

April 6, 2023

Ryan Megenity, Owner Representative Strickland Real Estate Holdings, LLC 12199 Village Center Place, Suite 201 Mukilteo, Washington

**Re:** Geotechnical Construction Completion Letter

Texaco Strickland Site Project No. 180357

#### Dear Ryan:

As requested by Strickland Real Estate Holdings, LLC (SREH), Aspect Consulting, LLC (Aspect) is submitting this Geotechnical Construction Completion Letter covering all geotechnical special inspections associated with the interim cleanup action at the Texaco Strickland Site (the Site). The Site is located at 6808 196th Street SW in Lynnwood, Washington (the Property). The Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located [WAC] 173-340-200).

This work was completed in accordance with the Final Interim Action Work Plan (IAWP; Aspect, 2021a<sup>1</sup>) approved by the Washington State Department of Ecology (Ecology) and implemented under Agreed Order (AO) No. 14315 between the Site potentially liable parties and Ecology.

Aspect prepared a Geotechnical Engineering Report (Aspect, 2021b<sup>2</sup>) in support of the Interim Action (IA) design and performed geotechnical inspections during construction of the IA between August 30, 2022, and January 4, 2023. On January 6, 2023, Aspect performed the final site walk and verified that all the IA construction was completed in accordance with the geotechnical report. The results of our geotechnical special inspections are summarized below.

- 1. **Temporary Erosion Control:** Aspect inspected the best management practices (BMPs) installed to prevent erosion and sediment transport outside the construction limits. Aspect also inspected the BMPs to verify that they protected downstream properties, storm drains, and right-of-way (ROW) surfaces from sediment-laden water and earth materials. During the construction period, temporary erosion and sedimentation control measures were functioning correctly.
- 2. Temporary Shoring Installation and Monitoring (soldier piles, tiebacks, and lagging): Aspect observed that the soldier piles, lagging, and tiebacks associated with IA temporary

<sup>&</sup>lt;sup>1</sup> Aspect Consulting, LLC (Aspect), 2021a, Texaco Strickland Site Interim Action Work Plan, 6808 196th Street SW, Lynwood, WA, August 6, 2021.

<sup>&</sup>lt;sup>2</sup> Aspect Consulting, LLC (Aspect), 2021b, Texaco Strickland Site Geotechnical Report, 6808 196th Street SW, Lynwood, WA, November 2, 2021.

shoring were installed in accordance with the construction plans. Proof or verification testing was conducted on all the tiebacks in general accordance with the Design Plans.

Aspect subcontracted with Wiss, Janney, Elstner Associates, Inc. (WSE) to perform preconstruction and post-construction structural surveys on the two buildings on adjacent properties. Based on comparison of the pre- and post-construction structural surveys, WSE did not observe any indication of new structural damage to the adjacent buildings during the IA. Reports detailing the findings of the pre- and post-construction structural surveys can be found in Appendix A.

- 3. Backfill Compaction of Excavated Areas: Aspect observed that the imported gravel borrow and crushed surfacing was placed and compacted in general accordance with the construction plans. Aspect subcontracted Hayre and McElroy, LLC (HMA) to perform density testing of the backfilled material at the Property, and the results generally indicated that backfilling and compaction was conducted in general accordance with the Design Plans.
- 4. **Permanent Erosion Control:** Aspect verified that the restored Site surface consisted of a crushed surfacing base course (CSBC) covered lot with fencing. After construction was complete, it was observed that storm drain inlets had no visual indications of sediment resulting from construction-related erosion. In Aspect's opinion, the Property is stabilized, and the permanent erosion control measures are functioning correctly and in accordance with the design plans.

In summary, to the best of our knowledge, the IA construction was completed in general accordance with our geotechnical engineering recommendations and the construction plans specifications. Field reports for days on which geotechnical special inspections occurred are included in Appendix B.

# Limitations

Work for this project was performed for Strickland Real Estate Holdings, LLC (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of the electronic documents furnished to others.

Please refer to Appendix C titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

We appreciate the opportunity to perform these services. If you have any questions please call Rory Kilkenny, Senior Geotechnical Engineer, at 541-256-0037.

We appreciate the opportunity to perform these services.

Sincerely,

Aspect consulting, LLC



Rory Kilkenny, PE Senior Geotechnical Engineer rkilkenny@aspectconsulting.com Adam Griffin, PE Senior Associate Engineer agriffin@aspectconsulting.com

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Attachments: Appendix A – WJE Pre- and Post-Construction Structural Survey Reports

Appendix B – Daily Field Reports with Geotechnical Special Inspections

Appendix C – Report Limitations and Guidelines for Use

# **APPENDIX A**

**WJE Pre- and Post-Construction Structural Survey Reports** 

#### Wiss, Janney, Elstner Associates, Inc.



960 South Harney Street Seattle, Washington, 98108 206.622.1441 tel. www.wje.com

## PRECONSTRUCTION CONDITION SURVEY PHOTO LOG | September 19, 2022

#### **Aloha Strickland**

6812 196th St SW, Lynnwood, WA 98036

**WJE PROJECT NO. 2022.4972** 

#### **CONDITION SURVEY REPORT – PRECONSTRUCTION**

**Project** Aloha Strickland

Property Owner/Contact Nelson Investments Commercial LLC

**Date of Survey** August 25, 2022

**Date of Report** September 19, 2022

**Survey Performed By** Z. Stutts, M. Coryell

**Report Prepared By** M. Coryell

#### **General Notes**

As described in our proposal dated July 27, 2022, WJE is providing this photo log of conditions that existed on August 25, 2022 at 6812 196th Street SW, Lynnwood, Washington. The purpose of this photo log was to document the existing condition of the above referenced structure adjacent to a planned excavation at 6808 196th Street SW. Upon completion of the adjacent construction, we will return to the site to document post-construction conditions and provide an engineering opinion regarding any observed changes to the structure's condition.

**General Description**: The building is a single-story commercial building originally constructed in 1962. The building is rectangular in plan and measures approximately 140 feet in the east-west direction by 60 feet in the north-south direction (Figure 1). The structure consists of concrete masonry unit (CMU) construction, and a concrete stem wall was noted beneath the CMU walls. No foundation drawings are available for the structure; however, given the presence of a stem wall, general geotechnical conditions in the area, and the relatively light nature of the construction, the structure likely has shallow foundations.

**General Condition**: The condition survey of the building was limited to visual observations of exposed exterior surfaces and of the interior surfaces of only the easternmost business (China Café). The structure appears to be in generally sound condition; however, the following distress was observed:

- Separation in wood paneling around exterior
- Cracking in concrete sidewalk
- Cracking and spalling in concrete loading dock
- Cracking and spalling in CMUs



**Photos**: Photos are included in the attached appendix. The photos are presented in the order in which they were taken, generally starting at the northeast corner and east side of the structure and proceeding around the structure in a counterclockwise direction, followed by photos of the interior of the China Café.



Figure 1. Aerial view of subject property. Image © 2022 Nearmap.

## **Photo Log**

Photo No.	Location	Description/Conditions Observed
001–003	North Elevation, Exterior	Overall view of front (north side) of building
004-006	East Elevation, Exterior	Overall view of east side of building
006–013	East Elevation, Exterior	Wall finishes and roof coverings
014-020	East Elevation, Exterior	Detailed views of stairstep cracking in mortar of CMU wall
021–025	East Elevation, Exterior	Wall finishes and roof flashing
026–038	North Elevation, Exterior	Wall finishes, roof overhang, doors, and windows at China Café
039–041	North Elevation, Exterior	Parking lot slope
042-048	North Elevation, Exterior	Wall finishes, roof coverings, doors, and windows at Nielson Bros and Sound Sports
049–060	North Elevation, Exterior	Detailed view of wood panel separation on walls and roof overhang
061–063	North Elevation, Exterior	Walkway outside Nielson Bros
064–065	North Elevation, Exterior	Exterior views of Sound Sports
064–072	North Elevation, Exterior	Cracks in concrete sidewalk in front of Sound Sports



Photo No.	Location	Description/Conditions Observed
072-076	North Elevation, Exterior	Roof overhang at Sound Sports
077-078	North Elevation, Exterior	Detailed views of wood panel separation at underside of roof overhang
079–081	West Elevation, Exterior	Overall view of west side of building
079–088	West Elevation, Exterior	Wall finishes
089–093	West Elevation, Exterior	Concrete curb at base of wall, possibly the top of the foundation elements
094–096	South Elevation, Exterior	Wall finishes and concrete loading dock at southwest corner of structure
097–099	South Elevation, Exterior	Overall view of concrete loading dock
100–102	South Elevation, Exterior	Wall finishes
103–104	South Elevation, Exterior	Detailed views of cracks in concrete loading dock
105	South Elevation, Exterior	Wall finishes
106	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
107–109	South Elevation, Exterior	Wall finishes
110	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
111–112	South Elevation, Exterior	Wall finishes
113–116	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
117	South Elevation, Exterior	Wall finishes
118–129	South Elevation, Exterior	Detailed views of cracks in concrete on loading dock and separation between the stem wall and topping slab of the loading dock
130–139	South Elevation, Exterior	Wall finishes and concrete loading dock at southwest corner of structure
140–142	South Elevation, Exterior	Detailed views of crack on loading dock; note measurements of crack width and date written by WJE adjacent to the crack
143–145	North Elevation, Exterior	Detailed view of entrance finishes at China Café
146–166	China Café, Interior	Wall, ceiling, and floor finishes, dining area
167–173	China Café, Interior	Wall and floor finishes, bathroom
174–175	China Café, Interior	Wall finishes, kitchen equipment, interior of CMU walls
176	China Café, Interior	Detailed view of spalls on CMU
177–182	China Café, Interior	Wall finishes, kitchen equipment, interior of CMU walls
183–184	China Café, Interior	Detailed view of spalls on CMU
185–190	China Café, Interior	Wall finishes, kitchen equipment, interior of CMU walls
191–192	China Café, Interior	Front counter and seating area

Enclosure:

Appendix – Photographs





6812 196th St SW, Lynnwood, WA 98036

## **APPENDIX**



Pre\_001 - [IMG\_3458]



Pre\_003 - [IMG\_3460]



Pre\_005 - [IMG\_3462]



Pre\_007 - [IMG\_3464]



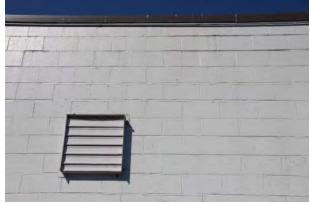
Pre\_002 - [IMG\_3459]



Pre\_004 - [IMG\_3461]



Pre\_006 - [IMG\_3463]



Pre\_008 - [IMG\_3465]





Pre\_010 - [IMG\_3467]



Pre\_011 - [IMG\_3468]



Pre\_012 - [IMG\_3469]



Pre\_013 - [IMG\_3470]



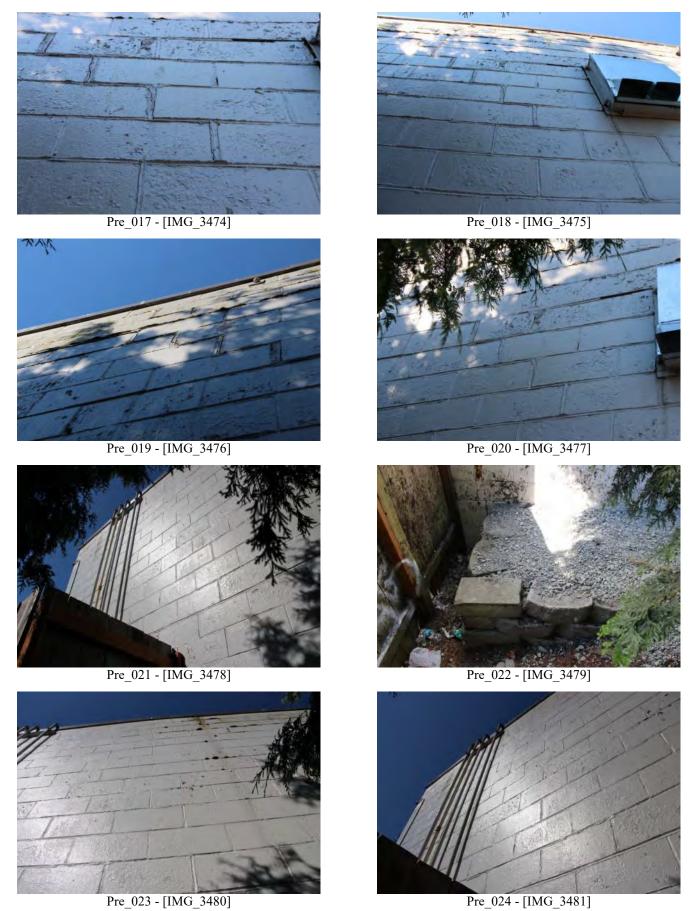
Pre\_014 - [IMG\_3471]



Pre\_015 - [IMG\_3472]



Pre\_016 - [IMG\_3473]



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Pre\_025 - [IMG\_3482]



Pre\_027 - [IMG\_3484]



Pre\_029 - [IMG\_3486]



Pre\_031 - [IMG\_3488]



Pre\_026 - [IMG\_3483]



Pre\_028 - [IMG\_3485]



Pre\_030 - [IMG\_3487]



Pre\_032 - [IMG\_3489]

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Pre\_033 - [IMG\_3490]



Pre\_035 - [IMG\_3492]



Pre\_037 - [IMG\_3494]



Pre\_039 - [IMG\_3496]



Pre\_034 - [IMG\_3491]



Pre\_036 - [IMG\_3493]



Pre\_038 - [IMG\_3495]



Pre\_040 - [IMG\_3497]



Pre\_041 - [IMG\_3498]



Pre\_043 - [IMG\_3500]



Pre\_045 - [IMG\_3502]



Pre\_047 - [IMG\_3504]



Pre\_042 - [IMG\_3499]



Pre\_044 - [IMG\_3501]



Pre\_046 - [IMG\_3503]



Pre\_048 - [IMG\_3505]





Pre\_051 - [IMG\_3508]



Pre\_053 - [IMG\_3510]



Pre\_055 - [IMG\_3512]



Pre\_050 - [IMG\_3507]



Pre\_052 - [IMG\_3509]



Pre\_054 - [IMG\_3511]



Pre\_056 - [IMG\_3513]

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Pre\_059 - [IMG\_3516]



Pre\_061 - [IMG\_3518]



Pre\_063 - [IMG\_3520]



Pre\_058 - [IMG\_3515]





Pre\_062 - [IMG\_3519]



Pre\_064 - [IMG\_3521]



Pre\_065 - [IMG\_3522]



Pre\_066 - [IMG\_3523]



Pre\_067 - [IMG\_3524]



Pre\_068 - [IMG\_3525]



Pre\_069 - [IMG\_3526]



Pre\_070 - [IMG\_3527]



Pre\_071 - [IMG\_3528]



Pre\_072 - [IMG\_3529]



Pre\_073 - [IMG\_3530]



Pre\_074 - [IMG\_3531]



Pre\_075 - [IMG\_3532]



Pre\_076 - [IMG\_3533]



Pre\_077 - [IMG\_3534]



Pre\_078 - [IMG\_3535]



Pre\_079 - [IMG\_3536]



Pre\_080 - [IMG\_3537]



Pre\_081 - [IMG\_3538]



Pre\_083 - [IMG\_3540]



Pre\_085 - [IMG\_3542]



Pre\_087 - [IMG\_3544]



Pre\_082 - [IMG\_3539]



Pre\_084 - [IMG\_3541]



Pre\_086 - [IMG\_3543]



Pre\_088 - [IMG\_3545]



Pre\_089 - [IMG\_3546]



Pre\_090 - [IMG\_3547]



Pre\_091 - [IMG\_3548]



Pre\_092 - [IMG\_3549]



Pre\_093 - [IMG\_3550]



Pre\_094 - [IMG\_3551]



Pre\_095 - [IMG\_3552]



Pre\_096 - [IMG\_3553]



Pre\_097 - [IMG\_3554]



Pre 099 - [IMG 3556]



Pre\_101 - [IMG\_3558]



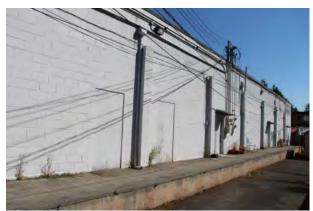
Pre\_103 - [IMG\_3560]



Pre\_098 - [IMG\_3555]



Pre\_100 - [IMG\_3557]



Pre\_102 - [IMG\_3559]



Pre\_104 - [IMG\_3561]



Pre\_105 - [IMG\_3562]



Pre\_107 - [IMG\_3564]



Pre\_109 - [IMG\_3566]



Pre\_111 - [IMG\_3568]



Pre\_106 - [IMG\_3563]



Pre\_108 - [IMG\_3565]



Pre\_110 - [IMG\_3567]



Pre\_112 - [IMG\_3569]



Pre\_113 - [IMG\_3570]



Pre\_115 - [IMG\_3572]



Pre\_117 - [IMG\_3574]



Pre\_119 - [IMG\_3576]



Pre\_114 - [IMG\_3571]



Pre\_116 - [IMG\_3573]



Pre\_118 - [IMG\_3575]



Pre\_120 - [IMG\_3577]



Pre\_121 - [IMG\_3578]



Pre\_123 - [IMG\_3580]



Pre\_125 - [IMG\_3582]



Pre\_127 - [IMG\_3584]



Pre\_122 - [IMG\_3579]



Pre\_124 - [IMG\_3581]



Pre\_126 - [IMG\_3583]



Pre\_128 - [IMG\_3585]

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Pre\_129 - [IMG\_3586]



Pre\_131 - [IMG\_3588]



Pre\_133 - [IMG\_3590]



Pre\_135 - [IMG\_3592]



Pre\_130 - [IMG\_3587]



Pre\_132 - [IMG\_3589]



Pre\_134 - [IMG\_3591]



Pre\_136 - [IMG\_3593]



Pre\_137 - [IMG\_3594]



Pre\_139 - [IMG\_3596]



Pre\_141 - [IMG\_3598]



Pre\_143 - [IMG\_3600]



Pre\_138 - [IMG\_3595]



Pre\_140 - [IMG\_3597]



Pre\_142 - [IMG\_3599]



Pre\_144 - [IMG\_3601]



Pre\_145 - [IMG\_3602]



Pre\_147 - [IMG\_3604]



Pre\_149 - [IMG\_3606]



Pre\_151 - [IMG\_3608]



Pre\_146 - [IMG\_3603]



Pre\_148 - [IMG\_3605]



Pre\_150 - [IMG\_3607]



Pre\_152 - [IMG\_3609]



Pre\_155 - [IMG\_3612]



Pre\_157 - [IMG\_3614]



Pre\_159 - [IMG\_3616]



Pre\_154 - [IMG\_3611]



Pre\_156 - [IMG\_3613]



Pre\_158 - [IMG\_3615]



Pre\_160 - [IMG\_3617]



Pre\_161 - [IMG\_3618]



Pre\_163 - [IMG\_3620]



Pre\_165 - [IMG\_3622]



Pre\_167 - [IMG\_3624]



Pre\_162 - [IMG\_3619]



Pre\_164 - [IMG\_3621]



Pre\_166 - [IMG\_3623]



Pre\_168 - [IMG\_3625]



Pre\_169 - [IMG\_3626]



Pre\_171 - [IMG\_3628]



Pre\_173 - [IMG\_3630]



Pre\_175 - [IMG\_3632]



Pre\_170 - [IMG\_3627]



Pre\_172 - [IMG\_3629]



Pre\_174 - [IMG\_3631]



Pre\_176 - [IMG\_3633]



Pre\_177 - [IMG\_3634]



Pre\_179 - [IMG\_3636]



Pre\_181 - [IMG\_3638]



Pre\_183 - [IMG\_3640]



Pre\_178 - [IMG\_3635]



Pre\_180 - [IMG\_3637]



Pre\_182 - [IMG\_3639]



Pre\_184 - [IMG\_3641]



Pre\_185 - [IMG\_3642]



Pre\_187 - [IMG\_3644]



Pre\_189 - [IMG\_3646]



Pre\_191 - [IMG\_3648]





Pre\_188 - [IMG\_3645]



Pre\_190 - [IMG\_3647]



Pre\_192 - [IMG\_3649]

#### Wiss, Janney, Elstner Associates, Inc.



960 South Harney Street Seattle, Washington 98108 206.622.1441 tel www.wje.com

## PRECONSTRUCTION CONDITION SURVEY PHOTO LOG | September 19, 2022

#### **Aloha Strickland**

19618 68th Ave W, Lynnwood, WA

**WJE PROJECT NO.** 2022.4972

#### **CONDITION SURVEY REPORT – PRECONSTRUCTION**

**Project** Aloha Strickland

**Property Owner/Contact** Chrimar Apartments

**Date of Survey** August 25, 2022

**Date of Report** September 19, 2022

**Survey Performed By** Z. Stutts, M. Coryell

**Report Prepared By** M. Coryell

#### **General Notes**

As described in our proposal dated July 27, 2022, WJE is providing this photo log of conditions that existed on August 25, 2022 at 19618 68th Avenue West, Lynnwood, Washington. The purpose of this photo log was to document the existing condition at the above referenced structure adjacent to a planned excavation at 6808 196th Street SW. Upon completion of the adjacent construction, we will return to the site to document post-construction conditions and provide an engineering opinion regarding any observed changes to the structure's condition.

**General Description**: The building is a two-story apartment building constructed in 1962, and is rectangular in plan. It measures approximately 30 feet in the north-south direction by approximately 85 feet in the east-west direction. The interior wall and ceiling finishes consist primarily of painted gypsum board. The exterior walls are clad primarily with stucco. Based on our observations, the structure is wood framed, with concrete strip footings around the perimeter of the structure and a single concrete strip footing running west to east along the approximate centerline of the structure.

**General Condition**: The condition survey of the building was limited to visual observations of exposed exterior and interior surfaces on the first floor of the structure. The structure appeared to be in generally sound condition; however, the following distress was observed:

- Cracked concrete exterior walkways
- Cracked asphalt in the parking lot
- Cracks and prior repairs in exterior wall finishes
- Cracks, prior repairs, and staining of interior finishes



**Photos**: Photos are included in the attached appendix. The photos are presented in the order in which they were taken, generally starting at the front and sides of the exterior of the structure, followed by photos of the interior of the four ground floor apartment units, the back of the structure, and the crawl space beneath the structure.



Figure 1. Aerial view of subject property. Image © 2022 Nearmap.

## **Photo Log**

DI 1		
Photo No.	Location	Description/Conditions Observed
001–004	South Elevation, Exterior	Overall view of front of building, wall finishes, and roof coverings
005-007	South Elevation, Exterior	Detailed views of crack in asphalt parking lot
008-010	South Elevation, Exterior	Detailed views of separation between parking lot and concrete walkway
011–014	South Elevation, Exterior	Wall finishes and roof overhang
015–017	East Elevation, Exterior	Wall finishes
018–019	South Elevation, Exterior	Detailed views of crack in stucco at southeast corner of structure
020	South Elevation, Exterior	Detailed view of roof overhang at southeast corner of structure
021-022	South Elevation, Exterior	Detailed views of crack in concrete walkway in front of Unit 131
023–026	South Elevation, Exterior	Overall views of south wall and surface finishes
027–030	South Elevation, Exterior	Detailed views of crack in concrete walkway in front of Unit 131
031	South Elevation, Exterior	Detailed view of crack in asphalt in front of Unit 131

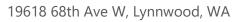




Photo No.	Location	Description/Conditions Observed
032–033	South Elevation, Exterior	Entryway to Units 127, 129, 228, and 230 with crack in concrete steps and separation between steps and wall
034	South Elevation, Exterior	Wall finishes
035–037	South Elevation, Exterior	Detailed views of cracks in concrete walkway and asphalt in front of entryway to Units 127, 129, 228, and 230
038-044	South Elevation, Exterior	Wall finishes and roof overhang
045-049	West Elevation, Exterior	Wall finishes and roof overhang
050-052	South Elevation, Exterior	Detailed views of crack in stucco beneath window
053–068	Unit 125, Interior	Interior views of Unit 125 with crack in drywall (Photo 058) and door racked in frame (Photos 067 and 068)
069–080	Unit 127, Interior	Interior views of Unit 127 with prior repairs in gypsum board ceiling of kitchen (Photos 078 and 079)
081–108	Unit 129, Interior	Interior views of Unit 129 with cracks in drywall above door frames (Photos 091, 092, 096, and 097) and near shower (Photo 101), cracked tile next to tub (Photos 105 and 106), and patched gypsum board above door frame (Photos 103 and 104)
109–133	Unit 131, Interior	Interior views of Unit 131 with wall and ceiling stains throughout, gypsum board crack by front door (Photos 128 to 131), damaged windowsill in dining room (Photos 114 and 115), peeling paint throughout
134–136	West Elevation, Exterior	Wall finishes
137–138	North Elevation, Exterior	Concrete stairs
139–140	North Elevation, Exterior	Roof overhang
141–148	North Elevation, Exterior	Wall finishes
148–152	North Elevation, Exterior	Detailed views of repaired cracks in stucco finish
153	North Elevation, Exterior	Wall finishes
154–156	North Elevation, Exterior	Gap between concrete footing and wall finish
157–161	East Elevation, Exterior	Wall finishes
162	North Elevation, Exterior	Wall finishes
163–164	North Elevation, Exterior	Rear walkway and fence
165	East Elevation, Exterior	Roof overhang and downspout at northeast corner of the structure
166–182	Crawlspace	Cast-in-place concrete footings
183–188	Crawlspace Entry	Concrete spalling and separation around crawlspace entry

Enclosure:

Appendix – Photographs

## **Aloha Strickland**



19618 68th Ave W, Lynnwood, WA

## **APPENDIX**



Pre\_001 - [IMG\_3270]



Pre\_003 - [IMG\_3272]



Pre\_005 - [IMG\_3274]



Pre\_007 - [IMG\_3276]



Pre\_002 - [IMG\_3271]



Pre\_004 - [IMG\_3273]



Pre\_006 - [IMG\_3275]



Pre\_008 - [IMG\_3277]





Pre\_010 - [IMG\_3279]



Pre\_011 - [IMG\_3280]



Pre\_012 - [IMG\_3281]



Pre\_013 - [IMG\_3282]



Pre\_014 - [IMG\_3283]



Pre\_015 - [IMG\_3284]



Pre\_016 - [IMG\_3285]



Pre\_017 - [IMG\_3286]



Pre\_019 - [IMG\_3288]



Pre\_021 - [IMG\_3290]







Pre\_020 - [IMG\_3289]



Pre\_022 - [IMG\_3291]



Pre\_024 - [IMG\_3293]



Pre\_025 - [IMG\_3294]



Pre\_027 - [IMG\_3296]



Pre\_029 - [IMG\_3298]



Pre\_031 - [IMG\_3300]



Pre\_026 - [IMG\_3295]





Pre\_030 - [IMG\_3299]



Pre\_032 - [IMG\_3301]



Pre\_033 - [IMG\_3302]



Pre\_035 - [IMG\_3304]



Pre\_037 - [IMG\_3306]



Pre\_039 - [IMG\_3308]



Pre\_034 - [IMG\_3303]



Pre\_036 - [IMG\_3305]



Pre\_038 - [IMG\_3307]



Pre\_040 - [IMG\_3309]



Pre\_041 - [IMG\_3310]



Pre\_043 - [IMG\_3312]



Pre\_045 - [IMG\_3314]



Pre\_047 - [IMG\_3316]



Pre\_042 - [IMG\_3311]



Pre\_044 - [IMG\_3313]



Pre\_046 - [IMG\_3315]



Pre\_048 - [IMG\_3317]



Pre\_049 - [IMG\_3318]



Pre\_051 - [IMG\_3320]



Pre\_053 - [IMG\_3322]



Pre\_055 - [IMG\_3324]



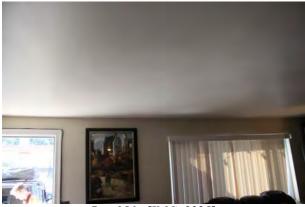
Pre\_050 - [IMG\_3319]



Pre\_052 - [IMG\_3321]



Pre\_054 - [IMG\_3323]



Pre\_056 - [IMG\_3325]



Pre\_057 - [IMG\_3326]



Pre\_058 - [IMG\_3327]



Pre\_059 - [IMG\_3328]



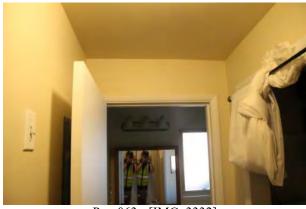
Pre 060 - [IMG 3329]



Pre\_061 - [IMG\_3330]



Pre\_062 - [IMG\_3331]



Pre\_063 - [IMG\_3332]



Pre\_064 - [IMG\_3333]



Pre\_065 - [IMG\_3334]



Pre\_066 - [IMG\_3335]



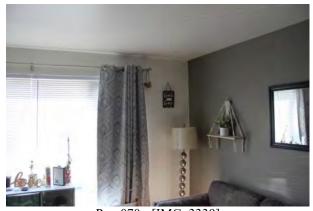
Pre\_067 - [IMG\_3336]



Pre\_068 - [IMG\_3337]



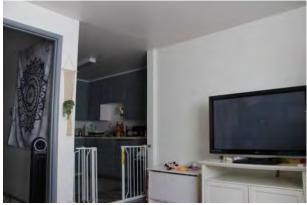
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Pre\_070 - [IMG\_3339]



Pre\_071 - [IMG\_3340]



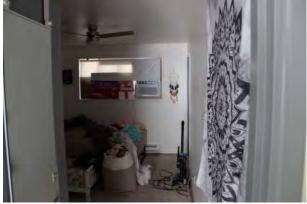
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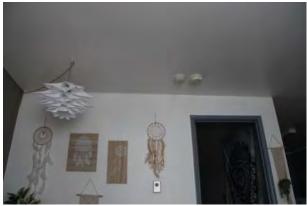
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Pre\_077 - [IMG\_3346]



Pre\_079 - [IMG\_3348]



Pre\_074 - [IMG\_3343]



Pre\_076 - [IMG\_3345]



Pre\_078 - [IMG\_3347]



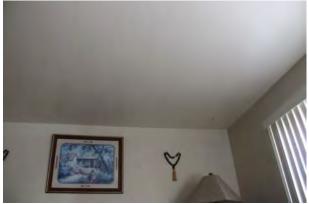
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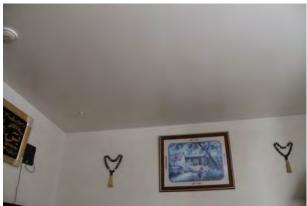
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Pre\_082 - [IMG\_3351]



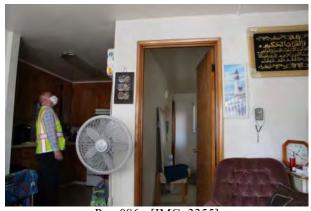
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Pre\_084 - [IMG\_3353]



Pre\_085 - [IMG\_3354]



Pre\_086 - [IMG\_3355]



Pre\_087 - [IMG\_3356]



Pre\_088 - [IMG\_3357]



Pre\_089 - [IMG\_3358]



Pre\_090 - [IMG\_3359]



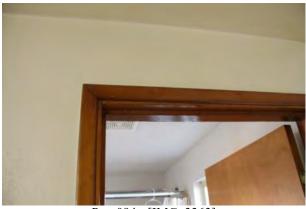
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Pre\_092 - [IMG\_3361]



Pre\_093 - [IMG\_3362]



Pre\_094 - [IMG\_3363]



Pre\_095 - [IMG\_3364]



Pre\_096 - [IMG\_3365]



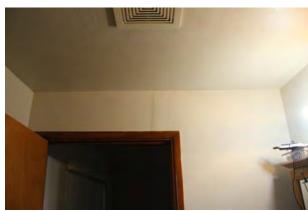
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Pre\_099 - [IMG\_3368]



Pre\_101 - [IMG\_3370]



Pre\_103 - [IMG\_3372]



Pre\_098 - [IMG\_3367]



Pre\_100 - [IMG\_3369]



Pre\_102 - [IMG\_3371]



Pre\_104 - [IMG\_3373]



Pre\_105 - [IMG\_3374]



Pre\_106 - [IMG\_3375]



Pre\_107 - [IMG\_3376]



Pre\_108 - [IMG\_3377]



Pre\_109 - [IMG\_3378]



Pre\_110 - [IMG\_3379]



Pre\_111 - [IMG\_3380]



Pre\_112 - [IMG\_3381]



Pre\_113 - [IMG\_3382]



Pre\_115 - [IMG\_3384]



Pre\_117 - [IMG\_3386]



Pre\_119 - [IMG\_3388]



Pre\_114 - [IMG\_3383]



Pre\_116 - [IMG\_3385]



Pre\_118 - [IMG\_3387]



Pre\_120 - [IMG\_3389]



Pre\_121 - [IMG\_3390]



Pre\_122 - [IMG\_3391]



Pre 123 - [IMG 3392]



Pre\_124 - [IMG\_3393]



Pre\_125 - [IMG\_3394]



Pre\_126 - [IMG\_3395]



Pre\_127 - [IMG\_3396]



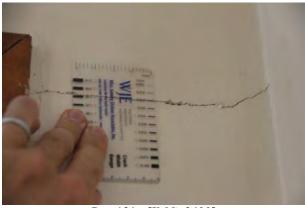
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Pre\_131 - [IMG\_3400]



Pre\_132 - [IMG\_3401]



Pre\_133 - [IMG\_3402]



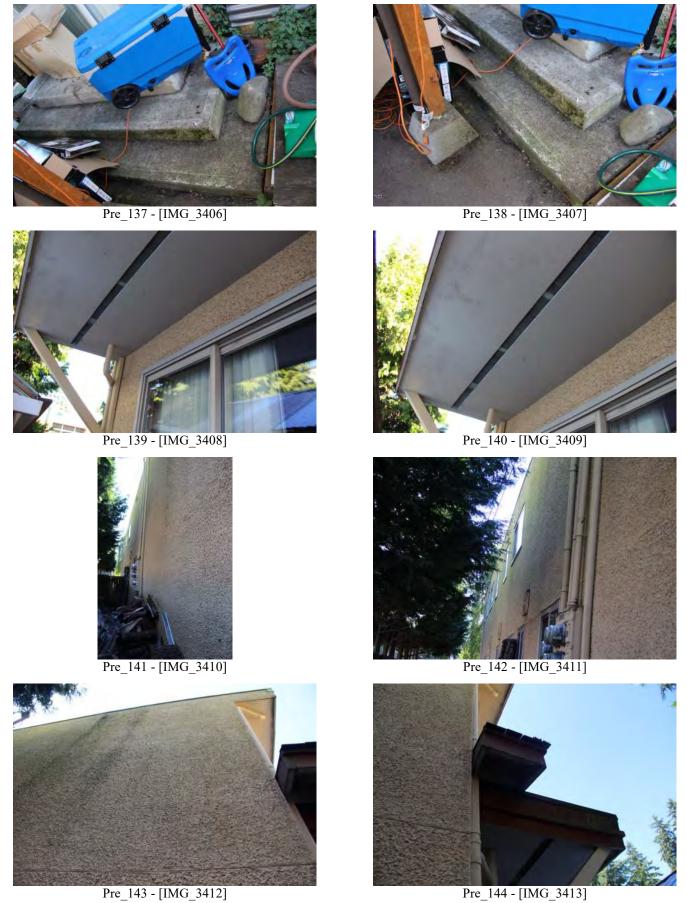
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Pre\_135 - [IMG\_3404]



Pre\_136 - [IMG\_3405]



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Pre\_147 - [IMG\_3416]



Pre\_149 - [IMG\_3418]



Pre\_151 - [IMG\_3420]



Pre\_146 - [IMG\_3415]



Pre\_148 - [IMG\_3417]



Pre\_150 - [IMG\_3419]



Pre\_152 - [IMG\_3421]



Pre\_153 - [IMG\_3422]



Pre\_154 - [IMG\_3423]



Pre\_155 - [IMG\_3424]



Pre\_156 - [IMG\_3425]



Pre\_157 - [IMG\_3426]



Pre\_158 - [IMG\_3427]



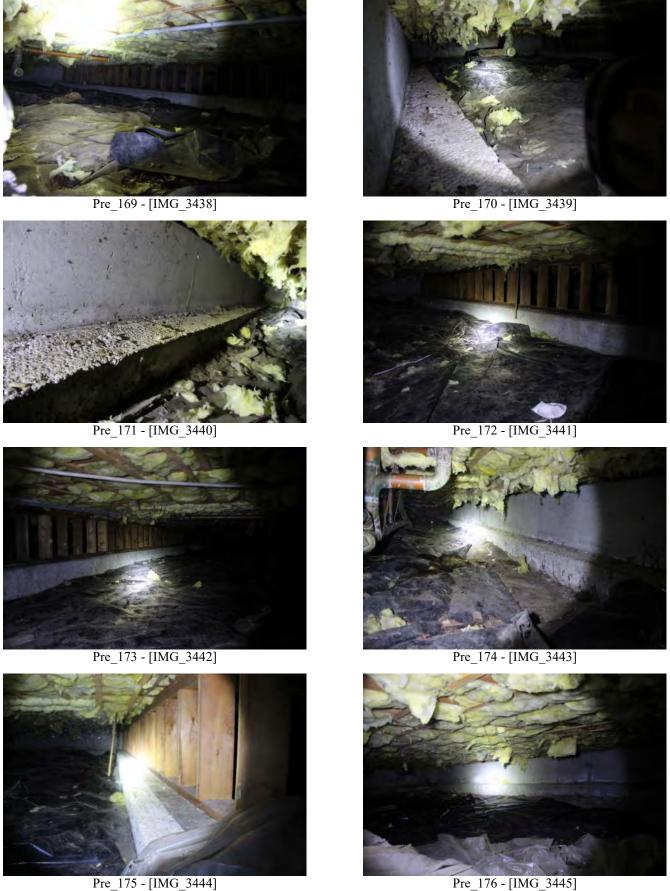
Pre\_159 - [IMG\_3428]



Pre\_160 - [IMG\_3429]



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Pre\_185 - [IMG\_3454]



Pre\_187 - [IMG\_3456]



Pre\_186 - [IMG\_3455]



Pre\_188 - [IMG\_3457]





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## POSTCONSTRUCTION CONDITION SURVEY PHOTO LOG | January 10, 2023 and January 25, 2023

## **Aloha Strickland**

6812 196th Street SW, Lynnwood, Washington 98036

**WJE PROJECT NO.** 2022.4972

#### **CONDITION SURVEY REPORT – POSTCONSTRUCTION**

**Project** Aloha Strickland

**Property Owner/Contact** Nelson Investments Commercial LLC

**Date of Survey** January 10, 2023 and January 25, 2023

**Date of Report** April 4, 2023

**Survey Performed By** Zachary Stutts, Michael Coryell

Report Prepared By Michael Coryell

### **Introduction and Background**

As described in our proposal dated July 27, 2022, WJE is providing this photo log and observations of conditions that existed on January 10, 2023 (exterior) and January 25, 2023 (interior) at 6812 196th Street SW, Lynnwood, Washington (herein referred to as Subject Structure). This photo log report addresses the changes observed before and after completion of an excavation approximately 10 feet east of the Subject Structure at 6808 196th Street SW, as shown in Figure 1. For general details on building construction and background prior to the excavation see our report "Condition Survey Report – Preconstruction" dated September 19, 2022. The excavation was approximately 100 feet by 120 feet in plan view and supported by soldier pile and tieback walls on the north and west sides of the excavation, a cantilevered soldier pile wall on the south side, and sloped up to the surface on the east side. The maximum planned excavation depth was 29 feet adjacent to the walls with tiebacks and 5 feet against the cantilevered wall. Soldier pile installation began on or about September 12, 2022 and the excavation was completed and backfilled on or about December 23, 2022. We did not observe the excavation and therefore cannot confirm the depths or excavation and backfilling methods; however, upon our arrival on January 10, 2023, the surface had been finished with crushed gravel surfacing.

### **Comparison with Preconstruction Conditions**

Between our preconstruction assessment on August 25, 2022 and January 10, 2023, the only measured change noted was a slightly widened crack along the loading dock on the south facade (location shown in Figure 1). On August 25, 2022, we marked two locations on the crack and measured the width of the crack in both locations. The upper portion of the crack was measured to be 11mm wide (Figure 2a), while the lower portion of the crack was measured to be 2.5mm wide (Figure 3a). When we surveyed the condition of the Subject Structure on January 10, 2023, the marks were erased; however, we were able to locate scratches in the concrete that appear to have been made by the pen used to mark the locations in August 2022 and measured the width of the crack in those locations. The upper portion of the crack was



measured to be 12mm wide (Figure 2b), while the lower portion of the crack was measured to be 3mm wide (Figure 3b).



Figure 1. Aerial view of subject property on July 20, 2022. Image © 2022 Nearmap.



Figure 2a. Upper portion of crack on August 25, 2022.



Figure 2b. Upper portion of crack on January 10, 2023.







Figure 3a. Lower portion of crack on August 25, 2022.

Figure 3b. Lower portion of crack on January 10, 2023.

### **Discussion**

A crack in the loading dock was measured to be marginally wider after completion of the excavation than before. Cracking is common in reinforced concrete structures, and provided that the cracking is relatively minor, it usually does not impact the ability of the reinforced concrete to carry the design loads. The most common reasons for this type of cracking are:

- Differential settlement of the soils beneath the structure
- Shrinkage of the concrete as it cures
- Contraction and expansion of the concrete due to temperature changes

In the three days prior to our August 25, 2022 assessment, the high temperature was 83, 79, and 86 degrees (source: <a href="www.weatherunderground.com">www.weatherunderground.com</a>, Scriber Lake station), and the temperature was in the low 70s while we were completing our observations. In contrast, in the three days prior to our January 10, 2023 assessment, the high temperatures were 47, 47, and 53, with the temperature in the high 40s while we were completing our observations. These temperatures are within a few degrees of the expected high temperatures for these times of the year, and the seasonal temperature difference was significant enough to result in the change in crack width observed. Thus, it is our opinion that temperature change is the most probable cause for the change in crack width between our surveys. Furthermore, since only one minor discrepancy was noted between our pre- and post-construction surveys, it is our opinion that the condition of the Subject Structure is similar to that noted in our pre-construction survey.

#### **Photos**

Photos are included in the attached appendix. The photos are presented in the same order as those presented in the Preconstruction Condition Survey Photo Log, generally starting at the northeast corner and east side of the structure, and proceeding around the structure in a counterclockwise direction, followed by photos of the interior of the China Café.



## **Photo Log**

Photo No.	Location	Description/Conditions Observed
001–003	North Elevation, Exterior	Views of front of building
004–006	East Elevation, Exterior	Overall view of east side of building
006–013	East Elevation, Exterior	Exterior wall finishes and mansard cladding
014-020	East Elevation, Exterior	Stairstep cracking in mortar joints of CMU wall
021	East Elevation, Exterior	Wall finishes and roof coping
022	East Elevation, Exterior	Segmental retaining wall at southeast corner of structure
023-025	East Elevation, Exterior	Wall finishes and roof coping
026-038	North Elevation, Exterior	Wall finishes, mansards, soffits, and storefront at China Café
039–041	North Elevation, Exterior	Pavement at parking lot
042-048	North Elevation, Exterior	Wall finishes, mansards, soffits, and storefront at Nielson Bros and Sound Sports
049–060	North Elevation, Exterior	Detailed view of wood panel separation on walls and soffits
061–063	North Elevation, Exterior	Sidewalk outside Nielson Bros
064–065	North Elevation, Exterior	Exterior views of Sound Sports
066–072	North Elevation, Exterior	Cracks in concrete sidewalk and joint between sidewalk and asphalt pavement in front of Sound Sports
073–076	North Elevation, Exterior	Soffit at Sound Sports
077–078	North Elevation, Exterior	Views of wood panel separation at underside of soffit
079–081	West Elevation, Exterior	Views of west side of building
082-088	West Elevation, Exterior	Wall finishes
089–093	West Elevation, Exterior	Concrete curb at base of wall, possibly the top of the foundation elements
094–099	South Elevation, Exterior	Wall finishes and concrete loading dock
100-102	South Elevation, Exterior	Wall finishes
103-104	South Elevation, Exterior	Detailed views of cracks in concrete loading dock
105	South Elevation, Exterior	Wall finishes
106	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
107–109	South Elevation, Exterior	Wall finishes
110	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
111–112	South Elevation, Exterior	Wall finishes
113–116	South Elevation, Exterior	Detailed view of cracks in concrete loading dock
117	South Elevation, Exterior	Wall finishes
118–130	South Elevation, Exterior	Detailed views of cracks in concrete on loading dock and separation between the stem wall and concrete slab of the loading dock
131–139	South Elevation, Exterior	Wall finishes and concrete loading dock at southwest corner of structure
140–142	South Elevation, Exterior	Detailed views of crack on loading dock





6812 196th Street SW, Lynnwood, Washington 98036

Photo No.	Location	Description/Conditions Observed
143–145	North Elevation, Exterior	Detailed view of entrance finishes at China Café
146–166	China Café, Interior	Wall, ceiling, and floor finishes, dining area
167–173	China Café, Interior	Wall and floor finishes, bathroom
174–175	China Café, Interior	Wall finishes, kitchen equipment
176	China Café, Interior	Detailed view of spalls on CMU
177–182	China Café, Interior	Wall finishes, kitchen equipment
183–184	China Café, Interior	Detailed view of spalls on CMU
185–190	China Café, Interior	Wall finishes, kitchen equipment
191–192	China Café, Interior	Wall, ceiling, and floor finishes, dining area

Enclosure:

Appendix – Photographs





6812 196th Street SW, Lynnwood, Washington 98036

## **APPENDIX**









Post\_001



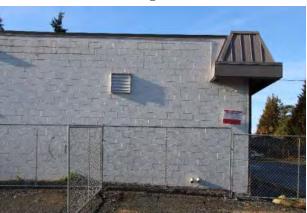
Post\_002



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Post\_006



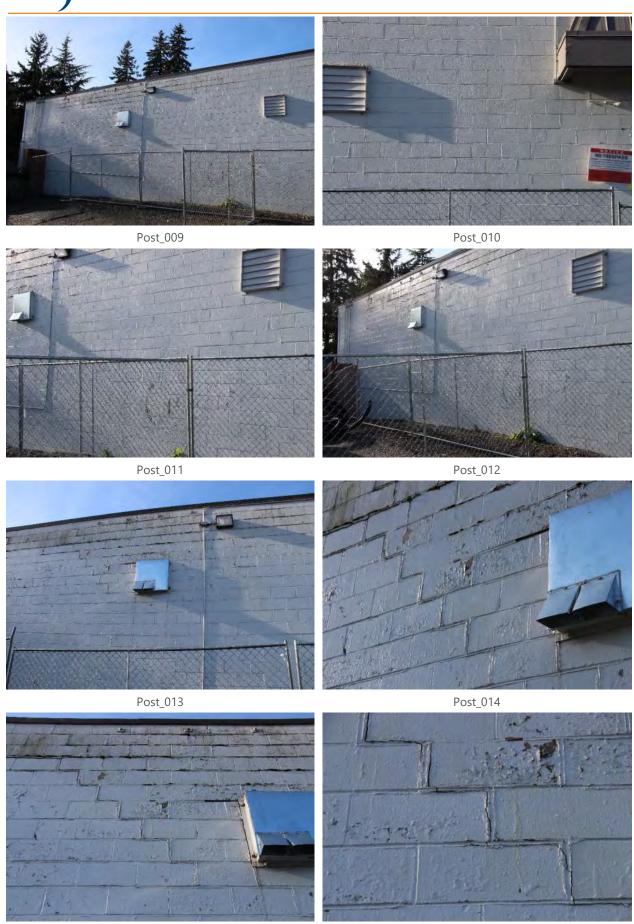
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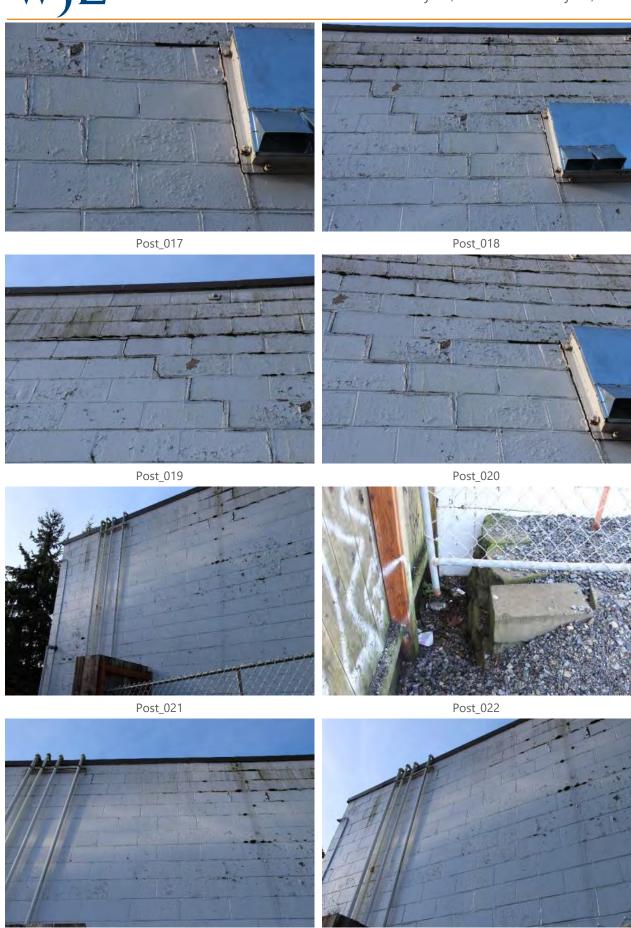
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Post\_016

Post\_015







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Post\_024

Post\_023











Post\_026



Post\_027



Post\_028



Post\_029



Post\_030



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Post\_070



Post\_071

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# Post-Construction Site Visit Dates: January 10, 2023 and January 25, 2023



Post\_081



Post\_083



Post\_085



Post\_087



Post\_082



Post\_084



Post\_086

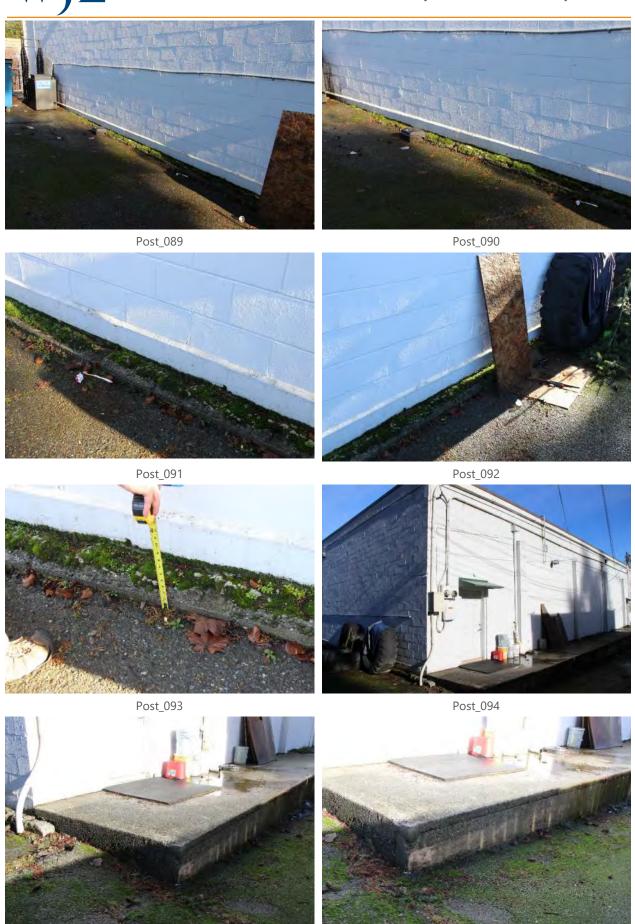


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Post\_096

Post\_095





















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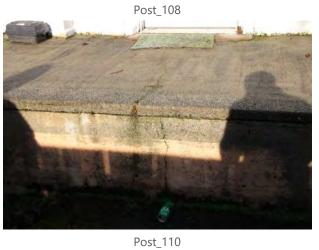
















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Post\_113







Post\_115







Post\_117

Post\_118





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# Post-Construction Site Visit Dates: January 10, 2023 and January 25, 2023





Post\_129



Post\_131



Post\_133



Post\_135



Post\_132



Post\_134



Post\_136

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Post\_137

Post\_138





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Post\_141

Post\_142

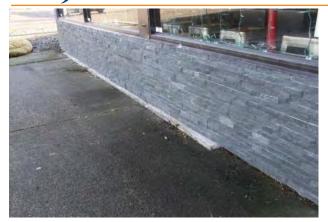




Post\_143

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Post\_169



Post\_170



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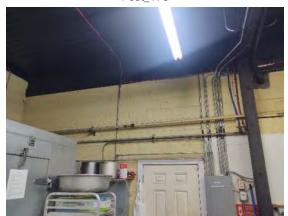
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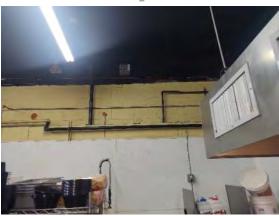
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Post\_185



Post\_186



Post\_187



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Post\_189



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Post\_191



Post\_192

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## POSTCONSTRUCTION CONDITION SURVEY PHOTO LOG | January 10, 2023

### Aloha Strickland

19618 68th Avenue West, Lynnwood, Washington

**WJE PROJECT NO. 2022.4972** 

#### CONDITION SURVEY REPORT – POST-CONSTRUCTION

**Project** Aloha Strickland

**Property Owner/Contact** Chrimar Apartments

**Date of Survey** January 10, 2023

**Date of Report** April 4, 2023

Survey Performed By Zachary Stutts, Michael Coryell

Report Prepared By Michael Coryell

### **Introduction and Background**

As described in our proposal dated July 27, 2022, WJE is providing this photo log of conditions that existed on January 10, 2023 at 19618 68th Avenue West, Lynnwood, Washington (herein referred to as Subject Structure). This photo log report addresses the changes observed before and after completion of an excavation approximately 10 feet north of the Subject Structure at 6808 196th Street SW, as shown in Figure 1. For general details on building construction and background see our report "Condition Survey Report – Preconstruction" dated September 19, 2022. The excavation was approximately 100 feet by 120 feet in plan view and supported by soldier pile and tieback walls on the north and west sides of the excavation, a cantilevered soldier pile wall on the south side, and sloped up to the surface on the east side. The maximum planned excavation depth was 29 feet adjacent to the walls with tiebacks and 5 feet against the cantilevered wall. Soldier pile installation began on or about September 12, 2022 and the excavation was completed and backfilled on or about December 23, 2022. We did not observe the excavation and therefore cannot confirm the depths or excavation and backfilling methods; however, upon our arrival on January 10, 2023, the surface had been finished with crushed gravel surfacing.

#### **Comparison with Preconstruction Conditions**

We noted two discrepancies between August 25, 2022 and January 10, 2023:

- New cracks in ceiling of Unit 131
- Damaged downspout at northeast corner of Subject Structure

Additional details regarding these discrepancies are discussed below.

We noted cracking in the finish of the ceiling of Unit 131 on January 10, 2023 that we did not observe on August 25, 2022. This cracking was not visible in photos taken on August 25, 2022; however, the cracking



is also not visible in a photo taken on January 10, 2023 from the same angle, as shown in Figure 2. Figure 3 shows the condition of the crack on January 10, 2023 as seen from a different angle. We do not have any photos showing the crack depicted in Figure 3 on August 25, 2022, which may be due to the angles at which our photos were taken. However, our typical practice is to take a closer photo of all cracks that we observe; therefore, it is likely that the crack did not exist on August 25, 2022.



Figure 1. Aerial view of subject property. Image © 2022 Nearmap.



Figure 2a. Interior of Unit 131 on August 25, 2023 (red arrow indicates approximate location of crack).



Figure 2b. Interior of Unit 131 on January 10, 2023 (red arrow indicates approximate location of crack).





Figure 3. Closer view of crack in ceiling finish in Unit 131 on January 10, 2023

On January 10, 2023, we noted that a section of the downspout for the roof gutter at the northeast corner of the Subject Structure had separated from the rest of the downspout and had fallen off the structure, as shown in Figure 4. The fallen section of downspout was resting on the ground.

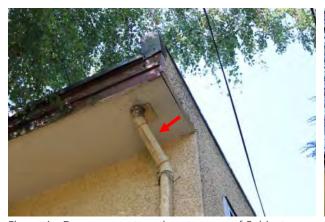


Figure 4a. Downspout at northeast corner of Subject Structure on August 25, 2022 (red arrow indicates location Structure on January 10, 2023 (red arrow indicates of section that fell).



Figure 4b. Downspout at northeast corner of Subject location of fallen section).

#### **Discussion**

The new cracking in the ceiling finish in Unit 131 appears to be cosmetic in nature. This type of cracking is most commonly due to one or more of the following causes:

- Differential settlement of the structure
- Swelling and shrinkage of the finish materials due to moisture or temperature changes
- Vibrations from external sources, such as construction activities or seismic sources



Based on the cracking observed throughout the rest of the Subject Structure prior to the start of excavation, it appears that similar cosmetic damage had been occurring throughout the unit prior to the start of excavation and may have continued through the period of excavation. The cracking of the finish shown in Figure 3 is the only new damage noted during our survey on January 10, 2023, and we did not note any changes to the previously noted cracks in the Subject Structure. Thus, it is our opinion that the most probable cause of this cosmetic damage is the continuation of the cause(s) listed above, although we cannot rule out that the excavation activities contributed to the appearance of this new damage.

Damage to the downspout shown in Figure 4 could have been caused by the following mechanisms:

- Vibrations from external sources, such as construction activities or seismic sources loosening the connections between the downspout segments
- Equipment striking the downspout
- Deterioration of the downspout due to age (e.g., corrosion)

There is no clear evidence indicating which of these mechanisms caused the damage; however, it is our opinion that this damage is cosmetic in nature and is not an indication of further damage.

Since only minor discrepancies were noted between our pre- and post-construction surveys, it is our opinion that the condition of the Subject Structure is similar to that noted in our pre-construction survey.

#### **Photos**

Photos are included in the attached appendix. The photos are presented in the same order as those presented in the Preconstruction Condition Survey Photo Log, generally starting at the front and sides of the exterior of the structure, followed by photos of the interior of the four ground floor apartment units, the back of the structure, and the crawl space beneath the structure.

#### **Photo Log**

Photo No.	Location	Description/Conditions Observed
001-004	South Elevation, Exterior	Overall view of front of building, wall finishes, and soffits
005-007	South Elevation, Exterior	Detailed views of crack in asphalt parking lot
008-010	South Elevation, Exterior	Detailed views of separation between parking lot and concrete walkway
011–014	South Elevation, Exterior	Wall finishes and soffit
015–017	East Elevation, Exterior	Wall finishes
018-019	South Elevation, Exterior	Detailed views of crack in stucco at southeast corner of structure
020	South Elevation, Exterior	Detailed view of soffit at southeast corner of structure
021–022	South Elevation, Exterior	Detailed views of crack in concrete walkway in front of Unit 131
023-026	South Elevation, Exterior	Overall views of south wall and surface finishes
027-030	South Elevation, Exterior	Detailed views of crack in concrete walkway in front of Unit 131
031	South Elevation, Exterior	Detailed view of crack in asphalt in front of Unit 131
032–033	South Elevation, Exterior	Entryway to Units 127, 129, 228, and 230 with crack in concrete steps and separation between steps and wall





Photo No.	Location	Description/Conditions Observed
034	South Elevation, Exterior	Wall finishes
035–037	South Elevation, Exterior	Detailed views of cracks in concrete walkway and asphalt in front of entryway to Units 127, 129, 228, and 230
038-044	South Elevation, Exterior	Wall finishes and roof overhang
045-049	West Elevation, Exterior	Wall finishes and roof overhang
050-052	South Elevation, Exterior	Detailed views of crack in stucco beneath window
053–068	Unit 125, Interior	Interior views of Unit 125 with crack in drywall (Photo 058) and door racked in frame (Photos 067 and 068)
069–080	Unit 127, Interior	Interior views of Unit 127 with prior repairs in gypsum board ceiling of kitchen (Photos 078 and 079)
081–108	Unit 129, Interior	Interior views of Unit 129 with cracks in drywall above door frames (Photos 091, 092, 096, and 097) and near shower (Photo 101), cracked tile next to tub (Photos 105 and 106), and patched gypsum board above door frame (Photos 103 and 104)
109–133	Unit 131, Interior	Interior views of Unit 131 with wall and ceiling stains throughout, gypsum board crack by front door (Photos 128 to 131), damaged windowsill in dining room (Photos 114 and 115), peeling paint throughout
134–136	West Elevation, Exterior	Wall finishes
137–138	North Elevation, Exterior	Concrete stairs
139–140	North Elevation, Exterior	Soffit
141–148	North Elevation, Exterior	Wall finishes
149–152	North Elevation, Exterior	Detailed views of repaired cracks in stucco finish
153	North Elevation, Exterior	Wall finishes
154–156	North Elevation, Exterior	Gap between concrete footing and wall finish
157–161	East Elevation, Exterior	Wall finishes
162	North Elevation, Exterior	Wall finishes
163–164	North Elevation, Exterior	Rear walkway and fence
165	East Elevation, Exterior	Soffit and downspout at northeast corner of the structure
166–182	Crawlspace	Cast-in-place concrete footings
183–188	Crawlspace Entry	Concrete spalling and separation around crawlspace entry

Enclosure:

Appendix – Photographs





19618 68th Avenue West, Lynnwood, Washington

## **APPENDIX**





Post-Construction Site Visit Date: January 10, 2023





Post\_001 Post\_002









Post\_005



Post\_007 Post\_008

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Post-Construction Site Visit Date: January 10, 2023







Post\_010





Post\_011

Post\_012





Post\_013

Post\_014





Post\_015

Post\_016

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Post-Construction Site Visit Date: January 10, 2023





Post\_017

Post\_018





Post\_019

Post\_020





Post\_021

Post\_022





Post\_023 Post\_024

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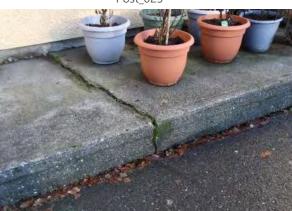


Post-Construction Site Visit Date: January 10, 2023





Post\_025



Post\_026



Post\_027



Post\_028



Post\_029



Post\_030



Post\_031

Post\_032

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Post-Construction Site Visit Date: January 10, 2023







Post\_033



Post\_034



Post\_035



Post\_036



Post\_037



Post\_038



Post\_039

Post\_040

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Post-Construction Site Visit Date: January 10, 2023





Post\_041

Post\_042

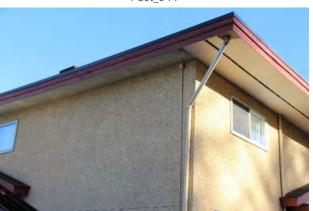




Post\_043

Post\_044





Post\_045

Post\_046



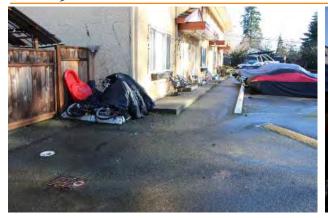


Post\_047 Post\_048

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Post-Construction Site Visit Date: January 10, 2023





Post\_049

Post\_050

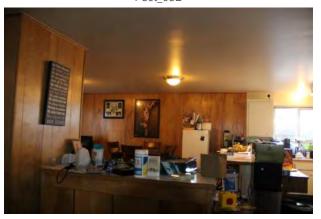




Post\_051

Post\_052

Photo "Pre\_053" was not replicated during January 10, 2023 site visit. Photo was of unit number and was for reference only, not documentation of structure conditions.



