.4	13.2	15.9	124.8	92	90
4	150FT E' of 517+72																		
	USA Park Way	x											8BRG	114.2	15.1	15.9	124.8	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(In)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE:

DATE: 3-5-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Peavine
DATE:	3.6.2008

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.material was being cut from stations 476+00 through 480+00LT and being placed on right hand shoulder from stations 520+00RT through 512+44Rt Fill material is being moisture conditioned, placed in uniform lifts and compacted. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	40FT E' of 512+44																		
	USA Park Way	x											4BRG	116.2	13.9	15.9	124.8	93	90
2	60FT E' of 514+00																		
	USA Park Way	x											4BRG	113.8	15.1	15.9	124.8	91	90
3	80FT E' of 515+00																		
	USA Park Way	x											4BRG	114.7	14.5	15.9	124.8	92	90
4	150FT E' of 517+72																		
	USA Park Way	x											6BRG	115.2	14.8	15.9	124.8	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Ryan Gis

DATE: 3-6-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Peavine DATE: 3.10.2008

Weather:		Temp °F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Mass grading continued today.material was being cut from stations 476+00 through 480+00LT and being placed on right hand shoulder of usa park way from stations 520+00RT through 512+44Rt Fill material is being moisture conditioned, placed in uniform lifts and compacted. Field density test results and their locations are indicated below. No failing tests were obtained. Those density test collected, are outlined below in the Field Density Summary. The contractor was notified of the results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	20FT E' of 512+44																		
	USA Park Way	x											RG	116.9	14.2	15.9	124.8	94	90
2	40FT E' of 514+00																		
	USA Park Way	x											RG	115.5	12.9	15.9	124.8	93	90
3	50FT E' of 515+00																		
	USA Park Way	x											RG	118.1	13.7	15.9	124.8	95	90
4	150FT E' of 517+72																		
	USA Park Way	x											1BRG	117.3	14.1	15.9	124.8	94	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Ryan Cogan

DATE: 3.10.08

Quality Control - Daily Field Report

USA Parkway Extension | Culverts @ Sta 519+50

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 10-8-08

Weather:	clear	Temp°F:	40-75	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following:

the contractor excavated approx. 12' deep across USA PKWY @ Sta 519+50 in effort to install 5' culvert drain pipes. they placed 6" of moisture conditioned, screened 3"-, Granular Fill, compacting with 1-30" Bo Mag sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation* (Hayline 12")	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 519+50					X	X		X				11'6" BSG	113.1	10.1	11.5	119.5	95	95
1													(WD 124.5)		MCF 11.4				
1	180° ✓												11.6 BSG	113.0	8.1	11.5	119.5	95	
1													(WD 122.2)		MCF 9.1				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Stephen Rueb

DATE: 10-8-08

Quality Control - Daily Field Report

Culvert Install | **USA Parkway Extension** | STA 479-75

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 10-10-08

Weather:	Cloudy	Temp°F:	30-65	Present:	Brian	Job Number:	1526.01

Work was Performed on the following:

The contractor moisture conditioned trench spoils and placed 8" Com-Pacted lifts using 1-825 sheep Foot at aprox. 4' above the culvert. They worked on the 2nd culvert of 3 at the STA 479.70

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 479+75					X			X				2' BSG	110.3	12.8	15.4	116.5	94.7	95
1													(WO 124.4)		PCF 14.1				
1	180°												2' BSG	117.1	11.4			100.5	
1													(WO 130.4)		PCF 13.4				
2	STA 479+77	X											RSG	121.0	5.5			103.9	
2													(WO 127.7)		PCF 6.7				
2	180°												RSG	114.5	5.7			98.3	
2													(WO 121.1)		PCF 8.6				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(In)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 10-10-08

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USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	10/13/08

Weather:	Clear	Temp°F:	30-60	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 503+25

The contractor excavated a trench approx 11' below subgrade placed 3" - screened , moisture conditioned 6" thick and compacted with a 30" bomag sheep foot. Then installed 1 - 72" culvert, placing compacted 8" lifts up both sides.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 503+30					X		X	X				Flow Line	119.1	9.8	11.7	120.5	98	95
1													(wd 130.7) PCF 11.6						
1	180°					X		X	X				F.L	119.5	8.8	10.4	123.3	99	95
													(wd 130.9) PCF 10.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Stephen Rush

DATE: 10/13/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/14/08

Weather:	Clear	Temp°F:	32-65	Present:	Vegas	Job Number:	1526.01

Work was Performed on the following: Culvert STA 479+60

The contractor excavated roadway to approx 12' deep, placed 6" of moisture conditioned, 3" screened fill and compacted with 1 - 30" sheep foot. They installed the 3rd 72" culvert and began compacting 8" lifts.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 479+75					X		X	X				Flow	118.9	8.6	10.4	123.3	97	95
1													Line wd 129.2 PCF 10.3						
1	180°					X		X	X				F.L	119.7	7.7	10.4	123.3	97	95
													wd 129.0 PCF 9.3						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 10/14/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/14/08

Weather:	Clear	Temp°F:	32-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 503+25

The contractor back filled the 72" culvert in compacted 8" lifts using moisture conditioned, 3" - screened fill. They used jump wackers for compaction of lifts up to the top of the pipe elevation where the sand cone test after density.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 503+15					X		X	X				5' BSG	115.7	10.1	10.4	123.3	94	95
1													(wd 127.4) PCF 11.7						
1	180°					X		X	X				5' BSG	118.1	9.8	10.4	123.3	96	95
													(wd 129.7) PCF 11.6						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 10/14/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/15/08

Weather:	Clear	Temp°F:	40-70	Present:	Kyle	Job Number:	1526.01

Work was Performed on the following: Culvert STA 479+50

The contractor continued to place 3" screened fill around the 3rd 72" culvert at STA 479+50. They placed 8" compacted lifts at various elevations up both sides of the pipe. They used jumper wackers to compact lift.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 479+40					X		X	X				2' AFL	121.0	7.4	9.2	121.4	99	95
1													(wd 129.4) PCL 8.9						
1	180°					X		X	X				2' AFL	121.9	6.9	9.2	121.4	100	95
1													(wd 130.4) PCL 8.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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DATE: 10/15/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/16/08

Weather:	Clear	Temp°F:	35-70	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 479+50

The contractor continued to place moisture conditioned 3" screened fill in 8" compacted lifts/ The had installed the 3rd culvert at STA 479+50 with several lifts up to the top of the 72" culvert where a sand cone test was performed

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 479+55					X		X	X				TOP	120.1	7.5	10.4	123.3	97	95
1													(wd 129.1) PCF 9.0						
1	180°					X		X	X				TOP	120.9	6.9	10.4	123.3	98	95
1													(wd 129.2) PCF 8.3						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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DATE: 10/16/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/16/08

Weather:	Clear	Temp°F:	35-70	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor excavated a trench across USA Parkway at STA 514+50 at approx 9' deep, placed a compacted 6" lift of 3" moisture conditioned screen fill and installed a 72" culvert.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+70					X		X	X				Flow Line	114.5	10.1	9.2	121.4	94	95
1													(wd 126.0) PCF 11.5						
1	180°					X		X	X				Flow Line	116.4	10.3	9.2	121.4	96	95
1													(wd 128.4) PCF 12.0						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/17/08

Weather:	Clear	Temp°F:	40-75	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor continued to place compacted 8" lifts up both sides of the 1st 72" culvert. They moisture conditioned the 3" - screened fill. Compacted with a jump wacker and a 30" bomag sheepfoot. Performed a sand cone test at 4' above the flow line.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+50					X		X	X				2' AFL	112.8	9.8	10.4	123.3	92	90
1													(wd 123.9) PCF 11.1						
1	180°					X		X	X				2' AFL	113.8	10.4	10.4	123.3	92	90
1													(wd 125.6) PCF 11.8						
2	STA 514+70					X		X	X				4' AFL	118.5	9.7	10.4	123.3	96	90
2													(wd 130.0) PCF 11.5						
2	180°					X		X	X				4' AFL	121.1	9.5	10.4	123.3	98	90
2													(wd 132.7) PCF 11.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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SIGNATURE: Stephen Ruch

DATE: 10/17/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/17/08

Weather:	Clear	Temp°F:	40-75	Present:	Juan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 479+50

The contractor place 8" compacted lifts using moisture conditioned trench spoils a rocky 12" granular fill, compacting with I-825 sheepfoot. Filled over the 3rd culvert at various elevations up to rough sub grade starting at 4' above the pipe.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 479+45	X				X		X	X				4' BSG	117.7	12.4	15.4	116.5	101	95
1													(wd 132.3) PCF 14.6						
1	180°					X		X	X				4' BSG	111.6	13.0	15.4	116.5	96	95
1													(wd 125.6) PCF 11.8						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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INCORPORATED
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Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Stephen Ruch

DATE: 10/17/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P DATE: 10/20/08

Weather:	Clear	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor continued to place 3" - screened fill material in 8" compacted lifts up both sides of the 1st 72" culvert. They used jump wackers and a 30" bomag sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+65					X		X	X				Top of Pipe	113.7	7.8	10.4	123.3	92	90
1													(122.5) PCF 8.8						
1	180°					X		X	X				Top of Pipe	114.0	8.5	10.4	123.3	93	90
													(123.7) PCF 9.7						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 10/20/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P DATE: 10/20/08

Weather:	Clear	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 495+50

The contractor moved the 3" screening operation back to the south side of USA Parkway at borrow #9 Pit. Working in the wash and sides of the wash. They placed compacted 8" lifts @ STA 495+50 1st culvert.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+52					X		X	X				16" AFL	111.2	11.2	10.4	123.3	90	90
1													(wd 125.1) PCF 12.8						
1	180°					X		X	X				16" AFL	114.2	11.2	10.4	123.3	93	90
1													(wd 126.9) PCF 12.8						
2	STA 495+70					X		X	X				32" AFL	115.6	10.9	10.4	123.3	94	90
2													(wd 128.2) PCF 12.5						
2	180°					X		X	X				32" AFL	116.8	11.0	10.4	123.3	95	90
2													(wd 129.6) PCF 12.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, AFL = Above Flow Line

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DATE: 10/20/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P DATE: 10/21/08

Weather:	Clear	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor continued to back fill the 1st culvert trench from 16" above pipe to rough sub grade of roadway. They moisture conditioned 3" screened fill and placed 8" compacted lifts with I-48" bomag sheep foot and started trench #2 at STA 514+50.

					Source: Native:						Import:								
Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+55	X				X			X				RSG	117.4	5.9	10.4	123.3	95	95
1	1st pipe	X				X			X				(wd 124.4) PCF 7.0						
1	180°	X				X			X				RSG	120.9	5.0	10.4	123.3	98	95
1	180°	X				X			X				(wd 127.0) PCF 6.1						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 10/21/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P DATE: 10/21/08

Weather:	Clear	Temp°F:	35+70	Present:	James	Job Number:	1526.01

Work was Performed on the following: Culvert STA 503+25

The contractor installed the last 40^{LF} on the north end of the culvert site STA 503+25. They placed moisture conditioned 3" screened fill in 8" compacted lifts using jump wakers up both sided of the pipe.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 503+50					X		X	X				16" AFL	121.2	7.0	10.4	123.3	98	90
1						X		X	X				(wd 129.7) PCF 8.4						
1	180°					X		X	X				16" AFL	121.3	7.3	10.4	123.3	98	90
1	180°					X		X	X				(wd 130.1) PCF 8.8						
2	STA 503+40					X		X	X				4' AFL	11.8	8.2	10.4	123.3	96	90
2						X		X	X				(wd 128.6) PCF 9.8						
2	180°					X		X	X				4' AFL	123.9	8.5	10.4	123.3	101	90
2						X		X	X				(wd 134.5) PCF 10.6						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/22/08

Weather:	Clear	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor excavated approx 10' deep across USA Parkway for the 2nd culvert install, placed 6 to 12" of 3: screened moisture conditioned fill and compacted with 1 -30" bomag sheep foot.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	STA 514+45					X	X		X				Flow Line	119.2	8.7	10.4	123.3	97	90
1						X	X		X				(wd 129.6) PCF 10.4						
1	180°					X	X		X				Flow Line	119.7	9.0	10.4	123.3	97	90
1						X	X		X				(wd 130.5) PCF 10.8						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/22/08

Weather:	Clear	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 495+50

The contractor continued to back fill the 1st 72" culvert @ STA 495+50 with 8" compacted lifts of 3" screened, moisture conditioned fill. They used jump wackers to compact fill up both sides of the pipe. They installed the last 20' pipe on the north end and back fill accordingly.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+60					X	X		X				4' AFL	114.2	5.3	10.4	123.3	93	90
1						X	X		X				(wd 120.2) PCF 6.1						
1	180°					X	X		X				4' AFL	114.9	6.7	10.4	123.3	93	90
1						X	X		X				(wd 122.6) PCF 7.7						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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SIGNATURE: Stephen Ruel

DATE: 10/22/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION:	Storey County, Nevada	
	OWNER:	Tahoe Reno Industrial Center	
	CONTRACTOR:	F&P Construction	
	DATE:	10/23/08	

Weather:	Clear	Temp°F:	30-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert @ STA 514+50

The contractor started back filling the 2nd 72" culvert @ STA 514+50 using 3: screened moisture conditioned fill in 8" compacted lifts. They used jump wacker on both sides evenly.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+60					X		X	X				16"AFL	116.1	6.8	10.4	123.3	94	90
1													(wd 124.1) PCF 7.9						
1	180°					X		X	X				16" AFL	116.7	6.4	10.4	123.3	95	90
1													(wd 124.2) PCF 7.5						
2	STA 514+50					X		X	X				3' AFL	115.5	5.7	10.4	123.3	94	90
2													(wd 122.0) PCF 6.6						
2	180°					X		X	X				3' AFL	114.6	5.6	10.4	123.3	93	90
													(wd 121.0) PCF 6.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 10/23/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/23/08

Weather:	Clear	Temp°F:	30-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert @ STA 495+50

The contractor continued to back fill the 1st culvert at STA 495+50 placed 3" screened moisture conditioned fill in 8" compacted lifts. They used jump wackers and a 30" walk behind sheep foot. They reached the top of the 72" culvert where a sand cone test was taken.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+55					X		X	X				T.O.P.	119.9	5.7	10.4	123.3	97	90
1													(wd 126.8) PCF 6.9						
1	180°					X		X	X				T.O.P.	116.5	4.7	10.4	123.3	94	90
1													(wd 121.9) PCF 5.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, T.O.P. = Top of Pipe

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SIGNATURE: Stephen Ruch

DATE: 10/23/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/24/08

Weather:	Clear	Temp°F:	35-70	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor continued to back fill the 2nd 72" culvert at STA 514+50. They used 3" screened and moisture conditioned fill compacting with jump wackers and a 30" bomag sheep foot, up to the top of the pipe a sand cone test was performed.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill (Source: Native)	Roadway	Curb & Gutter	Sidewalk	Other (Import)	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+55					X		X	X				4'8" AFL	116.5	5.7	10.4	123.3	95	90
1													(wd 123.2) PCF 6.7						
1	180°					X		X	X				4'8" AFL	114.9	5.5	10.4	123.3	93	90
1													(wd 121.3) PCF 6.4						
2	STA 514+60 (Sand Cone)					X		X	X				6' AFL	117.8	5.6	10.4	123.3	96	90
2													(wd 124.4) PCF 6.6						
2	180°					X		X	X				6' AFL	113.9	6.6	10.4	123.3	92	90
2													(wd 120.8) PCF 6.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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SIGNATURE: Stephen Ruch

DATE: 10/24/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/27/08

Weather:	Clear	Temp°F:	35-70	Present:	James	Job Number:	1526.01

Work was Performed on the following: Culvert STA 495+50

After the contractor installed the 2nd, 72" culvert at STA 495+50, they placed 8" compacted lifts of moisture conditioned, 3" screened fill up both sides of the pipe. They used jump wackers and a 30:" bomag sheep foot to compact each lift.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+45					X		X	X				16" AFL	114.0	5.9	10.4	123.3	92	90
1													(wd 119.8) PCF 5.9						
1	180°					X		X	X				16" AFL	112.1	6.0	10.4	123.3	91	90
1													(wd 118.8) PCF 6.7						
2	STA 495+40					X		X	X				32" AFL	113.8	7.1	10.4	123.3	92	90
2													(wd 121.9) PCF 8.1						
2	180°					X		X	X				32" AFL	113.5	8.2	10.4	123.3	92	90
2													(wd 122.9) PCF 9.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 10/27/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/28/08

Weather:	Cloudy	Temp°F:	40-65	Present:	James	Job Number:	1526.01

Work was Performed on the following: Culvert STA 495+50

The contractor continued to back fill the 2nd 72" culvert at STA 495+50 using 3" screened fill in 8" compacted lifts. They used jump wackers and a 30" walk behind sheep foot to the top of the culvert elevation, where a sand cone test was conducted. Fand P moisture conditioned trench spoils and placed 8" compacted lifts up to rough sub grade.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+40					X		X	X				6' AFL	114.3	4.1	10.4	123.3	93	90
1													(wd 119.0) PCF 4.7						
1	180°					X		X	X				6' AFL	115.2	4.5	10.4	123.3	93	90
													(wd 120.4) PCF 5.2						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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SIGNATURE: Stephen Ruel

DATE: 10/28/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/28/08

Weather:	Cloudy	Temp°F:	40-65	Present:-	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

The contractor excavated across USA Parkway to approx 9' below subgrade, placed 6 to 8" of moisture conditioned 3" screened fill and compacted with a 30" bomag sheep foot. Installed the 3rd 72" culvert back filling with 8" compacted lifts.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill (Source: Native)	Roadway	Curb & Gutter	Sidewalk	Other (Import)	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+45					X		X	X				Flow Line	115.3	5.2	10.4	123.3	94	90
1													(wd 121.3) PCF 6.0						
1	180°					X		X	X				Flow Line	115.1	6.4	10.4	123.3	93	90
1													(wd 122.5) PCF 7.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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SIGNATURE: Stephen Rich

DATE: 10/28/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/29/08

Weather:	Clear	Temp°F:	30-60	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert STA 514+50

After placing the 3rd 72" culvert the contractor placed compacted 8" lifts of moisture conditioned 3" screened fill. They used jump wackers, compacting up both sides of the pipe to 16" above the flow line elevation and 32", 48"

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+55					X		X	X				16" AFL	117.1	5.7	10.4	123.3	95	90
1													(wd 123.8) PCF 6.7						
1	180°					X		X	X				16"AFL	119.1	6.2	10.4	123.3	97	90
1													(wd 126.5) PCF 7.4						
2	STA 514+40					X		X	X				32" AFL	118.5	5.7	10.4	123.3	96	90
2													(wd 125.3) PCF 6.8						
2	180°					X		X	X				32" AFL	115.7	6.4	10.4	123.3	94	90
2													(wd 123.1) PCF 7.4						
3	STA 514+25					X		X	X				4' AFL	114.6	5.6	10.4	123.3	93	90
3													(wd 121.1) PCF 6.5						
3	180°					X		X	X				4' AFL	117.3	5.2	10.4	123.3	95	90
3													(wd 123.3) PCF 6.1						
4	STA 514+25					X		X	X				T.O.P	113.9	6.0	10.4	123.3	92	90
4													(wd 120.6) PCF 6.8						
4	180°					X		X	X				T.O.P	114.0	4.5	10.4	123.3	92	90
4													(wd 119.1) PCF 5.1						

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, T.O.P = Top of Pipe, Above Flow Line = AFL

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SIGNATURE: Stephen Rush

DATE: 10/29/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 10/29/08

Weather:	Clear	Temp°F:	30-60	Present:	Brian	Job Number:	1526.01

Work was Performed on the following: Culvert STA 495+50

The contractor extended the second 72" culvert 17^{LF} on the north end of the site, compacting 3" screened fill in 8" lifts, they moisture conditioned sub-grades and lifts during compaction.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 495+50					X		X	X				Flow Line	111.3	8.2	10.4	123.3	90	90
1													(wd 120.4) PCF 9.1						
1	180°					X		X	X				Flow Line	115.1	7.4	10.4	123.3	93	90
1													(wd 123.6) PCF 8.5						
2	STA 495+60					X		X	X				Flow Line	116.0	8.3	10.4	123.3	94	90
2													(wd 125.7) PCF 9.7						
2	180°					X		X	X				Flow Line	119.6	8.4	10.4	123.3	97	90
2													(wd 129.6) PCF 10.1						
3	STA 495+60					X		X	X				4' AFL	111.4	5.8	10.4	123.3	90	90
3													(wd 117.9) PCF 6.5						
3	180°					X		X	X				4' AFL	118.0	5.0	10.4	123.3	96	90
3													(wd 124.0) PCF 6.0						

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DATE: 10/29/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION:	Storey County, Nevada	
	OWNER:	Tahoe Reno Industrial Center	
	CONTRACTOR:	F&P Construction	
	DATE:	10/30/08	

Weather:	Cloudy	Temp°F:	35-65	Present:	Ryan	Job Number:	1526.01

Work was Performed on the following: Culvert 514+50

The contractor moisture conditioned trench spoils and placed 8" cmpacted lifts from 16" above the culvert up to rough sub grade elevation they used a 30" walk behind sheep foot to place material for thin lefts just ove pipe then used a 825 sheep foot at sub-grade elevation and left a hump approx 12" over subgrade on the 3 culverts to be cut down in the future.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 514+40					X		X	X				16" BSG	117.1	6.7	10.4	123.3	95	90
1													(wd 125.0) PCF 7.8						
1	180°					X		X	X				16" BSG	115.8	6.3	10.4	123.3	94	90
1													(wd 123.1) PCF 7.3						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 10/30/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P DATE: 11/07/08

Weather:	Sunny	Temp °F:	40's	Present:	Randy	Job Number:	1526.01

Work was Performed on the following: Mass Grading

Arrived on site to observe gravely sands/rock fill placement on the USA Parkway between stations 638+60-643+00. Approximately 1'-2' of gravely sands/rock fill was placed between stations 640+00Lt-643+00Lt and approximately 3'-5' gravely sands/rock fill was placed between stations 638+60Rt-642+00Rt. The fill material was generated from deep cuts on USA Parkways. The gravely sands/rock fill was placed in uniform lift, moisture conditioned to near optimum, and proofrolled using a 825 sheepfoot compactor, with a minimum of five passes, until no further surface deflection was observed. The contractor was notified of the observations and test results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In-Place Dry Density (pcf)	In-Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Station 640+75Lt	x							x				13.5'BRG	109.9	11.3	11.3	122.5	90	90
2	Station 639+50Lt	x							x				11.75'BRG	109.8	9.2	11.3	122.5	90	90
3	Station 638+69Lt	x							x				10.5'BRG	110.1	10.8	11.3	122.5	90	90
4	Station 641+50Lt	x							x				11'BRG	110.3	11.5	11.3	122.5	90	90
5	Station 640+50Rt	x							x				16.5'BRG	116.7	8.1	10.0	125.8	93	90
6	Station 638+00Rt	x							x				10.5'BRG	123.0	5.0	8.3	130.4	94	90
7	Station 639+50Rt	x							x				13'BRG	128.4	8.4	8.3	130.4	98	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 11-7-08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F'n P
DATE:	11-13-08

Weather:	Clear	Temp°F:	35-65	Present:	Randy J.	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place moisture conditioned & compacted lifts at Sta. 644+00 to 642+00 @ Rough Sub-Grade Elev. they used Fill cut from 660+00 a 12" - Rocky, Granular Fill compacting with 1-825 Sheep Foot & Haul Equiptment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 643+50	X							X				RSG	124.5	8.9	9.5	130.5	95%	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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SIGNATURE: Stephen Ruch

DATE: 11-13-08

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 11-14-08

Weather:	Clear	Temp°F:	35 65	Present:	Randy J	Job Number:	1526.01

Work was Performed on the following:

The Contractor continued To place 12" - Rocky, Granular, Moisture Conditioned Fill in 8" compacted lifts. They used 1-825 Sheep Foot & Haul Equiptment for compaction.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other:	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 642+00	X							X				2' BRG	128.9	10.2	8.5	130.5	98.8	95
2	STA 640+00												3' BRG	127.2	7.3			97.4	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 11-14-08

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION:	Storey County, Nevada	
	OWNER:	Tahoe Reno Industrial Center	
	CONTRACTOR:	F&P Construction	
	DATE:	11/17/08	

Weather:	Clear	Temp°F:	40-70	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts at STA 637+00 to STA 635+00 at approx 2' below subgrade. They moisture conditioned 12" rocky embankment fill cut from USA Parkway and placed with I-825 sheep foot and haul equipment.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
			Source: Native:									Import:							
1	STA 637+00	X							X				3' BSG	127.4	12.0	8.5	130.0	98	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 11/17/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 11/18/08