Post\_053

Post\_054





Post\_055 Post\_056

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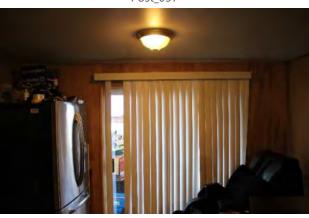


Post-Construction Site Visit Date: January 10, 2023





Post\_057

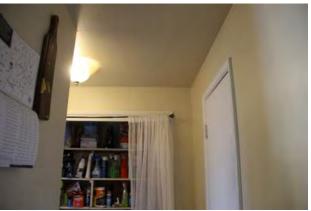




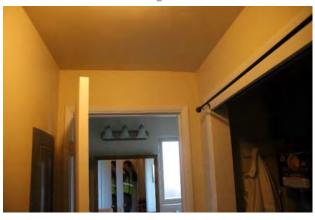
Post\_059



Post\_060



Post\_061



Post\_062



Post\_063

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Post-Construction Site Visit Date: January 10, 2023





Post\_065



Post\_066



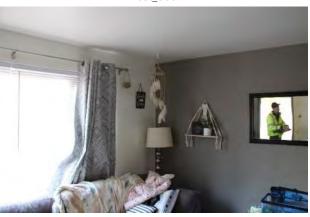


Post\_067

Post\_068







Post\_069

Post\_070





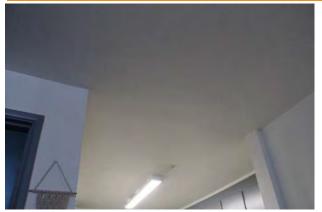
Post\_071

Post\_072

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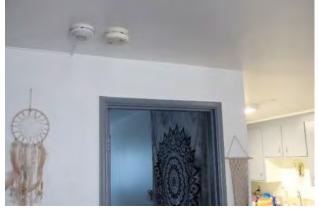


Post-Construction Site Visit Date: January 10, 2023



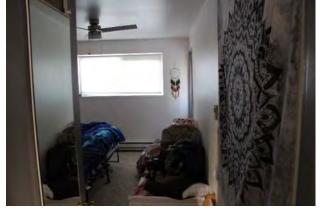


Post\_073 Post\_074





Post\_075 Post\_076





Post\_077 Post\_078





Post\_079 Post\_080

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Post-Construction Site Visit Date: January 10, 2023







Post\_081 Post\_082





Post\_083 Post\_084





Post\_085 Post\_086



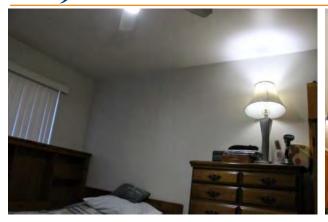


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Post-Construction Site Visit Date: January 10, 2023





Post\_089



Post\_090







Post\_092







Post\_094



Post\_095



Post\_096

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Post\_097



Post\_098



Post\_099



Post\_100



Post\_101



Post\_102



Post\_103



Post\_104

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Post\_105







Post\_107











Post\_111 Post\_112

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# 19618 68<sup>th</sup> Ave W, Lynnwood, WA 98036 Post-Construction Site Visit Date: January 10, 2023





Post\_113



Post\_115



Post\_117



Post\_114



Post\_116



Post\_118



Post\_119



Post\_120

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Post\_121

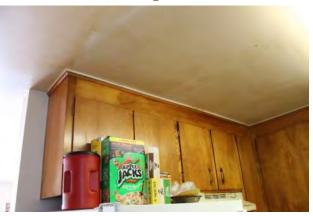


Post\_122

Post\_123



Post\_124



Post\_125



Post\_126



Post\_127 Post\_128

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Post\_129







Post\_131



Post\_132



Post\_133



Post\_134



Post\_135

Post\_136

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Post\_143 Post\_144

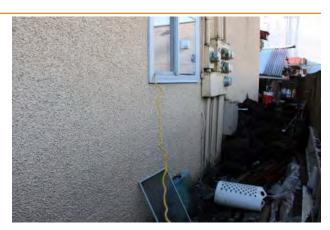
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Post\_145



Post\_146



Post\_147



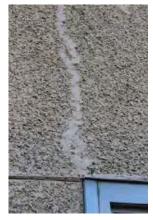
Post\_148



Post\_149



Post\_150



Post\_151



Post\_152

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Post\_153 Post\_154





Post\_155



Post\_156



Post\_157



Post\_158



Post\_159 Post\_160

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Post\_162





Post\_163

Post\_164





Post\_165

Post\_166





Post\_167 Post\_168

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Photo "Pre\_170" was not replicated during January 10, 2023 site visit. Photo was of same portion of crawl space as "Pre\_171" and "Post\_171" taken from a different angle.

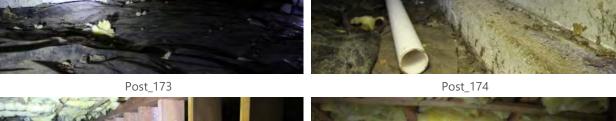
Post\_169 Post\_170





Post\_171 Post\_172









Post\_175 Post\_176

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WJE

Post-Construction Site Visit Date: January 10, 2023





Post\_177 Post\_178



Photo "Pre\_180" was not replicated during January 10, 2023 site visit. Photo was of same portion of crawl space as "Pre\_179" and "Post\_179" taken from a different angle.





Post\_181 Post\_182





Post\_183 Post\_184

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# 19618 68<sup>th</sup> Ave W, Lynnwood, WA 98036

Post-Construction Site Visit Date: January 10, 2023





Post\_185

Post\_186





Post\_187 Post\_188

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# **APPENDIX B**

Daily Field Reports with Geotechnical Special Inspections



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
08/30/2022	1030	1515	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Sunny, high 60s to mid 80s			
EQUIPMENT AND CALIBRATION:	N/A PID: N/A ppr	n	

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe Rivers Edge Environmental Services (REES) prepare the site for construction. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation conducted today.

#### **Contaminated Soil Excavation**

No contaminated soil excavation conducted today.

## Soil Transportation For Disposal

No trucks of soil were transported from site. One dumpster full of trees and brush was removed from the site.

#### **Geotech Activities**

## **Preconstruction Site Preparation**

We observed REES arrive on-site around 1030 with chain-link fencing, and a second truck with a dumpster and trailer carrying the excavator arrive by 1100. We then observed REES begin installing the chain-link fence along the site perimeter with a wheeled gate at the planned construction entrance on 68th Avenue W. We also observed REES use the excavator and chain saw to trim and remove the two trees on the north side near the café sign, all four trees on the east side, and six of the eleven trees on the south side. REES also demolished the wooden fence and gate around the trash area in the site's southwest corner. We observed straw wattles were delivered to the site; however, REES told us they would not install the wattles until after demolition.

While on-site we observed a parked box truck in the southeast corner of the site. Its owner could not be located, nor did the visible phone numbers on the back of the truck provide information on the owner's whereabouts. We contacted a towing company with signs on-site but were told an account would need to be set up between them and the site owners before any vehicles can be towed.

We conclude that temporary erosion control measures are being installed as specified in the project's temporary erosion and sedimentation control (TESC) Plan Sheet C-02. We also conclude that building demolition is proceeding as specified according to building demolition Plan Sheet C-04 (attached).

## **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### **Discussions**

At 1130, a utility locator with the City of Lynnwood arrived on-site to confirm all utilities are marked. He informed us of a water service in the site's southeast corner that may run along the southern perimeter within the site to 6812 196<sup>th</sup> Street (China Café). We will confirm its position when checking utility locations at a later date.



- Throughout the day we communicated with Tyler, REES's on-site foreman, and Patrick, REES's site superintendent, discussing plans for the day and moving forward.

No confirmation samples collected today.

The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Alec Melone, GIT, Staff Geologist
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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Photo 1: Brush and dumpster area demolition and clearing, viewing south.

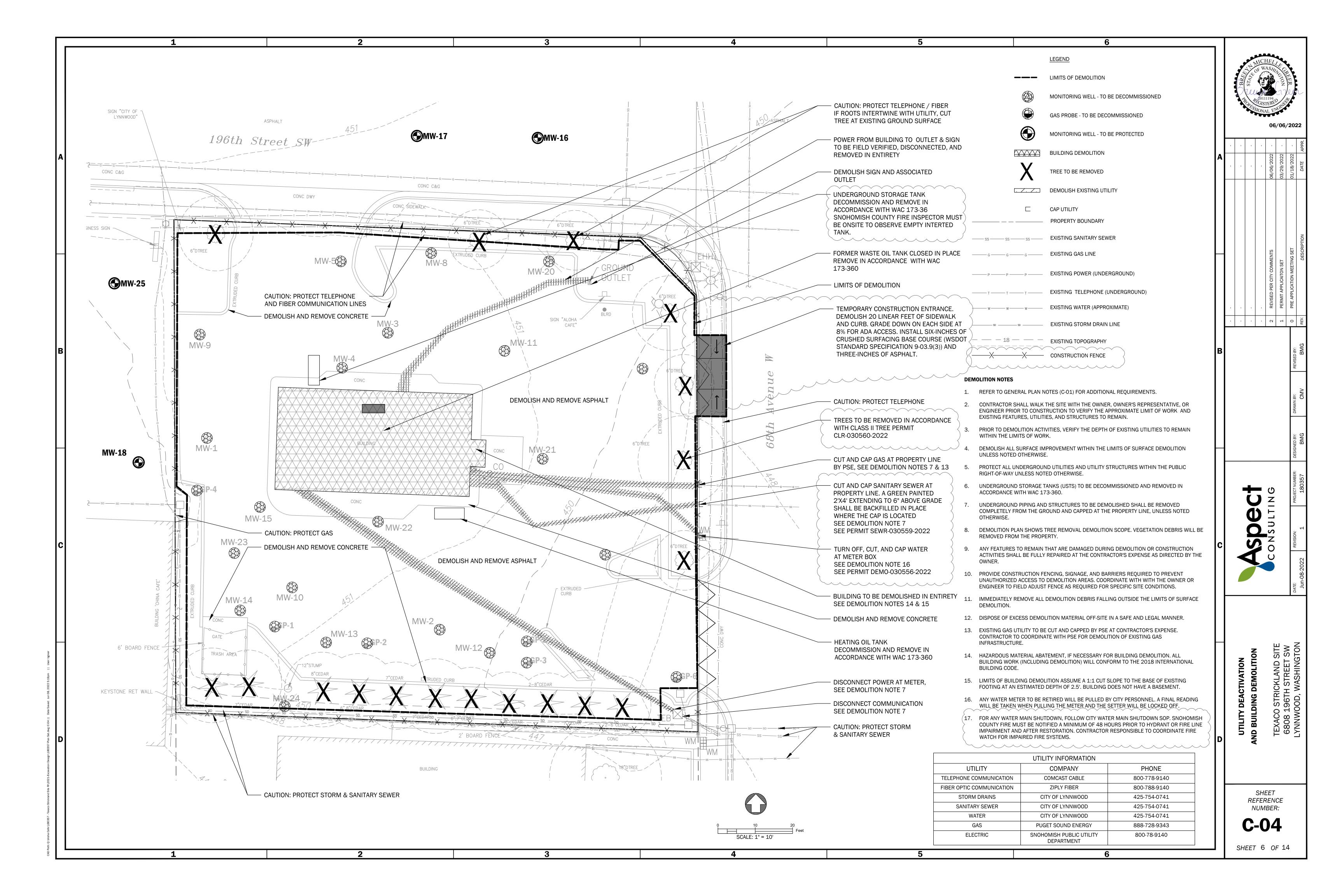


Photo 2: Perimeter fence installed, viewing east.





Photo 3: Box truck parked in site southeast corner.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
Friday, 9/9/2022	0645	1510	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Hazy, high 60s to high 70s			
EQUIPMENT AND CALIBRATION:	N/A PID: N/A pp	m	

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe building demolition conducted by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean surficial soils were excavated by REES near the existing 68<sup>th</sup> Avenue site entrance to expose and allow access to the water meter. The excavation was less than a foot deep.

#### **Contaminated Soil Excavation**

No contaminated soils were excavated today.

## Soil Transportation For Disposal

No soil was exported from the site today. Two construction dumpsters of building debris were removed from site today.

#### **Geotech Activities**

## **Soldier Pile Installation**

No soldier piles were installed today.

#### **Shoring Wall Installation**

No shoring was installed today.

#### **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### Other On-site Activities

REES continued site demolition today, tearing down the remainder of the building, removing the remaining trees and brush on-site, signs, lightpost, and bollard in the northeast corner. They also connected a garden hose and nozzle to the site's water meter so they could use the on-site water for dust control.

#### **Discussions**

- We spoke with REES about their plan of action for the day and tomorrow.
- Howard from Kulchin visited the site to discuss plans for equipment delivery next week as well as scope out the drilling surface. REES asked if they would be able to work on the asphalt or if a more level surface was needed. Howard responded by saying the asphalt would be suitable, though a bench would likely be needed in the slope for the south shoring wall. Around 8:30, a neighbor from the apartment complex to the south approached REES and informed them of dust disturbing them. REES told them they would work on improving their dust control. We noticed they did not have a water source with them and asked how they planned to control dust. The initial response was they would be



gentler while working to minimize dust, but we recommended they get water for dust control. REES then stopped work on demolition and set up a garden hose connected to the water meter to control dust.

- Mike from the City of Lynnwood arrived later in the morning for less than 10 minutes to inform us that he had received complaints from neighbors about dust coming from the building demolition. He asked if there was a plan to address this, to which REES explained the encounter with the neighbor earlier in the morning and their new plan for dust control. He approved of this new plan and departed shortly after
- REES asked us to confirm the removal of the signs and lightpost on-site in the northeast corner. After checking with the Aspect team, we told them to remove these objects.
- At the end of the day, we spoke with REES to ask what their plans were to cover the debris stockpile over the weekend. They said they would park the excavator upwind with the bucket clamped around the pile. We recommended they cover the pile with anchored plastic sheeting. REES responded by saying they would ask Clayton with Rivers Edge and Daniel with Aspect to discuss and determine a path forward. While waiting for a response, REES remembered they had plastic sheeting on-site already and decided to cover the debris stockpile.

## Confirmation Samples & Field Screening Results Log

No confirmation samples collected today.

The following attachments are included in Aspect's field file:		
☑ Site Photos		
☐ Laboratory Chain-of-Custody Form		
☐ Site Map		
☐ Other:		
□ DRAFT	PREPARED BY:	
	Alec Melone, GIT, Staff Geologist	
⊠ FINAL	REVIEWED BY:	
	Breeyn Greer, PE, Project Engineer (Environmental)	
	Rory Kilkenny, PE, Senior Geotechnical Engineer	

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Photo 1: Completion of building demolition, REES is controlling for dust with a garden hose in the photo.



Photo 2: Installed straw waddle in the northwest corner of the site for erosion control.





Photo 3: Building debris pile covered with plastic at the end of the day.



Photo 4: Minor excavation for water meter location on the west side of the site.



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
Monday, 9/12/2022	0655	1520	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Sunny, mid 60s to low 80s			
EQUIPMENT AND CALIBRATION:	Yellow Mini RAE Lite	PID: 100.0 ppm	
		• • •	ļ.

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe utility potholing by Rivers Edge Environmental Services (REES) and Aqualis. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

REES removed clean soils from utility potholes 5, 6, and 7 by vactor truck. The maximum depth of these excavations was 4 feet below ground surface (bgs).

REES also dug a roughly 1- to 2-foot-tall bench in the slope along the south side to provide a flat surface for Kulchin to drill upon later in the week; soils excavated had no field indicators of contamination as screened via visual, olfactory, and photoionization detector methods.

#### **Contaminated Soil Excavation**

No contaminated soils were excavated today. REES exposed contaminated soils directly beneath the asphalt along the north side of the site around the planned location of the north shoring wall. We detected an odor from the soils by olfactory methods and a 36.8ppm reading on the PID in the ambient air above the soils.

## Soil Transportation For Disposal

One full vactor truck (approximately 6 tons) was sent as clean soil to Cadman with soils excavated from potholes 5, 6, and 7.

One construction dumpster was loaded with the remaining building debris from demolition.

#### **Geotech Activities**

#### Soldier Pile Installation

No soldier piles were installed today.

## **Shoring Wall Installation**

No shoring installed today.

## **Unanticipated Field Discoveries**

Aqualis had a remote camera crew on-site around 07:10 to make video recordings of the stormwater pipes from CB01 on the west side and from CB02 in the southeast corner (see attached Site and TESC Plan Sheet C-02). The crew found the concrete pipe from CB01 had a blocked-off branch southeast of CB01. The remaining active branch headed south as revealed in potholes 2 and 5. From CB02, the crew did not find a concrete pipe inflow from the west as expected, only a PVC pipe which led back to the building pad on-site following the buried, disconnected power lines. Pothole 6 also did not locate the concrete storm pipe found in pothole 3, suggesting that CB01 and CB02 are not connected.



## Other On-site Activities

- ProVac was on-site today to pothole utilities at REES's direction, completing three potholes and
  exposing the gas service and storm line near CB01 on the west side, the water service on the south
  side, and the water main below the sidewalk on the north side. See attached utility locate plan sheet
  for details
- The surveyors were on-site to mark locations for all the soldier piles REES assisted by removing asphalt and curb where needed to allow staking and prepare for drilling later in the week.
- Aqualis was on-site with a remote camera van to record the condition of the stormwater lines before work begins.
- Once water main had been located, REES backfilled the hole with 1 ¼-inch minus crushed rock taken from the southwest corner, packed by hand, then mixed a bag of concrete to patch the sidewalk.

#### **Discussions**

- We spoke with REES about the plans for today and the rest of the week. We discussed their plan to backfill the water main pothole. We recommended that when the sidewalk is repaired at the end of work, the pothole backfill should be re-compacted.
- Howard with Kulchin visited to speak with REES and Aspect, see the site, and bring a forklift and shotcrete pump on-site for later use. Aspect and REES reviewed the utility potholes and Kulchin expressed concern with the proximity of the telecommunication line to the north shoring wall. REES told Kulchin they would schedule more potholing on the telecommunication line to gain a better understanding of its position relative to the shoring wall.
- ProVac was on-site to assist with utility potholing.
- The surveyors were on-site to stake out the shoring walls.
- Traffic control was on-site to close the northern sidewalk and direct pedestrians around to allow water main potholing and concrete installation and curing.
- Ziply Fiber stopped by to request access to the site entrance in order to splice a connection between the apartment building to the south and the overhead line along 68<sup>th</sup> Avenue. Initially they asked for access later today, but returned in the afternoon to inform us they will be doing the work tomorrow.

## Confirmation Samples & Field Screening Results Log

No confirmation samples collected today.

The following attachments are included:	
☑ Site Photos	
☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
□ DIVALI	Alec Melone, GIT, Staff Geologist
⊠ FINAL	REVIEWED BY:
M I IIVAL	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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Photo 1: Final building debris pile being loaded into dumpster for disposal, dust control being deployed via garden hose.



Photo 2: Asphalt being peeled back by REES at the north end of the site.



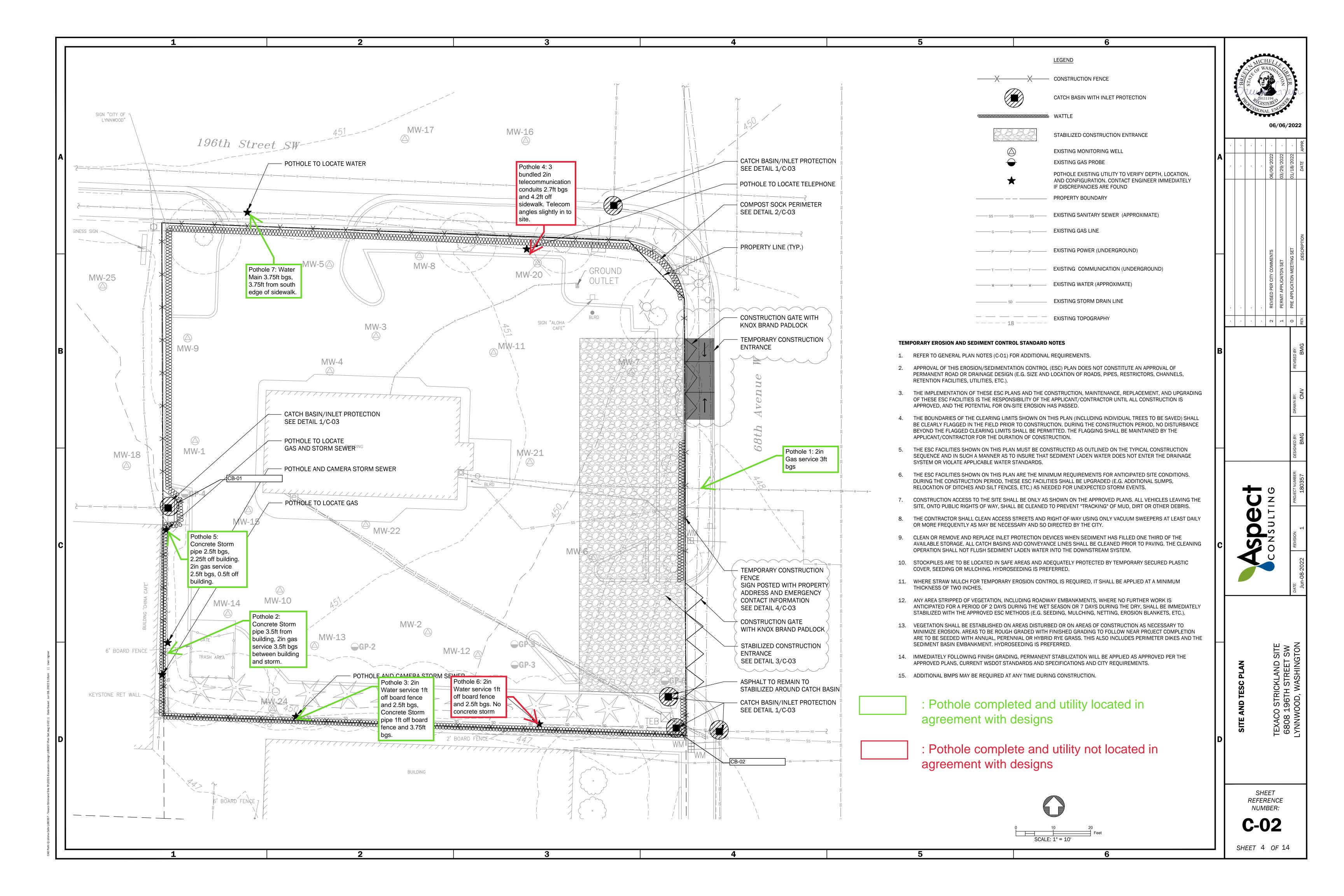




Photo 3: Soil being scraped from the incline at the south end of the site. Straw waddle at the ready for deployment as erosion control.



Photo 4: Water main patch.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
Wednesday, 9/14/2022	0655	1330	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Hazy, high 60s to high 70s			
EQUIPMENT AND CALIBRATION:	N/A PID: N/A pp	m	

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe equipment delivery and site activities conducted by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soils were excavated today.

#### **Contaminated Soil Excavation**

No contaminated soils were excavated today.

## Soil Transportation For Disposal

No materials were exported from the site today.

#### **Geotech Activities**

Soldier Pile Installation

No soldier piles were installed today.

## **Shoring Wall Installation**

No shoring was installed today.

#### **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### Other On-site Activities

Kulchin delivered their drill rig, an eco pan, and two auger bits to the site in preparation for drilling tomorrow.

#### **Discussions**

- We spoke with REES and Kulchin about their plans of action for the day and tomorrow.
- Howard from Kulchin visited the site to look at the telecommunication line on the northern side with Aspect and REES. He told us his boss, Andy, had said they would want the whole line exposed so they can always know where their drill bit is with relation to the utility. Andy arrived later in the day and worked out with REES a solution where REES would make more potholes to trace the utility throughout the site and produce potholes at each soldier pile location that are 4 feet wide so steel sheets can be temporarily installed between the drill bit and the utility.
- REES told us in the morning they had scheduled a meeting with the City of Lynnwood inspector to discuss a change in their plan for the new site entrance. They explained that they wished to retain the existing sidewalk and asphalt, removing only the planter bed soil and backfilling with quarry spalls. They also planned to install a small ramp up to sidewalk grade from road grade made of asphalt.



The City of Lynnwood inspector arrived later in the morning to discuss their site entrance plan. REES explained their new plan, including justification that the asphalt would be easier to keep clean than the quarry spalls specified in the plans, and that it could be removed at a later date if it becomes insufficient to control trackout. The inspector said he would approve them keeping the existing asphalt, though recommended they still replace the sidewalk as per plan since the bike lane on 68th Avenue must be kept clear and even. REES asked if they would need to submit anything official with the city to follow this new plan. The City of Lynnwood inspector replied that REES would need to submit a change order.

Confirmation Samples & Field Screening Results Log No confirmation samples collected today.

The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
☐ Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Alec Melone, GIT, Staff Geologist
☐ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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Photo 1: Kulchin's drill rig has been delivered to the site.



Photo 2: Northern shoring wall with piled staked out.



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
Thursday 9/15/2022	6:30AM	2:30PM	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Sunny, high 50s to low 70s			
EQUIPMENT AND CALIBRATION:	Yellow Mini RAE Lite F	PID: 100.0 ppm	

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe site activities conducted by Rivers Edge Environmental Services (REES); soldier pile installation by Kulchin; and utility potholing by Auilus. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soils were removed from utility potholes 4, 5, 10, and 11 as they were expanded from original potholing on 9/13/2022 and from new potholes 12, 13, and 14. The maximum depth of these excavations was 4 feet below ground surface (bgs). These soils displayed no field indicators of contamination, screened via visual, olfactory, and photoionization detector methods.

#### **Contaminated Soil Excavation**

Contaminated soils were excavated today from utility pothole 15. Soil had a petroleum odor with PID reading of 115.0 ppm. Maximum depth of the excavations was 4 feet bgs.

#### Soil Transportation For Disposal

One vactor truck with soils removed for utility potholing left site with less than 6 tons of Class III contaminated soil bound for Cadman's Class III facility.

#### **Geotech Activities**

#### Soldier Pile Installation

Today we observed Kulchin Foundation Drilling (Kulchin) install nine soldier piles for the south and west shoring wall (piles S1, S3, S5, S7, S9, S11, W2, W4, and W6). See attached Shoring Installation Plan showing the locations of the completed soldier piles.

Kulchin drilled the shafts using a 24-inch-diameter auger from a bench dug at approximately elevation 448. The stratigraphy in each shaft generally consisted of brown silty sand with gravel (fill) to about 6 feet bgs overlying gray silty sand with gravel (glacially consolidated soil) to the bottom of the shafts. These conditions are consistent with what we assumed for the design of the soldier piles. During drilling of the shaft for piles S1, S3, and S5 on the south wall, we observed minor seepage and wet soils around 12 feet bgs. No caving was observed within the shafts, and the amount of water present was not sufficient to change methodology.

After drilling each shaft to or exceeding the depths specified in the designs (see the attached installation form), Kulchin placed the steel beam into the shaft, checked the plumbness of the pile using a level, and checked the pile location and top elevation with a grade rod prior to securing the beam in the shaft by clamping the flanges to steel angles that were set on timbers placed on the ground surface on each side of the shaft. We verified the steel beam section and length matched those specified in the plans. Aspect and Kulchin verified the shaft bottoms were clear of slough prior to the placement of lean mix concrete. The shafts were filled with concrete up to approximately 12 inches below the top of the shafts except within S9, which was left approximately 3 feet low to prevent concrete filling a connected utility pothole.



Based on our observations, we conclude the soldier piles were installed in accordance with the plans and our geotechnical engineering recommendations. Details of individual soldier piles installed today are provided in the attached shoring installation forms.

## **Unanticipated Field Discoveries**

After Aqualis had finished potholing near CB01 on the west side, it was discovered that the concrete storm line had a blocked branch leading roughly southeast right through the planned installation location of soldier pile W5. REES referred to the recording from the camera crew on 9/12 and reported the pipe was blocked and no longer active. REES broke open the pipe at the junction to see how deep the blocked branch extended and were unable to tell how deep it extended past 20 feet. REES broke off the blocked portion of the pipe to disconnect it from the active line and installed a temporary plug to allow Kulchin to install the soldier pile as planned. REES plans to repair the broken pipe tomorrow and will remove the plug once the pile was installed.

#### Other On-site Activities

A vactor truck with Aqualis arrived before 0800 to expand pothole 4 by catch basin CB-1 so Kulchin could see the concrete storm pipe near the soldier pile wall as well as excavating new potholes and expanding all existing potholes along the telecommunication line on the northern side of site. See the attached Site and TESC Plan Sheet C-02 for details.

#### **Discussions**

- We spoke with Patrick from REES about the unanticipated discovery discussed above, as well as the use of plastic sheeting beneath every drill spoil pile. REES felt the use of plastic over asphalt that would be removed eventually was unnecessary. We decided that Clayton (REES) would discuss with Daniel Babcock (Aspect) at a later date.
- Bo Ward from Aspect was on-site from around 9 to 1330 for training.
- Two City of Lynnwood inspectors briefly stopped by the site after finding a trail of concrete leading to the site. Studying the trail revealed it led to the site, rather than from the site, and the inspector was directed to contact Cadman (the supplier of the concrete). The second inspector confirmed the information and said they would call for a sweeper truck to clean up.

Confirmation Samples & Field Screening Results	Log
No confirmation samples collected today.	
The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
☑ Site Maps	
Shoring Installation Forms	
☐ Other:	
□ DRAFT	PREPARED BY:
	Alec Melone, GIT, Staff Geologist
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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Photo 1: Drilling of the first soldier pile wall by Kulchin.



Photo 2: Soldier pile installation cuttings being placed on plastic.

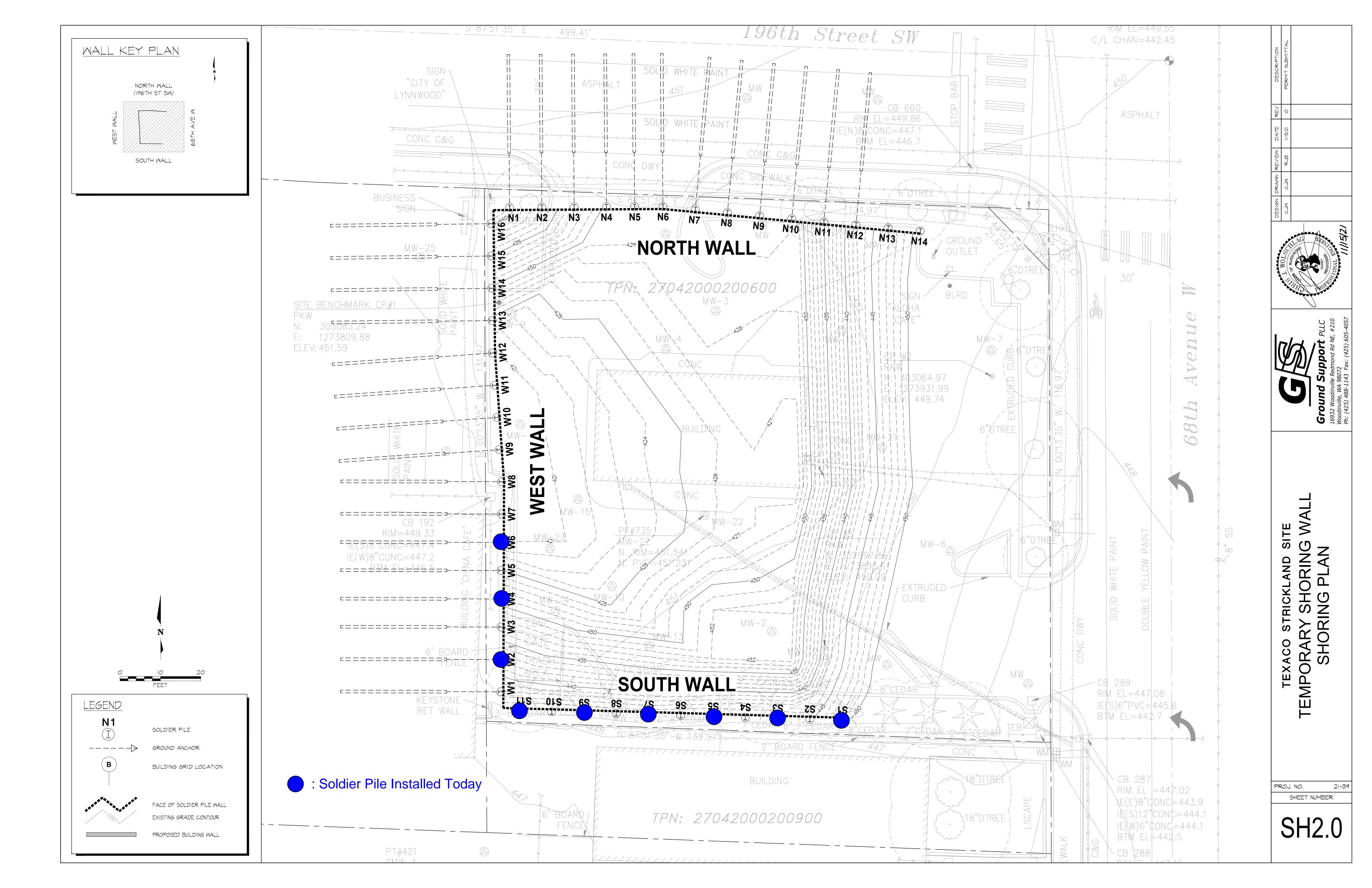


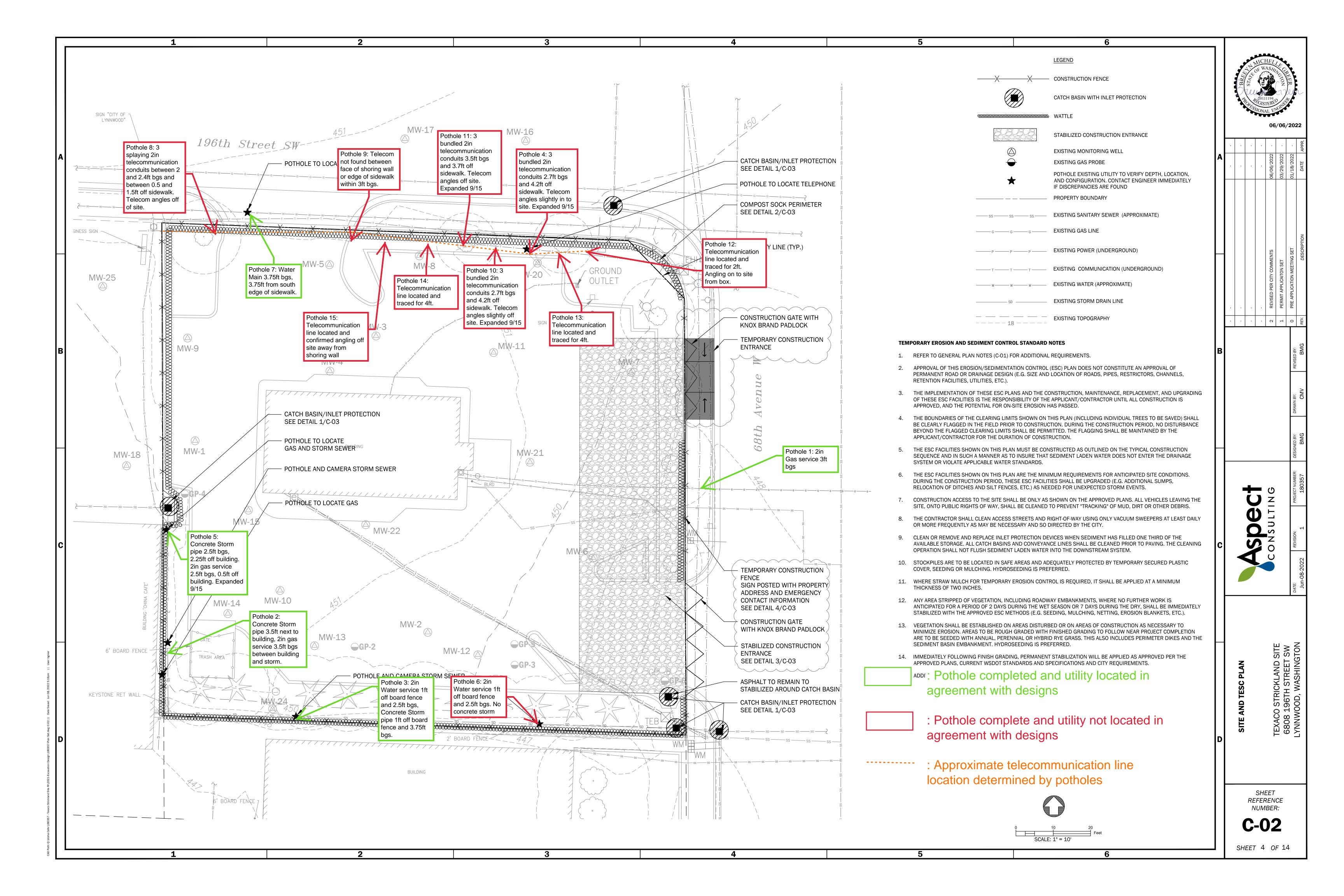


Photo 3: Ongoing potholing and locating of communication/fiber lines on the north end of the site.



Photo 4: Soldier pile installation progress along the south shoring wall.





# **Soldier Pile Installation Form**

Pro	oct	#1	90	25	:7
PIO	lect	#1	.ou	33	)/

<b>Shoring Wall</b>	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	<b>Drill End Time</b>	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South	S1	9/15/2022	7:40	7:55	24	15	W14x30	15	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S2						W14x30	18	
South	\$3	9/15/2022	8:00	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S4						W14x30	18	
South	\$5	9/15/2022	8:30	8:45	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	\$6						W14x30	18	
South	S7	9/15/2022	8:55	9:15	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	\$8						W14x30	18	
South	S9	9/15/2022	9:20	9:40	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	\$10	· · · · · · · · · · · · · · · · · · ·					W14x30	18	
South	S11	9/15/2022	9:45	10:00	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.

Installed Today

# **Soldier Pile Installation Form**

Shoring Wall	Soldier Pile ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
West	W1				,	(·	W14x53	23	
West	W2	9/15/2022	10:30	10:55	24	28	W14x53	28	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W3						W14x53	32	
West	W4	9/15/2022	11:00	11:30	24	38	W14x53	36.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W5						W14x53	40.5	
West	W6	9/15/2022	12:00	12:45	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W7						W14x53	40.5	
West	W8						W14x53	40.5	
West	W9						W14x53	40.5	
West	W10						W14x53	40.5	
West	W11						W14x53	40.5	
West	W12						W14x53	40.5	
West	W13						W14x53	40.5	
West	W14						W14x53	36	
West	W15						W14x53	31.5	
West	W16						W14x53	26.5	

Installed Today



<b>DATE:</b> Monday 9/19/2022	ARRIVAL TIME: 0630	DEPARTURE TIME: 1630	PROJECT NUMBER: 180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Sunny, high 50s to low 70s			
EQUIPMENT AND CALIBRATION:	PID: N/A		

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe site entrance construction conducted by Rivers Edge Environmental Services (REES) and observe soldier pile installation by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

Alec Melone of Aspect Consulting (Aspect) was onsite today to observe site activities conducted by Rivers Edge Environmental Services (REES); soldier pile installation by Kulchin; and utility potholing by Auilus.

#### Clean Soil Excavation

No clean soil excavation conducted today.

#### **Contaminated Soil Excavation**

No contaminated soil excavation conducted today.

## Soil Transportation For Disposal

Concrete debris from curb and sidewalk removal was transported to Rainier Wood & Recycling in 1 truckload (truck & trailer).

#### **Geotech Activities**

#### **Soldier Pile Installation**

Today we observed Kulchin install 13 soldier piles for the south and west shoring wall; piles S2, S4, S6, S8, S10, W1, W3, W5, W7, W9, W11, W13, and W15 (Photo 1). See attached shoring installation plan showing the locations of the completed soldier piles.

Kulchin drilled the shafts using a 24-inch-diameter auger from a bench dug at approximately elevation 448. The stratigraphy in each shaft generally consisted of brown silty sand with gravel (fill) to about 6 feet below ground surface (bgs) overlying gray silty sand with gravel (glacially consolidated soil) to the bottom of the shafts. These conditions are consistent with what we assumed for the design of the soldier piles. During drilling of the shaft for piles S2, S4, and S6 on the south wall, we observed minor seepage and wet soils around 12 feet bgs. No caving was observed within the shafts, and the amount of water present was not sufficient to change methodology.

After drilling each shaft to or exceeding the depths specified in the designs (see the attached installation form), Kulchin placed the steel beam into the shaft, checked the plumbness of the pile using a level, and checked the pile location and top elevation with a grade rod prior to securing the beam in the shaft by clamping the flanges to steel angles that were set on timbers placed on the ground surface on each side of the shaft. We verified the steel beam section and length matched those specified in the plans. Aspect and Kulchin verified the shaft bottoms were clear of slough prior to the placement of lean mix concrete. The shafts were filled with concrete up to approximately 12 inches below the top of the shafts except within S9, which was left approximately 3 feet below the top of the shafts to prevent concrete filling a connected utility pothole.



Based on our observations, we conclude the soldier piles were installed in accordance with the plans and our geotechnical engineering recommendations. Details of individual soldier piles installed today are provided in the attached shoring installation forms.

Soil cuttings produced during the drilling were stockpiled on-site for disposal tomorrow as class 3 soil and stockpile was lined and covered with plastic sheeting.

## **Unanticipated Field Discoveries**

No unanticipated field discoveries on-site today.

#### Other On-site Activities

REES worked on installing the new site entrance to  $68^{th}$  Avenue using a jackhammer attachment to a mini excavator to break the concrete sidewalk before removing three panels of the sidewalk. REES then used imported 5/8-inch minus crushed rock base course to level the entrance subgrade and compacted it with a small vibratory plate. We probed the subgrade with a steel  $\frac{1}{2}$ -inch-diameter T-probe and observed roughly 1 to 2 inches of penetration under heavy probing effort. REES then brought in a truckload of hot mix asphalt to install the site entrance, shaping it to serve as a shallow ramp on to the site for trucks while providing a smooth walking surface for pedestrians. We observed REES use a small double drum vibratory roller to compact the asphalt while it was still hot (Photo 2).

#### **Discussions**

- We spoke with Patrick from REES about their plan of action for the day.
- We spoke with Patrick about probing results from the site entrance subgrade. We told REES that the subgrade was suitable for the temporary site entrance.
- We spoke with Howard from Kulchin about on their plan of action for the day and the status of the north shoring wall beams. He told us the beams would be delivered tomorrow around late morning.
- Kulchin received a delivery of equipment for a perimeter railing along the top of the south shoring wall at 1345.

## Confirmation Samples & Field Screening Results Log

No confirmation samples collected today.

The following attachments are included in Aspect's field file:	
⊠ Site Photos	
☐ Laboratory Chain-of-Custody Form	
☐ Soldier Pile Installation Map	
☐ Other:	
⊠ DRAFT	PREPARED BY:
DIMI	Alec Melone, GIT, Staff Geologist
☐ FINAL	REVIEWED BY:
L I IIIAE	Breeyn Greer, PE, Project Engineer (Environmenal)
	Rory Kilkenny, PW, Senior Geotechnical Engineer

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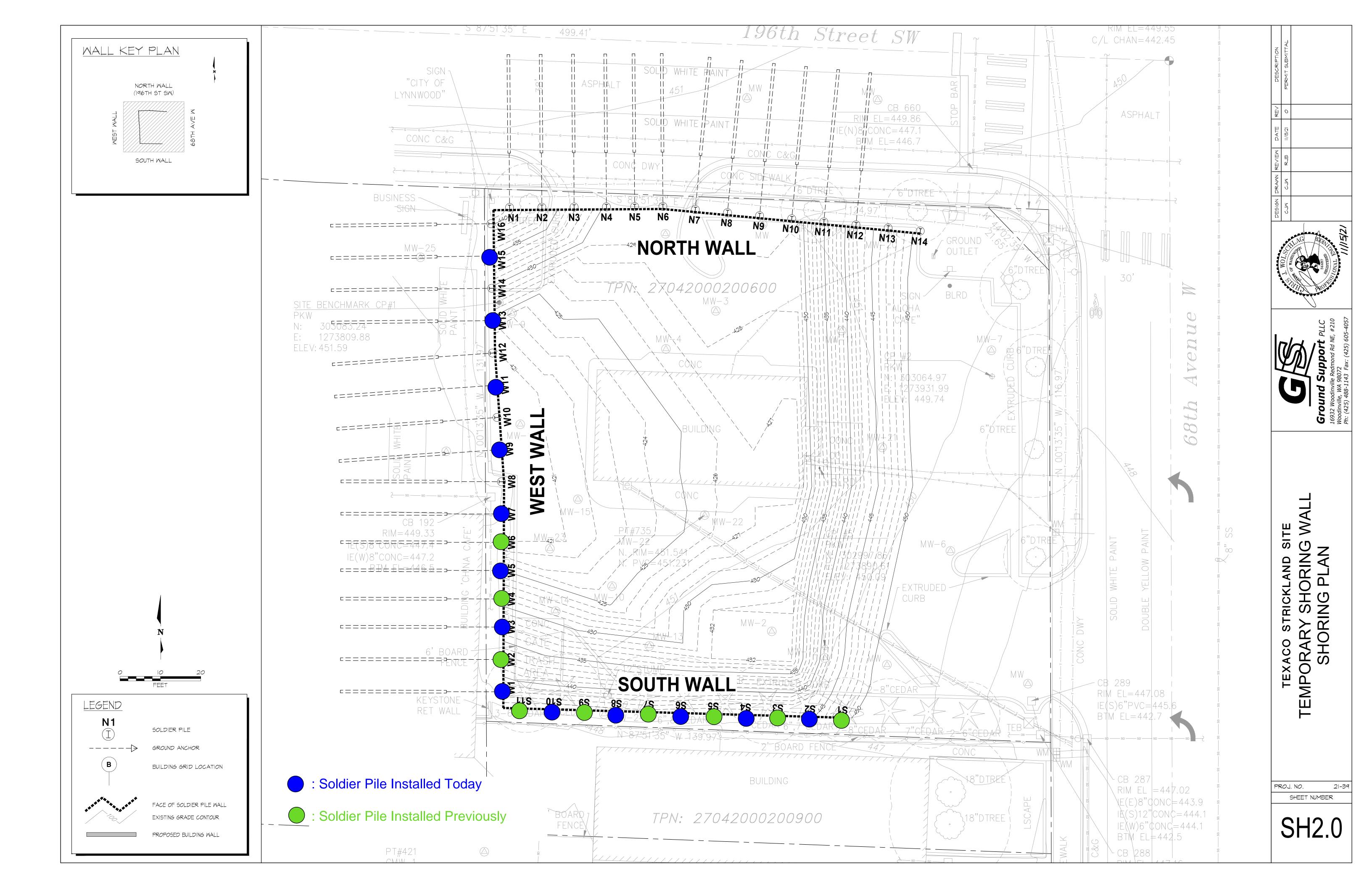




Photo 1: South Soldier Pile Wall, all piles installed viewing east.



Photo 2: Quarry spalls installed for the stabilized construction entrance on 68th Avenue, viewing southeast.



#### Project #180357

Shoring Wall	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South	S1	9/15/2022	7:40	7:55	24	15	W14x30	15	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S2	9/19/2022	7:20	7:30	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S3	9/15/2022	8:00	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S4	9/19/2022	7:45	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	\$5	9/15/2022	8:30	8:45	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	\$6	9/19/2022	8:25	8:35	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	<b>S</b> 7	9/15/2022	8:55	9:15	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	\$8	9/19/2022	8:40	8:55	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S9	9/15/2022	9:20	9:40	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S10	9/19/2022	9:00	9:15	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S11	9/15/2022	9:45	10:00	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.

Installed Today

# **Soldier Pile Installation Form**

Project #180357

Shoring Wall	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
West	W1	9/19/2022	9:20	9:40	24	24	W14x53	23	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W2	9/15/2022	10:30	10:55	24	28	W14x53	28	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W3	9/19/2022	9:50	10:30	24	38	W14x53	32	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W4	9/15/2022	11:00	11:30	24	38	W14x53	36.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W5	9/19/2022	10:40	11:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W6	9/15/2022	12:00	12:45	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W7	9/19/2022	11:25	12:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W8						W14x53	40.5	
West	W9	9/19/2022	12:20	1:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W10						W14x53	40.5	
West	W11	9/19/2022	1:25	2:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W12						W14x53	40.5	
West	W13	9/19/2022	2:10	2:50	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W14						W14x53	36	
West	W15	9/19/2022	2:55	3:35	24	37	W14x53	31.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W16						W14x53	26.5	

Installed Today



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:				
9/20/2022	0710	1500	180357				
PROJECT NAME:							
Texaco Strickland Site							
WEATHER:							
74 F, Wind to the south							
EQUIPMENT AND CALIBRATION:	Mini RAE Lite PID: 100.0 ppm						
		• •					

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe site activity (including excavation and soil transportation) by Rivers Edge Environmental Services (REES) and soldier pile installation by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

### Clean soil Excavation

Clean soil from the eastern section of the site was excavated to approximately 2 ft below ground surface (bgs) by Rivers Edge Environmental Services (REES) for the construction entrance. This soil has been stockpiled for future disposal.

#### **Contaminated Soil Excavation**

No contaminated soil excavation conducted today.

## Soil Transportation For Disposal

Class 3 contaminated soil from the soldier pile drilling was transported to Cadman's Class 3 facility in 4 truckloads (truck & trailer).

Asphalt removed from the southern section of the site was transported off-site in 1 truckload (truck & trailer).

#### **Geotech Activities**

#### Soldier Pile Installation

Kulchin drilled and installed five soldier piles W08, 10, 12, 14, & 16 today (see Photo 1 as well as attached installation wall form)

- Soil consisted of brown silty sand w/gravel (fill) to approximately 5 ft bgs overlying gray silty sand with gravel (till) to the bottom of the shaft.
- No groundwater encountered
- Each soldier pile was lowered into the shaft and filled with concrete up to approximately 1 ft bgs
- Soil cuttings produced during the drilling were stockpiled onsite for disposal tomorrow as Class 3 contaminated soil and stockpiles were lined and covered with plastic sheeting.

## **Unanticipated Field Discoveries**

No unanticipated field discoveries on-site today.

#### Other On-site Activities

REES installed a hookup to the water line for their hose bib (Photo 2), completed the stabilized construction entrance by backfilling it with quarry squalls (see Photo 3), and removed asphalt from the southern section of the site in preparation for soil excavation later in the week.



## **Discussions**

- Patrick with REES and Daniel with Aspect discussed scope and schedule for the remainder of the week: REES anticipates beginning soil excavation in the southwest section of the site by Thursday.
- Howard with Kulchin and Daniel with Aspect discussed delivery of North Wall soldier piles: Howard stated that the delivery was delayed and that the piles will be on-site tomorrow (9/21).

# Confirmation Samples & Field Screening Results Log

No confirmation samples collected today.

The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
☐ Other:	
□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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Photo 1 (left): Soldier piles installed on West Soldier Pile wall looking south.

Photo 2 (right): Hose bib installed, looking north.





Photo 3: Quarry spalls installed for the stabilized construction entrance on 68th Avenue, looking southeast.



Shoring Wall	Soldier Pile ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
West	W1	9/19/2022	9:20	9:40	24	24	W14x53	23	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W2	9/15/2022	10:30	10:55	24	28	W14x53	28	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W3	9/19/2022	9:50	10:30	24	38	W14x53	32	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W4	9/15/2022	11:00	11:30	24	38	W14x53	36.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W5	9/19/2022	10:40	11:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W6	9/15/2022	12:00	12:45	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W7	9/19/2022	11:25	12:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W8	9/20/2022	7:10	7:55	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W9	9/19/2022	12:20	1:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W10	9/20/2022	8:00	8:55	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W11	9/19/2022	1:25	2:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W12	9/20/2022	9:00	10:00	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W13	9/19/2022	2:10	2:50	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W14	9/20/2022	10:05	10:40	24	38	W14x53	36	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W15	9/19/2022	2:55	3:35	24	37	W14x53	31.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W16	9/20/2022	10:50	11:20	24	27.5	W14x53	26.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.

<b>Shoring Wall</b>	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South	S1	9/15/2022	7:40	7:55	24	15	W14x30	15	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S2	9/19/2022	7:20	7:30	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	\$3	9/15/2022	8:00	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S4	9/19/2022	7:45	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S5	9/15/2022	8:30	8:45	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S6	9/19/2022	8:25	8:35	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	<b>S7</b>	9/15/2022	8:55	9:15	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	\$8	9/19/2022	8:40	8:55	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S9	9/15/2022	9:20	9:40	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S10	9/19/2022	9:00	9:15	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S11	9/15/2022	9:45	10:00	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
9/21/2022	0700	1615	180357
PROJECT NAME:			
Texaco Strickland Site			
18/			
WEATHER:			
76 F, Wind to the south			
EQUIPMENT AND CALIBRATION:	Mini RAE Lite PID	): 100.0 ppm	

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe soldier pile installation and soil transportation for disposal. The following is a summary of Aspect's observations:

#### Clean soil Excavation

No Clean soil excavation conducted today.

#### **Contaminated Soil Excavation**

No contaminated soil excavation conducted today.

## Soil Transportation For Disposal

Class 3 contaminated soil from the soldier pile drilling was transported to Cadman's Class 3 facility in 3 truckloads (truck & trailer).

Asphalt removed from the southern section of the site was transported off-site in 1 truckload (truck & trailer).

#### **Geotech Activities**

#### **Soldier Pile Installation**

Kulchin drilled and installed 14 soldier piles NO2, 4, 6, 8, 10, 12, 14, 1, 3, 5, 7, 9, 11, 13 today in that order.

- Soil consisted of brown silty sand w/gravel (fill) to approximately 6 ft bgs overlying gray silty sand with gravel (till) to the bottom of the shaft.
- Groundwater encountered in N13 & N14 at 13 ft and 12 ft bgs respectively.
- Each soldier pile was lowered into the shaft and filled with concrete up to approximately 1 ft bgs
- Soil cuttings produced during the drilling were stockpiled on-site for disposal tomorrow as class 3 soil and stockpiles were lined and covered with plastic sheeting.
- Hydrocarbon-like odors and PID readings ranging from 10.7 to 1850 were encountered in the drill cuttings in piles N5 to N13.

## **Unanticipated Field Discoveries**

No unanticipated field discoveries on-site today.

#### Other On-site Activities

REES removed asphalt from the southern section of the site in preparation for soil excavation later in the week.

## **Discussions**

Patrick with REES and Daniel with Aspect discussed scope and schedule for the remainder of the week: REES anticipates being soil excavation in the southwest section of the site by Tomorrow.



Howard with Kulchin and Daniel with Aspect discussed Kulchin moving drilling equipment off-site tomorrow and being ready to conducting lagging on Friday.

# Confirmation Samples & Field Screening Results Log

No confirmation samples collected today.

The following attachments are included:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
☐ Other:	
□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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## PHOTOS:



Photo 1: Drilling of soldier pile.



Shoring Wall	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North	N1	9/21/2022	10:45	11:05	24	28	W14x53	25	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N2	9/21/2022	7:05	7:28	24	30	W14x53	29	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N3	9/21/2022	11:10	11:33	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N4	9/21/2022	7:30	7:53	24	33.5	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N5	9/21/2022	11:35	12:00	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N6	9/21/2022	7:55	8:20	24	33.5	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N7	9/21/2022	12:05	12:35	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N8	9/21/2022	8:22	8:53	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N9	9/21/2022	12:40	13:05	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N10	9/21/2022	9:00	9:30	24	32.5	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N11	9/21/2022	13:08	13:30	24	33	W14x53	32.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N12	9/21/2022	9:50	10:10	24	28	W14x53	27	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
North	N13	9/21/2022	13:35	14:00	24	22	W14x53	21.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered at 13' bgs
North	N14	9/21/2022	9:40	9:50	24	14.5	W14x53	13.5	Approximately 6 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered at 12' bgs

Shoring Wall	Soldier Pile ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South	S1	9/15/2022	7:40	7:55	24	15	W14x30	15	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S2	9/19/2022	7:20	7:30	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S3	9/15/2022	8:00	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S4	9/19/2022	7:45	8:20	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	\$5	9/15/2022	8:30	8:45	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole.  Groundwater encountered around 10ft bgs.
South	S6	9/19/2022	8:25	8:35	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. Groundwater encountered around 10ft bgs.
South	S7	9/15/2022	8:55	9:15	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	\$8	9/19/2022	8:40	8:55	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S9	9/15/2022	9:20	9:40	24	18	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S10	9/19/2022	9:00	9:15	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
South	S11	9/15/2022	9:45	10:00	24	19	W14x30	18	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.

Shoring Wall	Soldier Pile ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
West	W1	9/19/2022	9:20	9:40	24	24	W14x53	23	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W2	9/15/2022	10:30	10:55	24	28	W14x53	28	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W3	9/19/2022	9:50	10:30	24	38	W14x53	32	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W4	9/15/2022	11:00	11:30	24	38	W14x53	36.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W5	9/19/2022	10:40	11:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W6	9/15/2022	12:00	12:45	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W7	9/19/2022	11:25	12:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W8	9/20/2022	7:10	7:55	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W9	9/19/2022	12:20	1:20	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W10	9/20/2022	8:00	8:55	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W11	9/19/2022	1:25	2:05	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W12	9/20/2022	9:00	10:00	24	42	W14x53	40.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W13	9/19/2022	2:10	2:50	24	42	W14x53	40.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W14	9/20/2022	10:05	10:40	24	38	W14x53	36	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.
West	W15	9/19/2022	2:55	3:35	24	37	W14x53	31.5	Approximately 5 feet of brown fill over gray glacially consolidated till to bottom of hole. No groundwater observed.
West	W16	9/20/2022	10:50	11:20	24	27.5	W14x53	26.5	Approximately 5 feet of gray-brown fill over gray glacially consolidated till to bottom of hole.  No groundwater observed.



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
09/26/2022	0655	1500	180357
PROJECT NAME:			
Texaco Strickland Site			
18/			
WEATHER:			
81 F, Wind to the South			
EQUIPMENT AND CALIBRATION:	MiniRae Lite PID	): 100.0 ppm	
		• •	

Ashley Provow and Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document clean soil excavation and export by Rivers Edge Environmental Services (REES) and observe Kulchin Foundation Drilling (Kulchin) install timber lagging as part of the ongoing cleanup activities at the Texaco Strickland project. The following is a summary of Aspect's observations:

### Clean Soil Excavation

REES excavated the western edge of the site from approximate elevation 445.5 feet (ft) to approximate 444 ft between W01 and W12 and from approximate elevation 451.5 ft to approximate elevation 444 ft between W12 and W16, east to approximately N02. Field screening, consisting of visual and olfactory observations and PID readings, showed no evidence of contamination. Soil consisted of slightly moist brown sand with gravel & silt. Clean soil that was not direct loaded onto trucks for off-site disposal was stockpiled for export at a later date.

### **Contaminated Soil Excavation**

No contaminated soil was excavated today.

## Soil Transportation For Disposal

Clean soil excavated from the western section of the site was transported to Cadman's Granite Falls facility in 14 truckloads (side dump and truck & trailer).

#### **Geotech Activities**

Kulchin installed timber lagging along the western sidewall of the site from approximate elevation 451 ft to approximate elevation 444 ft, between W01 and W10.

### **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

## Other On-site Activities

Daniel (Aspect) was on site until 1410 to familiarize Ashley (Aspect) with the site and project activities.

#### **Discussions**

Patrick (REES), Daniel (Aspect), and Ashley (Aspect) discussed the plan for the day, which is to excavate the western area of the site to create space for Kulchin to install lagging.

## Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.



Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
SW-W02-444	Native	Sidewall	0.0	NS	None
SW-W04-444	Native	Sidewall	0.0	NS	None
SW-W06-444	Native	Sidewall	0.0	NS	None
SW-W08-444	Native	Sidewall	0.0	NS	None
SW-W10-444	Native	Sidewall	0.0	NS	None
SW-W12-444	Native	Sidewall	0.0	NS	None
SW-W14-444	Native	Sidewall	0.0	NS	None
SW-W16-444	Native	Sidewall	0.0	NS	None
SW-N01-444	Native	Sidewall	0.0	NS	None

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The following attachments are included:

- □ Laboratory Chain-of-Custody Form
- Site Map
- $\square$  Other:

□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
Z IIIAE	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

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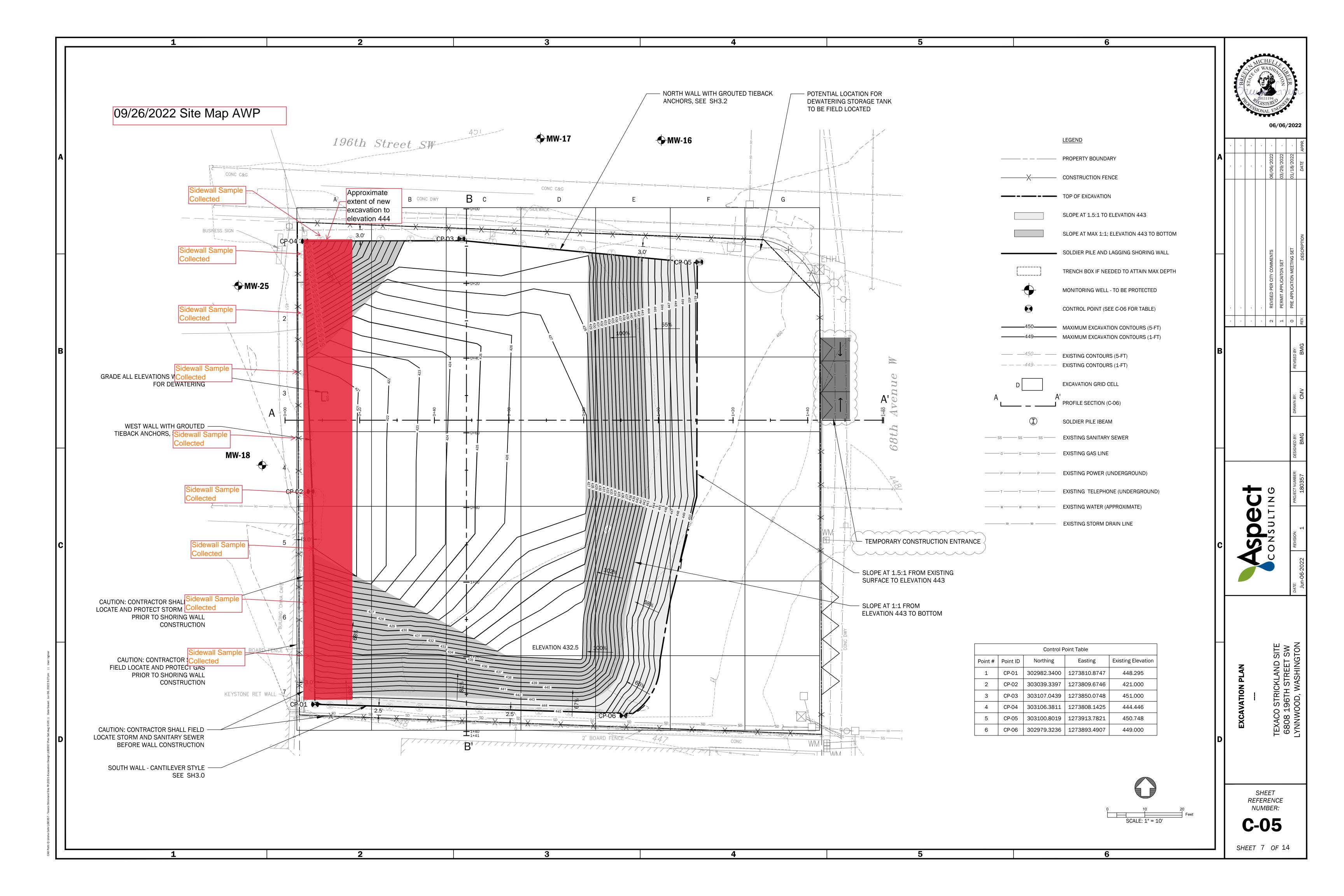




Photo 1: Extent of excavation at the end of 9/26/22. Photo looking west.



Photo 2: Extent of excavation at the end of 9/26/22. Photo looking northwest.