Weather:	Clear	Temp°F:	35-65	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts of 12" rocky embankment fill. They moisture conditioned fill cur from STA 601+00 and placed at STA 632+00 at approx 2' below subgrade. They used I-825 sheep foot and haul equipment to compact lift. The contractor jumped a high area and moved up to STA 628+00 filling a small canyon.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 634+82	x							x				3' BSG	112.9	10.9	13.5	116.5	97	95
1													(WD 125.2) PCF 12.3						
1	180°	x							x				3' BSG	111.2	11.3	13.5	116.5	95	95
1													(WD 123.7) PCF 12.5						
2	STA 631+32	x							x				4' BSG	114.5	12.3	13.5	116.5	98	95
2													(WD 128.6) PCF 14.1						
2	180°	x							x				4' BSG	116.7	11.5	13.5	116.5	100	95
2													(WD 130.2) PCF 13.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 11/18/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 11/20/08

Weather:	Clear	Temp°F:	40-65	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued placing rocky embankment fill at STA 656+00 and 638+00 to 632+00. They placed 8" compacted lifts using I-825 sheep foot and haul equipment moisture conditioning during placement.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 654+00	x							x				3' BSG	112.4	8.0	12.7	114.9	98	95
1													(WD 121.3) PCF 8.9						
1	180°	x							x				3' BSG	116.0	8.1	12.7	114.9	101	95
1													(WD 125.4) PCF 9.4						
2	STA 651+00	x							x				1' BSG	112.8	8.2	12.7	114.9	98	95
2													(WD 122.0) PCF 9.3						
2	180°	x							x				1' BSG	114.6	8.6	12.7	114.9	100	95
2													(WD 124.5) PCF 9.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 11/20/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 11/21/08

Weather:	Clear	Temp°F:	30-65	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill cut from STA 665+00 and placed @ STA 631+00 to STA 626+00 in 8" compacted lifts. They moisture conditioned loads and subgrades while I-825 sheep foot compacted fill.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 649+00 East Bound	x							x				2' BSG	111.8	13.2	12.7	117.9	95	95
1													(WD 126.6) PCF 14.8						
1	180°	x							x				2' BSG	112.4	10.1	12.7	117.9	95	95
1													(WD 123.7) PCF 11.3						
2	STA 632+00 East Bound	x							x				3' BSG	112.2	13.9	12.7	117.9	95	95
2													(WD 127.8) PCF 15.6						
2	180°	x							x				3' BSG	116.9	13.4	12.7	117.9	99	95
2													(WD 132.5) PCF 15.6						
3	STA 647+00 East Bound	x							x				2' BSG	112.6	10.4	12.7	117.9	96	95
3													(WD 124.4) PCF 11.7						
3	180°	x							x				2' BSG	112.1	11.4	12.7	117.9	95	95
3													(WD 124.9) PCF 12.8						
4	STA 653+00	x							x				1' BSG	115.7	9.8	12.7	117.9	98	95
4													(WD 127.3) PCF 11.4						
4	180°	x							x				1' BSG	116.1	11.8	12.7	117.9	99	95
4													(WD 129.8) PCF 13.7						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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SIGNATURE: Stephen Ruek

DATE: 11/21/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 11/24/08

Weather:	Clear	Temp°F:	30-60	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place embankment fill material cut from the 2:1 slope at STA 656+00 to STA 660+00. They moisture conditioned a 12" rocky material while compacting 8" lifts with I-825 sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 630+00 West Bound	X							X				2' BSG	116.7	11.8	12.7	117.9	99	95
													(wd 130.5) PCF 13.8						
1	180°	X							X				2' BSG	116.9	12.2	12.7	117.9	99	95
													(wd 131.2) PCF 14.3						
2	STA 625+00 West Bound	X							X				5' BSG	112.1	8.1	12.7	117.9	95	95
													(wd 121.1) PCF 9.0						
2	180°	X							X				5' BSG	118.4	9.2	12.7	117.9	101	95
													(wd 129.3) PCF 10.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: Stephen Rueb

DATE: 11/24/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	11/25/08

Weather:	PT Cloudy	Temp°F:	35-65	Present:	Crew	Job Number:	1526.01

Work was Performed on the following:

After grubbing off brush and boulders @ STA 602+00 to STA 622+00 at approx 15' below subgrade. The contractor used I-D9 dozer and I-815 sheep foot and a road grader to prepare original grade for fills. They moisture conditioned native, sandy soil compacting during the process, no fill placed today.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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SIGNATURE: Stephen Ruch

DATE: 11/25/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 11/26/08

Weather:	Cloudy	Temp°F:	40-60	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to Pioneer roadway from STA 599+00 to STA 589+00, clearing brush and boulders @ original grade. They used I-D9 dozer, I-815 sheep foot and 2 water tankers to prepare for road fills.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 11/26/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 11-28-08

Weather:	clear	Temp°F:	30 - 60	Present:	Randy J.	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place embankment Fill material cut from the 2:1 slope at sta 656+00 To 660+00. They moisture conditioned a 12"- Rocky material while compacting 8" Lifts with 1-825 Sheep Foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In-Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 630+00	X							X				2' BSG	116.7	11.8	12.7	117.9	99.0	95
1	west bound Ln.												(WO 130.5)		pcf 13.8				
1	180° ✓												2' BSG	116.9	12.2			99.1	
1													(WO 131.2)		pcf 14.3				
2	Sta 625+00												5' BSG	112.1	8.1			95.1	
2	westbound Ln.												(WO 121.1)		pcf 9.0				
2	180° ✓												5' BSG	118.4	9.2			100.5	
2													(WO 129.3)		pcf 10.9				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 11-24-08

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/01/08

Weather:	Clear	Temp°F:	30-65	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to grubb off the roadway at STA 560+00 to STA 530+00. They cleared surface rock and brush with I-D9 dozer and I-815 sheep foot, I-road grader and 2 water tankers, no lifts, just clearing away.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	12/02/08

Weather:	Clear	Temp°F:	45-60	Present:	Gene	Job Number:	1526.01

Work was Performed on the following:

The contractor placed fill cut from STA 599+00 and placed 8" compacted lifts at STA 601+00 to STA 603+00 at 14' below sub grade. They moisture conditioned, rocky embankment fill, compacted with I-815 sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 602+00	X							X				14' BSG	102.8	9.6	15.9	107.5	96	95
													(wd 112.7) PCF 9.9						
1	180°	X							X				14' BSG	101.1	11.0	15.9	107.5	94	
													(wd 112.2) PCF 11.1						
																AVERAGE 95			

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	12/04/08

Weather:	Clear	Temp°F:	25-55	Present:	Gene	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to cut rocky embankment fill material off STA 599+00 and moisture condition 8" lifts while I-815 sheep foot compacted fill. They placed material @ STA 595+00 to STA 597+00 at various elevation on the east bound lane.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 595+25	x							x				14' BSG	114.3	12.4	12.7	114.9	100	95
													(wd 128.5) PCF 14.2						
1	180°	x							x				14' BSG	113.9	13.5	12.7	114.9	99	95
													(wd 129.3) PCF 15.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 12/04/2008

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c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	12/05/08

Weather:	Clear	Temp°F:	25-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor placed embankment fill material @ STA 650+00 to STA 657+00 cut from STA 661+00. They moisture conditioned 8" compacted lifts, compacting with a 7' smooth drum roller and haul equipment @ 2' below subgrade.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	STA 601+50	x							x				5' BSG	105.8	12.1	15.9	107.5	98	95
													(wd 118.6) PCF 12.8						
1	180°	x							x				5' BSG	107.4	10.7	15.9	107.5	100	95
													(wd 119.0) PCF 11.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/08/08

Weather:	Cloudy	Temp°F:	35-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill cut from STA 599+00 and placed 8" compacted lifts at STA 601+00 to STA 603+00 at various elevations they used I-815 sheep foot to compact moisture conditioned lifts. The contractor place fill at STA 648+00 to STA 660+00 at 1 to 2' below subgrade using I-825 sheep foot and haul equipment for compaction.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 656+00 West Bound	x							x				1' BSG	113.7	15.6	12.7	114.9	99	95
1													(wd 131.4) PCF 17.7						
1	180°	x							x				1' BSG	112.9	15.2	12.7	114.9	98	95
1													(wd 130.1) PCF 17.2						
2	STA 649+00 West Bound	x							x				2' BSG	101.9	19.5	15.9	107.5	95	95
2													(wd 121.7) PCF 19.9						
2	180°	x							x				2' BSG	103.7	19.7	15.9	107.5	97	95
2													(wd 124.2) PCF 20.5						
3	STA 602+50 West Bound	x							x				10' BSG	107.3	13.6	15.9	107.5	100	95
3													(wd 121.9) PCF 14.6						
3	180°	x							x				10' BSG	102.6	14.2	15.9	107.5	95	95
3													(wd 117.2) PCF 14.6						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/09/08

Weather:	Clear	Temp°F:	20-50	Present:	Gene	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to cut rocky embankment fill from STA 595+50 to STA 601+00 and place compacted, moisture conditioned 8" lifts on STA 603+00 and STA 594+00 various elevations. They used I-825 and I-815 sheep's foot to place fill.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 603+50 West Bound	x							x				12' BSG	104.6	19.1	15.9	107.5	97	95
													(wd 124.5) PCF 20.0						
1	180°	x							x				12' BSG	107.3	19.6	15.9	107.5	100	95
													(wd 128.3) PCF 21.0						
2	STA 594+25	x							x				8' BSG	103.1	16.2	15.9	107.5	96	95
													(wd 119.8) PCF 16.7						
2	180°	x							x				8' BSG	101.4	16.7	15.9	107.5	94	95
													(wd 118.4) PCF 17.0						

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Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P construction
DATE:	12/11/08

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:

The contractor continued placing rock fill in the east bound lane from station 656+00-654+00. Contractor placed moisture conditioned fill in 8 to 10 inch lifts using a 825 sheeps foot compactor. Density test were obtained and results were satisfactory as noted below. Contractor notified of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	sta 655+50 10 in. test	X							X				2'brg	104.8	20.0	15.9	107.5	97	95
1	sta 655+50 6 in. tests	X							X				2'brg	104.2	20.2	15.9	107.5	97	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(In)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 12.12.08

Weather:	Clear	Temp°F:	25.45	Present:	Randy J.	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place Rocky Embankment Fill cut from the so. side ditch @ sta 660+00 and place moisture conditioned 8" lifts on the East bound lane from sta 651+00 to 645+00 at Rough Sub-Grade elev. They compacted lifts with 1-825 sheep foot and Haul Equipment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 650+50	X							X				RSG	108.7	16.0	14.3	111.1	97.9	95
1	East bound Ln.												(WD 126.1)		PCF 17.4				
1	180°												RSG	106.0	17.6	14.3	111.1	95.4	
1													(WD 124.6)		PCF 18.6				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/16/08

Weather:	Clear	Temp°F:	8 - 25	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor used a D(to rip up frozen ground, watered and recompacted the east bound lane at STA 645+00 to STA 641+00 at 3' below sub grade. They hauled rocky embankment fill curt from the ditches @ 2' below subgrade using I-825 sheep foot and haul equipment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 645+00 East Bound	x							x				4' BSG	105.5	13.3	14.3	111.1	95	95
													(wo 119.5) PCF 14.0						
1	180°	x							x				4' BSG	107.6	11.8	14.3	111.1	97	95
													(wo 120.2) PCF 12.7						
2	STA 658+00 East Bound	x							x				1' BRG	107.8	13.0	14.3	111.1	97	95
													(wo 121.8) PCF 14.0						
2	180°	x							x				1' BRG	107.7	13.4	14.3	111.1	97	95
													(wo 122.1) PCF 14.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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DATE: 12/16/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 12-17-08

Weather:	clear	Temp°F:	5° to 25°	Present:	Randy J.	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place Rocky Embankment Fill material after removing Frozen Ground. They placed 8" compacted, moisture conditioned Lifts at sta 608+00 to 612+00 @ 3' below Finish Grade and @ sta 650+00 to 645+00 on the 4:1 shoulder area (East bound Ln.) they used an 825 Sheep Foot and Haul equipment for compaction effort.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	sta 608+00	X							X				RSG	102.4	13.9	15.9	107.5	95.3	95
1	west bound Ln												(WD 116.6)		PCF 14.2				
1													RSG	103.8	12.3			96.6	
1	180° ✓												(WD 116.6)		PCF 12.8				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Stephen Rued

DATE: 12.17.08

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/18/08

Weather:	Clear	Temp°F:	7-29	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor ripped and removed a 6" frozen crust, watered and compacted before placing 8" compacted lifts on rocky embankment fill material cut from STA 600+00. They moisture conditioned each lift and compacted with 825 sheep foot and haul equipment along the west bound lane from STA 614+00 to STA 620+00 @ various elevations. The contractor placed rocky embankment fill on the 4:1 slope area STA 642+00 to STA 650+00 south of roadway, compacting 8" lifts with 825 sheep foot, water tanker and haul equipment. Fill was cut from ditches @ STA 602+00.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 617+75 West Bound	x							x				8' BRG	118.8	8.5	9.5	123.4	96	95
1													(wo 128.9)	PCF 10.1					
1	180°	x							x				8' BRG	123.2	9.5	9.5	123.4	100	95
1													(wo 134.9)	PCF 11.7					
2	STA 646+00	x							shoulder				4' BRG	101.9	15.7	15.3	107.5	95	95
2													(wo 117.8)	PCF 15.9					
2	180°	x											4' BRG	104.4	12.5	15.3	107.5	97	95
2													(wo 117.4)	PCF 13.1					

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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SIGNATURE: Stephen Rich

DATE: 12/18/2008

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/19/08

Weather:	Clear	Temp°F:	35-45	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill material on the east bound lane @ STA 613+00 to STA 619+00 at various elevations. They moisture conditioned 8" lifts while an 825 sheep foot compacted fill. The contractor continued placing rocky embankment fill on the 4:1 shoulder south edge @ STA 650+00 to STA 642+00 @ 2' below subgrade. They moisture conditioned 8" lifts compacting with 825 sheep foot. No frost today.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 616+00 West Bound	x							x				2' BRG	109.7	13.1	14.3	111.1	99	95
1													(wo 124.1) PCF 14.4						
1	180°	x							x				2' BRG	110.7	12.1	14.3	111.1	100	95
1													(wo 124.1) PCF 13.4						
2	STA 619+00 West Bound	x							x				6' BRG	109.5	13.9	14.3	111.1	99	95
2													(wo 124.7) PCF 15.2						
2	180°	x							x				6' BRG	109.9	14.1	14.3	111.1	99	95
2													(wo 125.4) PCF 15.5						
3	STA 646+00	x							x				2' BSG	119.1	8.4	9.5	123.4	97	95
3													(wo 129.1 PCF 10.0						
3	180°	x							x				2' BSG	119.4	8.4	9.5	123.4	97	95
													(wo 129.3) PCF 10.0						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 12/19/2008

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/22/08

Weather:	PT Cloudy	Temp°F:	25-35	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill cut from STA 598+00 and placed 8" compacted lifts along STA 619+00 to STA 623+00 @ 4' bleow rough subgrade. They moisture conditioned lifts while 825 sheep foot compacted fill in the west bound lane.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 618+00 East Bound	x							x				4' BRG	101.6	14.1	15.2	101.5	100	95
1													(wo 115.9) PCF 14.3						
1	180°	x							x				4' BRG	101.0	13.6	15.2	101.5	100	95
1													(wo 114.8) PCF 13.8						
2	STA 620+00 West Bound	x							x				4' BRG	103.0	13.2	15.9	107.5	96	95
2													(wo 116.6) PCF 13.6						
2	180°	x							x				4' BRG	104.1	12.7	15.9	107.5	97	95
2													(wo 117.4) PCF 13.3						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 12/22/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/23/08

Weather:	Clear	Temp°F:	30-40	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor placed rocky embankment fill cut from ditchs @ STA 645+00 and placed 8" moisture conditioned lifts from STA 648+00 to STA 644+00 east bound lane @ rough grade elevations.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 646+00 East Bound	x							x				RSG	113.7	10.3	14.3	111.1	99	95
1													(wo 125.4) PCF 11.7						
1	180°	x							x				RSG	115.4	10.8	14.3	111.1	100	95
1													(wo 127.8) PCF 12.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/23/08

Weather:	Clear	Temp°F:	30-40	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor continued placing 8" compacted lift of moisture conditioned embankment fill material cut from STA 598+00 and placed on the east bound lane. They used 825 sheep foot and haul equipment. They placed material on STA 624+00 to STA 615+00 at 2' below rough grade up to rough subgrade. TO COMPACT

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 621+50 West Bound	x							x				RSG	100.1	14.2	18.4	102.4	98	95
1													(wo 114.3) PCF 14.2						
1	180°	x							x				RSG	96.5	14.8	18.4	102.4	94	95
1													(wo 110.5) PCF 14.3						
2	STA 623+50 East Bound	x							x				RSG	99.9	15.1	18.4	102.4	98	95
2													(wo 115.1) PCF 15.1						
2	180°	x							x				RSG	98.4	15.7	18.4	102.4	96	95
													(wo 113.9) PCF 15.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/24/08

Weather:	PT Cloudy	Temp°F:	28-40	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor used a 375 Komatsu dozer to cut embankment fill from the hill side at STA 537+00 and placed moisture conditioned 8" compacted lifts with 815 sheep foot. They grubbed the roadway and slope shoulder areas moisture conditioned original grade and compacted with the 815 from STA 539+00 to STA 543+00.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 542+00 West Bound	x							x				7' BRG	107.1	8.7	14.8	109.5	98	95
													(wo 116.5) PCF 9.4						
1	180°	x							x				7' BRG	109.9	9.4	14.8	109.5	100	95
													(wo 120.1) PCF 10.3						
2	STA 620+25 East Bound	x							x				16" BRG	97.3	12.7	18.4	102.4	95	95
													(wo 109.7) PCF 12.3						
2	180°	x							x				16" BRG	100.1	12.2	18.4	120.4	98	95
													(wo 112.3) PCF 12.2						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 12/24/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/29/08

Weather:	Clear	Temp°F:	40-48	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts of rocky embankment fill material cut from STA 537+00. They moisture conditioned original grade and lifts while 815 sheep foot compacted fill along the west bound lane @ STA 539+00 to STA 545+00 @ 16" above original grade. The contractor ripped and removed a 6" frost crust, moisture conditioned compacted and placed 8" compacted lifts of rocky embankment fill on the east bound lane from STA 637+00 up to STA 633+00

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 544+00 West Bound	x							x				5' BRG	105.6	7.3	14.8	109.5	96	95
													(wo 113.3) PCF 7.7						
1	180°	x							x				5' BRG	108.0	6.0	14.8	109.5	99	95
													(wo 114.5) PCF 6.5						
2	STA 636+00 East Bound	x							x				RSG	114.1	7.8	12.7	114.9	99	95
													(wo 123.1) PCF 8.9						
2	180°	x							x				RSG	111.8	7.7	12.7	114.9	97	95
													(wo 120.4) PCF 8.6						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 12/29/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/30/08

Weather:	Clear	Temp°F:	29-50	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor ripped and removed a 6" frost crust, watered and placed 8" compacted lifts at STA 541+00 to STA 548+00 at approximately 4' below rough subgrade. They used 815 sheep foot and haul equipment to compact a rocky embankment fill cut from the hill side at STA 537+00 west bound lane. The contractor filled and cut from STA 640+00 to STA 617+00 in effort to fine grade each lane up to rough subgrade elevation they used 825 sheep foot and D9 and 1 road grader, 1 water truck, 3 haul packs to compact lifts and cuts.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content(%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	STA 543+00 West Bound	x							x				4' BRG	106.8	12.4	14.8	109.5	98	95
													(wo 120.1) PCF 13.3						
1	180°	x							x				4' BRG	107.5	12.5	14.8	109.5	98	95
													(wo 121.0) PCF 13.5						
2	STA 547+50 West Bound	x							x				4' BRG	105.7	10.9	14.8	109.5	97	95
													(wo 117.2) PCF 11.5						
2	180°	x							x				4' BRG	107.1	11.1	14.8	109.5	98	95
													(wo 119.0) PCF 11.9						
3	STA 631+00 West Bound	x							x				RSG	105.6	14.2	14.8	109.5	96	95
													(wo 120.6) PCF 15.0						
3	180°	x							x				RSG	107.6	13.9	14.8	109.5	98	95
													(wo 122.5) PCF 14.9						
4	STA 619+50 East Bound	x							x				RSG	106.7	11.7	14.8	109.5	97	95
													(wo 119.1) PCF 12.4						
4	180°	x							x				RSG	110.0	11.3	14.8	109.5	101	95
													(wo 122.5) PCF 12.4						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 12/30/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 12/31/08

Weather:	Cloudy	Temp°F:	32-45	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor ripped and removed a 6" frost crust, watered and continued to place 8" compacted lifts. They used rocky embankment fill cut from a hill side @ STA 537+00 and placed on the east bound lane @ STA 540+00 to STA 547+00 at 16" over original grade, using 815 sheep foot and haul equipment for compaction @ STA 619+00 to STA 616+00 In the east bound lane the contractor placed 8" compacted lifts of rocky embankment fill cut from ditches @ STA 621+00 to STA 618+00 and placed with 825 sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 543+75 East Bound	x							x				16" AOG	108.8	10.3	14.8	109.5	99	95
													(wo 120.1) PCF 11.2						
1	180°	x							x				16" AOG	109.9	10.4	14.8	109.5	100	95
													(wo 121.3) PCF 11.4						
2	STA 542+00 West Bound	x							x				3' BRG	110.4	8.1	12.9	113.6	97	95
													(wo 119.4) PCF 8.9						
2	180°	x							x				3' BRG	114.6	7.7	12.9	113.6	101	95
													(wo 123.5) PCF 8.8						
3	STA 617+25 East Bound	x							x				RSG	108.6	8.5	14.3	111.1	98	95
													(wo 117.9) PCF 9.3						
3	180°	x							x				RSG	105.4	8.7	14.3	111.1	95	95
													(wo 114.6) PCF 9.1						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL AOG = Above OG

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DATE: 12/31/2008

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/05/09

Weather:	Cloudy	Temp°F:	32-45	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor grubbed off original grade form STA 524+00 to STA 520+00, moisture conditioning original grade and compacting with 815 sheep foot. They used I-375 Kamastus dozer to cut fill from STA 520+00 hill side, west bound at STA 619+00 to STA 614+00 west bound lane. The contractor ripped and removed a 12" frost crust , moisture conditioned before and during placement of a rocky embankment fill cut side ditches and placed 8' compacted lifts.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 535+00 West Bound	x							x				7' BRG	117.3	11.0	11.5	117.9	100	95
													(wo 130.2) PCF 12.9						
1	180°	x							x				7' BRG	117.2	11.5	11.5	117.9	99	95
													(wo 130.7) PCF 13.5						
2	STA 544+00 East Bound	x							x				3' BRG	111.4	11.4	12.7	114.9	97	95
													(wo 124.1) PCF 12.7						
2	180°	x							x				3' BRG	112.2	11.5	12.7	114.9	98	95
													(wo 125.2) PCF 13.0						
3	STA 619+00 West Bound	x							x				RSG	106.0	9.6	14.3	111.1	95	95
													(wo 116.2) PCF 10.2						
3	180°	x							x				RSG	110.3	9.6	14.3	111.1	99	95
													(wo 120.9) PCF 10.6						
4	STA 615+75 West Bound	x							x				RSG	103.3	15.8	16.6	105.9	98	95
													(wo 119.7) PCF 16.4						
4	180°	x							x				RSG	103.7	15.3	16.6	105.9	98	95
													(wo 119.5) PCF 15.8						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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SIGNATURE: Stephen Rueb

DATE: 01/05/2009

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/13/09

Weather:	Clear	Temp°F:	30-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts of moisture conditioned embankment fill, cut from ditches @ STA 600+00 and slopes @ STA 577+00. They used 2 sheep foot for compacting lifts while water trucks sprayed lifts @ STA 506+00 to STA 513+00 they used a dozer to push moisture conditioned fill cut from hill sides and placed 8" lifts compacting with 1-7' vib sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 570+25 West Bound	x							x				6' BRG	111.4	14.5	14.3	111.1	100	95
1													(wo 127.5) PCF 16.2						
1	180°	x							x				6' BRG	107.2	16.0	14.3	111.1	97	95
1													(wo 124.4) PCF 17.2						
2	STA 574+00 West Bound	x							x				4' BRG	105.4	12.7	14.3	111.1	95	95
2													(wo 118.8) PCF 13.4						
2	180°	x							x				4' BRG	107.9	11.4	14.3	111.1	97	95
2													(wo 120.2) PCF 12.3						
3	STA 587+00 West Bound	x							x				3' BRG	100.2	12.7	18.4	102.4	98	95
3													(wo 113.0) PCF 12.8						
3	180°	x							x				3' BRG	98.8	14.3	18.4	102.4	97	95
3													(wo 112.9) PCF 14.3						
4	STA 507+00 West Bound	x							x				2' AOG	104.3	13.5	16.6	105.9	99	95
4													(wo 118.4) PCF 14.1						
4	180°	x							x				2' AOG	103.4	13.6	16.6	105.9	98	95
4													(wo 117.5) PCF 14.1						
5	STA 511+00 West Bound	x							x				4' AOG	110.5	9.0	14.3	111.1	100	95
5													(wo 120.5) PCF 10.0						
5	180°	x							x				4' AOG	110.9	9.5	14.3	111.1	100	95
5													(wo 121.3) PCF 10.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 01/13/2009