# SAMPLE CHAIN OF CUSTODY

Report To Pariel Believe & Alexa Griffin	SAMPLERS (signature)		Page #	of	
Report To Alem Griffin	1-2		TURNAROU	ND TIME	
Company Aspect Consulting	PROJECT NAME	PO#	X Standard turna	round	
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Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	70928 NX3LE	1964			Notes
SW-W0Z-444	عد	9/26/22	1115	Soul	5	×	×						×			-	
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5U-W06-444			1120													í	
SU- 408-444			1125														
5W-WD-44H			1140														14.
SW-WIZ-4LH			1145														X
SW-114-444			1240														
SW-W16-444			1245				4										
SW-NO1-444			1350			1											
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Friedman & Bruya, Inc Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
c.	Relinquished by:	Del Block	Aspect	1/20/20	1456
	Received by:	ANHPHAN	F36	-7/16/77	14 58
	Relinquished by:				
	Received by:				1



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:			
09/27/2022	0700	1515	180357			
PROJECT NAME:						
Texaco Strickland Site	Texaco Strickland Site					
WEATHER:						
77 F, Wind to the North						
EQUIPMENT AND CALIBRATION CHECK*: MiniRae Lite PID: 99.7 ppm						
* - Perform bump test with 100 ppm i	* - Perform bump test with 100 ppm isobutylene standard. If equipment fails bump test and requires recalibration, indicate in notes below.					

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document clean soil excavation and export as part of the ongoing cleanup activities by Rivers Edge Environmental Services (REES) and observe Kulchin Foundation Drilling (Kulchin) install timber lagging at the Texaco Strickland project. The following is a summary of Aspect's observations:

### Clean Soil Excavation

REES continued to excavate eastward from the west wall today. Excavation advanced from NO2 to approximately NO3 from approximate elevation 450.5 feet (ft) to approximate elevation 444 ft. REES also created a ramp from piles SO4-SO9 to WO2-WO5 down to elevation 444 to accommodate Kulchin's soil nail drill. Field screening, consisting of visual and olfactory observations and PID readings, showed no evidence of contamination, except at approximately WO6.5-SO9 (described below). Soil consisted of slightly moist brown sand with gravel & silt. Clean soil that was not direct loaded onto trucks for off-site disposal was stockpiled for export at a later date.

### **Contaminated Soil Excavation**

No contaminated soil was excavated today.

## Soil Transportation For Disposal

Clean soil excavated from the western section of the site was transported to Cadman's Granite Falls facility in 21 truckloads (side dump and truck & trailer).

One load of concrete was also exported today.

#### **Geotech Activities**

Kulchin installed timber lagging along the western sidewall of the site from approximately elevation 451 ft to approximately elevation 444 ft, between W10 and N03.

### **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

## Other On-site Activities

Contaminated soil was encountered at approximate elevation 449 ft at W06.5 and S09. This soil had slight to moderate odors, slight sheens, and PID readings of greater than 10 parts per million (ppm). There is approximately 1 to 1.5 ft of overlying clean soil that will need to be removed before this can be excavated, as such this soil remains in-place until additional excavation takes place tomorrow.

#### **Discussions**

Garrett (REES) and Ashley (Aspect) discussed the plan for the day, which is to open up one more area along the north wall to pile NO3 for Kulchin to lag.



Howard (Kulchin) indicated that soil nail drilling is likely to happen on Thursday September 29<sup>th</sup>. Eric (Arcadis) requested that he is contacted through Daniel (Aspect) when contaminated soil is encountered. Daniel (Aspect) was contacted throughout the day via Teams as contaminated soil was encountered.

# Confirmation Samples & Field Screening Results Log

No soil samples were collected today.

\* NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The following attachments are included:  ⊠ Site Photos						
☐ Laboratory Chain-of-Custody Form						
⊠ Site Map						
☐ Soil Export Trucking Log						
☐ Other:						
<b>□</b> DRAFT	PREPARED BY:					
	Ashley Provow					
☐ FINAL	REVIEWED BY:					
	Breeyn Greer, PE, Project Engineer (Environmental)Rory					
	Kilkenny, PE, Senior Geotechnical Engineer					
·	reports prepared by Aspect Consulting for Port of Seattle apply only to the by any party other than the Client is at the sole risk of that party, and without					

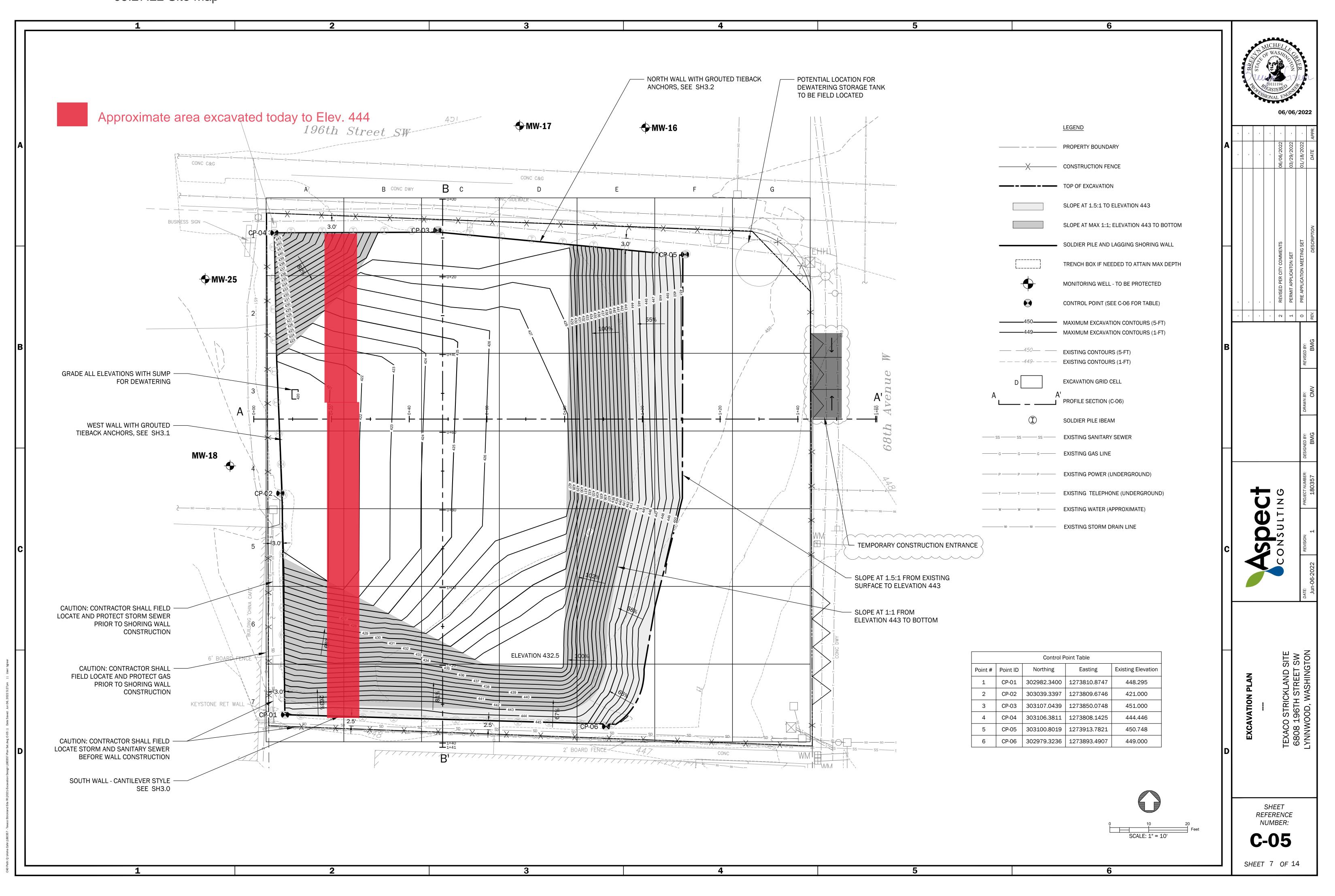




Photo 1: Soil ramp for soil nail drill access in the southwest corner of the site. Photo looking south.



Photo 2: Lagging progressing north along the west wall and east along the north wall to NO3. Photo looking northwest.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
09/28/2022	0655	1545	180357	
PROJECT NAME:				
Texaco Strickland Site				
WEATHER:				
64 F, Wind to the South, Intermittent rain				
EQUIPMENT AND CALIBRATION CHECK*: MiniRae Lite PID: 100.1 ppm				
* - Perform humn test with 100 nnm isohutylene standard. If equipment fails humn test and requires recalibration, indicate in notes below				

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document clean soil excavation and export by Rivers Edge Environmental Services (REES) and observe Kulchin Foundation Drilling (Kulchin) prepare for soil nail drilling as part of the ongoing cleanup activities at the Texaco Strickland project The following is a summary of Aspect's observations:

### Clean Soil Excavation

REES continued excavating eastward from the west wall between S10 and S09 from 450.5 feet (ft) to approximate elevation 444 ft. REES also removed the clean soil that was placed against the west wall for stability between W01 and W05 and continued excavating to approximate elevation 442.5 ft to accommodate soil nail drilling. Field screening, consisting of visual and olfactory observations and PID readings, showed no evidence of contamination, except at the locations described below. Soil consisted of slightly moist brown and gray sand with gravel & silt (Photos 3-4). Clean soil was either direct loaded onto trucks for off-site disposal or was stockpiled onsite for export later.

### **Contaminated Soil Excavation**

Approximately 4 buckets of contaminated soil was excavated from the following locations (see attached figure): near W10.5-S10 at approximate elevation 445 ft; at approximately W12.5-S09 at elevation 446; and around W14.5-S09 at approximately 445.5 ft. Soil from these locations was observed to be gray sand with fine to coarse rounded to subrounded gravel. Field screening was consistent in these locations, with slight to moderate odors, slight sheens, and PID readings of greater than 10 parts per million (ppm). This soil was placed in a lined stockpile for until at least one truckload has been accumulated for export. The contaminated soil stockpile was covered at the end of the day.

### Soil Transportation For Disposal

Clean soil excavated from the western section of the site was exported and transported to Cadman's Granite Falls facility in 22 truckloads (side dump and truck & trailer).

Twos loads of concrete was also exported today.

#### **Geotech Activities**

Kulchin prepared for soil nail drilling, which will take place tomorrow.

### **Unanticipated Field Discoveries**

Two pipes were uncovered beneath the foundation of the former building that are approximately in-line with an in-place storage tank. PID readings from the pipes are 1-2 ppm and no odors were detected.

Another pipe was uncovered on the northern end of the site, at approximately W14.5/N04, and is also roughly in-line with a known in-place underground storage tank (UST; Photo 1). PID readings from this pipe are also around 1-2 ppm and no odors were detected.



#### Other On-site Activities

A second excavator was delivered later in the day so that digging can continue while trucks are being loaded with soil.

### **Discussions**

Garrett (REES) and Ashley (Aspect) discussed the plan for the day, which is to continue creating space for Kulchin's soil nail drill and clean soil export.

Eric (Arcadis) stopped by the site in the morning and afternoon to check on things and document the contaminated soil that was excavated.

## **Confirmation Samples Results Log**

No soil samples were collected today.			
* NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen			
The following attachments are included:			
☐ Laboratory Chain-of-Custody Form			
☑ Site Map			
☐ Soil Export Trucking Log			
☐ Other:			
□ DRAFT	PREPARED BY:		
	Ashley Provow		
⊠ FINAL	REVIEWED BY:		
	Breeyn Greer, PE, Project Engineer (Environmental)		

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Rory Kilkenny, PE, Senior Geotechnical Engineer





Photo 1: View of pipe discovered near north side of site, adjacent to a known UST. Photo looking north.



Photo 2: Photo of excavation advancing up to former building foundation. Photo looking northeast.

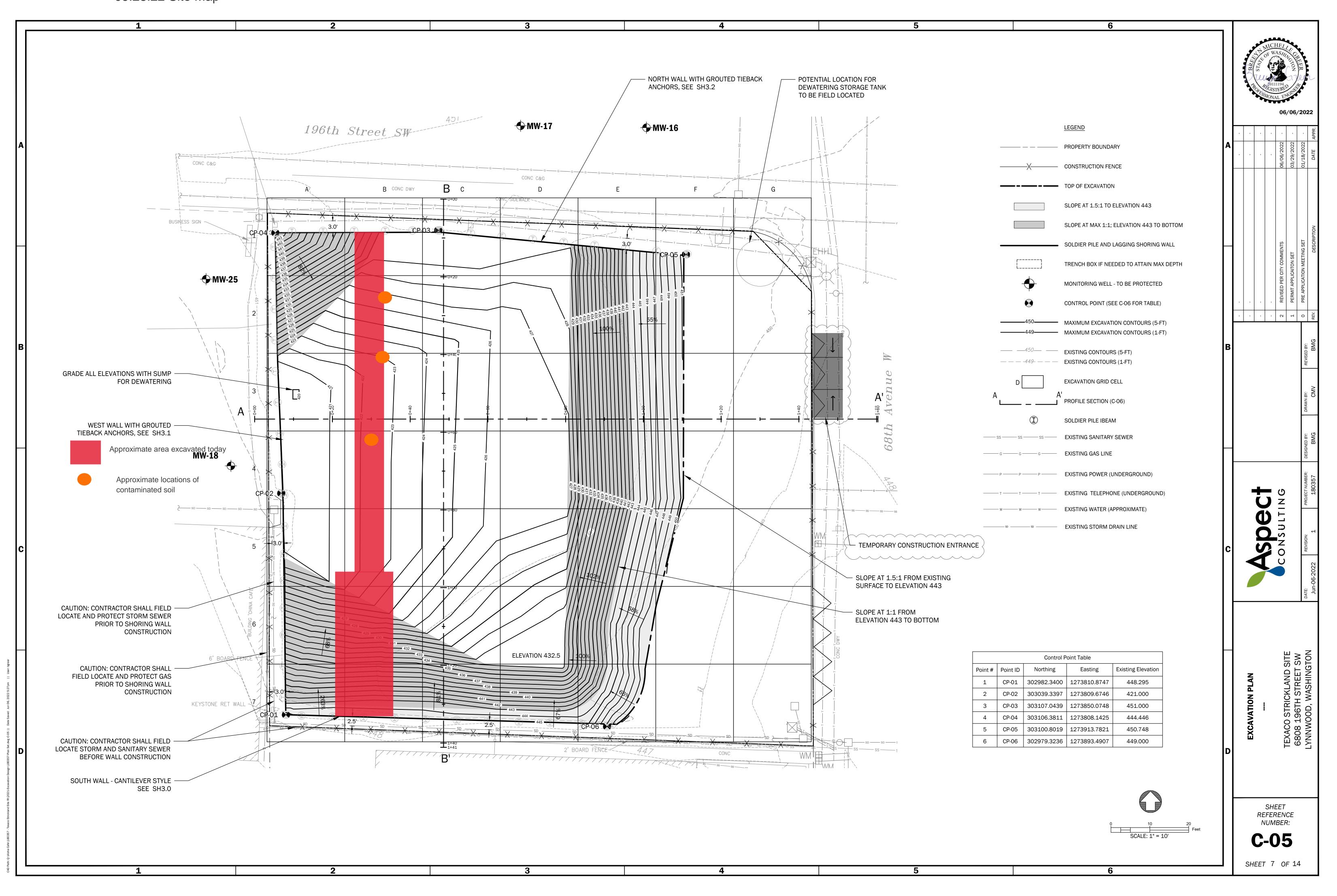




Photo 3: Excavation of clean soil progressing west to approximate elevation 444. Photo looking southwest.



Photo 4: Excavation of clean soil progressing west to approximate elevation 444. Photo looking north.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
09/29/2022	0650	1500	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
69 F, Wind to the west			
EQUIPMENT AND CALIBRATION:	MiniRae Lite PID:	100.0 ppm	

Bo Ward and Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe tie-back installation by Kulchin Foundation Drilling (Kulchin) and document soil excavation and export by Rivers Edge Environmental Services (REES) as part of the ongoing cleanup activities at the Texaco Strickland project. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

REES excavated the western edge of the site from approximately elevation (EL) 444 to approximately 442 ft between W05 to the north sidewall (W16) and between S10 and the western sidewall. Field screening, consisting of visual and olfactory observations and PID readings, showed no evidence of contamination. Soil consisted of slightly moist brown sand with gravel and silt to gray silty sand with gravel & cobbles. Clean soil was direct loaded onto trucks for off-site disposal.

#### **Contaminated Soil Excavation**

REES excavated the western and northern sections of the site today from approximate EL 444 to approximately 442 between S10 and S09 and between W06 to the northern sidewall (W16). REES also excavated from approximate EL 451 to approximate EL 446 between W14 to W16 and N03 to N09. Field screening, consisting of visual and olfactory observations and PID readings, indicated more contaminated excavation necessary both laterally and vertically in these areas. PID readings from soil excavated in these areas ranged from 50 parts per million (ppm) to 1850 ppm. Numerous empty broken pipes were removed from the northern section of the site during excavation. These pipes were located in the former pump island and are believed to have been product conveyance piping left behind after pump island removal. Contaminated soil was direct loaded into trucks for off-site disposal.

#### Soil Transportation For Disposal

Clean soil excavated from the western section of the site was transported to Core Infrastructure's facility in 6 truckloads (side dump and truck & trailer).

Contaminated soil excavated from the western and northern sections of the site was transported to Cadman's Class III facility in 20 truckloads (side dump and truck & trailer)

#### **Geotech Activities**

#### Tieback Anchor Installation:

Kulchin installed six tiebacks today, W1/R1, W2/R1, W3/R1, W4/R1, W5/R1, W6/R1.

Drilled shafts today consisted of 6-inch-diameter shafts at least as long as the design tieback length as specified on the plans. Shafts were drilled using an air rotary drill rig with a 5-inch-diameter bit and 6-inch, outer-diameter steel casings. The drill stem angle was set in accordance with the plans using a magnetic angle finder prior to drilling. Aspect documented the soil conditions for each shaft by observing the spoils



during drilling. Additional tieback details and remarks can be found in the Tieback Installation summary (Figure 1).

In general soils throughout the drilled shafts consisted of slightly moist, gray, gravelly sand and soils (till). The soil conditions were substantially consistent with the conditions we assumed for our design recommendations provided in our geotechnical engineering report dated January 24, 2020.

Tieback tendons installed today consisted of three 0.5-inch-diameter steel strand cable wire tied together with a section of PVC pipe of the same length. Steel strands were separated from each other over the planned bonded section of the tendon with plastic spacers set at a minimum of 3 feet from either end of the bonded section and approximately 5-feet spacing in-between. In the unbonded section, steel strands were cased in PVC. The entire tendon had 6-inch-diameter PVC spacers set at a minimum of 3 feet from the down-hole end of the tendon and spaced at approximately 5-feet over the entire length of the tendon. Tieback tendons were manually pushed down the drilled shaft and protruded from the hole approximately 3 feet.

Following tieback tendon installation, Kulchin pumped the shaft full of clean grout using a grout pump and long PVC tremie pipe. As steel casings were removed, Kulchin topped the drilled shaft off with grout. Grout was mixed at a 20 per cubic yard ratio. Grout volume being pumped into the hole was measured in bags of mix used.

## Timber Lagging:

No lagging took place today.

#### Dewatering:

No dewatering occurred today. All excavations are above the water table and no stormwater was collecting at the sump.

## Shoring Performance Monitoring:

The surveyor is scheduled to be taking measurements of displacement at monitoring points on at least every other pile twice a week. Plots of the shoring displacement will be attached to the final daily field report for the week, once received.

# **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

# Other On-site Activities

Rory Kilkenny (Aspect) was on-site until 11:00 to advise Bo Ward on tie-back installation observation. The compressor supplying the rotary drill failed around 09:30 and a mechanic was called to come and make repairs. The mechanic arrived at 12:00 and drilling continued at 14:30. More complications with the compressor slowed drilling and only two more tie-backs were able to be installed.

#### **Discussions**

Patrick (REES) and Daniel (Aspect) discussed schedule moving forward. Patrick anticipates finishing north wall bench excavation to approximate EL 444 in preparation for timber lagging and then will switch to concrete and footing removal for the remainder of Friday.

#### Confirmation Samples & Field Screening Results Log



The following attachments are included:

□ Laboratory Chain-of-Custody Form

☐ Shoring Inspection Form

### **DAILY FIELD REPORT**

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
SW-N02-447	Fill	Sidewall	0.0	NS	None

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

☐ Tieback Testing Form	
⊠Tieback Inspection Figures	
Site Map	
☐ Other:	
⊠ DRAFT	PREPARED BY:
	Bo Ward and Daniel Babcock
□ FINAL	REVIEWED BY:
L IIIAL	Breeyn Greer, PE, Project Engineer (Environmental)
This field report documents field based above attend that relate to Appear	Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



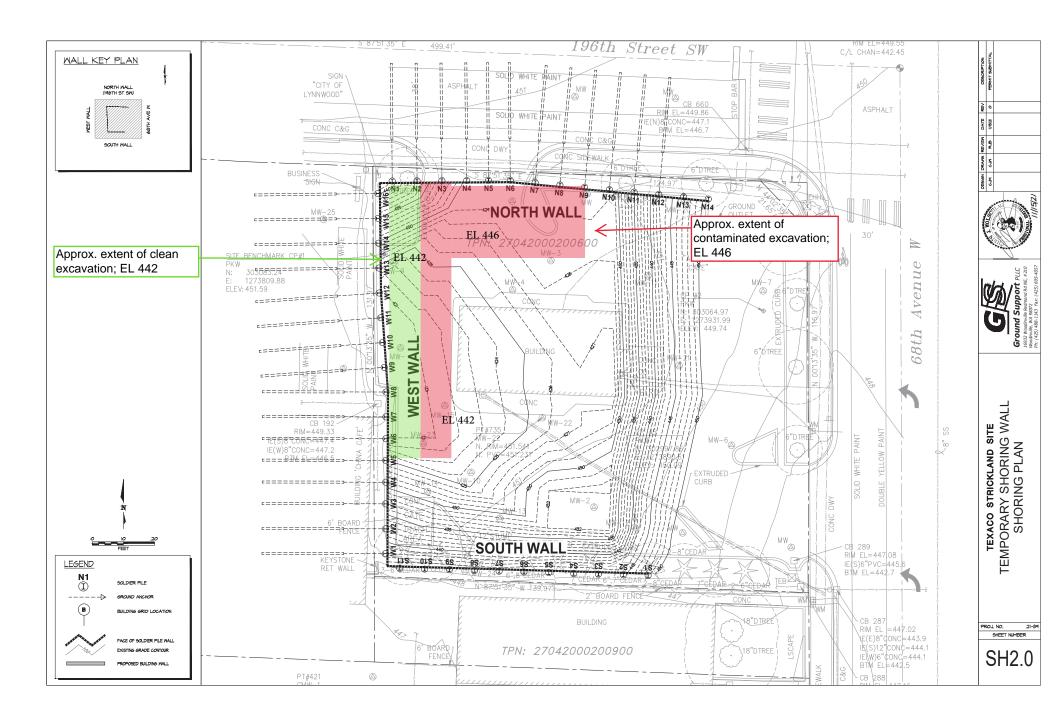
# PHOTOS:



Photo 1: West Sidewall facing South



Photo 2: North Sidewall facing West



# SAMPLE CHAIN OF CUSTODY

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Friedman & Bruya, Inc Ph. (206) 285-8282

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Project #:	160311
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	9/29/2022



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
West Wall	W1, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W2, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W3, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

Color Code
Installed Today
Installed Previously
Started/Attempted

Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes		
East Wall	E1	8/30/2022	8:10	9:20	36	33	W24x162	35	Brown silty sand to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Rock/boulder encountered at 12' bgs that required coring. Boulder encountered at 15' bgs.		
East Wall	E2	8/29/2022	1:30	2:00	36	33	W24x162	35	Drilled through previously-placed CDF to 17' bgs; gray silty sand with gravel (glacially consolidated soil) from 17' bgs to bottom of shaft.		
East Wall	E3	8/30/2022	11:05	11:25	36	33	W24x162	35	Brown silty sand to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.		
East Wall	E4	8/25/2022	11:20	11:50	36	33.5	W24x162	35	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) bottom of shaft.		
East Wall	E5	8/29/2022	11:35	12:15	36	35	W24x162	35.5	Brown silty sand to 12° bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Boulder encountered at 14° bgs.		
East Wall	E6	8/29/2022	11:05	11:25	36	35	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.		
East Wall	E7	8/29/2022	10:40	11:00	36	35	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.		
East Wall	E8	8/25/2022	12:05	12:45	36	35	W24x162	36.5	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.		
East Wall	E9	8/25/2022	10:15	10:35	36	35	W24x162	36.5	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.		
East Wall	E10	8/25/2022	1:00	1:30	36	35	W24x162	36.5	~12' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.		
East Wall	E11	8/25/2022	9:30	10:00	36	35.5	W24x162	37	~12' of brown silty sand and sandy silt over gray silty sand, sandy silt, and clay (glacially consolidated soil) to bottom of shaft.		
East Wall	E12	8/29/2022	8:50	10:20	36	35	W24x162	37	Brown silty sand to 12° bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Boulder encountered at 13° bgs and groundwater seepage at 17° bgs.		
East Wall	E13	8/29/2022	8:05	8:40	36	36	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.		

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

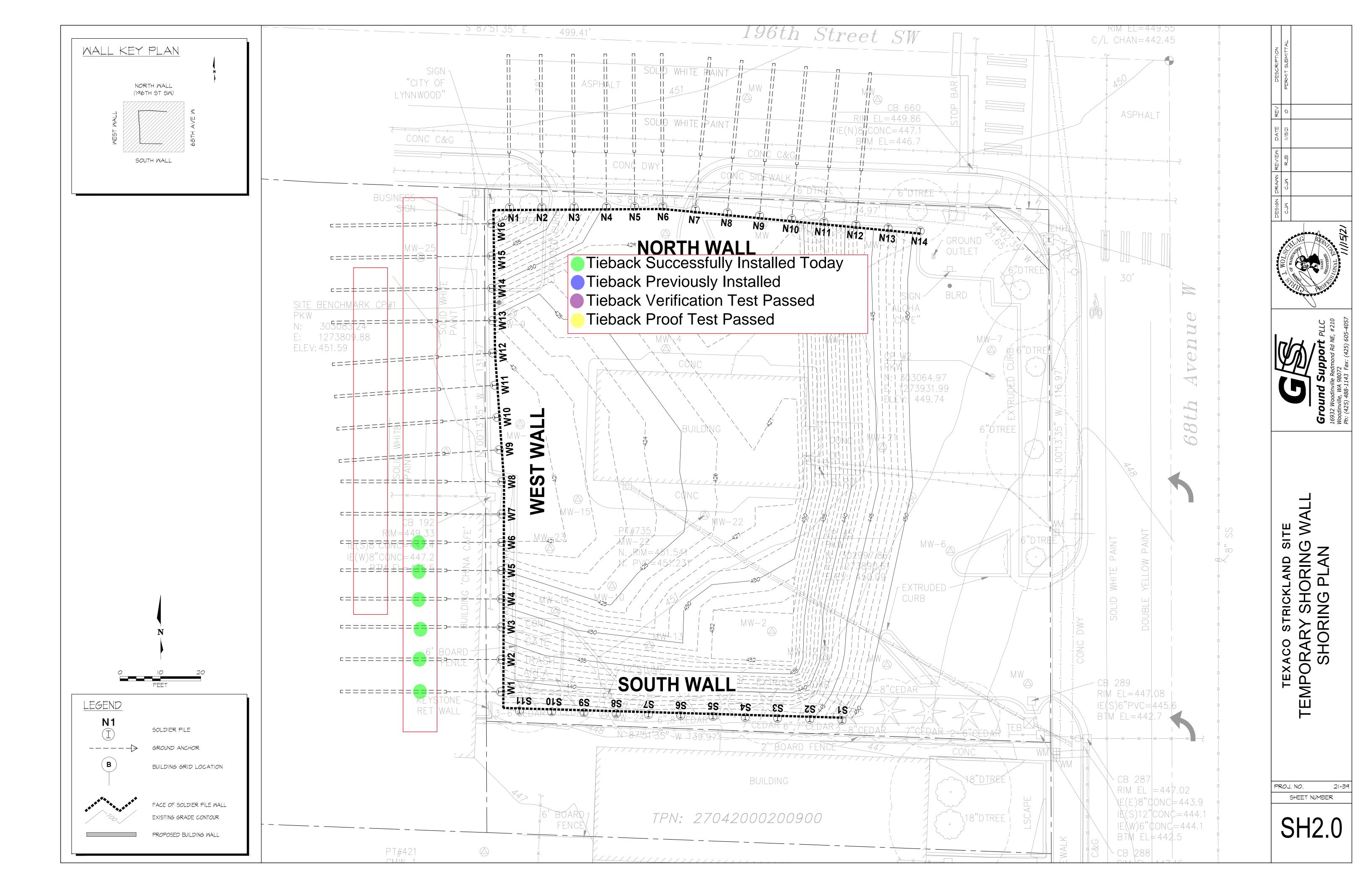
Color Code	
Installed Today	
Installed Previously	
Started/Attempted	

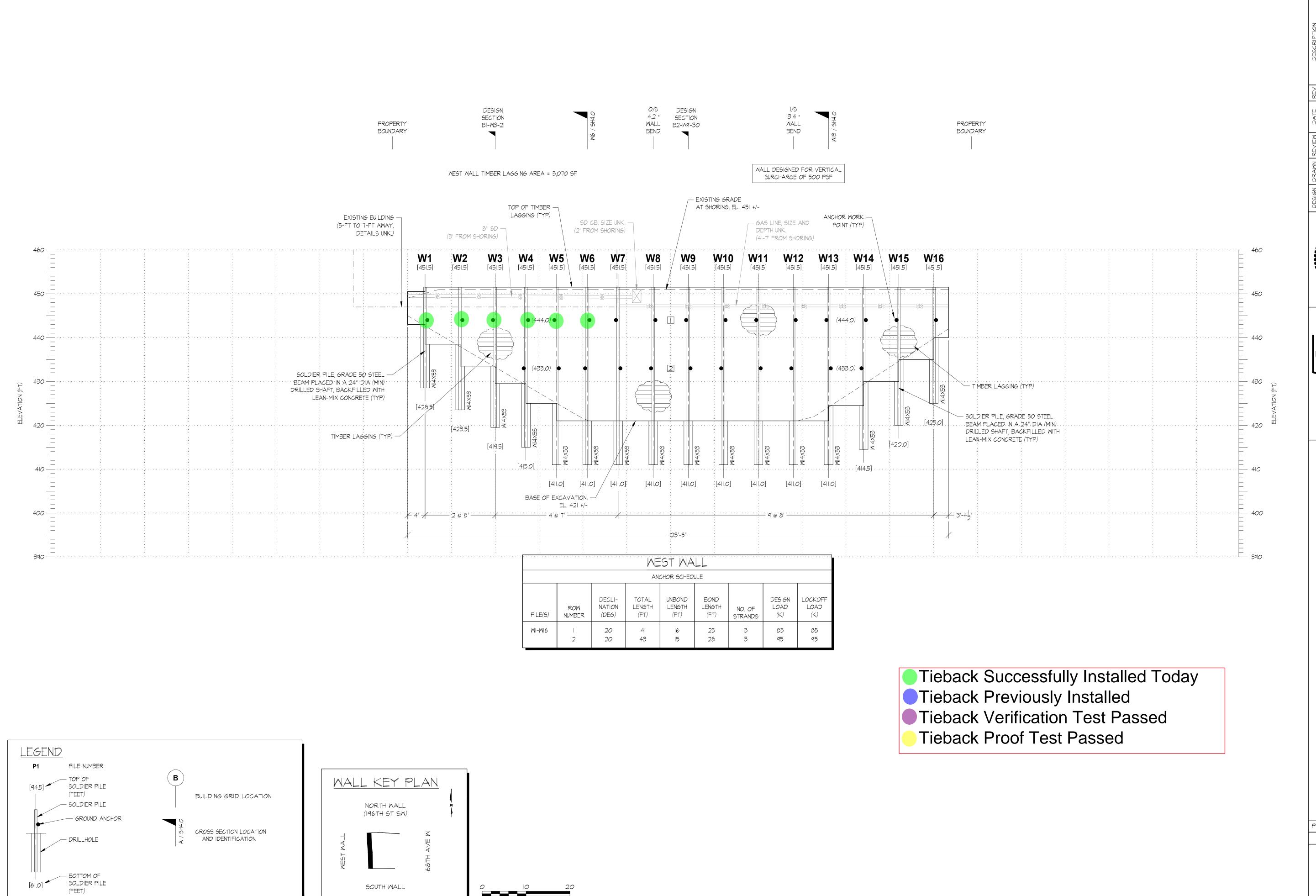
Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North Wall	N1	8/23/2022	8:00	8:45	36	36	W24x162	37.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N2	8/24/2022	8:06	8:38	36	35	W24x162	37	12° of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.  Relic tieback encountered.
North Wall	N3	8/23/2022	8:45	9:30	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N4	8/24/2022	8:45	9:09	36	35	W24x162	37	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N4A	8/23/2022	9:30	10:10	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N5	8/24/2022	9:12	9:36	36	31	W24x162	32.5	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N6	8/23/2022	10:10	10:50	36	31	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N7	8/24/2022 - 8/25/2022	8:05	8:30	36	31.5	W24x162	33	boulder at ~6 ft bgs cored through on 8/24 (3:20pm-4:30pm); Kulchin resumed drilling on 8/25; 13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N8	8/23/2022	10:50	11:30	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N9	8/24/2022	10:00	10:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N10	8/23/2022	11:30	12:05	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N11	8/24/2022	11:40	12:37	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N12	8/23/2022	12:05	12:40	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N13	8/24/2022	10:58	11:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N14	8/23/2022	12:40	1:15	36	31.5	W24x162	32.5	brown silty sand with gravel and cobbles to "15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N15	8/29/2022	12:30	1:00	36	31	W24x162	33.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.

Project #:	160311					
Project Name: AC Yale Hotel						
Task:	Inspection of Temporary Shoring Installation					
Date:	9/2/2022					

Color Code
Installed Today
Installed Previously
Started/Attempted

Shoring Wall	Vertical Element ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South Wall	S1	9/2/2022	11:55	12:20	36	23	W10x112	22.5	Brown silty sand/sandy silt to 10' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S2	9/1/2022	14:16	14:41	36	24	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$3	9/2/2022	11:18	11:33	36	23	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S4	9/1/2022	13:35	13:53	36	23	W10x112	22.5	Brown silty sand to 11' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes wet at 18' bgs.
South Wall	S5	9/2/2022	10:45	11:00	36	23	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$6	9/1/2022	13:00	13:20	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Seepage observed at 13' bgs. Becomes wet at 17' bgs.
South Wall	S7	9/2/2022	9:58	10:14	36	25	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$8	9/1/2022	11:57	12:24	36	29	W10x112	29	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S9	9/2/2022	9:16	9:49	36	30	W10x112	29	Brown silty sand/sandy silt to 15' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S10	9/1/2022	11:17	11:40	36	29.5	W10x112	29	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S11	9/2/2022	8:44	9:07	36	30	W10x112	29	Brown silty sand/sandy silt to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S12	9/1/2022	10:49	11:05	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S13	9/2/2022	8:13	8:33	36	23	W10x112	22.5	Brown silty sand/sandy silt to 14' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback encountered at $21'$ bgs.
South Wall	S14	9/1/2022	10:17	10:35	36	23	W10x112	22.5	Brown silty sand to $12^{\circ}$ bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes wet at $19^{\circ}$ bgs.
South Wall	S15	8/31/2022	3:20	3:40	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes very moist at 17' bgs.
South Wall	S16	9/1/2022	9:43	9:59	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S17	8/31/2022	2:10	2:50	36	24	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes very moist at 19' bgs.





SOUTH WALL





TEXACO STRICKLAND SITE
TEMPORARY SHORING W
WEST ELEVATION

PROJ. NO. SHEET NUMBER

SH3.1



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
09/30/2022	0650	1430	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
71 F, Wind to the west			
EQUIPMENT AND CALIBRATION:	MiniRae Lite PID:	100.0 ppm	

Bo Ward and Daniel Babcock of Aspect Consulting (Aspect) were onsite today to observe tie-back installation by Kulchin Foundation Drilling (Kulchin) and document soil excavation and export by Rivers Edge Environmental Services (REES) as part of the ongoing cleanup activities at the Texaco Strickland project. The following is a summary of Aspect's observations:

### Clean Soil Excavation

No clean soil excavation conducted today.

#### **Contaminated Soil Excavation**

REES excavated the northern section of the site today from approximately elevation (EL) 451 to approximately 444.5 between NO9 and N14 and between W14 to the northern sidewall (W16). Field screening, consisting of visual and olfactory observations and PID readings, indicated more contaminated excavation is necessary both laterally and vertically in these areas. PID readings from soil excavated in these areas ranged from 21 parts per million (ppm) to 1550 ppm. Numerous empty broken pipes were removed from the northern section of the site during excavation. These pipes were located in the former pump island and are believed to have been product conveyance piping left behind after pump island removal. Contaminated soil was direct loaded into trucks for off-site disposal.

#### Soil Transportation For Disposal

Concrete debris excavated from the slab and footings of the building was transported to Rainier Wood and Recycling facility in 4 truckloads (side dump and truck & trailer).

Contaminated soil excavated from the western and northern sections of the site was transported to Cadman's Class III facility in 8 truckloads (side dump and truck & trailer)

#### **Geotech Activities**

#### Tieback Anchor Installation:

Kulchin installed twelve tiebacks today, N1/R1, N2/R1, W7/R1, W8/R1, W9/R1, W10/R1, W11/R1, W12/R1, W13/R1, W14/R1, W15/R1, W16/R1.

Drilled shafts today consisted of 6-inch-diameter shafts at least as long as the design tieback length as specified on the plans. Shafts were drilled using an air rotary drill rig with a 5-inch-diameter bit and 6-inch, outer-diameter steel casings. The drill stem angle was set in accordance with the plans using a magnetic angle finder prior to drilling. Aspect documented the soil conditions for each shaft by observing the spoils during drilling. Additional tieback details and remarks can be found in the Tieback Installation summary (Figure 1).



In general soils throughout the drilled shafts consisted of slightly moist, gray, gravelly sand and soils (till). The soil conditions were substantially consistent with the conditions we assumed for our design recommendations provided in our geotechnical engineering report dated January 24, 2020.

Tieback tendons installed today consisted of three 0.5-inch-diameter steel strand cable wire tied together with a section of PVC pipe of the same length. Steel strands were separated from each other over the planned bonded section of the tendon with plastic spacers set at a minimum of 3 feet from either end of the bonded section and approximately 5 feet spacing in-between. In the unbonded section, steel strands were cased in PVC. The entire tendon had 6-inch-diameter PVC spacers set at a minimum of 3 feet from the down-hole end of the tendon and spaced at approximately 5 feet over the entire length of the tendon. Tieback tendons were manually pushed down the drilled shaft and protruded from the hole approximately 3 feet.

Following tieback tendon installation, Kulchin pumped the shaft full of clean grout using a grout pump and long PVC tremie pipe. As steel casings were removed, Kulchin topped the drilled shaft off with grout. Grout was mixed at a 20 per cubic yard ratio. Grout volume being pumped into the hole was measured in bags of mix used.

## Timber Lagging:

Kulchin lagged the northern sidewall of the site from NO3 to N14 with timber boards.

# Dewatering:

No dewatering occurred today. All excavations are above the water table and no stormwater was collecting at the sump.

### Shoring Performance Monitoring:

The surveyor is scheduled to be taking measurements of displacement at monitoring points on at least every other pile twice a week. Plots of the shoring displacement will be attached to the final daily field report for the week, once received.

#### **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

#### Other On-site Activities

The compressor was swapped for a new, working compressor.

REES began demo of the former Aloha Café building's slab & footings. The slab and footings were broken apart and any material that was not exported for disposal off-site was stockpile in the center of the site and will be loaded out on Monday (10/3).

Ada and Eric (Arcadis) were on-site today to observe the progress of the project.

#### **Discussions**

Garrett (REES) and Daniel (Aspect) discussed the schedule moving forward. Garrett anticipates excavating and exporting soil between the north wall bench and the former building footprint on Monday. Aspect informed Garrett of the chance of encountering a Underground Storage Tank (UST) during this excavation and to be prepared for that.



The following attachments are included:

### DAILY FIELD REPORT

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to the attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Sample Name Soil Type		PID (ppm)	Sheen *	Odor
SW-N04-447	Fill	Sidewall	12.4	NS	SIt HC Odor
SW-N07-447	Fill	Sidewall	50.1	SS	Str HC Odor
SW-N10-447	Fill	Sidewall	101.6	MS	Str HC Odor
SW-N12-447	Fill	Sidewall	52.5	SS	Str HC Odor
SW-N14-447	Fill	Sidewall	21.2	NS	Mod HC Odor

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

Site Photos	
□ Laboratory Chain-of-Custody Form	
☐ Shoring Inspection Form	
⊠Tieback Installation Form	
☐ Tieback Testing Form	
⊠Tieback Inspection Figures⊠ Site Map	
☐ Other:	
⊠ DRAFT	PREPARED BY:
	Bo Ward and Daniel Babcock
□ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer



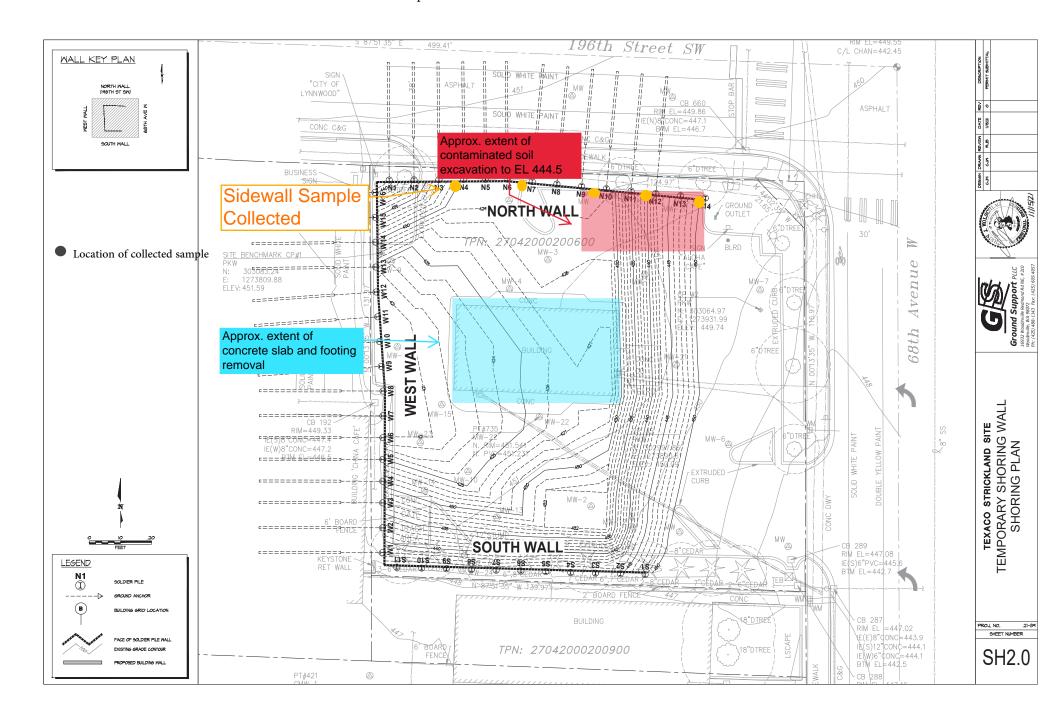
# PHOTOS:



Figure 1 REES removing slab and footing of former building



Figure 2 Northern sidewall benched and lagged



# SAMPLE CHAIN OF CUSTODY

im Alada	- 4 2		SAMPLI	ERS (signo	iture)									-		#of	
Company Nove 1 100 1 100 Address  City, State, ZIP  Phone 316 617 0409 Email Hother to coper town of your				PROJECT NAME					PO#					□ R	TURNAROUND TIME  Standard turnaround RUSH Rush charges authorized by:		
				REMARKS				INVOICE TO						SAMPLE DISPOSAL  Archive samples Other Default: Dispose after 30 day			
									1	ANA	LYSI	S R	EQUE	STED		C	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars		NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEXN 8260			Notes	s
911- NOZ- 447		9/29/22	1140	Soil	5	Х	×						X				
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Friedman & Bruya, Inc Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
c. Relinquished by:	Take to Edward	AGO CON POLO	Vacta 2	(E)
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	Hoject #.	100511				
Project Name: Aloha Strickland						
	Task:	Inspection of Temporary Shoring Installation				
	Date:	9/29/2022				

coloi couc
Installed Today
Installed Previously
Started/Attempted

Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes	
West Wall	W1, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W2, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W3, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W4, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W5, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W6, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W7, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W8, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W9, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W10, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W11, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W12, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W13, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W14, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W15, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	W16, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	N1, Row 1	9/30/2022	6	42	19	26	20	3	Yes	grey silty sand over entire drill length (till).	
West Wall	N2, Row 1	9/30/2022	6	42	19	26	20	3	Yes	grey silty sand over entire drill length (till).	

Project #:	160311			
Project Name:	AC Yale Hotel			
Task: Inspection of Temporary Shoring Installation				
Date:	9/2/2022			

Color Code
Installed Today
Installed Previously
Started/Attempted

Shoring Wall	Vertical Element ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
South Wall	S1	9/2/2022	11:55	12:20	36	23	W10x112	22.5	Brown silty sand/sandy silt to 10' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S2	9/1/2022	14:16	14:41	36	24	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$3	9/2/2022	11:18	11:33	36	23	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S4	9/1/2022	13:35	13:53	36	23	W10x112	22.5	Brown silty sand to 11' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes wet at 18' bgs.
South Wall	S5	9/2/2022	10:45	11:00	36	23	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$6	9/1/2022	13:00	13:20	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Seepage observed at 13' bgs. Becomes wet at 17' bgs.
South Wall	S7	9/2/2022	9:58	10:14	36	25	W10x112	22.5	Brown silty sand/sandy silt to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	\$8	9/1/2022	11:57	12:24	36	29	W10x112	29	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S9	9/2/2022	9:16	9:49	36	30	W10x112	29	Brown silty sand/sandy silt to 15' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S10	9/1/2022	11:17	11:40	36	29.5	W10x112	29	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S11	9/2/2022	8:44	9:07	36	30	W10x112	29	Brown silty sand/sandy silt to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S12	9/1/2022	10:49	11:05	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S13	9/2/2022	8:13	8:33	36	23	W10x112	22.5	Brown silty sand/sandy silt to 14' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback encountered at 21' bgs.
South Wall	S14	9/1/2022	10:17	10:35	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes wet at 19' bgs.
South Wall	S15	8/31/2022	3:20	3:40	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes very moist at 17' bgs.
South Wall	S16	9/1/2022	9:43	9:59	36	23	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
South Wall	S17	8/31/2022	2:10	2:50	36	24	W10x112	22.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Becomes very moist at 15' bgs.

Project #:	160311				
Project Name:	AC Yale Hotel				
Task: Inspection of Temporary Shoring Installation					
Date:					

	Color Code
	Installed Today
	Installed Previously
	Started/Attempted

Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North Wall	N1	8/23/2022	8:00	8:45	36	36	W24x162	37.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N2	8/24/2022	8:06	8:38	36	35	W24x162	37	12° of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.  Relic tieback encountered.
North Wall	N3	8/23/2022	8:45	9:30	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N4	8/24/2022	8:45	9:09	36	35	W24x162	37	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N4A	8/23/2022	9:30	10:10	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N5	8/24/2022	9:12	9:36	36	31	W24x162	32.5	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N6	8/23/2022	10:10	10:50	36	31	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N7	8/24/2022 - 8/25/2022	8:05	8:30	36	31.5	W24x162	33	boulder at ~6 ft bgs cored through on 8/24 (1:20pm-4:30pm); Kulchin resumed drilling on 8/25; 13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N8	8/23/2022	10:50	11:30	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N9	8/24/2022	10:00	10:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N10	8/23/2022	11:30	12:05	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N11	8/24/2022	11:40	12:37	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N12	8/23/2022	12:05	12:40	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N13	8/24/2022	10:58	11:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N14	8/23/2022	12:40	1:15	36	31.5	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N15	8/29/2022	12:30	1:00	36	31	W24x162	33.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

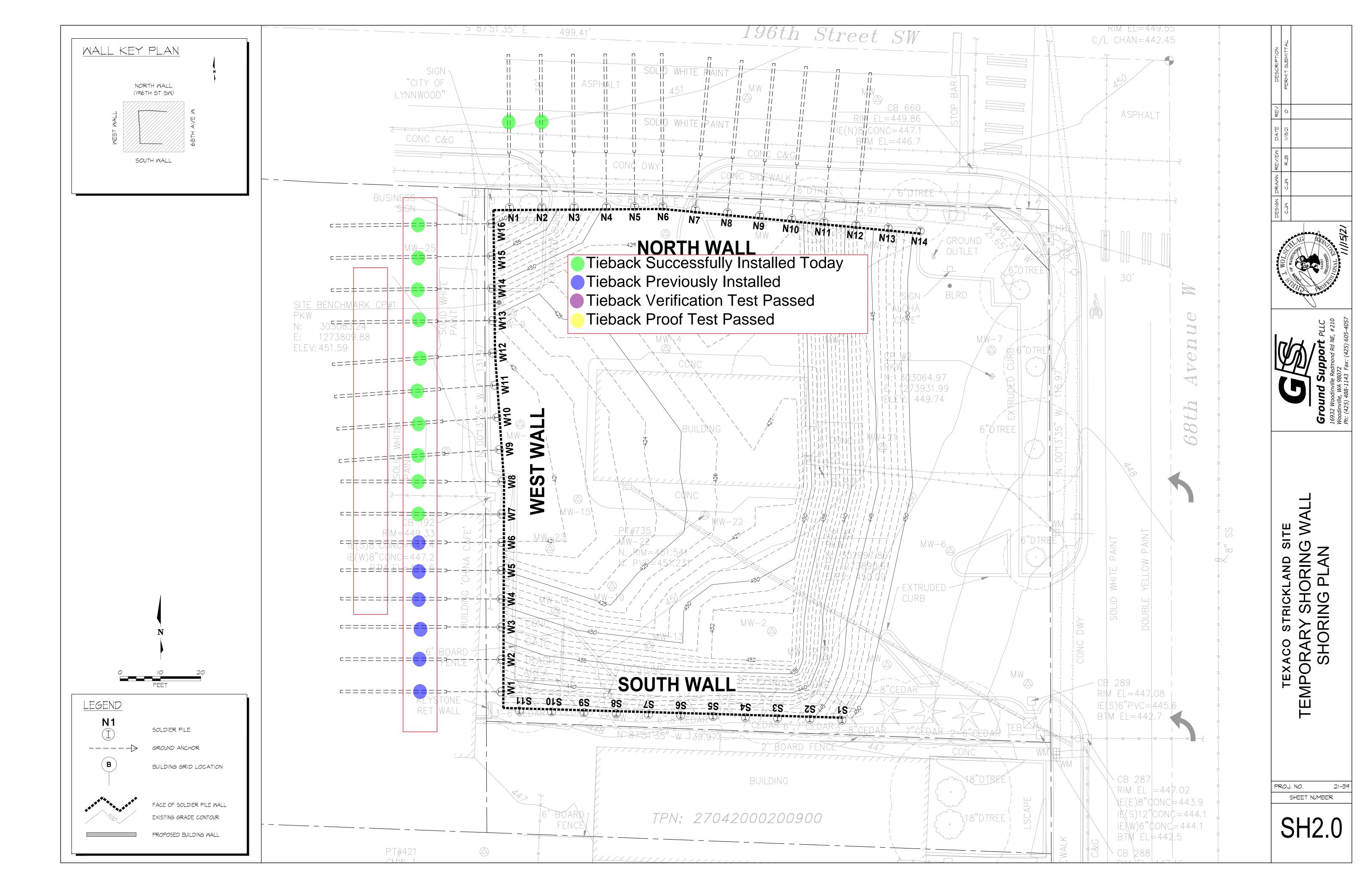
Color Code
Installed Today
Installed Previously
Started/Attempted

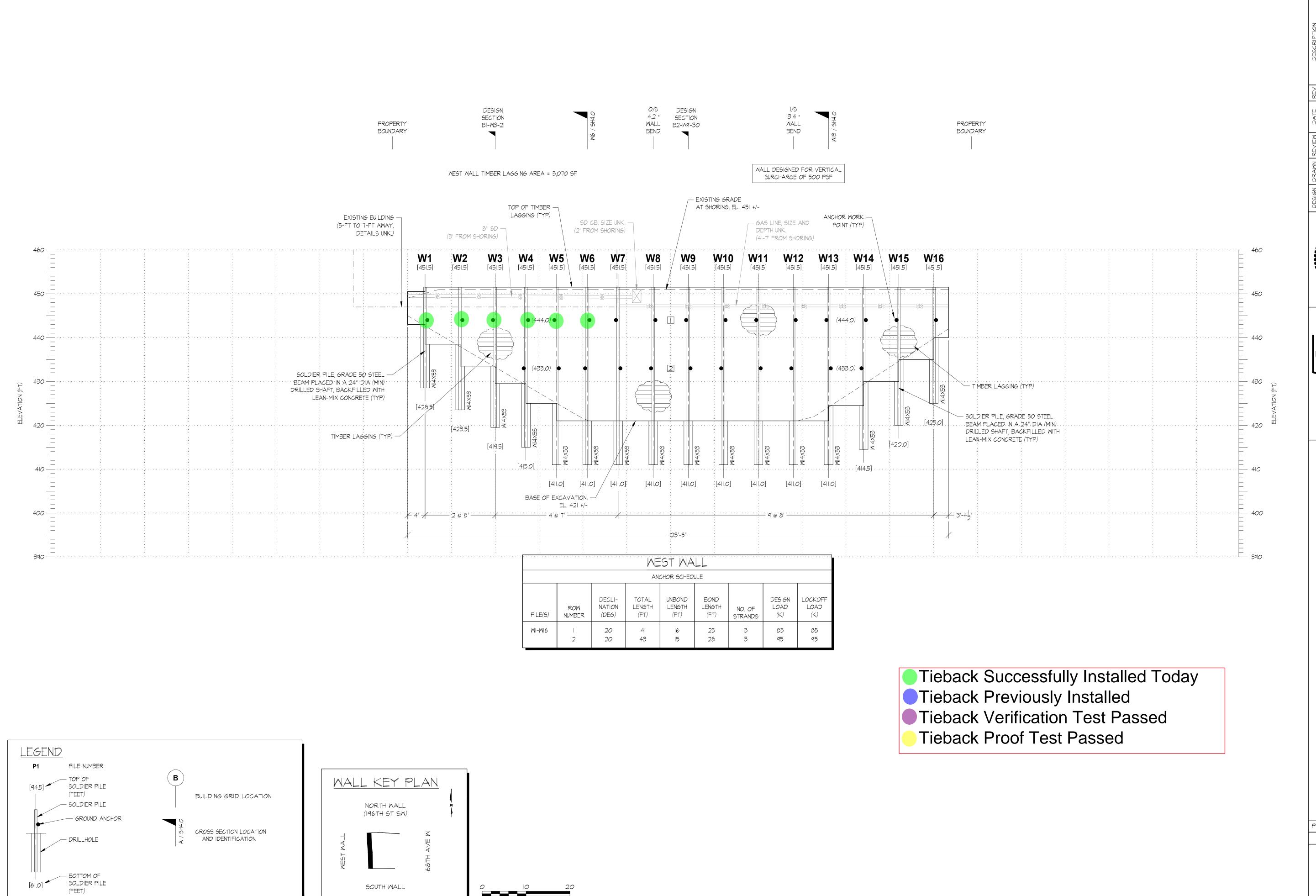
Shorin	ng Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
East	Wall	E1	8/30/2022	8:10	9:20	36	33	W24x162	35	Brown silty sand to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Rock/boulders encountered at 12' bgs that required coring. Boulder encountered at 15' bgs.
East	Wall	E2	8/29/2022	1:30	2:00	36	33	W24x162	35	Drilled through previously-placed CDF to 17' bgs; gray silty sand with gravel (glacially consolidated soil) from 17' bgs to bottom of shaft.
East	Wall	E3	8/30/2022	11:05	11:25	36	33	W24x162	35	Brown silty sand to 13' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
East	Wall	E4	8/25/2022	11:20	11:50	36	33.5	W24x162	35	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
East	Wall	E5	8/29/2022	11:35	12:15	36	35	W24x162	35.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Boulder encountered at 14' bgs.
East	Wall	E6	8/29/2022	11:05	11:25	36	35	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
East	Wall	E7	8/29/2022	10:40	11:00	36	35	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
East	Wall	E8	8/25/2022	12:05	12:45	36	35	W24x162	36.5	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
East	Wall	E9	8/25/2022	10:15	10:35	36	35	W24x162	36.5	~13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
East	Wall	E10	8/25/2022	1:00	1:30	36	35	W24x162	36.5	~12' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
East	Wall	E11	8/25/2022	9:30	10:00	36	35.5	W24x162	37	~12' of brown silty sand and sandy silt over gray silty sand, sandy silt, and clay (glacially consolidated soil) to bottom of shaft.
East	Wall	E12	8/29/2022	8:50	10:20	36	35	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Boulder encountered at 13' bgs and groundwater seepage at 17' bgs.
East	Wall	E13	8/29/2022	8:05	8:40	36	36	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

Color Code	
Installed Today	
Installed Previously	
Started/Attempted	

Shoring Wall	Vertical Element ID	Installation Date	Drill Start Time	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
West Wall	W1	8/30/2022	4:05	4:40	36	34.5	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
West Wall	W2	8/31/2022	12:00	12:35	36	33.5	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
West Wall	W3	8/30/2022	3:20	3:45	36	34.5	W24x162	37	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback encountered at 23' bgs.
West Wall	W4	8/31/2022	12:45	1:20	36	33.5	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tiebacks at 10' and 22' bgs.
West Wall	W5	8/30/2022	2:50	3:10	36	34	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
West Wall	W6	8/31/2022	11:15	11:50	36	33.5	W24x162	36.5	Brown silty sand to 14' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
West Wall	W7	8/30/2022	1:55	2:35	36	34.5	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback encountered at 10' bgs
West Wall	W8	8/31/2022	9:55	11:00	36	35	W24x162	36.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback at 24' bgs.
West Wall	W9	8/30/2022	1:20	1:45	36	34	W24x162	36	Brown silty sand to 14' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.
West Wall	W10	8/31/2022	9:20	9:45	36	35	W24x162	36	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tiebacks at 9' and 17' bgs.
West Wall	W11	8/30/2022	12:30	1:05	36	34	W24x162	36	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Relic abandoned tieback encountered at 9' and 17' bgs. Boulder encountered at 12' bgs.
West Wall	W12	8/31/2022	8:15	9:10	36	35	W24x162	37.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft. Boulder at 3' bgs. Relic abandoned tiebacks at 9' and 17' bgs.
West Wall	W13	8/30/2022	11:40	12:20	36	35.5	W24x162	37.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.





SOUTH WALL





TEXACO STRICKLAND SITE
TEMPORARY SHORING W
WEST ELEVATION

PROJ. NO. SHEET NUMBER

SH3.1



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/03/2022	0650	1515	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
77 F, Wind NW, no precip, s	unny		
EQUIPMENT AND CALIBRATION:	MiniRae LIte PI	D: 100.1 ppm	

Ashley Provow, Matthew von der Ahe, and Bo Ward of Aspect Consulting (Aspect) were onsite today to document the excavation and export of contaminated soil by Rivers Edge Environmental Services (REES) and to test tiebacks installed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

### Clean soil Excavation

No clean soil was excavated today.

### **Contaminated Soil Excavation**

REES excavated the northern side of the site from pile NO3 to N14, southward from the north wall (W16) to approximately W12, to approximate elevation 442 feet (ft). Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings of up to 500 parts per million (ppm). Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

### Soil Transportation For Disposal

Contaminated soil was exported on 3 trucks (truck and trailer and side-dump) in 12 loads to Cadman's Class 3 facility.

Two trucks (truck and trailer and side dump) of concrete were exported to Rainier Wood and Recycling facility.

## **Geotech Activities**

Soldier Pile Installation

No piles installed today.

#### **Shoring Wall Installation**

No shoring installed today.

#### Tieback Testing

Tiebacks W-1 through W-12 were proof tested today for competency. W-6 was 200 percent tested. All tiebacks passed proofing and were locked off at ~4000 pounds per square inch (psi; 85 kips).

# **Unanticipated Field Discoveries**

A previously known underground storage tank (UST) was uncovered in the northwestern area of the site. The UST is approximately 4 ft in diameter and 7 ft long and was filled with a clear watery liquid and primarily a dark brown slightly more viscous material that had a sweet, petroleum-like odor. The tank was heavily corroded but shows no evidence of rupturing prior to discovery. While uncovering the tank, the north end was clipped and punctured, and a small amount of the brown fluid spilled onto the ground. A berm was immediately created with soil to mitigate the spill. A soil sample of material impacted by the spill was taken to



determine what the fluid is to ensure proper disposal. Later in the day, the fluid was pumped out of the improvised retention area into a labeled tote. No spilled fluid was left in soil on the ground at the end of the day; all affected soil material was placed in the labeled tote.

#### **Discussions**

Ashley (Aspect) and Garrett (REES) discussed the plan for the day, which is to continue excavating contaminated soil on the north edge of the site to accommodate for soil nail drilling and to export Class 3 material and concrete.

Throughout the day Ashley (Aspect) communicated with Daniel (Aspect) and Eric (Arcadis) about the UST. Daniel was on site during the morning to document the UST.

## Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today. Refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
UST-100322	Native	Characterize	111.7	HS	НО
		spilled fluid			
SW-N02-442	Native	Sidewall	13.8	NS	NO
SW-N04-442	Native	Sidewall	25.3	NS	NO
SW-N07-442	Native	Sidewall	559	SS	MO/HO
SW-N10-442	Native	Sidewall	183.3	SS	S0
SW-N12-442	Native	Sidewall	398.4	SS	S0
SW-N14-442	Native	Sidewall	16.2	NS	NO

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The	following	attachments	are	included:

- □ Laboratory Chain-of-Custody Form
- ⊠ Site Map
- ☑ Other: Kulchin Cert. of Calibration

□ DRAFT	PREPARED BY: Ashely Provow, Staff Geologist
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



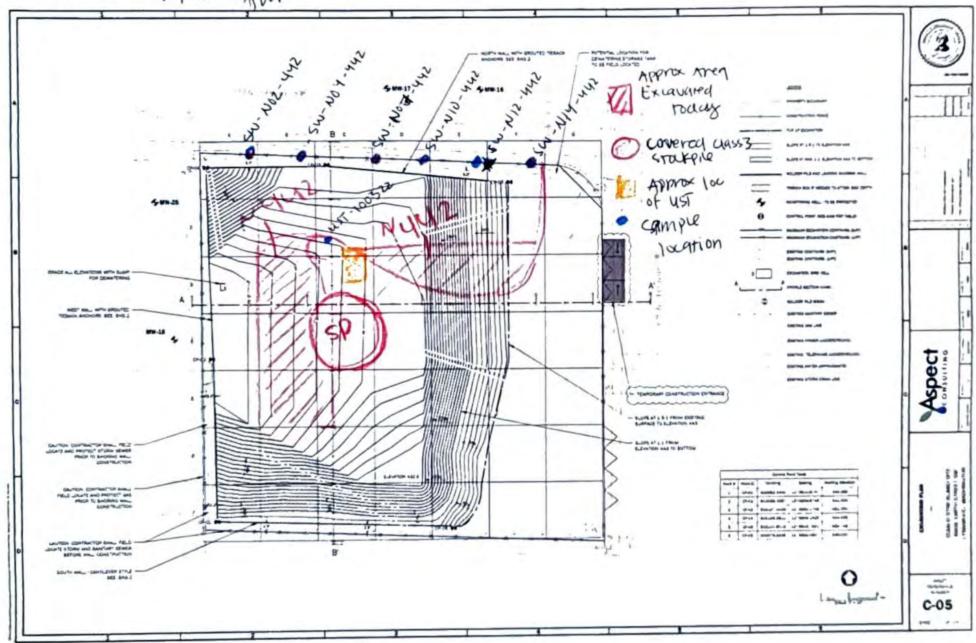


Figure 2. Photo of damage to UST.



Figure 2. Photo of tote following spill cleanup.