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/06/09

Weather:	Cloudy	Temp°F:	40-50	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor ripped fill material off the east bound hillside @ STA 520+00 and placed rocky embankment in 8" compacted lifts. They moisture conditioned while 815 sheep foot compacted fill. The contractor placed rocky embankment fill cut from the east bound lane @ STA 581+00 and placed 8" compacted moisture conditioned lifts on the east bound lane @ STA 584+00 to STA 590+00 at approximately 3' below rough grade.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 523+50 East Bound	x							x				2' AOG	110.1	7.9	12.7	114.9	96	95
													(wo 118.9) PCF 8.7						
1	180°	x							x				2' AOG	112.0	6.9	12.7	114.9	98	95
													(wo 119.7) PCF 7.7						
2	STA 585+25 East Bound	x							x				16" BRG	98.3	17.5	18.4	102.4	96	95
													(wo 115.8) PCF 17.8						
2	180°	x							x				16" BRG	97.3	17.2	18.4	102.4	95	95
													(wo 114.1) PCF 16.8						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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Quality Control - Daily Field Report

Sewer | **USA Parkway Extension** | Under Ground

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F'n P
DATE:	1-7-09

Weather:	Clear	Temp°F:	35-55	Present:	Randy J.	Job Number:	1526.01

Work was Performed on the following:

the contractor excavated the sewer line trench aprox. 6' deep, placed bedding sand, 16" P.V.C. Pipe, bedding sand to 12" over pipe and compacted moist sand with Jump wackers.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In-Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 533+75		X				X		X				5' BRG	101.4	7.4	10.0	109.0	93	90
	Start at end of Pavement (USA)																		

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 1-7-09

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/07/09

Weather:	Clear	Temp°F:	38-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts of rocky embankment fill cut from the ditches and high spots in the roadway. They moisture conditioned subgrades while 815 sheep foot compacted fill working STA 602+00 to STA 606+00 at 1' to 3' below subgrade elevation and STA 590+00 to STA 594+00 at approximately 6' below subgrade. They continued to rip the 2:1 slope hillside at STA 520+00, moisture conditions rocky soils and compact 8" lifts with 815 sheep foot and 375 Komatsu dozer.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 605+00 West Bound	x							x				1' BRG	111.9	6.5	14.3	111.1	101	95
													(wo 119.2) PCF 7.3						
1	180°	x							x				1' BRG	111.5	7.6	14.3	111.1	100	95
													(wo 119.2) PCF 8.4						
2	STA 592+00 East Bound	x							x				6' BRG	113.8	9.6	12.7	114.9	99	95
													(wo 124.7) PCF 10.9						95
2	180°	x							x				6' BRG	114.7	7.8	12.7	114.9	100	95
													(wo 123.6) PCF 8.9						
3	STA 521+00 East Bound	x							x				4' AOG	111.1	9.7	12.7	114.9	97	95
													(wo 121.9) PCF 10.8						95
3	180°	x							x				4' AOG	113.0	9.7	12.7	114.9	98	95
													(wo 121.00) PCF 11.0						
4	STA 602+50 West Bound	x							x				1' BSG	108.1	16.0	14.3	111.1	97	95
													(wo 125.3) PCF 17.3						
4	180°	x							x				1' BSG	104.9	18.1	14.3	111.1	94	95
													(wo 123.8) PCF 18.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 01/07/2009

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/08/09

Weather:	Clear	Temp°F:	50-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place 8" compacted lifts of rocky embankment fill cut from ditches @ STA 610+00 and the roadway STA 580+00. They moisture conditioned each lift while 815 sheep foot compacted at STA587+00 @ approximately 4' below subgrade. Other fills were placed @ STA 595+00 @ 2' BRG and STA 521+00 @ 6' above original grade.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 595+20 East Bound	x							x				2' BRG	102.2	16.0	16.6	105.9	97	95
													(wo 118.6) PCF 16.4						
1	180°	x							x				2' BRG	100.8	17.4	16.6	105.9	95	95
													(wo 118.3) PCF 17.5						
2	STA 521+00 West Bound	x							x				6' AOG	118.8	7.3	9.5	123.4	96	95
													(wo 127.4) PCF 8.6						
2	180°	x							x				6' AOG	119.7	7.4	9.5	123.4	97	95
													(wo 128.6) PCF 8.8						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 01/08/2009

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/09/09

Weather:	Clear	Temp°F:	30-50	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill, cut from ditches @ STA 601+00 and placed 8n" compacted lifts @ STA 595+00 @ 3' below rough subgrade and @ STA 587+00 @ 2' below rough grade they moisture conditioned lifts while 825 and 5' vib sheep foot compacted fill.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 585+00 West Bound	x							x				RSG	104.2	13.9	16.6	105.9	98	95
													(wo 118.7) PCF 14.5						
1	180°	x							x				RSG	100.3	13.8	16.6	105.9	95	95
													(wo 114.20 PCF 13.9						
2	STA 591+00 East Bound	x							x				3' BRG	104.1	15.5	16.6	105.9	100	95
													(wo 119.9) PCF 16.5						
2	180°	x							x				3' BRG	104.1	15.8	16.6	105.9	98	95
													(wo 120.5) PCF 16.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/12/09

Weather:	Clear	Temp°F:	30-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place moisture conditioned embankment fill in 8" lifts using 825, 815 and 7' vib sheep foot to compact fill. They worked at STA 595+00 to STA 585+00 at approximately 3' below subgrade on the west bound lane.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 593+00 West Bound	x							x				3' BRG	113.7	9.0	12.7	114.9	99	95
													(wo 123.8) PCF 10.2						
1	180°	x							x				3' BRG	113.0	9.3	12.7	114.9	98	95
													(wo 123.5) PCF 10.5						
2	STA 590+00 East Bound	x							x				5' BRG	110.5	14.5	12.7	114.9	96	95
													(wo 126.5) PCF 16.0						
2	180°	x							x				5' BRG	108.3	16.2	12.7	114.9	94	95
													(wo 125.8) PCF 17.5						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below, Above Flow Line = AFL

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DATE: 01/12/2009

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USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F'n P
DATE:	1-13-09

Weather:	Clear	Temp°F:	30-55	Present:	John	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to install the sewer line along STA 528+00 to 532+00 @ 5' below sub Grade. They used bedding sand 6" under & 12" over pipe compacting with a walk behind sheep Foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 532+00		X				X		X				4' BRG	104.9	12.0	12.5	118.3	90	90
2	STA 530+50												4' BRG	107.2	6.6			90	
3	STA 529+00												5' BRG	106.5	6.9			91	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 1-13-09

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/14/09

Weather:	Clear	Temp°F:	30-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place rocky embankment fill cut from ditched @ STA 598+00 and slopes @ STA 575+00 and place 8" moisture conditioned compacted lifts using 825 and 7' vib sheep foot. They worked from STA 570+00 to STA 574+00, east bound lane at an elevation approx 5' below subgrade. They cut hill sides @ STA 507+00 pushing with a dozer to a 7' vib sheep foot on the east bound lane @ an elevation approx between rough grade to 2' below.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	STA 505+25 East Bound	x							x				RSG	111.3	9.1	14.3	111.1	100	95
1													(wd 121.5) PCF 102.2						
1	180°	x							x				RSG	109.3	9.5	14.3	111.1	98	95
1													(wd 119.7) PCF 10.4						
2	STA 510+00 East Bound	x							x				2' BSG	111.3	9.8	14.3	111.1	100	95
2													(wd 122.2) PCF 10.9						
2	180°	x							x				2' BSG	106.3	8.7	14.3	111.1	96	95
2													(wd 115.6) PCF 9.3						
3	STA 573+00 East Bound	x							x				4' BSG	97.6	19.1	18.4	102.4	95	95
3													(wd 116.2) PCF 18.6						
3	180°	x							x				4' BSG	98.2	19.1	18.4	102.4	96	95
3													(wd 117.0) PCF 18.7						
4	STA 588+50 East Bound	x							x				4' BSG	101.8	12.7	16.6	105.9	96	95
4													(wd 114.8) PCF 13.0						
4	180°	x							x				4' BSG	105.5	12.2	1.6	105.9	100	95
4													(wd 118.4) PCf 12.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension | Sewer Line

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 1-14-09

Weather:	clear	Temp°F:	30-55	Present:	JoHn	Job Number:	1526.01

Work was Performed on the following:

the contractor continued to excavate through blast rubble, place sand bedding, 6" under - 12" over PVC pipe and compacted moisture conditioned with a walk behind sheep foot, they screened trench spoils, moisture conditioning during process and placing 12" lifts from Sta. 535+25 to 525+00.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other:	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 534+50		X					X	X				4' BKG	103.8	16.7	16.0	115.5	90	90
2	Sta 532+80												5' BKG	104.1	12.3			90	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Stephen Rued

DATE: 1-14-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 1-15-09

Weather:	Clear	Temp °F:	28-55	Present:	Randy	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to cut rocky embankment from the hillside at sta 508+00 and place 8" compacted, moisture conditioned lifts on the west bound land from sta 505+00 to 511+00 at 6' above original grade they compacted with 1-7' vib sheep foot after the dozer pushed each lift. At sta 594+00 to 586+00 east bound ln, they placed 8" compacted lifts of embankment fill cut from ditches at 599+00, moisture conditioned during compaction with 1-825 sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 508+00	X							X				6' AOG	108.2	12.5	14.3	111.1	97.4	95
1	West bound Ln												(WO 121.6)		PCF 13.5				
1	180°												6' AOG	108.5	11.2	14.3	111.1	97.7	
1													(WO 120.6)		PCF 12.1				
2	STA 592+00												1' BRG	98.4	18.2	18.4	102.4	96.1	
2	East bound Ln.												(WO 116.3)		PCF 17.9				
2	180°												1' BRG	98.2	19.1	18.4	102.4	95.9	
2													(WO 116.9)		PCF 18.7				

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	01/19/09

Weather:	Clear	Temp°F:	30-55	Present:	Gene	Job Number:	1526.01

Work was Performed on the following:

After prep in original grade from STA 498+00 to STA 505+00 the contractor dozer cut the slope hill sides they moisture conditioned stock piles and subgrade then placed 8" compacted lifts of embankment fills compacting with 7' vib sheep foot. They continued to place moisture conditioned 8" lifts of rocky embankment fill along STA 585+00 to STA 595+00 rough grade elevation they hauled fill cut from side ditches @ STA 590+00 moisture conditioning lifts while 825 sheep foot placed material.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 506+00 West Bound	x							x				3' BRG	111.1	11.0	14.3	111.1	100	95
1													(wd 123.3) PCF 12.2						
1	180°	x							x				3' BRG	109.7	10.6	14.3	111.1	99	95
1													(wd 121.4) PCF 11.6						
2	STA 511+00 East Bound	x							x				6' BRG	109.6	8.8	14.3	111.1	99	95
2													(wd 119.3) PCF 9.7						
2	180°	x							x				6' BRG	107.8	9.9	14.3	111.1	97	95
2													(wd 118.5) PCF 10.7						
3	STA 590+00 West Bound	x							x				RSG	101.8	12.7	16.6	105.9	96	95
3													(wd 114.8) PCF 13.0						
3	180°	x							x				RSG	101.6	14.5	16.6	105.9	96	95
3													(wd 116.4) PCF 14.7						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 01/19/2009

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USA Parkway Extension | Sewer

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 1-19-09

Weather:	Clear	Temp°F:	30-55	Present:	John	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to install a 10" sewerline from sta 524+00 To Sta 529+00. They used moisture conditioned bedding sand up to 12" over Pipe compacting with Jump wackers and a walk behind Sheep Foot. They screened trench spoils while moisture conditioning Fill material and placed 12" Lifts with a 5' vib sheep Foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 528+50		X				X		X				4' BRG	106.2	9.8	12.5	113.8	90	90
2	STA 527+00												5' BRG	107.3	7.5			91	
3	STA 525+00												5' BRG	109.6	8.2			92	
4	STA 531+00							X	X				1' BSG	123.0	7.8	9.5	123.4	99	
5	STA 533+75												RSG	116.8	11.2	9.5	123.4	95	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 01/20/09

Weather:	Clear	Temp°F:	28+50	Present:	Randy	Job Number:	

Work was Performed on the following:

The contractor continued to place embankment fill cut from ditches, placing 8" moisture conditioned compacted lifts. They filled the west bound lane from STA 576+00 to STA 570+00 @ 2' below subgrade, using 825 sheep foot and haul equipment. They cut slopes along STA 500+00 to STA 505+00 moisture conditioning stock piles and 8" lifts of rocky embankment fill compacting with 7' vib sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 574+00 West Bound	x							x				2' BRG	105.8	15.6	16.6	105.9	100	95
1													(wd 113.6) PCF 16.5						
1	180°	x							x				2' BRG	105.0	15.8	16.6	105.9	99	95
1													(wd 132.4) PCF 16.6						
2	Sta 501+00 West Bound	x							x				13' BRG	122.4	9.2	9.5	123.4	99	95
2													(wd 133.6) PCF 11.2						
2	180°	x							x				13' BRG	121.5	9.0	9.5	123.4	99	95
2													(wd 132.4) PCF 10.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 01/20/2009

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USA Parkway Extension | Sewer

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 1-20-09

Weather:	Clean	Temp°F:	28-50	Present:	John	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to back fill the 10" sewer line from STA 524+00 to 526+00 at various elevations

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 524+00		X				X		X				8'BRG	107.1	9.6	12.5	118.3	90	90
2	STA 524+20							X					4'BRG	114.1	7.7	12.7	114.9	99	
3	STA 524+50							X					1'BRG	113.8	7.2	12.7	114.9	98	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/02/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 548+00 to 553+00 left. Material cut from drainage channels along USA Parkway at station 569+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	548+00	X											5' BRG	110.3	13.2	12.9	113.6	97	90
2	552+00	X											5' BRG	108.5	12.2	12.9	113.6	96	90
3	550+00	X											5' BRG	107.5	11.2	12.9	113.6	95	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 2-2-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION:	Storey County, Nevada
	OWNER:	Tahoe Reno Industrial Center
	CONTRACTOR:	F&P Const.
	DATE:	02/02/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 475+00 to 474+00 right. Material cut from USA Parkway at station 487+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/03/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 556+00 to 557+00 left. Material cut from drainage channels along USA Parkway at station 568+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	556+00	X											2' BRG	108.3	12.2	12.9	113.6	95	90
2	557+00	X											2' BRG	109.5	11.2	12.9	113.6	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas DATE: 02/04/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Roadway Subgrade		

Observed Atlas construction placing structural fill on USA Parkway to bring road to subgrade elevation. Total amount of fill placed was 4" to 6" at stations 510+00 to 503+00 left. Material was placed with paddle wheel scrapers, graded to approx. elevation with sheeps foot, moisture conditioned and compacted with sheeps foot with a minimum of 5 passes and or until no further surface deflections were observed. No density tests were obtained.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION:	Storey County, Nevada
	OWNER:	Tahoe Reno Industrial Center
	CONTRACTOR:	F&P Const.
	DATE:	02/05/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 546+00 to 548+00 left. Material cut from drainage channels along USA Parkway at station 566+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	546+00	X											4' BRG	110.8	13.3	12.9	113.6	98	90
2	548+00	X											4' BRG	107.2	10.3	12.9	113.6	94	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/05/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 476+00 to 473+00 right. Material cut from USA Parkway at station 487+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/06/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 470+00 to 468+00 right. Material cut from USA Parkway at station 487+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 16.7 of fill to SG.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE:

DATE: 2-6-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/06/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 547+00 to 545+00 left. Material cut from drainage channels along USA Parkway at station 561+00, material hauled to fill site with Volvo A40D haul trucks, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	547+00	X											2' BRG	109.6	12.3	12.9	113.6	96	90
2	546+00	X											2' BRG	111.3	13.3	12.9	113.6	98	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/09/09

Weather:		Temp°F:		Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 467+00 right. Material cut from USA Parkway at station 487+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 16.7 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Construction DATE: 02/10/09

Weather:	Clear	Temp°F:	25-45	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to place embankment fill cut from the hillside at STA 471+00. They moisture conditioned 8" lifts pushed in with a D9 dozer and compacted with 825 sheep foot. AT STA 450+00 they placed 8" compacted lifts of embankment fill cut from a borrow site at STA 453+00. They used 2 haul pack trucks to feed 815 sheep foot while water tanker sprayed lifts.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 470+00 East Bound	x											12' BSG	85.0	26.3	29.0	90.0	95	95
1													(wd 107.4) PCF 22.3						
1	180°	x											12' BSG	87.0	26.1	29.0	90.0	97	95
1													(wd 109.7) PCF 22.7						
2	STA 450+00 East Bound	x											12' BSG	90.3	19.4	21.0	95.0	95	95
2													(wd 107.8) PCF 17.5						
2	180°	x											12' BSG	92.5	18.2	21.0	95.0	97	95
2													(wd 109.4) PCF 16.9						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE: Stephen Rich

DATE: 02/10/2009

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F'n P DATE: 2-10-09

Weather:	Clear	Temp°F:	25-45	Present:	Crew	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to install the 12" waterline at sta. 521+00 to 517+50. They excavated a 4' trench, placed bedding sand under 6" to 12" over pipe, compacting with a walk behind sheep foot @ 2' below sub grade.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 520+50			W									2' BRG	105.7	9.2	12.5	118.3	90	90
2	STA 517+50			W									1' BRG	106.4	9.3	12.5	118.3	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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SIGNATURE: Stephen Rued

DATE: 2-10-09

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/11/09

Weather:	Overcast	Temp°F:	42F	Present:		Job Number:	

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 529+00 left. Material cut from drainage channels along USA Parkway at station 549+00 & 539+00, material hauled to fill site, graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Equip Note: 3 Volvo A40D Haul Trucks, 1 Volvo Loader, 2 Volvo Excavators, 1 Water Wagon

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	529+00 Lt	X											6' BRG	108.7	12.2	12.9	113.6	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 2-11-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/11/09

Weather:	Overcast	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 470+00 left. Material cut from slope on USA Parkway at station 471+00 to 474, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 19.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension | Base

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: ATLAS DATE: 2-13-09

Weather:	Cloudy	Temp °F:	25-40	Present:	Crew	Job Number:	1526.01

Work was Performed on the following:

The contractor placed 12" of Type II Base imported from Western NV. Materials placing thin, moisture conditioned, lifts with a Road Grader and compacted with a smooth drum Roller. They installed the base from STA 511+00 to 470+00 on the east bound lane from the ℄ of the road out 6' past edge of Pavement. Density Test were Taken and the blade operator was informed of the Results.

Page 1 of 2

Source: Native: Import:

Test Number	Location East bound Ln	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 473+00	X							X				BC	122.3	4.7	9.0	129.0	95	95
2	477+00													125.6	5.2			97	
3	481+00													124.3	4.7			96	
4	485+00													126.8	6.2			98	
5	489+00													128.7	6.6			99	
6	493+00													127.3	5.7			98	
7	499+00													126.0	5.4			97	
8	503+00													128.4	5.7			99	

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 2-13-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	ATLas
DATE:	2-13-09

Weather:		Temp °F:		Present:		Job Number:	1526.01

Work was Performed on the following:

Page 2

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In-Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
9	Sta 507+00	X							X				BC	128.8	4.4	9.0	129.0	99	95
10	Sta 511+00													126.4	5.4	9.0	129.0	97	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* FG = Finish Grade, SG = Subgrade, RG = Rough Grade, FTG = Footing Grade, BC = Base Course, Prefix B = Below

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DATE: 2-13-09

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USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Construction
DATE:	02/13/09

Weather:	Cloudy	Temp°F:	25-40	Present:	Dayton	Job Number:	1526.01

Work was Performed on the following:

The contractor continued to placed 8" compacted lifts of rocky embankment fill cut from the borrow site at STA 453+00 to STA 456+00 @ approximately 12' below sub-grade. They moisture conditioned lifts while 825 sheep foot compacted fill. They placed rock fill at STA 475+00 moisture conditioning 8" lifts and compacting with 815 sheep foot. They hauled blast rubble from the summit STA 482+00. They placed rocky embankment fill cut from ditches at STA 550+00 and placed at STA 532+00 at 2' below subgrade. They moisture conditioned each 8" lift, compacting with 7 vib sheep foot.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	STA 453+00 West Bound	x											10' BSG	92.2	25.2	21.0	95.0	97	95
1													(wd 115.4) PCF 23.3						
1	180°	x											10' BSG	91.7	25.1	21.0	95.0	97	95
1													(wd 114.8) PCF 23.1						
2	STA 476+25 West Bound	x											7' BSG	118.6	10.8	9.5	123.4	96	95
2													(wd 131.4) PCF 12.8						
2	180°	x											7' BSG	119.7	9.3	9.5	123.4	97	95
2													(wd 130.8) PCF 11.1						
3	STA 532+00 West Bound	x											2' BSG	110.8	11.1	12.7	114.9	97	95
3													(wd 123.2) PCF 12.3						
3	180°	x											2' BSG	109.0	12.1	12.7	114.9	95	95
3													(wd 122.1) PCF 13.2						

Compression Test Summary

Set	Location	Slump(in)	Air (%)	Concrete Temp(°F)	Grout Mix #	Mortar Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE: Stephen Rich

DATE: 02/13/2009

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/16/09

Weather:	Overcast	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 469+00 to 468+00 left. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 19.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 469+00	X											12' BRG	102.3	15.3	14.6	107.9	95	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 2-16-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/16/09

Weather:	Overcast	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 531+00 to 530+00 left. Material cut from channel on USA Parkway at station 546+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 19.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	Sta. 531+00 Lt	X											6' BRG	105.6	12.2	12.9	113.6	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

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c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	02/17/09

Weather:	Overcast	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 468+00 to 467+00 right. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Total elevation at approx 19.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	468+00 Rt	X											12' BRG	103.2	16.5	14.6	107.9	96	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/17/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 462+00 to 458+00 right. Material cut from native material excavated from slope on USA Parkway at station 455+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 19.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	462+00 Rt	X											8' BRG	102.5	16.5	14.6	107.9	95	95
2	460+00 Rt	X											8' BRG	103.6	15.5	14.6	107.9	96	95
3	458+00 Rt	X											8' BRG	102.2	17.3	14.6	107.9	95	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/18/09

Weather:	Overcast	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 469+00 right. Material cut from slope on USA Parkway at station 467+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note: No tests obtained do to pin refusal. Elevation at approx 15.0 of fill to SG. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	469+00 Rt	X											15' BRG	102.9	15.6	14.6	107.9	95	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/18/09

Weather:	Clear	Temp°F:	45 F	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 525+00 left. Material cut from channel on USA Parkway at station 547+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	Sta. 525+00	X											5' BRG	104.2	13.3	12.9	113.6	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/19/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 525+00 left. Material cut from channel on USA Parkway at station 546+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/20/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 525+00 left. Material cut from channel on USA Parkway at station 546+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 525+00 Rt	X											4' BRG						

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 548+00 left. Material cut from pit off USA Parkway at station 453+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 548+00	X											12' BRG	102.5	16.3		107.9	95	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/23/09

Weather:	Clear	Temp°F:	56	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at stations 468+00 right to 467+00. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	467+50	X											6' BRG	120.6	7.5	7.1	129.8	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/24/09

Weather:	Clear	Temp°F:	56	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 467+00 right to 466+00. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	466+50	X											6' BRG	121.2	8.3	7.1	129.8	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: NV Energy/ Atlas Const DATE: 02/25/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Ungd		

Observed and tested gas line bedding for crossing at station 520+00. Bedding material observed to be sand material, delivered from Riverview 2 Development. Sand placed below and 1' above line, moisture conditioned and compacted with jump whacker. Density test result listed below. Contractor notified of result.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
		Source: Native:										Import:							
1	Sta. 520+00						X						1' BRG	105.5	13.6	13.4	117.6	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/25/09

Weather:	Clear	Temp°F:	56	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 467+00 right to 466+00. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 466+00 Rt	X											4.5' BRG	122.5	9.2	7.1	129.8	94	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/26/09

Weather:	Clear	Temp°F:	56	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 455+00. Material cut from USA Parkway at station 484+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.
**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 02/27/09

Weather:	Clear	Temp°F:	56	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 468+00 left to 467+00. Material cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 468+00 Lt	X											4.5' BRG	123.5	6.9	7.1	129.8	95	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

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Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/04/09