SITE MAR 10/3/22 JUB



Tieback ID: W-1 Equipment
Test Type: Proof Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Aspect Representative:
 MVA
 Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

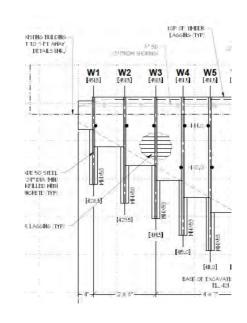
#### From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof	Proof Test Schedule						
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
psi	kips		minutes	inches			
	0	0%			ΑL		
1000	21	25%	_	0.384			
2000	42	50%	'nŧi	0.775			
3000	64	75%	Until Stable	1.172			
4000	85	100%	able	1.585			
5000	106	124%	ro .	2.103			
5400	114	134%	1	2.33			
			2	2.33			
			3	2.33			
			5	2.33			
			6	2.33			
			10	2.33			

0.000 Creep Deflection PASS

:		ME	ST WA	LL:	:		:
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3 3	85 45	85 45



Tieback Info

Lock-Off Load:

 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Aspect Representative:
 MVA
 Pressure Gauge: Wika 213.53

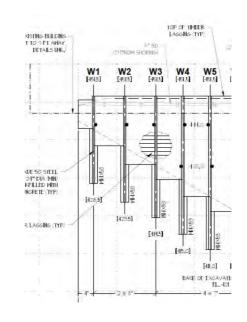
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof	Proof Test Schedule						
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
psi	kips		minutes	inches			
	0	0%			ΑL		
1000	21	25%	_	0.424	l		
2000	42	50%	Jnti	0.83	l		
3000	64	75%	Until Stable	1.282	l		
4000	85	100%	abl	1.73	l		
5000	106	124%	TO TO	2.192	l		
5400	114	134%	1	2.432	l		
			2	2.432	l		
			3	2.472	l		
			5	2.472	l		
			6	2.472	l		
			10	2.472	l		

0.040 Creep Deflection PASS

		ME	ST WA	LL			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3	85 45	85 45



85 kips

 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Aspect Representative:
 MVA
 Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

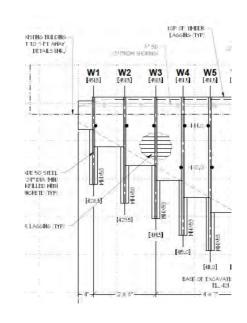
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof	Proof Test Schedule						
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
psi	kips		minutes	inches			
	0	0%			ΑL		
1000	21	25%	_	0.35	ĺ		
2000	42	50%	Jnti	0.59	ĺ		
3000	64	75%	Until Stable	1.14	ĺ		
4000	85	100%	a bie	1.48	ĺ		
5000	106	124%	TD .	1.86	ĺ		
5400	114	134%	1	2.018	ĺ		
			2	2.018			
			3	2.018			
			5	2.018			
			6	2.028			
			10	2.028			

0.010 Creep Deflection PASS

		ME	ST WA	LL.			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3 3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder:
 Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump:
 SPX Power Team

MVA Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

From Calibration

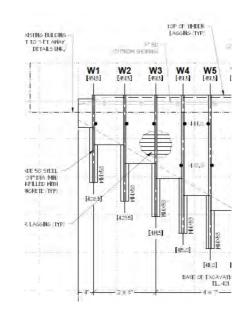
Slope, m 21.08 Y-Int, b 336.65 psi

Aspect Representative:

Proof	Proof Test Schedule									
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator						
psi	kips		minutes	inches						
	0	0%			ΑL					
1000	21	25%	_	0.265						
2000	42	50%	Until Stable	0.582						
3000	64	75%	l St	0.929						
4000	85	100%	abl	1.298						
5000	106	124%	TO CO	1.67						
5400	114	134%	1	1.851						
			2	1.851						
			3	1.851						
			5	1.851						
			6	1.856						
			10	1.856						

0.005 Creep Deflection PASS

		ME	ST WA	LL			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3 3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

MVA

Pressure Gauge: Wika 213.53

#### From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

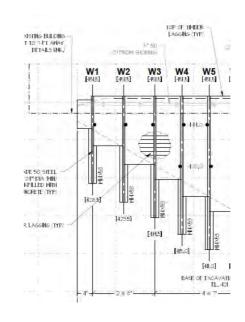
Aspect Representative:

		Tieback Info
3	3	# of Strands:
5 ft	25	Bonded Length:
6 ft	16	Unbonded Length:
5 kips	85	Design Load (DL):
<b>0</b> in	1.150	<b>Minimum Theoretical Deflection:</b>
<b>6</b> psi	4016	Lock-Off Pressure:
5 kips	85	Lock-Off Load:

Proof	Proof Test Schedule									
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator						
psi	kips		minutes	inches						
	0	0%								
1000	21	25%	_	0.326						
2000	42	50%	Until Stable	0.658						
3000	64	75%	- St	0.901						
4000	85	100%	abl	1.399						
5000	106	124%	TO TO	1.8						
5400	114	134%	1	2.196						
			2	2.196						
			3	2.196						
			5	2.196						
			6	2.205						
			10	2.205						

0.009 Creep Deflection PASS

		ME	ST WA	LL			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3	85 45	85 45



Tieback ID: Test Type: Date Tested:

Aspect Representative:

N-4 Verification 10/7/2022 MvA Equipment
Cylinder: Orbit ORDH100/6
Pump: SPX Power Team

Pressure Gauge: Wika 213.53

From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

	Verification Test Schedule								
Target Load	Tagret Gauge Pressure	Actual Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator			
kips	psi	psi	kips		minutes	inches			
AL	AL	300	7	7%	10	0			
22.5	1051	1000	21	24%	10	See Creep Test			
49.5	2332	2000	42	47%	10	See Creep Test			
67.5	3186	3000	64	71%	10	See Creep Test			
90	4253	4000	85	94%	10	See Creep Test			
112.5	5321	5000	106	117%	10	See Creep Test			
135	6388	6000	127	141%	60	See Creep Test			
157.5	7456	7000	148	164%	10	See Creep Test			
180	8523	8000	169	188%	10	See Creep Test			
157.5	7456	7150	151	168%	Until Stable	2.11			
135	6388	6000	127	141%	Until Stable	1.91			
112.5	5321	5000	106	117%	Until Stable				
90	4253	4000	85	94%	Until Stable	1.427			
67.5	3186	3000	64	71%	Until Stable	1.19			
45	2119	2000	42	47%	Until Stable	0.954			
22.5	1051	1000	21	24%	Until Stable	0.683			
AL	AL	0	0	0%	Until Stable	0.472			

			C	reep Tests							
	Dial Indicator (inches)										
Time (min)	25%	50%	75%	100%	125%	150%	175%	200%			
1	0.234	0.451	0.71	0.965	1.228	1.53	1.803	2.107			
2	0.234	0.451	0.71	0.963	1.228	1.529	1.8	2.107			
3	0.234	0.451	0.71	0.962	1.228	1.528	1.8	2.107			
5	0.234	0.451	0.71	0.962	1.228	1.528	1.8	2.106			
6	0.233	0.451	0.71	0.962	1.228	1.528	1.8	2.106			
10	0.233	0.451	0.71	0.962	1.228	1.528	1.8	2.106			
20								2.105			
30								2.105			
50								2.113			
60								2.114			
Creep (inches):	-0.001	0	0	-0.003	0	-0.002	-0.003	-0.001			

-0.002 Creep Deflection

PASS

Matan

	:			:					:	
1				ME	ST WA	LL				
İ	AlloHor SchlittliLt									
		mand	DEGLI-	TOTAL	UNBOND	BOND LEMETH		DESIGN	LOCKOFF	

6C. VERFICATION TESTS SHALL BE PERFORMED ON 2 ANCHORS PER SOIL TYPE ENCONTRETE. MELHOR TYPE USED OR NOTALLATION METHOD USED. VERFICATION ANCHORS OAK BE USED AS PRODUCTION ANCHORS IN THEY ARE ACCEPTAGE AS DETINED BELOW, THE VERFICATION TEST SHALL BE MADE BY INCREMENTALLY LOADING THE ANCHOR IN ACCORDANCE WITH THE TOLLOWING SCIENTEDILL.

OAD	HOLD TIME	LOAD	HOLD TIME	LOAD	HOLD TIME	

 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Aspect Representative:
 MVA
 Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

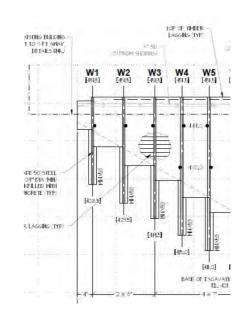
#### From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof	Proof Test Schedule								
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1				
psi	kips		minutes	inches					
	0	0%			ΑL				
1000	21	25%	_	0.372					
2000	42	50%	Until Stable	0.675					
3000	64	75%	l St	1.018					
4000	85	100%	abl	1.375					
5000	106	124%		1.746					
5400	114	134%	1	1.915					
			2	1.918					
			3	1.918					
			5	1.918					
			6	1.925					
			10	1.925					

0.010 Creep Deflection PASS

:		ME	ST WA	LL:	······································		: 
ANCHOR SCHEDULE							
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	41 43	16 15	25 28	3 3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder:
 Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump:
 SPX Power Team

10/3/2021 Pump: SPX Power Team MVA Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

From Calibration

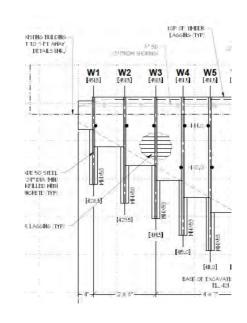
Slope, m 21.08 Y-Int, b 336.65 psi

Aspect Representative:

Proof					
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	ĺ
psi	kips		minutes	inches	
	0	0%			ΑL
1000	21	25%	_	0.355	
2000	42	50%	Until Stable	0.721	
3000	64	75%	1 St	1.116	
4000	85	100%	ab e	1.55	
5000	106	124%	10	2.009	
5400	114	134%	1	2.226	
			2	2.226	
			3	2.226	
			5	2.226	
			6	2.237	
			10	2.237	

0.011 Creep Deflection PASS

:		ME	ST WA	LL:	:		:
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder:
 Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump:
 SPX Power Team

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

 Aspect Representative:
 MVA
 Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

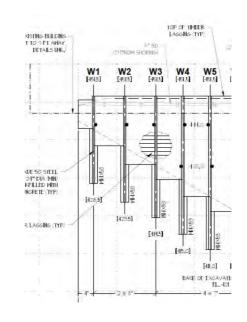
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof					
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
psi	kips		minutes	inches	
	0	0%			ΑL
1000	21	25%	_	0.272	
2000	42	50%	Jnti	0.616	
3000	64	75%	Until Stable	1.07	
4000	85	100%	abl	1.57	
5000	106	124%		2.096	
5400	114	134%	1	2.34	
			2	2.34	
			3	2.34	
			5	2.34	
			6	2.34	
			10	2.34	

0.000 Creep Deflection PASS

-		ME	ST WA	LL.			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	41 43	16 15	25 28	3 3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder:
 Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump:
 SPX Power Team

Aspect Representative: MVA Pressure Gauge: Wika 213.53

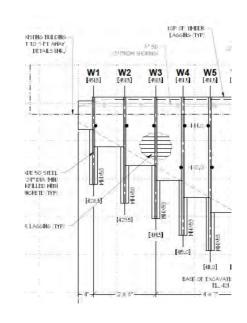
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof					
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1
psi	kips		minutes	inches	
	0	0%			Αl
1000	21	25%	_	0.329	
2000	42	50%	Until Stable	0.723	
3000	64	75%	St	1.143	
4000	85	100%	abl	1.579	
5000	106	124%	TO TO	2.076	
5400	114	134%	1	2.208	
			2	2.208	
			3	2.204	
			5	2.204	
			6	2.204	
			10	2.204	1

-0.004 Creep Deflection PASS

		ME	ST WA	LL	:		:
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3 3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

MVA

Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

From Calibration

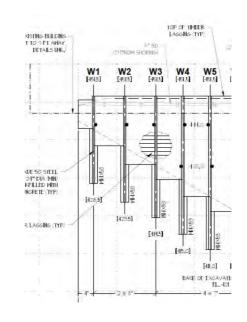
Slope, m 21.08 Y-Int, b 336.65 psi

Aspect Representative:

Proof	Test Sche	dule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
psi	kips		minutes	inches	
	0	0%			ΑL
1000	21	25%	_	0.309	
2000	42	50%	Until	0.704	
3000	64	75%	l St	1.125	
4000	85	100%	l Stable	1.569	
5000	106	124%	TO TO	2.03	
5400	114	134%	1	2.238	
			2	2.238	
			3	2.238	
			5	2.238	
			6	2.238	
			10	2.238	ı

0.000 Creep Deflection PASS

		ME	ST WA	TT.			
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
	20 20	4I 43	16 15	25 28	3	85 45	85 45



 Tieback ID:
 W-1
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/3/2021
 Pump: SPX Power Team

Aspect Representative: MVA Pressure Gauge: Wika 213.53

### From Calibration

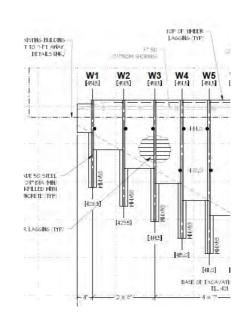
Slope, m	21.08	
Y-Int, b	336.65	p

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

Proof	Test Sche	dule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
psi	kips		minutes	inches	
	0	0%			ΑL
1000	21	25%	_	0.283	
2000	42	50%	Until Stable	0.668	
3000	64	75%	I St	1.086	l
4000	85	85 100%		1.536	l
5000	106	124%	(b	2.019	l
5400	114	134%	1	2.229	
			2	2.229	
			3	2.229	
			5	2.229	l
			6	2.229	
			10	2.229	

0.000 Creep Deflection
PASS

:		ME	ST WA	LL:	······································		:
		AN	CHOR SCHED	ULE			
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	LENGTH LENGTH NO. OF				LOCKOFF LOAD (K)
	20 20	4I 43	16 15			85 45	85 45



SAMPLI	CL	IAIN	OF	CHET	ODV
DAMPLI	101	1AIN	OF	CUST	ODY

eport To Alam & Thy	are strain		SAMPL	ERS (sign	ature)		-							7		Page	#	of	
Company Again (cos	119		1 222	CT NAME					18	] : :::	PO#			-11	□ RU	SH_char	d turnar	orized	by:
ity, State, ZIPEmaildenter de Cosportrossolt 19		- 8	REMARKS  Project specific RLs? - Yes / No					INVOICE TO					1 1	SAMPLE DISPOSAL Archive samples Other Default: Dispose after 30 d					
							_		- 1	ANA	LYSI	ES RI	EQU	ESTI	ED	_			
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	0.1	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	_		85		JULY - P. M. 1865				Notes	
J5T-100322	11/20	10/3/22	0855	50,1	5	X	X					×	X	×			ZL.h.	T47	-
1-102-442		1	1205		1	Х	X						X				todo		
W-104-442			1210			X	X						·x						
11-157-412		4	1215	$\vee$	4	χ	X	-			4	-	X					V	
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					A														
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Friedman & Bruya, Inc. Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	- Ishar	4. 4	10/12	1343
Received by:	FITTER DECEMBER	1.85	11/0/11	15.45
Relinquished by:				
Received by:				

# JACKING SOLUTIONS LLC

Rentals • Rebuilt Equipment • New Sales • Testing

## **Certificate of Calibration Report**

Certificate Number 359828638

**Information** 

Customer: Kulchin Foundation Calibrated Equipment

Contact: Andy RAM Manufacturer: Orbit

Model: ORDH100/6

Address: P.O. Box 99667 S/N KFD10001

Lakewood, WA. 98496 PUMP Manufacturer: n/a

Model:

Phone: 206-851-3422 S/N

Fax: GAUGE Manufacturer: Wika

Model: 213.53

S/N 918

## **Calibration Statistics**

Date: 4/21/2022 Time: 10:37 am

Temperature: 51 degrees

Humidity: 69 %

**Results** 

Pass?: Yes Seals OK?: Yes

Action Taken: n/a

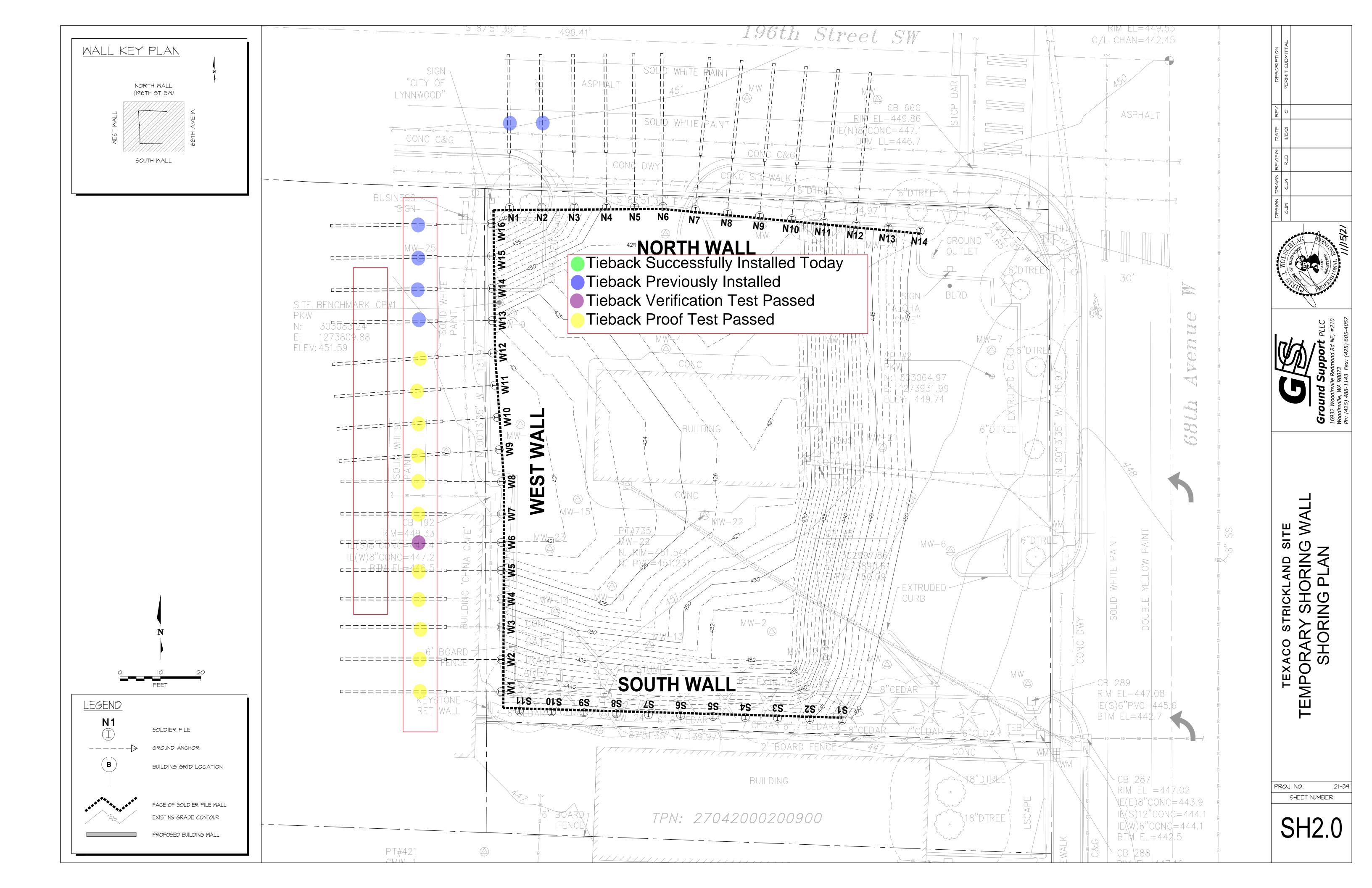
## **Standards used for Certification**

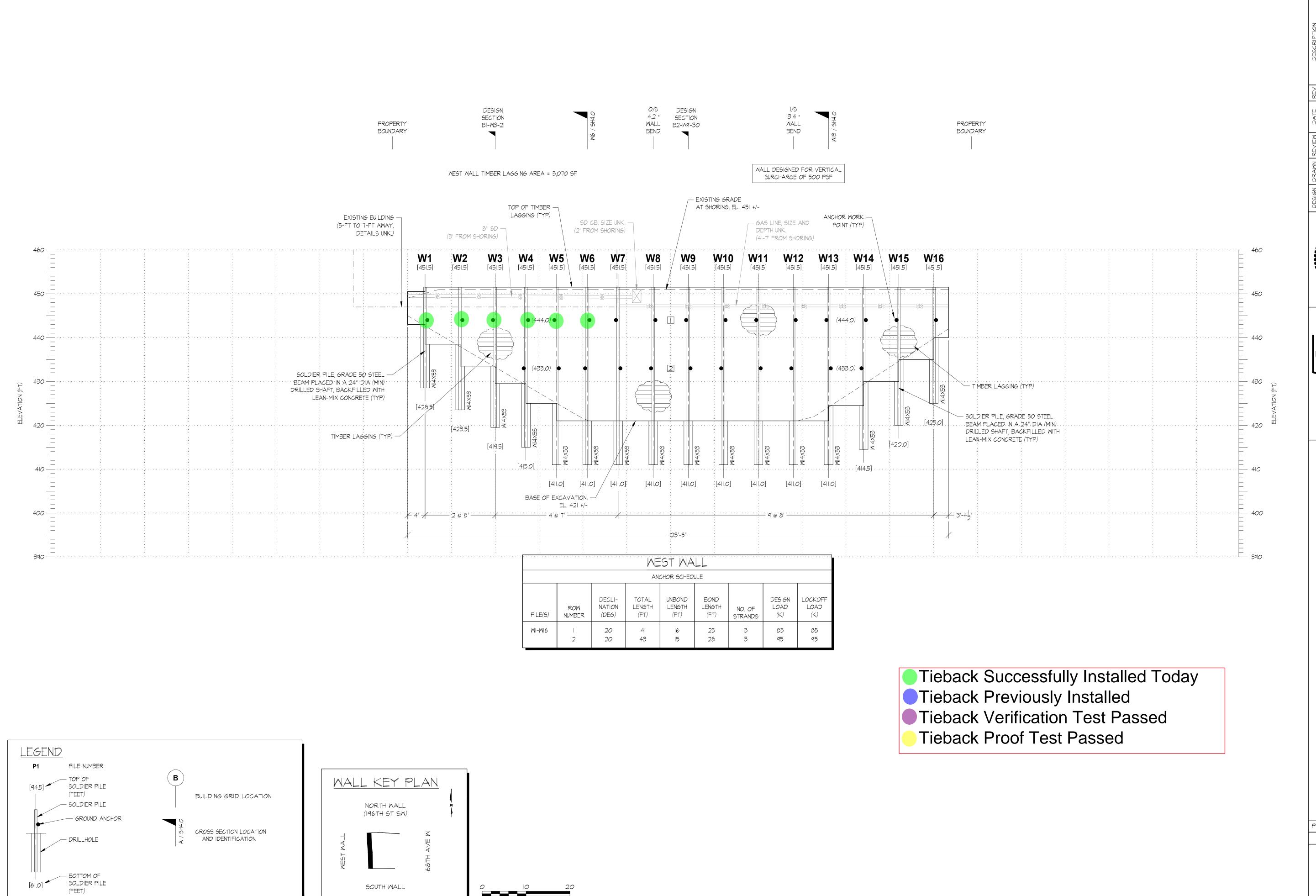
Manufacturer: National Scale Date of Calibration 04/27/2021

Model: 1100083-660 Next Calibration Due 04/27/2022

S/N 39451

Description: compression load cell





SOUTH WALL





TEXACO STRICKLAND SITE
TEMPORARY SHORING W
WEST ELEVATION

PROJ. NO. SHEET NUMBER

SH3.1



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:					
10/04/2022	0650	1515	180357					
PROJECT NAME:								
Texaco Strickland Site								
WEATHER:								
63 F, Foggy then cloudy, Wir	nd S							
EQUIPMENT AND CALIBRATION:	MiniRae Lite PID: 100	0.1 ppm						
		• •						

Ashley Provow and Kale Spina of Aspect Consulting (Aspect) was onsite today to document the export and excavation of contaminated soil by Rivers Edge Environmental Services (REES) and the installation of ground anchors (tiebacks) by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

## Non-Impacted soil Excavation

REES excavated nonimpacted soil in the southwest corner of the site from S10 to the western wall and from W01 to W06 from approximately elevation 442 feet (ft) to approximately elevation 438 ft. There was no field screening evidence of contamination observed in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was stockpiled for disposal at a later date. Additional vertical and lateral excavation is planned for this are, when accessible.

## **Contaminated Soil Excavation**

REES excavated the west wall area of the site to approximately elevation 438 ft from pile W09 to W14 to N5 and from W14 to the north wall and from the west all to N01. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 10 and several hundred ppm. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

## **Soil Transportation For Disposal**

Contaminated soil was exported on 6 trucks (truck and trailer and side-dump) in 28 loads to Cadman's Class 3 facility.

## Other On-Site Activities

Two underground storage tanks (USTs) were encountered today, a previously decommissioned in place UST (UST 2, Photo 1, 2) and one filled with a liquid that had a slight to moderate petroleum-like odor and heavy sheen (UST 3, Photo 3). UST 2 was found at approximately W10.5-N06; it was removed from this location in order for REES to continue digging and exporting contaminated soil. It is approximately 3.2 feet in diameter and 6.8 feet long and shows little evidence of corrosion.

UST 3 was not uncovered completely so its size is currently unknown but an inlet port was discovered at approximately W07-N09. The inlet port and what is uncovered of the tank is heavily corroded but appears otherwise undamaged. A PID reading of 289 parts per million (ppm) was obtained by putting the inlet of the PID into the tank just enough that a hand could cover the rest of the hole and not allow the PID to touch the liquid.

The liquid in the tank fills almost to the top of the tank and was sampled using a peristaltic pump and taken to Friedman and Bruya, Inc to be analyzed before it can be pumped out completely. Tubing was placed approximately 1.5 feet into the tank and the liquid that was extracted was a yellow, watery substance with



trace brown sediment, up to approximately 1 mm in diameter. When the tubing was extracted some of it was stained with a viscous burgundy substance that stuck to the tubing in some places. This UST will remain in place until Thursday.

## **Unanticipated Field Discoveries**

There were no unanticipated discoveries today.

## **Geotech Activities**

### Tieback Installation

We observed Kulchin Foundation Drilling (Kulchin) drill and install tiebacks at soldier piles N-3, -4, -5, -6, -7, -8, -9. -10, -11, -and -12 (Photo 4). Details of individual tiebacks installed today are provided in the attached shoring installation form.

The tieback holes were drilled using a 6-inch-diameter bit at the approximate declination angle of 20 degrees from horizontal and to the lengths specified in the plans. Cuttings were flushed from the holes during drilling using compressed air. Within each completed drill hole, Kulchin placed the strand bundles (4-strand bundles were installed in N-4 and 3-strand bundles were installed in the other anchors) and a PVC post-grout tube. Centralizers spaced every 6 feet were placed on the strand bundles. The strand bundle was sheathed to create the specified unbonded length. The drill holes were grouted through a tremie tube until grout return was observed at the hole opening.

Based on our observations, we conclude the tiebacks were installed in accordance with the plans.

## **Tieback Proof Testing**

We oversaw proof testing of tiebacks W-13, -14, -15, -16 and N-1, -2. today. Details of these tiebacks are summarized below, and their locations are shown on the attached site plan.

Tieback	Test Type	# Strands	Design Load for Test (kips)	Lock Off Load (kips)
W-13	Proof	3	85	85
W-14	Proof	3	85	85
W-15	Proof	3	85	85
W-16	Proof	3	85	85
N-1	Proof	3	90	90
N-2	Proof	3	90	90

Load testing was completed with an Orbit ORDH100-6 Ram (S/N KFD10001), Owatonna Tool Co. Pump, and Wika 213.53 Gauge (S/N 918) (Photo 5). The system was calibrated by Jacking Solutions on April 21, 2022 (calibration report attached). One strain gauge was used to measure deflections at the head of the tiebacks.

The proof tests were conducted in accordance with the test schedule specified in the plans. For each proof test, the anchor was loaded in 25 percent increments up to 125 percent of the design load, followed by loading it to the final load increment of 133 percent of the design load. The load at each increment was held until it stabilized except for the 133 percent design load increment which was held for 10 minutes for monitoring creep.

The proof tests verified the tieback load-carrying capacity and adhesion values assumed for the design were achieved. The records for the anchors tested today are attached.



## Tieback Lock-Off

After each tieback was destressed following the proof test, it was stressed again and locked off at the specified design load. We verified the lift-off load was within approximately 5 percent of the design load.

## **Discussions**

Ada (Arcadis) stopped by the site to document the USTs that were discovered.

## Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
UST3-100422	UST 3 Liquid	Characterize liquid	289 (inside	M-HS	НО
			tank)		

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The following attachments are included in Aspect's field file:

- Site Photos
- □ Laboratory Chain-of-Custody Form

- **⊠**Tieback Testing Records
- ☑ Kulchin Drilling Certification
- ☐ Other:

□ DRAFT	PREPARED BY: Ashley Provow
⊠ FINAL	REVIEWED BY: Breeyn Greer, PE, Project Engineer (Environmental) Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



Photo 1. UST 2, just after discovery.





Photo 2. Label found on the side of UST 2.



Photo 3. Uncovered inlet of UST 3 with sample tubing showing the burgudy stain and material that sticks to the side of the tubing.

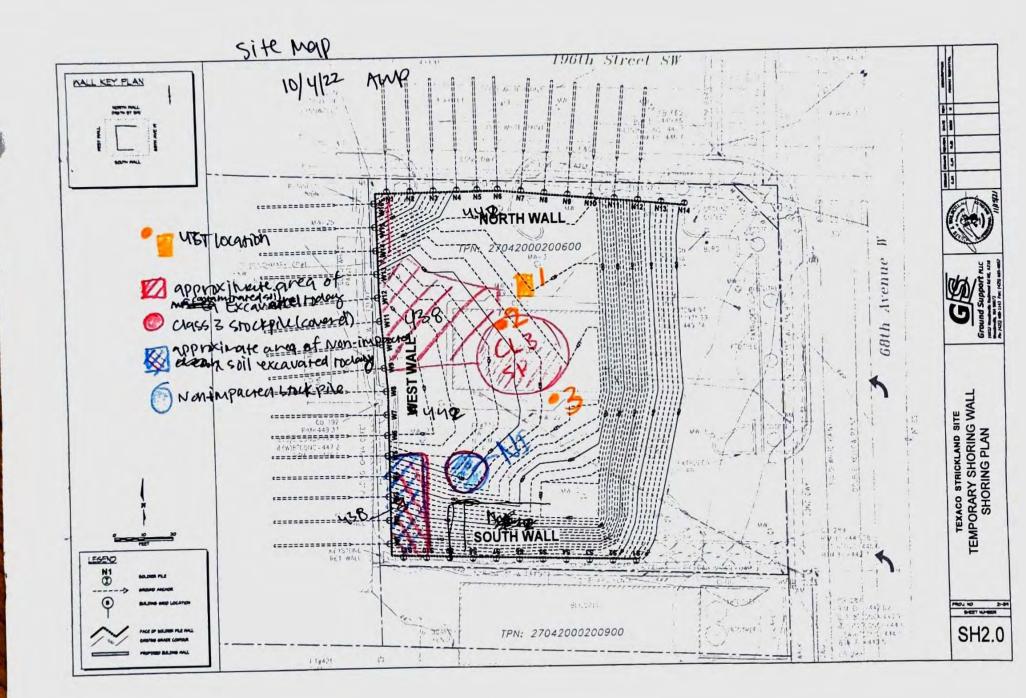




Photo 3: Drill rig positioned to drill the tieback in north wall



Photo 4: Rig setup to test tieback in west wall.



## SAMPLE CHAIN OF CUSTODY

Report To Asped Corsulting	SAMPLERS (signature)		Page # of TURNAROUND TIME
Company Andam and	PROJECT NAME	PO #	✓ Standard turnaround  ✓ RUSH 550 Nove 52 1174
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City, State, ZIP Segille, Wa	REMARKS	INVOICE TO	SAMPLE DISPOSAL Archive samples
PhoneEmail	Project specific RLs? - Yes / No		Other
		ANALYSES REQU	JESTED

4	-									ANA	LYS	ES R	EQU	ESTE	ED	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars		NWTPH-Gx	BTENA 8021	NWTPII-HCID	VOCs EPA 8260	PAHS EPA 8270	PCBKEPA 8082	R.K.A. BMMIS			Notes
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453-100422		10/4/22	1330	W	9	1	*	*				×				KRUSH FATE
24.5											j.	*-				
**												,				
												1.				
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Friedman & Bruya, Inc. Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Reinquished D-	Athen Prayau	Asseurancelling	14/22	1,52
Received by	Leu Yame	FRB	10/4/02	162
Relinquished by:	Or c /		/	
Received by:	×. 1			

	Project #:	160311				
Project Name: Aloha Strickland						
	Task: Inspection of Temporary Shoring Installation					
	Date:	10/4/2022				



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
North Wall	N1, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N2, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N3, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N4, Row 1	10/4/2022	6	42	15	26	20	4	Yes	grey silty sand over entire drill length (till).
North Wall	N5, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N6, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N7, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N8, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N9, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N10, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N11, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N12, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).

Project #:	160311
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	10/4/2022

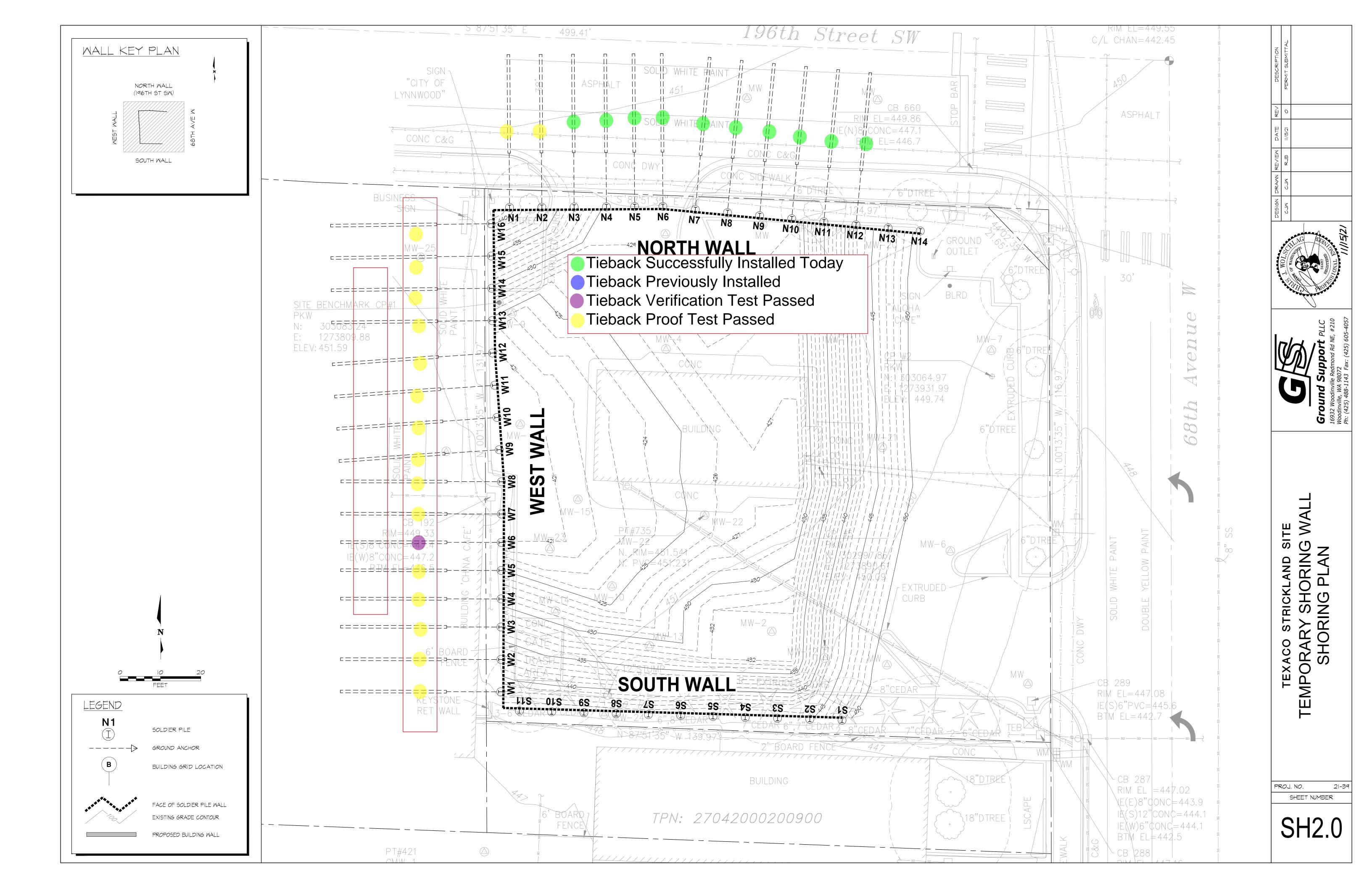


Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
West Wall	W1, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W2, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W3, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W7, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W8, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W9, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W10, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W11, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W12, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W13, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W14, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W15, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W16, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

Color Code	
Installed Today	
Installed Previously	
Started/Attempted	

Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North Wall	N1	8/23/2022	8:00	8:45	36	36	W24x162	37.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N2	8/24/2022	8:06	8:38	36	35	W24x162	37	12' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.  Relic tieback encountered.
North Wall	N3	8/23/2022	8:45	9:30	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N4	8/24/2022	8:45	9:09	36	35	W24x162	37	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N4A	8/23/2022	9:30	10:10	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N5	8/24/2022	9:12	9:36	36	31	W24x162	32.5	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N6	8/23/2022	10:10	10:50	36	31	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N7	8/24/2022 - 8/25/2022	8:05	8:30	36	31.5	W24x162	33	boulder at ~6 ft bgs cored through on 8/24 (1:20pm-4:30pm); Kulchin resumed drilling on 8/25; 13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N8	8/23/2022	10:50	11:30	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N9	8/24/2022	10:00	10:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N10	8/23/2022	11:30	12:05	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N11	8/24/2022	11:40	12:37	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N12	8/23/2022	12:05	12:40	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N13	8/24/2022	10:58	11:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N14	8/23/2022	12:40	1:15	36	31.5	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N15	8/29/2022	12:30	1:00	36	31	W24x162	33.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.



Rentals · Rebuilt Equipment · New Sales · Testing

4/21/2022

## **Calibration Results**

CYLINDER Manufacturer: Orbit

Model: ORDH100/6

S/N: **KFD10001** 

Effective Area 21.59

Certificate No: 359828638

Date: 4/21/2022

PUMP Manufacturer: n/a

Model: S/N: GAUGE

Manufacturer: Wika

Model: 213.53 S/N: 918

### **Test Data**

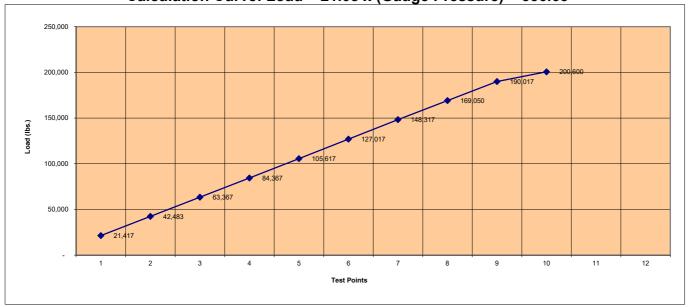
Tool Bata										
Gauge Pressure	Verified Actual Average Load	Calculated Load	Percent of Error							
1000	21,417	21,590	-0.81%							
2000	42,483	43,180	-1.64%							
3000	63,367	64,770	-2.21%							
4000	84,367	86,360	-2.36%							
5000	105,617	107,950	-2.21%							
6000	127,017	129,540	-1.99%							
7000	148,317	151,130	-1.90%							
8000	169,050	172,720	-2.17%							
9000	190,017	194,310	-2.26%							
9500	200,600	205,105	-2.25%							
			·							

Jacking Solutions LLC hereby certifies that the above described instrument(s) met or exceeded all published specifications at the time of calibration specified on attached Calibration Report. The instrument(s) has been calibrated using standards whose accuracies are traceable to the national Institute of Standards and Technology (NIST) within the limitations of the Institute's calibration services.

Tested by:

David Lilyblade Jacking Solutions LLC

Calculation Curve: Load = 21.08 x (Gauge Pressure) + 336.65



 Tieback ID:
 W-13
 Equipment

 Test Type:
 Proof
 Cylinder: Orbit ORDH150/10

 Date Tested:
 10/4/2021
 Pump: SPX Power Team

Aspect Representative: Kds Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

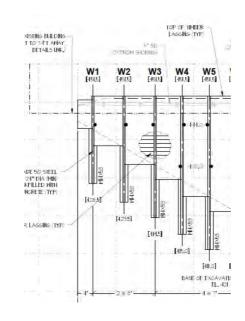
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Proof	Test Sched	lule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1
psi	kips		minutes	inches	
300	7	8%	1 minute	0.01	ΑI
1000	21	25%	Until Stable	0.341	
2000	42	50%	Until Stable	0.807	
3000	64	75%	Until Stable	1.278	
4000	85	100%	Until Stable	1.792	
5000	106	124%	Until Stable	2.477	
5400	114	134%	1	2.885	l
			2	2.885	l
			3	2.885	
			5	2.885	
			6	2.885	
			10	2.885	

2.942 0.000 Creep Deflection PASS

		ME	ST WA	LL.							
	ANCHOR SCHEDULE										
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO.OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)				
	20 20	41 43	16 15	25 28	3 3	85 45	85 45				



W-14 Equipment Tieback ID: Test Type: Proof Cylinder: Orbit ORDH150/10 Date Tested: 10/4/2021 Pump: SPX Power Team Aspect Representative: Kds

Pressure Gauge: Wika 213.53

#### Tieback Info # of Strands: Bonded Length: 25 ft Unbonded Length: 16 ft 85 kips Design Load (DL): Minimum Theoretical Deflection: **1.150** in Lock-Off Pressure: **4016** psi Lock-Off Load: 85 kips

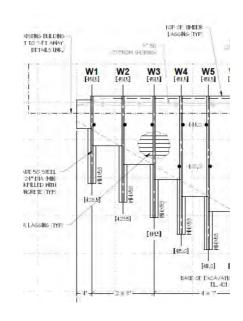
From Calibration

21.08 Slope, m Y-Int, b 336.65 psi

Proof	Test Sche	dule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1
psi	kips		minutes	inches	
300	7	8%	1 minute	0.01	ΑL
1000	21	25%	Until Stable	0.377	
2000	42	50%	Until Stable	0.723	
3000	64	75%	Until Stable	1.098	
4000	85	100%	Until Stable	1.506	
5000	106	124%	Until Stable	1.944	
5400	114	134%	1	2.134	
			2	2.134	
			3	2.134	
			5	2.134	
			6	2.134	
			10	2.134	

2.148 0.000 Creep Deflection PASS

	WEST WALL								
	ANCHOR SCHEDULE								
R	DECLI- TOTAL UNBOND BOND DESIGN LOCKOFF NATION LENGTH LENGTH LENGTH NO. OF LOAD LOAD R (DEG) (FT) (FT) (FT) STRANDS (K) (K)								
	20 20	41 43	16 15	25 28	3 3	85 45	85 45		



W-15 Equipment Tieback ID: Test Type: Proof Cylinder: Orbit ORDH150/10 Date Tested: 10/4/2021 Pump: SPX Power Team Aspect Representative: Kds

Pressure Gauge: Wika 213.53

#### Tieback Info # of Strands: Bonded Length: 25 ft Unbonded Length: 16 ft 85 kips Design Load (DL): Minimum Theoretical Deflection: **1.150** in Lock-Off Pressure: **4016** psi Lock-Off Load: 85 kips

### From Calibration

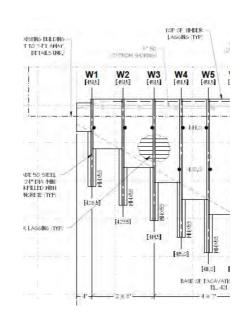
21.08 Slope, m Y-Int, b 336.65 psi

Proof	Test Sche	dule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
psi	kips		minutes	inches	
300	7	8%	1 minute	0.01	ΑL
1000	21	25%	Until Stable	0.373	
2000	42	50%	Until Stable	0.668	
3000	64	75%	Until Stable	1.205	
4000	85	100%	Until Stable	1.65	
5000	106	124%	Until Stable	1.899	
5400	114	134%	1	2.338	
			2	2.338	
			3	2.338	
			5	2.338	
			6	2.338	
			10	2.338	

Bump

2.346 0.000 Creep Deflection PASS

	WEST WALL									
	ANCHOR SCHEDULE									
R	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)			
	20 20	41 43	16 15	25 28	m m	85 45	85 45			



Tieback ID: W-16 Equipment Test Type: Proof Cylinder: Orbit ORDH150/10 Date Tested: 10/4/2021 Pump: SPX Power Team Aspect Representative:

Kds Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	85	kips
Minimum Theoretical Deflection:	1.150	in
Lock-Off Pressure:	4016	psi
Lock-Off Load:	85	kips

#### From Calibration

Slope, m 21.08 336.65 psi Y-Int, b

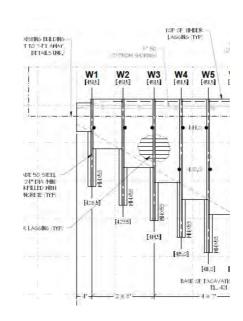
Proof	Test Sche	dule			
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
psi	kips		minutes	inches	
300	7	8%	1 minute	0.01	ΑL
1000	21	25%	Until Stable	0.324	
2000	42	50%	Until Stable	0.705	
3000	64	75%	Until Stable	1.15	
4000	85	100%	Until Stable	1.57	l
5000	106	124%	Until Stable	2.029	l
5400	114	134%	1	2.237	l
			2	2.237	l
			3	2.237	
			5	2.237	
			6	2.237	
			10	2.237	l

Bump

0.000 Creep Deflection PASS

2.25

	WEST WALL								
	ANCHOR SCHEDULE								
R	DECLI- TOTAL UNBOND BOND DESIGN LOCKOFF NATION LENGTH LENGTH LENGTH NO. OF LOAD LOAD R (DEG) (FT) (FT) (FT) STRANDS (K) (K)								
	20 20	41 43	16 15	25 28	3 3	85 45	85 45		



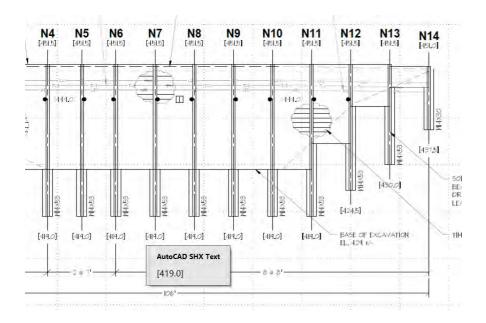
## Aspect Consulting, LLC Tieback Proof Test

Aloha Strickland Project #180357

	Tieback ID:	N-1	Equipment		Tieback Info		
	Test Type:	Proof	Cylinder:	Orbit ORDH150/10	# of Strands:	3	
D	Pate Tested:	10/4/2021	Pump:	SPX Power Team	Bonded Length:	25	ft
Aspect Repr	esentative:	Kds	Pressure Gauge:	Wika 213.53	Unbonded Length:	16	ft
					Design Load (DL):	90	kips
From Calibration					Minimum Theoretical Deflection:	1.217	in
Slope, m	21.08				Lock-Off Pressure:	4253	psi
Y-Int, b	336.65	osi			Lock-Off Load:	90	kips

Proof						
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator		
psi	kips		minutes	inches		
300	7	7%	1 minute	0.01	AL	
1000	21	24%	Until Stable	0.33		
2000	42	47%	Until Stable	0.671		
3000	64	71%	Until Stable	1.062	Readjusted to:	
4300	91	101%	Until Stable	1.471		1.237
5000	106	117%	Until Stable	1.684		
5600	118	132%	1	1.867		
			2	1.867		
			3	1.867		
			5	1.867		
			6	1.867		
			10	1.868		
·			Bump	1.883	_	
				0.001	Croop Dofloction	

0.001 Creep Deflection PASS



Tieback ID: N-2 Equipment **Tieback Info** Test Type: Proof Cylinder: Orbit ORDH150/10 # of Strands: Date Tested: 10/4/2021 Pump: SPX Power Team Bonded Length: 25 ft Aspect Representative: Kds Pressure Gauge: Wika 213.53 Unbonded Length: 16 ft 90 kips Design Load (DL): From Calibration Minimum Theoretical Deflection: **1.217** in **4253** psi 21.08 Lock-Off Pressure: 336.65 psi Lock-Off Load: 90 kips

Proof Test Schedule							
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
psi	kips		minutes	inches			
300	7	7%	1 minute	0.01	ΑI		
1000	21	24%	Until Stable	0.312	1		
2000	42	47%	Until Stable	0.685	1		
3000	64	71%	Until Stable	1.115	1		
4300	91	101%	Until Stable	1.557	l		
5000	106	117%	Until Stable	2.054	l		
5600	118	132%	1	2.254	l		
			2	2.254	l		
			3	2.254	l		
			5	2.254	l		
•			6	2 254	Ī		

Slope, m

Y-Int, b

2.286 0.000 Creep Deflection

								PA	SS	
<b>N4</b> [451.5]	<b>N5</b> [451.5]	<b>N6</b> [45].5]	<b>N7</b> [45]5]	N8 [451.5]	N9 [45]5]	N10 [451.5]	N11 [451.5]	N12 [45].5]	N13 [451.5]	N14 [45].0]
1 roll roll roll roll roll roll roll rol	1.0)	Tol		] 4	Tc-1	12 Tr.)			M4A53	OEXTE
MIAX53	M4x53	M4x53	M4x53	N4X53	MAY53	MIANDS	MIANGS	[424.5]	[430.0]	50I BE DR LE/
[4190]	[414.0] 	[419.0]	[419.0] AutoCA [419.0	[419.0] AD SHX Tex	[4 4,0]	[419.0] — 8 ® 8' —	[419.0]	BASE OF EL. 424 II	EXCAVATION	TIM
		١	NORTH V					1		

# JACKING SOLUTIONS LLC

Rentals • Rebuilt Equipment • New Sales • Testing

## **Certificate of Calibration Report**

Certificate Number 359828638

**Information** 

Customer: Kulchin Foundation Calibrated Equipment

Contact: Andy RAM Manufacturer: Orbit

Model: ORDH100/6

Address: P.O. Box 99667 S/N KFD10001

Lakewood, WA. 98496 PUMP Manufacturer: n/a

Model:

Phone: 206-851-3422 S/N

Fax: GAUGE Manufacturer: Wika

Model: 213.53

S/N 918

## **Calibration Statistics**

Date: 4/21/2022 Time: 10:37 am

Temperature: 51 degrees

Humidity: 69 %

**Results** 

Pass?: Yes Seals OK?: Yes

Action Taken: n/a

## **Standards used for Certification**

Manufacturer: National Scale Date of Calibration 04/27/2021

Model: 1100083-660 Next Calibration Due 04/27/2022

S/N 39451

Description: compression load cell



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:			
10/05/2022	0645	1400	180357			
PROJECT NAME:						
Texaco Strickland Site						
WEATHER:						
61 F, foggy morning, cloudy afternoon, no precipitation, wind N						
EQUIPMENT AND CALIBRATION:	MiniRae Lite PI	D: 99.9 ppm				

Ashley Provow and Carmen Tappero of Aspect Consulting (Aspect) was onsite today to document the export and excavation of contaminated soil and the excavation of clean soil by River's Edge Environmental Services (REES). Kulchin Foundation Drilling (Kulchin) was also onsite today. The following is a summary of Aspect's observations:

### Clean Soil Excavation

REES excavated clean soil from the southwest area of the site to elevation approximately 438 feet, from W01 to approximately W06/W07 from the west wall (S11) to approximately S10. This is a continuation of excavation in this area and is largely cleaning up the previously excavated material and preparing the west sidewall for lagging. There was no field screening evidence of contamination observed in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was stockpiled for disposal at a later date. Additional vertical and lateral excavation is planned for this area, when accessible.

## **Contaminated Soil Excavation**

REES excavated contaminated soil from the southwestern area and center of the site from W06/W07 to W14 from the west wall to approximately N05/N06 to approximately elevation 438 feet. This is a continuation of yesterday's excavation in this area and incudes cleaning up the previously excavated material and preparing the west wall for lagging. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 10 and approximately 350 parts per million (ppm). Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

## Soil Transportation For Disposal

Contaminated soil was exported on 6 trucks (truck and trailer and side-dump) in 30 loads to Cadman's Class 3 facility.

## **Geotech Activities**

Kulchin prepared materials for installing lagging tomorrow.

## **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

### Other On-site Activities

REES uncovered the top of underground storage tank (UST) 3 to determine how many ports there are. UST 3 is approximately 6.1 feet long and the diameter is still unknown. A secondary port was located and shows liquid much closer to the top than the port that was identified yesterday, indicating that the tank might be installed at a slight angle, dipping to the west. UST 3 was not decommissioned or removed today.



## **Discussions**

Garrett (REES) and Ashley (Aspect) discussed the plan for today, which is to export contaminated soil on 6 trucks and to continue preparing the next lift for Kulchin to lag.

Carmen Tappero (Aspect) was on site today for excavation oversight and support training.

## Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today. Refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
SW-W16-439	Native	Sidewall	6.0	NS	NO
SW-W13-439	Native	Sidewall	140.2	SS	SO
SW-W11-439	Native	Sidewall	23.4	SS	S0
SW-W08-439	Native	Sidewall	1.9	NS	NO
SW-W06-439	Native	Sidewall	3.4	NS	NO
SW-W03-439	Native	Sidewall	3.3	Very SS	Very SO
SW-W01-439	Native	Sidewall	2.7	NS	NO

\* NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen



Figure 1. Facing the west, note the obvious color change (blue-gray to more gray-brown) that appears to follow the clean / contaminated boundary. The blue-gray dirt shows obvious signs of contamination (high PID readings, heavy petroleum-like odors, and moderate to heavy sheens).





Figure 2. UST 3 is outlined in orange spray-paint. The rocks that are painted orange are covering the tank ports.

The following attachments are included in Aspect's field file:

- □ Laboratory Chain-of-Custody Form
- □ Other

Other.	
□ DRAFT	PREPARED BY:
	Ashley Provow
	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

10/05/22 hup NORTH WALL WITH GROUTED TIEBACK ANCHORS, SEE SH3 2 POTENTIAL LOCATION FOR DEWATERING STORAGE TANK TO BE FIELD LOCATED **★**MW-17 Metro MW-16 196th Street SW Bc SLOPE AT 1.8 1 TO ELEVATION AND ANTANTANIA MELITANIA SE RESERVA CONTROL BOND OFF COR DIG THE FA UST 1 MATRICAL DICEUTON CONTOURNALISE EXISTING CONTOURS (S.PT) Worker BETTON 1008 o executation Non implected Streetpile contaminated Aspect ANT NEW WALL BULLD XA GW-KD16-4791 UST 3 conto pura ted SLOPE AT 1.5.1 FROM EXISTING BURFACE TO ELEVATION 443 Sumple location SLOPE AT 1 1 FROM ELEVATION 443 TO BOTTOM UST location 1 09-01 802002.8400 1278810.8747 448.200 2 CP-C2 \$08059.3197 1278809.8746 421.000 3 CP-C3 \$08107.0439 1278850,0748 481.000 6 CP-04 803108.3811 1273808.1428 448.448 8 CP-08 303100.8018 1273818.7821 450.748 6 CP-06 202979.3236 1273893.4907 649.000 SHEET REFERENCE NUMBER 100 P-10 C-05 SHEET T OF 14

## SAMPLE CHAIN OF CUSTODY

D I D New Market	5 1 2 1 15 1 1	er e i n	SAMPL	ERS (signa	ature)	1				,				1_			of
Report To Main anton, Dan & Barrock			- Deling Fri						TURNAROUND TIME								
Company ASPRA CONSULTINA				PROJECT NAME			PO #					Standard turnaround					
Address 710 2 nd Awe Ste 550			1600	Texaco - Strickland				220275					Rush charges authorized by:				
City, State, ZIP Seattle, wa			REMAR	REMARKS				INVOICE TO				[	SAMPLE DISPOSAL  Archive samples				
PhoneEmail			Project	Project specific RLs? - Yes / No											Other		
								ANALYSES REQUE					EQU	ESTI	ESTED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8621	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				E	Notes
Su-wig-429		10/6/22	0750	9	5	X	Y	×			*						
SW-WB-439			0755	1			1	/									
5w-w/1 = 439			0800										39				-
SW-W08-439			1115								V						0
500-wolo-439			1120								Į.						
SW-W03-439			G816														
56-401-439			0825	J	V	7	7	4									J.
J					/e	4								4,			

Friedman & Bruya, Inc Ph. (206) 285-8282

4	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
c.	Relinquished by:	Ashley Proyum	ARROLA	10/5/12	1428
	Received by:	ANTIPHANI	FBB	10/05/77	14 28
	Relinquished by:				
	Received by:	<b>亲</b> [4]			



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:				
10/06/2022	0640	1505	180357				
PROJECT NAME:	PROJECT NAME:						
Texaco Strickland Site							
WEATHER:							
High of 71 wind to the south	l						
EQUIPMENT AND CALIBRATION:	RATION: Mini RAE Lite PID: 100.0 ppm						

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document the decommissioning of two underground storage tanks (USTs) and soil excavation by Rivers Edge Environmental Services (REES) and lagging installation by Kulchin Foundation Drilling (Kulchin). Marine Vacuum Services Inc. (Mar-Vac) was also onsite today for UST decommissioning. The following is a summary of Aspect's observations:

## Clean Soil Excavation

REES excavated clean soil from the southwest area of the site to approximate elevation (EL) 438 from W03 to W06 and from S10 to S08 (see attached map). No field screening indicators of contamination were observed in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was stockpiled for disposal at a later date. Additional vertical and lateral excavation is planned for this area, when accessible.

### Contaminated Soil Excavation

REES excavated clean soil from two western areas of the site today to approximate EL 439 from W15 to W13 and N04 to N07 for the first area and from W08 to W06 and N03 to N06 for the second area (see attached map). Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 10 and approximately 450 parts per million (ppm). Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic at the end of the day.

## Soil Transportation For Disposal

Metal from decommissioned USTs and piping was exported on 1 truck (truck & trailer) in 1 load to Rainer Wood and Recycling facility.

## **Geotech Activities**

## **Shoring Wall Installation**

Kulchin install lagging along the west sidewall of the site from W01 to W16 down to EL 438.

## **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

## Other On-site Activities

REES conducted the decommissioning of UST 1 and 3 on site today. A Lynnwood Fire Marshall and Eric E. w/Arcadis observed the activity. Decommissioning described as follows: UST 1

Mar-Vac triple rinsed the UST removing 300 gallons of product from the tank



- REES record a 0 percent lower explosive level (LEL) prior to removing the tank
- REES removed the tank and trucked it off site to Rainer Wood and Recycling
- Soil both laterally and vertically around UST 1 was field screened, classified as contaminated, and will be exported as Class III

### UST 3

- Mar-Vac removed 50 gallons of water from the tank
- Tank appeared to be filled with controlled density fill (CDF) and previously decommissioned in-place
- REES record a 0 percent LEL prior to removing the tank
- REES removed the tank and trucked it off-site to Rainer Wood and Recycling
- Soil both laterally and vertically around UST 3 is classified as contaminated and will be exported as Class III

## **Discussions**

Garrett w/REES and Daniel w/Aspect discussed plan for Friday. REES anticipates excavating the western section of the site down to the next soil nail elevation and trucking for both clean and contaminated excavated soil.

Howard w/Kulchin and Daniel w/Aspect discussed plan for Friday. Kulchin anticipates conducting testing on the north tiebacks.

## Confirmation Samples & Field Screening Results Log

No confirmation soil samples collected today.

The following attachments are included in Aspect's field file:					
Site Photos					
☐ Laboratory Chain-of-Custody Form					
☑ Site Map					
☐ Other:					
□ DRAFT	PREPARED BY:				
	Daniel Babcock				
▼ FINAL	REVIEWED BY:				
	Breeyn Greer, PE, Project Engineer (Environmental)				

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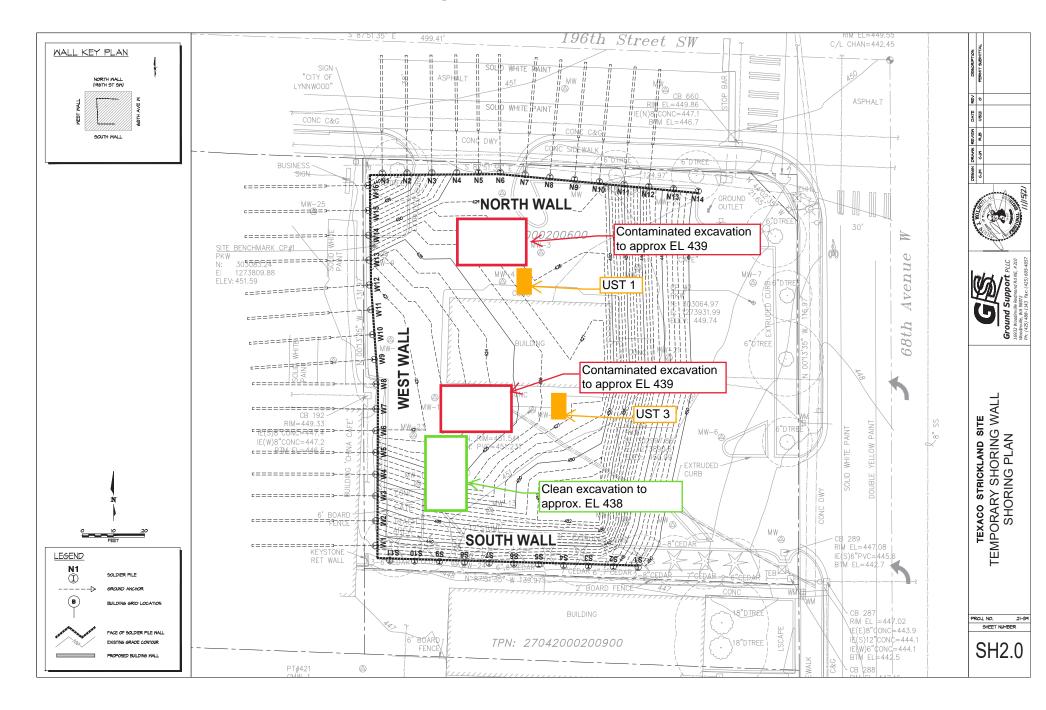
## **Photos**



Photo 1: UST 3 after being pulled.



Photo 2: UST 1 being pulled (background) UST 3 in foreground.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/07/2022	0650	1525	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
High of 79 wind to the south	l		
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.0	) ppm	

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document both clean and contaminated soil excavation and export by Rivers Edge Environmental Services (REES). Matthew von der Ahe of Aspect was also on-site to conduct tieback testing along the north sidewall installed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

## Clean Soil Excavation

REES excavated clean soil from the southwest area of the site to approximate elevation (EL) 436 grading to 438 from W06 to south sidewall (W01) and from S09 to S08. There was no field screening evidence of contamination observed in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was stockpiled for disposal later. Additional vertical and lateral excavation is planned for this area, when accessible.

#### **Contaminated Soil Excavation**

REES excavated contaminated soil from two western area of the site today to approximately EL 434 from W02 to W16 and N03 to the west sidewall. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 12.5 and 270 ppm. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

# Soil Transportation For Disposal

Clean soil excavated today was exported to Cadman's Granite Falls facility in 8 truckloads (truck and trailer and side-dump).

Contaminated soil excavated today was exported to Cadman's Class III facility in 17 truckloads (truck and trailer and side-dump).

#### **Geotech Activities**

# **Shoring Wall Installation**

No piles installed today.

## **Tieback Installation**

No tiebacks installed today.

#### Tieback Testing

Tiebacks N-3 and N-5 through N-12 were proof-tested today for competency. Tieback N-4 was verification-tested to 200 percent of the design load. All tiebacks passed testing and were locked off at 90 kips (~4300 psi).



## **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

## Other On-site Activities

No other on-site activities conducted today.

## **Discussions**

Garrett w/REES and Daniel w/Aspect discussed plan for Monday. REES anticipates excavating the western section of the site down to the next soil nail EL on Monday.

Howard w/Kulchin and Daniel w/Aspect discussed plan for Friday. Kulchin anticipates starting tieback drilling along the western sidewall on Tuesday at the soonest.

## Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today; please refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	Classification
SW-W03-434	Native	Sidewall	12.5	NS	SO	_
SW-W05-434	Native	Sidewall	27.1	NS	S0	
SW-W09-434	Native	Sidewall	70.5	MS	MO/HO	
SW-W11-434	Native	Sidewall	110.0	MS	MO/HO	
SW-W14-434	Native	Sidewall	44.4	SS	MS	
SW-W16-434	Native	Sidewall	13.1	NS	SO	
SW-W99-434	Native	Duplicate of W05	27.1	NS	SO	
S10-W02-436	Native	Field Screening	25.6	NS	SO	Contaminated
S08-W04-438	Native	Field Screening	0.8	NS	NO	Clean
S09-W08-436	Native	Field Screening	270	MS	НО	Contaminated
S11-W06-438	Native	Field Screening	144	MS	НО	Contaminated
S10-W03-438	Native	Field Screening	1.3	NS	NO	Clean
S09-W11-434	Native	Field Screening	125	MS	НО	Contaminated
S08-W05-439	Native	Field Screening	0.0	NS	NO	Clean
S11-W10-437	Native	Field Screening	54.5	SS	MO	Contaminated
S11-W13-435	Native	Field Screening	48.1	SS	MO	Contaminated
S11-W16-436	Native	Field Screening	12.8	NS	NO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

- Site Photos
- □ Laboratory Chain-of-Custody Form
- $\ oxdot$  Site Map

□ DRAFT	PREPARED BY:					
	Daniel Babcock					
⊠ FINAL	REVIEWED BY:					
	Breeyn Greer, PE, Project Engineer (Environmental)					
	Rory Kilkenny, PE, Senior Geotechnical Engineer					

<sup>\*\*</sup> Field screening log represents a select snapshot of screening results throughout the excavation conducted today.

The following attachments are included in Aspect's field file:



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Photo 1: Actively excavating western sidewall (facing north)



Photo 2 Western section of site at end of day (facing south)

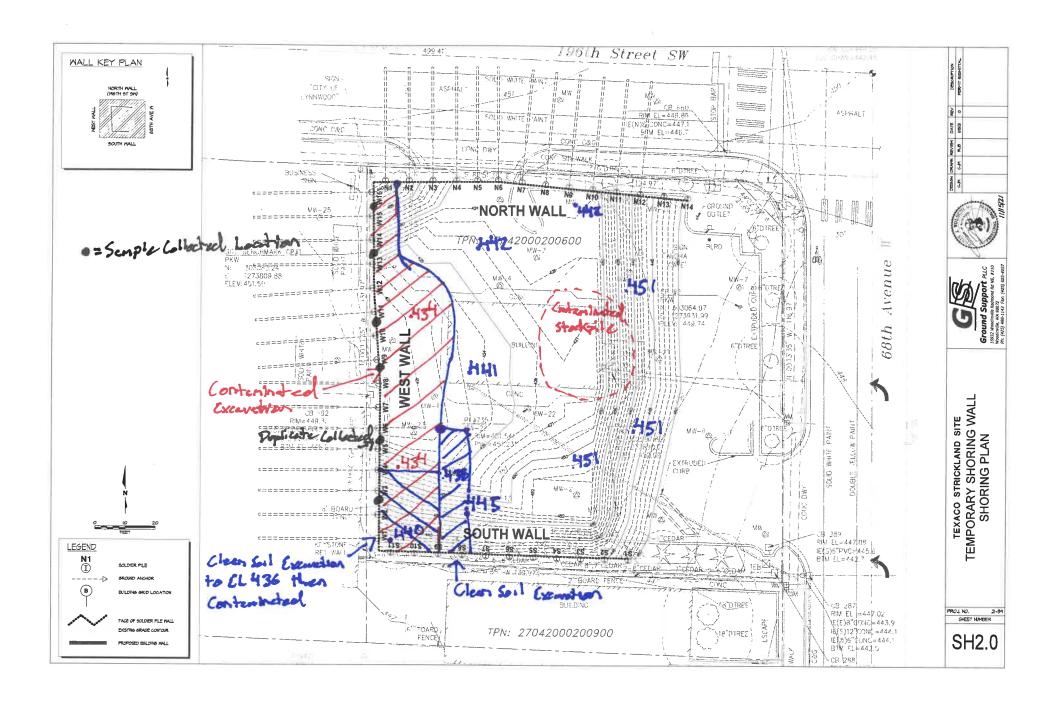
# SAMPLE CHAIN OF CUSTODY

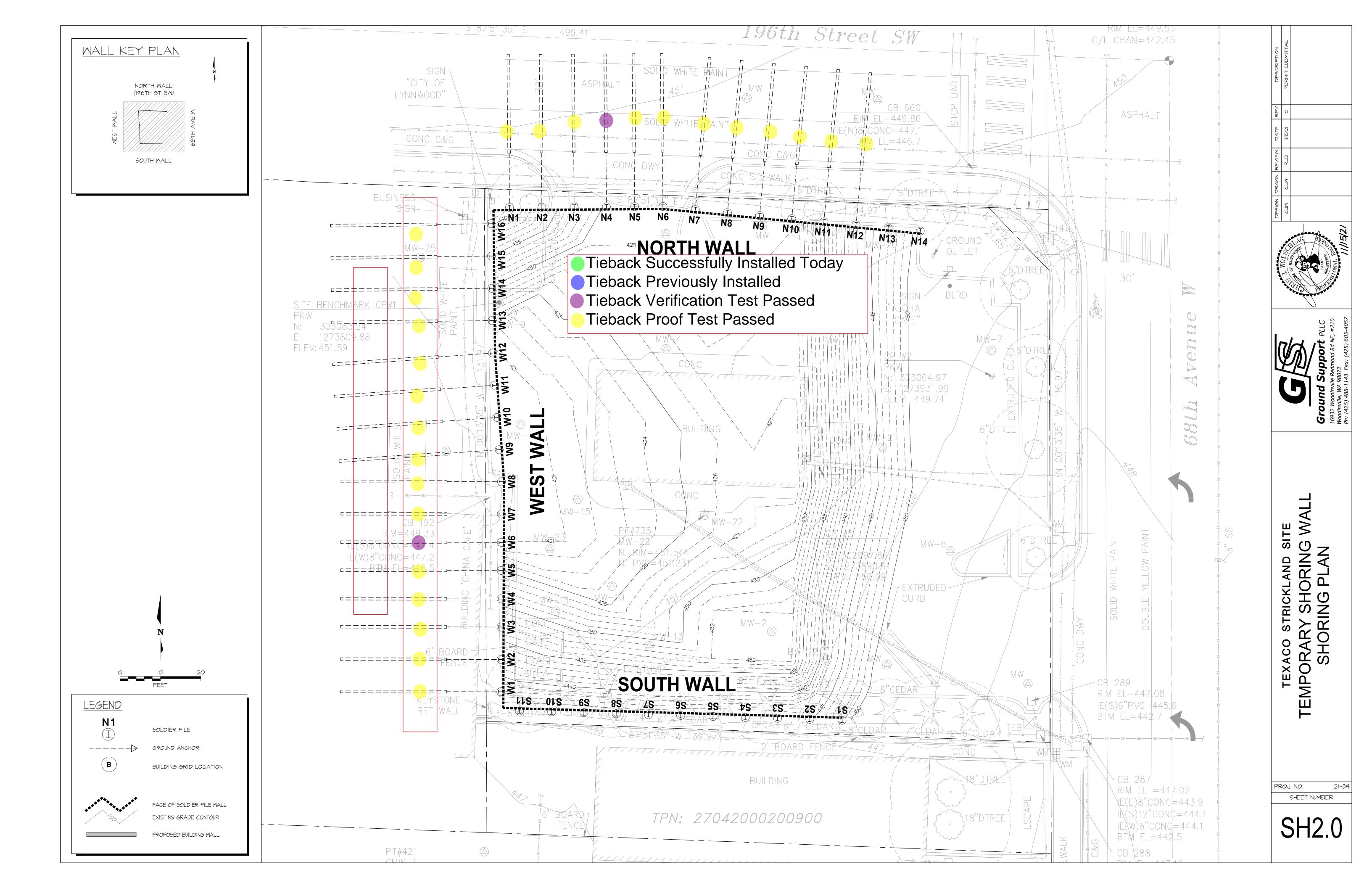
11	7 21	n/	SAMPL	ERS (signa	ature)	Manageria marin								7,			of
Report To Alm Grish + I	line Dire	oll.	- DDO ID	CE MANGE							20. 11						NAROUND TIME
Company April Consulting			PROJE	CT NAME						ŀ	PO #				↓ Star RUS		l turnaround
Address			Te	xcco St	10Klos	ol			18	035	7						es authorized by:
			REMAR	RKS					I	NVC	OICE	ТО		-    -		SAM	PLE DISPOSAL
City, State, ZIP																	samples
Phone Email	latade.	spotoments	Project	specific RL	s? - Ye	es /	No								Oth Defau		ispose after 30 days
									P	ANA	LYS	ES R	EQU	ESTI	ED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	\$7.800 by \$260				Notes
SW-W03-434		10/7/22	1005	501	5	X	X						+				
SW-WK1-4321			1015														
SW-1105-434			1030														
SW-409-434			1220														-
SW-W11-434			1300														
SW-114-434			1335														
SW-W16-434		1	1405	V	4	4	1						1				
																	le le
			9.														

Friedman & Bruya, Inc. Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
c.	Relinquished by:	Polel Borak	Aspert	10/7/22	1630
	Received by:	HONGENSUMES	FBI	10/2/20	16:3
	Relinquished by:			1,100	
	Received by:				

# Site Map- 10/7/22 - DRB





Aloha Strickland Project #180357

Tieback ID: Test Type: Date Tested: Aspect Representative: N-3 Proof 10/7/2022 MvA

Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

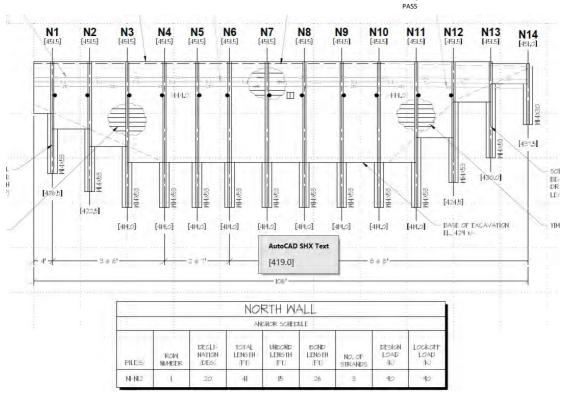
Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	90	kips
Minimum Theoretical Deflection:	1.217	in
Lock-Off Pressure:	4253	psi
Lock-Off Load:	90	kips

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

		Proof	Test Sche	dule			
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	
Kips	PSI	psi	kips		minutes	inches	
AL		300	7	7%	1 minute	0	AL
23	1051	1100	24	26%	Until Stable	0.32	
45	2119	2200	47	52%	Until Stable	0.762	
68	3186	3200	68	75%	Until Stable	1.167	
90	4253	4300	91	101%	Until Stable	2.234	
113	5321	5300	112	125%	Until Stable	2.341	
120	5662	5700	120	134%	1	2.254	
					2	2.254	
AL	1.00DL				3	2.254	
0.25DL	1.25DL				5	2.349	Bum
0.50DL	1.33DL				6	2.349	
0.75DL	1.002.12				10	2.349	
0,1001						2.286	

0.095 Creep Deflection



Tieback ID: N-4 Test Type: Date Tested:

Verification 10/7/2022 MvA

Cylinder: Orbit ORDH100/6 Pump: SPX Power Team Pressure Gauge: Wika 213.53

From Calibration

Slope, m Y-Int, b

21.08 336.65 ps

Aspect Representative:

Tieback Info		
# of Strands:	4	
Bonded Length:	25	
Design Load (DL):	90	kip
Lock-Off Pressure:	4253	psi
Lock-Off Load:	90	kip
Minimum Theoretical Deflection:	1.287	in

				reep Tests	,				
	Dial Indicator (inches)								
Time (min)	25%	50%	75%	100%	125%	150%	175%	200%	
1	0.188	0.431	0.729	1.045	1.35	1.694	2.028	2.435	
2	0.186	0.431	0.729	1.045	1.35	1.694	2.027	2.435	
3	0.186	0.431	0.729	1.045	1.35	1.694	2.027	2.435	
5	0.186	0.431	0.729	1.045	1.35	1.694	2.027	2.435	
6	0.186	0.431	0.729	1.045	1.35	1.694	2.027	2.435	
10	0.186	0.431	0.729	1.045	1.35	1.694	2.027	2.435	
20								2.435	
30								2.435	
50								2.439	
60								2.439	
Creep (inches):	-0.002	0	0	0	0	0	-0.001	0.00	

# PASS

SC. VEREKATION TESTS SHALL BE PERFORMED ON 2 ANCHORS PER SOIL TYPE BECAMIFIED. ANCHOR TYPE (SEE, OR BITALL ATICH METHOD (SEE). VERRICATION ANCHORS FOR BE LISED AS PROJECTION ANCHORS FOR THE VAR CACETYABLE AS DETINED BELOW, THE VEREICATION TEST SHALL BE MADE BY BEKEMENTALLY LOADING THE ANCHOR IN ACCORDANCE HIM THE FOLLOWING SCHEDULE).

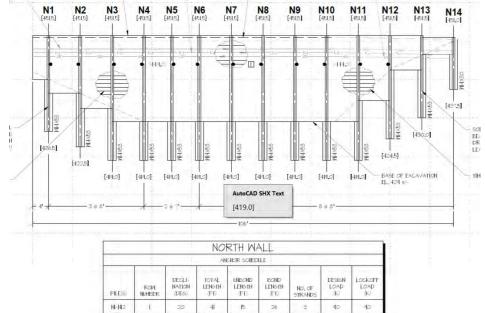
LOAD	HOLD TIME	LOAD	HOLD TIME	LOAD	HOLD THE
AL.	UNTIL STABLE	0.25DL	UNTIL STABLE	0.75DL	UNTIL STABLE
0.25DL	UNTIL STABLE	O.SODL	UNTIL STABLE	LOODL	UNTIL STABLE
AL.	UNTIL STABLE	0.75DL	UNTIL STABLE	L25DL	UNTIL STABLE
0.25DL	UNTIL STABLE	LOODL	UNTIL STABLE	L5ODL	UNTIL STABLE
O,SODL	UNTIL STABLE	1,25DL	UNTIL STABLE	LT5DL	UNTIL STABLE
AL.	UNTIL STABLE	AL	UNTIL STABLE	AL.	UNTIL STABLE
0.25DL	UNTIL STABLE	0,25DL	UNTIL STABLE	0.25DL	UNTIL STABLE
O.SODL	UNTIL STABLE	0.50DL	UNTIL STABLE	O.SODL	UNTIL STABLE
O.TEDL.	UNTIL STABLE	0.75DL	UNTIL STABLE	O.TEDL	UNTIL STABLE
AL.	UNTIL STABLE	LOODL	UNTIL STABLE	LOODL	UNTIL STABLE
0.25DL	UNTIL STABLE	1.25DL	UNTIL STABLE	L25DL	UNTIL STABLE
O.SODL	UNTIL STABLE	LSODE.	60 MINUTES	LEODL	UNTIL STABLE
0.750L	UNTIL STABLE	AL.	UNTIL STABLE	L75DL	UNTIL STABLE
LOODL	UNTIL STABLE	0.25DL	UNTIL STABLE	2,00DL	UNTIL STABLE
AL.	UNTIL STABLE	0.50DL	UNTIL STABLE	AL.	UNTIL STABLE

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED OCSDL, DIAL GAUGES SHOULD BE SET AT "ZERO" AFTER THE ALIGNMENT LOAD HAS BEEN APPLED.

A IO-MINITE CREEP ITEST SHALL BE PERFORMED AT THE 150 DL AND 200DL INCREMENTS. THE LOAD-HOLD PHALD SHARL START AS SOON AS THE MAXIMAN TEST LOAD IS APPLIED AND THE ANCION MOVEMENT SHALL BE MAKENED AND RECORDED AT 1, 2, 5, 6, AND 10 HINTES, IF THE ANCION MOVEMENT BETWEEN I AND 10 HINTES EXCELED 6.0.04 HINTES, THE ANCION MOVEMENT BETWEEN I AND 10 HINTES EXCELED 6.0.04 HINTES, THE ANAIMAN TEST [ADD SHALL BE REED OF AN ADDITIONAL SO MINITES, BY THE LOAD HOLD BETWEEN THE ANAIMAN TEST [ADD SHALL BE RECORDED A 12, 35, 50, AND 60 MINITES.

LOAD	HOLD TIME	LOAD	HOLD TIME	
AL	1 MINUTE	1.75DL	UNTIL STABLE	
0.25DL	10 MINUTES	1.50DL	UNTIL STABLE	
0.50DL	10 MINUTES	1.25DL	UNTIL STABLE	
0.75DL	10 MINUTES	1.00DL	UNTIL STABLE	
1.00DL	10 MINUTES	0.75DL	UNTIL STABLE	
1.25DL	10 MINUTES	0.50DL	UNTIL STABLE	
1.50DL	60 MINUTES	0.25DL	UNTIL STABLE	
1.75DL	10 MINUTES	AL	UNTIL STABLE	
2.00DL	10 MINUTES			

Target Load	Tagret Gauge Pressure	Actual Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator
kips	psi	psi	kips		minutes	inches
AL	AL	300	7	7%	10	0
22.5	1051	1100	24	26%	10	See Creep Test
49.5	2332	2100	45	50%	10	See Creep Test
67.5	3186	3200	68	75%	10	See Creep Test
90	4253	4300	91	101%	10	See Creep Test
112.5	5321	5300	112	125%	10	See Creep Test
135	6388	6400	135	150%	60	See Creep Test
157.5	7456	7400	156	174%	10	See Creep Test
180	8523	8500	180	199%	10	See Creep Test
157.5	7456	7400	156	174%	Until Stable	2.211
135	6388	6400	135	150%	Until Stable	2.109
112.5	5321	5300	112	125%	Until Stable	1.924
90	4253	4300	91	101%	Until Stable	1.739
67.5	3186	3200	68	75%	Until Stable	1.415
45	2119	2100	45	50%	Until Stable	1.129
22.5	1051	1100	24	26%	Until Stable	0.848
AL	AL	0	0	0%	Until Stable	0.411
			- L			

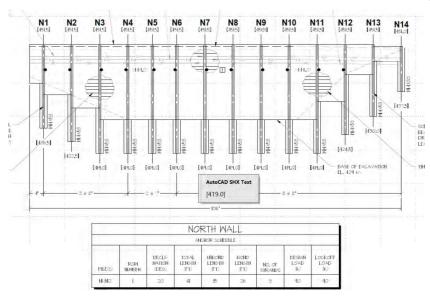


# Aloha Strickland Project #180357

Tieback ID: N-5 Proof Tieback Info Equipment Test Type: Cylinder: Orbit ORDH150/10 # of Strands: 3 25 ft 16 ft Date Tested: 10/7/2022 Pump: SPX Power Team Bonded Length: Aspect Representative: MvA Pressure Gauge: Wika 213.53 Unbonded Length: Design Load (DL): 90 kips From Calibration Minimum Theoretical Deflection: **1.217** in 21.08 336.65 psi Lock-Off Pressure Slope, m **4253** psi Y-Int, b Lock-Off Load: 90 kips

			Proof Test Sched	ule			
Tar	get Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator
	Kips	PSI	psi	kips		minutes	inches
	AL		300	7	7%	1 minute	0
	23	1051	1100	24	26%	Until Stable	0.338
	45	2119	2100	45	50%	Until Stable	0.761
	68	3186	3200	68	75%	Until Stable	1.225
	90	4253	4300	91	101%	Until Stable	1.705
	113	5321	5400	114	127%	Until Stable	2.175
	120	5662	5700	120	134%	1	2.362
		_				2	2.362
AL	1.00DL					3	2.361
0.25DL	1.25DL					5	2.361
0.50DL	1.33DL					6	2.361
0.75DL	1.000					10	2.361
0,1001						Rumn	2 28

-0.001 Creep Deflection PASS



# Aloha Strickland Project #180357

Tieback ID: Test Type: Date Tested: Aspect Representative: N-6 Proof 10/7/2022 MvA Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

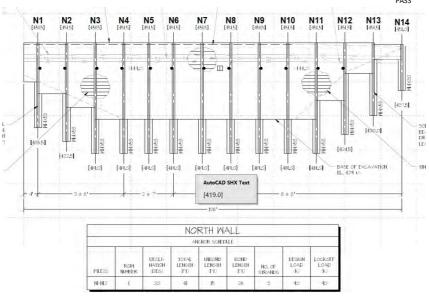
	-	
Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	90	kiţ
<b>Minimum Theoretical Deflection:</b>	1.217	in
Lock-Off Pressure:	4253	ps
Lock-Off Load:	90	kir

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

		Proof	Test Sche	dule		
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator
Kips	PSI	psi	kips		minutes	inches
AL		300	7	7%	1 minute	0
23	1051	1100	24	26%	Until Stable	0.259
45	2119	210	5	5%	Until Stable	0.6
68	3186	3200	68	75%	Until Stable	0.901
90	4253	4300	91	101%	Until Stable	1.422
113	5321	5300	112	125%	Until Stable	1.85
120	5662	5700	120	134%	1	2.051
_					2	2.051
AL	1.00DL				3	2.051
0.25DL	1.25DL				5	2.051
0.50DL	1.33DL				6	2.051
0.75DL	1.0001				10	2.051
U. IDDL						2.286

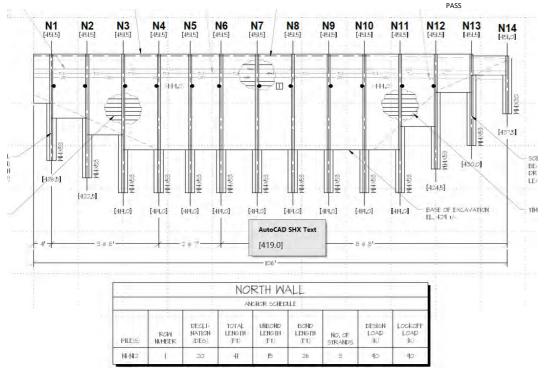
0.000 Creep Deflection PASS



Tieback ID: N-7 Tieback Info Equipment Test Type: Proof Cylinder: Orbit ORDH150/10 # of Strands: Date Tested: 10/7/2022 Pump: SPX Power Team Bonded Length: MvA Pressure Gauge: Wika 213.53 Unbonded Length: 16 ft Aspect Representative: 90 kips Design Load (DL): From Calibration **Minimum Theoretical Deflection: 1.217** in Slope, m 21.08 Lock-Off Pressure: **4253** psi Y-Int, b 336.65 psi Lock-Off Load: 90 kips

Proof Test Schedule								
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator		
Kips	PSI	psi	kips		minutes	inches		
AL		300	7	7%	1 minute	0		
23	1051	1100	24	26%	Until Stable	0.27		
45	2119	2100	45	50%	Until Stable	0.498		
68	3186	3200	68	75%	Until Stable	0.91		
90	4253	4300	91	101%	Until Stable	1.304		
113	5321	5300	112	125%	Until Stable	1.712		
120	5662	5700	120	134%	1	2.091		
					2	2.091		
AL	LOODL				3	2.091		
0.25DL	1.25DL				5	2.091		
0.50DL	1.33DL				6	2.091		
0.75DL	1.0001				10	2.091		

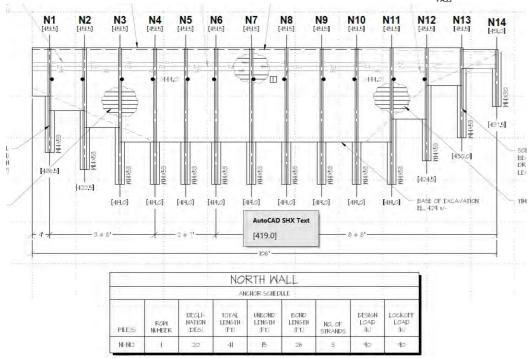
0.000 Creep Deflection



Tieback Info Tieback ID: N-8 Equipment Test Type: Proof Cylinder: Orbit ORDH150/10 # of Strands: Date Tested: 10/7/2022 Pump: SPX Power Team Bonded Length: MvA Pressure Gauge: Wika 213.53 Unbonded Length: 16 ft Aspect Representative: Design Load (DL): 90 kips From Calibration **Minimum Theoretical Deflection: 1.217** in 21.08 Lock-Off Pressure: **4253** psi Slope, m Y-Int, b 336.65 psi Lock-Off Load: 90 kips

	Proof Test Schedule							
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1	
Kips	PSI	psi	kips		minutes	inches		
AL		300	7	7%	1 minute	0	,	
23	1051	1100	24	26%	Until Stable	0.235	1	
45	2119	2100	45	50%	Until Stable	0.581	1	
68	3186	3200	68	75%	Until Stable	1.076	1	
90	4253	4300	91	101%	Until Stable	1.559	1	
113	5321	5300	112	125%	Until Stable	2.107	1	
120	5662	5700	120	134%	1	2.402	1	
					2	2.401	1	
AL	1.00DL				3	2.401	1	
0.25DL	1.25DL				5	2.4	1	
0.50DL	1.33DL			•	6	2.4	1	
0.75DL	1.000				10	2.399	1	
0,1001				•		2.286	;	

-0.003 Creep Deflection PASS



# Aloha Strickland Project #180357

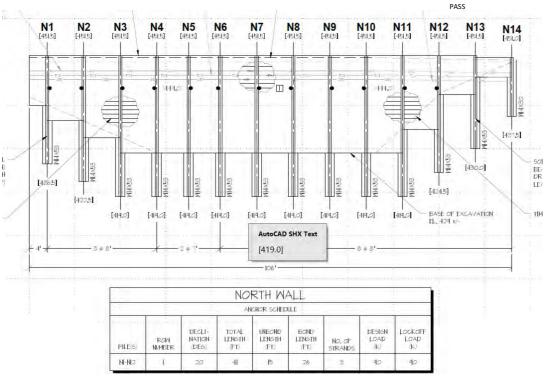
Tieback ID: Test Type: Date Tested: Aspect Representative: N-9 Proof 10/7/2022 MvA Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

Proof Test Schedule								
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator		
Kips	PSI	psi	kips		minutes	inches		
AL		300	7	7%	1 minute	0		
23	1051	1100	24	26%	Until Stable	2.81		
45	2119	2100	45	50%	Until Stable	0.702		
68	3186	3200	68	75%	Until Stable	1.182		
90	4253	4300	91	101%	Until Stable	1.72		
113	5321	5300	112	125%	Until Stable	2.257		
120	5662	5700	120	134%	1	2.485		
					2	2.485		
AL	1.00DL				3	2.486		
0.25DL	1.25DL				5	2.486		
0.50DL	1.33DL				6	2.486		
0.75DL	1.000				10	2.486		

0.001 Creep Deflection



# Aloha Strickland Project #180357

Tieback ID: Test Type: Date Tested: Aspect Representative: N-10 Proof 10/7/2022 MvA Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

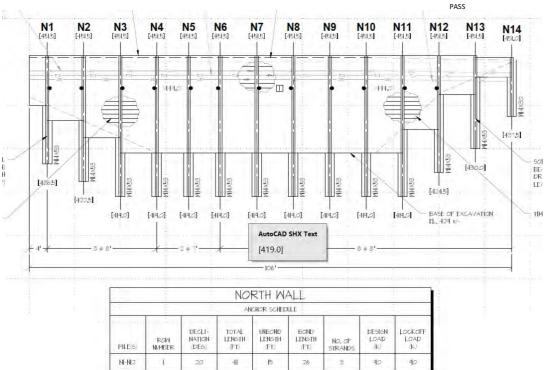
Tieback Info		
# of Strands:	3	
Bonded Length:	25	ft
Unbonded Length:	16	ft
Design Load (DL):	90	kips
Minimum Theoretical Deflection:	1.217	in
Lock-Off Pressure:	4253	psi
Lock-Off Load:	90	kips

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

Proof Test Schedule									
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator			
Kips	PSI	psi	kips		minutes	inches			
AL		300	7	7%	1 minute	0			
23	1051	1100	24	26%	Until Stable	0.275			
45	2119	2100	45	50%	Until Stable	0.638			
68	3186	3200	68	75%	Until Stable	1.051			
90	4253	4300	91	101%	Until Stable	1.49			
113	5321	5300	112	125%	Until Stable	1.943			
120	5662	5700	120	134%	1	2.128			
					2	2.128			
AL	1.00DL				3	2.128			
0.25DL	1.25DL				5	2.128			
0.50DL	1.33DL			•	6	2.128			
0.75DL	1.002			•	10	2.128			
0,1002				<u> </u>	Bump	2.286			

0.000 Creep Deflection



# Aloha Strickland Project #180357

Tieback ID: Test Type: Date Tested: Aspect Representative: N-11 Proof 10/7/2022 MvA

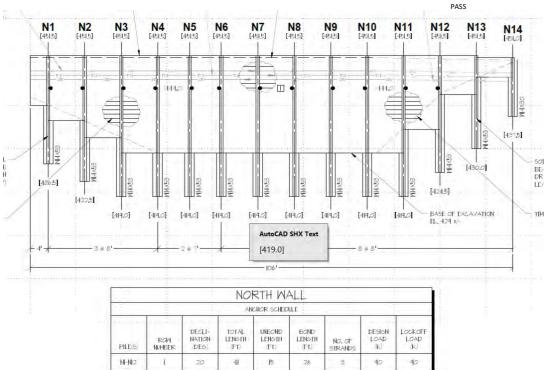
Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

	Proof Test Schedule								
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
Kips	PSI	psi	kips		minutes	inches			
AL		300	7	7%	1 minute	0	AL		
23	1051	1100	24	26%	Until Stable	0.321	ĺ		
45	2119	2100	45	50%	Until Stable	0.725	ĺ		
68	3186	3200	68	75%	Until Stable	1.222	ĺ		
90	4253	4300	91	101%	Until Stable	1.756	ĺ		
113	5321	5300	112	125%	Until Stable	2.279	l		
120	5662	5700	120	134%	1	2.525	ĺ		
					2	2.525	l		
AL	1.00DL				3	2.524	ĺ		
0.25DL	1.25DL				5	2.523	Bu		
0.50DL	1.33DL			•	6	2.533			
0.75DL	7.002.1				10	2.533	ĺ		
0,1001				·	Bump	2.286	_		

0.008 Creep Deflection



# Aloha Strickland Project #180357

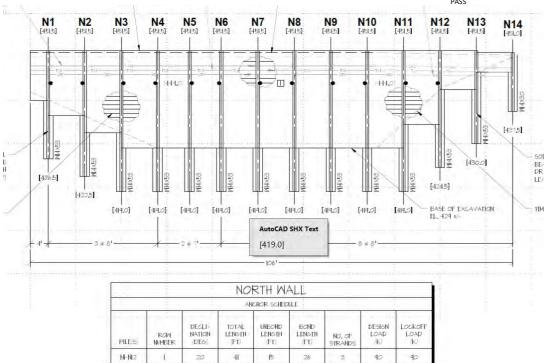
Tieback ID: Test Type: Date Tested: Aspect Representative: N-12 Proof 10/7/2022 MvA Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

	Proof Test Schedule							
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator		
Kips	PSI	psi	kips		minutes	inches		
AL		300	7	7%	1 minute	0		
23	1051	1100	24	26%	Until Stable	0.241		
45	2119	2100	45	50%	Until Stable	0.548		
68	3186	3200	68	75%	Until Stable	0.876		
90	4253	4300	91	101%	Until Stable	1.258		
113	5321	5300	112	125%	Until Stable	1.691		
120	5662	5700	120	134%	1	1.965		
					2	1.965		
AL	LOODL				3	1.965		
0.25DL	1.25DL				5	1.965		
0.50DL	1.33DL				6	1.965		
0.75DL	1.000				10	1.965		
O. IDDL					Bump	2.286		

0.000 Creep Deflection
PASS





DATE: 10/10/22	ARRIVAL TIME: 0655	DEPARTURE TIME: Click or tap here to enter text.	PROJECT NUMBER: 180357
PROJECT NAME: Texaco Strickland Site			
Weather: 60 F, Haze, passing clouds	, wind SSE		
EQUIPMENT AND CALIBRATION:	Yellow PID: 1	L00.1 ppm	

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document contaminated soil excavation and export as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil was excavated today.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated to approximate elevation (EL) 434 feet along the western edge of the site, from the western sidewall (W02 to W16) east to approximately pile numbers S06/N07. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 8.9 parts per million (ppm) and 1,246 ppm. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils. Soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

## Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 25 truckloads (truck and trailer and side-dump).

#### **Geotech Activities**

**Soldier Pile Installation** 

N/A

## **Shoring Wall Installation**

Lagging was installed along the west wall from WO2 to the north wall (W16).

## **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

## Other On-site Activities

No other onsite activities were conducted today.

#### **Discussions**

Garrett (REES) communicated the plan for today, which is to continue preparing the west wall for lagging installation and create enough space for tiebacks to be installed.

Patrick (REES) communicated that he would deliver a stormwater tank tomorrow for groundwater seepage. Ashley (Aspect) will collect a grab-groundwater sample tomorrow morning when turbidity has settled to determine the contaminant concentrations in the groundwater for proper treatment.



# Confirmation Samples & Field Screening Results Log

No soil samples were collected today.

SCREENING location	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	Classification
S10-W04-434	Native	SCREENING	12	SS	SO	Contaminated
SW-W02.5-435	Native	SCREENING	0.9	NS	NO	Clean Boundary
S09-W04.5-435	Native	SCREENING	8.9	SS	SO	Contaminated
S08-W13-435	Native	SCREENING	312	M-HS	НО	Contaminated
N07-W12-434	Native	SCREENING	1,246	HS	НО	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

\*\* The table above represents a snapshot of many field screening readings collected throughout the day.



Photo 1. Excavation along the western edge of the site, facing north, at the beginning of the day.



Photo 2. Excavation along the west wall, standing in a similar location to Photo 1—facing north, near the end of the day.



The following attachments are included in Aspect's field file:

## **DAILY FIELD REPORT**

☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/11/2022	0650	1710	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
50F, Sunny, Wind N			
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.0	) ppm	

Ashley Provow and Bodie McCosby of Aspect Consulting (Aspect) were onsite today to document the export and excavation of contaminated soil, as completed by Rivers Edge Environmental Services (REES), and document tieback installation on the west wall by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

## Clean Soil Excavation

No clean soil was excavated today.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from the west side of the site from approximate elevation (EL) 434 feet to approximately elevation 432 feet from the west wall to approximately N05/N06 to accommodate for tieback installation. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 2.2 parts per million (ppm) and 306 ppm. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils.

Contaminated soil was excavated from the north side of the site to approximate EL 441 feet from NO1 to N11, from the north wall to approximately W15. Field screening showed evidence of contamination throughout this area, including moderate to heavy petroleum-like odors, moderate to heavy sheens. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils.

Contaminated soil that was not directly loaded onto trucks was placed on unexcavated contaminated dirt and covered with plastic.

#### Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 39 truckloads (truck and trailer and side-dump).

#### **Geotech Activities**

## Tieback Anchor Installation:

Kulchin installed ten tiebacks today, W4/R2, W5/R2, W7/R2, W8/R2, W9/R2, W10/R2, W11/R2, W12/R2, W13/R2, and W14/R2.

Drilled shafts today consisted of 6-inch-diameter shafts at least as long as the design tieback length as specified on the plans. Shafts were drilled using an air rotary drill rig with a 6-inch-diameter. No casing was used today. The drill stem angle was set in accordance with the plans using a magnetic angle finder prior to drilling. Aspect documented the soil conditions for each shaft by observing the spoils during drilling. Additional tieback details and remarks can be found in the Tieback Installation summary.



In general, soils throughout the drilled shafts consisted of slightly moist, gray, gravelly sand and soils (till). The soil conditions were substantially consistent with the conditions we assumed for our design recommendations provided in our geotechnical engineering report dated January 24, 2020.

Tieback tendons installed today consisted of three 0.5-inch-diameter steel strand cable wire tied together with a section of PVC pipe of the same length. Steel strands were separated from each other over the planned bonded section of the tendon with plastic spacers set at a minimum of 3 feet from either end of the bonded section and approximately 5-feet spacing in-between. In the unbonded section, steel strands were cased in PVC. The entire tendon had 6-inch-diameter PVC spacers set at a minimum of 3 feet from the down-hole end of the tendon and spaced at approximately 5-feet over the entire length of the tendon. Tieback tendons were manually pushed down the drilled shaft and protruded from the hole approximately 3 feet. The tendon in tieback W11/R2 had four 0.5-inch-diameter steel strand cables to accommodate the additional load from verification testing.

Following tieback tendon installation, Kulchin pumped the shaft full of clean grout using a grout pump and long PVC tremie pipe. We observed Kulchin topped the drilled shaft off with grout at the end of the day. Grout was mixed at a 20 per cubic yard ratio. Grout volume being pumped into the hole was measured in bags of mix used.

Installation of tieback W6/R2 was attempted today but was unsuccessful due to an obstruction encountered at approximately 20 feet downhole. Kulchin attempted to drill through the obstruction with a hammer bit but was unsuccessful. We observed Kulchin fill the abandoned hole with grout. We understand that Kulchin plans to attempt to install tieback W6/R2 approximately 1-foot lower than the planned elevation to avoid the obstruction.

#### Timber Lagging:

No lagging took place today.

## **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

#### Other On-site Activities

A grab sample was taken of the groundwater that seeped into the base of the excavation overnight in order to characterize the groundwater so that it can be properly treated before discharging when the time is appropriate. A 6,500-gallon tank for groundwater and stormwater mitigation was delivered this morning.

Adam Griffin (Aspect) was on site to take over for Ashley (Aspect) and meet with Eric Epple (Arcadis) and Jenny Vital (Kennedy Jenks).

#### **Discussions**

Garrett (REES) communicated the plan for the day, which is to export contaminated soil, continue prepping the west wall for tiebacks, and begin preparing the north wall for lagging installation.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.



Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
Grab-101122	GROUNDWATER	Characterization	NA	SS	SO	
SW-S01-446	Fill	Sidewall	0.1	NS	NO	
SW-S03-446	Fill	Sidewall	0.1	NS	NO	
SW-S06-446	Fill	Sidewall	0.2	NS	NO	
N01-W14-434	Till	Screening	306	MS	НО	Contaminated
N01-W13-432	Till	Screening	2.2	SS	SO	Contaminated
N01-W11-432	Till	Screening	34.8	MS	M-HO	Contaminated
N02-W11-432	Till	Screening	24.9	MS	MO	Contaminated
N03-W14-434	Till	Screening	4.6	SS	SO	Contaminated
N01-W10-432	Till	Screening	13.7	SS	MO	Contaminated
N02-W10-432	Till	Screening	66.6	MS	MO	Contaminated
SW-W09-433	Till	Screening	28.4	MS	MO	Contaminated
N04-W14-434	Till	Screening	13.4	MS	НО	Contaminated
N03-W15-434	Till	Screening	14	MS	MO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

<sup>\*\*</sup> The above screening results represent a snapshot of many field screenings taken throughout the day.



Photo 1. Groundwater seepage at the base of the excavation before digging began for the day.





Photo 2. Example of the soil being excavated from the west end of the site at this depth. Soil is brown to gray, fine to medium sand and silt with fine to coarse gravel and is very compacted, which can make it difficult to break up.

The following attachments are included in Aspect's field file:

- □ Laboratory Chain-of-Custody Form

- ☐ Other:

□ DRAFT	PREPARED BY: Ashley Provow; Bodie McCosby
	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

# SAMPLE CHAIN OF CUSTODY

Report To FAM GNIF	Mrs , Dan	iel Babcou	SAMPL	ERS (signa	ature)							Page #			AROUND	of (
Company ASPECT CON. Address Seattle, Wa		SAMPLERS (signature)  PROJECT NAME  Texa(0 - Shockland)  REMARKS  Project specific RLs? - Yes / No				,	PO#			Standard turnaround  RUSH  Rush charges authorized by:						
City, State, ZIP  Phone Email								INVOICE TO				□ Arc □ Oth Defau	SAMPLE DISPOSAL  Archive samples  Other  Default: Dispose after 30 days			
								37	-			ES REQU	DESTED			
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars		NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			N	otes
Grab-101122		10/11/22	6709	w	于	X	×	X								
SW:501-446		1	0740	5	5	1	1	1								
5W503-4416			0745		1											
5W-506-446		d	0790	4	9	T	o/	7								
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10/11/22 SITE MOUP HUMP 196th Street SW MALL KEY PLAN NORTH WALL X042000200600 WEST WALL contamivated STOUPPLE TEXACO STRICKLAND SITE
TEMPORARY SHORING WALL
SHORING PLAN SOUTH WALL LEGEND N1 SH2.0

Project #:	180357
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	10/11/2022



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
West Wall	W1, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W2, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W3, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W7, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W8, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W9, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W10, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W11, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W12, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W13, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W14, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W15, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W16, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 2	10/11/2022	6							grey silty sand over entire drill length (till). Encountered large obstruction at "20" downhole. Drill rig was unable to drill through obstruction. Hole was abandoned and filled with grout. Contractor plans to re-drill 1
West Wall	W7, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W8, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W9, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till). Encountered 2' diameter boulder which was drilled through.
West Wall	W10, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W11, Row 2	10/11/2022	6	43	19	28	20	4	Yes	grey silty sand over entire drill length (till). Extra strand installed for verification test.
West Wall	W12, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W13, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W14, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

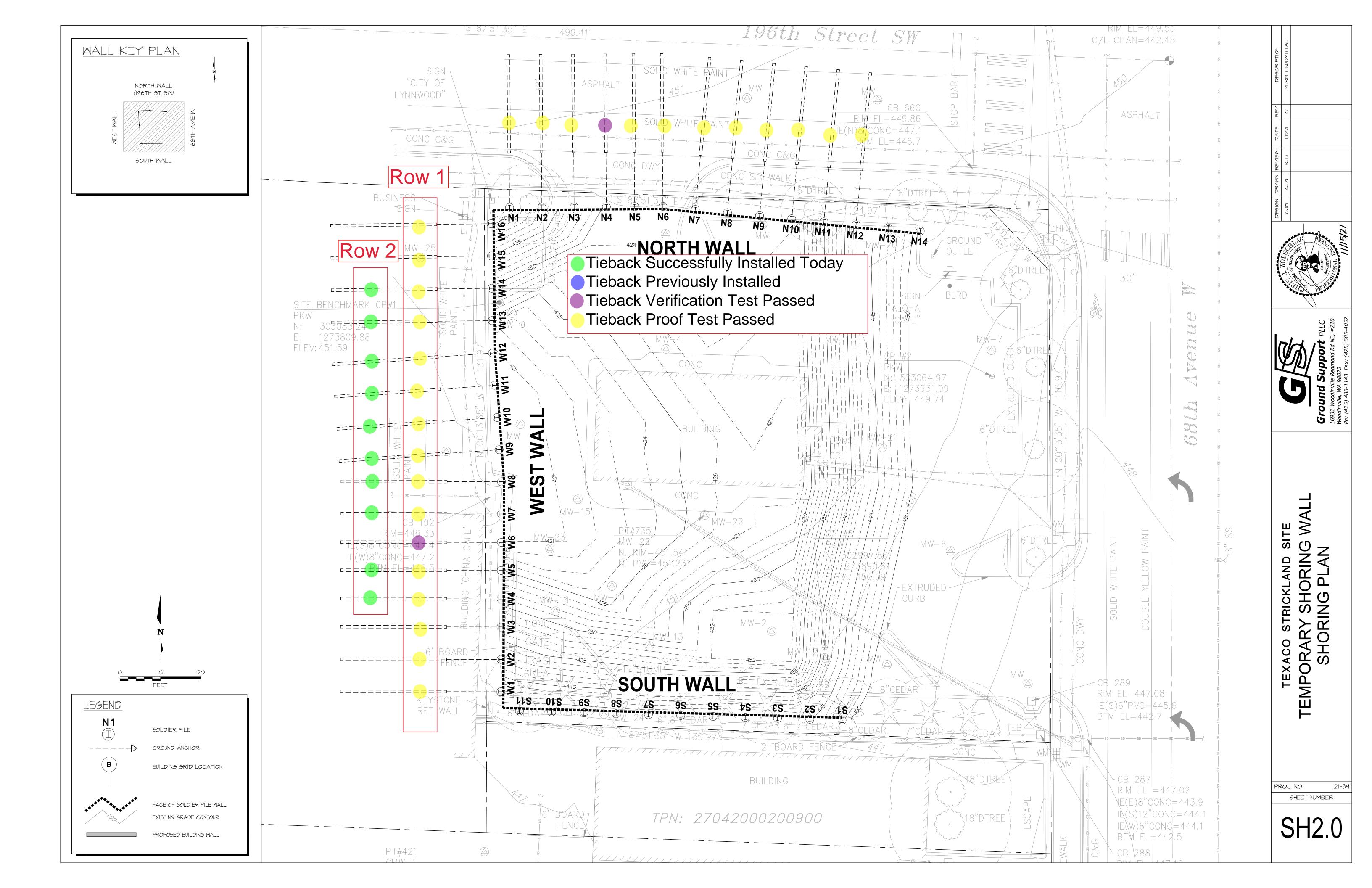
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Installed Today	
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Started/Attempted	

Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North Wall	N1	8/23/2022	8:00	8:45	36	36	W24x162	37.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N2	8/24/2022	8:06	8:38	36	35	W24x162	37	12' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.  Relic tieback encountered.
North Wall	N3	8/23/2022	8:45	9:30	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N4	8/24/2022	8:45	9:09	36	35	W24x162	37	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N4A	8/23/2022	9:30	10:10	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N5	8/24/2022	9:12	9:36	36	31	W24x162	32.5	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N6	8/23/2022	10:10	10:50	36	31	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N7	8/24/2022 - 8/25/2022	8:05	8:30	36	31.5	W24x162	33	boulder at ~6 ft bgs cored through on 8/24 (1:20pm-4:30pm); Kulchin resumed drilling on 8/25; 13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N8	8/23/2022	10:50	11:30	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N9	8/24/2022	10:00	10:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N10	8/23/2022	11:30	12:05	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N11	8/24/2022	11:40	12:37	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N12	8/23/2022	12:05	12:40	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N13	8/24/2022	10:58	11:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N14	8/23/2022	12:40	1:15	36	31.5	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N15	8/29/2022	12:30	1:00	36	31	W24x162	33.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.

Project #:	160311
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	10/4/2022



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
North Wall	N1, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N2, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N3, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N4, Row 1	10/4/2022	6	42	15	26	20	4	Yes	grey silty sand over entire drill length (till).
North Wall	N5, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N6, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N7, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N8, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N9, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N10, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N11, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N12, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:			
10/12/2022	0620	1525	180357			
PROJECT NAME:						
Texaco Strickland Site	exaco Strickland Site					
WEATHER:						
Sunny, 65F, wind to the south						
EQUIPMENT AND CALIBRATION:	Orange PID: 100	ppm				

Carmen Tappero of Aspect Consulting (Aspect) was onsite today to document contaminated soil export completed by Rivers Edge Environmental Services (REES). Bodie McCosby of Aspect Consulting (Aspect) was also on-site to conduct tieback installation along the west side wall installed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil was excavated today.

#### **Contaminated Soil Excavation**

REES excavated contaminated soil from the west side of the site to approximate elevation (EL) 431 feet from the west wall (NO1) to approximately NO8. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors, slight to heavy sheens, and PID readings between 2.2 parts per million (ppm) and 1,500 ppm. Soil in this area is gray to brown sand with silt and gravel and is likely native glacial soils.

Contaminated soil was excavated from the north side of the site to approximate EL 438.5 feet from NO1 to N12, from the north wall to approximately W15. Field screening showed evidence of contamination throughout this area, including slight to heavy petroleum-like odors and moderate to heavy sheens. Soil in this area is gray to brown sand with silt and gravel. The soil is likely native glacial soils.

#### Soil Transportation For Disposal

Clean soil was exported to Cadman's Granite facility in 2 truckloads (truck and trailer and side-dump).

Clean soil excavated today was exported to Cadman's Class III facility in 35 truckloads (truck and trailer and side-dump).

#### **Geotech Activities**

## Tieback Anchor Installation:

Kulchin installed one tieback today, W6/R2. Installation of tieback W6/R2 was successfully completed today 1' below the planned elevation and at a 23-degree declination to avoid the obstruction encountered during drilling yesterday.

The drilled shaft today consisted of a 6-inch-diameter shaft at least as long as the design tieback length as specified on the plans. The shaft was drilled using an air rotary drill rig with a 6-inch-diameter bit. No casing was used today. The drill stem angle was set in accordance with the plans using a magnetic angle finder prior to drilling. Aspect documented the soil conditions for each shaft by observing the spoils during drilling. Additional tieback details and remarks can be found in the Tieback Installation summary.



In general, soils throughout the drilled shafts consisted of slightly moist, gray, gravelly sand and soils (till). The soil conditions were substantially consistent with the conditions we assumed for our design recommendations provided in our geotechnical engineering report dated January 24, 2020.

The tieback tendon installed today consisted of three 0.5-inch-diameter steel strand cable wire tied together with a section of PVC pipe of the same length. Steel strands were separated from each other over the planned bonded section of the tendon with plastic spacers set at a minimum of 3 feet from either end of the bonded section and approximately 5-feet spacing in-between. In the unbonded section, steel strands were cased in PVC. The entire tendon had 6-inch-diameter PVC spacers set at a minimum of 3 feet from the down-hole end of the tendon and spaced at approximately 5-feet over the entire length of the tendon. The tieback tendon was manually pushed down the drilled shaft and protruded from the hole approximately 4 feet.

Following tieback tendon installation, Kulchin pumped the shaft full of clean grout using a grout pump and long PVC tremie pipe. We observed Kulchin topped the drilled shaft off with grout at the end of the day. Grout was mixed at a 20 per cubic yard ratio. Grout volume being pumped into the hole was measured in bags of mix used.

## **Shoring Wall Installation**

No piles installed today.

## **Timber lagging**

The north side wall was prepared for lagging today (see Tieback Inspection Figure).

# **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.

## Other On-site Activities

No other on-site activities conducted today.

## **Discussions**

Garrett w/REES and Carmen w/Aspect discussed plans for Thursday. REES anticipates exporting more contaminated soil from the contaminated soil stockpile as well as from the north wall to prepare for lagging installation.

Howard w/Kulchin and Carmen w/Aspect discussed future lagging and backfilling plans along the north and west wall. Carmen deferred to answers given by Adam Griffin and Rory Kilkenny both with Aspect on what materials to be used for backfilling a 12-foot section of lagging. The answer provided were the following: Along the north wall, controlled density fill (CDF) will be used as backfill material behind lagging. Along the west wall, only pea gravel will be used as backfill behind lagging.

There was further discussion with Howard w/Kulchin about what kind of lagging can be used along the north wall. Breeyn Greer w/Aspect clarified that both treated and untreated lagging can be used along the north wall.



# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	Classification
N11-W10	Contaminated Stockpile	Field Screening	436	MS	Heavy Odor	Contaminated
N09-W11	Contaminated Stockpile	Field Screening	1018	MS	Heavy Odor	Contaminated
N03-W06-432	Native	Field Screening	618	MS	Heavy Odor	Contaminated
N05-W06-431	Native	Field Screening	35.3	NS	Slight Odor	Contaminated
N02-W07-432	Native	Field Screening	14.4	SS	None	Contaminated
N03-W04-432	Native	Field Screening	22.5	SS	Slight Odor	Contaminated
N06-W10-431	Native	Field Screening	45.9	MS	Moderate Odor	Contaminated
N04-W13-432	Native	Field Screening	116	MS	Moderate Odor	Contaminated
N10-W08	Contaminated Stockpile	Field Screening	284	MS	Heavy Odor	Contaminated
S05-W02	Clean Stockpile	Field Screening	1.3	NS	None	Clean

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

<sup>\*\*</sup> The above table represents a snapshot of the many field screening readings taken throughout the day.



Photo 1. Installation of W6/R2 1' lower than original location.





Photo 2. Preparing the north wall for lagging.

The following attachments are included in Aspect's field file:

- ☐ Laboratory Chain-of-Custody Form
- ⊠Tieback Installation Summary
- ⊠Tieback Inspection Figure
- $\square$  Other:

⊠ DRAFT	PREPARED BY:
	Carmen Tappero
□ FINAL	REVIEWED BY:
□ FINAL	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer



This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Preparing for lagging 195th Street SW C/L CHAN=442.45 WALL KEY PLAN SOLD WHITE PIAIN SIGN -"CITY OF ASPHA CB 560 449.87 LYNNWOOD" ASPHALT RIM EL=449.86 IIE(N)8/CONC=447.1 CONC C&G B//M EL=446.7 Mor excavation NORTH WALL today. 27,042000200600 -Avenue 1273809.88 ELEV: 451.59 Contaminated 68thWEST WAL 6"ÓTREE TEXACO STRICKLAND SITE
TEMPORARY SHORING WALL
SHORING PLAN RIM=449.33 「TETS)まであれた=144 元本 = IE(W)8"CONC=447.2 c=== BIM EL=446.5 - EXTRUDED clean® Approximate extent of 6' BOARD 9/22 excavation KEYSTONE RIVEL=447.08 LEGEND IE S)6"PVC=445.6 RET WALL B M EL=44 .7 **N1** ① 2"BOARD FEIL 447 (B) CB 287 | RIM EL =447.02 BUILDING PROJ. NO. 21-39 SHEET NUMBER E(E)8" ONC=443.9 FACE OF SOLDIER PILE WALL BOARD EXISTING GRADE CONTOUR .18"DTREE H(S)12"CONC=444.1 TPN: 27042000200900 SH2.0 IE W)6" ONC=444.1 BT EL 442.5 PT#421

omostly exporting Contaminated Soil From Contaminated Soil Stockpile

Project #:	180357
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	10/12/2022



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
West Wall	W1, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W2, Row 1	9/29/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W3, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 1	9/29/2022	6	41	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W7, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W8, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W9, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W10, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W11, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W12, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W13, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W14, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W15, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W16, Row 1	9/30/2022	6	42	20	25	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W4, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W5, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W6, Row 2	10/12/2022	6	43	19	28	23	3	Yes	grey silty sand over entire drill length (till). Encountered large obstruction at "20' downhole. Drill rig was unable to drill through obstruction. Hole was abandoned and filled with grout. Contractor plans to re-drill 1' below planned elevation.  Successful installation 1' below planned elevation on 10/12/2022.
West Wall	W7, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W8, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W9, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till). Encountered 2' diameter boulder which was drilled through.
West Wall	W10, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W11, Row 2	10/11/2022	6	43	19	28	20	4	Yes	grey silty sand over entire drill length (till). Extra strand installed for verification test.
West Wall	W12, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W13, Row 2	10/11/2022	6	43	19	28	20	3	Yes	grey silty sand over entire drill length (till).
West Wall	W14, Row 2	10/11/2022	6	43.5	19	28	20	3	Yes	grey silty sand over entire drill length (till).

Project #:	160311
Project Name:	AC Yale Hotel
Task:	Inspection of Temporary Shoring Installation
Date:	

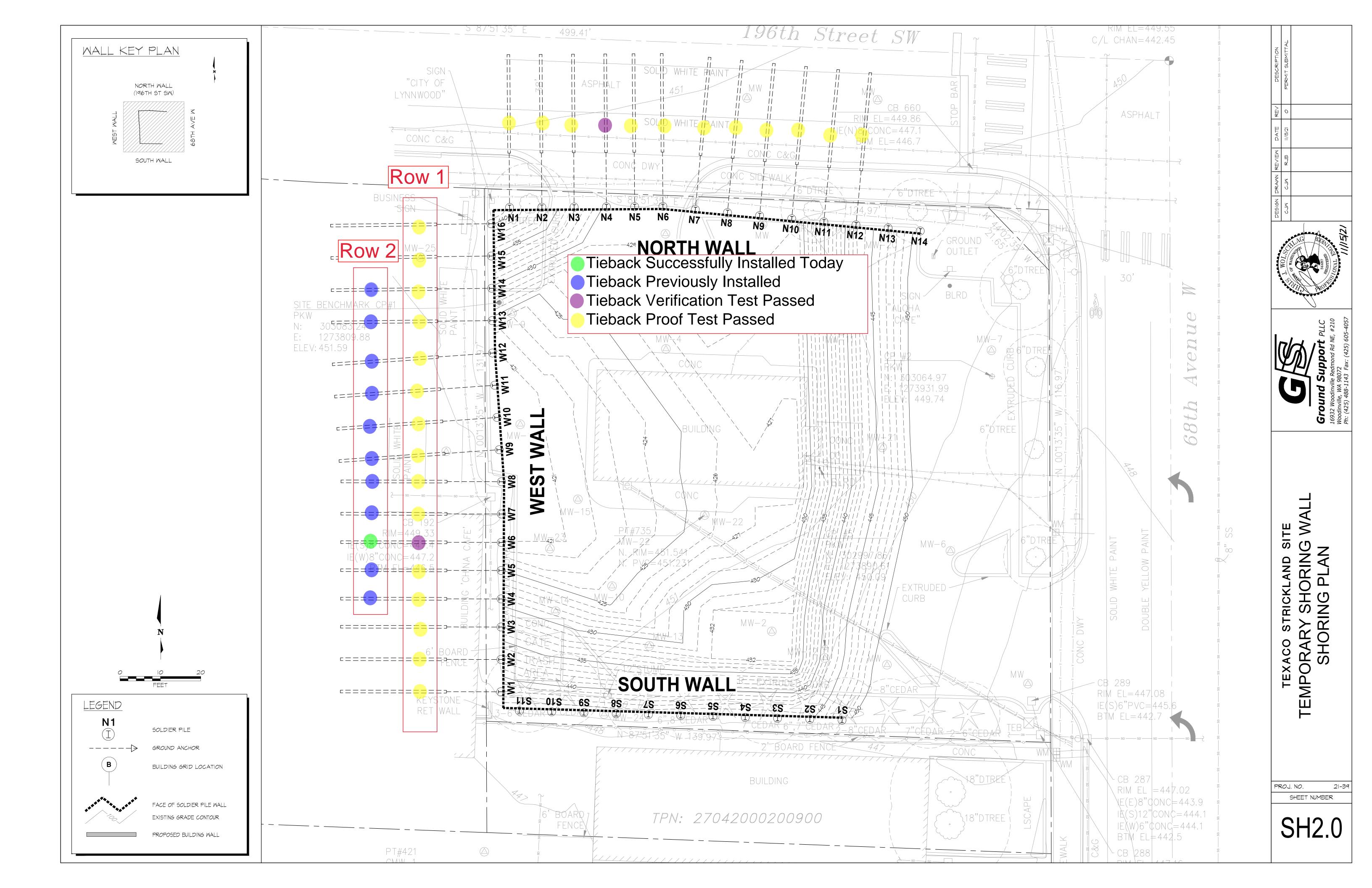
Color Code
Installed Today
Installed Previously
Started/Attempted

Shoring Wall	Vertical Element ID	Installation Date	<b>Drill Start Time</b>	Drill End Time	Shaft Diameter (inches)	Shaft Depth (ft)	Beam Section	Beam Length (ft)	Installation Notes
North Wall	N1	8/23/2022	8:00	8:45	36	36	W24x162	37.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N2	8/24/2022	8:06	8:38	36	35	W24x162	37	12' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.  Relic tieback encountered.
North Wall	N3	8/23/2022	8:45	9:30	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N4	8/24/2022	8:45	9:09	36	35	W24x162	37	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N4A	8/23/2022	9:30	10:10	36	35	W24x162	37	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N5	8/24/2022	9:12	9:36	36	31	W24x162	32.5	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N6	8/23/2022	10:10	10:50	36	31	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N7	8/24/2022 - 8/25/2022	8:05	8:30	36	31.5	W24x162	33	boulder at ~6 ft bgs cored through on 8/24 (1:20pm-4:30pm); Kulchin resumed drilling on 8/25; 13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N8	8/23/2022	10:50	11:30	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N9	8/24/2022	10:00	10:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N10	8/23/2022	11:30	12:05	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N11	8/24/2022	11:40	12:37	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N12	8/23/2022	12:05	12:40	36	31.5	W24x162	33	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N13	8/24/2022	10:58	11:23	36	31.5	W24x162	33	13' of brown silty sand and sandy silt over gray silty sand and sandy silt (glacially consolidated soil) to bottom of shaft.
North Wall	N14	8/23/2022	12:40	1:15	36	31.5	W24x162	32.5	brown silty sand with gravel and cobbles to ~15 ft bgs, over gray silt/sandy silt and silty sand with gravel and cobbles to bottom of shaft; relic tie back encountered.
North Wall	N15	8/29/2022	12:30	1:00	36	31	W24x162	33.5	Brown silty sand to 12' bgs over gray silty sand with gravel (glacially consoliated soil) to bottom of shaft.

Project #:	160311
Project Name:	Aloha Strickland
Task:	Inspection of Temporary Shoring Installation
Date:	10/4/2022



Shoring Wall	Tieback ID	Installation Date	Drill Hole Diameter (inches)	Drill Hole Length (ft)	Unbonded Length (ft)	Bonded Length (ft)	Declination (degrees)	Strands	Centralizers Used?	Installation Notes
North Wall	N1, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N2, Row 1	9/30/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N3, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N4, Row 1	10/4/2022	6	42	15	26	20	4	Yes	grey silty sand over entire drill length (till).
North Wall	N5, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N6, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N7, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N8, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N9, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N10, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N11, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).
North Wall	N12, Row 1	10/4/2022	6	42	15	26	20	3	Yes	grey silty sand over entire drill length (till).





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/13/22	0645	1500	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Sunny, 70F, wind to the NE			
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.0	) ppm	

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document the excavation & export of soil as completed by Rivers Edge Environmental Services (REES) & shoring wall lagging as completed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

REES excavated clean soil from the south section of the site to approximate elevation (EL) 443 feet from W2 to W4 and S4 to S8. There was no field screening evidence of contamination observed in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was stockpiled for disposal at a later date. Additional vertical and lateral excavation is planned for this area, when accessible.

#### **Contaminated Soil Excavation**

REES excavated contaminated soil from the west central section of the site to approximate EL 430 feet from W05 to W11 and from N03 to N06. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 10.4 to 201 ppm. Soil in this area is native gray to brown sand with silt and gravel. Contaminated soil that was not directly loaded onto trucks was placed on unexcavated contaminated soil and covered with plastic.

### Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 23 truckloads (truck and trailer and side-dump).

Clean soil excavated today was exported to Cadman's Granite Falls facility in 6 truckloads (truck and trailer and side-dump).

#### **Geotech Activities**

### **Shoring Wall Installation**

Kulchin installed timber lagging along the north wall between NO1 and N13 down to elevation 440.

### **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### **Discussions**

Garrett w/REES and Daniel w/Aspect discussed beginning excavation on the eastern side of the site starting on Friday, October 14, 2022.

### Confirmation Samples & Field Screening Results Log



The following soil samples were collected by Aspect today, refer to attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	Classification
S04-W02-444	Native	Field Screening	0.4	NS	None	Clean
S08-W04-443	Native	Field Screening	0.1	NS	None	Clean
S07-W03-444	Native	Field Screening	0.1	NS	None	Clean
N04-W05-431	Native	Field Screening	28.2	NS	Slight Odor	Contaminated
N05-W07-432	Native	Field Screening	35.1	NS	Slight Odor	Contaminated
N04-W09-429	Native	Field Screening	10.7	NS	Slight Odor	Contaminated
N05-W09-431	Native	Field Screening	24.5	NS	Slight Odor	Contaminated
N06-W10-434	Native	Field Screening	101	SS	Moderate Odor	Contaminated
N09-W10	Contaminated Stockpile	Field Screening	47.8	SS	Moderate Odor	Contaminated
N04-W11-433	Native	Field Screening	31.1	NS	Slight Odor	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breevn Greer, PF, Project Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

<sup>\*\*</sup> The above table represents a snapshot of the many field screening readings taken throughout the day.



### PHOTOS:

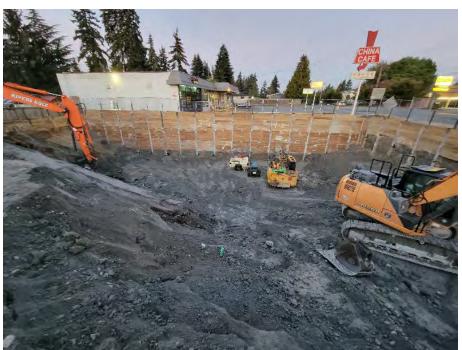
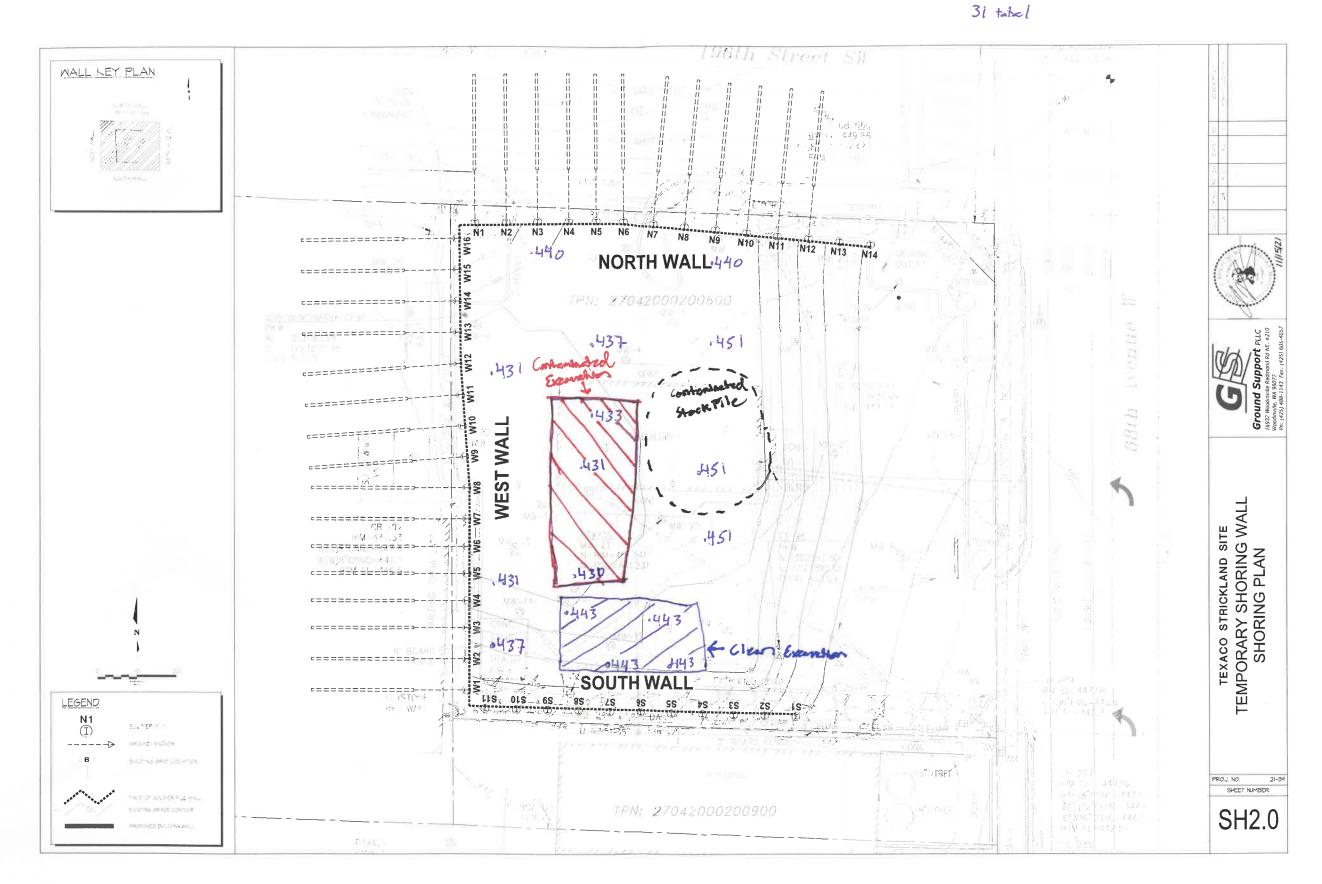


Photo 1: Current excavation extents at the beginning of the day, looking west.



Photo 2: Excavation progression, excavating in contaminated (left) and clean (right).

Drity: 23 clean: 8





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:				
0650	0650	1505	180357				
PROJECT NAME:							
Texaco Strickland Site							
WEATHER:							
Sunny 70F, wind to the southeast							
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.	0 ppm					

Daniel Babcock of Aspect Consulting (Aspect) was on-site today to observe clean and contaminated soil excavation as completed by Rivers Edge Environmental Services (REES). Matthew von der Ahe of Aspect was also on-site to conduct tieback testing along the west sidewall installed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations.

### Clean Soil Excavation

REES excavated clean soil from the south section of the site to approximately Elevation (EL) 442 feet from W02 and W04 and S08 to S04. There was no evidence of contamination observed during field screening in the excavated extents of the excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel and silt. Clean soil produced during the excavation was stockpiled for disposal at a later date. Additional vertical and lateral excavation is planned for this area, when accessible.

#### **Contaminated Soil Excavation**

REES excavated contaminated soil from the northern section of the site to approximately EL 434 feet from W05 to W11 and from N03 to N06. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 28.5 to 80.7 parts per million (ppm). Soil in this area is native gray to brown sand with silt and gravel. Contaminated soil excavated today was directly loaded onto trucks for export.

REES excavated contaminated soil from the northern section of the site grading approximately from EL 436 to EL 444 feet from W14 to W06 and from N08 to N11. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 28.5 to 150.7 ppm. Soil in this area consisted of gray to brown sand with silt and gravel with a native to fill contact at approximately EL 443 feet. Contaminated soil excavated today was directly loaded onto trucks for export.

#### Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 31 truckloads (truck and trailer and side-dump).

Clean soil excavated today was exported to Cadman's Granite Falls facility in 1 truckload (truck and trailer and side-dump).

Geotech Activities Shoring Wall Installation No piles installed today.



### Tieback Installation

No tiebacks installed today.

### Tieback Testing

Tiebacks W-4-2, W-5-2, W-7-2 through W-10-2, W-12-2 through W14-2 were proof-tested today for competency. Tieback W-11-2 was verification-tested to 200% of the design load. All tiebacks passed testing and were locked off at 95 kips (~4500 pounds per square inch [psi]). See attached tieback testing results.

### Unanticipated Field Discoveries

No unanticipated field discoveries today.

### Other On-site Activities

REES constructed a ramp to allow Kulchin to remove their drill rig out of the excavation in preparation for pickup on Monday.

#### **Discussions**

Garrett w/REES and Daniel w/Aspect discussed scope of work for early next week. Garrett anticipates excavating along the north sidewall Monday in preparation for the next lagging row and then along the west sidewall on Tuesday.

### Confirmation Samples and Field Screening Results Log

The following soil samples were collected by Aspect today; refer to attached chain of custody for selected laboratory analyses and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen*	Odor*	Classification
B-N04-W09-428	Native	Bottom	5.5	NS	None	Clean
B-N99-W99-428	Native	Dup of N04-W09	5.5	NS	None	Clean
S08-W02-442	Native	Field Screening	1.0	NS	None	Clean
S07-W03-442	Native	Field Screening	0.8	NS	None	Clean
S05-W04-443	Native	Field Screening	1.2	NS	None	Clean
N08-W06-438	Native	Field Screening	80.7	SS	MO	Contaminated
N08-W11-439	Native	Field Screening	75.1	SS	MO	Contaminated
N09-W10-445	Native	Field Screening	64.3	SS	MO	Contaminated
N10-W11-446	Native	Field Screening	44.2	SS	MO	Contaminated
N03-W15-436	Native	Field Screening	28.5	SS	SO	Contaminated
N06-W14-435	Native	Field Screening	150.7	SS	MO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, SO = Slight Odor, MO = Moderate Odor

The 1	following	attachments a	re included	in Aspect's	field file

- □ Laboratory Chain-of-Custody Form

- $\square$  Other:

<sup>\*\*</sup> The above table represents a snapshot of the many field screening results collected throughout the day.



□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
E IIIAL	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



# **PHOTOS**



Photo 1: Excavation progression at elevation ~431 facing North.



# SAMPLE CHAIN OF CUSTODY

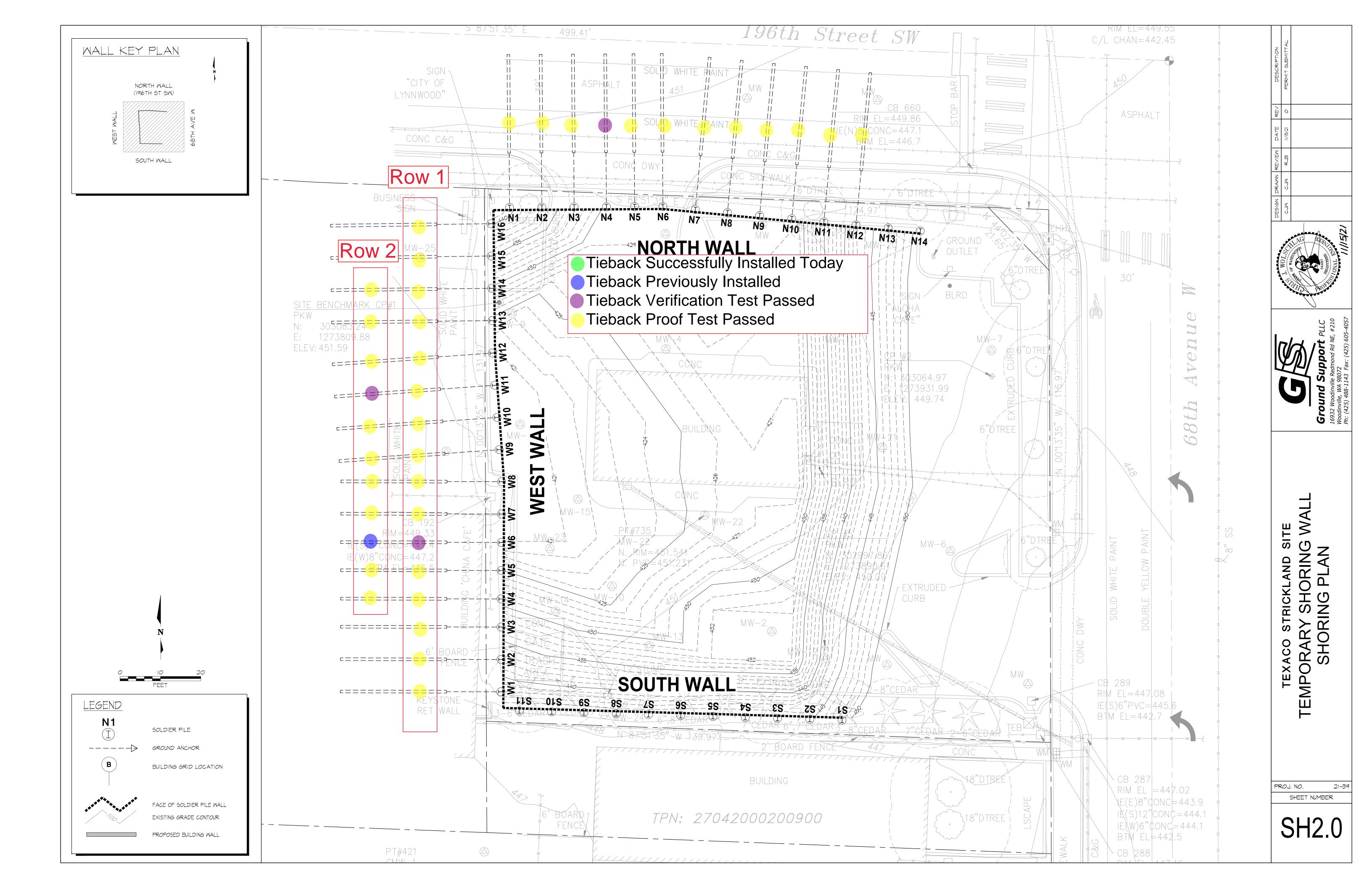
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SAMPLERS (signature)

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City, State, ZIF			-														samples
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Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX IN BY SPALO				Notes
B-N04-W09-428		10/14/22	0930	Sell	5	×	X						2				·
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Friedman & Bruya, Inc. Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Relinquished by:	Dore Blond	Aspect	10/14/22	1534
i	Received by:	VINTI	FB1	10-14-22	1574
	Relinquished by:				2
е.	Received by:				



Rentals · Rebuilt Equipment · New Sales · Testing

4/21/2022

# **Calibration Results**

CYLINDER Manufacturer: Orbit

Model: **ORDH100/6** S/N: **KFD10001** 

Effective Area

Certificate No: 359828638

21.59

Date: 4/21/2022

PUMP Manufacturer: n/a

Model: S/N: GAUGE Manufacturer: Wika

Model: 213.53 S/N: 918

#### **Test Data**

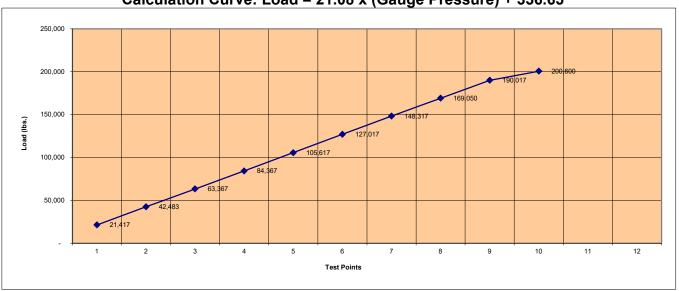
Test Data											
Gauge Pressure	Verified Actual Average Load	Calculated Load	Percent of Error								
1000	21,417	21,590	-0.81%								
2000	42,483	43,180	-1.64%								
3000	63,367	64,770	-2.21%								
4000	84,367	86,360	-2.36%								
5000	105,617	107,950	-2.21%								
6000	127,017	129,540	-1.99%								
7000	148,317	151,130	-1.90%								
8000	169,050	172,720	-2.17%								
9000	190,017	194,310	-2.26%								
9500	200,600	205,105	-2.25%								

Jacking Solutions LLC hereby certifies that the above described instrument(s) met or exceeded all published specifications at the time of calibration specified on attached Calibration Report. The instrument(s) has been calibrated using standards whose accuracies are traceable to the national Institute of Standards and Technology (NIST) within the limitations of the Institute's calibration services.

Tested by:

David Lilyblade
Jacking Solutions LLC

### Calculation Curve: Load = 21.08 x (Gauge Pressure) + 336.65



Aloha Strickland Project #180357

Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

Tieback Info	,	
# of Strands	3	
Bonded Length	28	ft
Unbonded Length	16	ft
Design Load (DL)	95	kip:
<b>Minimum Theoretical Deflection</b>	1.285	in
Lock-Off Pressure	4491	psi
Lock-Off Load	95	kips

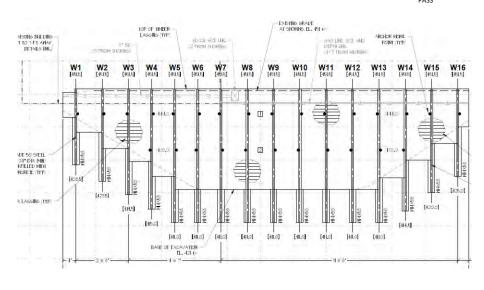
From Calibration

Slope, m 21.08 Y-Int, b 336.65

		Proof	Test Sched	lule		
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator
Kips	PSI	psi	kips		minutes	inches
AL		400	9	9%	1 minute	0
24	1111	1100	24	25%	Until Stable	0.232
48	2237	2200	47	49%	Until Stable	0.624
71	3364	3400	72	76%	Until Stable	1.080
95	4491	4500	95	100%	Until Stable	1.541
119	5617	5600	118	125%	Until Stable	2.010
126	5978	6000	127	133%	1	2.202
					2	2.202
AL	LOODL				3	2.202
0.25DL	1,25DL				5	2.202
0.50DL	133DL				6	2.209
0.75DL	1,5052				10	2.209

			ME	ST WA	LL			
			AN	CHOR SCHED	U.E			
PILE(5)	RON NUMBER	DECLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENSTH (FT)	EOND LENSTH (FT)	NO.OF STRANDS	DESIGN LOAD (k)	LOCKOFF LOAD (k)
MI-MI6	1 2	20 20	41 48	l6 l5	25 28	3 3	85 45	85 45

0.007 Creep Deflection PASS



# **Aspect Consulting, LLC**

### **Tieback Proof Test**

# Aloha Strickland Project #180357

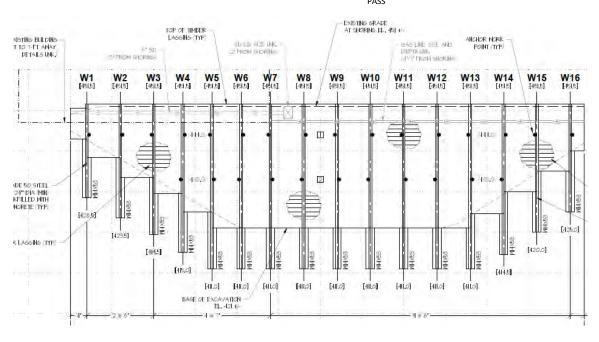
Tieback ID: W-5-2 Tieback Info Equipment Cylinder: Orbit ORDH150/10 Test Type: Proof # of Strands: Date Tested: 10/14/2022 Pump: SPX Power Team Bonded Length: 28 ft Pressure Gauge: Wika 213.53 16 ft Aspect Representative: MvA Unbonded Length: Design Load (DL): 95 kips **1.285** in From Calibration **Minimum Theoretical Deflection:** Slope, m Lock-Off Pressure: **4491** psi Y-Int, b 336.65 psi Lock-Off Load: 95 kips

Proof Test Schedule										
Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator						
psi	kips		minutes	inches						
400	9	9%	1 minute	0	AL					
1100	24	25%	Until Stable	0.270						
2200	47	49%	Until Stable	0.682						
3400	72	76%	Until Stable	1.155						
4500	95	100%	Until Stable	1.658						
5600	118	125%	Until Stable	2.212						
6000	127	133%	1	2.421	1					
			2	2.423	F					
			3	2.431	<i>\r</i>					
			5	2.431	L_					
			6	2.431						
			10	2.433						

ľ				ME	ST WA	LL				
ı	ANCHOR SCHEDULE									
	PILE(S)	ROW NUMBER	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	Bond Length (Ft)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)	
	MI-MI6	1 2	20 20	4I 43	16 15	25 28	3	85 45	85 45	

2.148

0.012 Creep Deflection
PASS



Aloha Strickland Project #180357

| Tieback ID: W-| Test Type: Pro | Date Tested: 10/14 | Aspect Representative: Mr.

 W-7-2
 Equipment

 Proof
 Cylinder: Orbit ORDH150/10

 10/14/2022
 Pump: SPX Power Team

 MvA
 Pressure Gauge: Wika 213.53

From Calibration

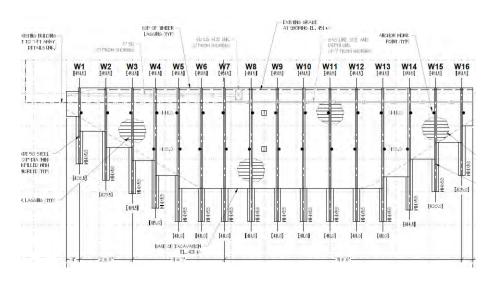
Slope, m 21.08 Y-Int, b 336.65 psi

		Proof	Test Sche	dule		
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator
Kips	PSI	psi	kips		minutes	inches
AL		400	9	9%	1 minute	0.001
24	1111	1100	24	25%	Until Stable	0.151
48	2237	2200	47	49%	Until Stable	0.478
71	3364	3400	72	76%	Until Stable	0.810
95	4491	4500	95	100%	Until Stable	1.226
119	5617	5600	118	125%	Until Stable	1.670
126	5978	6000	127	133%	1	1.966
VI.					2	1.966
Δ1.	1000				3	1.966

119	3017	3000	110	125%	Ultili Stable	1.070	
126	5978	6000	127	133%	1	1.966	
					2	1.966	
AL 1,00DL 0.25DL 1,25DL	LOODL				3	1.966	
				5	1.966	Вι	
O.SODL	133DL				6	1.975	
0.750	1000				10	1.975	

	WEST WALL										
ANOHOR SCHEDULE											
	ROM NATION LENGTH LENGTH HOLOF LOAD LO								Lockoff Load (k)		
	MI-MI6	1 2	20 20	41 43	16 15	25 28	3	85 <del>4</del> 0	85 45		

0.009 Creep Deflection PASS



**Aloha Strickland** Project #180357

Tieback ID: W-8-2 Test Type: Date Tested: 10/14/2022 Aspect Representative: MvA

Equipment Cylinder: Orbit ORDH150/10 Pump: SPX Power Team Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	28	ft
Unbonded Length:	16	ft
Design Load (DL):	95	kips
Minimum Theoretical Deflection:	1.285	in
Lock-Off Pressure:	4491	psi
Lock-Off Load:	95	kips

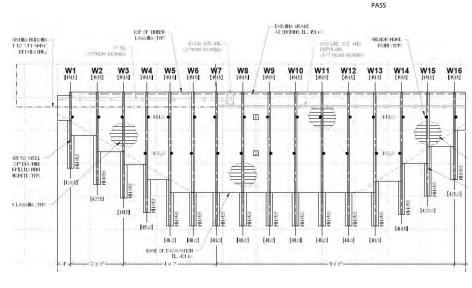
From Calibration

Slope, m Y-Int, b

	Proof Test Schedule								
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1		
Kips	PSI	psi	kips		minutes	inches			
AL		350	8	8%	1 minute	0.001	ΑL		
24	1111	1100	24	25%	Until Stable	0.255	İ		
48	2237	2200	47	49%	Until Stable	0.535	İ		
71	3364	3400	72	76%	Until Stable	0.937	1		
95	4491	4500	95	100%	Until Stable	1.363	İ		
119	5617	5600	118	125%	Until Stable	1.831	İ		
126	5978	6000	127	133%	1	2.046	İ		
_					2	2.046	İ		
AL	LOODL				3	2.047	1		
0.25DL	1,25DL				5	2.047	Вι		
0.50DL	1,33DL				6	2.058	İ		
0.75DL	10000				10	2.058	ı		
O. DOL									

			ME	ST WA	LL				
	ANGHOR SCHEDULE								
PILE(9)	ROW NUMBER	DEGLI- NATION (DEG)	TOTAL LENSTH (FT)	LNBOND LENSTH (Ft)	BOND LENGTH (FT)	No.oF STRANDS	DESISN LOAD (k)	LOCKOFF LOAD (k)	
MI-MI6	1 2	20 20	4I 48	16 15	25 28	3	85 45	85 45	

0.012 Creep Deflection



Aloha Strickland Project #180357

Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

		Tieback Info
	3	# of Strands:
ft	28	Bonded Length:
ft	16	Unbonded Length:
kips	95	Design Load (DL):
in	1.285	Minimum Theoretical Deflection:
psi	4491	Lock-Off Pressure:
kins	95	Lock-Off Load:

From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

		Proof	Test Sche	dule						
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1			
Kips	PSI	psi	kips		minutes	inches				
AL		300	7	7%	1 minute	0.001	AL			
24	1111	1100	24	25%	Until Stable	0.231			1406	
48	2237	2200	47	49%	Until Stable	0.611				ME
71	3364	3400	72	76%	Until Stable	1.062	A			
95	4491	4500	95	100%	Until Stable	1.501			DEGLI-	TOTAL
119	5617	5600	118	125%	Until Stable	2.001		RON	NATION	LENGTH
126	5978	6000	127	133%	1	2.195	PILE(5)	NUMBER	(DEG)	(FT)
V					2	2.194	MI-M6	1 2	20	4I 43
AL	LOODL				3	2.194	<u> </u>		20	15
0.25DL	1.25DL				5	2.204	BUMP			
0.50DL	1.33DL				6	2.204				
0.75DL	1,50BL				10	2.204	]			

			ME	ST WA	LL					
	ANCHOR SCHEDULE									
PILE(5)	RON NUMBER	DEGLI- NATION (DEG)	TOTAL LENSTH (FT)	Unbond Length (Ft)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (k)	LOCKOF LOAD (k)		
MI-MI6	1 2	20 20	4I 43	16 15	25 28	3	85 45	85 45		

0.009 Creep Deflection PASS

METING BUILDING TITO THE ANAY DETAILS UNK.) BAS LINE SIZE AND DEPTH LINE. W12 W11 [4615] W10 W13 W15 W16 Ш 141.0 2 (44.5) R LASSING (TYP) 145.01 HILD] [HILD] [411,0] [411.0] [40.0] BASE OF EXCAVATION EL. 421 (-

### Aloha Strickland Project #180357

| Tieback ID: W-10-2 | Test Type: Proof | Date Tested: 10/14/2022 | Aspect Representative: MyA

 W-10-2
 Equipment

 Proof
 Cylinder: Orbit ORDH150/10

 /14/2022
 Pump: SPX Power Team

 MvA
 Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	28	ft
Unbonded Length:	16	ft
Design Load (DL):	95	kips
Minimum Theoretical Deflection:	1.285	in
Lock-Off Pressure:	4491	psi
Lock-Off Load:	95	kips

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

	Proof Test Schedule									
Target Load Target Gauge Pressure Gauge Pressure Load % DL Hold Time (min) Dial Indicator										
Kips	PSI	psi	kips		minutes	inches				
AL		400	9	9%	1 minute	0.001	AL			
24	1111	1100	24	25%	Until Stable	0.178	İ			
48	2237	2200	47	49%	Until Stable	0.427	İ			
71	3364	3400	72	76%	Until Stable	0.931	l			
95	4491	4500	95	100%	Until Stable	1.374	ı			
119	5617	5600	118	125%	Until Stable	1.855	ı			
126	5978	6000	127	133%	1	2.042	İ			
WT.					2	2.042	1			

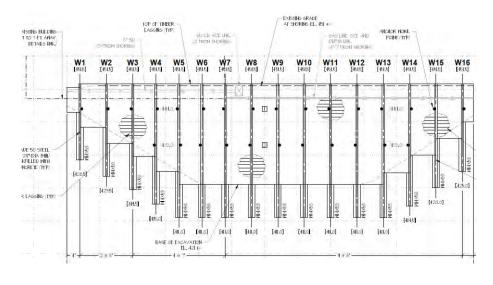
AL	LOODL
0.25DL	1,25DL
0.50DL	1,33DL
0.75DL	-

	WEST WALL											
	ANOHOR SCHEDULE											
PILE(5)	ROW NUMBER	DEGLI- NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENSTH (FT)	BOND LENGTH (FT)	NO, OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (k)				
MI-MI6	1 2	20 20	41 48	16 15	25 28	3 3	85 45	85 45				

0.009 Creep Deflection PASS

2.042

2.051



Tieback ID: W-: Test Type: Verifi Date Tested: 10/14

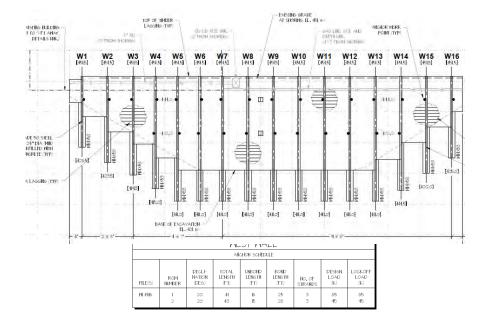
W-11-2 Verification 10/14/2022 MvA Equipment
Cylinder: Orbit ORDH100/6
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

Aspect Representative:

	Verification Test Schedule										
Target Load	Tagret Gauge Pressure	Actual Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator					
kips	psi	psi	kips		minutes	inches					
AL	AL	400	9	9%	10	0.001					
23.75	1111	1100	24	25%	10	See Creep Test					
52.25	2463	2200	47	49%	10	See Creep Test					
71.25	3364	3400	72	76%	10	See Creep Test					
95	4491	4500	95	100%	10	See Creep Test					
118.75	5617	5600	118	125%	10	See Creep Test					
142.5	6744	6700	142	149%	60	See Creep Test					
166.25	7871	7900	167	176%	10	See Creep Test					
190	8997	9000	190	200%	10	See Creep Test					
166.25	7871	7900	167	176%	Until Stable	2.446					
142.5	6744	6700	142	149%	Until Stable	2.219					
118.75	5617	5600	118	125%	Until Stable	1.945					
95	4491	4500	95	100%	Until Stable	1.672					
71.25	3364	3400	72	76%	Until Stable	1.395					
47.5	2237	2200	47	49%	Until Stable	1.075					
23.75	1111	1100	24	25%	Until Stable	0.762					
AL	AL	300	7	7%	Until Stable	0.447					



Tieback Info		
# of Strands:	4	
Bonded Length:	25	
Design Load (DL):	95	kips
Lock-Off Pressure:	4491	psi
Lock-Off Load:	95	kips
Minimum Theoretical Deflection:	1.359	in

	Creep Tests												
	Dial Indicator (inches)												
Time (min)	25%	50%	75%	100%	125%	150%	175%	200%					
1	0.183	0.445	0.625	0.865	1.075	1.721	2.094	2.46					
2	0.183	0.445	0.625	0.866	1.075	1.721	2.094	2.458					
3	0.183	0.445	0.625	0.867	1.076	1.722	2.095	2.459					
5	0.183	0.445	0.625	0.867	1.076	1.722	2.095	2.459					
6	0.183	0.445	0.625	0.867	1.076	1.722	2.095	2.459					
10	0.183	0.445	0.625	0.867	1.076	1.719	2.095	2.459	Bump				
20								2.469					
30	Ī							2.47	Bump				
50	Ī							2.478					
60								2.478					
Creep (inches):	0	0	0	0.002	0.001	-0.002	0.001	-0.001					

#### -0.002 Creep Deflection PASS

8C, VERFICATION TESTS SHALL BE PERFORMED ON 2 ANCHORS PER SOIL TYPE ENCONTRETED, ANCHOR TYPE LISTED OR NETALLATION METHOD LISTED, VERIFICATION ANCHORS OAK BE LISTED AS PEOPLETION MEANERS IF THE'T ARE ACCEPTABLE AS DETRIBED BELOW, THE VERFICATION TEST SHALL BE MODE BY INCREMENTALLY LOADING THE ANCARE IN ACCORDANCE WITH THE TOLLOPING STEEDELL.

LOAD	HOLD TIME	LOAD	HOLD TIME	LOAD	HOLD TIME
AL.	UNTIL STABLE	0.25DL	UNTIL STABLE	0.75DL	UNTIL STABLE
0.25DL	UNTIL STABLE	O.SODL	UNTIL STABLE	LOODL	UNTIL STABLE
AL.	UNTIL STABLE	0.7501.	UNTIL STABLE	1.25DL	UNTIL STABLE
0,25DL	UNTIL STABLE	LOODL	UNTIL STABLE	LECOL	UNTIL STABLE
O.SODL	UNTIL STABLE	L25DL	UNTIL STABLE	L75DL	UNTIL STABLE
AL.	UNTIL STABLE	AL.	UNTIL STABLE	AL.	UNTIL STABLE
0.25DL	UNTIL STABLE	0.25DL	UNTIL STABLE	0.25DL	UNTIL STABLE
O,5ODL	UNTIL STABLE	o.sopt.	UNTIL STABLE	0,50DL	UNTIL STABLE
O.TEDL	UNTIL STABLE	0.75DL	UNTIL STABLE	0.75DL	UNTIL STABLE
AL.	UNTIL STABLE	LOODL	UNTIL STABLE	LOODL	UNTIL STABLE
0.25DL	UNTIL STABLE	L25DL	UNTIL STABLE	L25DL	UNTIL STABLE
0.50DL	UNTIL STABLE	LSODE.	60 MINUTES	LSODL	UNTIL STABLE
0.15DL	UNTIL STABLE	AL.	UNTIL STABLE	1.75DL	UNTIL STABLE
LOODL.	UNTIL STABLE	0.25DL	UNTIL STABLE	2,00DL	UNTIL STABLE
AL.	UNTIL STABLE	0.50DL	UNTIL STABLE	AL.	UNTIL STABLE

LOAD	HOLD TIME	LOAD	HOLD TIME
AL	1 MINUTE	1.75DL	UNTIL STABLE
0.25DL	10 MINUTES	1.50DL	UNTIL STABLE
0.50DL	10 MINUTES	1.25DL	UNTIL STABLE
0.75DL	10 MINUTES	1.00DL	UNTIL STABLE
1.00DL	10 MINUTES	0.75DL	UNTIL STABLE
1.25DL	10 MINUTES	0.50DL	UNTIL STABLE
1.50DL	60 MINUTES	0.25DL	UNTIL STABLE
1.75DL	10 MINUTES	AL	UNTIL STABLE
2 00DI	10 MINUTES		

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINNMH LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED OOSDL. DIAL GAUGES SHOULD BE SET AT "LERO" ATTER THE ALIGNMENT LOAD HAS BEEN APPLED,

A IO-MINITE CREEP TEST SHALL BE PERFORMED AT THE 150 DL AND 2,00DL BIOREMENTS, THE LOAD-HOLD PERIOD SHALL START AS 5,00M AS THE MAXIMAN TEST LOAD IS APPLIED AND THE ANGLOR MOVEMENT SHALL BE MEASURED AND RECORDED AT 12,35,56, AND ID MINITES, IF THE ANGLOR MOVEMENT RETRIED HAD IN INNITES EXCEEDS 0,00M BIORES, THE ANGLOR MOVEMENT BETRIED HAD DETERMINED BY BUILDING AND MOVIETS, IF THE LOAD HALL IS EXCEEDED. THE ANGLOR MOVEMENT SHALL BE RECORDED AT 20, 30,50, AND 60 MINITES.

Aloha Strickland Project #180357

 Tieback ID:
 W-12-2

 Test Type:
 Proof

 Date Tested:
 10/14/2022

 Aspect Representative:
 MvA

Equipment
Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

	Tieback Info
3	# of Strands:
28 ft	Bonded Length:
16 ft	Unbonded Length:
95 kips	Design Load (DL):
<b>1.285</b> in	Minimum Theoretical Deflection:
<b>4491</b> psi	Lock-Off Pressure:
OF kins	Lock Off Loods

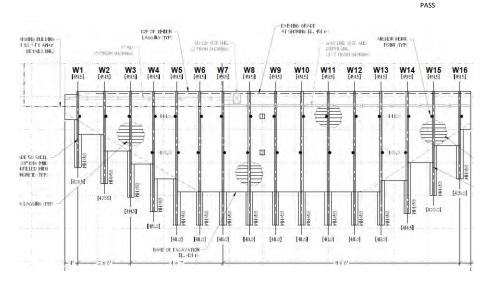
From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

	Proof Test Schedule										
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1				
Kips	PSI	psi	kips		minutes	inches					
AL		300	7	7%	1 minute	0.001	Αl				
24	1111	1100	24	25%	Until Stable	0.246	ĺ				
48	2237	2200	47	49%	Until Stable	0.649	İ				
71	3364	3400	72	76%	Until Stable	1.094	l				
95	4491	4500	95	100%	Until Stable	1.475	ĺ				
119	5617	5600	118	125%	Until Stable	2.020	İ				
126	5978	6000	127	133%	1	2.360	ĺ				
-					2	2.361	İ				
AL	LOODL				3	2.362	l				
0.25DL	1,25DL				5	2.362	ĺ				
0.50DL	133DL				6	2.362	İ				
0.75DL	1505	_			10	2.362					
O. ISPL					Bump	2.25	-				

				ST WA				
PILE(5)	ROW NUMBER	DEGLI- NATION (DEG)	TOTAL LENSTH (FT)	LINEOND LENSTH (FT)	BOND LENSTH (FT)	No. of STRANDS	DESISN LOAD (K)	LOCKOFF LOAD (K)
MI-MI6	1 2	20 20	4I 43	16 15	25 28	3	85 45	25 45

0.002 Creep Deflection



### Aloha Strickland Project #180357

 Tieback ID:
 W-13-2

 Test Type:
 Proof

 Date Tested:
 10/14/2022

 Aspect Representative:
 MyA

 W-13-2
 Equipment

 Proof
 Cylinder: Orbit ORDH150/10

 /14/2022
 Pump: SPX Power Team

 MvA
 Pressure Gauge: Wika 213.53

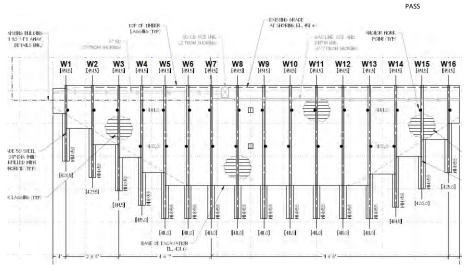
Tieback Info		
# of Strands:	3	
Bonded Length:	28	ft
Unbonded Length:	16	ft
Design Load (DL):	95	kips
Minimum Theoretical Deflection:	1.285	in
Lock-Off Pressure:	4491	psi
Lock-Off Load:	95	kips

From Calibration

Slope, m 21.08 Y-Int, b 336.65 psi

	Proof Test Schedule										
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1				
Kips	PSI	psi	kips		minutes	inches					
AL		300	7	7%	1 minute	0.001	ΑL				
24	1111	1100	24	25%	Until Stable	0.215	1				
48	2237	2200	47	49%	Until Stable	0.600	1				
71	3364	3400	72	76%	Until Stable	1.101	ı				
95	4491	4500	95	100%	Until Stable	1.579	1				
119	5617	5600	118	125%	Until Stable	2.129	1				
126	5978	6000	127	133%	1	2.321					
V-					2	2.320					
AL	LOODL				3	2.319					
	100000000000000000000000000000000000000						4.				

	MEST WALL archer schedule								
PILE(5)	ROM NUMBER	DEGLI- NATION (DEG)	TOTAL LENSTH (FT)	UNBOND LENSTH (FT)	BOND LENSTH (FT)	NO. OF STRANDS	DESIGN LOAD (k)	LOCKOFF LOAD (k)	
HI-HI6	1 2	20 20	41 43	16 15	25 26	3	85 45	85 45	



### **Aloha Strickland** Project #180357

Tieback ID: W-14-2 Test Type: Date Tested: 10/14/2022 Aspect Representative: MvA

Equipment Cylinder: Orbit ORDH150/10 Pump: SPX Power Team Pressure Gauge: Wika 213.53

Tieback Info		
# of Strands:	3	
Bonded Length:	28	ft
Unbonded Length:	16	ft
Design Load (DL):	95	kips
Minimum Theoretical Deflection:	1.285	in
Lock-Off Pressure:	4491	psi
Lock-Off Load:	95	kips

From Calibration

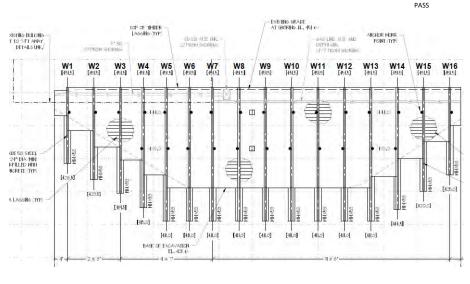
Slope, m Y-Int, b

	Proof Test Schedule										
Target Load	Target Gauge Pressure	Gauge Pressure	Load	% DL	Hold Time (min)	Dial Indicator	1				
Kips	PSI	psi	kips		minutes	inches					
AL		400	9	9%	1 minute	0.001	ΑL				
24	1111	1100	24	25%	Until Stable	0.222	1				
48	2237	2200	47	49%	Until Stable	0.641	I				
71	3364	3400	72	76%	Until Stable	1.111	H				
95	4491	4500	95	100%	Until Stable	1.559	1				
119	5617	5600	118	125%	Until Stable	2.046	11				
126	5978	6000	127	133%	1	2.249	11				
V					2	2.249	11				
AL	LOODL				3	2.249	11				

119	5617	5600	118	125%	Until Stable	2.046
126	5978	6000	127	133%	1	2.249
					2	2.249
AL	LOODL				3	2.249
0.25DL	1,25DL				5	2.249
O.SODL	ISSPL				6	2.249
0.75DL	1,5052				10	2.249
O-IDDE					Duman	2.25

L	WEST WALL										
	ANGHOR SCHEDULE										
	MI-MI6	1 2	20 20	4I 43	16 15	25 28	3 3	85 45	85 45		

0.000 Creep Deflection





ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:						
0700	1520	180357						
PROJECT NAME:								
Texaco Strickland Site								
69 F, Mostly Sunny, wind 4 mph SSW								
Yellow PID: 9	99.6 ppm							
	mph SSW	0700 1520	0700 1520 180357 mph SSW					

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document the excavation and export of contaminated soil along the north and west areas of the site, as completed by Rivers Edge Environmental Services (REES). Matthew von der Ahe of Aspect was also on-site to conduct tieback testing along the west sidewall installed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

### Clean Soil Excavation

No clean soil was excavated today.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from approximately W03 to W14 from approximate elevation EL 432-431 feet to EL 431-429 feet from the west wall to the current stockpile approximately in line with pile N09. Along the north edge of the site, contaminated soil was excavated from approximately N01 to N12 from approximate EL 441-440 feet to approximately 436 feet from the north wall to approximately W14. Soil was periodically screened using olfactory, visual, and PID tests. PID readings along the west wall ranged from less than 1 ppm to 13.8 ppm with slight to heavy odors and slight to heavy sheens. Soil along the north wall produced PID readings of less than 1 ppm to 21.8 ppm, with ambient readings sometimes ranging over 100 ppm when soil was actively being disturbed. Soil not directly loaded onto trucks was stockpiled in the middle of the site and lined and covered with plastic.

#### Soil Transportation For Disposal

Contaminated soil was transported on 8 trucks for 38 loads to Cadman's class III facility in Everett (truck and trailer and side-dump).

#### **Geotech Activities**

Soldier Pile Installation NA

#### **Tieback Testing**

Tiebacks W-6-2 was proof-tested today for competency. All tiebacks passed testing and were locked off at 95 kips (~4500 psi). See attached tieback testing results and tieback inspection figures.

### **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

#### Other On-site Activities

There were no other on-site activities today.



### **Discussions**

Garrett discussed the plan for today, which is to continue prepping the north and west walls for lagging installation.

### Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
SW-N02-437	Native	Sidewall	0.5	Very SS	NO	
SW-N04-437	Native	Sidewall	1.3	NS	NO	
SW-N07-437	Native	Sidewall	2.8	NS	NO	
SW-N10-437	Native	Sidewall	2.6	NS	SO	
SW-N12-437	Native	Sidewall	1.8	SS	SO	
Screening	Soil Type	Sample	PID (ppm)	Sheen *	Odor*	
Location		Purpose**				
N03-W15-435	Native	SCREENING	12.3	NS	SO	Contaminated
N04-W16-435	Native	SCREENING	9.8	SS	M-HO	Contaminated
N06-W16-435	Native	SCREENING	12.3	MS	НО	Contaminated
N11-W14-436	Native	SCREENING	3.9	HS	НО	Contaminated
N07-W15-435	Native	SCREENING	2.6	NS	SO	Contaminated
N11-W14-437	Native	SCREENING	21.8	MS	НО	Contaminated
N08-W14-435	Native	SCREENING	14.8	SS	MO	Contaminated
N03-W06-431	Native	SCREENING	13.8	SS	MO	Contaminated
N02-W04-431	Native	SCREENING	9.5	SS	S0	Contaminated
N01-W09-430	Native	SCREENING	20.6	SS	MO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, NO = No Odor, SO = Slight Odor, HO = Heavy Odor

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.



Figure 1. The northwest corner of the excavation as seen at the beginning of the day today (10/17)





Figure 2. Photo of the northeast corner of the site, near pile N12 and N13, showing the amount of groundwater seepage in this location.

The following attachments are included in Aspect's field file:

□ Laboratory Chain-of-Custody Form

 $\square$  Other:

□ DRAFT	PREPARED BY: Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Geotechnical Engineer

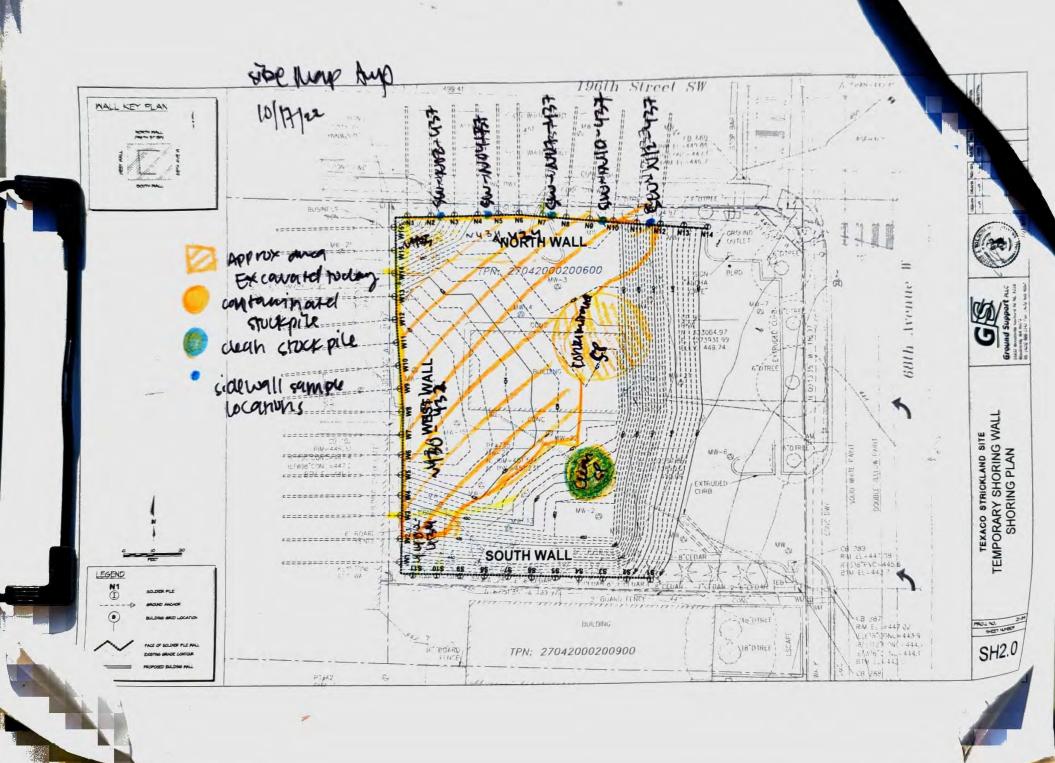
This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

# SAMPLE CHAIN OF CUSTODY

Report To Adam Griffin	C PAMEL B	work	SAMPL	ERS Giena	iture)					1112					TURN	VARO	of UND TIMI	L E
Company Aspect (ON Address 710 2nd Aug	sulting		PROJEC	SNICKEN		-		18	03		# C			Standard turnaround  RUSH Rush charges authorized by:				
City, State, ZIP_SEATTU			REMARKS  Project specific I			Yes / No			ТО		SAMPLE DISPOSAL  Archive samples  Other  Default: Dispose after 30 day							
				1		/	/	27		_			QUE	STED	1	T		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes	
SW-NUZ-437		10/17/22	0810	S	5	X	4	*										
SW-NO4-437			U815	1	1	1	1	1										
SW-NO7-437			0915															
SW-N10-437		Y	1005		V	4	N	1										
SW-N12-4357		A	1315	1	V	V	V	V										
															-			
										-								
						+	-	-										
	S	GNATURE			PRI	NT I	NAN	ΙE			+	1	COM	IPANY	,	,	DATE	TIME

Friedman & Bruya, Inc. Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
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Received by:				
Relinquished by:		+		
Received by:				



Contract Contract

0.50DL

0.75DL

1.33DL

### **Tieback Proof Test**

Aloha Strickland Project #180357

Tieback ID: Test Type: Date Tested: Aspect Representative: W-6-2 Proof 10/17/2022 MvA

Cylinder: Orbit ORDH150/10
Pump: SPX Power Team
Pressure Gauge: Wika 213.53

From Calibration

Slope, m Y-Int, b 21.08 336.65 psi

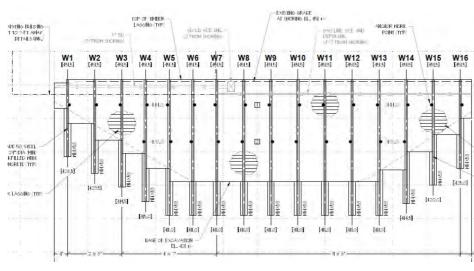
	Proof Test Schedule									
	Dial Indicator	Hold Time (min)	% DL	Load	Gauge Pressure	Target Gauge Pressure	Target Load			
	inches	minutes		kips	psi	PSI	Kips			
AL	0.001	1 minute	7%	7	300		AL			
	0.242	Until Stable	25%	24	1100	1111	24			
	0.659	Until Stable	49%	47	2200	2237	48			
	1.014	Until Stable	76%	72	3400	3364	71			
	1.463	Until Stable	100%	95	4500	4491	95			
	1.975	Until Stable	125%	118	5600	5617	119			
	2.179	1	133%	127	6000	5978	126			
	2.179	2					_			
	2.179	3				1.OODL	AL			
	2.179	5				1.2501	0.2501			

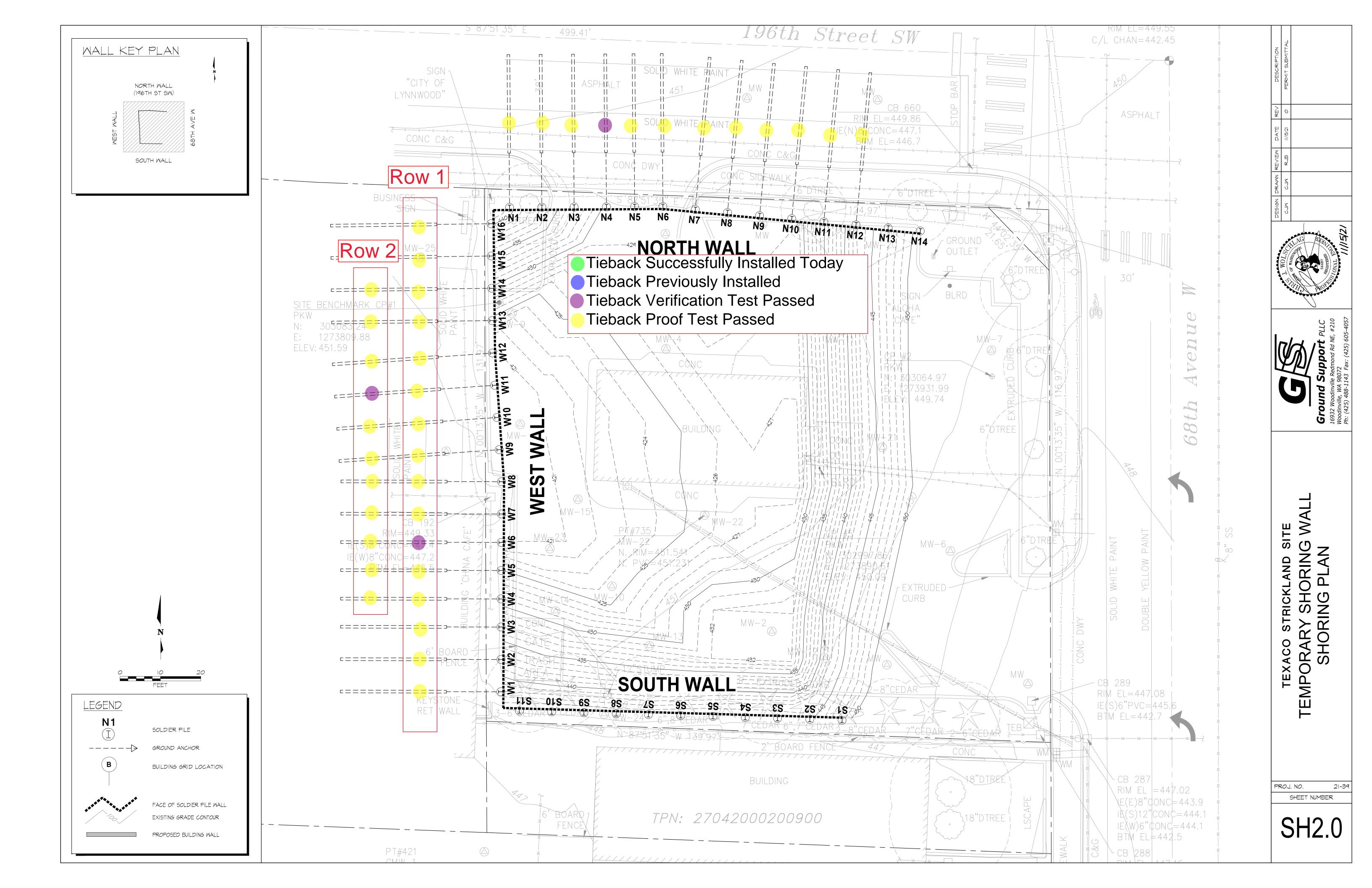
MEST WALL ARAGE SAEDLE									
PILE(5)	RON NUMBER	DECLI- NATION (DE6)	TOTAL LENSTH (FT)	LNBOND LENSTH (FT)	BOND LENSTH (FT)	NO. OF STRANDS	DESISN LOAD (k)	LOCKOFI LOAD (k)	
HI-HI6	1 2	20 20	41 43	16 15	25 28	3 9	85 45	85 45	

2.148 0.000 Creep Deflection

2.179

OOO Creep Deflection PASS







DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/18/22	0655	1440	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
70 Degrees F, smokey			
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.0	) ppm	

Ashley Provow and Alexandra Franco of Aspect Consulting (Aspect) were onsite today to document the excavation and export of contaminated soil, as completed by Rivers Edge Environmental Services (REES). Kulchin Foundation Drilling (Kulchin) was also onsite today for timber lagging. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

There was no clean soil excavation today.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from the northwest area of the site between WO2 and N12 to approximate elevation (EL) 428 feet along the west wall and center of the site to EL 434 feet along the north edge of the site. Soil was periodically screened using olfactory, visual, and PID tests. PID readings along the west wall ranged from less than 1 ppm to over 20 ppm with slight to heavy odors and slight to heavy sheens. Soil not directly loaded onto trucks was stockpiled in the middle of the site and lined and covered with plastic. Soil in this area is heavily compacted glacial till comprising gray to brown fine to medium sand and fine to coarse gravel and occasional larger clast.

### Soil Transportation For Disposal

Contaminated soil was transported on 7 trucks for 30 loads to Cadman's class III facility (truck and trailer and side-dump).

### **Geotech Activities**

**Soldier Pile Installation** 

NA

#### **Shoring Wall Installation**

Kulchin installed wood lagging on along the north wall from pile NO2 to N12 to approximate EL 434 and along the west wall from W09 to W15 to approximate EL 430.

#### **Unanticipated Field Discoveries**

There was no unanticipated field discoveries today.

#### Other On-site Activities

Alexandra Franco (Aspect) was on site today for remedial excavation training.

#### **Discussions**

Garrett (REES) communicated the plan for the day, which is to continue exporting contaminated soil and preparing the north and west walls for lagging.



### Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today; refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
SW-W06-429	Native	Sidewall	13.8	NS	SO	
SW-W09-429	Native	Sidewall	2.6	NS	NO	-
SW-W11-429	Native	Sidewall	0.6	NS	NO	
SW-W14-429	Native	Sidewall	0.7	NS	NO	
Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	
		**				
SW-W15-442	Native	SCREENING	3.0	SS	SO	Contaminated
SW-W08-430	Native	SCREENING	20	SS	SO	Contaminated
SW-W07-430	Native	SCREENING	15.0	SS	SO	Contaminated
SW-W06-430	Native	SCREENING	1.8	SS	SO	Contaminated
S10-W04-433	Native	SCREENING	0.8	NS	NO	Clean
N01-W15-436	Native	SCREENING	4.3	SS	MO	Contaminated
N11-W15-436	Native	SCREENING	12.1	MS	MO	Contaminated
N10-W14-434	Native	SCREENING	12.2	MS	MO	Contaminated
N08-W14-430	Native	SCREENING	8.6	SS	MO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, NO = No Odor, NS = Slight Odor, MO=Moderate Odor

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.



Figure 1. Mitigating groundwater seepage from the northeast corner of the site.





Figure 2. The site towards the end of the day, facing northwest.

The following attachments are included in Aspect's field file:

□ Laboratory Chain-of-Custody Form

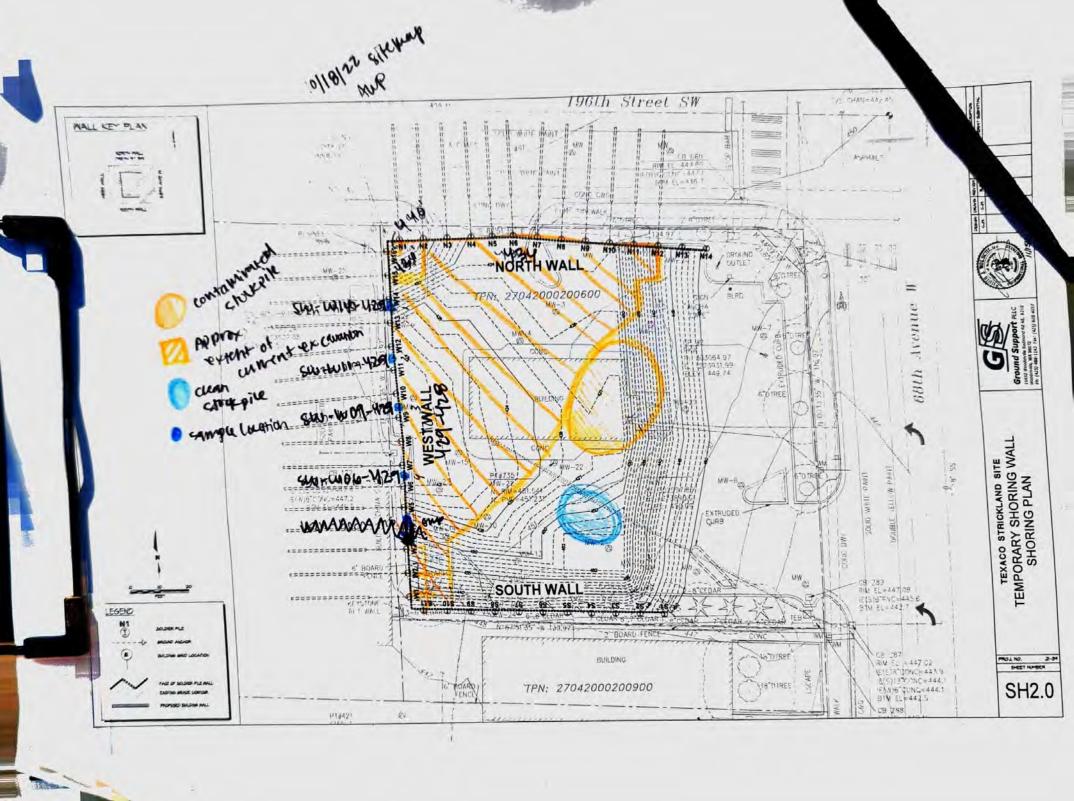
☐ Other:

Uther:	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

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# SAMPLE CHAIN OF CUSTODY

Report To Adam antins, Daniel Babcact		SAMPL	PROJECT NAME				и					Pa		of _		
Company Acres Con	suling		PROJE	CT NAME						1	PO#			XStand	ard turn	TIME
Address 710 2nd by			texaco- Strictand REMARKS				1	180357				RUSH_ Rush charges author				
City, State, ZIP							INVOICE TO					SAMPLE DISPOS  Archive samples  Other				
honeE	mau		- [Project	specific RL	us? - Y	es /	No			4 3 7 4	1 110	F. C. D. C. C.			: Dispose afte	er 30 a
							T	8	-	ANA	LYS	ES REQ	UEST	ED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEN EPA STA	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			No	otes
w-wob-429		10/18/22	1300	ç	5	×	x	x								
W-W09-429			1310			1										
5w-W11-429			1045													
5W-W14-429		V	1040	V	V	O.	1	7								
tripldank					2	<	P	×								
															*	
Friedman & Bruya, Inc. Ph. (206) 285-8282	Relinquished by:	GNATURE			PRIN	T N	AMI	E				COM	IPAN	Y	DATE	TIME
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	Reinquished by:															





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/19/22	0645	1515	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
64 F, hazy, wind NW			
EQUIPMENT AND CALIBRATION:	Yellow PID: 99.7	ppm	

Ashley Provow and Alexandra Franco of Aspect Consulting (Aspect) were onsite today to document the excavation and export of clean and contaminated soil, as completed by Rivers Edge Environmental Services (REES). Kulchin Foundation Drilling (Kulchin) was also onsite for timber lagging. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soil was excavated from the southeast area of the site from the approximate elevation (EL) 443-450 feet to approximate EL 440 feet elevation between piles S02 through S06 and W06 and from approximate EL 443-440 feet to approximate EL 436 feet between piles S06 through S10 and W03. Soil was periodically screened using olfactory, visual, and PID tests and showed no evidence of contamination. Soil in this area is brown to gray, fine to medium sand with some gravel and is likely anthropogenic fill. Soil not directly loaded on to trucks was stockpiled in the southeast corner of the site for export at a later date.

#### Contaminated Soil Excavation

Contaminated soil was excavated from the north side of the site along the north wall from approximately elevation 436 feet to approximately elevation 429 feet from between piles NO3 and N12. Soil was periodically screened using olfactory, visual, and PID tests. PID readings along the north wall ranged from less than 1 ppm to over 20 ppm, and ambient readings sometimes ranging over 100 ppm when soil was actively being disturbed, with slight to heavy odors and slight to heavy sheens. Approximately 2 buckets of contaminated soil was also excavated from the southeast area of the site, near pile intersections SO3-WO5 and SO3-WO7 with PID readings of 13.7 to 20 ppm, moderate odors and slight sheens. Soil not directly loaded onto trucks was stockpiled in the middle of the site and lined and covered with plastic.

#### Soil Transportation For Disposal

Contaminated soil was transported on 7 trucks for 17 loads to Cadman's Class III facility (truck and trailer and side-dump).

Clean soil excavated from the western section of the site was transported to Core Services clean disposal facility in 9 truckloads (side dump and truck & trailer).

#### **Geotech Activities**

Soldier Pile Installation

NA

#### **Shoring Wall Installation**

Kulchin installed wood lagging on the west wall and prepared the north wall for lagging, which will take place tomorrow.

# **Unanticipated Field Discoveries**

There were no unanticipated field discoveries today.



# Other On-site Activities

Alexandra Franco (Aspect) was on site today for excavation oversight and support training.

Ashley (Aspect) and Patrick (REES) used surveying equipment to create a rough contour map of the current excavation extent.

#### **Discussions**

Garrett and Patrick (REES) discussed the plan for the day, which is to export contaminated and clean soil, prepare the north wall for the next row of lagging installation, and begin excavating the south end of the site.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
SW-W04-429	Native	Sidewall	0.4	NS	None	
SW-N03-429	Native	Sidewall	0.2	NS	None	_
SW-N05-428	Native	Sidewall	0.2	NS	None	_
SW-N08-429	Native	Sidewall	0.2	NS	None	
SW-N10-429	Native	Sidewall	0.5	NS	None	-
Screening	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	
Location		**				
S01-W01-448	Fill	SCREENING	0.1	NS	NO	Clean
S01-W04-449	Fill	SCREENING	3.8	SS	NO	Clean
S02-W06-448	Fill	SCREENING	1.9	NS	NO	Clean
S03-W03-448	Fill	SCREENING	3.2	NS	NO	Clean
S03-W07-447	Fill	SCREENING	13.7	NS	MO	Contaminated
S03-W06-445	Native	SCREENING	7.8	NS	SO	Clean
S03-W04-445	Native	SCREENING	1.2	NS	NO	Clean
S03-W05-444	Native	SCREENING	20.0	SS	MO	Contaminated
S06-W03-444	Native	SCREENING	0.1	NS	NO	Clean
S07-W04-443	Native	SCREENING	0.1	NS	NO	Clean
S08-W03-440	Native	SCREENING	0.1	NS	NO	Clean

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, NO = No Odor, MO = Moderate Odor, SO = Slight Odor

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.





Photo 1. The site near the beginning of the day, facing southeast, showing the extent of groundwater seepage overnight.



Photo 2. Contact between fill and native material near the southeast corner of the site.