Weather:	Sunny	Temp°F:	30-40	Present:	Dan	Job Number:	1526.01

Work was Performed on the following: Density Testing

Arrived on site to density test base course on the left side of USA Parkway between stations 401+00-471+00. The material was density tested for compaction verification. The density test are outlined in the field density summary. The contractor was notified of the test result and observations.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta: 401+00L								x				BC	126.4	6.4	10.1	131.5	96	95
2	Sta: 403+00L								x				BC	124.9	7.8	10.1	131.5	95	95
3	Sta: 405+00L								x				BC	125.6	6.0	10.1	131.5	96	95
4	Sta: 407+00L								x				BC	129.2	7.6	10.1	131.5	98	95
5	Sta: 409+00L								x				BC	129.9	6.0	10.1	131.5	99	95
6	Sta: 411+00L								x				BC	125.1	7.5	10.1	131.5	95	95
7	Sta: 413+00L								x				BC	126.2	6.8	10.1	131.5	96	95
8	Sta: 415+00L								x				BC	128.9	6.4	10.1	131.5	98	95
9	Sta: 417+00L								x				BC	127.8	7.2	10.1	131.5	97	95
10	Sta: 419+00L								x				BC	128.7	6.0	10.1	131.5	98	95
11	Sta: 421+00L								x				BC	124.7	6.3	10.1	131.5	95	95
12	Sta: 423+00L								x				BC	126.2	5.1	10.1	131.5	96	95
13	Sta: 425+00L								x				BC	124.5	6.9	10.1	131.5	95	95
14	Sta: 427+00L								x				BC	126.1	7.1	10.1	131.5	96	95
15	Sta: 429+00L								x				BC	130.7	5.8	10.1	131.5	99	95
16	Sta: 431+00L								x				BC	129.4	6.2	10.1	131.5	98	95
17	Sta: 433+00L								x				BC	129.1	5.4	10.1	131.5	98	95
18	Sta: 435+00L								x				BC	129.5	7.2	10.1	131.5	98	95
19	Sta: 437+00L								x				BC	126.3	5.9	10.1	131.5	96	95
20	Sta: 439+00L								x				BC	124.5	5.8	10.1	131.5	95	95
21	Sta: 441+00L								x				BC	124.4	6.5	10.1	131.5	95	95
22	Sta: 443+00L								x				BC	128.5	6.8	10.1	131.5	98	95

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DATE: 3.4.09

2/2

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/04/09

Weather:	Sunny	Temp°F:	30-40	Present:	Dan	Job Number:	1526.01

Work was Performed on the following: Density Testing

The density test are outlined in the field density summary.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
23	Sta: 445+00L								x				BC	127.5	6.8	10.1	131.5	97	95
24	Sta: 447+00L								x				BC	127.9	5.9	10.1	131.5	97	95
25	Sta: 449+00L								x				BC	129.1	6.0	10.1	131.5	98	95
26	Sta: 451+00L								x				BC	127.4	5.5	10.1	131.5	97	95
27	Sta: 453+00L								x				BC	125.4	6.5	10.1	131.5	95	95
28	Sta: 455+00L								x				BC	124.8	6.5	10.1	131.5	95	95
29	Sta: 457+00L								x				BC	128.3	5.8	10.1	131.5	98	95
30	Sta: 459+00L								x				BC	125.9	5.7	10.1	131.5	96	95
31	Sta: 461+00L								x				BC	126.5	6.5	10.1	131.5	96	95
32	Sta: 463+00L								x				BC	129.5	5.6	10.1	131.5	98	95
33	Sta: 465+00L								x				BC	128.5	6.0	10.1	131.5	98	95
34	Sta: 467+00L								x				BC	127.3	5.6	10.1	131.5	97	95
35	Sta: 469+00L								x				BC	124.4	6.4	10.1	131.5	95	95
36	Sta: 471+00L								x				BC	129.2	5.5	10.1	131.5	98	95

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	03/04/09

Weather:	Clear	Temp°F:	57	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at stations 469+00 left to 470+00. Material blast and cut from USA Parkway at station 483+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 469+00	X											5' BRG	127.8	8.5	7.1	129.8	98	95
2	Sta. 469+50	X											4' BRG	127.5	8.0	7.1	129.8	98	95

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-4-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	03/05/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 524+00 left. Material cut from channel on USA Parkway at station 536+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: Prior to embankment placement, frozen soil was removed and placed in roadway slopes, soil was then scarified and recompacted, before placement of embankment. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/06/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 524+00 Rt. Material cut from channel on USA Parkway at station 530+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. * Note: Elevation at approx. 20' of fill to be placed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/09/09

Weather:	Clear	Temp°F:	58	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 522+00 Rt. Material blast and cut from channel on USA Parkway at station 517+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. * Note: Elevation at approx. 6' of fill to be placed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-9-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 03/11/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Gas Line bedding		

Obtained density tests on 8" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 533+00						X						2' BRG	106.0	13.0	13.4	117.6	90	90
2	Sta. 531+00						X						2' BRG	106.5	13.4	13.4	117.6	90	90
3	Sta. 528+00						X						2' BRG	107.4	13.1	13.4	117.6	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-11-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/12/09

Weather:	Sunny	Temp°F:	40-50	Present:	Dan	Job Number:	1526.01

Work was Performed on the following: Asphalt

Arrived on site to observe the contractor placing approximately 1650 tons of Atlas type 2 PG64-22 asphalt with lime were placed in the bottom lift (2 1/2 inches) between stations 498+29 left-537+05 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Three samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40°F and rising before placement of asphalt. *9:57am Ambient temp. 44° F, Surface temp. 43° F. **10:15am Ambient temp. 45°F, Surface temp. 45°F.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-12-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/13/09

Weather:	sunny	Temp°F:	40-50	Present:	Dan	Job Number:	1526.01

Work was Performed on the following: Asphalt

Arrived on site to observe the contractor placing approximately 1630 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the top lift (2 1/2 inches) between stations 498+29 left-537+05 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Three samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40°F and rising before placement of asphalt. *9:39am Ambient temp. 43°F, Surface temp. 45°F. **9:44am Ambient temp. 44°F, Surface temp. 46°F.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-13-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/16/09

Weather:		Temp°F:		Present:	Dan	Job Number:	1526.01

Work was Performed on the following: Asphalt

Arrived on site to observe the contractor placing approximately 2620 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the bottom lift (2 1/2 inches) between stations 498+29 left-429+00 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Five samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40 F and rising before placement of asphalt. *8:44 am Ambient temp. 52 F, Surface temp. 35 F. **8:51 am Ambient temp. 53 F, Surface temp. 40 F. * The asphalt contractor was notified of low compaction readings obtained my the thin lift nuclear gauge ranging from 93%-95% and the contractor chose to hold off and wait for the actual densities results form the cores.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3/16/09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/16/09

Weather:	Clear	Temp°F:	61	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at stations 471+00 Rt. Material cut from USA Parkway, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	471+00	X											2' BRG	115.5	9.8	10.2	120.9	96	90
2	470+50	X											2' BRG	114.8	10.5	10.2	120.9	95	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-16-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/16/09

Weather:	Clear	Temp°F:	61	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 512+00 Rt. Material blast and cut from USA Parkway channel, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
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8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	03/17/09

Weather:		Temp°F:		Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to observe the contractor placing approximately 2720 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the top lift (2 1/2 inches) between stations 498+29 left-430+00 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Five samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40 F and rising before placement of asphalt. *8:41 am Ambient temp. 44 F, Surface temp. 41 F. **8:59 am Ambient temp. 46 F, Surface temp. 43 F. * The asphalt contractor was notified of low compaction readings obtained my the thin lift nuclear gauge ranging from 93%-95% and the contractor chose to hold off and wait for the actual densities results form the cores.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE: JM for John Barsoe

DATE: 3/17/09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/17/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 512+00 Rt. Material blast and cut from USA Parkway channel at station 520+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	03/18/09

Weather:	Clear	Temp°F:	65	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 513+00 Rt. Material blast and cut from USA Parkway channel at station 519+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas DATE: 03/18/09

Weather:	Clear	Temp°F:	64	Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to observe the contractor placing approximately 1250 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the bottom lift (2 1/2 inches) between stations 429+00 left-400+00 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Three samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40 F and rising before placement of asphalt. *8:41 am Ambient temp. 45 F, Surface temp. 46 F. **8:59 am Ambient temp. 47 F, Surface temp. 48 F. * The asphalt contractor was notified of compaction readings obtained.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas DATE: 03/19/09

Weather:	Clear	Temp°F:	65	Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to observe the contractor placing approximately 1250 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the top lift (2 1/2 inches) between stations 429+00 left-400+00 left. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Three samples of type 2 were taken for laboratory testing. Note: Ambient and surface temperatures were monitored by a temp gun and digital thermometer to observe the required 40 F and rising before placement of asphalt. *8:45 am Ambient temp. 45 F, Surface temp. 46 F. **9:00 am Ambient temp. 48 F, Surface temp. 50 F. * The asphalt contractor was notified of compaction readings obtained.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 03/20/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Gas Line bedding		

Obtained density tests on 8" and 4" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 532+50						X						1' BRG	105.6	12.8	13.4	117.6	90	90
2	Sta. 530+00						X						1' BRG	105.8	13.1	13.4	117.6	90	90
3	Sta. 529+00						X						1' BRG	106.2	15.8	13.4	117.6	91	90
4	Sta. 526+00						X						2' BRG	107.6	11.2	13.4	117.6	92	90
5	Sta. 519+00						X						2' BRG	105.6	11.5	13.4	117.6	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/20/09

Weather:	Clear	Temp°F:	65	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 512+00 Lt. Material cut from USA Parkway slope at station 502+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.
**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	03/23/09

Weather:	Clear	Temp°F:	65	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 512+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt., material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 512+00	X											5' BRG	122.1	8.8	9.3	125.8	97	90
2	Sta. 511+00	X											4.5 BRG	120.2	8.9	9.3	125.8	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/24/09

Weather:	Clear	Temp°F:	65	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 512+00 Rt to sta. 505+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. * Note: Total amount of fill placed was approx. 2'. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-24-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/25/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 514+00 Rt. Material blast and cut from USA Parkway channel at station 515+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 3-25-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	03/25/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 505+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/26/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 513+00 Rt. Material blast and cut from USA Parkway channel at station 513+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/27/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 497+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/27/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 511+00 Rt. Material blast and cut from USA Parkway channel at station 513+00, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

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USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/30/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 497+00 Rt. to 496+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 496+00 Rt	X											4' BRG	118.5	10.8	11.0	121.2	98	90
2	Sta. 497+00 Rt	X											4' BRG	117.5	10.5	11.0	121.2	97	90
3	Sta. 496+50 Rt	X											3' BRG	117.2	10.6	11.0	121.2	97	90
4	Sta. 497+00 Rt	X											2.5 BRG	117.4	10.5	11.0	121.2	97	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Reno, Nevada 89521
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SIGNATURE:

DATE: 3-30-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 03/30/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Gas Line bedding		

Obtained density tests on 12" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 515+50						X						3' BRG	105.9	13.6	13.9	114.4	93	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 03/31/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 493+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 493+00 Rt	X											3' BRG	117.6	9.5	9.3	125.8	94	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/01/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 499+00 Lt. to 500+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt, material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	499+00 Lt.	X											3' BRG	117.5	10.9	11.0	121.2	97	90
2	500+00 Lt	X											3' BRG	116.9	11.1	11.0	121.2	97	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 04/02/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Gas Line bedding		

Obtained density tests on 12" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 510+15						X						3' BRG	103.2	12.5	13.9	114.4	90	90
2	Sta. 507+50						X						3' BRG	102.9	13.5	13.9	114.4	90	90
3	Sta. 505+00						X						3' BRG	103.1	13.9	13.9	114.4	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/02/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 498+50 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt and blast/cut channel at station 503+00. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	498+50 Rt	X											3' BRG	116.8	10.5	11.0	121.2	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

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Tahoe Reno Industrial Center
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8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	04/03/09

Weather:	Clear	Temp°F:	44	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at station 492+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. *Note: 2" to 4" of frozen fill placed on 4/2/09 was bladed off and placed in slopes, prior to new fill placement. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	492+00	X											7' BRG	116.9	11.6	11.0	121.2	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	04/03/09

Weather:	Clear	Temp°F:	63	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at stations 497+00 Rt. Material blast and cut from USA Parkway channel at station 497+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/07/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 492+00 Lt to 491+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	492+00	X											4' BRG	117.2	10.8	11.0	121.2	97	90
2	491+50	X											4' BRG	116.9	11.2	11.0	121.2	97	90
3	491+00	X											3' BRG	116.5	10.5	11.0	121.2	96	90
4	491+50	X											3' BRG	116.8	11.0	11.0	121.2	97	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas and Nv Energy
DATE:	04/07/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following: Gas Line bedding

Obtained density tests on 12" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 500+00						X						2' BRG	102.8	16.7	13.9	114.4	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/07/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at station 458+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill (Source: Native:)	Roadway	Curb & Gutter	Sidewalk	Other (Import:)	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	458+00 Rt	X											8' BRG	117.6	10.8	11.0	121.2	97	90
2	458+00 Rt	X											6' BRG	116.9	10.5	11.0	121.2	96	90
3	458+00 Rt	X											4' BRG	117.3	11.1	11.0	121.2	97	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/08/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill for top two feet, at stations 457+00 Lt to 460+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	457+00	X											RG	115.8	10.5	11.0	121.2	96	90
2	458+00	X											RG	116.7	11.2	11.0	121.2	96	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 4-8-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/08/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at station 492+30 Lt to 490+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull. ***Note: Sampled material for top 2' of fill for Rvalue