The following attachments are included in Aspect's field file:

- Site Photos
- oximes Laboratory Chain-of-Custody Form
- ☐ Other:

□ Other.	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

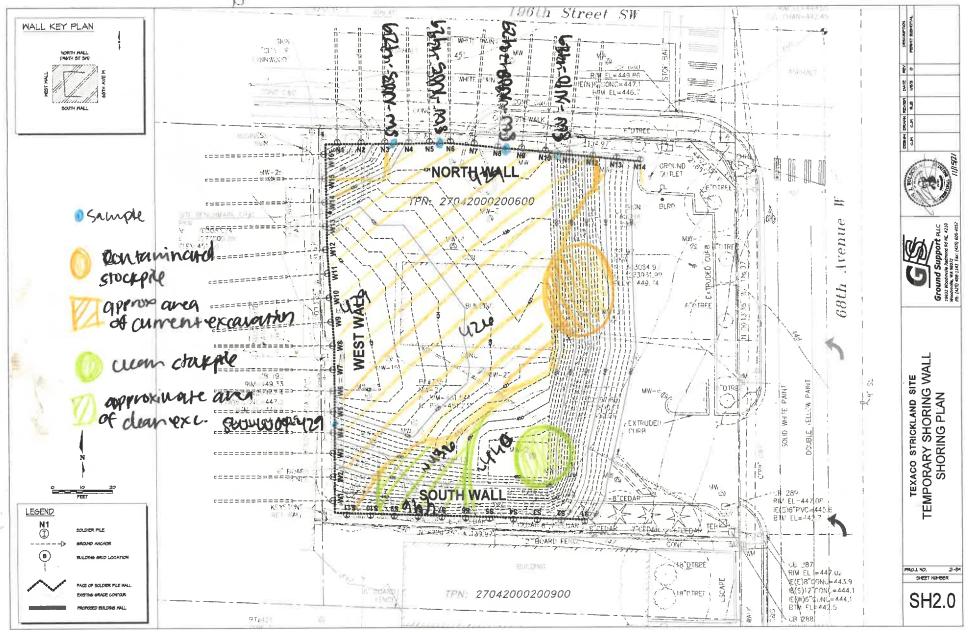
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SAMPLE CHAIN OF CUSTODY

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Report To Adoun Gr	iffin, Paniel &	Abcul	_ Custo	ERS (sign	1								TURNAROU	ND TIME	
Company ASTECT (0)	hsulting			OJECT NAME						PO#			Standard turnaround		
Address 710 2rd the Ste 650		tex	texaco-smikhund				180357			Rus	Rush charges authorized by:				
City, State, ZIP_Seal			-	REMARKS				INVOICE TO				SAMPLE DISPOSAL  Archive samples  Other_			
Phone	Email		_ Project	specific RI	Ls? - Y	es / ]	No	-	-	2000		Def	fault: Dispose	after 30	
		1	1			-	10	-	ANA		ES REQU	ESTED		-	
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BIEX EPA 8021	NWTPH-HCID VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			Notes	
SW-W04-429		10/19/22	6485	5	5	X									
Sw-N03-429			1110			1									
SW-NOC - 429			1115			Ш									
SW-NO8- 429			1126												
SW-ND-429		V	1125	V	V	41	14								
Theblank					2	41	N								
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Received by:				

10/19/22





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/20/2022	0650	1515	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Overcast, 64 F, Wind to the	NW at 2.5 mph, AQI up	to 187	
EQUIPMENT AND CALIBRATION:	Yellow PID: 100.0	) ppm	

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document clean and contaminated soil excavation and export as completed by Rivers Edge Environmental Services (REES). Kulchin Foundation Drilling (Kulchin) was also onsite for lagging. The following is a summary of Aspect's observations:

#### Clean Soil Excavation

REES excavated clean soil from the south-central section of the site between S08 to S03 and W02 to W06 to approximate elevation (EL) of 438. Field screening showed evidence of a clean to contaminated contact at EL 438 to which underlying soil was excavated and exported as contaminated (see below section). Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown to gray sand with gravel & silt. Clean soil produced during the excavation was direct loaded and exported off-site.

#### **Contaminated Soil Excavation**

REES excavated contaminated soil from three sections of the site as described below.

REES excavated contaminated soil from the western sidewall of the site to approximate EL 424 feet from W04 through W14 and western sidewall (N01) to N03. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 15.1 to 85 ppm. Soil in this area is native gray to brown sand with silt and gravel. Contaminated soil excavated today was direct loaded onto trucks for export.

REES excavated contaminated soil from the southwestern section of the site grading approximately from EL 429 to 425 feet from W02 to W05 and S10 to S08. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 20 to 75 ppm. Soil in this area is native gray to brown sand with silt and gravel. Contaminated soil excavated today was direct loaded onto trucks for export. This area was excavated until there was no odor, sheens, and PID readings recorded less than 10 ppm at the excavation bottom extents.

REES excavated contaminated soil from the southern and central section of the site to approximate EL 437 feet from W02 to W07 and S02 to S08. Field screening showed evidence of contamination throughout this area, including slight to moderate petroleum-like odors, slight to moderate sheens, and PID readings between 14.8 to 110 ppm. Soil in this area is native gray to brown sand with silt and gravel. Contaminated soil excavated today was direct loaded onto trucks for export.

#### Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 29 truckloads (truck and trailer and side-dump).

Clean soil excavated today was exported to Core Services clean disposal facility in 4 truckloads (truck and trailer and side-dump).



#### **Geotech Activities**

#### **Shoring Wall Installation**

Kulchin installed timber lagging between piling NO3 to N11 down to EL 429.

# **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### Other On-site Activities

No other on-site activities conducted today.

#### **Discussions**

Garrett and Patrick w/REES and Daniel Babcock w/Aspect discussed scope of work moving forward. REES will continue to excavate deeper along the western sidewall and along the south and east of the site. REES and Aspect also discussed water management for anticipated rain over the weekend. REES plans to have water pumped from the tanks and disposed of on Monday.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
N03-W14-428	Native	Field Screening	32	NS	MO	Contaminated
N02-W11-427	Native	Field Screening	46	NS	MO	Contaminated
N02-W07-427	Native	Field Screening	22	NS	SO	Contaminated
S09-W03-434	Native	Field Screening	56	NS	MO	Contaminated
S09-W04-428	Native	Field Screening	47	NS	MO	Contaminated
S06-W03-437	Native	Field Screening	34	NS	S0	Contaminated
S04-W04-439	Native	Field Screening	1.9	NS	NO	Clean
S07-W03-439	Native	Field Screening	0.8	NS	NO	Clean
S05-W06-438	Native	Field Screening	110	SS	MO	Contaminated
N01-W05-424	Native	Field Screening	11.7	NS	NO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, MO = Moderate Odor, SO = Slight Odor

The following attachments are included in Aspect's field file:	
Site Photos	
☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

# **PHOTOS**

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.





Photo 1: End of day excavation extents facing southeast



Photo 2: Excavator actively moving contaminated soil to the loading zone





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/24/2022	0700	1545	200274
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
57 F; wind ESE; light rain ea	rly		
EQUIPMENT AND CALIBRATION CHECK	*: Yellow PID	): 99.9 ppm	
* - Perform hump test with 100 ppm	isobutylene standard. If equipn	nent fails hump test and requires	recalibration indicate in notes below

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document and oversee the excavation and export of contaminated and clean soil, as completed by Rivers Edge Environmental Services (REES) and installation of lagging by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soil was excavated from the eastern perimeter of the excavation, from the initial elevation (EL) of approximately 450 feet to approximately 448-449 feet. Soil was periodically screened using olfactory, visual, and PID tests and showed no evidence of contamination. Soil in this area is red to brown, fine to medium sand with some gravel and is likely anthropogenic fill. Soil not directly loaded on to trucks was stockpiled in the southeast corner of the site for export at a later date.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from the western edge of the site from W14 to W12 from approximate EL 424 feet to EL 421 feet from the west wall to approximately N2. Ambient PID readings when this soil was being disturbed exceeded 10 ppm and stagnant water had a slight to moderate sheen. On the southeastern edge of the site, contaminated soil was scrapped from the from sidewalls and base of the excavation from EL 434 feet to approximate EL 430-432 feet. Soil was periodically screened using olfactory, visual, and PID tests. PID readings along the southern edge of the excavation ranged from less than 1 ppm to over 12 ppm with slight sheens and slight to heavy odors. Clean soil identified in this area was left in place as much as possible and contaminated soil not directly loaded onto trucks was stockpiled in the middle of the site and lined with plastic.

#### Soil Transportation For Disposal

Contaminated soil was transported in 23 loads to Cadman's Class III facility (truck and trailer and side-dump).

Clean soil excavated from the site was transported to Cadman's Granite Falls facility in 1 truckloads (side dump and truck & trailer).

#### **Shoring Wall Installation**

Kulchin installed wood lagging along the western wall to EL 423 feet.

# **Unanticipated Field Discoveries**

There were no unanticipated field discoveries.

#### Other On-site Activities

Ground and rainwater pooled on the western edge of the site and was pumped into a 12,000 gallon tank on the southeast corner of the site throughout the day. REES attempted to contain the water by creating soil berms and channels.



# **Discussions**

Garrett discussed the plan for the day with Aspect, which is to support Kulchin with lagging the west wall, continue excavating on the southern edge of the site, and continue exporting.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to the attached site map for shoring gridlines. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Name/Location	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
W06-S06-433	Native	SCREENING	0.2	NS	МО	Contaminated
W04-S06-435	Native	SCREENING	4.8	NS	МО	Contaminated
W04-S03-435	Native	SCREENING	12.3	SS	МО	Contaminated
W05-S07-432	Native	SCREENING	0.1	NS	None	Clean – left in
						place
W03-S04-434	Native	SCREENING	8.2	NS	МО	Contaminated
W03-S03-433	Native	SCREENING	8.6	SS	МО	Contaminated
W04-S02-433	Native	SCREENING	12.8	SS	МО	Contaminated
W05-S01-450	Native	SCREENING	0.0	NS	None	Clean





Figure 1. Looking northeast, showing the eastern sidewall of the excavation.





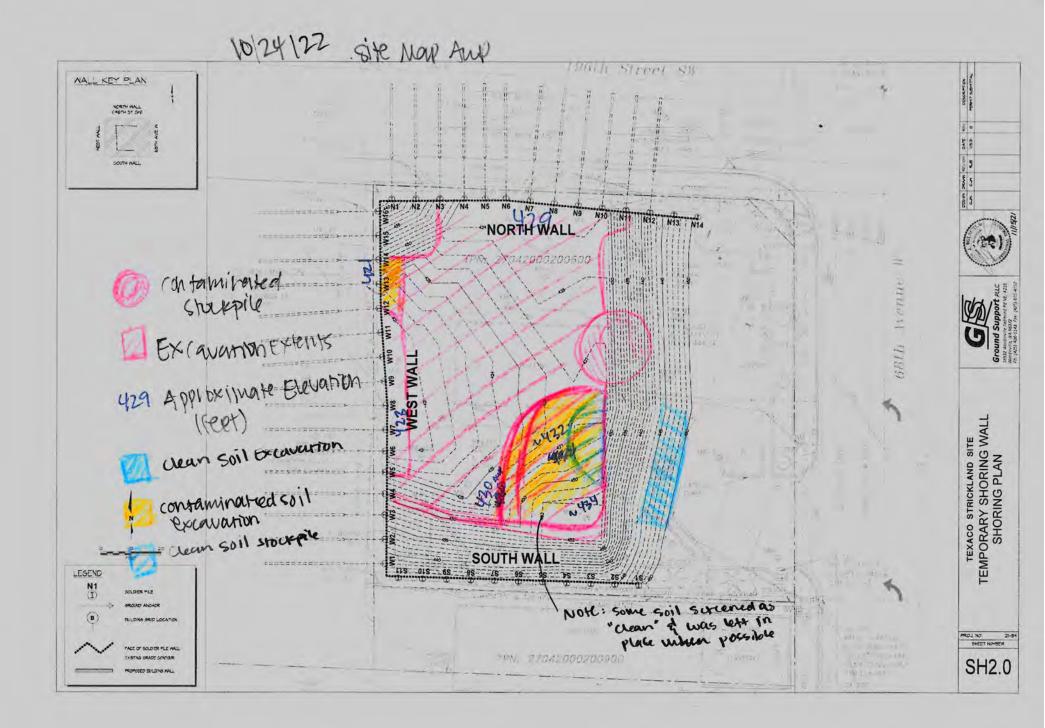
Figure 2. Groundwater seepage following light rains earlier in the day.

The following attachments are included in Aspect's field file:

- Site Photos
- ☐ Laboratory Chain-of-Custody Form
- $\square$  Other:

⊠ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

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DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/25/2022	0655	1500	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
52 F, Wind SSE, light rain			
EQUIPMENT AND CALIBRATION:	Yellow PID: 99.9	ppm	

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document the excavation and export of contaminated and clean soil, as completed by Rivers Edge Environmental Services (REES) and lagging completed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soil was excavated from the southeast area of the site from approximate elevation (EL) 434 feet to approximate EL 432 feet. Soil was periodically screened using olfactory, visual, and PID tests and showed no evidence of contamination. Soil in this area is mostly red to brown, fine to medium sand with some gravel. There is a gray-blue-brown fine to medium sand mottled throughout this area. Clean soil was also scraped from the southern extent of the excavation to clean up that location per excavation plans (from approximately NO3 to NO5 and SO3 to SO5). Clean soil not directly loaded on to trucks was stockpiled in the southeast corner of the site for export at a later date.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from the east area of the site from piles W04 through W14 and N10 to N11 to approximately elevation 428-432 feet. Soil was periodically screened using olfactory, visual, and PID tests. PID readings in this area of the excavation ranged from less than 2.8 parts per million (ppm) to over 350 ppm with slight to heavy sheens and slight to heavy odors and ambient PID readings often exceeded 100 ppm while soil in this area was actively being disturbed. Contaminated soil was also excavated from the western edge of the site where pooled ground and rainwater had a slight sheen. Contaminated soil not directly loaded onto trucks was stockpiled in the middle of the site and lined with plastic.

# Soil Transportation For Disposal

Contaminated soil was transported in 24 loads to Cadman's Class III facility in Everett (truck and trailer and side-dump. Clean soil was transported in 1 load to Cadman's clean facility in Granite Falls.

# **Shoring Wall Installation**

Kulchin installed wood lagging on the west wall between piles W05 and W14 to elevation 421 feet.

# **Unanticipated Field Discoveries**

A layer of sand with moderate to heavy petroleum-like odors, slight to moderate sheens, and PID readings between 30 and 350 ppm was identified in the area between piles W14 to W13 and N10 to N11 at approximate EL 433 to 440 feet. This appears to be at or near the contact between the anthropogenic fill native material.

#### Other On-site Activities

Ground and rainwater pooled on the western edge of the site and was pumped into a12,000 gallon tank on the southeast corner of the site throughout the day. REES attempted to manage the water location by creating soil berms and channels.



# **Discussions**

Eric and Ada (Arcadis) were on site temporarily to check in and inquire about the amount of work remaining.

Garrett (REES) communicated the plan for the day with Aspect, which is to continue excavating the west wall to elevation 421 feet and continue digging along the eastern edge of the site.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	Classification
SW-W06-421	Native	Sidewall	0.6	SS	None	
SW-W08-421	Native	Sidewall	0.7	NS	None	
SW-W11-421	Native	Sidewall	1.1	NS	None	
Screening	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	
Location						
W05-S01-422	Native	SCREENING	2.4	SS	SO	Contaminated
W02-S10-433	Native	SCREENING	1.8	NS	SO	Contaminated
W02-S09-433	Native	SCREENING	1.0	NS	NO	Clean - left in place
W03-S04-433	Native	SCREENING	0.4	NS	NO	Clean - left in place
W03-S09-429	Native	SCREENING	1.0	NS	NO	Clean - left in place
W14-N11-433	Native	SCREENING	3.4	SS	MO	Contaminated
W13-N10-433	Native	SCREENING	2.8	SS	MO	Contaminated
W14-N11-435	Native	SCREENING	30.1	SS	MO	Contaminated
W13-N10-433	Native	SCREENING	99.8	MS	НО	Contaminated
W14-N11-440	Native	SCREENING	364	MS	НО	Contaminated

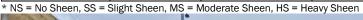




Figure 1. Contaminated sand layer in the eastern sidewall.





Figure 2. Looking west showing the mostly completed southern edge of the excavation.

The following attachments are included in Aspect's field file:

□ Laboratory Chain-of-Custody Form

☐ Other:

□ DRAFT	PREPARED BY:
- DIALI	Ashley Provow
	REVIEWED BY:
EN THINE	Breeyn Greer, PE, Project Engineer (Environmental)

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# SAMPLE CHAIN OF CUSTODY

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City, State, ZIP Phone Email	REMARKS  Project specific RLs? - Yes / No	INVOICE TO	SAMPLE DISPOSAL  Archive samples  Other  Default: Dispose after 30 days
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Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTENEPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				Notes
SW-W06421		10/25/22	0830	SOI	5	X	×	*								
SW-W08-421			0755		1	1	1		4						_	
SW-W11-421		V	0790	V	ol l	7	J	V	+	+	+					
							-									

Friedman & Bruya, Inc. Ph. (206) 285-8282

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10/25/22 gile work





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
10/26/2022	0645	1530	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
52 F, Wind S, Partly Sunny			
EQUIPMENT AND CALIBRATION:	Yellow PID: 99.9	ppm	

Ashley Provow and Daniel Babcock of Aspect Consulting (Aspect) were onsite today to document the today to document the excavation and export of contaminated soil, as completed by Rivers Edge Environmental Services (REES) and filling behind the shoring walls as completed by Kulchin Foundation Drilling (Kulchin). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soil was excavated from the east side of the site from the southern excavation extent (W01) to approximately pile W09 to approximate elevation (EL) 447 feet. Soil was periodically screened using olfactory, visual, and PID tests and showed no evidence of contamination. Soil in this area is red to brown, fine to medium sand with some gravel and is likely anthropogenic fill. Soil not directly loaded on to trucks was stockpiled in the southeast corner of the site for export at a later date.

#### **Contaminated Soil Excavation**

Contaminated soil was excavated from the eastern area of the site between piles W07 to W11 and N09 to N12 to approximately elevation 428-440 feet (sloped sidewall). Soil was periodically screened using olfactory, visual, and PID tests. PID readings in this area of the excavation ranged from less than 10.3 parts per million (ppm) to 2,000 ppm with slight to heavy sheens and slight to heavy odors. Soil not directly loaded onto trucks was stockpiled in the middle of the site and lined with plastic.

#### Soil Transportation For Disposal

Contaminated soil was transported in 16 loads to Cadman's Class III facility in Everett (truck and trailer and side-dump.

#### **Shoring Wall Installation**

Kulchin filled behind the northern and western shoring walls with controlled density fill (CDF).

# **Unanticipated Field Discoveries**

Soil along the mostly finished northeastern extent of the excavation shows field screening evidence of contamination with heavy odors, slight to moderate sheens and PID readings of up to 2,000 ppm, see table below for specific screening information.

#### Other On-site Activities

The groundwater collection tank (12,000 gallons) was partially emptied by a 5,000 gallon vacuum truck this morning. Daniel Babcock was on site to assist in bottom sample collection.

#### **Discussions**

Garrett discussed the plan for the day with Aspect, which is to continue exporting soil and attempt to finish the eastern extent of the excavation.



# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample

name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
B-N02-W02-438	Native	Bottom	0.3	NS	None	
B-N02-W04-424	Native	Bottom	0.2	NS	None	
B-N02-W06-423	Native	Bottom	0.3	NS	None	
B-N02-W09-424	Native	Bottom	0.1	NS	None	
B-N02-W12-425	Native	Bottom	0.2	NS	None	
B-N02-W14-429	Native	Bottom	0.5	NS	None	
B-N02-W16-434	Native	Bottom	0.2	NS	None	
B-N04-W02-437	Native	Bottom	0.1	NS	None	
B-N07-W02-438	Native	Bottom	0.7	NS	None	
B-N07-W04-431	Native	Bottom	0.6	NS	None	
B-N07-W06-430	Native	Bottom	1.6	NS	None	
B-N07-W09-426	Native	Bottom	1.5	NS	None	
B-N07-W12-426	Native	Bottom	0.4	NS	None	
B-N10-W02-438	Native	Bottom	0.3	NS	None	
B-N10-W04-431	Native	Bottom	0.4	NS	None	
B-N10-W06-431	Native	Bottom	0.3	NS	None	
B-N10-W12-429	Native	Bottom	2.4	NS	None	
B-N10-W14-429	Native	Bottom	0.5	NS	None	
B-N12-W02-444	Native	Bottom	1	NS	None	
B-N12-W12-439	Native	Bottom	1411	HS	НО	
B-N12-W14-439	Native	Bottom	99.9	MS	МО	
B-N12-W16-439	Native	Bottom	1	NS	None	
Screening Location	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor	
W07-S03-433	Native	SCREENING	6.8	SS	МО	Contaminated
W11-N11-433	Native	SCREENING	10.3	SS	MO	Contaminated
W09-N10-440	Native	SCREENING	10.9	SS	S-MO	Contaminated
W11-N11-440	Native	SCREENING	19.1	MS	S0	Contaminated
W09-N10-440	Native	SCREENING	22.2	MS	MO	Contaminated
W10-N11-440	Native	SCREENING	224	MS	НО	Contaminated
W10-N12-442	Native	SCREENING	2000	S-MS	НО	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, SO = Slight Odor, MO = Moderate Odor, HO = Heavy Odor





Figure 1. Eastern extent of the excavation near the beginning of the day.



Figure 2. The northern extent of the excavation near the end of the day.

The following attachments are included in Aspect's field file:

- ⊠ Site Photos
- □ Laboratory Chain-of-Custody Form
- □ Other:

_ Other.	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

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# SAMPLE CHAIN OF CUSTODY

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Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA SOLU	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				· ·	No	tes
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Ph. (206) 285-8282

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# SAMPLE CHAIN OF CUSTODY

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Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars		NWTPH-Gx	BTEX EPA 8649	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			Notes	
B-N07-W06-430		10/26/22	1220	5.0.1	5	X	V	٧.								
B-N07-L69-426		*	12.5			1										_
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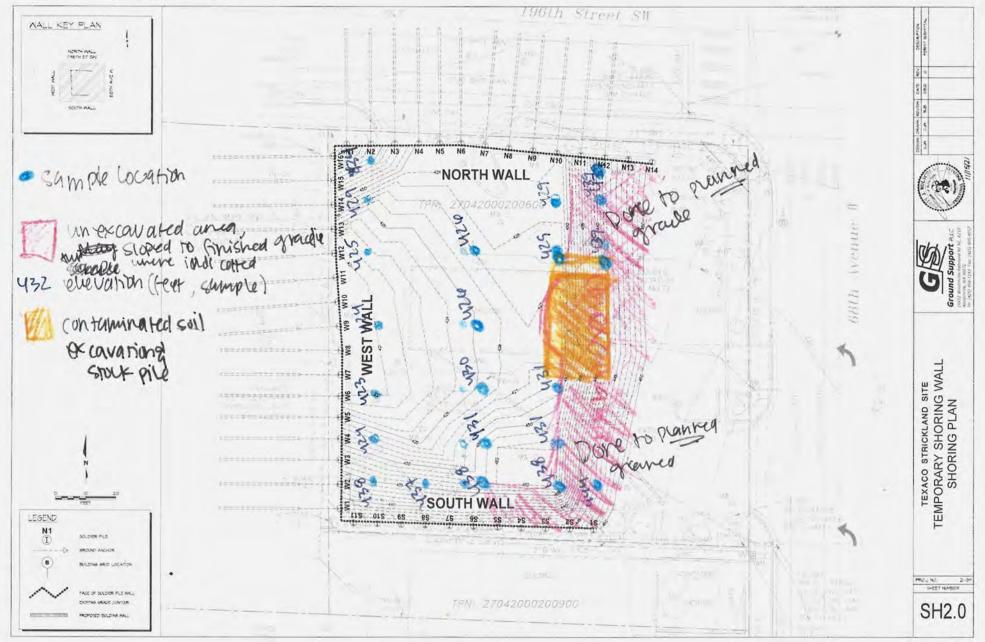
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Report To sen Bland & Ala Gille.	SAMPLERS (signature)	Page #		
Company As port Consulting Address	PROJECT NAME  Texaco Stilliklim (	PO#	Standard turnaround  ORUSH  Rush charges authorized by:	
City, State, ZIP	REMARKS  Project specific RLs? - Yes /	INVOICE TO No	SAMPLE DISPOSAL Archive samples Other_ Default: Dispose after 30 day	
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	Dx	-Gx 18021 HCID 18260 18270 18082 F760		

							ANALYSES REQUESTED								
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars		NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	STEAN LY FRED		Notes
B-N12-W14-439		10/26/22	1405	Soil	5	X	X						*		
13-N12-1116-439		VIV	1420	1	1	1							1		
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Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282

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Relinquished by:			
Received by:			

10/26/22. Site New AMP





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:					
11/02/2022	0730	1300	180357					
PROJECT NAME:								
Texaco Strickland Site								
WEATHER:								
46 F, cloudy, intermittent ra	46 F, cloudy, intermittent rain, wind N							
EQUIPMENT AND CALIBRATION:	NA PID: NA ppm							

Ashley Provow of Aspect Consulting (Aspect) was onsite today to document the import of clean gravel fill and test the compaction of the first lift of gravel fill, as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

Clean soil was gathered throughout the site to prepare the base of the excavation for backfill.

#### **Contaminated Soil Excavation**

There was no contaminated soil excavation today.

# Soil Transportation For Disposal

No soil was transported for disposal.

# **Geotech - Backfill and Compaction Testing**

Clean structural fill was imported today from CalPortland's Kenmore facility in 14 truckloads (truck and trailer and side-dump). We note that 26 truckloads was imported on October 31, 2022 and 33 truckloads was imported on November 1, 2022 from the same source.

REES placed Type 2G structural fill in the northwest area of the site on subgrade that was inspected by Aspect prior to fill placement and determined to be firm and unyielding native glacial deposits (Photo 1). REES placed the WSDOT Gravel Borrow fill between pilings N3 – N5 and W15 to north sidewall in loose lift thicknesses of approximately 10 to 12 inches (approx. EL 430) and compacted it using a Volvo SD45 vibrating roller (roller) (See attach Site Map Markup). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding.

There were some locations within the excavation that were not fully dewatered, and not determined to be firm and unyielding. These areas were not backfilled today (Photo 2).

#### Other On-site Activities

A Marvac truck with a capacity of approximately 5,000 gallons came to pump the water tank with a capacity of approximately 12,000 gallons twice today. There was still a significant amount of ground and rainwater accumulation in the lower area of the site to the west. The amount of water will likely require the tank to be pumped at least two more times before backfill and compaction can take place.

#### **Discussions**

Garrett with REES communicated the plan for the day with Aspect, which is to import clean gravel fill on 3 trucks, import a vibrating roller, attempt to dewater the site, and begin backfill and compaction.

#### Confirmation Samples & Field Screening Results Log

No samples were collected, nor field screening was conducted today.





Photo 1. Amount of groundwater accumulation and back fill gravel near the beginning of the day.



Photo 2. Attempted mud consolidation; the mud being scraped from the base of the site is very saturated by ground and rainwater infiltration.



The following attachments are included in Aspect's field file:

# **DAILY FIELD REPORT**

Site Photos	
☐ Laboratory Chain-of-Custody Form	
Site Map	
☐ Other:	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)

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 $File Path: P:\Aloha Cafe - Strickland\Data\Field Data\Interim Action\Daily Reports\2022-11-02-FR40\2022-11-02\_FR40.docx$ 

11/22/2022 Site Map





	CTION DAILY REPORT					
Proje	ct Information	Contract Information				
Date:	11/3/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:				
DFR No:	2022.11.03AH	Date Reviewed:				
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	River Edge	Contract Calendar Days Remaining:				
Work Conditions	•	Inspection Type (s) / Coverage				
Temperature	48°	Documents Referenced:				
Weather	O/C, Rain	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Testi	ng	Soils / Compaction				
	Location and Description of Inspection					

# On site for the following activity: Compaction

Upon arrival to the site, met with personnel from Aspect Consulting and Rivers Edge on site to discuss backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value. Water intrusion along the base of the west wall was being pumped to on site container tank. HMA on standby while dewatering was performed to place material and compacted. It was discussed with Rivers Edge personnel that HMA to return in the P.M. to evaluate any material placed and perform compaction testing.

Upon return to site, it was discussed with site personnel, that due to mechanical issues with dewatering pump, no fill was placed and activity to resume the following day. No compaction tests performed as scheduled. HMA personnel to return the following day.

	Items requiring correction	
N/A		

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softening



SPECIAL INSPECTION DAILY REPORT						
Pro	ject Information	Contract Information				
Date:	11/4/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:				
DFR No:	2022.11.04AH	Date Reviewed:				
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	River Edge	Contract Calendar Days Remaining:				
Work Conditions	·	Inspection Type (s) / Coverage				
Temperature	45°	Documents Referenced:				
Weather	O/C, Rain	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	eting	Soils / Compaction     Soils / Compa				
Location and Description of Inspection						

# On site for the following activity: Compaction

Upon arrival to the site, met with personnel from Rivers Edge for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of maximum dry density.

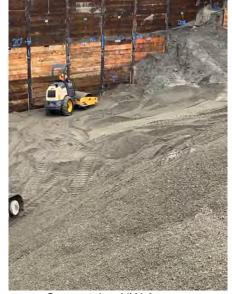
Water intrusion along the base of the west wall was being pumped to on site container tank. HMA on standby while dewatering was performed to place material and compacted. It was discussed with Rivers Edge personnel that HMA to return in the P.M. to evaluate any material placed and perform compaction testing.

Upon return to site, material was placed and compacted in a 12" loose lift and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. HMA personnel to return the following

week for further compaction activity.



Water Accumulation Area / West Wall



Compacting NW Area

items req	Juiring	correction

N	V		
1.4	•	•	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenang



Location on Site:

Notes:

# **Nuclear Densometer (Gauge) Test Results**

Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 11/4/2022

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Contamination Excavation Infill Field Technician: Abe Hernandez

BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/04/22	10	Pile #W12, N2	Approx. 25ft	138.3	130.8	132.7	98.6	95	5.7	4.4	Infill	Pass
2	11/04/22	10	Pile #W9, N2	Approx. 25ft	134.7	127.2	132.7	95.9	95	5.9	4.4	Infill	Pass
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:				
11/07/2022	0700	700 1355 180357					
PROJECT NAME:	·	·	·				
Texaco Strickland Site							
WEATHER:							
Overcast, light rain, Low	/ 40's						
EQUIPMENT AND CALIBRATION:	: Click or tap here to enter text.						
½-inch diameter steel T-probe							

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland Site (the Site). As completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation occurred onsite today.

# **Contaminated Soil Excavation**

No contaminated soil excavation occurred onsite today.

# Soil Transportation For Disposal

No Soil was transported for Disposal today.

#### **Geotech Activities**

# **Backfill & Compaction Testing**

Clean structural fill was imported today from CalPortland's Kenmore facility in 27 truckloads (truck and trailer and side-dump). We note that 19 truckloads was imported on November 4, 2022.

REES placed Gravel Barrow fill on (1) subgrade that was inspected by Aspect prior to fill placement and determined to be firm and unyielding native glacial deposits, and (2) previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 24 inches for the first lift, and 12 inches for subsequent lifts and compacted it using a Volvo SD45 vibrating roller (roller) and Case 850G (Bulldozer). We inspected the compacted lifts using a ½-inch diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed.

# **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### Other On-site Activities

REES attempted to dewater a puddle within excavation along the center of the west wall shoring.

#### **Discussions**

At approximately 1320, Garrett with REES and Alasdair with Aspect had a discussion on the issue of the water collection that REES had attempted to drain from the working area for the entirety of the day. The location of this collection of water was critical to the completion of compaction testing at that elevation. Garrett indicated that compaction work was ceasing for the day, and that they were going to leave the pump to drain the water collection through the night to hopefully be able complete compaction testing for that elevation the next following day (11/08/2022).



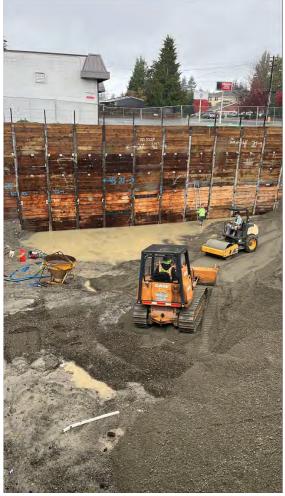


Photo 1: Excavation backfill progress as of today, looking northwest.

The following attachments are included in Aspect's field file:

- ☐ Laboratory Chain-of-Custody Form
- ⊠ Site Map
- $\square$  Other:

□ DRAFT	PREPARED BY:
	Alasdair Gourlay
⊠ FINAL	REVIEWED BY:
ZINAL	Breeyn Greer, PE, Project Engineer (Environmental)

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
11/08/2022	0715	1450	180357	
PROJECT NAME:				
Texaco Strickland Site				
WEATHER:				
Overcast, light rain, Mid 30°	's			
EQUIPMENT AND CALIBRATION:	Click or tap here to	enter text.		
½-inch-diameter steel T-pro	be			

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland site. As completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation occurred onsite today.

## **Contaminated Soil Excavation**

No Contaminated soil excavation occurred onsite today.

## Soil Transportation For Disposal

No soil was transported for disposal today.

## **Geotech Activities - Backfill & Compaction Testing**

Clean structural fill was imported today from CalPortland's Kenmore facility in 29 truckloads (truck and trailer and side-dump).

REES placed Gravel Barrow fill on (1) subgrade that was inspected by Aspect prior to fill placement and determined to be firm and unyielding native glacial deposits, and (2) previously compacted Gravel Barrow structural fill. River's Edge placed the Gravel Barrow fill in loose lift thicknesses of approximately 24 inches for the first lift, and 12 inches for subsequent lifts and compacted it using a Volvo SD45 vibrating roller (roller) and Case 850G (Bulldozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress, but the lift was incomplete at the time of their visit so no nuclear density testing was completed. HMA's daily field report for today is attached.

## **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### Other On-site Activities

River's edge successfully removed a collection of water within the excavation along the center of the west wall shoring.

#### **Discussions**



No discussions happened onsite today of significance. Garrett of Rivers Edge had planned to get the water pumped out of the area that had been collecting along the west wall overnight and into today's workday. That was executed, and the collection of water was removed, and fill material was put in its place and compacted.





Photos 1 (Left) and 2 (Right): Photo 1 is of the excavation backfill area at the start of the day, looking northwest. Photo 2 is of the same view at the end of the day today.



The following attachments are included in Aspect's field file:	
⊠ Site Photos	

⊠ Site Map

☐ Other:	
□ DRAFT	PREPARED BY:
	Alasdair Gourlay
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

Rory Kilkenny, PE, Senior Engineer (Geotechnical)

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SPECIAL INSPECTION DAILY REPORT			
Project Information		Contract Information	
Date:	11/8/2022	Permit No:	GRD-030557-2022
Project Name:	Bellevue Station	Contract Duration:	
Project No:	08-175	Reviewed by:	
DFR No:	2022.11.08AH	Date Reviewed:	
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:	
Client:	Aspect Consulting	Contract Calendar Days Used:	
Contractor:	River Edge	Contract Calendar Days Remaining:	
Work Conditions		Inspection Type (s) / Coverage	
Temperature	43°	Documents Referenced:	
Weather	O/C	IBC Chapter 17:	
Site Condition	Good	Site Equipment:	
☐ Turbidity Tes	eting	Soils / Compaction	
	Location and De	scription of Inspection	

Upon arrival to the site, met with personnel from Rivers Edge and Aspect Consulting, for backfilling activity to being performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts.

I observed that the site activity was continued backfilling. Aspect Consulting personnel on site verifying firmness of compacted material by the t-probe method. HMA to return the following day to perform compaction tests on placed and compacted material.



Placed & Compacted Gravel Barrow

Items requiring correction		
N/A		
HMA Inspector Print Name	Abe Hernandez	
HMA Representative Signature	the softenand	





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
11/09/2022	0810	1655	180357	
PROJECT NAME:				
Texaco Strickland Site				
WEATHER:				
Sunny, Mid 30's				
EQUIPMENT AND CALIBRATION:	Click or tap he	ere to enter text.		
½-inch-diameter steel T	-probe			

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland site. As completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation occurred onsite today.

#### **Contaminated Soil Excavation**

No contaminated soil excavation occurred onsite today.

#### **Soil Transportation For Disposal**

No soil was transported for disposal today.

# **Geotech Activities Backfill & Compaction Testing**

No structural fill was imported today.

REES placed Gravel Barrow fill on (1) subgrade that was inspected by Aspect prior to fill placement and determined to be firm and unyielding native glacial deposits, and (2) previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress and complete nuclear density testing. HMA's daily field reports for November 9th, 2022 is attached. Below is a table of the two nuclear density readings that HMA did onsite today at approximately 1320.

		Lift Depth	%	Water Content
Pile	Cross-Pile	Below Final Grade	Compaction	(%)
N2.5	W12	20 ft	96	5.6
N3	W5	20 ft	96	5.9

### **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### **Discussions**

Discussions today included Garrett with REES and Abe with HMA at approximately 0945. Abe arrived onsite at approximately 0943 to do some nuclear density readings; however, the ground within the excavation was not



ready due to REES starting more backfill that needed compacting. Garrett discussed a rough timing of when Abe would be able to do his nuclear density readings, which was later in the day. Abe returned at 1320 and completed the nuclear density readings reported above.





Photos 1 (left) and 2 (right): Photo 1 is of the backfill progression, looking north at the start of the day today and photo 2 is of the same area at the end of the day.

The following attachments are included in Aspect's field file:

- ☐ Laboratory Chain-of-Custody Form
- ☐ Other:

⊠ DRAFT	PREPARED BY:
	Alasdair Gourlay
□ FINAL	REVIEWED BY:
□ FINAL	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)

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SPECIAL INSPECTION DAILY REPORT			
Project Information		Contract Information	
Date:	11/9/2022	Permit No:	GRD-030557-2022
Project Name:	Bellevue Station	Contract Duration:	
Project No:	08-175	Reviewed by:	
DFR No:	2022.11.09AH	Date Reviewed:	
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:	
Client:	Aspect Consulting	Contract Calendar Days Used:	
Contractor:	Rivers Edge	Contract Calendar Days Remaining:	
Work Conditions		Inspection Type (s) / Coverage	
Temperature	43°	Documents Referenced:	
Weather O/C, Sunny IBC Chapter 17:			
Site Condition Good Site		Site Equipment:	
☐ Turbidity Tes	sting	Soils / Compaction	
	Location and De	scription of Inspection	

Upon arrival to the site, met with personnel from Rivers Edge and Aspect Consulting for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value. Discussion upon arrival to the site indicated that minimal material had been placed for compaction testing. HMA to return in the p.m. for compaction testing.

Upon return to site, material was placed and compacted in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. Two compactions tests were performed and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. Backfill activity temporarily postponed until further notice.



Rolled, Compacted & Tested Area

Items requiring correction	
N/A	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softening



Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 11/9/2022

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

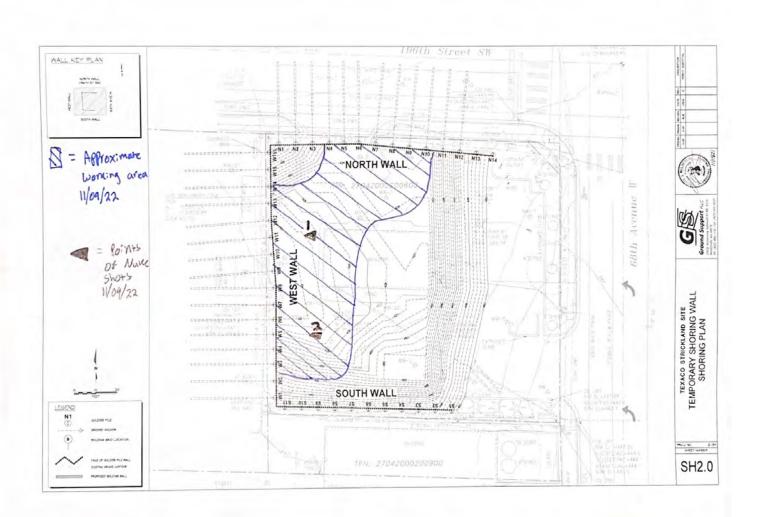
Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/09/22	10	Pile #W12, N3	Approx. 20ft	134.4	127.3	132.7	95.9	95	5.6	4.4	Infill	Pass
2	11/09/22	10	Pile #W5, N3	Approx. 20ft	135.1	127.6	132.7	96.2	95	5.9	4.4	Infill	Pass
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A
					#N/A			#N/A					#N/A





SPECIAL INSPECTION DAILY REPORT						
Projec	t Information	Contract Information				
Date:	11/21/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.21AH	Date Reviewed:	11/22/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	43°	Documents Referenced:				
Weather	O/C	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Testin	ng	Soils / Compaction				
Location and Description of Inspection						

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 18' below finish grade and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. (1) 12" was placed, compacted and tested, a 2<sup>nd</sup> lift was in process of being placed, but due to mechanical failure of the track hoe, remaining of 2<sup>nd</sup> lift could not be completed. Activity to resume the following day.



Ground Water @ North Wall



Grading 1st 12" Lift @ 18' BG



**Compacting Import Material** 

Items requiring correction	
N/A	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenand



Client Name: Aspect Consulting Project Number: <u>08-175</u> Date of Report: <u>11.21.22</u>

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/22/22	10	Pile #W5 / Cross Pile W9	18ft	134.2	127.6	132.7	96.2	95	5.2	4.4	Infill	Pass
2	11/22/22	10	Pile #W13 / Cross Pile N5	18ft.	134.3	127.4	132.7	96.0	95	5.4	4.4	Infill	Pass

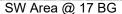


SPECIAL INSPECTION DAILY REPORT						
Proj	ect Information	Contract Information				
Date:	11/22/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.22AH	Date Reviewed:	11/23/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	43°	Documents Referenced:				
Weather O/C		IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	ting	Soils / Compaction     Soils / Compa				
	Location and Description of Inspection					

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 3 compactions tests were performed at 17′, 16′ and 15′ below finish grade and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. Activity to resume the following day.







NW Area

Items requiring correction	
N/A	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the sextending



Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 11.22.22

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/22/22	10	Pile #W11 / Cross Pile N2	17ft.	134.7	128.2	132.7	96.6	95	5.1	4.4	Infill	Pass
2	11/22/22	10	Pile #W7 / Cross Pile N4	16ft.	135.3	128.4	132.7	96.8	95	5.4	4.4	Infill	Pass
3	11/22/22	10	Pile W13 / Cross Pile N3	15ft.	135.4	128.8	132.7	97.1	95	5.1	4.4	Infill	Pass



SPECIAL INSPECTION DAILY REPORT						
Proje	ct Information	Contract Information				
Date:	11/23/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.23AH	Date Reviewed:	11/28/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	50°	Documents Referenced:				
Weather	O/C	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Testi	ng	Soils / Compaction				
	Location and De	scription of Inspection				

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 14' and 13' below finish grade and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. Activity to resume the following day.



Compacting @ NW Area



Removing Import Material @ Access Ramp

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenand



Notes:

## **Nuclear Densometer (Gauge) Test Results**

Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 11.23.22

Address: 6808 196th St. SW

BG = Below Grade

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

4213

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Gauge ID:

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/23/22	10	Pile #W10 / Cross Pile N6	14ft.	134.2	127.6	132.7	96.2	95	5.2	4.4	Infill	Pass
2	11/23/22	10	Pile #W6 / Cross Pile S7	13ft.	133.6	126.5	132.7	95.3	95	5.6	4.4	Infill	Pass



SPECIAL INSPECTION DAILY REPORT						
Proj	ect Information	Contract Information				
Date:	11/28/2022	Permit No:	GRD-030557-2022			
Project Name:	Bellevue Station	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.28AH	Date Reviewed:	11/29/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	41°	Documents Referenced:				
Weather	O/C	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	ting	Soils / Compaction				
	Location and Description of Inspection					

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 3 compactions tests were performed at 17′, 16′ and 15′ below finish grade along the north area and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. Activity to

resume the following day.



North Wall Area / 17' BG



15' BG

Items requiring correction
N/A

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenant



Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 11.28.2022

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site:Contamination Excavation InfillField Technician:Abe HernandezNotes:BG = Below GradeGauge ID:4213

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Probe Wet Lab Max. % of Max Water Optimum Dry Unit Wt. Unit Wt. Dry Unit Wt., Dry Unit Wt. Required % Water Mat'l Test Depth Depth Content Pass/ No. Date (in) Location BG (ft) (pcf) (pcf) (pcf) (%) (%) (%) Content (%) Designation Fail 11/28/22 Pile #N8 / Cross Pile #W15 17ft. 137.3 128.2 132.7 96.6 95 7.1 4.4 Infill Pass 2 11/28/22 Pile #N5 / Cross Pile #W13 135.2 127.2 132.7 95.9 95 6.3 4.4 Infill 16ft. Pass 11/28/22 Pile #N9 / Cross Pile #W11 129.5 3 15ft. 137.3 132.7 97.6 95 6.0 4.4 Infill Pass



SPECIAL INSPECTION DAILY REPORT						
Proj	ect Information	Contract Information				
Date:	11/29/2022	Permit No:	GRD-030557-2022			
Project Name:	Strickland Texaco	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.29AH	Date Reviewed:	11/30/2022			
Project Location: 6808 196 <sup>th</sup> St SW, Lynnwo Washington 98036		Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	35°	Documents Referenced:				
Weather	O/C, Snow	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	ting	Soils / Compaction				
Location and Description of Inspection						

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 14' below finish grade along the east area of the site and achieving a minimum 95% or greater at the tested locations. See attached compaction test report for specific results and locations. Activity to

resume the following day.



Placing Import Material @ Access Ramp / East Area

N/A



Grading Import Material 12" Lift



Plotted Test Ares

Items	requiring	correction

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenand



Client Name:	Aspect Consulting	Project Number:	08-175	Date of Report:	11.29.2022

6808 196th St. SW Address:

> Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

> > ASTM - D 6938 Field Test Method:

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland Location on Site:

Contamination Excavation Infill Abe Hernandez Field Technician:

4213 BG = Below Grade Gauge ID: Notes:

#NA = No Data for Test No. Revwd. by: Mode: Direct Transmission JAM

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	11/29/22	10	Pile #W6 / Cross Pile #S2	14ft.	136.5	128.5	132.7	96.8	95	6.2	4.4	Infill	Pass
2	11/29/22	10	Pile #N12 / Cross Pile #W12	14ft.	136.0	127.7	132.7	96.2	95	6.5	4.4	Infill	Pass



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:		
11/30/2022	0700	1625	180357		
PROJECT NAME:					
Texaco Strickland Site					
WEATHER:					
**EATTLENT					
Overcast, High 30's, Snowy					

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland site completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

# **Geotech Activities Backfill & Compaction Testing**

No structural fill was imported today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed. The working area was backfilled today from approximately 13 ft from the top of the west wall piling to approximately 12 ft from the top of the west wall piling.

Hayre McElroy (HMA) was onsite briefly to observe the backfill and did not take any nuclear density testing.

## **Discussions**

Discussions today included a brief discussion with Joey of REES at roughly 0900 to discuss the weather's impact on the availability of dump truck drivers delivering gravel borrow. He stated at the time that REES was unsure of the amount of drivers that would work today. Another discussion was with Garrett of REES at around 0940, and this was to see if REES had more details about the forecast of the dump truck drivers for the work day. He stated that his supervisor had told him they would have at least 6 drivers for the day. Another conversation was with Abe of HMA at around 1000, where we discussed the progress of REES for the current workday, and if he was going to return to site later in the day to check up and possibly due some nuclear gauging tests. After he left site at approximately 1010, I did not see him onsite for the remainder of the day.







Photos 1 (left) and 2 (right): Photo 1 is of the backfill progression, looking northwest at the start of the day today and photo 2 is of the same area at the end of the day.

The following attachments are included in Aspect's field file:

- oxtimes Hayre McElroy Daily Report
- ☐ Other:

Oulci.	
□ DRAFT	PREPARED BY:
	Alasdair Gourlay
	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



SPECIAL INSPECTION DAILY REPORT						
Pro	ject Information	Contract Information				
Date:	11/30/2022	Permit No:	GRD-030557-2022			
Project Name:	Strickland Texaco	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.11.30AH	Date Reviewed:	12/1/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	35°	Documents Referenced:				
Weather	O/C, Snow	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	eting	Soils / Compaction     Soils / Compa				
Location and Description of Inspection						

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode.

Aspect Consulting personnel on site to monitor condition and application of material being placed.



Placing Material Import Material @ Access Ramp / South Area

Items requiring correction	
N/A	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenang

SH2.0 ТЕМРОRARY SHORING WALL SHORING PLAN ТЕХАСО ВТЯІСКІАНО БІТЕ Il sunst A188 ES. Street TPN: 27042000200900 WEST WALL HT#421 = 11/3 0/22 APProx. of the west wall filing to ~ 12.064 of This area was backy from the top or Working Area from the top FAZ OF SOLDER FLE MAL EXISTING SAAZ COROAR MALL KEY PLAN 

11/30/22

Map

Texaco Strictland

AMG



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
12/1/2022	0710	1545	180357	
PROJECT NAME:				
Texaco Strickland Site				
WEATHER:				
Overcast, Mid 30's				
EQUIPMENT AND CALIBRATION:	Click or tap her	e to enter text.		
½-inch-diameter steel T-	probe			

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland site as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

## **Geotech Activities Backfill & Compaction Testing**

Structural backfill was delivered to the site in 33 trucks, truck and trailer, from Cadman today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed. Backfill elevation started at approximate elevation (EL) 439 along the west wall, on the south side of the excavation, to EL 440 ft (bgs) along the west wall on the north side of the excavation. Backfill proceeded to approximate EL 442 at the end of the day.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress and complete nuclear density testing. Below is a table of the two nuclear density readings that HMA did onsite today at approximately 1530.

Pile	Cross-Pile	Lift Depth Below Final Grade	% Compaction	Water Content (%)
S8	W2	9 ft	97.8	5.9
S4	W2	9 ft	96.1	6.5

#### **Discussions**

Discussions today included Abe with HMA at approximately 1000. Abe arrived onsite at approximately 0958 to do some nuclear density readings; however, the ground within the excavation was not ready due to REES starting more backfill that needed compacting. Abe said he would return later in the day to do the nuclear density reading testing. Abe returned at 1500 and completed the nuclear density readings reported above at 1530.



	SPECIAL INSPECTION DAILY REPORT					
Proj	ect Information	Contract Information				
Date:	12/1/2022	Permit No:	GRD-030557-2022			
Project Name:	Strickland Texaco	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.12.01AH	Date Reviewed:	12/02/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions		Inspection Type (s) / Coverage				
Temperature	35°	Documents Referenced:				
Weather	O/C, Snow	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Tes	ting	Soils / Compaction				
	Location and Description of Inspection					

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 9' below finish grade along the south area of the site and achieving a minimum 95% or greater at the tested locations. Aspect personnel on site monitoring material and application. See attached compaction test report for specific results and locations. Activity to resume the following day.



**Graded Lift** 



Compacting Import Material / South Area

Items requiring correction
N/A

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the sextending



Client Name:	Aspect Consulting	Project Number:	08-175	Date of Report:	12.01.2022

6808 196th St. SW Address:

> Lynnwood Washington 98036 ASTM - D 1557 Lab Test Method:

> > ASTM - D 6938 Field Test Method:

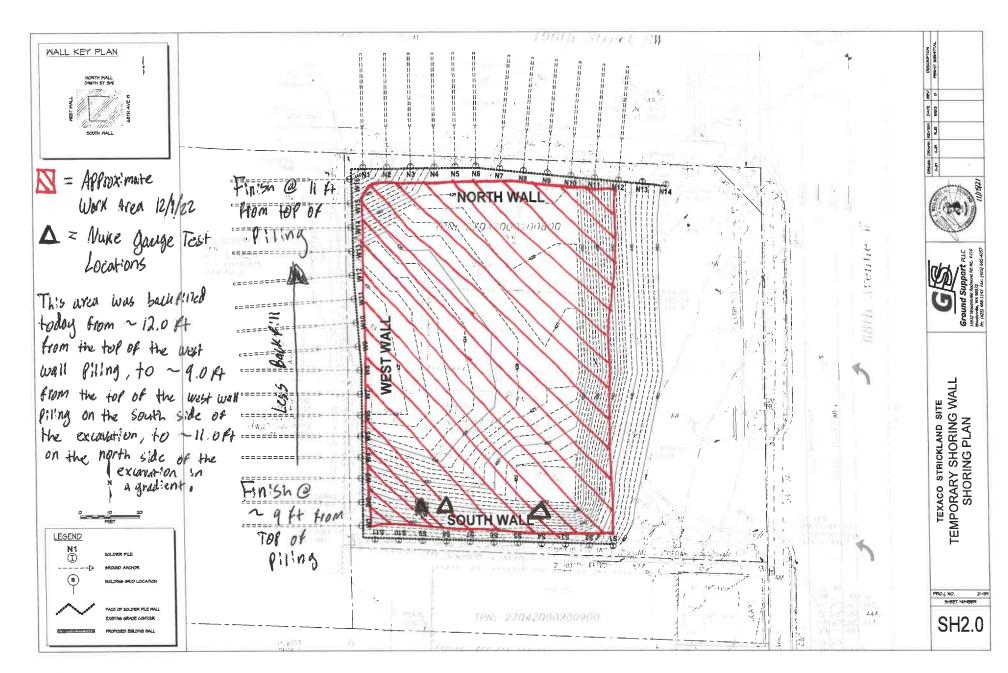
Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland Location on Site:

Contamination Excavation Infill Abe Hernandez Field Technician:

4213 BG = Below Grade Gauge ID: Notes:

> #NA = No Data for Test No. Revwd. by: Mode: Direct Transmission JAM

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	12/01/22	10	Pile #S8 / Cross Pile #W12	9	137.5	129.8	132.7	97.8	95	5.9	4.4	Infill	Pass
2	12/01/22	10	Pile #S4 / Cross Pile #W12	9	135.8	127.5	132.7	96.1	95	6.5	4.4	Infill	Pass





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
12/2/2022	0750	1440	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
Overcast, Mid 30's			
EQUIPMENT AND CALIBRATION:	Click or tap here to	enter text.	
½-inch-diameter steel T-p	robe		

Alasdair Gourlay of Aspect Consulting (Aspect) was onsite today to observe and document backfill and compaction testing at the Texaco Strickland site as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

## **Geotech Activities Backfill & Compaction Testing**

Structural backfill was delivered to the site in 32 trucks, truck and trailer, from Cadman today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed. Backfill and compaction today was focused on building a ramp for future truck access to the backfill area.

The area that had the majority of backfill and compaction was a rectangular shape that spanned from where the west and south walls meet, to approximately W4 and S1 pilings. Backfill elevation started at approximate elevation EL 439 in the southwestern corner of the excavation and was filled to approximate EL 441.5 along the west wall. The southeastern corner was filled from approximate EL 440 to approximate EL 447.5. The ground elevation in the working area going northward from piling W4 and spanning the width of the working area (East to West) was varied, with some areas receiving more backfill and compaction than others.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress and complete nuclear density testing. Below is a table of the two nuclear density readings that HMA did onsite today at approximately 1218.

		Lift Depth	%	Water Content
Pile	Cross-Pile	Below Final Grade	Compaction	(%)
N7	W8	11 ft	95	5.5
N8	W1.5	4 ft	96	5.9

#### **Discussions**

Discussions today included Abe with HMA and Garrett of REES at approximately 1235. This discussion included the plan for the next working day to backfill and compact. Garrett said that they were building a ramp (as previously described) for trucks to use in the future to make backfilling easier and more efficient, while temporarily pausing the backfill and compaction in the northeastern corner of the excavation area to complete the over-excavation of contaminated material requested by Aspect today (12/2/2022). Abe stated that he would be returning Monday (12/5/2022) to continue to conduct nuclear density tests unless instructed by REES to not come to site that day.







Photos 1 (left) and 2 (right): Photo 1 is of the backfill progression, looking northwest at the start of the day today and photo 2 is looking Northwest at the end of the day.

The following attachments are included in Aspect's field file:

- ☐ Other:

□ Other.	
□ DRAFT	PREPARED BY:
	Alasdair Gourlay
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)

This field report documents field-based observations that relate to Aspect Consulting's contracted services only, and are subject to refinement as additional project data and information is collected or made available. All reports prepared by Aspect Consulting for Port of Seattle apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.



SPECIAL INSPECTION DAILY REPORT							
Pro	ject Information	Contract Information					
Date:	12/2/2022 Permit No		GRD-030557-2022				
Project Name:	Strickland Texaco	Contract Duration:					
Project No:	08-175	Reviewed by:	J. McElroy				
DFR No:	2022.12.02AH	Date Reviewed:	12/03/2022				
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:					
Client:	Aspect Consulting	Contract Calendar Days Used:					
Contractor:	Rivers Edge	Contract Calendar Days Remaining:					
Work Conditions		Inspection Type (s) / Coverage					
Temperature	35°	Documents Referenced:					
Weather	O/C, Snow	IBC Chapter 17:					
Site Condition	Good	Site Equipment:					
☐ Turbidity Testing		Soils / Compaction					
Location and Description of Inspection							

Upon arrival to the site, met with personnel from Rivers Edge and discussion for backfilling activity to be performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value.

The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 4' below finish grade along the south area and 11' along the west area of the site and achieving a minimum 95% or greater at the tested locations. Aspect personnel on site monitoring material and application. See attached compaction test report for specific results and locations. Activity to resume the 1st part of next week.



Tested West Area of Site



Tested South Area Of Site

# Items requiring correction N/A

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the sextending



Client Name:	Aspect Consulting	Project Number:	08-175	Date of Report:	12.02.202

6808 196th St. SW Address:

> Lynnwood Washington 98036 ASTM - D 1557 Lab Test Method:

> > ASTM - D 6938 Field Test Method:

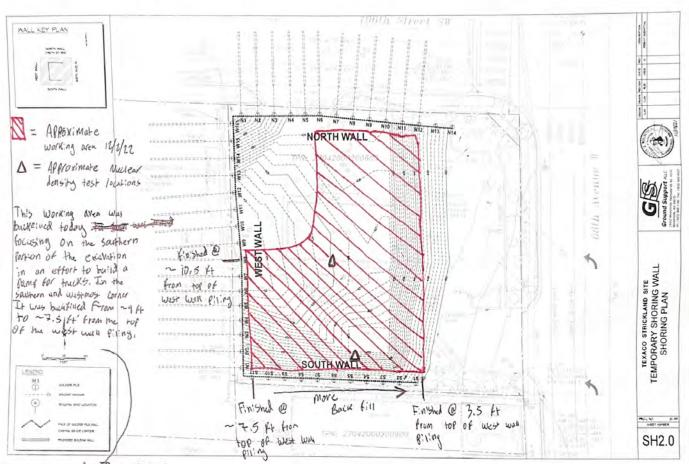
Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland Location on Site:

Contamination Excavation Infill Abe Hernandez Field Technician:

4213 BG = Below Grade Gauge ID: Notes:

> #NA = No Data for Test No. Revwd. by: Mode: Direct Transmission JAM

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	12/02/22	10	Pile #S6 / Cross Pile #W8	11	133.4	126.4	132.7	95.3	95	5.5	4.4	Infill	Pass
2	12/02/22	10	Pile #S5 / Cross Pile #W12	4	134.7	127.2	132.7	95.9	95	5.9	4.4	Infill	Pass



It was backfilled to - 3.5 ft from the toll of the west was pring on the Southern and Eastmost corner of the excavation



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:						
12/5/2022	0650	1400	180357						
PROJECT NAME:		·	·						
Texaco Strickland Site									
WEATHER:	WEATHER:								
Overcast, 32 – 36 F, Wind to the SW									
EQUIPMENT AND CALIBRATION: Blue PID: 100.0 ppm Span Cal									
½-inch-diameter steel T-probe									

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe and document soil excavation, backfill and compaction testing at the Texaco Strickland site, as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation occurred onsite today.

#### **Contaminated Soil Excavation**

REES removed the top 1-foot of soil between W13 and W15 at piling N14 to 5-feet east of N14 (would be N15). The soil was screened using olfactory, visual, and PID tests. PID readings in the area reached 350ppm within gray lenses of soil in this area. The lenses in this area contained slight sheens and strong petroleum-like odors. REES anticipated the soil in this area as being clean overburden and left it in place and covered it in plastic. Excavation in this area, the East Slope Over-excavation, will resume tomorrow.

#### **Soil Transportation For Disposal**

No soil was transported for disposal today.

## **Geotech Activities Backfill & Compaction Testing**

Structural backfill was delivered to the site in 32 trucks, truck and trailer, from Cadman today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after compaction. The area that had the majority of backfill and compaction was a rectangular shape that spanned north – south from W05 to the north sidewall and east – west from the west sidewall to N12 at the northern extent and N09 at the southern extent. Backfill elevation started at approximate elevation (EL) 440 along the west sidewall and EL 439 along the north sidewall filled to approximately EL 443 along the west sidewall.

#### **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

#### **Discussions**

Garrett w/REES and Daniel w/Aspect discussed plan for conducting the East Slope over-excavation. REES will have two trucks running contaminated soil to Cadman on Tuesday.

Abe w/Hayre McElroy & Associates, Inc. (HMA) and Daniel w/ Aspect discussed HMA conducting visits to the site this week. Abe informed Daniel that he will not be making it to the site today and will be by the site on Tuesday.



Eric w/Arcadis conducted a site visit today and discussed REES schedule to conduct over-excavation of the East Slope. Daniel informed Eric that the over-ex will begin on Tuesday (12/6/2022).



The following attachments are included in Aspect's field file:



Photo 1. (left) Site conditions and elevation at start of day looking southwest. Photo 2. (right) Site at end of day looking northwest.

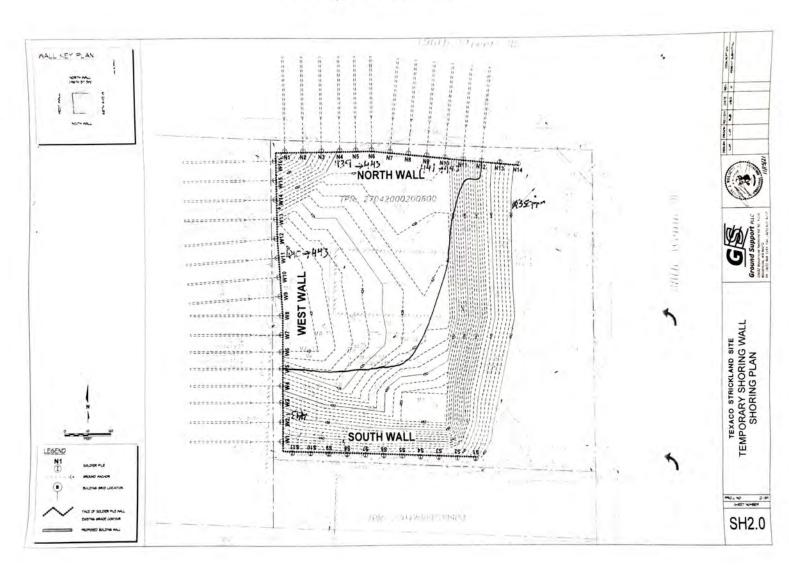
Site Photos
 Laboratory Chain-of-Custody Form

 Site Map
 Other:

 DRAFT

 Prepared By:
 Daniel Babcock

	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)
This field report documents field-based observations that relate to Aspec	t Consulting's contracted services only, and are subject to refinement as





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
12/6/2022	0650	1510	180357	
PROJECT NAME:		·		
Texaco Strickland Site				
WEATHER:				
Overcast, 32 – 38 F, Wind	to the SW			
EQUIPMENT AND CALIBRATION:	Blue PID: 10	0.0 ppm Span Cal		
½-inch-diameter steel T-	probe			

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe and document contaminated soil over-excavation, backfill and compaction testing at the Texaco Strickland site, as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

### Clean Soil Excavation

No clean soil excavation occurred onsite today.

### Contaminated Soil Excavation

REES excavated contaminated soil from the northeast section of the site from N14 to 14-feet to the east of N14 and W15 to ~W12 to approximate elevation (EL) 439. Soil was screened as this area was over-excavated using olfactory, visual, and PID tests. PID readings throughout this area ranged from 28 to 600 ppm with slight to heavy odors and slight to moderate sheens. Soil was directly loaded into trucks for disposal. Soil in this area consisted of loose gray to brown sand with interbedded organics to ~EL 441. Continued investigation to determine the lateral and vertical extents of the contaminated soil will be conducted tomorrow until field screening suggests contaminated soil has been removed.

# Soil Transportation For Disposal

Contaminated soil excavated today was exported to Cadman's Class III facility in 11 truckloads (dump truck).

# **Geotech Activities Backfill & Compaction Testing**

Structural backfill was delivered to the site in 40 trucks, truck and trailer, from Cadman today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed. The area that had the majority of backfill and compaction was a rectangular shaped area that spanned north – south from W03 to the north sidewall and east – west from the west sidewall to N11 at the northern extent and N09 at the southern extent. Backfill elevation started at approximately EL 443 and was filled to approximately EL 446 across the whole area.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress and complete nuclear density testing. Below is a table of the two nuclear density readings that HMA did onsite today.

			%	Water Content
Pile	Cross-Pile	Lift Elevation	Compaction	(%)
N04	W13	446	98.7	5.4
N07	WO7	446	99.5	5.8



# **Unanticipated Field Discoveries**

No unanticipated field discoveries today.

# **Discussions**

Patrick w/REES and Daniel w/Aspect discussed plan for conducting the East Slope over-excavation. REES will have two trucks running contaminated soil to Cadman on Tuesday.

Abe w/ HMA and Daniel w/ Aspect discussed HMA conducting visits to the site this week. Abe informed Daniel that he will return on Wednesday for another round of Nuclear-gauging.

Eric w/Arcadis conducted a site visit today and discussed REES schedule to conduct over-excavation of the East Slope and the progress of the over-excavation thus far.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
N14-W14-439	Native	Confirmation	6.7	NS	NO	-
		Bottom				
		Field	Screening Result	ts		
N13-W13-448	Fill	Field Screening	187	MS	MO	Contaminated
N13-W14-449	Fill	Field Screening	68	SS	SO	Contaminated
N14-W14-447	Fill	Field Screening	158	MS	MO	Contaminated
N15-N14-448	Fill	Field Screening	280	MS	MO	Contaminated
N14-N13-445	Fill	Field Screening	168	SS	MO	Contaminated
N15-N14-443	Fill	Field Screening	78	SS	MO	Contaminated
N15-W15-442	Fill	Field Screening	7.5	NS	NO	Clean
N12-W12-442	Fill	Field Screening	110	SS	MO	Contaminated
N15-W13-442	Fill	Field Screening	280	SS	MO	Contaminated
N14-W14-440	Native	Field Screening	55	SS	SS	Contaminated
N15-W14-447	Fill	Field Screening	287	SS	MO	Contaminated
N15-W13-442	Fill	Field Screening	311	MS	НО	Contaminated
N15-W14-440	Native	Field Screening	47.5	SS	SO	Contaminated
N13-W12-442	Fill	Field Screening	127.6	MS	MO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, SO = Slight Odor

The following	attachments	are includ	ed in As	pect's f	ield file:

- $\ \ \, \boxtimes$  Site Photos
- ⋈ HMA Field Report and Nuclear Density Test Results
- ⊠ Site Map
- $\square$  Other:

□ DRAFT	Prepared By: Daniel Babcock
	REVIEWED BY: Breeyn Greer, PE, Project Engineer (Environmental) Rory Kilkenny, PE, Senior Engineer (Geotechnical)

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.





Photo 1. Eastern slope overexcavation in progress, looking south. Contaminated soil is gray.

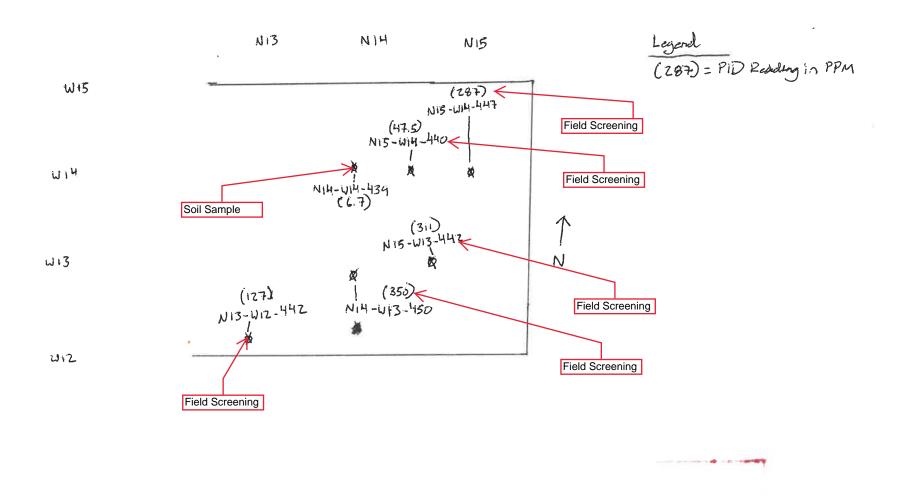




Photo 2. Eastern slope overexcavation in progress, looking east. Contaminated soil is gray.



Photo 3. Excavation backfill progress at end of day, looking northwest.





	SPECIAL INSPECTION DAILY REPORT					
Projec	ct Information	Contract Information				
Date:	12/6/2022	Permit No:	GRD-030557-2022			
Project Name:	Strickland Texaco	Contract Duration:				
Project No:	08-175	Reviewed by:	J. McElroy			
DFR No:	2022.12.06AH	Date Reviewed:	12/07/2022			
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:				
Client:	Aspect Consulting	Contract Calendar Days Used:				
Contractor:	Rivers Edge	Contract Calendar Days Remaining:				
Work Conditions	·	Inspection Type (s) / Coverage				
Temperature	35°	Documents Referenced:				
Weather	O/C, Snow	IBC Chapter 17:				
Site Condition	Good	Site Equipment:				
☐ Turbidity Testing		Soils / Compaction				
	Location and De	scription of Inspection				

On site for the	following	activity:	Compaction
-----------------	-----------	-----------	------------

Upon arrival to the site, met with personnel from Rivers Edge and Aspect Consulting and discussion for backfilling activity performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value. The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at 2ft. below finish grade along the NW area and 2ft. along the south middle area of the site and achieving a minimum 95% or greater at the tested locations. Aspect personnel on site monitoring material and application. See attached compaction test report for specific results and locations. Activity to resume the following day.

	Items requiring correction	
N/A		

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenant



# **Nuclear Densometer (Gauge) Test Results**

Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 12.06.2022

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
1	12/06/22	10	Pile #N3 / Cross Pile #W13	2	138.1	131.0	132.7	98.7	95	5.4	4.4	Infill	Pass
2	12/06/22	10	Pile #N7 / Cross Pile #W17	2	139.8	132.1	132.7	99.5	95	5.8	4.4	Infill	Pass
						A	spect Edits to 4	ft BG	]				
						——Asp	ect Edits to 4 ft	BG					





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
12/7/2022	0650	1535	180357	
PROJECT NAME:		•	•	
Texaco Strickland Site				
WEATHER:				
Overcast, 32 - 41 F, Win	d to the SW			
EQUIPMENT AND CALIBRATION:	Blue PID: 1	L00.0 ppm Span Cal		
½-inch-diameter steel	T-probe			

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to observe and document contaminated soil over-excavation, backfill and compaction testing at the Texaco Strickland site, as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

# **Clean Soil Excavation**

No clean soil excavation occurred onsite today.

## **Contaminated Soil Excavation**

REES excavated contaminated soil from northeast section of the site from N14 to MW-7 and W15 to ~W12 to approximate elevation (EL) 439. Soil was screened as this area was over-excavated using olfactory, visual, and PID tests. PID readings throughout this area ranged from 0.3 to 101 ppm with slight to heavy odors and slight to moderate sheens. Soil was directly loaded into trucks for disposal. Soil in this area consisted of loose gray to brown sand with interbedded organics to approximate elevation (EL) 441. Field screening suggests that contaminated soil in this area has been fully removed at the eastern overexcavation extents.

# **Soil Transportation For Disposal**

Contaminated soil excavated today was exported to Cadman's Class III facility in 3 truckloads (dump truck).

# **Geotech Activities Backfill & Compaction Testing**

Structural backfill was delivered to the site in 29 trucks, truck and trailer, from Cadman today.

REES placed Gravel Barrow fill on previously compacted Gravel Barrow structural fill. REES placed the Gravel Barrow fill in loose lift thicknesses of approximately 12 inches and compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). We inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after appropriate compaction had been completed. The area that had the majority of backfill and compaction was a rectangular shape that spanned north – south from the south sidewall to the north sidewall and east – west from the west sidewall to N12. Backfill elevation started at approximately EL 446 and was filled to approximately EL 448.5 across the whole area.

Hayre McElroy & Associates Inc. (HMA) stopped by the site to observe the backfill progress and complete nuclear density testing. Below is a table of the two nuclear density readings that HMA did onsite today.

			%	Water Content
Pile	Cross-Pile	Lift Elevation	Compaction	(%)
N03	W04	447.5	102.8	5.3
N09	W08	447.5	99.5	5.6

# **Unanticipated Field Discoveries**

No unanticipated field discoveries today.



# **Discussions**

Patrick w/REES and Daniel w/Aspect discussed plan for conducting the north sidewall over-excavation. REES will begin this on Thursday.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor*	Classification
N16-W14-442	Fill	Confirmation Sidewall	3.5	NS	NO	-
N15-W15-442	Fill	Confirmation Sidewall	0.5	NS	NO	-
N15-W12-442	Fill	Confirmation Sidewall	0.3	NS	NO	-
		Field	Screening Result	S		
N16-W14-444	Fill	Field Screening	101	SS	MO	Contaminated
N15-W12-444	Fill	Field Screening	58	SS	SO	Contaminated
N15-W15-444	Fill	Field Screening	49	SS	SO	Contaminated

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen, SO = Slight Odor

The following attachments are included in Aspect's field file:	
Site Photos	
□ Laboratory Chain-of-Custody Form	
Site Map	
☐ HMA Field Report and Nuclear Density Test Results	
☐ Other:	
□ DRAFT	PREPARED BY:
	Daniel Babcock
▼ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)
This field report documents field-based observations that relate to Aspec	t Consulting's contracted services only, and are subject to refinement as

<sup>\*\*</sup> The table represents a small selection of the large number of field screening readings taken throughout the day.

# SAMPLE CHAIN OF CUSTODY

TURNAROUND TIME Rush charges authorized by: SAMPLE DISPOSAL Standard turnaround RUSH 24-77 Page# ANALYSES REQUESTED Epect Consulting INVOICE TO PO# 180337 Phone (316)617-04 Email deaboard daspertensully Project specific RLs? - Yes / No lexaco Striolland SAMPLERS (signature) PROJECT NAME REMARKS Report To Daniel Balacock + Breezn Green 710 2nd Alve, Suite # 550 City, State, ZIP Seatle, UNA 98104 Company Aspect Consulting, Address

	Notes	PIGH	Run 24-hr	Hold			<b>→</b>
ANALISED REQUESTED	ETEXN 8260		×				
LINE E	PCBs EPA 8082						
ANA	AOCs EPA 8260						
	BLEX EPA 8021						
	NWTPH-Gx		X				
	NWTPH-Dx		×				
	# of Jars	2	_				
	Sample Type	Soil					
	Time Sampled	1340	0925	0750	0945	0925	0935
	Date Sampled	12/5/2012	12/6/202				$\rightarrow$
	Lab ID						
	Sample ID	NIA-WIS-450	NH - W14 - 439	N15-W14-447	NE- W13-442	N15-W14-4410	NB - W12 - 442
1							

Relinquished by:	Received by:
Friedman & Bruya, Inc.	Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
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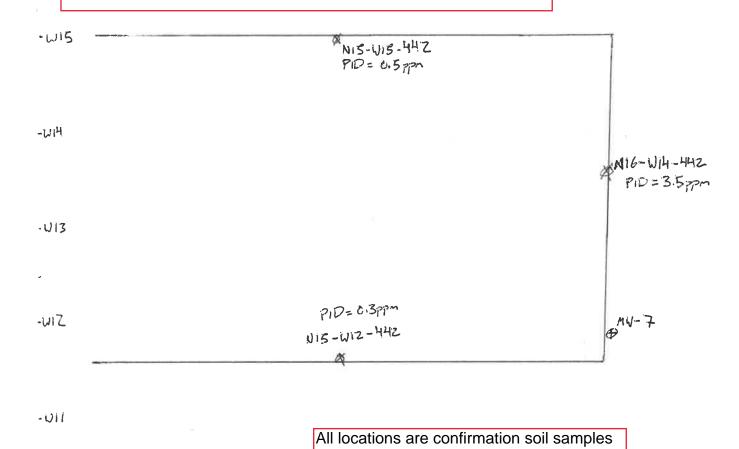
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0740

1105







	SPECIAL INSPECTION DAILY REPORT						
Pro	ect Information	Contract Information					
Date:	12/7/2022	Permit No:	GRD-030557-2022				
Project Name:	Strickland Texaco	Contract Duration:					
Project No:	08-175	Reviewed by:	J. McElroy				
DFR No:	2022.12.07AH	Date Reviewed:	12/08/2022				
Project Location:	6808 196 <sup>th</sup> St SW, Lynnwood Washington 98036	Revised Duration:					
Client:	Aspect Consulting	Contract Calendar Days Used:					
Contractor:	Rivers Edge	Contract Calendar Days Remaining:					
Work Conditions		Inspection Type (s) / Coverage					
Temperature	35°	Documents Referenced:					
Weather	O/C, Snow	IBC Chapter 17:					
Site Condition	Good	Site Equipment:					
☐ Turbidity Tes	ting	Soils / Compaction					
	Location and De	scription of Inspection					

On site for the following	ig activity:	Compaction
Unon arrival to the site	met with ne	rsonnel from F

Upon arrival to the site, met with personnel from Rivers Edge and Aspect Consulting and discussion for backfilling activity performed. The material to be used as backfill is WSDOT gravel barrow, supplied by CalPortland. As per site specifications, import material to be placed in 12" loose lifts and compacted in place to a minimum 95% of density value. The import material was placed in 12" loose lifts and compacted in place with a smooth roller drum in vibratory mode. 2 compactions tests were performed at final grade along the SW area and middle east area of the site and achieving a minimum 95% or greater at the tested locations. Aspect personnel on site monitoring material and application. See attached compaction test report for specific results and locations.

	Items requiring correction
N/A	

HMA Inspector Print Name	Abe Hernandez
HMA Representative Signature	the softenang



# **Nuclear Densometer (Gauge) Test Results**

Client Name: Aspect Consulting Project Number: 08-175 Date of Report: 12.07.2022

Address: 6808 196th St. SW

Lynnwood Washington 98036 Lab Test Method: ASTM - D 1557

Field Test Method: ASTM - D 6938

Project Name: Strickland Texaco Material Tested: Gravel Barrow / CalPortland

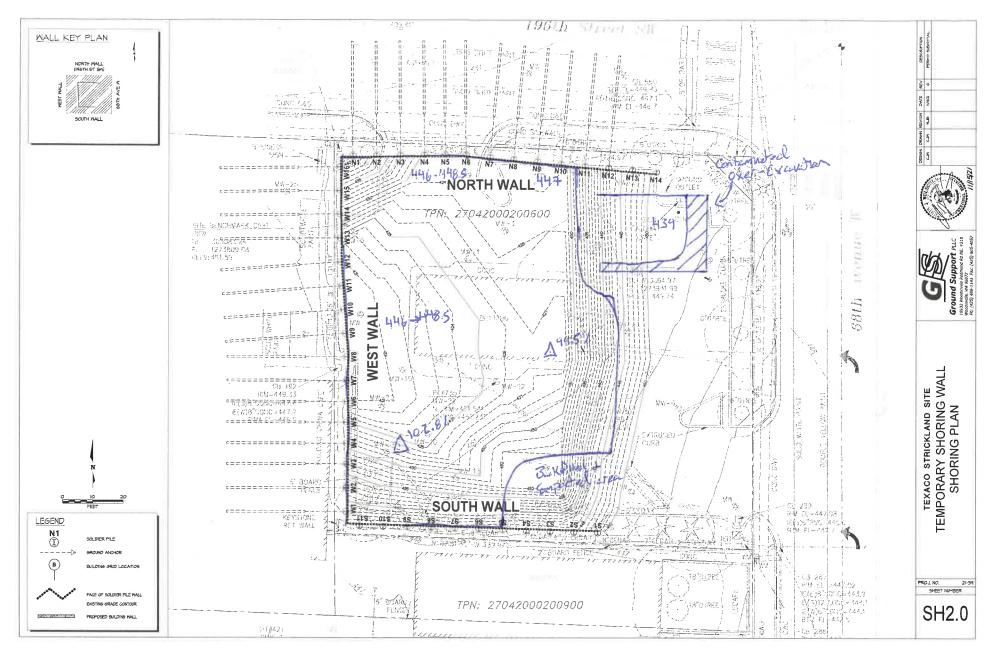
Location on Site: Contamination Excavation Infill Field Technician: Abe Hernandez

Notes: BG = Below Grade Gauge ID: 4213

#NA = No Data for Test No. Revwd. by: JAM Mode: Direct Transmission

Test No.	Date	Probe Depth (in)		Depth BG (ft)	Wet Unit Wt., (pcf)	Dry Unit Wt., (pcf)	Lab Max. Dry Unit Wt., (pcf)	% of Max Dry Unit Wt. (%)	Required % (%)	Water Content (%)	Optimum Water Content (%)	Mat'l Designation	Pass/ Fail
110.	Duto	()	2000	20 (.9	(00.)	(60.)	(60.)	(1.5)	(70)	(10)	Contone (70)	2 congruences	
1	12/07/22	10	Pile #S10 / Cross Pile #W4	0 K	143.6	136.4	132.7	102.8	95	5.3	4.4	Infill	Pass
2	12/07/22	10	Pile #N10 / Cross Pile #W8	0	139.5	132.1	132.7	99.5	95	5.6	4.4	Infill	Pass
						Asp	ect Edit 2.5 ft. E	3G					
						As	pect Edit 2.5 ft.	BG					

# Site Map - 12/7/22 - DRB





DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:
12/08/2022	0650	1430	180357
PROJECT NAME:			
Texaco Strickland Site			
WEATHER:			
39 F, Cloudy, wind SSE			
EQUIPMENT AND CALIBRATION:	White PID: 100.0	) ppm	
		• •	

Ashley Provow and Risi Naa of Aspect Consulting (Aspect) were onsite today to document and observe the over excavation of the north area of the site using a vacuum truck, as completed by Rivers Edge Environmental Services (REES). The following is a summary of Aspect's observations:

### Clean Soil Excavation

NA

# **Contaminated Soil Excavation**

REES completed one 4-foot-wide slot cut using two vacuum trucks and high-pressure water wands beginning at pile NO6 from the north wall to the sidewalk edge to approximately 14.5 feet below ground surface (ft bgs). Soil was screened at approximately 11 ft bgs and produced PID readings of 254 ppm with moderate odors and no sheen. At 14.5 ft bgs, soil was screened again and showed no evidence of contamination with PID readings of less than 5 ppm with no sheens or odors. Two sidewall samples, screening results are listed in the table below, were collected at the edge of the sidewalk at approximately elevations 447 feet and 442 feet

# Soil Transportation For Disposal

Two vacuum trucks worth of soil were transported for disposal today.

# **Geotech Activities**Soldier Pile Installation NA.

Shoring Wall Installation

# **Unanticipated Field Discoveries**

ΝΔ

### Other On-site Activities

REES imported gravel and stockpiled it on the east area of the site. Approximately 6 inches of gravel backfill was also distributed throughout the site and underwent one round of compaction with a roller.

# **Discussions**

Patrick (REES) relayed the plan for the day, which was to cut a 4-foot-wide slot cut beginning at N06 from the north wall to the sidewalk edge. Ashley (Aspect) reiterated our sampling needs, which Patrick will accommodate using materials purchased from Home Depot.

# Confirmation Samples & Field Screening Results Log



The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
PL-N07-447	Fill	Confirmation	1.7	NS	None
PL-N07-442	Native	Confirmation	356	SS	M-S0
PL-N07-440	Native	SCREENING	254	NS	MO
PL-N07-436	Native	SCREENING	4.7	NS	NO

\* NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen



Figure 1. Glacial erratic at the bottom of the slot cut.





Figure 2. Sampling method, a garden trowel attached to an extendable pole to break up the soil with a lined bucket under it to catch the soil for sampling.

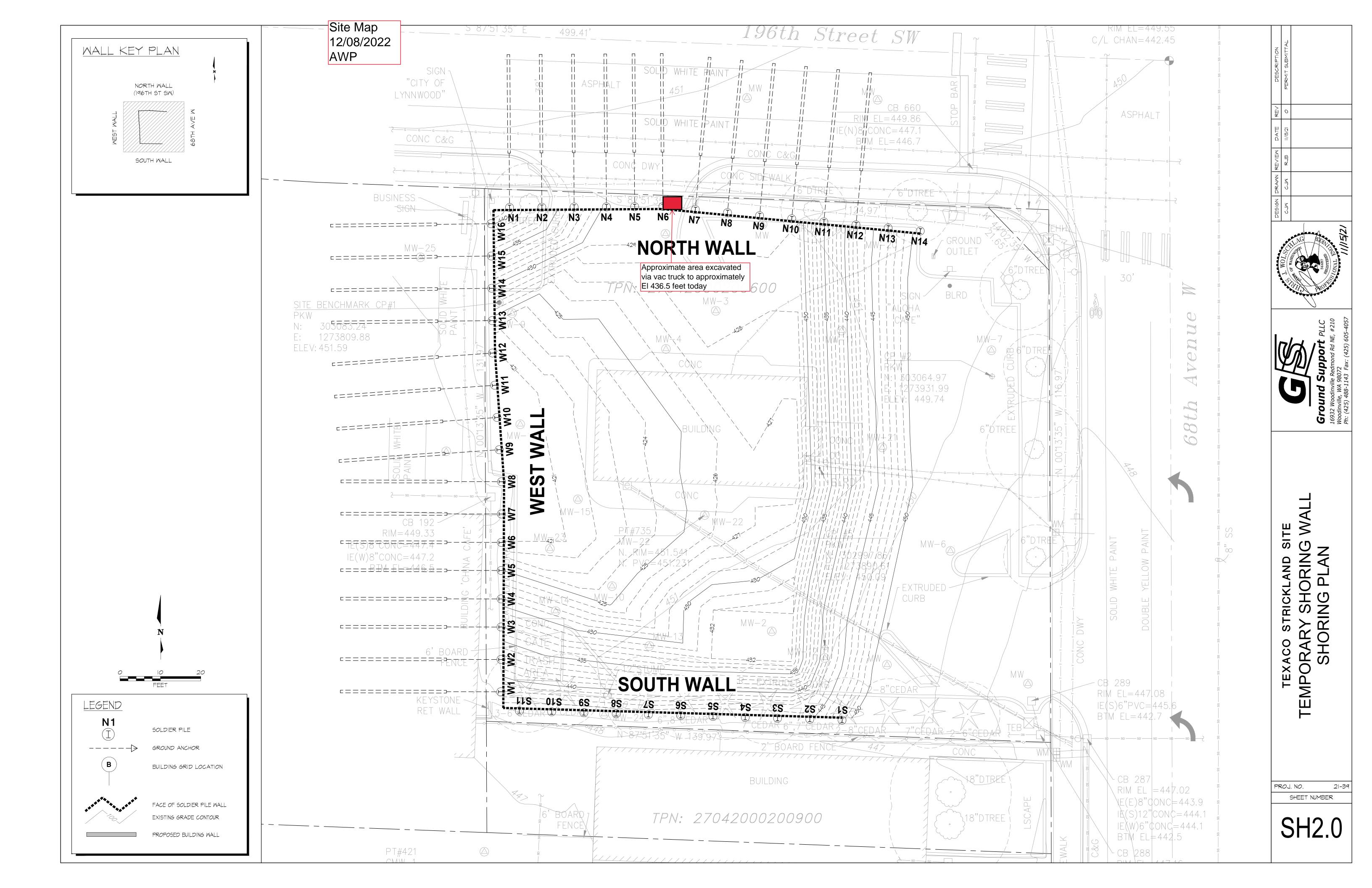
The following attachments are included in Aspect's field file:

- $\ \ \, \boxtimes$  Site Photos
- □ Laboratory Chain-of-Custody Form
- ☐ Site Map
- ☐ Other:

- Guier.	
□ DRAFT	PREPARED BY:
	Ashley Provow
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)
	Rory Kilkenny, PE, Senior Engineer (Geotechnical)

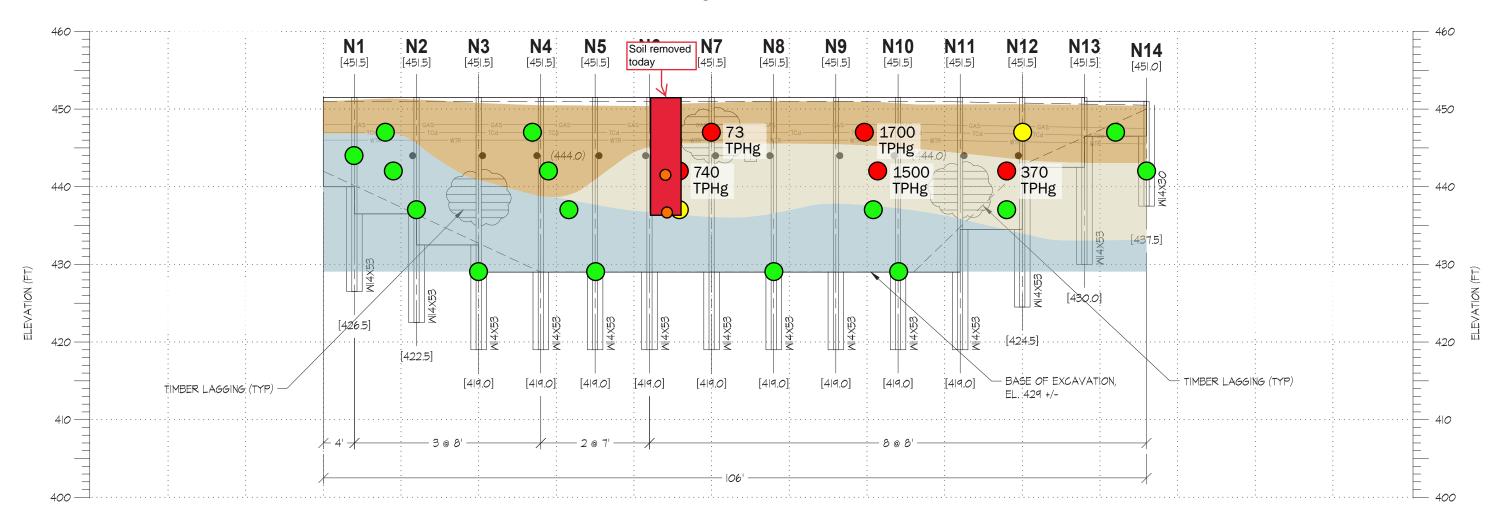
# SAMPLE CHAIN OF CUSTODY

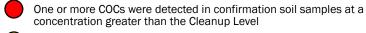
			Ph. (206) 285-8289									PL-NOT-442	PL-NO7-447	Sample ID		Phone (316) 617 OME Email dbabcock (a)	City, State, ZIP Southe	Address 710 2mm Ave	Company Aspen Co	Report To Daniel Bob		
Received by:	Relinquished by:	Received by:	Relinquished by:	S										Lab ID		ail dbabcock	WA 98104	Still # 550	onsweling	Jobcook + Brea		
		1 The	X- MANY	SIGNATURE								2/08/2022	12/08/2022	Date Sampled	(	a aspection	04	0		In Greer		
			1									1320	1300	Time Sampled			REMARKS	lexac	PROJEC	SAMPLI		
	-	7	5	20° 5										Soil	Soil	Sample Type		Project specific RLs? - Yes / No	KS	exact Strickland	PROJECT NAME	SAMPLERS (signature)
		HVI	Naa	PRINT NAME								57	57	# of Jars	1	? - Yes		parol	1	ture)		
		MUVITA		T'Z										NWTPH-Dx		\ 				11/10		
		AI		AME			- 1					X	~	NWTPH-Gx		Vo				1/1/		
		1												BTEX EPA 8021	65	D		~		113		
														NWTPH-HCID		Sad	뒫	03		2		
			- 1											VOCs EPA 8260		+	INVOICE TO	180357	P(	7		
			AS											PAHs EPA 8270	YSE	3	CE		PO#			
		-	Aspect											PCBs EPA 8082	SRI	Aspect Constitling	TO					
		10	0	COMPANY								X.	X	BTEXN 8260	ANALYSES REQUESTED	3						
			ensulting	PAN											EST		F=3		- X			
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		108/32	108	DATE								No Pa	uo Malt			)OSe	SAMPLE DISPOSAL hive samples	Rush charges authorized by:	Standard turnaround	OUI		
		22/	1202	E								dis	2	Notes		afte	SPO	orize	ound	ND T		
		15:33	1533	TIME								but on chesel range by	chiese range	tes		☐ Other	SAL	d by:	4	Page # of TURNAROUND TIME		
												1.75	hychocubo									



Samples collected at property edge

# **NORTH WALL**





One or more COCs were detected in confirmaion soil samples but at a concentration less than the Cleanup Level

COCs were not detected in confirmation soil samples

Fill
Weathered Vashon Glacial Till
Vashon Glacial Till
Note: Geology from Sections A-A' of Geotechnical Rep
,

Analyte	Interim Action Soil Remediation Level (mg/kg)
TPHg	30
TPHd	2,000
TPHo	2,000
Benzene	0.03
Toluene	7
Ethylbenzene	6
Total Xylenes	9
Naphthalene	5



# North Sidewall Soil Performance Sampling Results

Interim Action Status Letter Texaco Strickland Site Lynnwood, Washington

Aspect	DEC-2022	BY: BDO	FIGURE NO.
CONSULTING	PROJECT NO. 180357	REV BY:	3



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:				
12/09/2022	0702	1510	180357				
PROJECT NAME:	PROJECT NAME:						
Texaco Strickland Site							
M							
	WEATHER:						
37-43F, cloudy, light rain, 8mph S wind							
EQUIPMENT AND CALIBRATION: Blue PID: Span= 100.0 ppm, Bump=pass							
	•	,		l			

Risi Naa of Aspect Consulting (Aspect) was onsite today to document and observe the excavation of the area between the North Wall and the north property line using a vacuum truck, as completed by Rivers Edge Environmental Services (REES). Backfill and compaction of the over excavation at the eastern sidewall completed by REES was also observed and documented. The following is a summary of Aspect's observations:

# Clean Soil Excavation

No clean soil excavation occurred and observed today.

## **Contaminated Soil Excavation**

REES completed one 4-foot-wide slot cut using two vacuum trucks (PRO-VAC) and high-pressure water wands beginning at pile NO7 from the north wall to the northern property line approximate elevation (EL) 437. Soil was screened at approximate EL 440 ft and produced PID readings of 836.1 parts per million (ppm) with moderate sheen (photos taken) and strong petroleum-like odors. At EL 437, soil was screened again and showed no evidence of contamination with PID readings of approximately 6.8 ppm with no sheen nor odor (photos taken). There were no sidewall samples collected from this soil excavation point.

# Soil Transportation for Disposal

Two vacuum trucks containing soil from the contaminated soil excavation were transported for disposal from the site today. The trucks were operated by Dave and Gabriel who left the site at approximately 0955.

# **Geotech Activities**

# Shoring Wall Installation/Removal

REES started removing lagging boards from the south-shoring wall starting from the south-east corner of the site moving towards the west wall using the HITACHI Zaxis 300LC excavator at around 1020. Lagging boards removed were then piled at southeast corner of the site.

# **Unanticipated Field Discoveries**

There were no unanticipated field discoveries occurred today.

# Backfill

Structural backfill materials were delivered to the site in 15 trucks, (truck and trailer) from Cadman today. REES placed the fill material to cover the hole resulted from over excavation of the eastern sidewall of the site. The gravel barrow was placed in loose lift thickness of approximately 12 inches using the HITACHI Zaxis 300LC excavator. Then, the lift was compacted using a Volvo SD45 vibrating roller (roller) and Case 850G (Bull-Dozer). The compacted lifts were inspected using a  $\frac{1}{2}$ -inch-diameter steel T-probe (T-probe) and found out to be firm and unyielding after appropriate compaction had been completed. Backfilling and compaction today were focused on filling in the hole from the over excavation activity earlier this week and started from approximate EL 442 up to 448.5-feet to match up the elevation of the larger excavation depression.



# **Discussions**

At approximately 1145, Eric w/ Arcadis visited the site to take some pictures from N07-N7.5 cell. Eric w/Arcadis and Risi with Aspect discussed the next scope of the over excavation on the north-wall and Risi explained that Daniel Babcock with Aspect will be on-site on Monday, 12/12/2022 to document and observe the over excavation of the N08-N8.5 and to collect confirmation samples.

At 13:30, AJ with Cadman visited the site to confirm that there will be no delivery of the back fill materials from Cadman to the site on Monday, 12/12/2022.

At 1405, Patrick and Joey with REES and Risi with Aspect discussed plan for removing the concrete around the east border of the site and for spreading backfill materials that were being stockpiled at the center of the site to the end of each wall corners to match up the elevation of the east corner to the grid of the west wall while the NO8-N8.5 cell is being removed.

# Confirmation Samples & Field Screening Results Log

There were no confirmation soil samples collected today; the field screening observations are recorded in the table below.

Screening Elevation	Soil Type	Sample Purpose	PID (ppm)	Sheen *	Odor
440	Fill	Screening only	836.1	MS	Strong petroleum-like odor
437	Fill	Screening only	6.8	NS	No odor

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

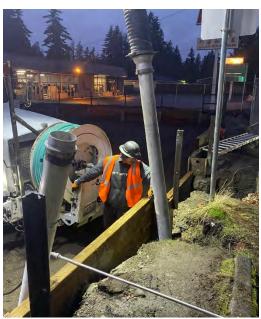


Figure 1. The beginning of removal of the N07-N7.5 cell using the vac truck and high-pressure water wands





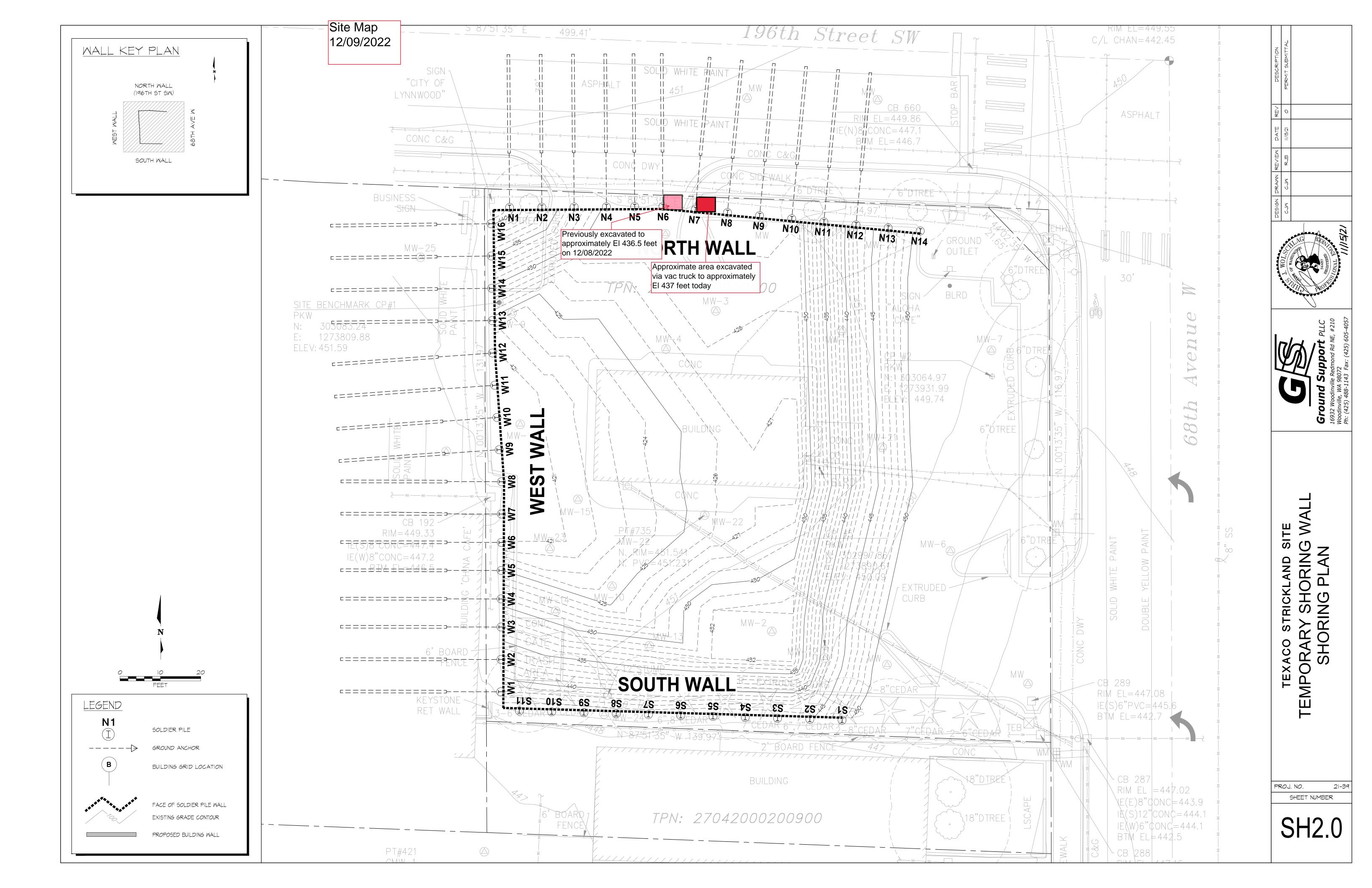


Figure 2. The bottom of the excavation at the N07-N7.5 cell filled with water from the high-pressure water wands used to cut through dense fill materials (left). The N07-N7.5 cell after being filled with controlled density fill (cdf) material (right).

The following attachments are included in Aspect's field file:

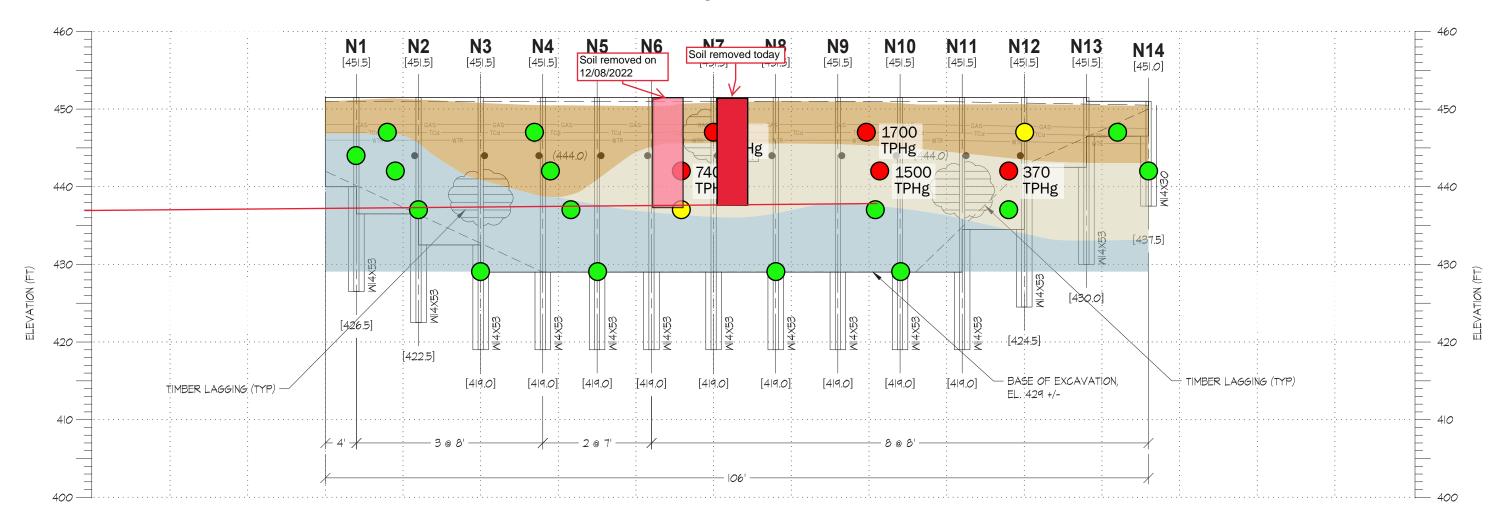
- ☐ Laboratory Chain-of-Custody Form
- ☐ Site Map
- ☐ Other:

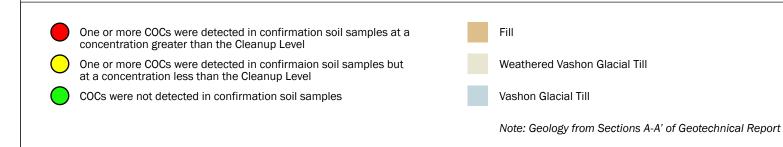
□ DRAFT	Prepared By: Risi Naa
⊠ FINAL	REVIEWED BY: Breeyn Greer, PE, Project Engineer (Environmental) Rory Kilkenny, PE, Senior Engineer (Geotechnical)



West East

# **NORTH WALL**





Analyte	Interim Action Soil Remediation Level (mg/kg)
TPHg	30
TPHd	2,000
TPHo	2,000
Benzene	0.03
Toluene	7
Ethylbenzene	6
Total Xylenes	9
Naphthalene	5



# North Sidewall Soil Performance Sampling Results

Interim Action Status Letter Texaco Strickland Site Lynnwood, Washington

Aspect	DEC-2022	BY: BDO	FIGURE NO	
CONSULTING	PROJECT NO. 180357	REV BY:	3	



ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:		
0650	1100	180357		
Mini RAE Lite PID: 100.0 parts per million (ppm)				
_	650	650 1100		

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document and observe the vactor truck excavation of the north wall as completed by Rivers Edge Environmental Services (REES) and their subcontractor Pro-Vac Clean Services (Pro-Vac). The following is a summary of Aspect's observations:

# **Contaminated Soil Excavation**

REES completed one 4-foot-wide cell using two vacuum trucks and high-pressure water beginning at pile N08 from the north wall to the sidewalk edge to approximately 14-feet below ground surface (bgs). Soil was screened at approximately 11 ft bgs and produced PID readings of 88 ppm with moderate petroleum-like odors and a slight sheen. At 14 ft bgs, soil was screened again and showed no evidence of contamination with PID readings of 8.7 ppm, no odors, or sheens.

# Soil Transportation For Disposal

Two vacuum trucks worth of soil were transported for disposal as Class 3 soil at the Cadman Facility today.

# Other On-site Activities

REES removed the exposed lag boards and cut off the top two vertical feet of the southern and western soldier piles today, final soldier pile top elevation is approximate elevation 449 NAVD 88.

# Confirmation Samples & Field Screening Results Log

The following soil samples were collected by Aspect today, refer to attached chain of custody for selected laboratory analyses, and to the attached site map for sample locations. The last three digits of the sample name indicate the approximate elevation at which the soil sample was collected.

Sample Name	Soil Type	Sample Purpose PID (ppm)		Sheen *	Odor	
SW-W01-449	Fill	Sidewall	0.1	NS	None	
SW-W03-449	Fill	Sidewall	0.1	NS	None	
SW-W06-449	Fill	Sidewall	0.0	NS	None	
SW-W09-449	Fill	Sidewall	0.0	NS	None	
SW-W11-449	Fill	Sidewall	0.3	NS	None	
SW-W14-449	Fill	Sidewall	0.0	NS	None	
SW-W16-449	Fill	Sidewall	0.1	NS	None	
SW-S08-448	Fill	Sidewall	0.0	NS	None	
SW-S10-448	Fill	Sidewall	0.1	NS	None	
N08-440.5	Native	Field Screening	88	SS	Mod Odor	
N08-437.5	Native	Field Screening	8.7	NS	None	

<sup>\*</sup> NS = No Sheen, SS = Slight Sheen, MS = Moderate Sheen, HS = Heavy Sheen

The following attachments are included in Aspect's field file:

- □ Laboratory Chain-of-Custody Form
- Site Map
- ☐ Other:



□ DRAFT	PREPARED BY:					
	Daniel Babcock					
⊠ FINAL	REVIEWED BY:					
	Breeyn Greer, PE, Project Engineer (Environmental)					

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# Site Photos



Photo 1. The beginning of removal of the N08-N08.5 cell using the vac truck and high-pressure water wands.





Photo 2. Top approximately 2-feet of soldier piles removed along the south wall.



Photo 3. Photo of cell N08-N08.5 after vactor excavation completed.

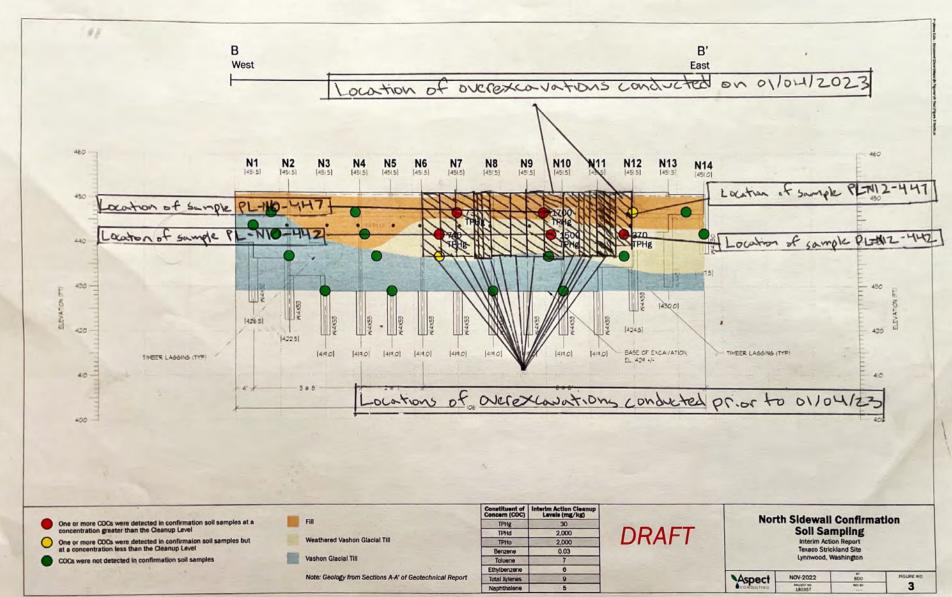
# SAMPLE CHAIN OF CUSTODY

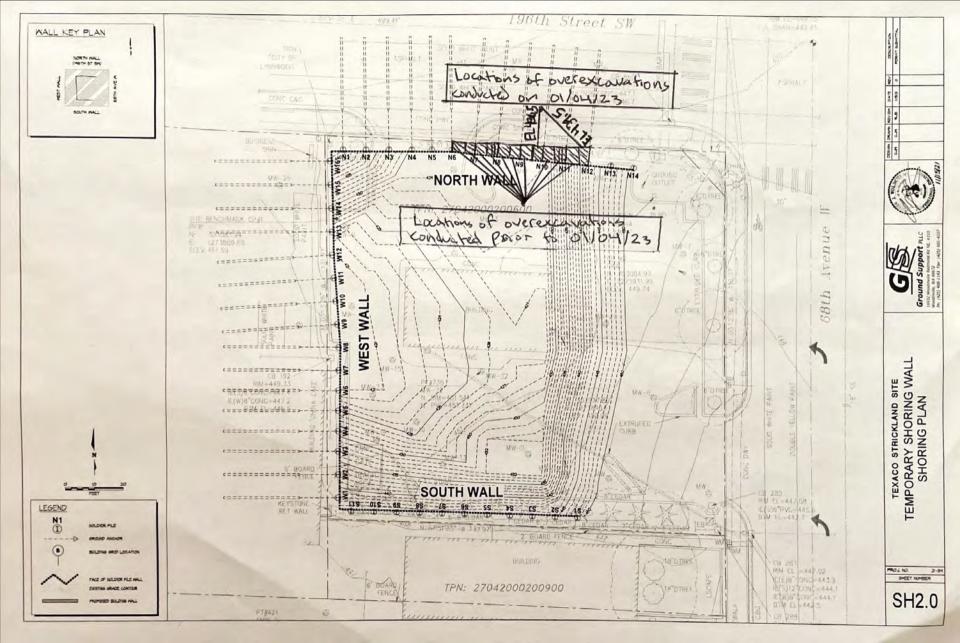
Report To Breeyn Greet, Daniel Bubcock Company Aspect Consulting			PROJEC	SAMPLERS (signature)  PROJECT NAME  Texa to 180357			PO#					Page #of TURNAROUND TIME  Standard turnaround RUSH					
City, State, ZIP			REMAR	REMARKS  Přôject specific RLs? - Yes / No			INVOICE TO					Rush charges authorized by:  SAMPLE DISPOSAL  Archive samples  Other  Default: Dispose after 30 days					
									I	ANA	LYSI	ES R	100	ESTI	ESTED		
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 5260 +N				Notes
PL-N12-447		01/04/23	1055	50:1	5	X	X			12.14			X		27		7 To 19
PL-N12-442			1100			1							1			-	
PL-N10-447			1230						-1								
PL-N10-442		1	1240	1	1	V	V						1				
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Friedman & Bruya, Inc. Ph. (206) 285-8282

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# 01/04/23-Site Map-NTC







DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:			
12/14/2022	0650	1540 180357				
PROJECT NAME:						
Texaco Strickland Site	Texaco Strickland Site					
WEATHER:						
34 F, Overcast						
EQUIPMENT AND CALIBRATION:	Mini RAE Lite PID	: 100.0 ppm				

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to document and observe vactor excavation behind the north wall and asphalt and clean soil excavation along the eastern section of the site as completed by Rivers Edge Environmental Services (REES) and their subcontractor Pro-Vac Clean Services (Pro-Vac). The following is a summary of Aspect's observations:

# Clean Soil Excavation

REES excavated clean soil that was underlying the asphalt between the excavation's eastern extent and the eastern extent of the property down to one foot below its original grade. There was no evidence of contamination observed during field screening at the extents of the shallow excavation. Field screening included visual and olfactory observations, and PID readings. Soil consisted of slightly moist brown sand with gravel and silt. Clean soil produced during the excavation was distributed over the top of the backfilled sections of the site in a less than 12-inch lift of structural fill and compacted it using a Volvo SD45 vibrating roller and Case 850G bull-dozer. Aspect inspected the compacted lifts using a ½-inch-diameter steel T-probe (T-probe) and found it to be firm and unyielding after compaction.

# **Contaminated Soil Excavation**

REES completed one 4-foot-wide cell using two vacuum trucks and high-pressure water beginning at pile N10 and advancing to N10.5 from the north wall to the sidewalk edge to approximately 14 feet below ground surface (bgs). Soil was screened at approximately 11 ft bgs and produced PID readings of 127 ppm with moderate petroleum-like odors and a slight sheen. At 14 ft bgs, soil was screened again and showed no evidence of contamination with PID readings of 2.2 ppm, no odors, or sheens.

# Soil Transportation For Disposal

Three vacuum trucks worth of soil were transported for disposal as class 3 soil at the Cadman Facility today.

# Other On-site Activities

REES laid down the 1 1/4-inch gravel over the eastern section of the site where the clean soil was removed in one 12-inch lift and compacted it using a Volvo SD45 vibrating roller and Case 850G bull-dozer. Aspect inspected the compacted lifts using a  $\frac{1}{2}$ -inch-diameter steel T-probe (T-probe) and found it to be firm and unvielding after compaction.

# **Discussions**

Garrett w/REES and Daniel w/Aspect discussed schedule moving forward. REES has schedule two vac-trucks for tomorrow.

# Confirmation Samples & Field Screening Results Log

No sampling was conducted today.

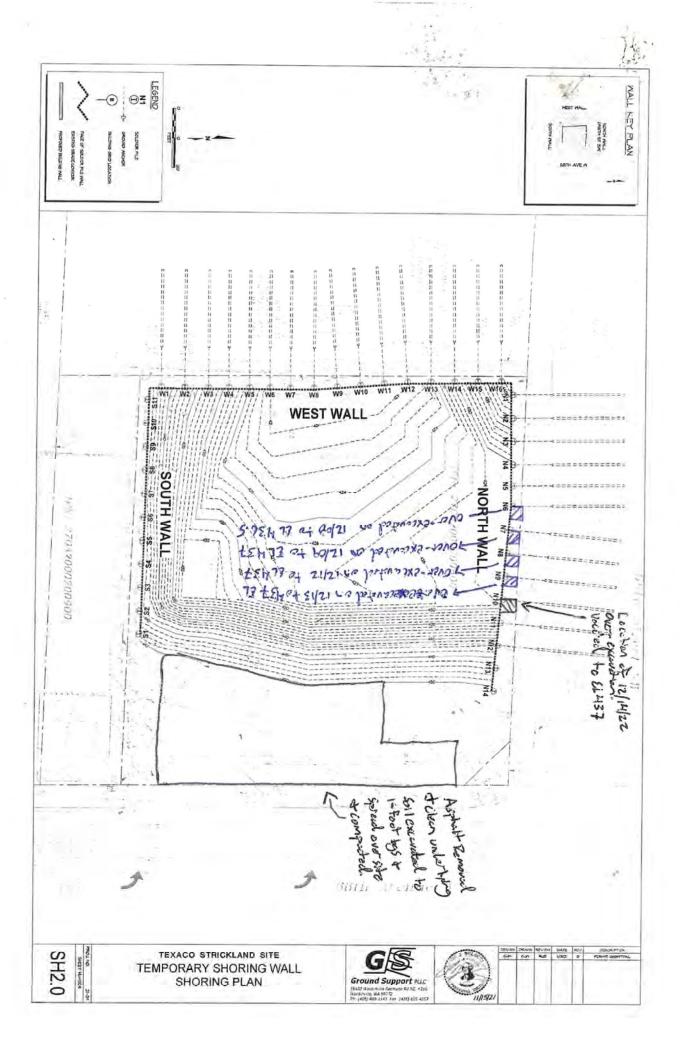


- $\hfill\square$  Laboratory Chain-of-Custody Form
- ☐ Other:

Other.	
□ DRAFT	PREPARED BY:
	Daniel Babcock
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmetnal)



Photo 1. Overexcavation N10 to N10.5 backfilled with CDF.



5120-22/11/21



DATE:	ARRIVAL TIME:	DEPARTURE TIME:	PROJECT NUMBER:	
12/16/2022	0700	0950	180357	
PROJECT NAME:				
Texaco Strickland Site				
WEATHER:				
30F, sun w/ clouds, light wind to the E				
EQUIPMENT AND CALIBRATION:	PID MiniRae Lite	PID MiniRae Lite PID: 101.7 parts per million (ppm)		

Monique Rutte of Aspect Consulting (Aspect) was onsite today to document and observe the vactor excavation of the north wall as completed by Rivers Edge Environmental Services (REES) and their subcontractor Pro-Vac Clean Services (Pro-Vac). The following is a summary of Aspect's observations:

#### Clean Soil Excavation

No clean soil excavation was conducted today.

#### Contaminated Soil Excavation

REES completed one 4-foot-wide cell using 2 vacuum trucks and high-pressure water beginning at pile N08.5 to N09 from the north wall to the sidewalk edge to approximately 14 feet below ground surface (bgs). At pile N08.5 soil was screened at approximately 11 feet bgs and produced PID readings of 342.9 ppm with strong petroleum-like odors, and a slight sheen. At 14 feet bgs, pile N08.5 soil was screened again and showed no evidence of contamination, with PID readings of 5.5 ppm, no sheen, and no odors.

## Soil Transportation For Disposal

Two vacuum trucks worth of soil were transported for disposal as Class 3 soil at the Cadman Facility today.

#### Other On-site Activities

Clean soil from pre-existing stockpiles on-site was spread across the southern portion of the site to level the area for next week's activities.

#### **Discussions**

Garrett with REES and Monique with Aspect discussed today's plan at 0700 and indicated that there is the potential for 4 vacuum trucks to be available today, which would provide enough trucks to complete two excavation cells along the N wall today.

Garrett with REES and Monique with Aspect discussed at 0948 that the disposal facility can only take two vacuum truck loads worth of Class 3 soil today, so only one cell of excavation location along the N wall would be completed today.

#### Confirmation Samples & Field Screening Results Log

No sampling was conducted today.

The following attachments are included in Aspect's field file:
☑ Site Photos
☐ Laboratory Chain-of-Custody Form
☑ Site Map



□ DRAFT	PREPARED BY:
	Monique Rutte
⊠ FINAL	REVIEWED BY:
	Breeyn Greer, PE, Project Engineer (Environmental)

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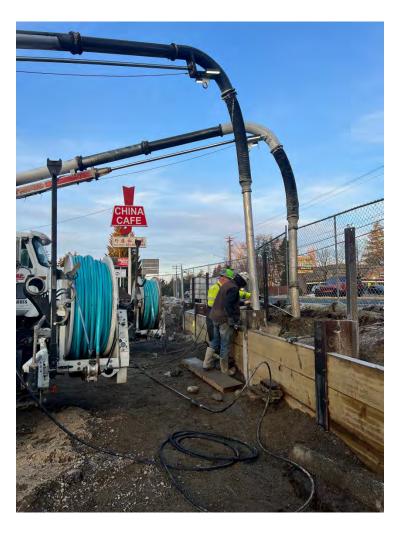
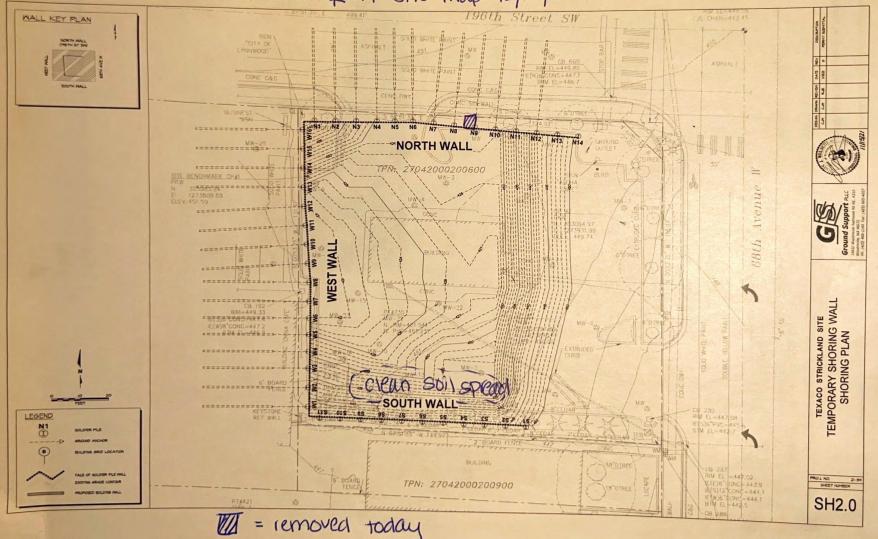
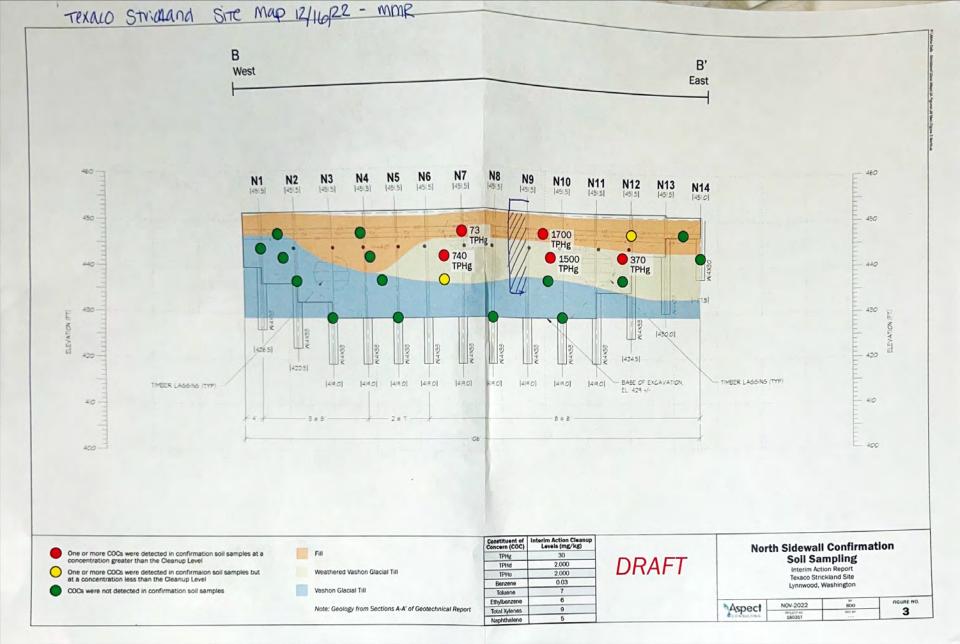


Photo 1. The beginning of removal of the N08.5-N09 cell using the vac truck and high-pressure water wands.

mmR- Texaco Strigland Site map 12/10/22







DATE: 01/06/2023	ARRIVAL TIME: 1100	DEPARTURE TIME: 1130	Project Number: 180357
PROJECT NAME: Texaco Strickland Site			
WEATHER: 51 F, Cloudy			
EQUIPMENT AND CALIBRATION:	Mini RAE Lite PID: N/A		

Daniel Babcock of Aspect Consulting (Aspect) was onsite today to conduct the final site walk with Patrick and Clayton from Rivers Edge Environmental Services (REES) and Ryan Megenity (Owner). All parties discussed the following:

- Temporary Fencing. REES will switch over the fencing contract to Ryan so that the fence remains onsite.
- Inlet Protection Removal. REES discussed leaving the sediment control around the drainage basins onsite for now until Ryan or Owner's Representative (Aspect) directs them to remove them.
- REES discussed the City of Lynnwood providing the closeout of all the existing permits.
- Ryan mentioned wanting a figure with the soldier pile locations for future tenants.

All parties were pleased with the final grade and condition of the site.

The following attachments are included in Aspect's field file:  ☑ Site Photos ☐ Laboratory Chain-of-Custody Form ☐ Site Map ☐ Other:	
□ DRAFT	PREPARED BY: Daniel Babcock
⊠ FINAL	REVIEWED BY: Breeyn Greer, PE, Project Engineer (Environmental)

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Photo 1. Final restored Site conditions as of 1/6/2023, looking southeast.



Photo 2. Final restored Site conditions as of 1/6/2023, looking north along the west side of the Site.





Photo 3. Final restored Site conditions as of 1/6/2023, looking north along the east side of the Site.



Photo 4. Site TESC measures in-place as of 1/6/2023.

# **APPENDIX C**

**Report Limitations and Guidelines for Use** 

## REPORT LIMITATIONS AND GUIDELINES FOR USE

## Geoscience is Not Exact

The geoscience practices (geotechnical engineering, geology, and environmental science) are far less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or property, you should contact Aspect Consulting, LLC (Aspect).

## This Report and Project-Specific Factors

Aspect's services are designed to meet the specific needs of our clients. Aspect has performed the services in general accordance with our agreement (the Agreement) with the Client (defined under the Limitations section of this project's work product). This report has been prepared for the exclusive use of the Client. This report should not be applied for any purpose or project except the purpose described in the Agreement.

Aspect considered many unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you;
- Not prepared for the specific purpose identified in the Agreement;
- Not prepared for the specific subject property assessed; or
- Completed before important changes occurred concerning the subject property, project, or governmental regulatory actions.

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

## **Reliance Conditions for Third Parties**

This report was prepared for the exclusive use of the Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual limitations. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and recognized geoscience practices in the same locality and involving similar conditions at the time this report was prepared

## **Property Conditions Change Over Time**

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope instability, or groundwater fluctuations. If any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

# Geotechnical, Geologic, and Environmental Reports Are Not Interchangeable

The equipment, techniques, and personnel used to perform a geotechnical or geologic study differ significantly from those used to perform an environmental study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions, or recommendations (e.g., about the likelihood of encountering underground storage tanks or regulated contaminants). Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

We appreciate the opportunity to perform these services. If you have any questions, please contact the Aspect Project Manager for this project.