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 04/08/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following: Gas Line bedding

Obtained density tests on 12" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 494+50						X						2' BRG	103.1	14.2	13.9	114.4	90	90
2	Sta 490+50						X						2' BRG	104.3	14.6	13.9	114.4	91	90
3	Sta 485+00						X						2' BRG	103.2	12.6	13.9	114.4	90	90
4	Sta 483+00						X						2' BRG	103.3	13.0	13.9	114.4	90	90
5	Sta 478+50						X						2' BRG	103.9	14.8	13.9	114.4	91	90
6	Sta 476+50						X						2' BRG	103.1	13.6	13.9	114.4	90	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/09/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at edge of roadway and slopes at stations 458+00 Rt and 465+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	458+00	X											6' BRG	116.8	11.5	11.0	121.2	96	90
2	459+00	X											6' BRG	116.2	11.3	11.0	121.2	96	90
3	458+00	X											5.5' BRG	115.2	10.2	11.0	121.2	95	90
4	459+00	X											5.5' BRG	114.3	10.5	11.0	121.2	94	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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DATE: 4-9-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/10/09

Weather:	Clear	Temp°F:	50	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at edge of roadway and slopes at stations 458+00 Rt and 465+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	458+00	X											3' BRG	115.5	10.9	11.0	121.2	95	90
2	459+00	X											3' BRG	114.9	10.3	11.0	121.2	95	90
3	458+00	X											2.5' BRG	115.2	10.9	11.0	121.2	95	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas and Nv Energy DATE: 04/13/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following:	Gas Line bedding		

Obtained density tests on 8" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta. 473+00						X						2' BRG	103.4	17.9	13.9	114.4	90	90
2	Sta. 470+00						X						2' BRG	103.6	15.8	13.9	114.4	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/13/09

Weather:	Clear	Temp°F:	58	Present:		Job Number:	1526.01

Work was Performed on the following:	Mass Grading		

Observed contractor placing 12"- rock embankment fill at edge of roadway and slopes at stations 466+00 Rt to 465+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/14/09

Weather:	Clear	Temp°F:	57	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at edge of roadway and slopes at stations 464+00 Lt to 465+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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USA Parkway Extension

Tahoe Reno Industrial Center
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8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas and Nv Energy
DATE:	04/15/09

Weather:		Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following: Gas Line bedding

Obtained density tests on 8" gas line bedding placed on USA Parkway. Sand material delivered from London Dr. Pit, placed in 1' lifts, moisture conditioned and compacted with a remote control sheeps foot. Test results are listed below. Notified contractor of results.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta 450+00						X						2' BRG	102.9	13.7	13.9	114.4	90	90
2	Sta 454+00						X						2' BRG	103.3	13.9	13.9	114.4	90	90
3	Sta 457+50						X						2' BRG	103.1	13.8	13.9	114.4	90	90
4	Sta 460+50						X						2' BRG	104.1	14.0	13.9	114.4	91	90
5	Sta 463+50						X						2' BRG	102.8	12.1	13.9	114.4	90	90
6	Sta 466+00						X						2' BRG	102.9	11.6	13.9	114.4	90	90
7	Sta. 470+00						X						2' BRG	103.9	14.0	13.9	114.4	91	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
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8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	04/15/09

Weather:	Clear	Temp°F:	60	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill for top two to five feet, at stations 486+00 Rt to 484+00 Rt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed. Density tests attempted, do to pin refusal results could not be recorded. **Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: F&P Const. DATE: 04/15/09

Weather:	Clear	Temp°F:	57	Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Observed contractor placing 12"- rock embankment fill at edge of roadway and slopes at stations 464+00 Lt to 465+00 Lt. Material excavated from USA Parkway borrow site at station 493+00 Lt. Material graded to 12" lift, moisture conditioned and compacted with an 825 Sheepsfoot, with a minimum 5 passes and or until no further surface deflections were observed.**Note Equip: 3 Volvo A40D Haul trucks, 1 825 Sheeps Foot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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Quality Control - Daily Field Report

USA Parkway Extension

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LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	05/17/09

Weather:	Sunny	Temp°F:	80-90	Present:		Job Number:	1526.01

Work was Performed on the following: Density Testing

Arrived on site to density test base course on the right side of USA Parkway between stations 448+50 536+50. The material was density tested for compaction verification. The density test are outlined in the field density summary. The contractor was notified of the test result and observations.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta: 448+50Rt								x				BC	127.3	3.1	10.1	131.5	97	95
2	Sta: 450+50Rt								x				BC	124.3	2.7	10.1	131.5	95	95
3	Sta: 452+50Rt								x				BC	124.6	2.6	10.1	131.5	95	95
4	Sta: 454+50Rt								x				BC	126.2	3.6	10.1	131.5	96	95
5	Sta: 456+50Rt								x				BC	126.0	3.1	10.1	131.5	96	95
6	Sta: 458+50Rt								x				BC	124.6	4.0	10.1	131.5	95	95
7	Sta: 460+50Rt								x				BC	124.7	3.7	10.1	131.5	95	95
8	Sta: 462+50Rt								x				BC	126.1	3.5	10.1	131.5	96	95
9	Sta: 464+50Rt								x				BC	129.1	3.9	10.1	131.5	98	95
10	Sta: 466+50Rt								x				BC	124.4	3.9	10.1	131.5	95	95
11	Sta: 468+50Rt								x				BC	127.3	3.4	10.1	131.5	97	95
12	Sta: 470+50Rt								x				BC	124.4	3.2	10.1	131.5	95	95
13	Sta: 472+50Rt								x				BC	125.1	3.7	10.1	131.5	95	95
14	Sta: 474+50Rt								x				BC	125.6	4.0	10.1	131.5	96	95
15	Sta: 476+50Rt								x				BC	124.5	3.7	10.1	131.5	95	95
16	Sta: 478+50Rt								x				BC	126.3	3.3	10.1	131.5	96	95
17	Sta: 480+50Rt								x				BC	125.1	4.0	10.1	131.5	95	95
18	Sta: 482+50Rt								x				BC	127.9	2.9	10.1	131.5	97	95
19	Sta: 484+50Rt								x				BC	126.2	3.9	10.1	131.5	96	95
20	Sta: 486+50Rt								x				BC	124.3	3.7	10.1	131.5	95	95
21	Sta: 488+50Rt								x				BC	127.6	4.3	10.1	131.5	97	95
22	Sta: 490+50Rt								x				BC	127.9	3.2	10.1	131.5	97	95

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DATE: 5-17-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	05/17/09

Weather:	Sunny	Temp°F:	80-90	Present:		Job Number:	1526.01

Work was Performed on the following: Density Testing

The density test are outlined in the field density summary.

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
22	Sta: 492+50Rt								x				BC	124.6	3.8	10.1	131.5	95	95
23	Sta: 494+50Rt								x				BC	124.4	2.7	10.1	131.5	95	95
24	Sta: 496+50Rt								x				BC	126.9	3.9	10.1	131.5	97	95
25	Sta: 498+50Rt								x				BC	124.3	2.9	10.1	131.5	95	95
26	Sta: 500+50Rt								x				BC	125.0	3.7	10.1	131.5	95	95
27	Sta: 502+50Rt								x				BC	126.4	3.5	10.1	131.5	96	95
28	Sta: 504+50Rt								x				BC	124.5	3.9	10.1	131.5	95	95
29	Sta: 506+50Rt								x				BC	124.3	3.3	10.1	131.5	95	95
30	Sta: 508+50Rt								x				BC	126.0	3.1	10.1	131.5	96	95
31	Sta: 510+50Rt								x				BC	124.5	3.1	10.1	131.5	95	95
32	Sta: 512+50Rt								x				BC	124.6	3.1	10.1	131.5	95	95
33	Sta: 514+50Rt								x				BC	129.3	3.6	10.1	131.5	98	95
34	Sta: 516+50Rt								x				BC	124.6	2.7	10.1	131.5	95	95
35	Sta: 518+50Rt								x				BC	125.5	3.6	10.1	131.5	95	95
36	Sta: 520+50Rt								x				BC	127.6	2.5	10.1	131.5	97	95
37	Sta: 522+50Rt								x				BC	124.6	3.3	10.1	131.5	95	95
38	Sta: 524+50Rt								x				BC	124.3	2.7	10.1	131.5	95	95
39	Sta: 526+50Rt								x				BC	127.1	2.8	10.1	131.5	97	95
40	Sta: 528+50Rt								x				BC	124.4	3.2	10.1	131.5	95	95
41	Sta: 530+50Rt								x				BC	124.7	3.0	10.1	131.5	95	95
42	Sta: 532+50Rt								x				BC	128.9	2.4	10.1	131.5	98	95
43	Sta: 534+50Rt								x				BC	124.5	3.1	10.1	131.5	95	95
44	Sta: 536+50Rt								x				BC	128.1	3.4	10.1	131.5	97	95

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DATE: 5-17-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	05/18/09

Weather:		Temp°F:		Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to observe the contractor placing approximately 3000 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the bottom lift (2 1/2 inches) between stations 537+00 right-470+50 right. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Six samples of type 2 were taken for laboratory testing.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

Copies To:

Route To: ☐ JGS ☐ DVM ☐ BRM ___

Mass Grading ☐ Underground ☐ Concrete ☐ Special Inspection ☐ Asphalt ☐ Moisture ☐

JAMES EDWARD ENGINEERING
INCORPORATED
9475 Double R Blvd Suite 3
Reno, Nevada 89521
Phone 775.828.1866 Fax 775.828.1871

SIGNATURE: [signature]

DATE: 5-18-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	Atlas
DATE:	05/20/09

Weather:		Temp°F:		Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to relieve Damon with JEE from asphalt observation. Observed the contractor placing approximately 800 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the top lift (2 1/2 inches) between stations 514+00 Rt-537+00 Rt and 459+50Rt-473+00 Rt. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Two samples of type 2 were taken for laboratory testing.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE:

DATE: 5-20-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center c/o Reno Engineering 8725 Technology Way Suite B Reno, NV 89521	LOCATION: Storey County, Nevada OWNER: Tahoe Reno Industrial Center CONTRACTOR: Atlas DATE: 05/20/09

Weather:		Temp°F:		Present:	Dan	Job Number:	1526.01

Work was Performed on the following:	Asphalt		

Arrived on site to observe the contractor placing approximately 2800 tons of Atlas type 2 PG64-22 asphalt with lime were placed on the bottom lift (2 1/2 inches) between stations 494+00 right-362+00 right. Compaction efforts were monitored by a thin lift nuclear gauge until no significant increase in density was observed. Actual density will be determined from cores extracted from the pavement. Six samples of type 2 were taken for laboratory testing.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE: [signature]

DATE: 5-20-09

Quality Control - Daily Field Report

USA Parkway Extension

Tahoe Reno Industrial Center
c/o Reno Engineering
8725 Technology Way Suite B
Reno, NV 89521

LOCATION:	Storey County, Nevada
OWNER:	Tahoe Reno Industrial Center
CONTRACTOR:	F&P Const.
DATE:	06/09/09

Weather:	Clear	Temp°F:		Present:		Job Number:	1526.01

Work was Performed on the following: Mass Grading

Arrived on site to observe the contractor placing a thin lift between stations 460+00-463+00. Fill material was cut from USA Parkway embankment, material graded approximately 8"-12" lift, moisture conditioned, and compacted with an a single drum sheepsfoot. **Note Equip: 1 Volvo A40D Haul trucks, 1 single drum sheepsfoot, 1 Volvo loader, 1 Waterpull.

Source: Native: Import:

Test Number	Location	Mass Grading	Sanitary Sewer	Gas & Water	Electrical	Storm Drain	Bedding	Backfill	Roadway	Curb & Gutter	Sidewalk	Other	Elevation*	In Place Dry Density (pcf)	In Place Moisture Content (%)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Relative Compaction	Specified Minimum Relative Compaction (%)
1	Sta: 462+50Lt	x											RG	103.6	15.6	14.0	114.0	91	90
2	Sta: 460+15Lt	X											RG	106.1	18.4	14.0	114.0	93	90
3	Sta: 462+00Rt	x											RG	104.5	18.1	14.0	114.0	92	90

Compression Test Summary				Concrete	Grout	Mortar
Set	Location	Slump(in)	Air (%)	Temp(°F)	Mix #	Strength (psi)

* OG=Original Grade; SG=Subgrade; BC=Base Course; RG=Rough Grade; FTG=Footing Grade; FG=Finish Grade; Prefix B=Below

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SIGNATURE:

DATE: 6-9-09